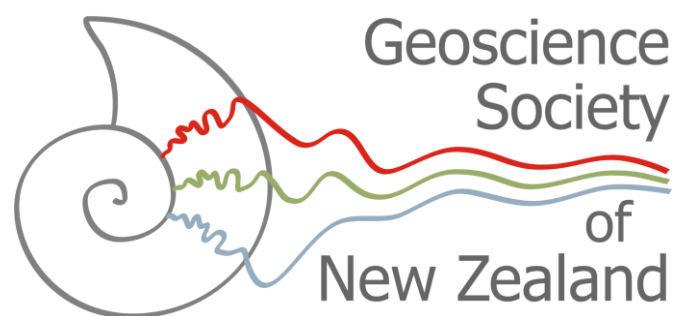


The Correspondence of Julius Haast and Joseph Dalton Hooker, 1861-1886

Sascha Nolden, Simon Nathan & Esme Mildenhall



Geoscience Society of New Zealand miscellaneous publication 133H

November 2013

Published by the Geoscience Society of New Zealand Inc, 2013

Information on the Society and its publications is given at www.gsnz.org.nz

© Copyright Simon Nathan & Sascha Nolden, 2013

Geoscience Society of New Zealand miscellaneous publication 133H

ISBN 978-1-877480-29-4

ISSN 2230-4495 (Online)

ISSN 2230-4487 (Print)

We gratefully acknowledge financial assistance from the Brian Mason Scientific and Technical Trust which has provided financial support for this project.

This document is available as a PDF file that can be downloaded from the Geoscience Society website at: <http://www.gsnz.org.nz/information/misc-series-i-49.html>

Bibliographic Reference

Nolden, S.; Nathan, S.; Mildenhall, E. 2013: The Correspondence of Julius Haast and Joseph Dalton Hooker, 1861-1886. *Geoscience Society of New Zealand miscellaneous publication 133H*. 219 pages.

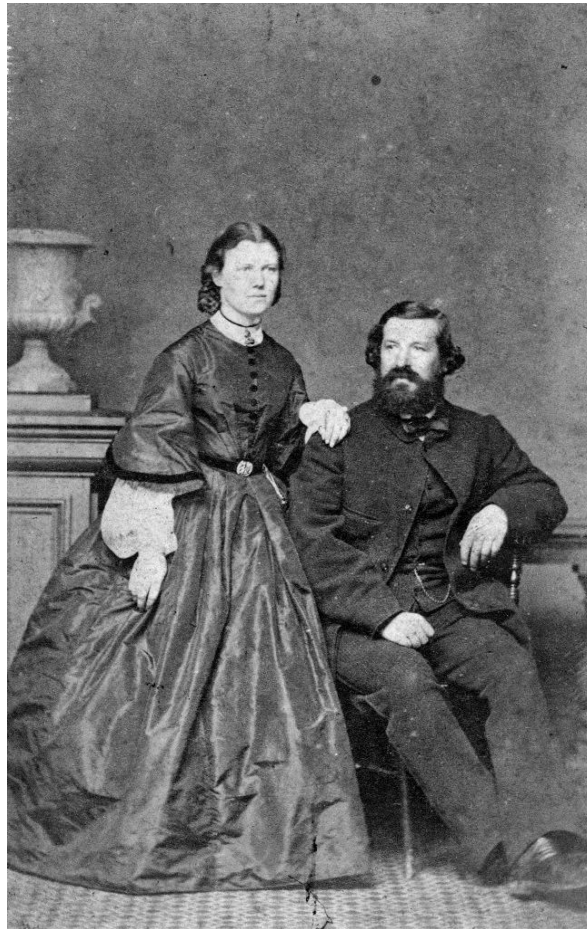
The Correspondence of Julius Haast and Joseph Dalton Hooker, 1861-1886

CONTENTS

Introduction	3
The Sumner Cave controversy	
Sources of the Haast-Hooker correspondence	
Transcription and presentation of the letters	
Acknowledgements	
References	
Calendar of Letters	8
Transcriptions of the Haast-Hooker letters	12
Appendix 1: Undated letter (fragment), ca 1867	208
Appendix 2: Obituary for Sir Julius von Haast	209
Appendix 3: Biographical register of names mentioned in the correspondence	213
 <i>Figures</i>	
Figure 1: Photographs of Joseph Hooker and Julius & Mary Haast	2
Figure 2: Location map, showing South Island localities	4
Figure 3: Map of the central part of the Southern Alps sent by Haast to Hooker on 11 September 1863	44



Joseph Dalton Hooker
Photographer: Ernest Edwards, London
Date: 1864
ATL reference: PA2-0664



Mary and Julius Haast
Photographer unknown
Date: circa 1863
ATL reference: ½-031387-F

Figure 1: Photographs of Joseph Dalton Hooker (left) and Mary and Julius Haast (right)
Reproduced by permission of the Alexander Turnbull Library, Wellington

Introduction

Joseph Dalton Hooker (1817-1911) was one of the first botanists concerned with biogeography – the distribution of plants in different parts of the world. Although he travelled extensively early in his career including a visit to New Zealand in 1841, much of his working life was spent at Kew Gardens near London. Hooker maintained a worldwide network of correspondents whom he encouraged to send him plants. His three main correspondents in New Zealand were William Colenso, Julius Haast¹ and James Hector. Colenso's letters to Hooker have already been published (St George 2009) as has the correspondence between Hooker and Hector (Yaldwyn & Hobbs 1998; Nolden, Burns and Nathan 2012). This volume presents transcriptions of all the surviving letters between Hooker and Haast from 1861 until Haast's death in 1887.

On a personal level the correspondence was gratifying to Haast as it allowed him contact with the highest levels of British science. Hooker was an influential figure – a close friend of Charles Darwin and a Fellow of the Royal Society of London (of which he was president from 1873-78). Haast took full advantage of his acquaintance with Hooker to seek his assistance in gaining membership (Fellowship) of societies and awards, starting with the Geological and Linnaean Societies, the Royal Society, a CMG, and culminating in a knighthood (KCMG) in 1886. Hooker also supplied seeds and plants from Kew for Haast's growing museum in Christchurch.

The correspondence was not one-sided as Hooker was keen to obtain alpine plants from the Southern Alps and Haast was his best collector, always keen to oblige. In later letters there are regular requests to provide large specimens of vegetable sheep (*Raoulia*) which Hooker wanted to put on display, but were not easy for Haast to obtain and transport.

Information on the careers of Hooker and Haast is given in the online Dictionary of New Zealand Biography:

Haast: <http://www.teara.govt.nz/en/biographies/1h1/1>

Hooker: <http://www.teara.govt.nz/en/biographies/1h33/2>

A locality map for the South Island, showing the main towns and places mentioned by Haast is given in Figure 1.

Sources of the Haast-Hooker correspondence

We are fortunate that both Hooker and Haast carefully filed their incoming letters, and that almost all of their correspondence has apparently been preserved. The letters from Haast to Hooker are held in the Archives of the Royal Botanic Gardens, Kew, mostly as part of the Director's Correspondence (DC) series. These letters were copied as part of the Australian Joint Copying Project (AJCP) in the 1950s, and a copy of the microfilm is held in the Alexander Turnbull Library (Micro-MS-Coll-10). From previous experience we knew that there are problems using the microfilm, so we obtained a completely new set of scans from the Archives at Kew which proved straightforward to read and transcribe.

¹ Julius Haast was awarded a hereditary knighthood by the Austrian Emperor in 1875 which entitled him to use the prefix 'von' before his surname. As these letters largely predate his knighthood, he is referred to as Haast throughout this collection.



Figure 2: Location map, showing the main geographic features mentioned in the text. Provincial boundaries are shown as they were in 1862-68 when Haast was working for the Canterbury Provincial Council. In 1868 the area of Canterbury west of the Southern Alps was split off as Westland County (later Westland Province).

Letters from Hooker to Haast were saved by Haast, either at his home or at the Canterbury Museum. On his death in 1887 all his papers were packed up by his son, Heinrich von Haast, and later used as source material for his book, *The life and times of Sir Julius von Haast*, published in 1948. The Haast family papers were presented to the Alexander Turnbull Library (MS-Papers-0037), and the letters from Hooker are held in folders 96 to 105 and later microfilmed (MS-Copy-Micro-0717-08). We photographed the original letters, and made transcriptions from these copies. As the project progressed it became clear that a few of the pages were out of order. We have re-ordered the pages wherever possible, and this is noted in the heading for each letter.

Transcription and presentation of the letters

Sascha Nolden transcribed the letters written by Haast, compiled the calendar of letters, amended the draft transcriptions of letters by Hooker and put together the first draft of the manuscript by interleaving the letters, adding the footnote annotations and biographical register of names mentioned in the correspondence. The letters from Hooker were transcribed by Esme Mildenhall and Simon Nathan. Simon Nathan was the initiator and primary motivator for this project, writing the original draft introduction, ensuring that things were able to run smoothly from the initial point of contact with the archives and collaborators, personally visiting the archive at Kew in search of Haast's manuscript maps, and right on through to the final completion of the publication. Additional assistance was sought from colleagues to clarify the identification and spelling of botanical names.

The letters have been interleaved in chronological order, with individual letters serially numbered, starting with Haast's letter dated 29 March 1861 when he introduced himself to Hooker, telling of the death of their mutual friend Andrew Sinclair. Reading the letters in chronological order helps clarify the conversation between Hooker and Haast, but the reader should be aware that there was sometimes six months or longer before questions were answered.

We have generally followed the style and conventions adopted by Yaldwyn and Hobbs (1998, p.9) and other volumes of *GSNZ miscellaneous publication 133*. For the Hooker letters the original spelling, punctuation, abbreviations and capitalisation has been retained as in the original letters, although a few stops have been added where they were obviously intended. For the Haast letters some very minor editorial adjustments have been made to some of the punctuation and orthography, largely to reflect what might be accepted as authorial intentions. Original underlining has generally been retained except for biological names and for ships, both of which are given in italics. Words that cannot be read, but for which a reasonable interpretation is suggested by the context are indicated by a question mark in square brackets [?]. Words that cannot be read at all are indicated by dashes [---].

The Sumner Cave controversy and its aftermath

A crisis interrupted the correspondence in late 1874. Haast was furious to find that his former employee Alexander McKay, had been employed as an assistant by Hector and had presented a paper on archaeological excavations in a cave at Sumner. This was a project initiated and supervised by Haast, but he had not yet written up the results.

Haast was outspoken in his condemnation of McKay, Hector and the governors of the New Zealand Institute who authorised the publication of McKay's paper. It was a controversy that split the small New Zealand scientific community, and there were letters and articles in the newspapers and questions asked in parliament. The issue has been exhaustively analysed (for example, von Haast 1948, pp. 722-758; Reid 2009; Yaldwyn, Dawson & Davidson 2006; Nolden, Burns & Nathan 2012, pp. 5, 266-267 and Appendix 1).

The president of the Canterbury Philosophical Society, founded by Haast, wrote to Hooker (who was then president of the Royal Society) asking for his views on the ethics of the case. It put Hooker in a difficult position, as he was also friendly with Hector and supportive of the New Zealand Institute. His response, transcribed here as letter no. 135 was unfavourable to Haast, who was deeply hurt. The correspondence ceased for more than two years, and when resumed was never as warm as previously.

Haast visited London in 1886 as New Zealand commissioner for the Indian and Colonial Exhibition, and was able to meet Hooker for the first time. The two men got on well together. Haast died on 16 August 1887, only a few weeks after returning to New Zealand. Appendix 2 is a transcription of an obituary in the *Lyttelton Times*, written immediately after his death.

Previous transcriptions of parts of the correspondence

As part of the research for a biography of his father, Heinrich von Haast transcribed the letters from Hooker, and his handwritten transcriptions have been preserved in the Alexander Turnbull Library as MS-Papers-0037-346. They were used as the basis of a two-part 'special article' published in *The Press* in November 1929 under the title, "Hooker and Haast: The Correspondence of twenty years". Heinrich von Haast introduces the articles, which contain extensive excerpts from the letters, by saying:

Sorting letters to my father from his scientific correspondents, I came across a bundle from Sir Joseph Dalton Hooker, the famous botanist and Director of Kew Gardens, commencing in 1861 and extending for over twenty years. Unfortunately the correspondence is one-sided, as there are no copies of Haast's own letters. They would have been interesting, covering, as they did, the latter's explorations in Canterbury and Westland, and seeking from Hooker not only scientific assistance but counsel in personal matters.

In 1938 Heinrich von Haast contacted Kew Gardens, enquiring about the letters his father had written to Joseph Hooker. Unfortunately only five letters could be located at the time, and copies of these were provided to Haast, who cites them in the biography, published in 1948.

By the 1960s the remaining letters from Haast to Hooker had been relocated in the archives at Kew Gardens. During the early 1970s a selection of the letters from the years 1861 to 1867 dealing with exploration in the Southern Alps were transcribed by David Galloway, and published in an article in the *New Zealand Alpine Journal* (Galloway 1976). He writes:

This paper deals with the alpine explorations of Julius von Haast during his years of employment as Geologist to the Provincial Government of Canterbury (1861-1868) and records his botanical observations made on the extensive geological surveys of that province. (Galloway 1976, p. 89).

Acknowledgements

The letters in this collection written by Haast have been reproduced with the permission of the Board of Trustees of the Royal Botanic Gardens, while the letters written by Hooker are reproduced with the permission of the Alexander Turnbull Library, Wellington. We are grateful to both organisations, not only for permission to publish but also for their excellent curation of the letters.

Many colleagues have helped us during the compilation of this series of letters, and we would especially like to thank:

- Staff of the Alexander Turnbull Library, especially David Colquhoun, for help sorting out and copying letters by Hooker held in the Haast family collection;
- Staff at the Archives of the Royal Botanic Gardens at Kew, especially Lorna Cahill, Tracy Wells and Kiri Ross-Jones for assistance in identifying and scanning letters written by Haast;
- Patrick Brownsey (Te Papa) and Dallas Mildenhall (GNS Science) for help deciphering botanical terms
- Carolyn Hume (GNS Science) for drafting the locality map;
- Kat Holt and Hugh Grenfell for assistance publishing this volume as part of the GSNZ miscellaneous publication series.

Financial assistance was received from the Brian Mason Scientific and Technical Trust, and we are most grateful for the continuing support of the Trust for the transcription of letters that are being published as part of GSNZ miscellaneous publication 133.

References

- Galloway, D. 1976: Julius von Haast's botanical explorations. *New Zealand Alpine Journal* 29: 88-106
- Nolden, S.; Burns, R.; Nathan, S. 2012: The Correspondence of Julius Haast and James Hector, 1862-1887. *Geoscience Society of New Zealand miscellaneous publication 133D*, 315 pages.
- Reid, F.L. 2009: The Sumner Cave controversy reconsidered: provincialism, identity and 'colonial' science. *New Zealand Journal of History* 43(1): 18-38.
- St George, I.M. 2009: Colenso's Collections [includes transcripts of letters written by William Colenso to William Hooker and Joseph Hooker between 1839 & 1898]. Published by New Zealand Native Orchid Group Inc., 412 pages.
- Von Haast, H.F. 1948: The life and times of Sir Julius von Haast. Published by H.F. von Haast. 1142 pages.
- Yaldwyn, J.; Dawson, E.; Davidson, J. 2006: The first ethical controversy in New Zealand archaeology: Joseph Hooker's confidential ruling in the Haast v. McKay case. *Archaeology in New Zealand* 49(4): 282-292.
- Yaldwyn, J.; Hobbs, J. 1998: My Dear Hector: Letters from Joseph Dalton Hooker to James Hector, 1863-1893. *Museum of New Zealand Te Papa Tongarewa Technical Report 31*, 292 pages.

Calendar of Letters

1	29 March 1861	Rangitata	Haast to Hooker	(DC 174 f. 271)
2	29 March 1861	Rangitata	Haast to Travers	(DC 75 f. 74)
3	29 March 1861	Rangitata	Haast to Maud	(DC 75 ff. 75-75b)
4	28 August 1861	Christchurch	Haast to Hooker	(DC 218 ff. 140-141)
5	22 December 1861	Kew	Hooker to Haast	(ATL MS37-96-2&3)
6	3 January 1862	Kew	Hooker to Haast	(ATL MS37-96-1)
7	27 January 1862	Christchurch	Haast to Hooker	(DC 174 f. 272)
8	9 June 1862	Christchurch	Haast to Hooker	(DC 174 f. 273)
9	9 June 1862	Christchurch	Haast to W Hooker	(DC 75 f. 76)
10	2 July 1862	Kew	Hooker to Haast	(ATL MS37-96-4)
11	10 August 1862	Christchurch	Haast to Hooker	(DC 174 ff. 274-278)
12	13 September 1862	Christchurch	Haast to Hooker	(DC 174 ff.279-280)
13	18 September 1862	Kew	Hooker to Haast	(ATL MS37-96-5&6)
14	23 September 1862	[Kew]	W Hooker to Haast	(ATL MS37-105-5)
15	16 November 1862	Kew	Hooker to Haast	(ATL MS37-96-7)
16	10 December 1862	Lake Ohau	Haast to Hooker	(DC 174 ff.281-282)
17	4 January 1863	Kew	Hooker to Haast	(ATL MS37-96-8&9)
18	10 January 1863	Lake Wanaka	Haast to Hooker	(DC 174 f. 283)
19	1 February 1863	Kew	Hooker to Haast	(ATL MS37-96-10&11)
20	16 April 1863	Kew	Hooker to Haast	(ATL MS37-96-12&13)
21	13 May 1863	Christchurch	Haast to Hooker	(DC 174 f. 284)
22	11 June 1863	Christchurch	Haast to Hooker	(DC 174 ff. 285-287)
23	19 June 1863	Kew	Hooker to Haast	(ATL MS37-96-14)
24	6 August 1863	Christchurch	Haast to Hooker	(DC 174 ff. 288-289)
25	24 August 1863	Kew	Hooker to Haast	(ATL MS37-238-9 &105-1)
26	12 September 1863	Christchurch	Haast to Hooker	(DC 174 ff. 290-291)
27	14 October 1863	Christchurch	Haast to Hooker	(DC 174 ff. 293-294)
28	2 November 1863	Kew	Hooker to Haast	(ATL MS37-96-15/97-2)
29	12 November 1863	Governors Bay	Haast to Hooker	(DC 174 f. 292)
30	12 December 1863	Christchurch	Haast to Hooker	(DC 174 ff. 295-296)
31	10 January 1864	Christchurch	Haast to Hooker	(DC 174 f. 297)
32	18 January 1864	Kew	Hooker to Haast	(ATL MS37-97-1/105-2)
33	7 February 1864	Christchurch	Haast to Hooker	(DC 174 ff. 309-310)
34	18 February 1864	Kew	Hooker to Haast	(ATL MS37-97-3&4)
35	13 April 1864	Christchurch	Haast to Hooker	(DC 174 f. 306)
	Enclosure: On Lyell glacier on the western side of Mt Cook			(DC 174 f. 302)
36	10 May 1864	Christchurch	Haast to Hooker	(DC 174 ff. 303-305)
37	19 May 1864	Kew	Hooker to Haast	(ATL MS37-97-5& 238-59)
38	10 June 1864	Christchurch	Haast to Hooker	(DC 174 ff. 307-308)
39	10 August 1864	Christchurch	Haast to Hooker	(DC 174 ff. 299-300)
40	10 September 1864	Kew	Hooker to Haast	(ATL MS37-97-6)
41	14 October 1864	Christchurch	Haast to Hooker	(DC 174 f. 298)
42	16 December 1864	Christchurch	Haast to Hooker	(DC 174 f. 301)
43	17 February 1865	Kew	Hooker to Haast	(ATL MS37-97-7&8)
44	10/18 April 1865	Taramakau	Haast to Hooker	(DC 174 ff. 311-312)

45	3 May 1865	Kew	Hooker to Haast	(ATL MS37-97-9)
46	18 May 1865	Kaniere River	Haast to Hooker	(DC 174 ff. 313 & 315)
47	23 May 1865	Kaniere	Haast to Hooker	(DC 174 f. 314)
48	31 May 1865	Hokitika River	Haast to Hooker	(DC 174 f. 316)
49	31 May 1865	Hokitika River	Haast to Hooker	(DC 174 ff. 317-318)
50	3 August 1865	Christchurch	Haast to Hooker	(DC 174 ff. 319-320)
51	13 August 1865	Kew	Hooker to Haast	(ATL MS37-97-11)
52	24 August 1865	Kew	Hooker to Haast	(ATL MS37-97-10)
53	5 November 1865	Kew	Hooker to Haast	(ATL MS37-97-12)
54	15 December 1865	Christchurch	Haast to Hooker	(DC 174 f. 321)
55	13 February 1866	Christchurch	Haast to Hooker	(DC 174 f. 322)
56	19 March 1866	Kew	Hooker to Haast	(ATL MS37-98-1&2)
57	14 June 1866	Christchurch	Haast to Hooker	(DC 174 ff. 323-324)
58	14 July 1866	Christchurch	Haast to Hooker	(DC 174 f. 325)
59	5 September 1866	Christchurch	Haast to Hooker	(DC 174 f. 326)
60	19 December 1866	Kew	Hooker to Haast	(ATL MS37-98-3&4)
61	2 January 1867	Christchurch	Haast to Hooker	(DC 174 ff. 328-329)
62	18 January 1867	Kew	Hooker to Haast	(ATL MS37-98-6)
63	27 January 1867	Christchurch	Haast to Hooker	(DC 174 f. 327)
64	24 March 1867	Bealey River	Haast to Hooker	(DC 174 f. 330-331)
65	1 April 1867	Kew	Hooker to Haast	(ATL MS37-98-7&8)
66	19 April 1867	Kew	Hooker to Haast	(ATL MS37-98-9)
67	17 May 1867	Kew	Hooker to Haast	(ATL MS37-98-11)
68	18 May 1867	Kew	Hooker to Haast	(ATL MS37-98-10)
69	24 May 1867	Christchurch	Haast to Hooker	(DC 174 ff. 332-333)
70	29 June 1867	Christchurch	Haast to Hooker	(DC 174 ff. 336-337)
71	1 August 1867	Glenmark	Haast to Hooker	(DC 174 ff. 338-339)
72	7 August 1867	Christchurch	Haast to Hooker	(DC 174 ff. 334-335)
73	31 October 1867	Kew	Hooker to Haast	(ATL MS37-98-12&13)
74	10 December 1867	Christchurch	Haast to Hooker	(DC 174 ff. 340-341)
75	28 January 1868	Governors Bay	Haast to Hooker	(DC 174 ff. 342-343)
76	undated letter	Christchurch	Haast to Hooker	(DC 174 f. 344)
77	1 May 1868	Kew	Hooker to Haast	(ATL MS37-99-1&2)
78	16 July 1868	Christchurch	Haast to Hooker	(DC 174 ff. 345-347)
79	1 October 1868	Kew	Hooker to Haast	(ATL MS37-99-3)
80	28 October 1868	Kew	Hooker to Haast	(ATL MS37-99-4&5)
81	30 October 1868	Kew	Hooker to Haast	(ATL MS37-99-6&7)
82	31 October 1868	Christchurch	Haast to Hooker	(DC 174 f. 348)
83	30 November 1868	Kew	Hooker to Haast	(ATL MS37-99-8)
84	25 December 1868	Kew	Hooker to Haast	(ATL MS37-99-9)
85	29 December 1868	Kew	Hooker to Haast	(ATL MS37-99-10)
86	3 January 1869	Christchurch	Haast to Hooker	(DC 174 ff. 349-350)
87	25 January 1869	Christchurch	Haast to Hooker	(DC 174 f. 351)
88	12 February 1869	Christchurch	Haast to Hooker	(DC 174 f. 352)
89	3 May 1869	Kew	Hooker to Haast	(ATL MS37-99-12&13)
90	9 June 1869	Christchurch	Haast to Hooker	(DC 174 f. 353)
91	9 June 1869	[Christchurch]	Haast to Murchison	(DC 174 f. 354)

92	1 July 1869	Christchurch	Haast to Hooker	(DC 174 f. 357)
93	5 August 1869	Christchurch	Haast to Hooker	(DC 174 f. 356)
94	13 August 1869	Kew	Hooker to Haast	(ATL MS37-99-14&15)
95	30 September 1869	Kew	Hooker to Haast	(ATL MS37-99-11)
96	30 October 1869	Christchurch	Haast to Hooker	(DC 174 f. 355)
97	26 March 1870	Christchurch	Haast to Hooker	(DC 174 ff. 358-359)
98	28 March 1870	Kew	Hooker to Haast	(ATL MS37-100-1)
99	31 May 1870	Christchurch	Haast to Hooker	(DC 174 f. 360)
100	16 June 1870	Kew	Hooker to Haast	(ATL MS37-100-2&3)
101	28 June 1870	Christchurch	Haast to Hooker	(DC 174 f. 361)
102	16 August 1870	Kew	Hooker to Haast	(ATL MS37-100-4)
103	14 November 1870	Kew	Hooker to Haast	(ATL MS37-100-5)
104	17 March 1871	Christchurch	Haast to Hooker	(DC 174 ff. 362-364)
105	18 April 1871	Christchurch	Haast to Hooker	(DC 174 f. 365)
106	27 July 1871	Kew	Hooker to Haast	(ATL MS37-100-6)
107	14 December 1871	Kew	Hooker to Haast	(ATL MS37-100-7)
108	2 January 1872	Christchurch	Haast to Hooker	(DC 174 f. 366)
109	29 March 1872	Kew	Hooker to Haast	(ATL MS37-101-1)
110	31 July 1872	Christchurch	Haast to Hooker	(DC 174 ff. 366A-367)
111	26 October 1872	Christchurch	Haast to Hooker	(DC 174 f. 368)
112	29 December 1872	Kew WH (Willy)	Hooker to Haast	(ATL MS37-105-4)
113	10 January 1873	Christchurch	Haast to Hooker	(DC 174 f. 369)
114	6 February 1873	Kew	Hooker to Haast	(ATL MS37-101-2)
115	21 May 1873	Kew	Hooker to Haast	(ATL MS37-101-3&4)
116	2 July 1873	Kew	Hooker to Haast	(ATL MS37-101-5)
117	15 August 1873	Christchurch	Haast to Hooker	(DC 174 f. 370)
118	29 August 1873	Christchurch	Haast to Hooker	(DC 174 f. 371)
119	2 September 1873	Kew	Hooker to Haast	(ATL MS37-101-6)
120	10 March 1874	Kew	Hooker to Haast	(ATL MS37-101-8&105-3)
121	3 June 1874	Christchurch	Haast to Hooker	(DC 174 ff. 372-373)
122	22 September 1874	Kew	Hooker to Haast	(ATL MS37-101-9)
123	21 October 1874	Christchurch	Haast to Hooker	(DC 174 f. 374)
124	17 November 1874	Kew WH (Willy)	Hooker to Haast	(ATL MS37-101-7)
125	2 January 1875	Kew	Hooker to Haast	(ATL MS37-102-1)
126	9 January 1875	Christchurch	Haast to Hooker	(DC 174 f. 375)
127	14 January 1875	Christchurch	Haast to Hooker	(DC 174 f. 376)
128	24 March 1875	Ballarat	Haast to Hooker	(DC 174 f. 378)
129	2 April 1875	Melbourne	Haast to Hooker	(DC 174 f. 377)
130	6 May 1875	Christchurch	Haast to Hooker	(DC 174 ff.379-380)
131	29 June 1875	Kew	Hooker to Haast	(ATL MS37-102-3&4)
132	8 July 1875	Kew	Hooker to Haast	(ATL MS37-102-2)
133	30 July 1875	Christchurch	Haast to Hooker	(DC 174 f. 383)
134	28 August 1875	Christchurch	Haast to Hooker	(DC 174 ff. 381-382)
135	15 December 1875	Kew Hooker to	Cant. Philos. Inst.	(ATL MS37-103-1)
136	30 March 1878	Christchurch	Haast to Hooker	(DC 174 f. 384)
137	15 January 1879	Christchurch	Haast to Hooker	(DC 174 ff. 385-386)
138	29 May 1879	Kew	Hooker to Haast	(ATL MS37-102-5)

139	7 November 1879	Kew	Hooker to Haast	(ATL MS37-102-6)
140	10 April 1880	Kew	Hooker to Haast	(ATL MS37-104-1)
141	14 December 1880	Kew	Hooker to Haast	(ATL MS37-104-2)
142	22 December 1880	Christchurch	Haast to Hooker	(DC 174 f. 387)
143	21 January 1881	Kew	Hooker to Haast	(ATL MS37-104-4)
144	22 January 1881	Kew	Hooker to Haast	(ATL MS37-104-3)
145	19 May 1881	Christchurch	Haast to Hooker	(DC 174 f. 388)
146	26 June 1881	Christchurch	Haast to Hooker	(DC 218 ff. 142-143)
147	6 August 1882	Christchurch	Haast to Hooker	(DC 174 f. 389)
148	17 January 1883	Kew	Hooker to Haast	(ATL MS37-104-5)
149	10 March 1883	Kew	Hooker to Haast	(ATL MS37-104-6)
150	18 May 1883	Christchurch	Haast to Hooker	(DC 174 f. 390)
151	17 March 1884	Christchurch	Haast to Hooker	(DC 174 ff. 392-393)
152	17 March 1884	Christchurch	Haast to Hooker	(DC 174 f. 391)
153	6 May 1884	Kew	Hooker to Haast	(ATL MS37-104-8)
154	3 July 1884	Christchurch	Haast to Hooker	(DC 174 ff. 394-395)
155	16 August 1884	Kew	Hooker to Haast	(ATL MS37-104-7)
156	10 November 1884	Christchurch	Haast to Hooker	(DC 174 f. 396)
157	17 April 1885	Kew	Hooker to Haast	(ATL MS37-104-9)
158	18 July 1885	Kew	Hooker to Haast	(ATL MS37-104-10/238-65)
159	28 March 1886	Sunningdale	Hooker to Haast	(MS37-104-11)
160	30 June 1886	Sth Kensington	Haast to Thiselton-Dyer	(DC 174 f. 399)
161	3 July 1886	Sth Kensington	Haast to Thiselton-Dyer	(DC 174 f. 400)
162	26 November 1886	Sunningdale	Hooker to Haast	(ATL MS37-104-12)
App1	Undated fragment	[Kew]	Hooker to Haast	(ATL MS37-98-14)
App2	17 August 1887	<i>Lyttelton Times</i>	Haast obituary	(DC 174 f. 401)

The Correspondence of Julius Haast and Joseph Dalton Hooker, 1861-1886

1: Haast to Hooker, 29-3-1861

Kew DC 174 f.271

Rangitata River, Mr Butlers Station²
Province of Canterbury
29th of March 1861.

Dear Sir!

I have a very painful duty to perform in communicating to you, that our common friend Dr Andrew Sinclair³ was drowned in the Rangitata last Tuesday the 26 of this month, by endeavouring to cross a smaller branch of the swollen river, his horse having run away. He was returning from my camp eight miles up the river, to this station.

No need to say in what state of mind I am and in what anxiety I have been, till we found [2]⁴ the body of my poor and deeply lamented friend and companion. He was a good and honest man and all those who knew him will cherish his memory. After his intention I shall send you from Christchurch, after my arrival there end of May, a part of our common collection with the necessary notes.

How much I would have liked to enter in correspondence with you under happier circumstances it will be not necessary to state.

I am dear Sir,
Yours very truly
Julius Haast

My address is:
J. Haast
Christchurch
New Zealand. [3]

Dr J. Hooker
Royal Botanical Garden
Kew
England.

² Samuel Butler's station was known as Mesopotamia. See Peter Bromley Maling, *Samuel Butler at Mesopotamia*, Wellington, R. E. Owen, Government Printer, 1960.

³ Dr Andrew Sinclair (1794-1861) was a Scottish physician, botanist and former Colonial Secretary based in Auckland. He had accompanied Hooker on some of his botanical excursions in New Zealand in 1841.

⁴ Numbers in rectangular brackets indicate pagination of the original manuscript letters.

2: Haast to Travers⁵, 29-3-1861

Kew DC 75 f. 74

Rangitata, Mr Butlers Station
29 March 1861.

My dear friend,

The inclosed copy will tell you a terrible tale; I have no time and the necessary strength to relate it any more. Please communicate it to the numerous friends of our poor and deeply lamented friend.

My messenger starts instantly therefore I have to be short: It was for the first time that we separated & he parted from me with a kind joke. You may imagine in what state of mind I am and what anxiety & pains I have suffered. [2] I do not know what I would give if I had somebody with me, the more, as I have to go twice over the same ground.

I am not in a state to tell you about the magnificent glaciers which we visited & the Alps crossed with ice and snow. I hope to relate it to you verbally when I come back to Christchurch, where I wish fervently to see you installed.

My kind regards to Mrs Travers and the children and all enquiring friends.
Adieu my dear Travers,
Je vous serre la main en vraie amitié,⁶
Julius Haast

W. T. L. Travers⁷ Esq^{re}, Nelson.

3: Haast to Maude⁸, 29-3-1861

Kew DC 75 ff. 75-75b

Mesopotamia, Mr Butler's Station
Rangitata
29th March 1861.

Sir

I have a very painful duty to perform in communicating to you and for the information of his Honor the Superintendent the death of my deeply lamented friend and companion Dr Andrew Sinclair of Auckland who was drowned in the Rangitata on Tuesday 26th of this month.

In order that you may understand how this sad event occurred I shall relate the circumstances which preceded and accompanied his death:

After having finished the survey of the western source branch of the Rangitata we returned to Mr Butler's Station to take new provisions and proceeded then again up the river with the intention to explore the eastern and middle source branches.

⁵ Copy of letter sent to Hooker.

⁶ I shake your hand in friendship.

⁷ William Thomas Locke Travers (1819-1903), politician, lawyer and naturalist in Nelson who later established himself in Christchurch.

⁸ Thomas William Maude, Canterbury Provincial Secretary. Copy of letter sent to Hooker.

Returning Monday the 25th March from the survey of the eastern branch one of my horses lost a shoe [2] and as I had to remain for a few days at the junction of the two last mentioned source branches to make some important geological investigations and to collect some highly interesting fossils. I intended to send Richard Stringer⁹, my servant, down to the station of Mr Butler to fetch a new horse-shoe up, as I was afraid that otherwise the hoof of the horse would be broken on the shingle, making it unfit for further travelling.

On speaking on the matter with the deceased, he approved of it and told me that as he thought the weather looked dull, all the principal plants in this region were collected, and Mr Butler¹⁰'s return from Christchurch with his letters would be expected very soon, it would be better that he went down with Richard Stringer, observing at the same time that the rough work became a little too much for him and that he could occupy himself better during my intended absence of eight days with writing letters, finishing some sketches, drying the plants and make [3] drawings of some very fine fossil shells which I had already collected.

It had rained a little during the last day, but the eastern branch near which we were camped at the western foot of Mount Potts had risen only very little. The deceased Dr Sinclair started with Richard Stringer and the remaining horse on Tuesday 26th March at 9 o'clock in the morning for the station of Mr Butler, distant about eight miles from our camping place.

I have here to observe, as we had only one riding horse, that generally when we had to cross any stream which seemed the least difficult to pedestrians, the first person riding over sends the horse back over the river so that others of the party may make use of it.

At one o'clock Richard Stringer returned in great haste to communicate to me that he thought Dr Sinclair had perished in a swollen branch of the swollen Rangitata and he related the circumstances in the following manner:

Arriving at the united eastern and middle branches they found that the river was very much swollen and dirty, the middle branch being very high. Dr Sinclair selected against the advice of Richard Stringer (who thought it better to go down the river on its left bank as far as opposite to Mr Butler's Station, and to light a fire there in order that they might bring a second horse over the river, besides the fords being much easier) a ford where the river was divided into two branches, of which the one nearer to the travellers was the larger; Dr Sinclair rode over the first branch, the water reaching to the saddle flaps – he descended and sent the horse over, but be it that the horse was afraid of the swollen water or that it was frightened at the small stick which he had in his hands, it came out again, turned round and Dr Sinclair not being able to catch it, it went over the opposite stream and was very soon through the shallower branch on its way to Mr Butler's station. [5]

The deceased (now standing on an island but not endeavouring to communicate in any way either verbally or by signs with Richard Stringer who was still standing on the left bank

⁹ Richard Stringer (d. 1911), first arrived in New Zealand in January 1859 on board the *Clontarf* as a government immigrant for Canterbury. He worked for Haast for some time before taking up land in the Ashley Downs district of North Canterbury. He married Anne Dobson (1838-1917) in Christchurch in 1864, she had arrived in New Zealand on 28 January 1863 on the *Chariot of Fame*. They farmed cattle and draught horses at Ashley Bank and had 3 sons and six daughters.

¹⁰ Samuel Butler (1835-1902), English author and pioneering pastoralist and explorer in Canterbury.

and who could easily have fetched the pack-horse at my camp only two miles distant) went resolutely into the second stream having probably observed by the crossing horse that the water was shallow, although the ford was broad – he went in at one place but came out very soon finding that the water was either too deep or too strong, he tried another place and Richard Stringer seeing that Dr Sinclair was more than halfway across sat down to take some gravel out of his boots which prevented him from walking fast; after having finished it in a few moments he began to run down the banks of the river to see if he could not [6] find a ford, not being able to swim, he turned round to see whether Dr Sinclair had reached the banks and he was not a little frightened to see no signs of him, notwithstanding that he could look over the level shingly banks; he thought perhaps he had sat down or was going fast after the horse. During nearly two hours Richard Stringer was running up and down calling and looking in vain until he became exhausted and as he observed the horse nearly two miles away disappear among some higher bushes, it having fed occasionally on its way, he returned bringing me the sad news. I instantly broke camp and proceeded with every possible speed down the river, finding that we had to cross several times the western branch, it had in the meantime become very high, so that several times we were nearly washed from our feet.

Arriving at the spot where the sad event occurred we found the river [7] so high and rapid that it was impossible to cross it. I fixed on the banks of the river a long pole with a letter in which I related the circumstances, thinking that as soon as the horse arrived at Mr Butler's Station, some of his men would ride up instantly to see what had become of its rider; we now proceeded down the river on its left bank looking out anxiously if the deceased had not been washed upon one of the spits; very soon the river bed became impracticable and we had to strike inland. There are some very swampy places on that side of the river and it is therefore difficult for persons unacquainted to come on as fast as I desired; it became dark when we were stopped by a very swampy creek, and not being able to find a passage through it so late we had to camp; soon after the evening was more advanced we observed a huge fire burning on the other side of [8] the river, by which we concluded that our camp fire had been seen or that it was a signal for guidance.

The next morning, 27th March, we started after daylight and having crossed several branches of the still swollen Rangitata we arrived at the main branch which was impassable for pedestrians. We lighted a large fire as a signal for the station about two miles distant but nobody arrived. At last at half past ten we observed three men on horseback on our side of the river and in the direction from which we had come advancing as fast as the broken ground would admit of; at last they came up and I found it was Mr Reuben Cooke, Manager of Mr Butler's Station, Mr John King of Timaru and Mr Fred^k Schrimpton also of Timaru; the last two gentlemen being on a visit to the station. [9]

They related to me that the horse had arrived last evening about dusk and fearing that some accident had happened to the rider they lighted a large fire as a signal for the rider who had perhaps been only thrown off and as a sign that the horse had arrived – they had not seen our camp fire. They started the next morning at day-break following the track of the returned stray horse and found my letter and had come down to take us over the river; they had seen no signs of Dr Andrew Sinclair.

After a short rest for the horses I started again accompanied by the three above mentioned gentlemen and having arrived at the river three miles below where the sad event occurred we crossed (being all mounted) the still swollen river, scattered over the large shingly bed and searched in every direction [10] until we came near the place of accident,

where we found the body of my unfortunate companion at sunset, about three hundred yards below the spot where he had endeavoured to cross on foot.

His body was lying upon a spit with his head resting upon his right arm and his left extended along his body, his head and principally his face was bruised very much and life was entirely extinct. It is evident that he had lost his footing probably by a rolling boulder and that he was stunned his head being brought in contact with the rocks. His body was lying nearly dry and there was very little water in it so that we came to the conclusion that life was not entirely extinct when he was washed on the shallower place but that he was unable to rise – the position in which he was lying with an arm under his [11] head indicating probably such an occurrence.

Fording the river at the place where he crossed it was found that the water was only to the horses' knees – even admitting that the river had fallen since the melancholy occurrence took place the water could not have reached his hips when he attempted to cross.

We conveyed the body of my unfortunate friend the same night during a heavy southeastern gale to Mr Butler's station, where the body remained until Friday 29th March, when we buried him in a wooden coffin, (as fortunately there were some workmen on the station occupied in the erection of a house), on the flat about a quarter of a mile from the river, and at the same time I had by the same workmen a substantial fence erected round the burial place. [12]

As I do not know the legal proceedings upon the occurrence of such a sad event, I have sent Richard Stringer down to Christchurch to make the necessary declaration before the law officers, – he will present you this letter. At the same time we have drawn up the enclosed declaration and you will instruct him to do with it what the law directs.

I have also written to the Rev^d Mr Bruce¹¹ at Auckland, husband of a niece of the deceased, sent one of the copies of the enclosed declaration and given him an account of the death of Dr Sinclair.

In conclusion I may add I shall always be grateful in the highest degree to those gentlemen who assisted me with the greatest promptitude to ascertain the fate of my poor and lamented friend. No need to say, how much this fatal event has affected me, but I shall in a few days continue with my work.

I have the honor to be Sir,
Your most obedient,
Julius Haast¹²

Maude Esq.
Provincial Secretary
Christchurch.

¹¹ Reverend David Bruce (1824-1911), Scottish Presbyterian minister of St Andrew's church in Auckland. Bruce married Mary Alexander Sinclair (d. 1870) on 18 October 1859.

¹² The contents of this letter are paraphrased in Heinrich Ferdinand von Haast, *The Life and Times of Sir Julius von Haast*, Wellington, the author, 1848, pp. 179ff.

4: Haast to Hooker, 28-8-1861

Kew DC 218 f. 140-141

Christchurch, Canterbury, New Zealand,
28 Aug 1861

Sir!

My letter of the 29th of March d.d. Mesopotamia at the Rangitata with the sad news of the death of our common friend, Dr A Sinclair will have already reached you. I have now the pleasure of announcing to you, that I have sent in a box to Mr Marshman¹³, the Provincial Agent, a box to your address, which contains the plants collected during me late alpine excursion. The date will show you where my individual work began. In the box itself you will find the description of the spots, where the plants were collected, so as to give you every detail concerning their geographical distribution.

You will observe that many plants are only in seed as we arrived too late for the flowering season, but as I shall start this year with the beginning of spring and for the Southern Alps, I shall not neglect to procure for you the same plants in flower.

The papers which are surrounded with a black [2] ribbon contain the plants, which our poor friend had on his body when he was drowned.

I had the pleasure of naming a high mountain chain which bounds the Grey River from the Alexander Stream upwards for 10 miles after you; by an oversight, I did not mention it in my report, although you will find it in my map. I intend to give your name also to one of the source branches of the Waitaki, flowing from the Mt Cook ranges, a small additional tribute of admiration for your labours on the Botany of New Zealand.

My observations, that the *Fagus* does not range higher than 4700 feet, has again been confirmed, and the little sketches concerning the ceasing of its growth, will, I trust, not be uninteresting to you. This is the only reason which I can find for this abrupt cessation of growing.

I had the pleasure of forwarding to you by this mail a little volume intitled: "Report of a topographical & geological exploration of the western districts of the Nelson Province New Zealand, undertaken for the Provincial Government, [3] by Julius Haast Esq.". I hope that you will find the time to look through it, trying also to contribute my suite towards the geography of plants. The box with the plants will only arrive in April in England, as the first direct vessel sails only in beginning of January. You will find all the notes, belonging to the plants in the parcels.

I am Sir,
very truly yours,
Julius Haast

Jos. D. Hooker M.D. F.R.S. & L.S. etc. etc.
Royal Gardens
Kew.

¹³ John Parker Marshman (1823-1913), Treasurer of Canterbury Provincial Government, during his time back in London he was appointed as emigration agent for Canterbury Province. He later returned to Canterbury and held various positions including General Manager of Canterbury Railways and Commissioner of Crown Lands.

5: Hooker to Haast, 22-12-1861

ATL MS-Papers-0037, folder 096-02 & 03

Royal Gardens Kew
Dec 22.1861

My dear Mr Haast

I have to thank you again & very much for your letter, & the little volume which contains the account of your most interesting explorations of the N & N.W. parts of the Middle Island of New Zealand. I have read this with very much interest & instruction & with ardent longings to have been there with you. Your journey was a much toilsome & painful one & I am truly glad that it was undertaken by one so well able to convey to others a very vivid & accurate impression of what you saw & underwent. I wish you could have accompanied it with a small [2] outline map, & some outline sketches of the wonderful scenery. The former would have been an especial boon, for we have no good maps here to follow your route upon. The Botanical appendix has been especially interesting to me & it corrects my previous ideas upon many important matters. I do hope that you will be able to collect on some of your expeditions especially the alpine grasses, Junci¹⁴, Cyperaceae & small plants, especially in the west coast & near the snow, it is amongst them that much most interesting novelty still lurks, & amongst which we find the representatives of Australian & Fuegian plants. These are however difficult to collect well, owing to their obscurity, & very difficult [3] to study except with ample suites of Antarctic plants to compare them with. To me the Middle Island of New Zealand is still the most interesting spot botanically in the globe & I would rather botanize these mountains you traverse than any others.

Then too the Cryptogamiae offer an inexhaustible field in New Zealand & they are, especially the mosses, so easily collected & preserved that I hope you will find means to attend a little to them.

I have been drawing up a supplementary paper on the New Zealand Flora from the plants of Travers, Rough¹⁵, Monro¹⁶ & my dear old friend Sinclair, & am only waiting the arrival of the box you mention as despatched to complete it for the Linnean [4] Society of London. How much I should like to continue such supplements, if you would help me by procuring materials.

My friend Dr Hector¹⁷ is about to sail east in January, for Otago, where he is appointed Geological Surveyor. I shall give him a letter to you, & I am sure you will find him a most agreeable & worthy coadjutor; he is a remarkably accomplished man & devoted to science, knows a good deal of Botany, Chemistry, Physics, Meteorology & of course is a skilled Geologist. What a grand thing it would be if you could meet on your journey & ascend Mount Cook! Or explore the profound bay of the South West Coast whence Cook¹⁸ & Vancouver¹⁹ brought us so many wonderful plants.

¹⁴ An abbreviated form of the family name Juncaceae (rushes), or as a plural of the rush generic name *Juncus*. See Yaldwyn & Hobbs, 1998, p. 281.

¹⁵ Captain David Rough (1815-1899), first Harbourmaster in Auckland and later Collector of Customs in Nelson.

¹⁶ David Monro (1813-1877), Scottish physician, politician and landowner in Nelson

¹⁷ James Hector (1834-1907), Scottish geologist and founding director of the Geological Survey of New Zealand.

¹⁸ Captain James Cook (1728-1779), British explorer, navigator, cartographer and captain in the Royal Navy.

¹⁹ George Vancouver (1757-1798), English explorer and officer of the British Royal Navy who accompanied Cook on his second and third voyage.

I have not much news here. Sir C Lyell²⁰ our great luminary in Geology is remodelling his “Elements” [5] which is to appear in 2 volumes. He incorporates Darwin²¹’s views of the origin of species, which he largely partakes, & the new discoveries of flint weapons in the superficial deposits of France & England, which have modified so much the views of Geologists as to the age of man on one hand & the youth of certain extinct quadrupeds on the other.

Oswald Heer²² has been in this country working out the fossil flora of Bovey Tracey with great success. He has written a capital paper on it read to the Royal Society & which will be printed in its Transactions with excellent plates. Very many species are identical with those of the Brown Coal.

The Gorilla subject still occupies a good deal of attention, & there is now no doubt that du Chaillu²³ [6] has outstepped the bounds of truth & candor in his accounts of his travels & adventures, especially of the manners & habits of the men & people & animals he met with. Sir R Murchison²⁴ was greatly deceived, & Mr Huxley²⁵ seems to have disproved all Prof Owens²⁶ arguments in du Chaillu’s favor as well as his statements regarding other structures of the brain of Man and Monkeys.

On Botanical Science I have not much to report. Except good progress in a work which my Father has been incessantly urging on the Government for many years – the publication of cheap good Colonial Floras by the Governments. That of Hong Kong is done by Mr Bentham²⁷ of the Colonial Office for 16/-. The Cape of Good Hope is [7] being done by the Cape Govt. & Dr Harvey²⁸ & Sonder²⁹ are authors. One volume is out, & it will take 6 or 7 to complete it. The Australian Governments have just voted money for a Flora of all Australia, at the rate of about £300 per volume, of which there will be 6 or 7 & Mr Bentham will undertake this. Poor Mueller³⁰ had set his heart upon doing this & could he have come to England we should have been glad that he had, & we urged him to do so, but in the Colony without those plants of Cook, Banks³¹, Brown³², Cunningham³³, Frazer³⁴, Bidwill³⁵,

²⁰ Sir Charles Lyell (1797-1875), British geologist, best known for his *Principles of Geology*, of which the first edition was published in three volumes between 1830 and 1833.

²¹ Charles Darwin (1809-1882), English naturalist and geologist, and a close friend of J D Hooker.

²² Oswald Heer (1809-1883), Swiss geologist and naturalist.

²³ Paul du Chaillu (1831-1903), French-American explorer and anthropologist who reported on his observations of gorillas and the Pygmy people of central Africa.

²⁴ Roderick Murchison (1792-1871), Scottish geologist and president of the Royal Geographical Society.

²⁵ Thomas Henry Huxley (1825-1895), English biologist and comparative anatomist.

²⁶ Richard Owen (1804-1892), English comparative anatomist and palaeontologist.

²⁷ George Bentham (1800-1884), English botanist who worked at the Botanical Gardens at Kew with Hooker.

²⁸ William Henry Harvey (1811-1866), Irish botanist and co-author of *Flora Capensis* (7 vols., 1859-1933).

²⁹ Otto Wilhem Sonder (1812-1881), German botanist and pharmacist, co-author of *Flora Capensis*.

³⁰ Ferdinand Jacob Heinrich von Mueller (1825-1896), German-born Australian botanist in Melbourne.

³¹ Sir Joseph Banks (1743-1820), English naturalist and botanist who accompanied Cook on his first voyage.

³² Robert Brown (1773-1858), Scottish botanist who explored Australia with Matthew Flinders.

³³ Allan Cunningham (1791-1839), English botanist and explorer who made extensive botanical collections in Australia. His brother Richard Cunningham (1793-1835), was also an English botanist, who held the positions of Colonial Botanist in New South Wales and Superintendent of the Sydney Botanic Gardens.

³⁴ Charles Fraser [sometimes Frazer or Frazier] (1788-1831), Scottish-born Australian botanist and explorer who held the position of Colonial Botanist of New South Wales from 1821 to 1831.

³⁵ John Carne Bidwill (1815-1853), English botanist who explored and collected in New Zealand and Australia.

Mitchell³⁶, Drummond³⁷, Preiss³⁸ & the work was obviously impossible & would all have had to be done over again – so Mueller gave it up very generously & handsomely & may thus get more real renown [8] than if he had insisted upon doing the task imperfectly in the Colony. Bentham will associate his name on the title page, so that little difficulty is overcome.

The Ceylon Govt has just now announced its intention of beginning its Colonial Plants & giving Mr Thwaites³⁹ the authorship.

I hope very much that I shall have the pleasure of hearing again from you. Any scraps of information concerning your journeyings will be highly prized by

Yours my dear Sir
very sincerely & obliged
Jos. D. Hooker

6: Hooker to Haast, 3-1-1862

ATL MS-Papers-0037, folder 096-01

Royal Gardens Kew
Jan 3/61

My dear Mr Haast,

The bearer is my very intimate friend Dr Hector, who accompanied Captain Palliser⁴⁰ as Geologist on his celebrated exploring and expedition across the Rocky Mountains. Hector has published many excellent papers since.

Dr Hector goes to Otago as head of the Geological Survey & I do hope you may meet with him. He is a very accomplished Naturalist & well acquainted with [2] many branches of science. I have given him the copy you sent me of your Report which he will I hope be able to explore in New Zealand.

I mentioned Dr Hector to you in a letter which goes by this mail.

Ever most s[incerel]y yours
J.D. Hooker.

³⁶ Sir Thomas Mitchell (1792-1855), Scottish explorer and surveyor who held the position of Surveyor General in New South Wales and led a number of important exploring expeditions in Australia.

³⁷ James Drummond (c. 1787-1863), Scottish botanist and naturalist who made extensive collections of plant specimens in Western Australia for Hooker.

³⁸ Johann August Ludwig Preiss (1811-1883), German-born naturalised British botanist and zoologist who emigrated to Western Australia in 1838 where he made extensive botanical collections.

³⁹ George Henry Kendrick Thwaites (1811-1882), English botanist and entomologist, author of *Enumeratio Plantarum Zeylaniae* (1859-64).

⁴⁰ John Palliser (1817-1887), Irish geographer and explorer who led the British North American Exploring Expedition 1857-61, during which he was assisted by Hector as geologist.

7: Haast to Hooker, 27-1-1862

Kew DC 174 f.272

Geological Survey Office

27 January 1862

Dear Sir!

I have the pleasure to communicate to you, that I have forwarded through the *Chrysolite* and in the care of C. W. Wyatt Esq^{re} a case containing, as I hope, a collection of plants, which will not be examined without interest by Sir William⁴¹ and yourself.

As I have retained duplicates of every plant, I am ready in the case you wish some more specimens or information about their range to supply you with the necessary.

You will find a complete list in the box with every necessary information on the geography of our flora. In a few days I am starting for Mt Cook and as I shall be this year earlier in this truly alpine region, hitherto perfectly unexplored, I am in hopes, that my next collection will give equally some additions to the flora of New Zealand.

If you would allow me to express a wish, it would be to name one of the undescribed species after William Sefton Moorhouse⁴² the Superintendent of this Province who takes so much interest in my [2] researches.

If it would not give you too much trouble you would oblige me very much, your valuable time permitting it, to send me the names with the numbers of the rarer specimens for the Herbarium of our Museum. I shall return *Deo volente*⁴³ from my Alpine wandering towards the end of June and you can therefore expect another parcel with the results of this summer journey towards the end of this year. Mr Travers told me, that you had written to me, but I am sorry to say, I never got your letter.

Believe me my dear Sir,
Yours very faithfully,
Julius Haast

P.S. [3] Will you have the kindness to present my respects to Sir William Hooker and tell him, that I shall do me the honour to name the principal glacier on the flanks of Mt Cook the Hooker glacier and the river issuing from it the river Hooker as a small tribute of the deep respect of an Antipodean explorer. I shall send him afterwards a tracing of my map and he will find in my next official report, the description of this highly interesting country.

Dr. Joseph Hooker F.R.S. etc. etc.
Kew

⁴¹ Sir William Jackson Hooker (1785-1865), English botanist and first director of the Royal Botanic Gardens at Kew. He was the father of Joseph Dalton Hooker.

⁴² William Sefton Moorhouse (c. 1825-1881), second Superintendent of Canterbury Province.

⁴³ God willing

8: Haast to Hooker, 9-6-1862

Kew DC 174 f.273

Geological Survey Office, Christchurch, NZ

9 June 1862

My dear Sir!

I can not tell you, how thankful I am for your kind letter of the 22 Decb, which I received a fortnight ago with all my mails of three months, in a lonely shepherd hut at the alpine Lake Pukaki. Your judgement on my Nelson Report is very kind and the same complaint, that there is no map with it, has been made to me from different sides, but the Nelson Government was afraid of the costs. Although I had no instructions from you, I have collected quite after your wishes, and you will find many interesting undescribed plants in the collection, which I shall forward as soon as the box arrives in which it is contained; probably in three weeks. Of course I have not forgotten the grasses, amongst which are many remarkable alpine forms. The mountains are unfortunately so very inaccessible and my occupations so varied, that it is only with great difficulty that I can find the time for collecting.

I shall accompany the plants with a general description of the country, which as I hope, will give you a clear insight [2] into the general distribution of the vegetation. There are some very interesting observations which I was able to make.

Dr Hector is safely arrived. He sent me your letter and wrote me. Of course I offered him the hand of friendship and can assure you that I am very glad, that another member of the hammer, and such a distinguished one, is in New Zealand, so as to be able to consult with him about any difficult geological question. If I find the time I shall go over to Dunedin and see him. I have to thank you very much indeed for your great kindness in giving me such manifold information on scientific subjects of the day, and if your time allows you, I should be delighted, if in future letters you would do the same.

A few days ago I came back from my wanderings; the winter set in very soon so that having the snow feet deep on the mountain, I was obliged to retreat. My journey has been a very interesting one and as I am so very much pressed with official business, I send you this time only the small account, which I [3] published in one of our newspapers. You will find an account of my exploration of last year, when poor Dr Sinclair lost his life, in the Transactions of the Royal Society of Victoria.

Being now naturalized, I think it my duty to offer my work to the scientific societies in England. And as I know, that you are also a fellow of the Geological Society, I shall take the liberty to send you in a few months, as soon as my map is finished, an account of the geological features of the Alps, on deposits of the glacial period, accompanied by maps, sections and sketches, which perhaps you will have the kindness to lay before the Geological Society.

In October last I sent a copy of my Nelson maps to Arrowsmith⁴⁴, requesting him to lay it before the R. G. Society, but I got no answer. If you see him by chance in one of the meetings, would you perhaps be so kind as to ask him, if he has received my letter with this map?

⁴⁴ John Arrowsmith (1790-1873), English geographer and cartographer.

Our Alps are really superb, the glaciers all of such large dimensions and splendour that it is quite impossible to give an adequate description of it. Why do you not come and make a journey through our Alps?! [4] It would amply repay costs and trouble and I should be highly delighted, were I allowed to act as your Cicerone.

Hoping that you have safely received the box of plants with the *Chrysolite* and to hear from you, I remain

My dear Sir,
Yours very sincerely,
Julius Haast

Dr J. D. Hooker F.R.S. etc. etc.
Royal Botanical Gardens
Kew.

9: Haast to William Hooker, 9-6-1862

Kew DC 75 f. 76

Geological Survey Office,
Christchurch, Canterbury NZ.
9 June 1862.

Sir William!

When beginning with the survey of the Southern Alps of New Zealand, hitherto entirely unknown I prepared myself to create a kind of Pantheon or Walhalla for my illustrious contemporaries amongst those never trodden peaks and glaciers and I had therefore the pleasure to call a magnificent glacier, $\frac{3}{4}$ of a mile broad at its terminal face and descending from the Southwestern side of Mt Cook the Hooker glacier and the river issuing from its icy vault the river Hooker. It falls into the Tasman River, which latter forms Lake Pukaki, without doubt one of the most splendid alpine lakes in the known world. I would have chose a mountain had I not already named in the Nelson Province a high range on the right banks of the river Grey the Hooker range in honour of your son Dr J. Hooker, as the author of our admirable Flora. [2]

As I have the intention to send shortly a map of this wilderness accompanied by watercolour drawings to Dr J. Hooker, you will become better acquainted with the general features of your godchild, and you will confess that our Alps can not only rivalise but surpass the European Alps in many respects. My harvest of alpine plants was very considerable, of which I shall have the pleasure to entertain Dr Jos. Hooker.

Believe me Sir William, with deep respect,
very faithfully yours,
Julius Haast.

Sir William Hooker Bar^t F.R.S.
Director of the Royal Botanical Gardens etc. etc.
Kew.

10: Hooker to Haast, 2-7-1862

ATL MS-Papers-0037, folder 096-04

Royal Gardens Kew
July 2d 1862

My dear Dr Haast

I have no time now to do more than acknowledge the receipt of the collections made by yourself & my Dear friend Sinclair in the Alps of the Middle Island, & to assure you much they have interested me – I have already arranged them all & found a considerable number of new species. Especially amongst the Compositae which are most curious and interesting. I propose to embody these immediately in a paper for the Linnean Journal – supplementary to the New Zealand Flora.

I am greatly surprised at the paucity of species of Gramineae & Cyperaceae from the Alpine regions, & all the more so as Sinclair always was on the look out for them. Of Orchideae too there are scarce any. Of *Veronicas*, a great many & some very curious ones.

The two *Ranunculi* are most marvellous things. I wish very much that we could get live plants of them for our gardens here.

I hope that you have seen Dr Hector before this, who takes a letter from me to you. I shall write to him shortly. At present what with the Exhibition & my father having been in poor health, & other matters I have been quite overwhelmed with work & unequal to all the calls on my time.

A soon as I have named your plants I will send you a list of all. Meanwhile I am on the point of leaving home for a fortnight with my wife who is in poor health.

Again thanking you much for the very valuable collections you have sent; & hoping that you will continue your researches & discoveries.

Believe me Ever very s[incerel]y yours
Jos. D. Hooker

P.S. I will take care to name a good plant after Mr Moorhouse. My Father is delighted with Hooker Glacier & river.

11. Haast to Hooker, 10-8-1862

Kew DC 174 ff.274-275⁴⁵

Copy of letter in parcel of plants

Christchurch, Canterbury, NZ.
10 Aug 1862.

Dear Sir

I had the pleasure of writing you with last mail, although my letter was dated of the 14th of June, it arriving unfortunately too late at the post office for the June mail. Today I can

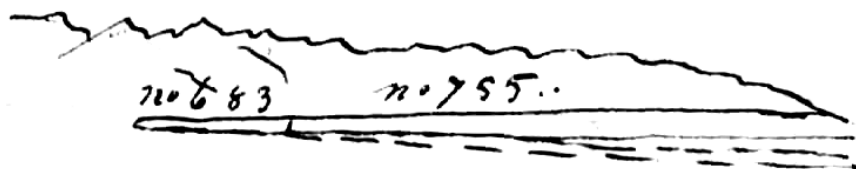
⁴⁵ There are two extant copies of this letter by Haast, one sent separately and the other in the parcel of specimens, the other copy is archived as: Kew DC 174 ff.276-278.

send you the plants collected during my last campaign in the Alps. My friend Mr Harris who goes directly to Europe by the overland route will be so kind to take the parcel with him.

You will observe that of many plants the flowering season was past, coming too late, but it would be impossible to cross the rivers before autumn & even then we had great difficulty of doing it. There are no doubt several plants, which occur twice under 2 numbers, but I am so pressed for time, that I could go only through my collections as they were lying (not to lose this good opportunity), but I selected of everything the best & most characteristic specimens.

It seems, that my former observations – that the growth of the *Fagus* forest is somewhat connected with the line, where in winter the snow lies for a longer duration, – finds ample confirmation. I give you a map of the district, in which I have marked the line where the *Fagus* ceases, & with altitudes etc.

Another observation shows us that the climate in this southern part of the Alps must be much colder. Subalpine vegetation occurs much lower down. *Fagus* does not grow up higher than 4000 feet, along Lake Pukaki & Ohau (Lake Tekapo lies already in subalpine vegetation) and ascending towards the Alps it ceases about [2] 3200 feet, running slowly to a small end.



For the last 400 to 500 feet, it consists of the *Fagus* 683 with the serrated leaf, which again at its termination, when subalpine vegetation takes its place, is very dwarfish & covered with --.

Will the great amount of snow & the close neighbourhood of the enormous mountain chain not be the cause of the lower line of growth? Round Mt Cook are about 50 square miles of glaciers, without the snow fields, which feed them! The vegetation of the southern spurs of Mt Cook is very interesting. It is a real herbarium. The *Fagus* forest 683 instead of covering the lower side of the mountain with a dense unbroken mass, as everywhere else, is only scattered on the sides as high as 800' above the level of the river, in little groves & even in single trees, amongst & round the trees, grow all kinds of subalpine & alpine plants. The whole has quite a park-like appearance & the many tints of the foliage and of the flowering shrubs & plants & the various strange forms all mixed up together with the rocky walls rising above give to it a most magnificent aspect.

Although I never forgot to collect plants, I am certain, that I harvested only a very small part of the new things, which abound everywhere.

The highest point where I observed plants was 7200'; they are marked in the list, but at 6500' they begin to be exceedingly scarce. The whole mountain presenting the image of utter desolation & destruction. – Snowline of southern side of Mt Cook 7800'.

You will observe that I noted some plants as growing on glaciers. This will best show you, how large they are & how slowly they must advance, because the detritus with which the whole Tasman glacier for the last three miles is covered, is not only at the last [3] half mile at

many spots covered with lichens, but already with many plants & even small alpine Veronica bushes were growing & many a *Celmisia* & *Gentian* could be collected.

The large *Aciphylla squarrosa* grows everywhere. I measured some flowering stems, which were 11 feet high.

I hope that this collection will give you as much pleasure, as I felt when I collected it & coming again on some new interesting undescribed forms. I send you equally enclosed a collection of New Zealand Fungi, of which I made the sketches during my journeys. I do not know if they will be of any use to you, although I copied carefully. If not, put them aside.

The Alps are exceedingly poor in Fungi; I met only one, which seemed to be new. In looking through my collections the other day, I found several papers, marked H, that I almost fear they have been overlooked in the last parcel; I join them for this reason.

When ascending Mt Torlesse & Big Ben, I had an aneroid with me, which I thought I could trust. I found the altitudes rather high. During my last journey I took it again with me together with two new splendid instruments on which I can rely & I found that my Mt Torlesse aneroid has a remarkable index error. To 4300 feet it was quite right, but afterwards it went down rapidly, so that at 6100 feet, it showed 7000 feet. Will you therefore have the kindness to correct the altitudes, which I gave you with the plants from Mt Torlesse & Big Ben (Thirteen Mile Bush range). [4]

When I give only one altitude, it is the spot where I observed the plant. Our common friend Dr Ferd. Mueller sends me an Australian illustrated newspaper, in which some hasty copies of my larger sketches have been engraved. I made them for him at the base of Mt Cook, when retained by very bad weather in my tent for several days. I suppose Dr Mueller has sent you a copy of the paper. You will see what a glorious fellow Mt Cook is, but the artist has given little thought to the fine Hooker glacier. In fact he did not understand my sketch. I shall send to Sir William Hooker, before I leave for my next campaign, a larger watercolour drawing so as to show him his godchild in a better form. I hear often from Dr Hector, he works very hard and is a very intelligent man; unfortunately we both had not yet the time to meet. Hoping that these plants will arrive safely and that soon I shall have the pleasure to hear from you,

believe me dear Sir,
very sincerely yours,
Julius Haast

To Dr Jos. Hooker F.R.S. etc. etc.
Kew

The map could not get finished in time. I give principal altitudes.

Lake Tekapo	2468
Rivers forming the Godley Glacier	3528
[Rivers forming the] Macaulay glaciers	4382
Darwin glaciers	5242
Lake Pukaki	1744
Rivers forming the Great Tasman Glacier	2774
Hooker glacier	2960

Mueller Glacier 2857
Lake Ohau 1927
Glacier forming it 4200
of the glaciers I give the terminal face.

12: Haast to Hooker, 13-9-1862

Kew DC 174 ff.279-280

Geological Survey Office,
Christchurch, Canterbury, NZ.
13 Sept. 1862.

My dear Sir

I had the pleasure of writing you last month, announcing to you that my friend Mr Harris will hand over to you my collection of plants of my last campaign, which as I hope have reached you safely.

It was with great satisfaction that I heard from Mr Wyatt that he handed over to you safely the case with the plants & I long to hear from you if you are satisfied with them.

This year I shall be in time in the very heart of the Alps & as never anybody has been in that part of the country from Lake Wanaka to the mouth of the Awarua (West Coast) I am certain that our harvest will not be a small one. As the gold fever is also raging in this Province, the Government [2] wishes that I examine first the most likely spot, where gold can be found & I have selected that part of the country, where I hope to do also something in the moa & quadruped line.

I do not know how to ask you for a favour, but as you were kind enough to express yourself very flatteringly on my account, I take the liberty to lay my wishes before you. – I wished very much to become a fellow of the Geological Society – & in the case you think that the Society will do me the honour of electing me, you would oblige me very much to propose me. I am almost certain that Sir Charles Lyell would second your [3] proposition. I have instructed our Provincial Agent Mr John Marshman, 16 Charing Cross, London, to pay the necessary fees. I do not know how generally fellows are elected, if they are proposed on their wish or if it is a compliment, which the society pays to those whom she thinks deserving such an honour, & if my request is a bold and inappropriate one, you will kindly excuse me.

Many of the continental societies have done me the honour of electing me as member & corresponding member & if elected a fellow, I shall do my best, by contributions (papers & collections), to show my gratitude; of course this communication is quite private. [4]

Dr Müller without asking him, has written to Sir Rod. Murchison for my election as F.R.G.S.

I hear very often of Dr Hector; he is a very intelligent & active man & works very hard. In his hand the Otago Goldfields will gain a great reputation.

And now as I asked a favour for myself, may I ask another for my most intimate friend W. T. L. Travers; seeing under a diploma which the New Zealand Society sent me as

honorary member, (Sir George Grey⁴⁶ President) that Mr Walter Buller⁴⁷ of Wellington signed F.L.S., he told me that it was his greatest ambition to become equally a fellow of that society.

I think it is not necessary of saying a word in his favour; nobody has worked so hard for botanical researches in [5] New Zealand as he has done & still will do & you would make him still work harder, if such a distinction could be conferred upon him.

The newly constituted Philosophical Institute of Canterbury has done me the honour of electing me president; all our leading men are members & we shall work in the same way as the Royal Society of Victoria, print our transactions etc. I trust you will do us the honour of accepting our diploma as honorary member, which will be sent to you in the course of this year.

Once more I have to ask you pardon if I requested you too boldly, to propose me as FGS.

Hoping of hearing soon from [6] you,
I remain my dear Sir,
very sincerely yours,
Julius Haast

Dr Jos Hooker F.R.S. etc. etc.
Kew

13: Hooker to Haast, 18-9-1862

ATL MS-Papers-0037, folder 096-05 & 06

Kew
Sept' 18 1862

My dear Mr Haast

I wrote to you about 2 months ago, on the receipt of the excellent plants sent by you, including those collected with poor dear Sinclair. I had only time to throw them into natural orders, when my busy time of year (August) & subsequent vacation tour to Scotland, interrupted my Herbarium work. Now I have (yesterday) returned to Kew & Botany, & this moment have received your most interesting & welcome letter 9th June. This & the newspaper paragraph which accompanied it have given me infinite pleasure. How long I have waited for some one to tell me of the Gt Glaciers of the Middle Island, & of the old moraines & glacial action that must be found. I congratulate you heartily on your magnificent discoveries, & shall wait with impatience your more connected report on the phenomena you have examined. That old drift under the comparatively modern glacial [2] phenomena is a most important discovery in every point of view. Have you yet found glacial shells in it? You will no doubt & then what a grand work it will be to compare ancient & recent Antarctic glacial shells with their Arctic analogues. What biological phenomena may we not expect to be disclosed!

⁴⁶ Sir George Grey (1812-1898), Portuguese-born British politician who served as Governor of Cape Colony, South Australia and New Zealand.

⁴⁷ Sir Walter Lawry Buller (1838-1906), New Zealand lawyer, ornithologist and naturalist.

The majesty of your Southern glaciers is well shown by you, and is full of suggestive matter. How little relation there is after all between size of land & glacial phenomena, when so comparatively narrow & low a strip of land as the Middle Island of New Zealand, and one in so very low a latitude should rival in its glaciers the Polar land & the continental chains of Europe & Asia. Your account of the horrid weather recalls many woeful months spent in the Himalaya with rain & wind for 4 months of summer, almost uninterrupted, & at all elevations from 1-19,000ft.

I have this moment written to Arrowsmith, asking him what he has done with your Nelson map. [3] I shall be delighted to lay your prepared Geology paper with map & sections before the Geolog. Soc. & see justice done to it. I am sure it will greatly interest the fellows. I am not a member of the Rl. Geographical Society; but of Geological, Linnaean & Royal. You ask why I do not take a trip to N. Zealand & join you. Would that I could, there is no part of the world I should so like to see – Menzies' mosses from Dusky Bay⁴⁸ always fired me as a boy with a desire to go the W. Coast of Middle Island but I have a wife & 5 children to feed, a father aetat 77 to help & duties in the Garden Museum & Herbarium here, which as Hector will tell you, give me work enough for 3 men. So I must be content, & very thankful to have correspondents such as yourself, good-natured enough to tell me of the countries I love so well to hear of.

I have not much news scientific to send you. We are utterly overwhelmed & swamped with the Gt. Exhibition which [4] brings swarms of people to Kew, including of course a vast number who I have no interest in.

Prof. Ramsay⁴⁹ has just published a very curious paper that will interest you (in Geolog. Soc. Journal) on the formation of the drift & stadial Lakes by the scooping action of great old glaciers. At first I was disposed to give no ear to it, in common with most Geologists, (who pooh-pooh it mercilessly) but on full consideration I am now inclined to think well of it, under the supposition of course that there is no mechanical objection to the hypothesis of which I am no judge. I have always felt that we had no good theory of lake formations at all: Lakes are always enormously common in old glacial regions all over the globe. The lakes in your old glacial regions of New Zealand would offer good scope for examining this theory of Ramsay. The Himalaya also seem to support the theory where there is a wonderful absence of Lakes in the Southern Valleys which are narrow & short & steep comparatively, & abundance of lakes in the Northern valleys which are broad & [5] shallow & were once occupied with numerous glaciers.

In other branches of Science the most important work we have by far is Mr Darwin's on the Fertilisation of Orchids, which is one of the most interesting & beautiful specimens of scientific work, in the whole literature of natural history. This wonderful Darwin writes with equal sagacity, industry & facility & success in whatever branch of science he enters, & in this he has fairly beaten all us botanists all to chaff. He proved to demonstrations that all orchids with few exceptions are functionally bisexual, & the flowers cannot impregnate themselves with their own pollen, but that insects are always the agents, taking the pollen of one flower to the stigma of another. He demonstrates how this must take place, & discovers a

⁴⁸ In reference to New Zealand mosses collected by the Scottish surgeon, botanist and naturalist Archibald Menzies (1754-1842) at Dusky Bay during George Vancouver's voyage in 1791.

⁴⁹ Sir Andrew Crombie Ramsay (1814-1891), Scottish geologist and glacial theorist.

multitude of exquisitely beautiful little structural & functional characters all necessitating this action. It is a marvellous book.

We continue to get very fine collections from W. Tropical Africa, including many temperate & some European forms from the lofty mountains of Cameroon, Mt Thomas, Fernando Po etc. I have drawn up an account of them for the Linnaean Society, [6] which will be printed in the course of the winter. My Supplemental account of New Zealand plants is well progressed & will contain all yours & Sinclair's, & Travers to be read to the Linnaean Society in the course of this winter.

Mr Knight⁵⁰ of Auckland informs me that it is possible I may be requested to preface a small octavo Flora of New Zealand for popular use in the Colony, which I should be glad enough to do afterwards.

And now I must break off with truly good wishes for your continual health, happiness & success. I hope that you & Hector will work into one another's hands, as Thomson⁵¹ & I did in India.

Believe me ever very sincerely yours
Jos. D. Hooker

J. Haast Esq.
Christchurch
New Zealand.

P.S.

I sent your letter & reports to Mr Darwin who is greatly interested he much wants specimens of the rat & frog. He asks if you have his "Origin of Species". Kindest regards to Hector if you see him.

14: William Hooker to Haast, 23-9-1862

ATL MS-Papers-0037, folder 105-05

Sept. 23.1862

My dear Dr Haast

I have to thank you for your letter of June 9th & still more for the high & grateful compliment you pay me in naming a noble glacier after me & still more in bringing the name of our excellent friend Dr Mueller, in placing our names in juxtaposition, in two of the most remarkable geological features perhaps in the whole southern Hemisphere – in the same way as Rob^t Brown & I stand [2] in the two most elevated mountains in N. America.⁵²

⁵⁰ Charles Knight (c. 1808-1891), English physician who worked for Sir George Grey and devoted his spare time, while working as a public servant in New Zealand, to the study of botany, especially lichens, and corresponded with J D Hooker for many years.

⁵¹ Thomas Thomson (1817-1878), Scottish surgeon and botanist who explored and worked in India, where he was the superintendent of the Botanic Garden at Calcutta.

⁵² Mt Hooker and Mt Brown are two mythical mountains named in 1827 by David Douglas (1799-1834), a Scottish botanist collecting for the Royal Botanic Institution of Glasgow, sponsored by Sir William Hooker.

I have been further gratified by these two objects in N. Zealand being already represented in a Melbourne Journal which was sent to me by the same mail that brought your letters to me.

I am so glad you have been able to find time to botanize during your explorations. Such scenery must afford good plants.

I shall indeed be charmed to see some of these plants when you have time to look them out & send them, & still [3] more to see the map you speak of & the coloured drawing which I have no doubt will be superior to the rather rough, yet probably faithful esquisse contained in the Victoria Journal, & placed vis-à-vis to portraits of the learned Senators of Victoria.

Believe me, Faithfully & cordially yours,
W. J. Hooker

15: Hooker to Haast, 16-11-1862

ATL MS-Papers-0037, Folder 096-07

Kew
Nov. 16. 1862

Dear Mr Haast

I have just received your very kind & interesting letter of 10th Aug & write at once to say that I have such. I have not received that of 14th June which you mention. The plants too which came in charge of Mr Harris are not arrived yet, but no doubt I shall get them in good time.

I have been very busy with your list of collections, which I have now nearly named & hope to send you before another mail, the names corresponding to the numbers. You would save me a great deal of time & some chance of error, if you could conveniently write the locality & elevation on them to check with the number, even if in short. [2] Many of your plants are extremely interesting, & not a few are quite new, the chief novelties belong to the following. *Ranunculus*, *Anisotome*, *Veronica*, *Raoulia*, *Celmisia*.

I am surprised at finding so little novelty amongst the Grasses & Cyperaceae, and also that no conifer or Orchidæ has been found since publication of the Flora Nov. Zeland! Cruciferae seem very scarce, but you have added one or two to the Flora. The *Astelias* want to be illustrated with notes & very careful observations as to the sexes. I find it almost impossible to say which male belongs to its female in a dried state. The *Dracaenas* too want careful notes & sketches too. Is there one or two species of *Phormium* – I quite agree with you that there are 3 or 4 *Aciphyllas*. [3]

My Father is much gratified by the dedication of the Hooker Glacier to him, & the water color sketch which you are so good as to promise will be highly prized by him. We can nowhere get maps of the countries you are in. I suppose none are published, & so those you promise will be much acceptable. Your observations on the limits of the *Fagus* forest are very curious. No doubt as you suppose, the drapes of winter snow & the mean height of the land, make great differences in the range of arboreous species; so it was in the Himalaya, where, further, the wetness & dryness of the inner & outer ranges made as great differences.

I found that by taking temperatures of the ground I soon found out approximately whether the mean temperature was high or low. To do this I took a brass tube, a yard long, [4] 1½ inch diam with a sharp steel rod, & sunk it in the ground wherever I halted. I then tied a therm. in a log of wool the length of the tube, & covered its bulk well with cotton or wool. I put the rod & therm. into the tube & covered the top of the latter with a sod of earth. This I registered night & morning, drawing up the rod & replacing it. If well covered with wool the temp. does not rise in the act of withdrawing the rod & therm. Of course it is a rough means, but a most useful one, as you are thus sure of getting the temp of the month written to degree or two, by one or two daily observations.

The New Zealand Fungi I will send to Mr Berkeley⁵³ who will no doubt draw up some notes on them at once for the Linnean Journal.

Hector Glacial theory [*Letter incomplete – last page missing when received by Haast*⁵⁴]

16: Haast to Hooker, 10-12-1862

Kew DC 174 ff.281-282

Lake Ohau, N[ew] Zealand
December 10th 1862.

My dear Dr Hooker

Having hurt my right hand slightly by a fall with a horse, I have to employ one of my travelling companions to write this. I had the pleasure to receive here your letter of Sept. 10th, which like all your communications has given me infinite pleasure. I would have written to you sooner, had I not waited for the list of plants, promised to me in your letter of June. In the mean time I had the pleasure to send you two memoirs which will I hope interest you. You will find in them something more about the physical geography of this island & on my return to Christchurch in April I shall begin to write a more extended report with maps & sections, illustrative of the geology & physical geography of this part of New Zealand.

You see I am again in the Alps, re-examining some spots where the inclemency of the weather did not allow me to remain long enough before, and then I shall continue my researches towards the sources of Lakes Wanaka & Hawera, from the former reaching the west coast to Jacksons Bay. I found a few glacial shells, but they were so rotten that I could make nothing of them, but I have a spot where there are more to be had & I shall do my best to procure them. I discovered this latter spot only a few days ago, when on my road from Christchurch here. Amongst them a *Mytilus* in boulder clay, & if worthwhile, I shall send you my whole gathering to have it examined. It also struck me forcibly that our glaciers are enormous, when considering the small size of the island, the comparatively low elevation of the [3] mountains, & their low altitude.

Have you not published your travels in India & by what publisher? I should like very much to study your book if it is still to be procured. You are quite right in saying there are many reasons to deter you from coming to New Zealand, and I shall do my best to give you

⁵³ Miles Joseph Berkeley (1803-1889), English cryptogamist and clergyman who made contributions to mycology.

⁵⁴ In his letter of 11 June 1865, Haast comments that this letter ended abruptly and lacks the second page, so presumably it was mislaid by Hooker and never sent.

such accounts, that your interest in its physical geography & natural productions, will not be diminished. The other day I again studied your Flora & observe that you describe the *Discaria* as being only a few feet high, but this is not always the case, as in the valley of the Alps & on the sides of the hills I have seen it as high as 15 feet, having sometimes a knotty stem a foot in diameter. This spiny gentleman being called by the settlers 'Wild Irishman' with this gentle associate, *Aciphylla squarrosa*, the bloody Spaniard of the settlers, forms sometimes the only vegetation of these happy river beds through which we had to wind our way, being hours in going one mile & emerging again on better ground with torn clothes & bleeding limbs.

In coming here I made again a very striking observation viz. that travelling on the southern side of the Waitaki to this place & crossing hills about 2200 feet high, not a single species of *Celmisia* was to be found, and only a yellow flowering *Senecio* with white leaves, whilst on the upper part of the Canterbury plains, and on the other side of the Pukaki river, several species of the *Celmisia* are abundant, showing how local plants often are.

I have not yet seen Prof. Ramsay's paper, but as my last case of books arrived as I left town, I shall read it on my return. The phenomenon that the Himalayan lakes lie only on the northern side whilst they are wanting on the southern, finds its counterpart in our Alps, but as the slopes of [5] our Alps on their western side are also narrow & steep, our lakes lie on the eastern, which have shallow & broad valleys. May this occurrence not offer us an easy explanation to this fact? A glacier on the steep side of a mountain will much sooner reach the foot, it cannot collect with others to form one large glacier, which by its compactness offers more resistance to the effect of the sun and atmospheric influences, in consequence the amount of detritus brought down cannot be so great that it can form large terminal moraines, & the valley being steep, the rush of the water will soon destroy & disperse this detritus, however large it may be and thus the first cause of the formation of lakes is destroyed. I have not yet begun to study Mr Darwin's new work, which will be a great treat for me on my return; he is a man after my own heart & I do not recollect having enjoyed more intellectual pleasure, than when I began to peruse his wonderful work *On the Origin of Species*, he has [6] no more faithful disciple in the southern hemisphere than me & I have made it my duty to combat the popular prejudices against this work, & I dare say my voice has brought to the right path many an honest man who was seeking the truth on this important subject. I consider it the highest compliment you could pay me, in sending my letter to Mr Darwin & for which I thank you heartily. I have written in the enclosed letter to him concerning the animals which he wishes to procure from N.Z.

I am in hopes that the collection which Mr Harris took with him to Europe for you will reach you in time, so that you may use them for your supplement. Already on the present journey I have collected a good many plants, some of which seem to me to be undescribed, and this year I shall be in time in the Alps for the flowering season, so that [7] I hope you will receive my new collection in time for your popular work on the N. Zealand Flora. You will have heard from the General Govern^t of Auckland that the necessary money has been voted for the publication of this work, altho' there was not the least doubt about it, our friend Monro being speaker of the house, and the majority of the members men of good education, Mr Travers wrote separately to each member of our Province, & I spoke to them personally before they left, all with one exception cordially entered into the subject, & the only gentleman who was opposed to it, said that the great expenses of the Maori difficulty did not allow them at present to think of science, for that Session. The consequence was that when I invited the most influential & best educated members of the community to join me for the

formation of the Philosophical Institute of Canterbury, I purposely omitted him. Altho' as I heard afterwards, he did vote for the publication of the [8] work. Altho' he is one of our most influential men, this little lesson has done him good, and I could scarcely suppress a smile when he told me the other day, that in order to prepare himself to be elected a member of Institute, he had bought some botanical handbooks to study the science.

I had the pleasure to receive the kind note of Sir W^m Hooker, for which you will thank him in my name. Our Provincial Agent Mr John Marshman, 16 Charing Cross, London, will be happy to forward anything entrusted to his care for me. I see my letter gets so long that I think it wrong to intrude further on your valuable time and hoping that you will continue to let me hear sometimes from you.

Believe me my dear Dr. Hooker,
Most sincerely & truly yours,
Julius Haast

Dr. J. D. Hooker F.R.S. &c.
Royal Gardens
Kew
England

17: Hooker to Haast, 4-1-1863

ATL MS-Papers-0037, folder 096-08 & 09

Royal Gardens Kew
Jan 4/63

My dear Mr Haast

You have I hope ere this received my grateful acknowledgements of your last (2^d) collections, received about 2 months ago & which are full of interest. I have now been for 6 weeks extremely busy drawing up a paper, chiefly on your last discoveries but for which my paper would have been ready long ago for the Linnean Journal, which will contain near 100 new species from the Middle Island, the joint labor of dear Sinclair, & yourself, with a few others from Rough, Lindsay⁵⁵, Travers, [2] & Monro. A splendid contribution it is. The riches of your Alps are evidently far from exhausted, & I am greedy for more! of these fine things – I have advanced about 2/3 through my task, & am in the middle of *Veronica*. I have done myself the honor of dedicating to you a most remarkable genus of 3 species of alpine Compositae which form rounded masses, after the manner of *Raoulia*s, but very much larger, & covered with buff tomentum. I have 3 species including your No 419 *H. recurva* 643 & 709 *H. sinclairii*, *H. pulvinaris* in the 30 you have not found. I have also dedicated a most remarkable genus of Compositae to [3] Mr Travers.

We are so badly off for a map containing your geographical discoveries, that I hardly know how to assign general localities to your specimens. A visual sketch map would be invaluable, with the more prominent areas noted and named for guidance; – no one can find Mt Torlesse, or Mt Sinclair on any map, & I should like some district names to use with such localities. Now that I have begun a Manual of the New Zealand Flora, under the auspices of

⁵⁵ William Lauder Lindsay (1829-1880), Scottish physician and naturalist.

the Colonial Govt, of which you have doubtless heard, I do hope your [4] Awarua collections will come before I go to press.

I am intensely interested in everything appertaining to New Zealand & shall look with eagerness to your discoveries per finding the Moa!

I have taken the necessary steps for your election to the Geological Society, where you will be joyfully hailed. It is usual for a person wishing to become a fellow, to signify his wish to some friend amongst the fellows who propose him & has his proposal seconded by 6 others & ballotted for. I am extremely happy to be your sponsor in this case & The Secretary will duly announce [5] to you your election.

I am doing the same for our excellent friend Judge Travers in respect to the Linnean Society with a great deal of pleasure. The Linnean is the Society in which I am specially interested & I am sure that the Judge will be pleased with our Journal & Transactions. Kindly let him know that the Journal will be posted Quarterly to any address in England he pleases, but that he must send them a written order to some one to receive the Transactions for him, of which a Quarto number with the expensive plates is published annually, – both [6] are given gratis to Fellows.

You are quite right in supposing that Mr Travers name would be welcomed by the Linnean Society.

Have you any London agent? to whom I could occasionally send a little brochure etc to for you.

May health & prosperity follow you in all your arduous journeys & surveys.
Ever my dear Sir yours gratefully & truly
Jos. D. Hooker

There are no Freshwater plants in your collection. I suppose they are rare in the Middle Island.

18: Haast to Hooker, 10-1-1863

Kew DC 174 f. 283

Lake Wanaka⁵⁶ N.Z.
January 10th 1863

My dear Dr Hooker!

I had the pleasure of writing to you from Lake Ohau on Decb 9, and before plunging into an unknown wilderness of mountains and forests, I do myself the honour of sending you a few plants, which will I think interest you. I regret very much, that I did not think of it sooner, because about 8 days ago, I left at least half of my collection, what was dry, behind at another station, amongst which there were without doubt many undescribed plants; but I shall forward the great bulk of it as soon as I return to Chch in April.

⁵⁶ 'Whanaka' in the original.

As I mentioned in my last letter, it was then my intention to reach the source of the main river, which forms Lake Ohau. This I accomplished, but not without great trouble, as in seventeen days we had fourteen of them wet, which caused the river to be very high. There was still much snow in the Alps, more than I anticipated, but I was just in time to see the spring vegetation of the Alps, which is really most beautiful. At many places the hillsides were literally covered with the large *Ranunculus* in full flower, giving them the appearance as if they were sprinkled over with snow.

The shrubs were not yet [2] in flower, with the exception of two well known *Veronica* & the one I enclose. Besides the *Celmisia* No 4, there is another one very abundant, of which I sent you the leaves last year, slightly serrated with a whitish down underneath, the flower is very like No 4.

List of plants collected from middle to end of December in the River Hopkins main feeder Lake Ohau

No 1a Riverbed near water & hillsides to 4800 feet

[No] 1 near Richardson glacier 3500' was only in bud.

The flowers of this *Ranunculus* are generally much larger, but as the weather was so very wet, I could not get them dried without their falling to pieces.

No 2 amongst rocks near water

[No] 3 sides of hills 4000'

[No] 4

[No] 5

[No] 6

[No] 7 [re above four items:] Riverbeds on grassy flats & hillsides 2000 to 4000'.

[No] 8 In *Fagus* forest amongst moss on moist rocks.

[No] 9

[No] 10 in flower lemon coloured

[No] 11 [re above three:] on sandy flats, riverbed, 2000 to 3000'

[No] 12 in clefts of fractured rocks. (shady) [3]

13.

14.

15 [re above 3 items:] On mountains, 5000' amongst grass or forming carpet-like masses.

16. Banks of river below subalp. vegetation.

17

18 [re above two items] On grassy flats river bed.

There is no doubt that amongst my other plants many other undescribed specimens will be found and that I shall be able to collect some more during my journey. I am here in Dr Hector's territory, as only the upper part of this lake belongs to Canterbury. He was here during November and I am really anxious to know what he thinks of the formation of these two lakes (another, Lake Hawea) lying close by, which have also been formed by old moraines, although their character is a little obliterated. Hector's province is as far as I can see in many respects more interesting than mine, and there is not the least doubt that the goldfields of Otago will not only prove very rich, but also permanent, for many years to come. We shall doubtless have also our share, but only accessible from the Otago Province and from the West Coast. During this summer I shall look out, if my old luck is still the same, & if during my geological examination I can not stumble [4] over similarly rich ground.

Hoping to hear soon from you, believe me my dear Dr Hooker,

very sincerely yours,
Julius Haast

Dr J D Hooker FRS
Kew
England

19: Hooker to Haast, 1-2-1863

ATL MS-Papers-0037, folder 096-10 & 11

Kew
Feb 1. 1863

My dear Haast

I have to return here & thank you for your address to the Phil. Inst. & your Report. I do not know which has interested me most, both are so replete with admirable matter, & so full of facts new to me regarding the New Zealand Islands. The notice of flint tools is perhaps the most surprising now that their weapons form so prominent a subject & have so manifold an interest. Darwin too is greatly interested about these – he writes me full of pleasure at reading your reports (Report & Address). The glacial phenomena of the Southern Alps quite fascinate me. I do not doubt the correctness of your interpretation of most of [2] the facts. How wonderful that the glacial phenomena of the Himalaya (where all you describe is repeated on a small scale) should shrink into insignificance before those of New Zealand. Your flat valley heads 3 miles across! below the termination of the glaciers, are wonderful. I never saw one more than a mile across, if so much, & your existing and sub-modern moraines beat those of Alps & Himalayas hollow. You talk of slickensides as if formed by trituration of the contiguous plane surfaces; I am sure it is not always if ever so (pray examine carefully) & never in metamorphic granitic etc rocks. You will certainly find intersecting planes of slickensides, which wholly negatise the supposition that they are so formed. I feel sure [3] that it is a mineral deposit in the surface planes & to whatever the high polish is due it is not to trituration. I have alluded to it in my Himalaya Journals (Ed I) as occurring in blocks of granite (& Syenites too I think) at 18000 ft along all the fissures at all angles to one another in the one block. I think you are mistaken in attributing to Lyell & Brown any of Darwin's ideas in so far as these are new. Certainly great merit is in the application of Nat[ural] Selection to variation – under the operation of the Malthusian Law. This is his hypothesis & as a hypothesis no one can claim a share of it but Mr Wallace.⁵⁷ Also Lyell's writings are based on the totally opposite doctrines of specific creations & permanence of species. The marvel is, that Lyell can now with his age, accept Darwin's hypothesis frankly & apply it unhesitatingly [4] to his old principles. When we consider that Lyell's name & fame & all his great Geologic books are built on the work of original specific creations, & the immutability of species, his accepting the opposite doctrine is a marvel; it will get him plenty of abuse now, but future generations will recognise the greatness of a mind so open to truth at such an age & after such a career. Darwin's theory is making great advances here & on the Continent, & will no doubt be the orthodox one of the next half century. I, as you know, accept it as the only working hypothesis we have, & the only philosophical solution of the question of the origins hitherto proposed. Certainly neither Lyell nor Brown ever dreamt of it; nor did their writings ever pave the way to it (great as they are), [5] but quite the contrary. Darwin is now

⁵⁷ Alfred Russel Wallace (1823-1913), British naturalist, explorer, geographer and anthropologist.

busy at Botany & cutting us all out in that line, as he has cut out Geologists & Zoologists before us. His health is still miserably bad & 4/5th of his life is passed in suffering idleness!

Have I sent you my essay on the Australian Flora? & have you, or the Phil. Inst here, any agent in London to whom I could send an occasional pamphlet. Long may your Inst. have you for President to give us so capital an address. May I give you a word of advice as a very old member of many societies? – which is 1) to make a rule absolute of funding a fixed proportion of all subscriptions or entrance fees; 2) make an equally absolute rule to spend a certain proportion annually on the Library – 3) not to have a Museum [6] 4) to revise well all papers presented for publication 5) to keep to one form of publication (we are bothered out of our lives by the incessant changes in the Victoria Transactions). If you can keep these rules your Society will do well, if not it cannot become secure. Our “Geological” is now crushed down by its Museum. Our Linnean was at death's door for many years, because having omitted to fund, they had nothing to fall back on when evil days came, & when evil days do come on a Society its members leave like rats a sinking ship! & nothing can stop them, and it was only by superhuman efforts that we got the Linnean up again, & now established it permanently, annually funding all entrance fees, [7] refusing all collections & specimens, adding largely to our Library, & spending £600 to £800 a year on our carefully revised publications. Let nothing beguile you into keeping a Museum, remember that the expenses of a Museum are in geometrical ratio to its extent – let the members give all aid to a public museum & the Society give all advice, but undertake no responsibility as a Society. Such is my experience here & in the colonies, in our capital & in our provinces. The only safe legitimate aim of a scientific society is to publish good papers & diffuse sound knowledge, & bring together those interested in science to its meetings. Really popular they never can continue to be; & if ever funded properly, will become independent of mere popularity. I am very busy with the New Zealand Flora, what I endeavour to make as concise & full of information as possible. I shall spare no pains to make a good book of it, & shall write a new Introductory Essay for it when completed.

I have named up your plants & shall send soon a list of the names of the Phanerogams & ferns, very soon. I shall not begin the Cryptogams till I take up that portion of the Flora.

And now my dear Sir I must go to other work. I have little general news. Lyell's new work on Man is not out yet. The Natural History Review is now a capital work. It gives an excellent resume of all current scientific matter: it is worth having a copy at Canterbury & costs about 20/- a year.

Ever most sincerely yours
J.D. Hooker

Hector⁵⁸

⁵⁸ Name appears as marginal annotation in the manuscript letter

20: Hooker to Haast, 16-4-1863

ATL MS-Papers-0037, folder 096-12 & 13

Kew
April 16, 1863

Dear Mr Haast

I have 2 letters of yours to acknowledge – Dec 9th & Jan 10th. The latter including some plants amongst which is a new *Ranunculus* – both came by same mail. Herewith I enclose the names of all the plants you have sent me as far as I have made them out, that is excluding the fern & other Cryptogams which are not yet named & which I cannot attack til I have considered the Phanerogamis portion of the Flora.

I have put a cross to the species which you will not find in Fl. Nov. Zelande & I hope that the names will stand what I have proposed, but as I revise all again in the progress of the Manual, there may be a few changes. The number of new *Veronicas* is most remarkable, & the new forms you have discovered of that genus are amongst the most singular plant of the Colony in every way: except perhaps the *Raoulias* & *Haastia* amongst the latter I find the same tendency to [2] form hemispherical tufts that the Umbelliferae assume in Chile & Fuegea, the Caryophyllus in the Himalaya Mts, & some other Compositae in Tasmania. If you could get a good entire dried compact specimen of the woolly vegetable sheep *Raoulia eximia* No 252 or of *Haastii pulvinaris* Kaikora & Tarndale Mts or *H. recurva* of Mt Torlesse (6000 ft) or of *Raoulia mammillaris* No 439 for our Museum I should be greatly obliged. They should be packed in a little box with camphor. They are wonderful discoveries.

I have worked down as far as Araliaceae for the Manual N.Z. Flora & still expect to complete the first volume (Phanerogams) this year. I am of course liable to delay by waiting the arrival of collections, especially from the Mountains, which add so much novelty. Curiously enough we have had hardly any collections from the N. Island since the N.Z. Flora was published & yet there must be novelties on the mountains & especially at Mount Egmont, from which we have [3] no collections. From Otago too I have but your collections – little of the novelty that I have received since the NZ Flora is from Nelson & Canterbury – Monro, Sinclair, Travers, Rough & yourself.

I am still extremely badly off for a good map of Middle Island & of Canterbury & Nelson, & for the means of indicating roughly the alpine & lowland districts. I am obliged to be very concise as to habitat. Being extremely anxious to bring out the whole work for 30/- and keep it of a public form. The roughest possible map of the Middle Island would be most useful to me, indicating the ranges of Mts. & the names of groups.

You mention in your December letter having enclosed one to Darwin. I cannot any where find it, & since doubt whether you may have omitted to send it, or whether I can possibly have dropped it on opening your letter & lost it. Your letter I sent on to Darwin & have told him that I will inform you of not finding his – he is most curious about the animals, of which you say you have written to him.

I see there are more reports of the [4] “Moa” being found alive.

Lyell’s book has made a great sensation & will no doubt interest you amazingly. The first XII chapters appear to me the poorest & rather confused. We have heard so much & so often *all* the details he enumerates; probably it will not be so with you, & so the last chapter will be invaluable to you. The Glacial Chapter both Darwin & I think the best, & the Chapter

on Languages the most original & clever. Falconer⁵⁹ & Prestwich⁶⁰ have published a joint reclamation in the Athenaeum claiming for more credit for Cave & Tertiary work than Lyell has awarded them. Both these men are great (& the former a particular) friend of mine, but I do think their conduct very bad. It is perhaps true that Lyell might have made more of them with justice, but no injustice was contemplated by Lyell; & whether or no, there was no case for dragging before the public, exposing their own weaknesses, vanity &, as Huxley expressed it “washing their dirty linen before the public” to the [5] grievous scandal of science. Lyell has answered them temperately & well in the Athenaeum in good spirits also Falconer is an excellent fellow, but very coarse-grained when he takes up a matter & then is obstinate as a mule. I know no weakness so fatal as that which prompts a man to make reclamations; posterity are the only judges of comparative merit; & the public never did & never will concede a claim to credit, however just, when claimed as a right.

Owen has written a Review of Carpenter⁶¹'s Foraminifera, in the Athenaeum, in which he enunciates his new doctrine of the origin of life in “mud” or “ooze”, a foolish groundless idea, which Darwin has well addressed, also in Athenaeum.

I hope you will be able to explore some of the Limestone caves.

I am delighted to hear that you have found glacial shells; how fine it would be if you could find any boreal forms amongst them, as well as Austral. If you send them to us as you propose, please say if there is any Institution to which you think [6] they should be sent. I suppose Woodward⁶² of the British Museum is the best person to describe them. I have never yet seen a fossil leaf from New Zealand.

I am examining a very remarkable collection of Cameroon Mt plants. (W. Africa under the -----) 5-13000 ft above the sea, & I find amongst them plenty of both Cape of Good Hope & European species – strongly confirming Darwin's glacial migration theory in a continent where confirmation would be least expected. The Cameroon Mts being quite isolated, not joined by meridional chains either with Europe or South Africa. The character of the Cameroon flora is quite Abyssinian in their respects.

I have addressed a copy of my Himalaya Journals to be sent to your address through Mr. Marshman, which please accept with my kindest regards.

Believe me ever Most sincerely yours
J.D. Hooker

Travers was elected to Linnean the other night, as he is doubtlessly informed.

⁵⁹ Hugh Falconer (1808-1865), Scottish geologist, palaeontologist and botanist.

⁶⁰ Sir Joseph Prestwich (1812-1896), British geologist and businessman.

⁶¹ William Benjamin Carpenter (1813-1885), English physician, invertebrate zoologist and physiologist.

⁶² Henry Bolingbroke Woodward (1832-1921), English geologist, worked in the geological department of the British Museum and later served as president of the Geological Society of London.

21: Haast to Hooker, 13-5-1863

Kew DC 174 f. 284

Christchurch
13th May 1863

My dear Hooker!

Many many thanks for your kind letter of the 4 of January & 1st of February. I am just returned & in half an hour the mail for Europe closes; but I must send a few words. With next mail I shall send you a large map of the province with all my discoveries, names etc., more plants & a good many new facts which will highly interest you.

I am quite proud that you judge so favorably of my endeavours to show to the world that we try to do our duty at the Antipodes!

As I wished equally to possess the Transactions of the Linnean, will you do me the honour to be, if you think I deserve it, my proposer?! You would confer upon me a new favour.

Excuse my [2] hasty scribbling, but the time passes.
I inclose you a short report of my West Coast journey.

Believe me my dear Sir,
very faithfully & thankfully yours,
Julius Haast

Dr J D Hooker FRS.
Kew

22: Haast to Hooker, 11-6-1863

Kew DC 174 ff. 285-287

Geological Survey Office
Christchurch N.Z.
June 11th 1863

My dear Hooker!

With last mail I wrote you a hurried note, (had I known that the mail left only next morning, I should have taken more time). With the March mail I did not receive any news from you. The election of Mr Travers as fellow of the Linn. S. was announced to him, he is highly delighted. Many thanks!

I did not hear anything of the Geol. S., but hope that it will come with next mail. It is with great pleasure, that I can announce to you, that I have sent by this mail the plants of my last campaign, and I have no doubt, that there are several specimens amongst them, which will interest you. According to your wish, I have noted with every specimen locality, altitude and month; but I may add that the range of many of them is much larger, than I noted, because generally I noted only the locality, where I happened to fall in with them.

I do not send you a list, because I think that the labels are sufficient, but I may add a few observations to those numbers, which have a great interest:

No 13 is a magnificent tree, [2] which for its form I can only compare with the Kauri. The stem is straight and round and the branches begin after 50 feet above the ground. The bark hangs in shreds and ribbons around it. I could not find any seeds, but there is not the least doubt that it is a coniferous tree. It occurred only near Haast's pass at the head of the Makarora between *Fagus* & it was a very strange sight, to see these enormous tall trees (some three feet in diameter) reaching above the summit of the beech trees, before their branches began.

No 27 forms the prevalent *Celmisia* in the valley of the Hopkins.

106 I found several specimens of this *Aciphylla* on a large shingle island covered with grasses and shrubs in the R. Waitaki, about 100 feet above the sea. It is without doubt a variety of *Aciphylla squarrosa*, the seeds having been brought down by the river. It is striking, because *Ac. squarrosa* is never found below 1000 feet. In fact it is subalpine. Another remarkable fact is that in the valley of the Hunter masses of *Ac. squarrosa* are to be found. There is no difference between it, [3] and other alpine valleys. Now, the valley of the Makarora, where no *Aciph.* are met with, has the same altitude, aspect & breadth. Therefore may we not assume, that the low pass across the Alps at the head of that river allows the warm moist air from the West to come to the Eastern side of the Alps, without being deprived of that moisture?! The whole vegetation of the Makarora, as formerly stated has quite the character of lower regions.

I should be thankful to you, if you would name amongst the novelties of this year's season, one after my young friend, Mr William Young⁶³, assistant surveyor, who was my faithful and energetic companion during my last West Coast journey and assisted me very much collecting. You will see, that I collected very carefully, Gramineae & Cyperaceae and as much as possible all in flower & I should be very much astonished indeed, if there were no novelties amongst them. In future I shall try to make the necessary notes and sketches to the *Astelias*. I do not know if there are several species of *Phormium*. There is one marked variety [4] in the mountains, which I sent last year from Mt Torlesse 384. Mr Young tells me just, that there is another variety in small creeks near Lake Ellesmere (South of Banks Peninsula), the flower of a yellow waxy colour & shorter and broader in the calyx. I shall try to obtain it.

According to your wish I send you a tracing of my smaller map. I have marked each year's journey in different colours and noted the principal mountains. You see, that this contains also already my journey, as well as that of our friend Hector of this year to the West Coast. We hurried to finish this smaller map in order that you may receive it by this mail. But I should like that you would keep it to yourself, because I intend to send with next mail a larger map with a set of watercolour drawings to the R. Geogr. Society & I should like to give them the first right. It will give you an idea of the magnificence of our Alps, of the old glacier channels and the old moraines. Of course if you see Mr Darwin or Prof Tyndall⁶⁴, I should like that you would show

⁶³ William Spearman Young (1842-1912), first came to Canterbury as a cadet under Edward Jollie, he was later appointed Assistant Government Surveyor in Canterbury and joined Haast on exploring expedition in the Mt Cook region in 1862, and went on to work under Haast as topographical surveyor when the Haast Pass was traversed. Hooker named a number of plant species *youngii*, possibly in recognition of Young as a collector.

⁶⁴ John Tyndall (1820-1893), Irish physicist and professor of Natural Philosophy at the Royal Institution in London.

[5] it to them. But do not show it to any Society, because it has been done in the greatest hurry not to miss the mail. I am overwhelmed with work & correspondence, besides the trouble of house furnishing and buying pots & pans, as I shall become a Benedict in a fortnight.

I am very thankful to you for your direction to obtain the mean temperature & I shall follow your instructions. This is much easier, than to bury a box with the thermometer in the ground. But if I remain long enough in the same spot, I can also do the latter. You do not say anything about my great works of art (the Fungi) & if Mr Berkeley can do anything with them; otherwise put them aside.

As I told you before, your letter of the 16th of Novb. ended abruptly, so I suppose you forget to add the second sheet. Undoubtedly the end of that letter told me that you had received the plants, sent through Mr Harris, because in your letter of the 4th of January you say that you have acknowledged their receipt, which I never got. I can not tell you, how gratified I was to hear from you that my collections have given you so much pleasure. I can assure you that many a time, when [6] I collected some new plant, I thought of the intellectual enjoyment it would give to you. There is no doubt, that a great many new plants remain still undiscovered in our mountains, as f. inst. Mt Torlesse which I shall once more ascend during next summer & will look over carefully, will give us again some more new specimens. I hope that my collections of this year will arrive in time for the Manual of the NZ Flora. During my honeymoon, (even practical colonists believe in such a nice thing), I shall go over my journals and extract all my botanical notes for you. During this journey I did not meet any indications that the moa still exists, but was able to make many observations on the habits of one of our anomalous birds, the Ground parrot (*Strigops habroptilus*⁶⁵). I wrote a paper for our Phil Institute & shall send a copy to Mr Darwin. Speaking of our Institute, I may tell you that at the last meeting you were together with Sir William & Mr Darwin proposed as a honorary member & that you will be elected by acclamation at our [7] next July meeting. May I hope, that you will accept the diploma of our infant society, the only value of which is, that it is a feeble tribute from the Antipodes?!

I requested you in my last letter to have the kindness & propose me a fellow of the Linnean Soc. Any parcels if sent to our Provincial Agent Mr John Marshman 32 Charing Cross will reach me safely.

The only freshwater plant which I found is No 592. Coal Creek, Lake Tekapo. The *Azolla rubra* is also common. There are several Confervae⁶⁶ in stagnant water, but I think, they are the same as those of Europe, slimy masses. I never had time to examine their structure. I do not think that either Hochstetter⁶⁷ or myself in our account of our journey in the interior of the Northern Island alluded to a most remarkable species belonging to the *Confervae*, which grows in the water flowing from boiling springs (about 190°). It forms pulpy masses, tabular, several inches thick of a pale green & brownish colour. I told you without doubt, that a great quantity of so called red snow is in our Alps. [8] I observed it principally near the Great Godley glacier and in the Alps at the head of the Havelock (Rangitata), without doubt, *Protococcus nivalis*. There are also different kinds of *Confervae* in the mountains on moist perpendicular rocks, jelly like or gelatinous masses, yellow or greenish. One of them is without doubt the *Protoc.* Large parts of our high rocky mountains

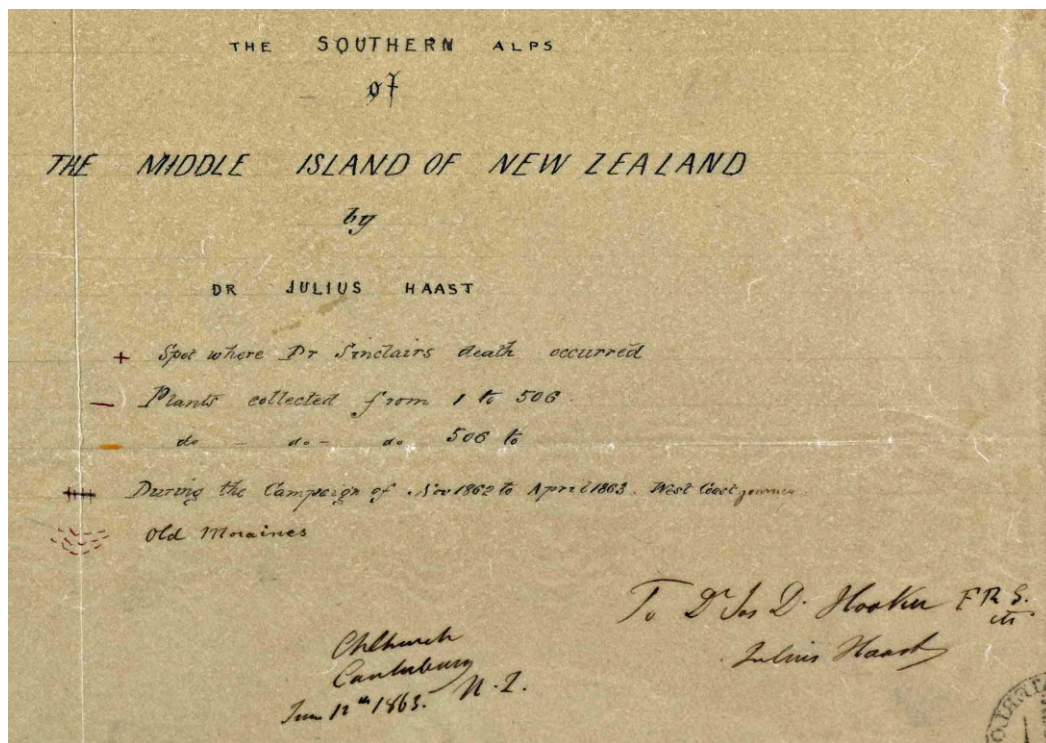
⁶⁵ Synonym for *Strigops habroptila*, Kakapo.

⁶⁶ An early group name for green algae.

⁶⁷ Ferdinand von Hochstetter (1829-1884), German geologist, geographer and explorer.



Figure 3: Topographic map that Haast sent to Hooker on 11 June 1863, showing the location of plants that he had collected during his exploration of Canterbury Province. At this stage Haast has not explored and mapped much of north Canterbury nor the West Coast (apart from the Haast Pass in the south). Detail below shows an enlargement of the title panel of the map. The map is now held in the Archives of the Royal Botanic Gardens, Kew London (reference C/14/3) and is reproduced with the permission of the Board of Trustees.



(5 to 7000 feet) are covered with a lichen (or does it belong to the Confervae?) of a vivid crimson tinge & sometimes boulders in old river channels and erratic blocks near the lakes are covered with it.

I must assure you, it was with great pleasure I perused your letter of the 1st of February. If men like yourself and Darwin express themselves in such a kind way, it makes me almost proud and gives me strength to continue my researches.

In another year I hope to be able to send you my extended reports on my investigations on the Alps; about 300 pages in print with maps, sections & sketches added. It will, I hope, interest you, as I shall give the details of many observed phenomena [9] & devote much room to the physical geography, meteorology, etc. of the country traversed.

The tracing of my map will show you the nature of our old glacier channels. I was equally much struck by them, not having anything like it observed in the European Alps, but they are still more astonishing, now hearing from you that even in the Himalaya there is nothing which can be compared to it.

Round Lake Wanaka & Hawea are equally large moraine like walls, although Dr Hector does not seem to believe much in it. Unfortunately we never met & only through letter communicated our ideas. In asking him, how the enormous mass of angular blocks came there, he answered without doubt by glacial action, but how, he does not say. It is true, their origin seems to be somewhat different & I can only explain it based upon careful inspection, that both lakes were formerly much larger, that glaciers reached the water's edge and that ice bergs derived from their terminal face, loaden with debris, drifted to their terminus, stranded & deposited their loads. Now at the head of [10] both lakes, large straight valleys occur, sloping down at a very regular angle



with numerous sloping terraces, cut into the rock.

Dr Hector has not yet been so far. Lower down the lake to an altitude of several hundred feet, all the rocks have a roche moutonnée appearance. I am certain, that when our friend has seen what I have observed, that he will come to the same conclusions. Concerning the slickensides, I did not mean to say that the siliceous glaze was formed by trituration, but I thought that the planes, on which it was deposited, were the effect of it. When looking over my journals I found some observations on intersecting planes, which gave me much to think. Now that you were kind enough to point out to me my mistake & give me your own valuable observations, I shall re-examine & am certain that I shall change my ideas.

When speaking of Lyell, Brown, I ought to have been clearer, but as my address was already too long, I curtailed it unfortunately & a [11] passage, which would have explained the difference, although not so clear as yours, was left out. But in my next address I shall devote more space to this eminent philosopher & shall be most happy to correct any wrong impression, which I may have given. It is with great anxiety that I expect Lyell's new work.

You did not do me the honour to send me your Essay on the Australian Flora & I shall be delighted to receive it. I took the liberty to lay your valuable suggestions before the

Institute. The members were extremely grateful & requested me to convey their best thanks to you. The consequence has been that the idea of a Museum has been abandoned, & that the Provincial Government will take charge of all the collections, giving to the Institute the use. In such a way we can devote out money to the Transactions & perhaps to the library. We are exceedingly badly off for books here. I have written for the Natural History Review. Is not the other title the intellectual observer? [12]

I sign a paper in blanco, so that you may fill it up for the Secretary of the Linn. S. to get the Transactions, (I hope to get the volume in which the description of my collections is), which our agent Mr J. Marshman will receive for me.

And now, my dear Sir, I hope you will pardon me that I have taken up so much of your valuable time, but I wished to answer fully your letters.

If you have a free moment, I shall be delighted to hear from you; it is such a great treat for me, which you can hardly understand, living yourself in the very centre of civilisation.

Ever very faithfully & sincerely yours,
Julius Haast

You will observe that the glaciers & snowfields are not well shown at the West Coast (my last journey), but the map is not yet so far advanced, so we put only the peaks upon it. It is very rough, partly night work, but I hope it will do for your purpose. Look at your godchild. It is rather a big baby!

Dr J. D. Hooker FRS etc.
Kew

23: Hooker to Haast, 19-6-1863
ATL MS-Papers-0037, folder 096-14

Kew
June 19 1863

My dear Haast

I have to acknowledge yours of 5th March 1863, together with the copy of Dec 9th 62, which latter I had fortunately received in the original & arrived about 2 months back. Also the little parcel of specimens by post came & the newspaper with the account of your visit to the W. Coast. For all of these accept my warmest thanks. They have proved a great intellectual treat.

I enclose a list of the 58 plants – some are exceedingly interesting, as 23 which I take to be *Aciphylla colensoi*, 38 a fern & I think a new *Ourisia* & 39 probably a new *Ranunculus*. The rest are I think all previously known plants. I still expect there is much to be done by carefully collecting the Carexes, Grasses, Junci, &c of which I have more northern matter than Middle Island species. The *Veronicas* are desperately puzzling & I suppose hybridise in a wild state. Your discovery of a low pass across to [2] the West Coast is a most interesting one, & quite an anomaly in N. Zealand geography. I congratulate you on this great success – the account of which has interested me immensely. The character of the W. Coast vegetation

reminds me wonderfully of W. Coasts of Tasmania, Fuegia, Ireland, & of what I have heard of N.W. America – viz. in all cases, humidity, narrow inlets & bays, dense vegetation, paucity of species, absence of animal life. There is a sort of rude analogy too with the S. & N. sides of Himalaya.

You will know ere this that poor Hector was not so fortunate as you were, though so near your pass! His party were half starved, & I suppose could not form any collections there. Though he has sent me some 40 alpine things from Mt. Alta wherever that may be, including 5 new species, & many of your & Sinclair's previous discoveries.

I am still desperately badly off for [3] maps of the provinces of the Middle Island giving directions of the Mt Chains & principal water sheds, & general names of areas & for Botl. purposes.

Your splendid explanations are adding so many interesting plants to the Flora, that I am in no hurry to begin printing the Flora quite yet, & shall certainly wait for the fruits of this your last expedition. They are all the more relevant as I get nothing from the Northern Island & whereas you have yourself found not far from 100 species new to New Zealand Flora.

I do not think I have had three species from the Northern Island!

Have you any traditions of the Kaudi⁶⁸ (*Dammara*) having ever been found in the Middle Island, and is the gum dug up?

I suppose that the presumed bird track of Hector is the old Mauri [Maori] track that you allude to.

I have hitherto failed to procure for you a copy of my [4] Himalayan Journal Ed. I & must content myself by sending you the very much curtailed Ed. II, which ever at once to your agents. I have however, the second hand book sellers looking out a copy of Ed. I, which if procured I will send. They have been now several weeks trying in vain to procure it. It contains voluminous appendices on Meteorology & which may interest you.

I have not much news, Geological or other for you. Darwin (to whom I forwarded your letter) has been wretchedly ill of late, but is better again.

My Father is now home & I am consequently extremely busy, so no more at present.
I am

My dear Haast very sincerely yours
Jos. D. Hooker

⁶⁸ New Zealand Kauri, *Agathis australis*, formerly known by the synonym *Dammara australis*.

24: Haast to Hooker, 6-8-1863

Kew DC 174 ff. 288-289

Christchurch, NZ.

6 Aug. 1863

Dear Dr Hooker!

I had the pleasure of writing to you by the July mail, enclosing a rough tracing of the province for your guidance, which will, I hope, have come safely to hand.

A few days ago I received your kind letter of the 28th of April, with a list of the plants, for which accept my best thanks. It has highly interest me, although I felt in a few instances somewhat disappointed at seeing several plants, which I had considered new, had already been described by you. I am also very much astonished at the great number of new *Veronica*'s and I am certain, that the riches of our Alps are far from being exhausted.

Being always fully occupied with my geological & topographical work, I could not of course devote so much time to it as I should wish to do, but you may be certain that in my future journeys, I shall neglect [2] nothing that will add to those already discovered. Your wish to obtain some entire & compact specimens of *Raoulias* & *Haastias*, our so called vegetable sheep, shall be attended to in the course of next summer, and you will then have an opportunity of judging for yourself how easy it is for shepherds at a distance to mistake them for their woolly namesakes.

I am very glad to hear of your progression with the Manual of the NZ Flora, which is expected in the colony with great impatience.

It is rather difficult, for several reasons, to collect alpine plants in the Northern Island. In the first place it is exceedingly difficult to penetrate the dense forests before you can reach alpine vegetation, secondly Tongariro in the centre of the Northern Island is tabooed & the enormous truncated cone of Ruapahu in its neighbourhood so difficult of reaching, and lastly those people, who after all succeeded in reaching the [3] alpine heights did not care to collect plants as for inst. Mr Crawford⁶⁹, the geologist of Wellington, who ascended the Tararua mountains.

From Otago you ought to receive very fine collections as Dr Hector has a collector with him. I shall send you also a map of the Province of Nelson & mark the principal districts from which you have received plants; it will be sent with the Sept. mail. I am certain that I enclosed in my December letter one for Mr Darwin, but as I sent you in March a copy of that letter with one for Mr Darwin, you will by this time have been able to deliver it to him. Your remarks on Sir Ch. Lyell's work, which I have just obtained, were very interesting to me.

Although I know many of the facts enumerated in the first part of the work, the contents were nevertheless very instructive. I have not yet seen the last *Athenaeum* numbers, but shall be delighted to read the controversy, between [4] Lyell & Prestwich and Darwin and Owen, as I am rather partial to a good row. One of my friends came last night and read from an English newspaper (he is a very clever mimic) a scene before the Lord Mayor between Huxley & Owen. – You know it without doubt, I enjoyed it thoroughly.

⁶⁹ James Coutts Crawford (1817-1889), Scottish farmer, scientist, explorer and public servant in New Zealand, a former officer in the British Navy.

As soon as I have time, I shall go & collect the glacial shells in question.

Please accept my best thanks for sending me through Mr Marshman your Himalaya Journals and I hope to find an opportunity to return your great kindness in some way.

With this mail I send you a copy of the map of this province; it is the first attempt of a lithographic establishment in Christchurch. I have marked in different colours my various journeys from the Δ upwards the country was unsurveyed and unexplored, so that I had also to construct the topographical map. All the impressions of fossils plants in my possession have [5] been sent by me to Melbourne to Prof McCoy⁷⁰ to be described; as soon as they return I shall send you a complete collection. It is my intention during next summer to visit the principal locality of the beds with the impressions of ferns, and I shall collect a large enough quantity to enable me to give a suite of choice specimens.

Thinking that you will like to be acquainted with the features of your correspondent, I enclose you my carte de visite and also one for Sir William Hooker. I need scarcely say, I should be delighted to receive yours, and that of your illustrious father, in return. If Mrs Hooker⁷¹ has an Album, will you present her with our kind regards the enclosed carte de visite. It may perhaps have some interest for her as it comes from the Antipodes and from a warm & faithful admirer of her husband.

Believe me ever yours most sincerely,
Julius Haast

25: Hooker to Haast, 24-8-1863

ATL MS-Papers-0037, folder 238-9 & folder 105-01

Kew
Aug 24th 63

My dear Haast

I have now to acknowledge your just arrived packet of plants, & letter of June 11th, both extremely interesting to me. The packet contains many very nice & a few, very few, new plants – one a small *Raoulia* No.⁷² I have today described as *R. youngii*, which you describe as forming large white patches on the earth of Mts near Lake Hawai⁷³ – I was particularly pleased with the *Celmisias* having only last week completed my study of that most troublesome genus & found that your fine species all came well into my descriptions; most of them were discoveries originally of your own. You will I fear to be much disappointed to hear that there is not a novelty amongst your Grasses & Cyperaceae. I do not at all understand it. Whereas you have added so many, perhaps 150 species!, not known when the Flora of NZ was published; neither you nor any one else has [2] added materially to any monocotyledonous order! – I suppose that your M[oun]t[ain]s are not rich in Grasses & Cyperaceae. I do not think you have gathered more than 3 or 4 of the NZ Carices! & still

⁷⁰ Frederick McCoy (1817-1899), Irish palaeontologist in Melbourne where he was both professor of natural science at the university and director of the museum.

⁷¹ Frances Harriet Henslow Hooker (1825-1874), the first wife of J D Hooker.

⁷² Blank here where authorial intention would have been to insert number.

⁷³ Hawea?

fewer Junci, Eleocharis, Sonchus etc etc & scarcely a Restiaceous plant; can it be that these orders are much more prevalent in the Northern Island where Colenso⁷⁴ has gathered many.

As to the rest of your last collection, I have had no time to do more than throw these into genera & must work them up as I proceed with the N.Z. Manual which now ----- all my spare time day & night. I send herewith a list of the species as far as I have gone since they arrived, & shall continue sending you the names as I proceed. As I said before they do not present much novelty, but are most important, so many of them being undescribed though gathered before by yourself or Sinclair. Hector has also [3] sent a few of them from the Otago Alps.

I have withdrawn my paper on the N.Z. plants from the Linnaean as I find that the descriptions will also appear so soon in the N.Z. Manual, & I would prefer having these numerous interesting novelties to appear for the first time in a work to which the N.Z. Govt has been so liberal & you & others have contributed so largely. I still hope to get vol I out this year with the Phanerogamia & Ferns. I find the additions to the old Flora much more than expected, & as I am reexamining every specimen with far more specimens than I then had, & making new descriptions of every species, the result will be widely different, & I hope much better work. Some of the genera are very laborious, & took me several weeks, as *Celmisia*, *Eurybia* (which now goes all with *Olearia*), *Coprosma* etc. *Veronica* will be a terrible job & I quite dread it. I see no limit [4] to the species, subspecies, varieties, & I fear hybrids!

Your fine tree No. 13 is I think *Thuya doniana*.

The *Phormiums* are great puzzles, there are certainly 2 distinct forms in the plants, but connected I fear by many intermediates.

A thousand thanks for your splendid & most useful map. I shall take care to keep it to myself as you direct. The mountain ranges, valleys, & glacial distributions & channels are most curious. I hope to see Tyndall out here soon & will show it to him. I must take it to Darwin (who never leaves his home) when next I visit him.

Many congratulations upon your marriage, may you find every comfort & blessing in your new & enviable state – may you soon have as many children as I have 5 – & all healthy & good!

After a long fruitless search in the bookstalls, & 2^d hand catalogues, I have [5] abandoned hope of getting you a copy of Ed 1 of my Himalayan Journals, & have been obliged to send you the 2^d or smaller only, – this wants the maps, which I will try & get for you somehow.

I sent the book (Australian Essay etc) with some others for your kind acceptance to Mr Marshman, & hope that they will be forwarded by this mail.

Thank you much for the promised Diploma of your Society. I am very proud of my Bengal & Tasmanian honors & shall have yours of Canterbury entered with the others in the Linn. Soc. list, which is my official depot for all such honors.

⁷⁴ William Colenso (1811-1899), Cornish missionary, printer, botanist and explorer in New Zealand.

I am much interested at hearing of the Red Snow on your Alps! I do not think it had heretofore been found in the S. hemisphere.

The Conferva? from the boiling spring was I think collected by Colenso & sent to Berkeley, but I do not think he could [2] make any thing of it. He says that without specimens it is almost impossible to describe your Fungi from drawings, so much depends on the spores, or texture & surface etc. I doubt any thing being done of consequence to elucidate them till some one can give 3 or 4 years to a continuous assiduous study of them. Your drawings will one day prove useful I hope, & they do your energy & good taste great credit. As to the confervae etc, these too Dr Harvey says can not be studied satisfactorily except in a living state by observers having some knowledge of their structure. I collected them largely in the S. Pole Expedⁿ & in Himalaya, but my labor was well nigh lost.

By next mail I shall send you [3] a copy of Jamieson's paper on the Parallel roads of Glen Roy,⁷⁵ which he attributes to glacial action & which will interest you much.

The Intellectual Observer, is not the Nat. Hist. Review, but a more popular work very interesting & well done.

You will find in the N. H. Review, a resume of the whole Moulin Quignon Case, – in so far as it is published. I may however tell you privately that there is no doubt whatever, that the Jawbone is a "Romano Gallic" one from an ancient Tumulus opened some years ago in the neighbourhood by the same man who is supposed to have fraudulently introduced the jaw bone into the gravel! The evidence is cumulative & almost irresistible.

And now my dear Haast I must break off. I find I must close this [4] to catch the Marseilles without adding the list of your last plants so far as named: – but few were done & only the *Celmisias* & *Raoulias*; all before that must wait now till I have finished the Sup. of Vol. 1 when I will return upon these & all new arrivals & go over them previous to printing.

Ever my dear Haast,
Most sincerely your obliged
Jos. D. Hooker

Justicia carnea⁷⁶
F. L. S.⁷⁷

⁷⁵ Thomas Jamieson (1829-1913), Scottish agricultural scientist and geologist. His paper on the Parallel Roads of Glen Roy was read at the Geological Society and published in the *Quarterly Journal of the Geological Society* in 1863.

⁷⁶ Brazilian plume flower – presumably this was added as a reminder.

⁷⁷ F.L.S. in large capital letters at base of page.

26: Haast to Hooker, 12-9-1863

Kew DC 174 ff. 290-291

Christchurch, Canterbury, NZ.
12th Sept 1863.

My dear Hooker!

I received yours of the 19th of June, by which I see with great pleasure that my letter and the parcel of plants from Lake Wanaka arrived safely. Many thanks for the list, which has highly interested me. Your comparison of the West Coast of N. Zealand, with that of other parts of the world, reminds me that also in its physical features there is also great resemblance to them. Deep and numerous fiords, steep high mountain chains as are the western coasts of S. America, Norway etc. Continents and large islands destroyed by physical agencies coming from the westward, and new land formed on the eastern side.

Your wish to obtain maps of this island has at least for this province been already fulfilled. It was my intention to send you also with this mail one of the Province of Nelson, but till at present, I did not find the time to make the tracing, having been absent from town [2] for some time to look after a coalfield, but with next mail, you may be certain that you get the map in question.

When you speak of poor Dr Hector in your letter, you did not think that I would repeat the same sentence in mine. Mr Travers just returning from Dunedin, tells me that when the steamer was on the point of leaving a Maori arrived with the sad news, that the boom of the little craft in which Dr Hector sailed for the west coast, has struck him on the arm and broken it. No more news could be heard, but I hope to be able to give you with the next mail more detailed and pleasing news.

Mt Alta (Hector's plants) is to be found in the map of our Province. It lies on the western shore of Lake Wanaka, between the Matukituki River and Minaret burn, but is not marked in our map, as just now I see.

Nobody can be more anxious to see the New Zealand Flora, than myself, and also for the cryptogamic plants, there must be some novelties amongst [3] my mosses. There is a tradition that the Kauri had once existed in this island, because gum has been found, but this, like many other tales, can not be relied upon. I think that some fossils resin (Retinite), which is very abundant in some localities in the Tertiary lignites has given rise to this belief. I never have seen any and could not obtain any authentic information that Kauri gum or some other vegetable product resembling it, had been dug up from the ground anywhere in this island.

The tracks seen by Hector are without doubt simply the tracks of a large green alpine parrot (*Nestor notabilis*), we observed it nearly on every mountain, just where the *Fagus* ceased and the grass began.

I am very sorry that my great wish to read your valuable Himalaya Journals should give you so much trouble, and I hope only that you may be able to obtain them for me. In every case my very warmest thanks for your great kindness. I hope that long before this Mr Darwin has been quite restored to health. The more I study his *Origin of Species* I find the book more and more wonderful, turning at the same time my thoughts to new and interesting subjects. In the meantime I have read Lyell's book. It is really a very interesting work, principally the second part, and although I know most of the facts, which he gives in the first chapters, nevertheless as an ensemble they are invaluable. Speaking of the Guadarrama there,

it reminded me strongly of a cripple, whom I saw once in France, who being borne without arms could do everything with his feet, using in many instances his big toe as a thumb. It was altogether a very interesting sight. For instance he opened easily a penknife, asked from the public, cut a pen, wrote, threaded needles & sewed.

I do not believe that a bear falling into the sea becomes a whale, but I think [5] that circumstances and necessity, in one word the struggle for existence can incredibly bring wonderful changes with it. The poor cripple on the fair of Valenciennes (I think it was there that I saw him many years ago), is an instance to what necessity can lead.

I see in my explanatory note to the plants of the 5th of March, that I made a mistake, instead of speaking of *Aciphylla latifolia* (your new species *grandis*), I called it by mistake *squarrosa*. The latter is generally speaking not an alpine species, it is most abundant between the level of the sea and an altitude of 1000 feet.

I hope to hear soon from you.

During this summer I shall have not only a mammoth search of the Mt Torlesse range, as I want to find some mineral veins of which I found the indications in the rivers coming from it, but also in some higher ranges towards the central chain.

Believe me my dear Hooker,
very sincerely yours,
Julius Haast

27: Haast to Hooker, 14-10-1863

Kew DC 174 f. 293

Christchurch, NZ.
14th October 1863

My dear Hooker!

I trust that my letter by last mail, together with a map of the Province of Canterbury, reached you safely. Today I have the pleasure to forward to you a very rough tracing of the map of the Nelson Province. As by far the greater part of that province consists of enormous mountain chains, I have indicated by yellow tints the level positions. On it I marked in different colours, as far as I can recollect, the various journeys of Dr Monro, Dr Sinclair, Mr Travers & myself.

Unfortunately Mr Travers is not in town to ask him some more details, but generally speaking his track is correctly laid down. I shall underline some localities where they found a great many plants. I hope that this very rough sketch will be of some service to you. I send you by this mail some printed reports on the Kowai Coalfields, which will perhaps interest you. [2] The main point treated in them was the old story: practical man (ignorance) against Science & the usual result.

You will see in the newspaper, which I sent you that Dr Hector returned safely by a new & splendid pass. There is no doubt that he is an energetic, fine & worthy fellow. – He dislocated only his arm. I hope we hear soon something more about his doings.

We may now, as I hope, expect very soon the new Handbook of our Flora; people are very much interested & if a little bird did not tell stories, there is all chance that some of your admirers will present you in due course of time a very handsome testimonial. Vedremo!⁷⁸

Excuse my great hurry, but I am hunted to death in the official work & correspondence.

Next mail will bring you a more satisfactory letter.

With best wishes,
believe me my dear Hooker,
very faithfully yours,
Julius Haast

[3] Dr Jos D Hooker FRS etc.
Kew
England

28: Hooker to Haast, 2-11-1863

ATL MS-Papers-0037, folder 096-15 & 097-02

Kew
Nov 2/1863

My dear Haast

I have 2 long & valuable letters to thank you for, and for the excellent & most acceptable maps. I cannot tell you how welcome after groping in the dark after ranges & Lakes in bad maps before for so long.

First of all let me congratulate you on your marriage, & thank you for the Cartes of yourself & Mrs Haast.⁷⁹ I am afraid the carte of myself I sent you – this went some months ago tell me if not received – is not very good, though the best hitherto done out of many. If I get a more successful I will send it. Meanwhile I add Mrs Hooker's with my compliments to Mrs Haast.

The last 6 weeks or 2 months have not advanced the Flora, having lost 2 very dear relations – [2] one a beloved little daughter⁸⁰ aged only 6, & having a son & my Father both laid up with scarlet fever, & my own family broken up & saddened. Then too much business has accumulated besides the current duties of my part here. But I now recommence having working off the 4/5 of Vol. I.

Darwin has been extremely ill, & like to die, from an aggravation of his old continuous complaint – vomiting, giddiness, prostration, & intolerable headache &c &c. I heard two days ago from Mrs D⁸¹, that he was considerably better & steadily gaining ground.

⁷⁸ Vedremo (Italian), the first person plural future of 'vedere', meaning 'to see' or 'to find out', thus 'vedremo' means 'we shall see' or 'we shall find out'.

⁷⁹ Mary Ann Haast, nee Dobson (1844-1913), the second wife of Julius Haast.

⁸⁰ Maria Elizabeth Hooker (1857-1863), the young daughter of Frances and Joseph Dalton Hooker.

⁸¹ Emma Darwin, nee Wedgwood (1808-1896), the wife of Charles Darwin.

Still his life is at best but a burthen to him. I suppose that he has not spent a week without an attack of this kind for 25 years, & never can work more than 2 hours a day without suffering. [3]

I am as interested as ever in your Glacial Geology & all the more from your excellent photographs of sketches that Hector has sent me, showing the broad valley full of glacial detritus cut through by river beds, really as in the Upper Himal. Valley, but quite unlike anything I have seen in our Alps. These glacial phenomena at the same elevation as Tree ferns, Palms & *Cordyline* are to me very suggestive: the latter being symbols of the tropics in Geological orthodoxy. Supposing a deposit of heat, will such plants &c &c were to be formed now, on the summit of those Terraces, would not geologists in the year x, say that there had been a [4] great change of climate between the two formations? And if Kiwi bones &c were to get entangled in that glacial detritus now would not said Kiwis then be called Glacial birds? Still I am at a loss to account for this huge development of glacial matter in your low valleys, as the Clutha – is it all angular except where the river cuts? & is it continuous to the sea. If so – how far up do you trace true beach-pebbles? are positive signs of sea action – I am greatly interested at p.129 of your Report of October 24 1862 the rounded glacial pebbles &c are puzzling. Is N. Zealand rising or sinking? There have been some curious discoveries made in Sweden of late, of glacial marine Crustacea in fresh-water lakes, I am told by Trowell, who is busy on the [5] subject. A friend (Lubbock⁸²) who has just returned from Norway, brings me the two common marine Fuci of our coasts, from the perfectly fresh water head of one of the long Norway fiords. All these circumstances make me think that we may reason too far from analogy in appraising such & such fossils to indicate salt-water, or a glacial climate.

You mention in one of your letters to me, besides the terraces, cuts in the sides of the valleys. This seems to answer to the markings that form the parallel roads to Glenroy & should be much carefully studied.

I went for 3 days change of scene [6] to Amiens, Abbeville & Chauny & am not satisfied with the explanations given in Lyell of the formation of the beds in which the flint implements are found. The deposits are far too extensive, too deep, too uniform, & occur on the highest Mts as well as low valleys; over many thousand square miles of country. To me it seems absurd to attribute such deposits to causes confined to the valleys of such contemptible streams as the Oise & Somme &c. The deposits represent the denudation of either narrow valleys with very lofty mountains, or gigantic rivers with hundreds of miles [7] of course, or of the sea. I cannot tell which, but depend on it when their deposits were formed the valleys of the Oise & Somme were hardly recognisable features in the geography. Since then I have been along the Norfolk coast & cannot doubt but that all are one phenomenon (on both sides [of] the Channel). The surprising thing is, the astonishing number of worked implements, found at so few openings, scattered over so large an area. If such holes (which are no bigger comparatively than pin-holes in a man of war's sail) expose so many implements, why there must be millions in the ground, all over the said area perhaps. [8] Altogether the subject is to me much mysterious, & I suspect that we want some ideas in Geology as novel original as Lyell's & Darwin's before we can approach a solution of it. Boucher de Perthes⁸³ is a fine old

⁸² Sir John Lubbock (1834-1913), English banker, politician and scientist.

⁸³ Jacques Boucher de Crevecoeur de Perthes (1788-1868), French archaeologist and antiquary who discovered flint tools in the gravels of the Somme valley.

gentleman but as credulous as an infant. The human jaw is a most transparent fraud; but the old man believes every thing he is told however absurd.

I should have told you ere this that your Fungi drawings never arrived here. I have searched & enquired every where & at one time thought that having arrived in my absence they had been sent to Berkeley to whom I send all Fungi at once for determination, but I can hear no word of them at all. Your 13 of last coll[ection] is certainly *Thuya doniana*.

The promised map of Nelson will be most welcome.

I still hope to get for you a copy of my Himal. Journal Ed. I.

Ever most sincerely yours
J. D. Hooker

Investigate *Astelia*, match the sexes. Make notes of the *Cordylines*⁸⁴

29: Haast to Hooker, 12-11-1863

Kew DC 174 f. 292 & 294

Governor's Bay, Banks Peninsula, NZ.
12 Novb. 1863

My dear Hooker

I do not know for what I have most to thank you; whether for the great kindness with which you answer instantly my letters or for the news, which although you are very much occupied, you give me each time; but I can assure you, that it is for me always a true holiday, when I receive one of your letters. I was highly interested to see in your letter of the 24th of August, that you advance so well with the New Zealand Manual and am greatly pleased to think, we may expect it so soon.

Certainly I should have been more disappointed that there is no novelty amongst my grasses & sedges, true, I thought that there would be many, and although I collected diligently every species, which came within my observation, I doubted, that there would be many undescribed ones. But is it not most remarkable that whilst our Southern Alps flora presents so many new dicotyledonous plants, all the monocotyledonous [2] are to be found in the northern island too?! I hunted diligently near the glaciers and in those odd places, where I expected novelties could turn up, and you had the results before you. But is this not a very curious fact, and showing that the dicotyl. plants followed in the geography of plants a different rule from the monocotyl.; namely whilst the former are often very local, the latter are distributed uniformly over both islands.

I am glad that you have withdrawn your paper from the Linnean; it is another reason for us N.Z. folks to be thankful to you. Speaking of the Linnean, it puts me in mind that you were kind enough to write on the envelope FLS, but I never received the news of my election. Were you kind enough to propose me?

⁸⁴ Annotations in the margin of original manuscript letter.

I do not think that No 13 is *Thuya doniana*, because there are many people who know that tree perfectly well for inst. Mr Young, who assured me, that it was quite a different tree.

Our best thanks for your kind wishes to our marriage. It has all appearance that one of them will become true in [3] due course of time, so that I shall follow your footsteps. The copy of the second edition of your Himalaya Journal, the Australian Essay etc., which you were so good to send to me through Mr Marshman, I am expecting daily and thank you very much for this mark of your friendship. I shall keep them with my greatest treasures. I have sent instruction to one of my continental friends to procure for me the first edition of the first named work if possible, in one of those large book sales, which occur some times. I have very little news to give, being just occupied with the continuation of the geological survey in Banks Peninsula. I am staying at the country seat of one of my friends, Mr Potts⁸⁵, one of our shepherd princes, who has the finest garden in Canterbury & probably in New Zealand. The position in Governor's Bay is so much sheltered that besides more than 150 magnificent varieties of roses, he keeps during the whole year (winter included) Rhododendrons [4] Azaleas, Camellias & thousand other flowering plants & shrubs, of which many invariably would perish in the plains; to show you what beautiful shelter there is here in this bay I may mention, that the *Justicia carnea* exists without shelter all the year round, and that the *Calla aethiopica* is to be found in flower during the whole winter with sometimes 20 flower stalks. Besides his most magnificent collection of foreign plants, flowers, shrubs & trees, he has also a beautiful one of NZ trees & shrubs & even the splendid *Ranunculus lyallii*, which he brought down from the Alps, is just in full blossom in sight of the room in which I write.

During next month I think I shall pay a visit to Mt Torlesse or some mountain in the same range & see if I can not get some more novelties.

I sent a collection to Fenzl⁸⁶ in Vienna who was really delighted and told me, he did not know, when his enjoyment was greater, now, when he [5] looked through my parcel or when 20 years ago he received a large parcel of plants from Kotschy⁸⁷ in Central Africa.

And he only received some duplicates of plants of which I very naturally sent you the great bulk. Travers, who sent you his magnificent collection of mosses is rather anxious to hear from you.

With this mail I shall send through Sir R. Murchison 12 large watercolour drawings of our alpine scenery to the R. Geogr. Society. I hope you will go & look at them & at the Hooker glacier.

My best respects to Sir William,
And now I have to wish you goodbye,
Ever my dear Hooker,

very sincerely yours
Julius Haast.

⁸⁵ Thomas Potts (1824-1888), New Zealand naturalist, ornithologist, entomologist and botanist.

⁸⁶ Eduard Fenzl (1808-1879), Austrian botanist, professor at the University of Vienna and director of the Imperial botanical museum collections.

⁸⁷ Karl Georg Theodor Kotschy (1813-1866), Austrian botanist and explorer.

30: Haast to Hooker, 12-12-1863

Kew DC 174 ff. 295-296

Christchurch, NZ.

Decb 12th 1863

Dear Hooker!

Last mail did not bring me any letters from you, but two pamphlets, for which I offer you my best thanks. The paper of Prof. Jamieson is a very interesting one and I can assure you that I do not remember having read such a clear & convincing one. I never saw the parallel roads of Glen Roy, but we have similar phenomena in New Zealand and his arguments are such as are well able to stand the test of strict scientific examination.

I have not yet seen the first paper of Prof. Ramsay, (but expect my box of books every moment), so I can not entirely follow his reasoning.

A fortnight ago I returned from a very interesting journey over a part of Banks Peninsula. I was astonished to find such an assemblage of highly valuable facts, concerning the crater of elevation theory, of course some more convincing proof against it. Unfortunately I had a nasty fall, broke a rib and had to return to town, but it is now all right again. Nothing new for you.

The bushfires have almost destroyed the whole original vegetation and sheep & cattle have introduced what may be good feed for them, but what has no interest for the naturalist.

I hope, ere you receive this, that you have finished with the first part of the Manual. I must confess I am very anxious to see it. By the way you told me in one of your last letters that you had been so kind, as to send some books for me to Mr Marshman. In a letter of the 25th of Sept. this gentleman tells me that he has received a parcel from Dir. Haidinger⁸⁸ in Vienna & another from the Geol. Society for me, but he mentions neither yours, nor a book which Mr Darwin had the kindness to send me. At the same time he tells me that owing to the enormous amount of business, which he [3] has, no regularity of transit can be secured. I have written with this mail to enquire for both parcels. Should you in future do me the favour to send me anything, have the kindness to do so through Miss S. Dobson-Collet⁸⁹, 13 Lodowick Terrace, Regents Park, London N.W. I am certain that I shall receive it safely in due time, through this new channel.

You will perhaps have seen in my various reports that I was not able to find any fossils in the oldest strata of our Alps. This has at last been accomplished by a gentleman in Nelson, who was exploring the neighbourhood of Mt Arthur. They are Silurian, but of what Division, I am not yet able to say. I do not at present possess more than 5, one of which is an *Orthis*, another resembling *Strophomena*, a Trilobite, in bad state of preservation, a coral resembling a *Arachnophyllum* and another of rather an indistinct form. And it will amuse you to hear whence [4] I got them. They were lying on a heap of refuse behind the Nelson Museum, to which the gentleman in question had given them & picked up by my friend Travers 2 months ago when in Nelson.

⁸⁸ Wilhelm Karl von Haidinger (1795-1871), Austrian geologist and founding director of the Austrian Imperial Geological Survey.

⁸⁹ Sophia Dobson Collet (1822-1894), English writer and feminist freethinker, a close relative of Haast's second wife Mary.

The wise people looking after the Museum had thrown them away as valueless. This is truly colonial when I think of it, I tremble for the fate of my own collections, should I leave Canterbury after the accomplishment of the Survey, although generally speaking, there is a much greater amount of intelligence in this province, than in Nelson; but nevertheless not too much to boast of.

I do not speak of the Maori war, which it seems draws towards an end, but send you as usual a newspaper which will give you much better than I can do it, the necessary news.

Towards end of this year I shall start towards Mt Torlesse where I have still some geological work to do. I shall devote entirely some days [5] for collecting plants as well as to procure you the desired "vegetable sheep". I am certain, I shall find some more and interesting novelties, as my last exploration was rather a hurried one and I had too much surveying to attend to.

Will you present my respects to Sir William and believe me my dear Hooker,

yours very sincerely,
Julius Haast

Dr J D Hooker FRS etc.
Kew

31: Haast to Hooker, 10-1-1864
Kew DC 174 f. 297

Glückauf near Christchurch
January 10. 1864

My dear Hooker!

I wrote you last mail a hurried note and do not wish that this one goes without writing again, though I am more than overburdened with work for the exhibition & our own government. Miss Dobs. Collet as well as Mrs Green wrote me that last mail day, that at last your box had safely arrived & came in your possession & I hope only that you will have been satisfied with the contents. This year's collections will I fear prove rather poor as I shall start only late, when the principal flowering season is over, but notwithstanding as I shall roam in a new part of the province, I think that perhaps some thing in the mountains may unexpectedly turn up.

I hope you have read my glacier paper, [2] & you have been satisfied with it. Sir Rod. Murchison, to whom I sent it, was very satisfied with it & I think it will at least lead the discussion in the right channel. In the meantime I have begun a new essay, on the difference of the effects of glaciers & glacial ice, & I hope to be able to draw such a line of distinction between the two that it will facilitate to disentangle that very difficult portion of Pleistocene geology.

Hector is hard at work with the exhibition; he is really a fine fellow, who lives only, body & soul, for Science & so he will be an ornament to it, wherever he may be. The more I am in contact with him the more do I like him.

I have just finished a detail survey of the tunnel, as far as finished – more than a mile; it is highly interesting, – I surveyed every inch of the ground & prepared a section 30 feet long, [3] together with the specimens, of which I have about 3 tons. I intend to wait till the whole is finished (another half mile, in about 16 months), & then send to several collections or societies suites of specimens & a copy of the section. You will be astonished to see the enormous amount of lava streams & beds of which the caldera is compound, but I am glad to say it shows at the same time that my section made 4 years ago, is in the whole correct, as much that can be said of an ideal rock, considering the irregularity of lava streams & tufaceous & wacke beds, as shown at the surface.

And now a question, which you will be kind enough to answer me candidly. – Everybody has his little weaknesses, mine is amongst many others that I am ambitious. Now I feel that I know something of my profession, although little enough, & should be very happy indeed to become a FRS. Of course I do not know how or [4] when, if I can do anything towards it, or only if your friends in the Royal Society put your name forward. Will you therefore have the kindness to tell me frankly, if there is any chance, or if I can do anything towards it. If not, I shall also be satisfied, although I confess, I should consider it the happiest hour of my life, if I were elected.

Pardon me that I do always trouble you with my affairs, but you have hitherto shown to me so much kindness & friendship that you will not be angry that once more I come to request your mighty assistance.

How is Darwin going on. I hope that he is quite strong again. We expect in a few days Sir George Grey here; he was not here since the begin of the settlement (in 51) he will be not a little astonished.

With kind regards,
believe me my dear Hooker,

ever yours very sincerely,
Julius Haast

32: Hooker to Haast, 18-1-1864

ATL MS-Papers-0037, folders 097-1 & 105-02

Kew
Jany 18th/64

My dear Haast

I have just received yours of 12th Nov. – I think I did answer 14th October – lest I did not I may say that the maps of Nelson & Canterbury are both most valuable to me & I am exceeding obliged for it. I have not had time yet to go to Geog. Soc. & see the sketches you have sent there.

My father has been ill for a fortnight with head cold, & it will I fear be long before he gets to town again; so I shall ask Murchison to lend me his “Hooker Glacier” for a day to take out to Kew.

I am now busy printing the "Handbook of N. Z. Flora" – this name [2] elected by Knight – & have gone on to p. 40 when a splendid collection arrived from Hector & Buchanan containing several new things & of course many of your discoveries. They send far more grasses & Carexes than Canterbury seems to afford, especially small ones, such as grow in alpine marshes, river banks etc. Have you Areca in your province. The map of the Phanerogams is now complete & I had begun the Cryptogams when this collection arrived & stopped the way. Still I hope that Part I will be printed in about 6 weeks. I am working hard all my spare time at it day & night – certainly your collections cut a very handsome figure – as I only give authorities [3] for habitats of the newer species. I think your work second to Colenso, (after Banks & Solander⁹⁰), who being the first to explore the island, I usually always mention.

There is still some novelty amongst your Grasses & I have named two after your excellent assistant Young. I send too by (this mail I hope) a list of all your last collections.

I shall say no more about the Monocots & Dicotyledons till I can tabulate results of N & M. Island containing there all grasses which are found in --- Auckland Pr. & in the N. Island, but not hitherto on the Middle, whence they must either be overlooked or exterminated in the latter! [4]

I hope ere this you have received the 1st Ed. of my *Himal. Journals*. Your account of Mr Potts garden at Otago is quite interesting. I wish he would send a little account of it for the Gardeners Chronicle. I shall send you a bundle of miscellaneous garden seeds by an early opportunity to distribute as you wish.

I do not wonder at Fenzl being delighted with the plants you sent him; – he & his family are intimate friends of ours; but I do wish he would publish! – They have a splendid Herbarium & Botanical Library at Vienna, but very little is published by them.

I have no Geological news for this letter. This is our dead ----- season, & I get more [5] engrossed in the Gardens & my Flowers.

Lyell is well, Darwin still very ill, vomiting after every meal: how he lives is a mystery to me & all his friends.

It was very stupid of me to address you prematurely as F.L.S. but I suppose you are so now. I had quite forgotten that your name was proposed too late for ballot last session. It has to have 3 clear meetings of the Society. The misfortunes in my family prevented any attending to the Society for several months. I will see that all is right next Thursday when I shall go in to the Society's meeting.

Kindest regards to Mr Travers he has sent me a great number of excellent things & will find his name very often in the Handbook. [6]

I wrote to him about a month ago. – I think your *Thuja* may be different from the Northern *T. doniana*, if so they have always hitherto been confounded. I will look closely to them. I hope it is different if so it must be called *T. haastii*.

⁹⁰ Daniel Carlsson Solander (1733-1782) Swedish naturalist who took part in Cook's first voyage.

I am eager for your Mt Torlesse plants.
Ever my dear Hector [sic]

Most sincerely yrs
J. D. Hooker

33: Haast to Hooker, 7-2-1864

Kew DC 174 ff. 309-310

Glückauf, Christchurch, NZ.
7 Febr. 1864

My dear Hooker

Your kind letter of the 2d of Novb came into my possession. Many thanks for it as well as for the fine photographs of Sir William and Mrs Hooker, which Mrs Haast was delighted to receive and for which she sends her best thanks.

Yours was unfortunately not amongst them because you thought, you had sent it before, but it never came to hand. Please do not forget to send me one with your next letter.

I was truly grieved to hear of the sad loss your home sustained and only hope that the other members of your family have long ere this been restored to health. Last mail I did not write because I was in the mountains geologizing, being occupied at the same time for you. During three days I was on Mt Torlesse, but am sorry to say that I obtained very few novelties, if any at all, but magnificent specimens of many plants in flower, sent before. Your desideratum to obtain one of our so called vegetable sheep has also been fulfilled; I brought one down for your Museum & of very fair size, quite perfect, [2] (about 18 inches across & 12 inches high) and in flower. Staying only a few days in town and the plants being not yet quite dry, I shall send them as soon as I return, end of April, from my summer campaign, during which I hope to be lucky enough to get some more novelties. I shall send you the whole in a box and join the notes. I got lots of specimens of the *Ranunculus haastii* in flower; large yellow. It is a most remarkable plant in its habits & position.

In the meantime I received the books you were so kind to send me. I read them with great delight and instruction. The Himalayan Journals are full of suggestive matter concerning glacial phenomena and give such a clear animated description of your various adventures and of the aspect of nature, that it gives one a great insight into that wonderful region. Fortunately I found in the *Geogr. Mittheilung* 1861 a very good map of my friend Petermann⁹¹ illustrating your journey, which was exceedingly useful to me. The books arrived without receiving notice of having been sent. [3]

I am very sorry about poor Mr Darwin, but hope that he will soon be in better health. Would not change of air or climate do him good? Wonderful that a man, suffering in such a frightful way for 25 years could think and write as he did! Of course where there is all mind, the body becomes rebellious.

Our glacial geology is indeed highly interesting and the more I have seen of it, the more I have been puzzled, till I came to the conclusion, that if we adapt this theory of

⁹¹ August Heinrich Petermann (1822-1878), German cartographer and editor of a geographical journal.

elevation, namely of the co-incidence of the greatest elevation of the mountain axis, with that of the most extensive glaciations, this alone will be sufficient to account for all the different phenomena which we meet, of course one great obstacle was in the way to account for the extensive horizontal terraces, which we meet at several localities, because most of the terraces are sloping, being the remains of ancient lateral moraines. I came to some startling conclusions, namely that they all owe their origin to glacial lakes. This explains [4] many difficulties, which were never clear to me before, but which now show at once their natural relations. In a few days I shall start to re-examine a great deal of country near the sources of the Rangitata & Ashburton, where these phenomena are so wonderfully developed & then during next winter write a report on the whole, with maps & sections. There are localities where there are sloping terraces disappearing under horizontal ones.



at a & b glaciers come down after retreat of c.

But this is now clear to me, but it would lead me too far; besides before I speak positively, I wish once more to go over the ground. If we adopt this theory of a depression of New Zealand, we can easily account for the existence of old moraines in such low positions. I have to confess that I owe very much to Prof Jamieson's lucid paper which still confirmed more strongly, my then only partly changed opinion. Some of the moraines round the lakes are as fresh as if deposited today, others a little more obliterated, but the reason why, is always [5] very apparent. Many thanks for the very interesting observations on the Abbeville deposits, it opens quite a new chapter of the biggest importance before me; there must be some way of accounting for this strange formation, the snow so as it occurs also at the other side of the channel. Why do you not enter the arena with a hypothesis of your own. Is it not possible to think, that the channel was once the bed of a very large river & that the existence of such enormous masses of flint implements are due to religious ceremonies or superstitions?

The drawings of my Fungi were not with my last parcel of plants. They were in a large envelope; according to one of your letters, they seem to have been in your possession, because you speak about their -----.

Your splendid essay *On the Flora of Australia*, which I have just finished studying, has very much advanced my limited knowledge of botany. I hope that in future years, when once the vegetation of our Alps is well known, we may have a new paper on the geography of plants of NZ from you. [6]

So you may expect in the course of next summer a box with plants. I shall forward it as soon as I return and of course not forget to join the large *Raoulia mammillaris*. A friend of mine went up with me and when we came to the region of 3800 to 4300 feet, to which this remarkable plant is strictly confined, forming a belt round the mountain, but where it literally covers the shingle reaches like a flock of sheep feeding. – Coming in sight of them, my friend, an experienced sheep farmer, called out "There is a whole flock of sheep, outside of my wire fence", & he would not believe me, when I told him they were only vegetable ones.

Travers was delighted with your kind & encouraging letters; in such a way he will work like a slave for you. He has just sold his law business & retires with about £3000 a year clear & will now devote all his time to botany & natural history in general. – He intends to go to Melbourne to study for some months [7] with friend Mueller & being such a really intelligent man, you will see that he will go on in a quick way. His son⁹² has been sent by him for some months to the Chatham Islands to collect plants for Mueller, but Travers pays all the expenses, several £100. – Of course you will receive also a complete set, but he promised to Mueller, who asked him first, if he knew nobody, whom he (Mueller) could send there, the first set for description.

Will you present our kind regards to Mrs Hooker and believe me,
my dear Hooker,

ever yours very sincerely,
Julius Haast

Do not forget to send me your carte de visite. Shall I prepare another set of drawings of our Fungi?

34: Hooker to Haast, 18-2-1864

ATL MS-Papers-0037, folders 097-03 and 097-04

Kew
Feb 18/64

My dear Haast

You will hear by this mail of your election to the Linnean. I do not know whether you would think it better to compound at once in lieu of future payments, but you will I think find it the best plan. The publications are not due to you till your subscriptions are paid, & as the annual part of the Transactions does not appear till November, you will no doubt have plenty of time to pay before that. At any rate I have given authority to procure the publications for you as they appear, & shall have them sent to Mrs Dobson-Collet. I sent to that Lady today for you, a huge parcel of upwards of 900 [2] seeds of species of hardy plants, which you may give to your friend who has the fine garden, we shall be extremely obliged for any good seeds in return – small packets sent overland are best; not packed in tin, nor amongst dried plants, but simply in paper like those sent & if entrusted to some passenger, to hang up in his cabin so much the better. We hope we shall one day get *Ranunculus lyallii* & the *Celmisias* etc but no seeds of these have hitherto germinated.

I send by this mail my copy of my friend Frankland⁹³'s glacial hypothesis. I think it the wildest, least supported, & least scientific speculation that has hitherto appeared.⁹⁴

⁹² Henry Hammersley Travers (1844-1928), New Zealand naturalist and taxidermist who made collections in the Chatham Islands.

⁹³ Edward Frankland (1825-1899), English chemist.

⁹⁴ Note that Hooker wrote to Darwin in a letter dated 9 March 1864: "I was very near printing an expose of Franklands glacial theory, which cost me a sleepless night, to concoct, but F. begged me to wait till he published at length."

The Handbook Vol. I is about $\frac{1}{3}$ printed – Hectors large collections have thrown me 2 months back. I had to recall all the first sheets from the printers, & go over them to add notes habitats new species & [3] observations. In all cases of these new arrivals I make a point of naming by the keys & revising the whole descriptions. This takes a terrible time but ensures the former being practical & the latter accurate. I send you a foul sheet or two of the work which pray do not make too public, as it is uncorrected. Lyell spent last Sunday afternoon & evening here, very full of the Gibraltar Caves full of African Rhinoceros bones; & the recent industries of Man there & elsewhere. His father in law, the venerable Horner 79 years old is dangerously ill. I have not yet been to see your glacial views, which I hear are glorious. I hope to do so soon, but my time is wholly absorbed here & I grudge going into Town. The Royal & Linnean Societys? are the only ones I attend. I hate the clap trap & flattery & flummery of the Geographical, & its utter want of science, & craving for popularity & excitement, & making [4] London “Lions of the season” of bold Elephant hunters & lion slayers whilst the steady slow scientific surveyors & travellers have no honor at all. You were right however to send your views there, as there they were both exhibited & most extensively ----- I have asked Murchison to lend me the “Hooker Glacier” for my father to see & he has promised to do so. You will see a curious description by Falconer on Glacial lake formations in the last proceedings Geograph. Soc. which I suppose reach you. It appears to me that the grand consideration in all this Lake speculation is that we really do not know the real nature of the basin of any Lake at all – soundings only give you the height of the water, & contour of the sediment which covers the true bottom – of the latter we know nothing & as long as we are ignorant whether a lake is a rock basin, or only a rock channel, made into a basin by the deposits at its lower end, we are all at sea in our speculations as to [5] its origin.

I wish you could get to Chatham Island & connect it geologically & botanically with N.Z. & try if any soundings are to be had between them. Wallaces speculations in Nat. Hist. Review of January are admirable & he has written an excellent paper Lyell tells me for the Geographical I think. He is a very able man: he is going to give us a long paper at the Linnean on the Geog. Distrb. of insects, in relation to change of type & species.

Darwin is very ill. The smallest excitement now brings on vomiting & his brain is as busy as ever.

I very much want collections from the Auckland, Campbell & Macquarie Island. I do wish you could get there in summer. Will you tell me in your next, any thing about Bounty or Antipodes Islands. Are they the same as 2, or 0! Has any one visited them? As with Victoria Island it would be intensely interesting to compare all their peculiarities with N. Zealand.

Your account of the rescue of the Silurian fossils at Nelson reminds me of my wonderful *Welwitschia*, of which a specimen was sent many years ago (for my father) to the Cape Town Bot Garden, & thrown into a rubbish heap. There it lay till my essay was published! which called attention to it! I hope I sent you said essay. The great evil of all local museums is that they are too comprehensive. It would be wiser to confine them to collections of the country, & then these would be attended to, as it is attention is paid to elephants, lions, Rattler snakes & such like things, that are much attractive & useful to have, but which cost money, space, labor & time to keep. It would be difficult to arrange, but the best way would be to let the care of the popular Museum of such instructive objects be the care of the town & confine the scientific collections to local scientific objects, arranging them in the most intelligible & instructive manner. Above all discourage publishing societies from forming museums of their own. They must “come to grief” & do so all over the world. They satisfy

nobody somehow. If the Town wants a Museum let the scientific societies offer counsel, help, & if need be supervision by a committee of their members.

But another proof of the Handbook has come to me & I must revise it.
So good bye for the present & believe me

Most truly yours
J. D. Hooker

There are & must be heaps of Carices⁹⁵ & other Cyperaceae which you have not yet sent; at least I have a good many Carisium North Island ones, from Nelson & Otago, what have not yet been sent from Canterbury. Carices especially. I am longing for a good hemisphere of *Haastia* for our Museum.

My father wishes to be kindly remembered. He takes greatest interest in all you do.

35: Haast to Hooker, 13-4-1864

Kew DC 174 f. 306

Christchurch, N.Z.
Glückauf, 13 April 1864

My dear Hooker!

I was absent from town for about two months and only back a few days, but will not let the mail go out without giving you some news from me. Many thanks for your interesting letter of the 18th of January and the list of my last collections.

It is very gratifying to hear that the NZ handbook will soon appear and you may imagine that I expect it with the greatest impatience, the more so as it will give me the greatest assistance in my further researches, besides its being so easily portable. During my last journeys I made also extensive collections, but I suppose not many new things. As soon as I have finished some important and pressing official business, I shall proceed to look through my collections of this year and send you your (lion's) share.

I do not understand why Hector and Buchanan⁹⁶ ought to have collected more Carices and grasses, than I was able to do, because it is almost impossible, that I should have missed many novelties. The *Areca* grows luxuriantly in this Province on Banks Peninsula in sheltered positions; as I never travelled down the West Coast south of the river Grey, I do not know if it occurs there, although north of the Grey it is abundant along the coast.

Mr Potts garden is not in Otago, but in Ohinetahi, a small bay [2] on Banks Peninsula. I told him that an account of his garden for the *Gardeners' Chronicle* would be of interest. I shall be delighted to receive some seeds from Kew; they will be the more welcome as we are just starting an Acclimatisation Society and intend to have the beginning of a botanical garden with it.

⁹⁵ Carices is an informal name for sedges.

⁹⁶ John Buchanan (1819-1898), New Zealand botanist and artist.

Mrs Darwin had the great kindness to write to me because her husband is so ill. I am truly very sorry that this distinguished man, with such a wonderfully sound mind, is in such a sickly bodily state, but hope that repose will bring him again to better health. Speaking of Darwin, it reminds me of a great wish I have, namely to possess besides your own photograph, one of his. I took the liberty to ask him for one, but suppose that the state of his health prevented him in fulfilling my wish. Would it be too much, if I would request you to procure me one, as you without doubt go often to see him, presenting him at the same time, with my sincerest wishes for the speedy restoration of his health. Mrs Darwin gave you without doubt my paper on the Kakapo (*Strigops*), what do you say to the wonderful habits of that bird? You may make any use of it you [3] think proper, as in all probability it will take several years before our Phil. Inst. will print anything, for the simple reason that nobody except Travers & myself & one or two others have ever read any papers. People are here trying fast to make money and do not care much for science. A botanical garden used for zool. purposes suits better, because:

Der Pfilister im Sonntagsröcklein kann da spazieren gehn.⁹⁷

My plants with the semi globular *Raoulia* & some other interesting things will start, I hope, next month. Now, some very interesting geographical news, which perhaps you will be kind enough to publish or communicate to the Royal or Geological Society. For the greater convenience I shall enclose it separately.⁹⁸

Mr Travers tells me that he has written to you by this mail, he is really an excellent observer.

I shall write again by next mail & hope to be able to send in the meantime the plants. Believe me, my dear Hooker,

ever yours very sincerely,
Julius Haast

Dr J D Hooker FRS etc.
Kew

Enclosure from above letter
Kew DC 174 f. 302

The Lyell Glacier on the western side of Mt Cook.
(New Zealand).

Mr Arthur Dobson⁹⁹, a surveyor, who accompanied me some time as assistant surveyor, took a contract from the Provincial Government of Canterbury to survey the western part of the

⁹⁷ The philistine in his Sunday suit may go for a stroll there. This is Haast's take on Heinrich Heine's poem from *Buch der Lieder*, where in the first stanza of XXXVII "Lyrisches Intermezzo" we read: "Philister im Sonntagsröcklein | Spazieren durch Wald und Flur; | Sie jauchzen, sie hüpfen wie Böcklein, | Begrüßen die schöne Natur." An English edition renders this as: "In holiday suit the Philisters | Go forth for a Sunday walk; | As frisky as kids they gambol, | And nature is all their talk."

⁹⁸ This is in reference to the account of the Lyell Glacier below.

⁹⁹ Arthur Dudley Dobson (1841-1934), New Zealand surveyor, engineer and explorer.

province. He just returned for a few weeks having finished the survey of the coast as far as the river coming from Mt Cook. He reports the interesting fact, that the coast for the last 50 miles from the Totara River, 40 miles South of the River Grey is formed by enormous moraines, that Clifty head, Bold head, Abut head etc. are in fact only the terminal moraines of former glaciers, descending in to the sea, and that the waves of the ocean now break furiously against them. But the most surprising fact is that the largest glacier, of equal size to the Tasman glacier, coming from Mt Cook and which gives rise to the Waiau, descends as low as 500 feet above the sea level and lies only about 8 miles distant from the coast. – On both sides of it luxuriant [2] Forest is growing with pines and fern trees. As we find in the same latitude on the east coast (Banks Peninsula) *Areca* palms, let us assume that they also grow here and that in moraine deposits so close to the sea the bones of kiwi & kakapo are embedded, that some of the large *Helixes*, which live on the pines are also preserved, together with trunks of fern trees, palms and pines. What would be the conclusion of a geologist of the future? – Would he not in all probability believe, that kiwi and kakapo and the large *Helix* had been inhabitants of New Zealand during a glacial period, and would he not be much puzzled, if he had to pronounce on datas before him, that *Areca* palms, fern trees and pines were glacial plants!! – Does this not show, how erroneous sometimes it is to draw general conclusions from isolated facts, which often are only the results of very anomalous conditions and is Darwin not right, when he says that we ought not to jump to hastily to conclusions, when speaking of the imperfection of the geological record?! – At present at least, that in many instances, where we find every sign, that in post Pliocene times a great glaciations of a country took place, we very often, instead of concluding that a sinking of the temperature has occurred, we may safely assume that either through the rise of the land, or through a moister state of the atmosphere, the extension of the glaciers has been occasioned. To this conclusion I came also when finding amongst some old moraine deposits, cut through by a mountain torrent, great quantities of Moa bones. And it occurred to me at once that a luxuriant vegetation might have existed above and near those glaciers, the seeds, roots or leaves of which giving food to those huge birds, just as the kiwi, kakapo, & roa of the Natives (*Apteryx maxima*) finds shelter and food near those large West Coast glaciers in present times.

The fact that these glaciers occur in such low positions suggests other thoughts. There is no doubt, that the climate of the western side of the central range is much warmer than on the eastern side, but much wetter; all the principal winds southwest and northwest bringing rain in abundance [4] and of course when passing over the central range, through condensation, snow, and similar deposits, which not only augment the rivers considerably, but may also lower the line of perpetual snow on that western side, when compared to the eastern, as already the greater part of the moisture has been extracted, from the passing clouds, before they reach the other side of the dividing range. This occurrence therefore is another proof that not alone the mean temperature of a country regulates the altitude of perpetual snow and the extension of glaciers, but that the amount of precipitation is greatly modifying the former as already Darwin has in his magnificent *Naturalist's Voyage* shown to so conclusively in reference to the west coast of S. America, as well as it confirms the deductions drawn by yourself from the results of your own admirable researches in the Himalayas.

J. Haast.

36: Haast to Hooker, 10-5-1864

Kew DC 174 ff. 303-305

Christchurch
May 10th 1864

My dear Hooker!

There does not a mail go from here, when I have not to thank you for some acts of kindness shown to me. This time I have to do so, in assuring you that I was so very agreeably surprised when opening a box of books from London, to find a parcel from you in it, containing a copy of your *Himalayan Journals* first edition, which to possess was a favourite wish of mine. May I be able to have opportunity in life to return you, in one way or the other, such proofs of your friendship.

The proof sheets of the *NZ Flora* have interested me very much. This is just what was wanted: clear & precise; it gives information enough to study with it and it will be a powerful auxiliary to lead the colonists towards the study of botany. I have read Frankland's paper with some interest, because it shows at least that scientific people begin to try to seek natural causes for the occurrence of a glacial period. – He is not the first who has tried to explain this remarkable [2] period by a different temperature of the atmosphere and of the earth's crust. As far back as 1861 Col. v. Sonklar¹⁰⁰ read a paper before the Imp. Geogr. Society of Vienna in which he set up the same theory, which at once falls to the ground if we take into consideration that at one & the same localities, as for inst. in NZ, there were different periods when this glacial period took place; as I shall show in my essay on the glacial period of our NZ Alps, whilst after that theory it would take place only once, when temperatures of the earth crust and of the air stood in one determined (at least tried by them) relation to each other.

I think Sir Ch. Lyell, Darwin & yourself have shown us the way, the only natural way, to explain the gl. period.

Many thanks for your kindness in procuring my election to the Linnean. – I shall send with this mail the necessary amount. I have not yet determined if I shall compound at once or not; the times are very bad at present in the colony, no [3] money & everybody has to be a little careful what he is about.

The seeds will be a welcome addition for our gardens, but my friend Potts will not get them all, because I pride myself to have also a nice garden for the short time of its existence, & I try very hard to get as many fine plants as I can place in the 2 acres of pleasure ground. I hope to be able to send you by one of the passengers of the *Mermaid*, which sails the 17th of May, a collection of seeds, although there will be nothing new for you amongst them. The large *Ranunculus* is already in England for some time; friend Travers told me the name of the establishment, a celebrated one, to which several Wardian cases were sent from here & with living plants. Tell me what you wish most, and I shall try to send some living plants by one of the next opportunities. As I shall go next autumn towards the sources of the Rakaia, I shall have plenty of opportunity to bring living plants down with a bullock dray from the uppermost station. [4] You may depend upon that I shall do my very best to add something to the unrivalled beauty of Kew gardens, if only you will tell me what you want most.

¹⁰⁰ Carl [Karl] Albrecht Sonklar von Innstädten (1816-1885) was an Austrian military geographer, surveyor, and pioneer alpine explorer.

I saw something about the Gibraltar caves in a recent number of the Leader, but from it it seemed to me that the human bones belong to a more recent period than the quadruped bones. Perhaps that next mail brings us better & more detailed accounts. I have seen also Falconer's reasonings on glacial lakes. You are quite right to observe that the starting point of the different theories is =x, but I may add, that at least for the NZ glacial lakes, that there is not the least doubt that they are simply old river channels, damned up at their lower end by old moraine, as I hope to be able to prove effectively; of course I have to add that they are often only the old bed of enormous glaciers, which when they left the mountains & entered the plains, expanded in a [5] fan-like way & the water of these lakes is simply enclosed in the former moraines & they are very shallow.

Mr Travers jun., as I told you with my last letter, is gone to the Chatham Islands to collect; he returned about a fortnight ago with a most magnificent collection, of which you will receive your share in due time through our friend Mueller in Melbourne, who will describe them. The rocks will be examined by me & I shall give an account of them either with Müller's botanical description or separately. But I shall try to get the soundings, if any have been made. Travers tells me, that with very few exceptions all the plants are identical with NZ species.

I have not yet seen the N. H. Review of last January, but hope to do so soon. It is a most useful splendid publication & must rank very high amongst similar scientific periodicals in Europe. Unfortunately I have not any time to go as you wish to the island belonging to our NZ centre of Flora, but [6] may perhaps be able to get somebody to go there; but how, that is the difficulty.

Concerning the Bounty & Antipodes Island, I have looked over all my geographical material without being able to find anything concerning them, but in a new & well executed map of the Antarctic zone of my friend Petermann he has in Latitude 49° 30' and Longitude 179° 15' [sketch] 4 small dots, as Antipodes Islands (600 feet), and in Longitude 179° 30' and Latitude 47° 40' [sketch] 4 other for Bounty Islands. Everywhere where Petermann has the least doubt he has a ? but at both groups no such signs occur. I have written to the Bay of Islands as well as to Akaroa, where frequently whaling vessels go, to see if through them we may not get better information & as soon as it arrives I shall transcribe it for you.

Your amusing story of your wonder *Welwitschia* has a deep significance; it shows that scientific people begin to go to sleep in the colonies if not in perpetual contact with [7] the outer world. You did not do me the pleasure to send me your essay on that most curious plant, but I possess and read it in the Nat. Hist. Review. Your observation concerning a Museum is a capital one & I had already made up my mind to follow a similar line of action, of course there must be some good collection arranged in a systematical way for reference in all branches of Natural History, but I never intend to see the money of the province spent on big show pieces.

I can announce to you that I have sent by the *Mermaid*, which is to sail the 18 of May, a case to your address containing first a fine hemisphere of *Raoulia mammillaris* from Mt Torlesse, a real beauty in flower. I hope only that it will not rub off during the journey, then 3 packages of plants from Mt Torlesse collected in January of this year, containing 62 different species, but all fine things & as I think nothing new. Then 30 species [8] collected in November on Banks Peninsula, about 40 collected in March in the Alps, all together 137, but I think it will be a welcome addition to your Herbarium as they are all in very good condition

& carefully selected. I should be very glad to receive the names for our own Herbarium. It is true, the greater part is well known to me, but always think that the outward appearance may be deceiving and that varieties etc are among them, which otherwise I should miss. Next journey I shall collect every grass & Carice to see if I can not get any new ones. – It is strange that I was not more successful, having as I can assure you, collected conscientiously everything in my way. – As according to your instruction I have noted to each specimen the necessary observations [9] I need not send a new list, although it may perhaps not be superfluous to offer a few observations to some of them.

No 2 *Ranunculus haastia*. I send you specimens with the root attached; all the shingle



Ranunculus have the same kind of root

The shingle is moving & perfectly loose with loamy earth in the interstices in some localities & what was most surprising to me was the fact that the stem breaks off exceedingly easily whilst the root is very tough. – The plant grows both ways & was at many localities so frequent, that the gray shingle looked quite gay from the enormous mass of them
No 6 & 7. occur together in the same localities; you gave me formerly for both *Senecio lyallii*; but they ought to be at least varieties!

Is the small *Carmichaelia* 25 not a new one?

28 *Celmisia lyallii* occurs everywhere in our Alps where the snow lies for longer time; cold aspect; so that it almost shows the snowline of winter. The back country shepherd, call it the blunt Spaniard. It covers at many [10] alpine localities with the large moor grass (*Deschampsia*) exclusively the ground.

48 *Haastia* I have never seen anywhere else in our Alps as well as the *Celmisia viscosa*, which also occurs only on Mt Torlesse.

Of the Banks Peninsula plants I have nothing to observe, I collected during my survey everything.

The plants of the Rangitata & Rakaia collected in Febr & March do not offer much new, having previously been over the same terrain except the Cameron valley which runs to Mt Arrowsmith.

Is 97 not new.

The plant 121 a small *Celmisia* was growing in the centre of a large patch of the carpet forming *Celmisia*, I never before had seen it & saw only 2 single plants although I looked over at least 50 separate patches.

I have no news to give you; the Maori war goes on quietly, 20,000 European against a couple of thousand of badly clad, fed & armed savages. [11] but they are such great dadgers.

– It seems that these splendid pupils of the missionaries have returned again to the practise of Cannibalism – *Grattez le Russe & vous trouverez le tartar.*¹⁰¹

I shall send you a newspaper, so that you will remain au courant¹⁰². I am expecting Hector & I am certain I shall enjoy very much indeed his stay in Christchurch.

Will you present my kind regards to Sir William, how happy shall I feel when I in a few years can do so personally. My letter is rather a very hurried one, but I want to use the night sitting up and expecting the delivery of my wife of our first child. You know from experience what a very anxious time it is & I hope that I may give you at the end of this letter the news that Mrs Haast has passed safely over this her first trial.

I can not tell you [12] how anxiously I am expecting the arrival of the NZ Flora. Would it not be desirable to collect for you in the Alps, vegetable soil, perhaps this would be the best way to put you in possession of fine germinating seed.

Believe me my dear Hooker,

very faithfully your most obliged,
Julius Haast

The case is going to Willis, Gann & Co – London.

12th of May.

My wife has born me last night a strong healthy boy. – You may imagine what a joy it has given to me.

I shall not write any politics, because you will see it from the newspapers. Is the Tauranga defeat not a very shocking affair? The Maoris are a fine race and really deserve a better fate.

Dr J D Hooker FRS etc.
Kew

37: Hooker to Haast, 19-5-1864

ATL MS-Papers-0037, folder 097-05 & folder 238-59

Kew
May 19/64

My dear Haast

My wrist is beginning to ache with the lots of letters I have to write for this Indian, Australian, & N. Zealand mail, but I do not like to let it go without a few lines to you enclosing the accompanying list of your ferns.¹⁰³

I have finished Handbook to Marsileaceae & hope that Mr Reeve¹⁰⁴ will loose no time in bringing it out. It goes into less space than I anticipated & [2] I have some thoughts of

¹⁰¹ Scratch a Russian and you will find a Tartar.

¹⁰² Up-to-date.

¹⁰³ See list of ferns below.

giving a few plates of the genera of Mosses & Hepaticae but must see first to what extent the descriptive matter will run, as I must keep the work to the original price agreed upon.

I am particularly glad that Travers has sent his son to the “Chatham Islands”. I wish some one would also visit “Antipodes” & “Bounty Islands”, if they exist at all, I can hear of no one else who has visited them; is aught known of them in your quarter? – or are they myths of the maps only. Hector has got a few good things from the S.W. Coast but not much; species seem to be few in that quarter, & a few large trees monopolize the country: it is much the same with the W. Coast of Fuegia, & of Scotland & N.W. America.

A paper by Wallace in the Anthropological Journal, on the origin of the races of Man, is the most remarkable behaviour of the Darwinian theory that we have had yet. I hope that [3] a summary will appear in the Nat. Hist Review. The controversy upon the origin of glacial lakes between Falconer & Fuller appeared in the “Reader”. It seemed to me to culminate in 0. I sent you Franklands wild hypothesis by last mail. Darwin is much better & has had no vomiting for a month. Dr Jenner¹⁰⁵ has been dosing him with chalk with great effect. D. is busy at dimorphic flowers, but very weak he tells me.

Ever my dear Haast sincerely yrs
J.D. Hooker

My photograph will go as soon as I get copies I ordered these 6 weeks ago but not come.¹⁰⁶

[Enclosure:]

Canterbury Ferns. Haast.¹⁰⁷

Cyathea smithii, 23.

Hymenoph[yllum] unilaterale

multifidum

rarum

polyanthos

scabrum

demissum

flabellatum

Trichomanes colensoi

Cystopteris fragilis

Hypolepis tenuifolia

Cheilanthes tenuifolia

Lomaria procera & vars

alpina

nigra

¹⁰⁴ Lovell Augustus Reeve (1814-1865), English conchologist, photographer and publisher.

¹⁰⁵ Sir William Jenner (1815-1898), English physician and professor of anatomy at University College, London.

¹⁰⁶ This appears as a marginal note in the original manuscript letter

¹⁰⁷ Note this list may be dated as 19 May 1864 and was presumably originally enclosed with the letter of this date. The date is also derived at on the basis of a mention of Whit Monday being the day before yesterday – Whit Monday was 16 May 1864. Haast in his letter dated 10 August 1864 acknowledges letter from Hooker dated 19 May 1864 with enclosed list of ferns.

Asplenium obtusatum
trichomanes
hookerianum
flaccidum
Polystichum aculeatum var. *vestitum*
cystostegia
Polypod[ium] australe
Leptopteris pellucida
Botrychium australe
Lycopodium selago
clavatum

I am puzzled beyond belief about your drawings of fungi, I am in the invariable habit of sending such things to Berkeley at once, that I cannot but believe I did so, & they must have been lost in transit. If you have time [2] to collect & draw more pray do so. – but pray dry the specimens however badly & soak them in a solution of con. Subl. in sp[irits] of wine. Berkeley finds it essential to be able to examine microscopically the spores etc.

I am longing for the vegetable sheep it shall have a glass case to itself in our museum. We had 16,000 visitors day before yesterday (Whit-Monday).

I do hope that Mueller will not publish Travers Chatham Isd plants. He is so reckless and careless. He is an excellent, most assiduous, marvellous man, but craves to have F. Muell. after every name & has loaded the Australian Flora with endless synonymy, examining in haste, describing with the utmost carelessness & causing no end of useless labor to his unlucky brother botanists. I suppose he has already added more synonyms to the Australⁿ Flora than all other writers put together! I tell him frankly he is ruining his reputation but nothing will stop him. He has made chaos of Australian Botany.

38: Haast to Hooker, 10-6-1864

Kew DC 174 ff. 307-308

Christchurch, 10th June 1864

My dear Hooker

After having written to you by last mail I heard from the shipping house in Lyttelton that the firm Willis, Gann & Co does probably not more exist & that therefore it has sent the case to Messrs Green, Robinson & Co in London, to whom you will write for it. Many thanks for the copies of the paper of yours from the *Natural History Review*. There is no doubt that this important question has never been well ventilated & I am certain that would naturalists observe in this respect in other and older colonies, Cape, Australia etc., the results would be very curious and interesting. I am expecting very anxiously the New Zealand Flora (Handbook); the few proof sheets you sent me so kindly, have made [2] me the more anxious to possess it and to profit by its study.

Our friend Hector is making a tour through New Zealand, he is just now at Nelson, examining the newly discovered goldfields at the Pelorus. I expect him here towards the middle of next month. When passing he stayed a few hours at Lyttelton and climbed the Port Hills. It was a glorious morning, shortly after a heavy southwester with snowfall in the western ranges. He wrote me about it quite delighted and compared the whole to the Rocky

Mountains, Sierra Nevada & the Californian plains, to which it seems our plains have great resemblance.

The state of the Colony is at present rather unsettled; the strong winter in Otago frightens the diggers away & there was quite a ridiculous rush to the Pelorus. There is as it seems only space for a couple of thousand [3] but more than 10,000 went, of course the greater part very soon returning; sadder but not wiser men. With this combined a frightful state of finances in the southern provinces (Otago & Southland) both not being able to sell their debentures in the London market; quarrels between the provinces about many other matters as for inst., seat of government, Panama mail contract, so that there is plenty of room for good politicians.

I am at work day and night with my maps & reports, which I hope will leave the press towards the end of the year.

Will you excuse my hurry, but I do not like to see a mail go without sending you a few lines.

With many thanks,
believe me my dear Hooker,

very sincerely yours,
Julius Haast

Dr J D Hooker FRS etc
Kew

P.S.
11th June

Today by looking to some particulars in the N.Z. Flora, I observed that you give for the most southerly limit of *Areca sapida* latitude 38° 22' South, whilst it occurs on Banks Peninsula as far south as 43° 50'. There is no doubt that it occurs also at the West Coast of this island, much farer south, I met it myself a few miles north of the river Grey at the coast. You also state on Banks & Solander's authority that *Podocarpus dacrydioides* (Kahikatea) is rare beyond Auckland. This is a mistake, as it is a very common tree where there is any bush everywhere in this Province; yes, it is found at the head of Lake Wanaka & everywhere along the coast, 1000' above the sea. – I shall not fail to give you corrections, when I find error of this kind.

The wood of the Kahikatea is of great use & very valuable (white pine of the settlers) boat builders are very fond of it, also for building houses.

Rock basins. In reading the other day once more Prof Ramsay's paper I was struck with the fact that nobody has to my [5] knowledge tried to explain how the water which necessarily would collect in such a rock basin either from sources or from the melting of the snow and principally of the glacier itself, by which it is filled, would find an exit; as the ground is everywhere higher. But the explanation may perhaps be an easy one, namely in concluding that the vis a tergo of the enormous ice mass would either drive the water before

it, or make it ascend through fissures & pores. I mean to say, press it through its own body till it reaches its terminal face or a part of the glacier where the natural drainage is not disturbed



Have you thought the matter over and what is your conclusion? – I should be delighted to hear, what you think about it.

39: Haast to Hooker, 10-8-1864

Kew DC 174 ff. 299-300

Glückauf near Christchurch, N.Z.
1864 Aug 10th

My dear Hooker!

I have to thank you very much indeed for your kind letter of 19th of May, with the list of ferns & Lycopodiaceae which was a welcome addition to my Herbarium. The following *Cystopteris fragilis*, *Asplenium trichomanes*, *Polystichum cystostegia*, *Polypodium australe*, *Leptopteris pellucida*, *Botrychium australe* are not in the NZ. Flora, they are therefore as I suppose new to NZ.

With last mail I could not write, having Dr Hector here, to whom I devoted every moment & at the same time I had some very pressing official work that I could not find the time; but Hector assured me, he would write and tell you all about our excursions. I must confess I have been delighted with him; he is not only an excellent observer, but also a very fine straight forward fellow, with whom it is really a pleasure to be and work together. And since I am in NZ, I have [2] not spent such happy days full of intellectual engagement, than with him.

I am delighted to hear that you advance so well with the Handbook & hope only that the first volume will soon reach NZ, because the few proof sheets you were kind enough to send me, have made me the more anxious to see it. As I told you, I have already taken the necessary steps & if I hear that I whaler is in Akaroa, who knows the southern ocean between NZ & the Antarctic region, I shall go over & try to get information. But I have still another project, namely to have between the Australian Colonies an scientific expedition fitted out, if possible a vessel with auxiliary steam power, to explore the whole South Pacific & Antarctic ocean. Dr Petermann was the first who gave the idea, & I think that the Australian Colonies, which owe so much to science ought to give an example of public spirit to start such an expedition, which perhaps also in a commercial sense will prove highly advantageous to them. In every case I shall try very hard to get a captain to collect for me on those islands, if they exist, & I shall of course send you at once the whole material.

I have not yet seen Wallace's paper, but I am certain that it will be highly interesting, like everything this accomplished naturalist & philosopher writes. Darwin could not find a better commentator, than the savant, who independently came to the same conclusions.

Concerning glacial lakes I think I have found the only natural explanation, I told to Hector my principal reasonings & he seemed to be very much struck by them; since then I debated it with Mr Dobson¹⁰⁸, our Railway Engineer (my father-in-law) on mechanical grounds & he thinks that it is the only possible explanation. As S. R. Murchison has written me about the matter, I shall give him the general outline of my hypothesis, & bring as soon I have time, a larger paper with sections & maps before [4] the Geological Society, but I shall request Sir Rod. Murchison to lay the notes & generalisation before the same society.

Concerning Frankland's hypothesis I have already written & also Falconer in the R. Geogr. Society has not found the right thing. Imagine a glacier filling up a former lake basin & the new ice going on over the older. – What becomes of the ice which fills the hollow?! If I find the time I shall send you a copy of my notes.

I am really delighted that Darwin is again much better, I hope only he will continue & become strong again, so as to be able to continue for many years to come his glorious investigations.

As soon I have time I shall try to find the drawings of the fungi & copy them again, but shall also dry the originals. The "vegetable sheep" will in this have found its place in your collections. The other one *Raoulia eximia* is a very big, one from Ribbonwood range is promised to [5] me by an intelligent sheep farmer in the neighbourhood next spring. I told him that he could send me one as heavy a horse could carry it. It is all downhill to his station & it would be glorious if still a bigger one was obtained, the one I sent you, I had to carry all the way on my back to the camp at the foot.

Do not forget your photograph; I left an open space for yours and Darwin's at the beginning of my album, which begins with Sir Wil. Hooker & S. R. Murchison, then two empty pages, & then Haidinger & Dechen¹⁰⁹, whilst Mrs Haast has claimed that of Mrs Hooker as her own & placed it in her album hoping one day with me to be so happy of presenting our respects to her.

I fear very much, I shall not be able to get the paper (for Murchison) copied as I am overwhelmed with pressing correspondence; but for next mail I shall not fail to send it to you. – I shall be delighted to hear that it agrees with your own opinions. [6]

You will receive a large collection of seeds, as individually of my own collector, two of my friends (Mr Potts on the Peninsula and another in the hills are collecting.) I have no more news today.

So with kind regards believe me my dear Hooker,

yours very sincerely,
Julius Haast

Miss Sophy Dobson-Collet's address is at present 11 Rothwell Street, Primrose Hill, London N.W.

¹⁰⁸ Edward Dobson (c. 1816-1908), English engineer, Provincial Engineer of Canterbury Province and Haast's father-in-law.

¹⁰⁹ Ernst Heinrich Karl von Dechen (1800-1889), German geologist.

I could not find the time to have my paper copied, but there is no doubt, that it will be published or at least read at the Geological.

Dr J D Hooker FRS etc.
Kew

40: Hooker to Haast, 10-09-1864

ATL MS-Papers-0037, folder 097-06

Kew
Sept 10/64

My dear Haast

I am looking eagerly for the *Mermaid* with the vegetable sheep of Mt Torlesse etc plants, of which you shall have the names as soon as I can get them named.

Part I of "N.Z. Flora" is now gone for your acceptance by the last mail, & I hope it will not disappoint you very much. It is a child of many pains, but may I fear out prove the ignorance of its parent, but the fact is, that a multitude of facts are familiar to every colonist, which have never been trans-mitted home to me or to any one else.

A thousand congratulations on the birth of your little boy – may he realise who you are & Mrs Haast – best wishes.

As to Ramsay's theory, I think that Murchison has given it the coup de grace in his address to the Geographical Society. It should have been read to the Geological. It appears to be very able & the observations he quotes of the seiching glaciers passing over Miocene rocks of gravel & soft earth, without scooping them up, seem conclusive if true.

I think I told you, in reference to your kind offer of sending live plants in a ward case, that I would not wish it, except some experienced person in the management of such things, came home in charge of them. These cases cost me enormous sums for freight & 3 of every 4 cases arrive with most plants all or half dead.

Thanks for the note of *Areca baueri* growing as far south as Banks Penin. of which I was not aware before.

I am much disappointed with Travers Chatham Island plants, but pray do not tell him so. They are no doubt interesting, but the specimens are very bad, & some plants gathered by Dieffenbach¹¹⁰ not amongst them. The accompanying observations are most curious. I wish that Travers himself or you could go there & collect for a month, & then on to Pitt, Bounty, & Antipodes, McQuarie Island!

Darwin is very much better but far from strong or well. He is still busy with observations on climbing plants.

Sept 16

¹¹⁰ Johann Karl Ernst Dieffenbach (1811-1855), German physician, geologist, naturalist and writer/translator.

I send by this mail my copy of Lyell's address, just arrived, delivered only yesterday in Bath – the last part is very interesting.

I have seen Tyndale¹¹¹ since writing first part of this. He considers Murchisons measuring & facts as totally unsound & inconclusive! He is taking up the subject of the Phys. Structure of the alp& is evidently imbued with Ramsay's views.

If ever you come across any specimen of the stone implements used by the Maories, & have no better destination I should be glad of one or two rough or polished, simple or mounted.

I go to Bath to show my face tomorrow for 3 days.
Must fly now
J.D. Hooker

Darwin is much better.

41: Haast to Hooker, 14-10-1864

Kew DC 174 f. 298

Glückauf, Oct 14th 1864

My dear Hooker!

A few days ago I received the parcel with the seeds, many thanks for them, I have given Mr Potts his share and he will doubtless write and thank himself. I hope there is many a flowering plant among them which will form a welcome addition to our Flora.

I am very anxious to hear from you be next mail as I hope that the vessel with the case of plants will have arrived in London & also that your Handbook will have appeared.

I had no time to send you a copy of my paper, having been overwhelmed with work, but I have no doubt, that it will be printed & that you will read it and tell me openly what you think about it. With last mail Sir R. Murchison has sent me that part of his address to the R. G. Society [2] in which he treats of the (negative) power of glaciers; I was rather surprised to see him adopt some of his conclusions, which are utterly miserable, and with this mail I have told him what I think about them.

Next mail I shall have the pleasure to send you a paper on the formation of the Canterbury plains with a geol. sketch map & sections in illustration and with this mail a progress report, somewhat shortened; the latter will be printed in the form of a Government Gazette & appear also ready for next mail. In it I give a list of all Canterbury plants hitherto collected by me and named by you.

It is my intention to explore this year the sources of the Rakaia, still entirely unknown & I hope to have a good harvest of plants for you.

Hector & myself, we are [3] now hard at work with our maps & sections and essay for the volume to be published by the R. Commissioners of the NZ Exhibition and I dare say, the

¹¹¹ Tyndall

information at present in our possession will offer a fair insight into the character of the structure of both islands.

Vicomte d'Archiac¹¹² writes me a long letter about Darwin's *Origin of Species* & that he has devoted two months to refute it in his Introduction des *Cours de Paléontologie stratigraphique*. Have you seen the latter publication, I have at once written for it, but answered my Paris friend that I think that his task is an immensely difficult one. That I would not find that Mr Darwin is illogical etc., as he observes.

It is strange that party spirit very often reads the minds of people, but I think it is for the best, because those objections are the more desirable [4] as they bring out the more strongly the truth.

I shall be glad to hear from you that Mr Darwin goes on satisfactorily, some months ago I wrote to Mrs Darwin, I think, to enquire. In case you have not sent me your photograph you will not forget it & perhaps it will be possible for you to procure me one of Mr Ch. Darwin, whom I asked some time ago for one.

Hochstetter tells me that he intended to send you a copy of his new geol. work, which will be beautifully illustrated. The Hooker glacier is on the title page.

Will you present my kind regards to Sir William & the ladies of your home,
& believe me my dear Hooker,
ever very sincerely yours,
Julius Haast

Dr Jos Hooker FRS etc.
Kew

42: Haast to Hooker, 16-12-1864

Kew DC 174 f. 301

Christchurch, Decb 16. 1864

My dear Hooker

I received your letter of the 10th Sept, with your welcome photograph, which has taken its place in my album near Mrs Hooker & which I shall always value very highly. My most sincere thanks are also due for the 1 part of the Handbook, which arrived here safely & which as you could safely hope did not disappoint me. At the contrary, I was highly delighted with it, as it will form a great resource of intellectual engagement for me and will accompany me on all my journeys. It is so compact & complete that it really deserves its title and the colony particularly has to be very thankful to you. I send you few corrections which I met with in going through it as far as page 258.

Imagine, the Mt Torlesse plants are in London, but the House MP? [2] L. Green & Co did not receive my letter, which I addressed to Willis Gann & Co, but as the addresses are written on the boxes, there are two, they have written to Dr Hooper, whoever that may be,

¹¹² Adolphe Vicomte d'Archiac (1802-1868), French geologist and palaeontologist.

who told them he did not expect anything from me. But the address was clear enough “Dr J D Hooker Royal Garden Kew”

I have no time to enter into the glacier question today, it is only an hour before the mail leaves; for the last month I have been occupied day & night with the preparations for the Otago Exhibition & it will take me at least another month before everything will be ready.

With this mail I sent for your acceptance 2 reports, in one of them I have already made use of the N.Z. Handbook; the other will without doubt interest you [3] as more of the great questions of the day are treated in it. Please tell me what you think of it. The maps & sections, I hope, are welcome additions.

Many thanks for Lyell’s address; it is as you say in its latter part magnificent. I think the story about the great rich orator is a capital one. Tyndall is right to stick to the excavation theory & I do so more so than ever; I wished I had Sir Rod. Murchison only 8 days with me here, I would convince him at once that such a power exists; but I shall bring together all the proofs at present existing in our Alps; they are overwhelming.

With next mail I shall write more fully.
Believe me my dear Hooker,

yours very sincerely,
J Haast

43: Hooker to Haast, 17-2-1865

ATL MS-Papers-0037, folders 097-07 and 097-08

Kew
Feb 17th 1865

My dear Haast

I have two letters to thank you for, Aug 10th & Dec 16th. The wondrous vegetable sheep I acknowledged in my last. It is a most curious feature in our Museum – next week it goes to “renown” at the soiree of the President of the Linnean Society at Burlington House.

I am delighted to hear that you & Hector have met, I was sure that you would like him very much.

The Australian expedition to the Southern Pacific Islands would be a glorious thing, but I fear it is too good to be true. It would not cost the combined Governments much & the results to science would be [2] prodigious.

Wallace has been writing more admirable papers, but I have not seen them. To tell the truth I have never been so busy as this winter, & mainly through the N.Z. Handbooks. The Cryptogams are worrying me to death – there is no sort of accordance amongst the systematists as to the affinities wider extent or limits of the genera, & it is impossible to decide amongst them without going into the whole science. Then too the Musci, Lichens, Algae, Hepaticae all so many different sciences now, each the field of special research & special monographies & I am grievously driven to & fro amongst them all. I calculate that fully 1/3 of the mosses are not determined [3] with precision & that they will not be till many

more specimens are collected from many more localities, & in many more states. The Alps are admirably done by Harvey. I anticipated most trouble with them from having worked least at them previously, but it has proved quite the contrary.

Concerning the glacial lakes, I have long wished to discuss these but I have had no time even to follow the discussions of others. I am extremely interested in reading & seeing what you have done, but dare not go into the subject – pray continue to write to me about it, for my private gratification & that of the Philosophical Club to which I send extracts from your valued letters. We are vastly amused with the Hooker Glacier and [4] the Musci. The latter is quite pretty. Mrs Hooker sends many thanks.

I am inconceivably puzzled as to what can have become of your Fungi drawings. Berkeley reminds me that what I had sent to him about the time of receiving your letters & other specimens, were not yours at all & none of the people in the Herbarium ever saw them, though they must have opened them if they had arrived.

Darwin is better & worse, his admirable paper on “Climbing plants” was read at the Linnean a fortnight ago.

And now to answer yours of Dec 16. A thousand thanks for the notes & emendations on the Handbook. The “Reports” have not come to hand yet. I cannot conceive how I came to overlook the omission of the derivation of *Haastia*! & can [5] only assume that the printer dropped it out though I have no foundation for saying so. That I should have omitted to write it originally, is natural enough, dancing on from plant to plant, one overlooks sometimes even the habitat – but how I overlooked it in proof & 2 revises passes my comprehension. Oddly enough it escaped Oliver¹¹³ & another Herbar. Assist. who both revised all the sheets!

I have little news. I have been rarely out at nights. My evenings & nights going to the Handbook & correspondence. I have not seen Murchison for months. I called on Lyell on his return from Germany he was looking very well & had just completed the new Edition of his Elements. He tells me that [6] he is going to begin a new Edⁿ of the Principles which will take 2 or 3 years to finish.

With united sincere regards
Most sincerely yours
J.D. Hooker

44: Haast to Hooker, 10-4-1865 & 18-4-1865

Kew DC 174 ff. 311-312

Taramakau saddle 10 April 1865

My dear Hooker!

Rainy weather has kept me here today & I shall at once take this opportunity to write a few lines and to tell you that for 3 mails I have not had any letters from you, although the receipt of several pamphlets, posted by you shows me that you have not quite forgotten me. For them my best thanks. Wonderful, that the *Origin of Species*, the great work of Darwin,

¹¹³ Daniel Oliver (1830-1916), British botanist, librarian and keeper at Kew and Professor of Botany at University College, London.

has not been included in the award of the medal. (Sabine). There is one power in England, greater than truth, before even men of the highest scientific position bow sometimes, you know to what I allude.

I heard from the London house that they have safely delivered the box with plants to you, but you never wrote me a line about them. I have collected here some very fine & interesting plants & see that here a very rich harvest, in the proper time of the year, is to be made. There is one [2] beautiful *Senecio* and a *Ranunculus*, which I have never seen & of which as far I can see the New Zealand Handbook does not speak. In another year I shall in the proper time come up again to collect.

I sent you by last mail an account of our new West Coast goldfield & a map. I am now on my way to see what it is like. It is wonderful to behold the thousands of people going and so many poor fellows coming back disappointed, exhausted and hungry. I shall write again from the West Coast and tell you something more about those diggings. You will remember that some years ago the exuriae of a Saurian were found in the Waipara, described by Owen as *Plesiosaurus australis* & according to him of an great oolotic age. Now I have just visited the identical locality and found to my great [3] surprise that those remains have been taken from our middle tertiary series. There is not the least mistake about that, as all the characteristic shells are associated with them. I shall write by this mail to Owen about it, but should be very much obliged to you, if one of your palaeontological friends would overhaul those remains in the British Museum, because after what I have read about that Gentleman, makes me afraid that if he should have made a mistake (cetacean bones) he would never acknowledge it, in every case I shall bring Hector to the spot and show him. Should they be real *Plesiosaurus* remains, it would be very remarkable & show convincingly that when those Saurians were long extinct in the Northern Hemisphere, they were still lingering in our III waters. [4] Of course this, my wish, is strictly private. I am delighted to see that Hector has got the appointment of geologist with our General Government; I was for some time afraid, that owing to the frightful state of our treasury, they would let him drop, but we can not afford to lose such an accomplished man, for whom the more I have seen of him, I have taken great friendship. We were so jolly staying in Dunedin with him, and my trip to the goldfields of Otago was, thanks to him, very instructive & much more than if I had been alone. If you find the time, do write me sometimes a line, I am always delighted to hear from you. If it is worthwhile I shall send you a parcel of plants from the West Coast.

Believe me my dear Hooker,
ever yours very sincerely,
Julius Haast

Dr Hooker FRS etc.
Kew

Lake Brunner near West Coast
18 April [1865]

Oh the rain, the rain, the tropical rain. It comes down in buckets & patiently I have to sit in the tent and wait for better weather. If it were only fine enough to go in the bush around me to collect, there is nothing new, but such splendid specimens could be got, but in five minutes you would be drowned, because it comes down in your mouth & eyes & ears, but joking apart, it is a diluvial climate & I can understand why people who live in such a

climate, believe so easily in a deluge. I had great mind to build on such a speck & I shall christen some mountain near me Mt Ararat so as not to be floated too far.

Having thus far talked nonsense, I shall begin to be reasonable and tell you that I found here a parcel of letters, sent by another way, amongst them is a letter of one of my friends in Akaroa, whom I had requested to give or send me out some information about the different Islands south of New Zealand. He writes as follows: [6]

“We had a ---US Whaler in this port the other day, commanded by Caleb O Hamblin¹¹⁴ to whom I put the questions upon the subject of your later enquiries. I learnt that he was on the last voyage of the “Governor Troupe” her chief officer, and that she cruised round & off Bounty Island for some weeks. That she approached it within two miles and that with the best spyglasses on board, nothing could be seen of any vegetation. It was simply a large rock, volcanic in its origin, so far landing can be effected it must be at long and rare intervals, for there was no appearance of any beach or shelter & nothing worth to make the attempt. A patch of whitish water off its NW at a long distance seemed to indicate a bank of some sort and it was on this they hoped to find the whales, they did not meet. Of the other spots you mentioned this deponent was entirely ignorant.”

Having written so far I am not certain, if it were you or Dr Petermann in Gotha who requested me to obtain information about these points. I shall finish this letter at the West coast.

45: Hooker to Haast, 3-5-1865

ATL MS-Papers-0037, folder 097-09

Kew
May 3rd/65

My dear Haast

My father has been very ill with bronchitis, which has kept me from writing to you & now though much better he is not yet fit for work & I must be brief.

I went to Sir Rodk Murchison about the Royal Society Fellowship & found him quite favourable. It was of course too late to do any thing this year as the day for taking candidates names was already passed – furthermore he being on [2] the Council, both this year & next, will not be able to propose you or even to sign your paper but will cordially assist you. I then went to Prof. Ramsay, who most kindly promised to have your certificate prepared, signed & presented next year for suspension. He says however that you must not expect to get in the first year of your candidature. Only 15 Fellows are annually elected, & of course the number of candidates is very great, & there are [3] many old geologists not yet elected. I need not say that I will do all I can for you, but the strength of your claim must be Geological & be vouched for by practical Geologists.

I am rejoiced to tell you that your Fungi drawings are all safe. I felt positive that I had sent them to Berkeley; but his repeated assurances, that he had never seen anything of them,

¹¹⁴ Captain Caleb Osburn Hamblin, born 28 January 1835 in Forestdale, Sandwich, Massachusetts, was the master of the America whaling ship *Robert Edwards* for the voyage from August 1863 to April 1867. Hamblin had formerly been first mate of the ship *Governor Troupe*.

made me overpersuade myself, that it must have been all a dream, or that I had confounded something else. Today he arrives from the country & brings them to me with many of them named, in the original cover [4] addressed in my writing, to him, as soon as received from you!

Most of them are indeterminable without microscopic depictions of spores & specimens, but 10 or 12 are generically determinable, & 2 or 3 of them new – I will send their names soon, with those of your Mosses now named.

The N.Z. Cryptogams have driven me distracted & the work is really endless. I have slaved all winter through & am far from ready to print it.

Ever my dear Haast

very sincerely yours

J.D. Hooker

46: Haast to Hooker, 18-5-1865

Kew DC 174 ff. 313-315

Camp on Bank of Kanieri river near Junction with Hokitika
West Coast, May 18th 1865

My dear Hooker!

I wrote you last a few lines from Lake Brunner & have since arrived at Hokitika & examined the most important goldfield in the neighbourhood, of which you will see the details in the report, which I have given an order to send you from Christchurch. Since I crossed the Taramakau saddle I have experienced a continuation of wet weather, which is really sickening. It is today the fifth day, that it comes down in torrents, the river near my tents is roaring and I am taught patience. The vegetation presents nothing new, I have looked all over the forests near me and going along, but everything is as far as I am able to judge well described in your handbook, which is my travelling companion. I shall not tell you anything about the goldfield, as you [2] will see all about it in my report, which will be sent to you from Christchurch, but I shall speak of this remarkable rush, which has led thousands of miners having tolerably good claims in Otago & Australia, to leave them & to travel (the first mentioned ones) 4 to 500 miles overland to this New Eldorado. But not only professional diggers went, but thousands of shop keepers, clerks, tradesmen, shepherds & labourers left their employ to run after that precious metal, gold, & the whole rush was heightened by the expectation of an unknown country & of the dangers to be encountered. There was, besides the steamers, only one way to go, namely at the northern boundary of the province from the Hurunui to the Taramakau. Many, before they crossed the saddle, returned, not being able to stand the fatigue & hardship, but thousands went on. Now if you take into consideration that between [3] Lake Brunner on the east side & the West coast no provisions were to be obtained, you will easily imagine, what hardships many of these people had to undergo, because the Taramakau is a very dangerous river to cross & owing to the wet climate of our West Coast, many people were continually stopped from proceeding & had to suffer much from hunger & wet weather, whilst many lives were lost by foolish attempts to cross the river. I had plenty of opportunity to see this & to give a hand to many a poor starved fellow, who had never before travelled through the NZ bush and did in consequence not know what it was.

But once at the mouth of the Taramakau, all changes & although I expected much, I must confess I was very much surprised by the wonderful transformation a few months have effected, changing an unknown wilderness in an inhabited country. There is quite a township [4] at the mouth of that river & thence to the Hokitika, the principal town, the beach resembles a well trodden highway. Hundreds of packhorses & diggers with or without swags are continually met with bullock drays, American wagons, men on horseback coming & going, the whole beach seems alive, but the more you approach Hokitika, the more the scene becomes animated. The main street is nearly a mile long, on both sides house close to house, mostly a framework of wood covered with canvas, but also many wooden building & houses built of corrugated iron. There are stores of every kind of description, wholesale & retail, butchers & bakers, jewellers and watchmakers, hotels & restaurants, billiard, concert, & dancing rooms, banks and houses of bad repute. And the streets are thronged with people, auctioneers, bell-ringers, apple & orange sellers, diggers coming & going, carts loading & unloading & all imaginable languages are [5] spoken in that Babel of yesterday. The more you approach the wharf the busier becomes the scene. There were, when I arrived, about 20 vessels discharging, amongst them half a dozen steamers inside the river & as many vessels outside the bar, either anchoring or waiting for the tide, amongst them 2 large steamers from Australia. This was after about 2 months since the origin of the town. There is now a court house and a jail, a hospital, post office and customhouse and all the necessary staff to regulate or organise such a congregated mass of incongruous elements.

But this is not the only township; there are several others in the heart of the diggings with a large population & the same life & animation.

It gives much to think to the philosophers & a man like Dickens could here collect material for [6] volumes. Owing to the great competition which begins to make itself sensible, the prices begin to lower and many things are nearly as cheap as on the east coast, but as everything except timber has to be brought by vessels, as for inst. potatoes & vegetables for the kitchen & oats, hay & straw for the horses, many articles have an enormous price.

You know from your own experience the nature of this West Coast climate, where the ground is saturated with moisture & even after a continuance of dry weather, (very rare it is true), is always swampy & you may surely understand how soon the bridle tracks through that bush become channels of knee-deep semi-liquid mire, almost impassable to man or beast. I had a little experience of that kind of travelling & can easily understand [7] how people had to pay £2.10 pr 100 lb to have carried a load for 12 miles through that bush; the horses continually succumbing under their weight.

I was always glad when I could take a river & wade through the water; it was such a comfort after the dirty mud work, which covered everything near the track. But never mind, when it is done, it gives one a little experience & the thought that to obtain results one has to put up with some inconvenience, makes you very soon forget it.

I am expecting anxiously the second volume of the Handbook to go at the mosses, which rather begin to interest me; when will it come out?

Near my tent are camped half a dozen diggers belonging to different nations, you would be amused, could you hear them curse the weather. Certainly one wants a great deal of

imagination for that sort of work. Heaven & earth & all the elements are put in requisition for their vocabulary. But the Italian beats them all.

Close to my tent occurs an old moraine, the more I see, the more I am convinced that I can make my case good concerning glacier action. I know there are many difficulties in my way, but there is not the least doubt that I shall master them. When I come back to town in about 2 months, I shall go to work & write a more extended paper about it with the necessary illustrations.

I hope you will find time to drop me a few lines.
Believe me, my dear Hooker,

yours very sincerely,
Julius Haast

Dr J D Hooker FRS etc.
Kew.

47: Haast to Hooker, 23-5-1865

Kew DC 174 f. 314

Kaniere¹¹⁵, 23 May 1865

My dear Hooker!

I just received a parcel of letters, amongst them yours of the 17 Febr, for which my very best thanks. I never received the letter to which you allude, in which you have acknowledged my last collection, so I suppose it has been lost. Please, if possible, to send me a list of the names of that collection.

I have no time to answer your letter at present, & shall do so during the first rainy day, which unfortunately are not rare here.

I am very anxious to hear what you think about my Canterbury plains report.

I shall send you lots of notes. The *Thuja* is also hard, but with excellent wood, also a *Phyllocladus*, both are in the low regions near the sea. I have specimens for you.

In haste but very sincerely yours,
J. Haast

I just came back from Lake Kaniere; it is a splendid lake & a true glacier basin – about 500' above the sea.

48: Haast to Hooker, 31-5-1865

Kew DC 174 f. 316

Private

Hokitika River, 31 May 1865

My dear Hooker!

There is an old saying, that people ought to wash their dirty linen at home, but sometimes it is good to prevent other people getting theirs dirty. – Mr Travers is going to Europe & has large & interesting collections, at the same time he will be able to give you copious notes and explanations & thus you will come a great deal in contact with him, but in order to avoid, that you will have any other than professional dealings with him, I write these few lines to warn you to have any social intercourse with him. You will be astonished to hear me speak like that and only the wish to avoid to you the repetition of my own experience has led me to write about the matter. Mr Travers is a very clever man, as sharp as a needle & a great enthusiast for natural science, thus I made his acquaintance when I came to N.Z. & that of his family, but my other friends warned [2] me not to trust him too much & the almost total isolation concerning their social intercourse seemed to show that there was something wrong, but as he was of the greatest assistance to me, correcting my bad English & I was so very little in Nelson, I of course continued my intercourse with him. I then came to Canterbury & found him there sometime afterwards practising as a lawyer, but still more socially isolated. As long as I was unmarried, all went well, but as soon as I was married, I had great trouble to keep anything like peace with him or his family. Of course I could not compel my wife to make a friend of Mrs Travers & her daughter and as people generally

¹¹⁵ Haast uses the spelling “Kanieri” in the manuscript letters

wish for social intercourse, who can not obtain it, Mrs Haast was still more estranged from them, by hearing continually her old friends whom she had known & respected for years abused mercilessly.

We could not invite people to our house, [3] because we did not like to offend the Travers's by not asking them, or making our other friends uncomfortable by meeting them. At last when Hector was in Christchurch, we asked some people who liked to know him, but as I left to Mrs Haast to write the invitations, she omitted the Travers. – Now the denouncement came very speedily. – Mr Travers in a rage told me, we had insulted them but instead of dropping us very quietly as a Gentleman would have done, he tried afterward all in his power to injure me, first in my pocket; after having assisted him many times out of his scrapes by over speculating, sometimes almost over my own strength, he tried to do me great harm, but I did not care for it, because I can put up with the loss of a few pounds; but this was not all, he got hold of the editor of a low Christchurch Newspaper, “the Standard”, in which he wrote a series of letters and leading articles in reply, in which all his blackguard nature came out & which showed me well, how people had been all along right to tell me that I had to do not with a gentleman, but with just the contrary. Of course I did not take any notice of it, but it shows you what such a man in his spite can do.

Therefore I think that I do my duty as a friend to warn you & to keep such a man out of your house & from your family, because I am certain you would make a similar experience.

I do not write these lines in a vindictive spirit, because I have forgiven him from my whole heart, but as I have made you (then according to my best belief) believe Mr Travers were a gentleman, I think it my duty to correct this statement. So you are warned & may act as you like.

Yours very sincerely,
Julius Haast

49: Haast to Hooker, 31-5-1865

Kew DC 174 ff. 317-318

Hokitika River, May 31. 1865

My dear Hooker

It is a rainy day & thus I have some time to give you a few botanical notes. First I have written the enclosed¹¹⁶, you may destroy it after having read it & I shall now proceed to tell you something about *Libocedrus*.

As you will have seen in my report, there are then some extensive plains, plateau like, reaching to the base of the hills, which often only 100 to 250' above the sea have quite a different vegetation from the riverbeds & gullies, which traverse them. Along the banks of the rivers, you find a fine growth of *Podoc. ferruginea*, *spicata*, *Dacrydium cupressinum* intermixed with fern trees of various kind, *Panax*, *Aralia*, *Coprosma*, *Weinmannia racemosa* etc. whilst as soon as you come upon this plateau, the whole vegetation is changed, the bottom is covered with sphagnum & other mosses found in swampy localities & the

¹¹⁶ See previous letter, also dated 31-5-1865 and labelled “private”.

vegetation consists of *Leptospermum*, stagnated Totara, *Libocedrus bidwillii*, exactly resembling those found in my former journey, *Phyllocladus*, but not *alpinus* & *Podocarpus dacrydioides*. – Now I have [2] examined thus *Libocedrus* very carefully & found that your description agrees very well, the wood is very soft, as my Maoris said, like boiled potatoes, but it shows that it is not an alpine state, but only the manner of growth on swampy ground. When I found it in the Alps it was also on swampy terraces. – Now considering the *Phyllocladus*, I think it is the *P. trichomanoides*, the wood is said to be excellent & used much for planes (carpenter's tools). Maori name for *Libocedrus* Kawhaka [Maori name for] *Phyllocladus*, Rewarewa.

As soon as you reach the outrunning species of the mountains again the first mentioned valley vegetation with numerous fern trees make again their appearance, interrupted with *Fagus*, which the more you ascend, becomes predominant.

I have collected a good deal & after my return shall send you all what is necessary. The leaves of *Phyllocladus* are not so thick as in the Alps.

I cut today close to my tent in a thicket near the river bed a coniferous tree, which the Maoris call Pakihirimu, only growing in open localities & not becoming higher than 20 feet & small. The branches are not weeping. I can not find anything in the Handbook which leads me to believe that you know it, I shall send specimens.

Now let me talk *Origin of Species* for a bit. – Near Lake Kaniere & along the banks of that river, I found often 15 feet above the bed, lots of shells of *Unio*, but all broken at the side, where the shell is weakest. I took one up, examined it & observed to my Maoris, that there were marks like those of the teeth of rats. They answered me that this was well known to them & dug up a rat hole, where many more were found. Thus the introduced Norwegian rat brings these shells up from the water, opens them by gnawing the shell away & lives upon the mollusc. [4]

I do not know if the same quadruped does it also in its native country, which I do not think, because I never observed shells in the continent opened in that way; but it could be easily ascertained.

Should therefore the Norwegian rat in Europe not act in the same way with fresh water molluscs, this fact would offer a beautiful illustration as to the adaption of animals to circumstances, when introduced into a new country, when they do not find the same facility of feeding or by not being chequed as in N.Z. by animals keeping them down, they soon overrun the country to an almost inconceivable extent. I have collected some of the shells with the marks of the teeth & the fact that the natives with me spoke of it as a well known fact to them all, the finding of numerous [5] shells in their holes; all confirms this fact. – Please find out, if a similar course of fishing is adopted by them in England, & when you see Darwin please to give him this fact as a very curious & conclusive confirmation of some of his arguments.

I have collected a good many more facts concerning this adaption of animals to new country or to introduced animals, which I shall one day put together & publish. There are some very curious ones.

In my last I answered your letter of the 17th of Febr. & told you how very sorry I am not to have received your letter, in which you acknowledged the receipt of my last collection & I hope only that you will be able to send me a copy of the list of names.

I am quietly working at that Antarctic expedition, to prepare the minds of NZ to spend a little money for the purpose, but I too fear, that [6] many years will elapse, before it will be accomplished. I hear Prof Neumayer¹¹⁷ before he left Melbourne worked very hard in the same line.

I do not know if I told you, that another vegetable sheep 3 times of the size of that sent lies on the station of one of my friends. They were mustering sheep & had a pack horse with them, so in returning they made one loose, a tremendous task & brought it down with the horse. If he gives it to me personally, it will go to Kew, otherwise it has to stay in our own Museum.

I hope that you will find the time to look at my Canterbury plains report; it will give you a clear insight (as I hope) in the physical features of that part of the country. I am glad you liked the Southern Alps Scottish or what it was. I thought it great [7] rubbish, but we Germans are such unfortunate musicians, that we want all classical.

I am glad that Lyell is editing a new edition of his *Elements*¹¹⁸, I think it was necessary, and I am curious to see, how several of my more special questions are treated by him. There is one which I consider has at least to my knowledge, never been satisfactorily answered; namely the relations in which land & sea stand to each other. It is impossible to deny that both change because to assume that each change in the earth crust, rising or sinking in some spot is counter balanced in some other spot is ridiculous.

Then for instance [8] let us take the Wellington earthquake of 1855, by which some parts of the coast & of course the sea bottom near it was risen 4 to 5 feet. – This of course as a consequence shallows the sea, if it is only the 1000th of an inch & in consequence the water must rise the same everywhere, that 1000th of an inch. – This is a question worth to be taken up by a man who besides being an excellent geologist must be a natural philosopher, mathematician & astronomer.

Do you know a treatise about this question?!

But I see I have nearly finished a second sheet & my men call out for supper, so I have to cease & to say goodbye.

Ever my dear Hooker,
yours very sincerely,
Julius Haast

¹¹⁷ Georg Balthasar von Neumayer (1826-1909), Bavarian scientist who spent many years working in Melbourne.

¹¹⁸ Charles Lyell, *Elements of Geology*, 6th edition, 1865.

50: Haast to Hooker, 3-8-1865

Kew DC 174 ff. 319-320

Christchurch, NZ.

Aug 3. 1865.

My dear Hooker

You see me returned at last to the eastern side of the Central Alps and I hope you have received my two letters, which I wrote during my late West Coast journey. With this mail I send you some reports which will give you some details about the West coast goldfields. I had a most glorious journey down the coast & I can not tell you what a magnificent scenery it is. About the great Francis Joseph glacier, the terminal face of which $\frac{3}{4}$ of a mile broad, is only about 700 feet above the level of the sea, I have to write you some more details for a scientific publication. I made some notes on the whole vegetation. I did not see a single alpine or subalpine plant, nothing but the vegetation of the plains; the contrast of Rata (*Lucida*)¹¹⁹ in full blossom, a whole mountain side of Fuchsia trees now without leaves and in the foreground fern trees (*Cyathea Smithii*?) etc., was most wonderful. I made a large watercolour sketch on the spot.

But before proceeding let me first thank you for your two letters of 3 & 13 of May. [2] I can not tell you how thankful I am for your kind proposal to the Royal Society & I shall write to Prof Ramsay by this mail and do the same & let us hope that it will have a good result. – I must confess your letter gave me greater pleasure, than the letter from Vienna, by which I have been created by the Emperor of Austria a Knight of the Order of Francis Joseph I. In fact I care far more for the good opinion of scientific men, than for all the playthings which kings can bestow upon us. I am very glad to hear that Sir William is again better, will you present my kind regards Diesem Altmeister Botanischer Wissenschaft.¹²⁰ I do not know an expression for Altmeister; but it is so expressive.

Of course I can not claim to be elected into the Royal Society except as a geologist, but shall do my very best to win the good opinion of the fellows of the hammer. Talking of the hammer, I send you a *Canterbury Punch*¹²¹ with some bad puns about my knighthood. The mixing up of Leop. von Buch¹²² with my own name is caused that it is my [3] cognomen in the Germ. Academy of Naturalists. You see we do not remain behind in civilisation.

I am glad that my fungi drawings after all were found & thanks for the list of their names as well as for that of the mosses. I am truly sorry that you have so much trouble with those unfortunate cryptogams; there must be an enormous deal of work with them and not visible, but I suppose it cannot be helped, but I hope when this reaches you that you have already printed and the whole work is on its way to New Zealand.

As soon I have a little more time I shall send my West Coast plants to you; there is, I fear very little new amongst them, I was too late in the season, but next summer I shall not lose the best time for collecting.

Some time ago I wrote you about Mr Travers. Unfortunately he is not gone to Europe, but owing to the fact that his circumstances were not so brilliant as he thought, has again

¹¹⁹ *Metrosideros lucida* Southern Rata – synonym for *Metrosideros umbellata*.

¹²⁰ This doyen/Nestor of botanical sciences.

¹²¹ *Punch of Canterbury*, periodical first published in 1865.

¹²² Leopold von Buch (1774-1853), German geologist and palaeontologist.

begun practising as a lawyer. – It seems that his rage against me has taken quite the character of a monomania. He writes as much as he can to injure me, telling the most [4] infamous inventions. Thus for instance he has written (of course always anonymous) a letter to one of our low papers in which he wants to prove that I have robbed Doyne¹²³ of his theory of the formation of the Canterbury Plains. Poor Doyne, he is an engineer, who has some little knowledge of geology, upon my recommendation the government sent for him to Melbourne, to have a design for a bridge over the River Rakaia; he never ascended the plains within 20 miles from the ranges & to assist him, I gave him every information in my power, of which he made the best use. Doyne, who is again in Melbourne, will of course not allow that his name is used in such a way by a reckless fellow. – Here of course everybody laughed about it, but my friends assure me, that this & similar letters have been written to be sent to Europe, to various scientific men, to injure me, in their eyes, who of course not knowing me personally will perhaps be influenced by such a shameful proceeding. I therefore take the liberty to write to you [5] the facts, that in case such a newspaper should be sent to you, you know what to think of it & to explain to other scientific friends, what is the cause of such miserable writing.

I am very sorry that I had to trouble you about this matter, but as hitherto you have shown me so much kindness you will excuse that I write you about it, in order to prevent to be judged rashly. Of course all the other accusations are just as groundless and false.

Aug. 8th 1865.

Hector arrived here yesterday & stayed with us till this morning, when we drove him to Lyttelton to the steamer. He was going up to Wellington to enter his new position as Director of the Geol Survey of N.Z. (General Government). Needless to say that I was highly delighted to see him. Every day I find cause to like him more, for his sterling qualities.

I shall leave this letter open till the mail leaves, perhaps that I find the time to send you a parcel with my West Coast [6] plants.

In the meanwhile believe me my dear Hooker,
yours very sincerely,
Julius Haast

I add a moss, which I never had seen before in New Zealand. Is it in the NZ. Flora. – Dr Hector to whom I gave also a specimen tells me, he has seen it before. I did not find the time to pack the plants; I shall send them by next mail.

Dr J D Hooker FRS etc.
Kew England

¹²³ William Thomas Doyne (1823-1877), Irish civil engineer who worked on the Dun Mountain Railway in Nelson and after spending time in Australia, came to work in Canterbury Province.

51: Hooker to Haast, 13-8-1865

ATL MS-Papers-0037, folder 097-11

Kew
Aug 13th 65

My dear Haast

I wrote by last mail July about R Soc. Fungi & other matters.

Herewith you have a list of all your Mosses. The names are what will probably appear in the Handbook, but I cannot be quite sure, as Dr Schimper¹²⁴ of Strasburg, the great authority of the Musci is coming here, & the New Zealand Mosses are in such a mess that I may have to modify the MS considerably: as it is I am plagued out of my life with these Cryptog[ams] & wish them at the bottom of the ocean!

My father is considerably better & leaves home for a short time this week.

Sincerely yours

J.D. Hooker

Musci Haast

<i>Sphagnum cymbifolium</i>	<i>Macromitrium abbreviatum</i>
<i>Funaria hygrometrica</i> 210	[<i>Macromitrium</i>] <i>barbatum</i>
<i>Aulacomnium gaudichaudii</i>	<i>Zygodon reinwardtii</i>
<i>Leptostomum gracile</i> 255 381	<i>Racomitrium lanuginosum</i> 199 768
<i>Mielich[h]oferia longiseta</i>	<i>Tortula Knightii</i>
<i>Bryum mucronatum</i>	[<i>Tortula</i>] <i>papillosa</i>
[<i>Bryum</i>] <i>crudum</i>	<i>Conostomum australe</i>
[<i>Bryum</i>] <i>chryseuron</i>	<i>Holomitrium antarcticum</i> 491
[<i>Bryum</i>] <i>curvicollum</i>	<i>Dicnemon calycinum</i>
[<i>Bryum</i>] <i>pyriforme</i> 202	<i>Hypnum uncinatum</i>
<i>Dicranum billardieri</i>	[<i>Hypnum</i>] -----
[<i>Dicranum</i>] <i>dicarpum</i>	[<i>Hypnum</i>] <i>cupressinum</i>
[<i>Dicranum</i>] <i>robustum</i> 77 262 529	[<i>Hypnum</i>] <i>rutabulum</i>
<i>Cynodontium affine</i> 140	[<i>Hypnum</i>] -----
[<i>Cynodontium</i>] <i>elongatum</i>	[<i>Hypnum</i>] <i>cochlearifolium</i>
[<i>Cynodontium</i>] <i>cappillaceum</i>	[<i>Hypnum</i>] <i>clandestinum</i>
<i>Tridontium tasmanicum</i>	[<i>Hypnum</i>] <i>divulsum</i>
<i>Bartramia crassinervia</i>	[<i>Hypnum</i>] [<i>auriculatum</i> ?]
[<i>Bartramia</i>] <i>fragilis</i> 517	[<i>Hypnum</i>] <i>aciculare</i> 9
[<i>Bartramia</i>] <i>sieberi</i> 250	[<i>Hypnum</i>] <i>tenuifolium</i>
[<i>Bartramia</i>] <i>tenuis</i> 283	[<i>Hypnum</i>] <i>paradoxum</i>
[<i>Bartramia</i>] <i>australis</i>	[<i>Hypnum</i>] [<i>pulchellum</i> ?]
<i>Polytrichum alpinum</i>	[<i>Hypnum</i>] -----
[<i>Polytrichum</i>] <i>gracile</i> 249	[<i>Hypnum</i>] [<i>Druianum</i> ?]
[<i>Polytrichum</i>] <i>commune</i>	<i>Hookeria flexicollis</i> 262
[<i>Polytrichum</i>] <i>juniperinum</i> 591	<i>Rhacopilum strumiferum</i> 604
	<i>Hypopterygium filiculaeforme</i>
	----- <i>sulcatum</i>
	----- <i>cometum</i>
	----- <i>kuiiri</i>
	----- <i>marginalium</i>

¹²⁴ Andreas Franz Wilhelm Schimper (1856-1901), German botanist born in Strasbourg.

52: Hooker to Haast, 24-8-1865

ATL MS-Papers-0037, folder 097-10

Dictated

My dear Haast

I am so deep in your debt in correspondence, & so incapacitated for even gathering up the account of it, & least I cannot cut matters short by at once telling you that six weeks ago I took my usual summer holidays – that since my return I have never been well, that my father was taken with his mortal illness on the 9th of this month, & died on the 12th – that on the 11th I took to bed with rheumatic fever, & have [2] been confined ever since.

Though now better, & hoping to be dressed & removed to the country in a few days, I have, as you may imagine, such a mass of business before me in my duties as my father's heir & possible successor, & my mother's & own family added to the duties of Kew, which will devolve upon me as soon as I am well enough to attend to them, that I have no prospect whatever for many months to come of resuming a correspondence which has now for 3 years been so instructive & delightful. It will be all I can towards New Zealand friends & correspondents, to bring out the 2^d part of the Hand [3] book, which has been in proofs for 3 months. Besides thanking you for many other letters, I have especially to acknowledge with much gratitude the confidential one which I have just received & which I assure you will put me on my guard. – Excuse my saying any more –

I am still weak & ill, & overwhelmed with business & correspondence.

With kind Comp^{ts} to Mrs Haast, I am very sincerely yours
Jos. D. Hooker

Kew Ld.
Aug 24th

53: Hooker to Haast, 5-11-1865

ATL MS-Papers-0037, folder 097-12

Royal Gardens Kew
Nov. 5/65

My dear Haast

Very many thanks for yours of Aug 5. Since its arrival I have seen a Mr ----, who lunched with me, & says that he knew you well. I have given him seven plants to send out in a box which he was packing for the W. Coast. I shall be curious to know, if you hear whether they arrived in good keeping.

I am myself quite sick of Ward's cases, except when sent out [2] under charge of some careful hand, & am disposed to trust to more to seeds. I am now collecting Rhododendrons & shall send you a list. I am extremely interested in your accounts of the Moa ovens, please do not forget to send me some of the flint flakes, when you have duplicates to spare in abundance, but not else. Also the vegetable sheep of a large [3] size which you mention as procurable. I will gladly pay any reasonable expenses.

I think that Mueller may be a little proud of his C.M.G. This foible has been reorganised especially for Colonial services, & no one has received the C. here, of lower rank

than First Secretaries of Colonies, & very few of them. Our decorations are very rare things indeed – & being given for Science, not for scientific attainments as such, represent always very distinguished public services. As it is he is the only living Botanist, who can boast of a recognition from [4] the Crown of that sort & I cannot wonder that he is proud. I feel it to be my duty to press his claims most strongly for a recognition from the Crown & this I did quite irrespective of his personal love of such decorations, which in this sense are but baubles. We have no Decoration given as ----- ----- are, & I hope never shall have for mere scientific attainments, of which no Govt can judge.

With united kindest regards
Ever my dear Haast,

Most sincerely yours
Jos. D. Hooker

[in margin:] Please ask someone to send me *Celmisia*, *Olearea*, *Senecio* & all other seeds by sample post as soon as ripe & without keeping them.

54: Haast to Hooker, 15-12-1865
Kew DC 174 f. 321

Glückauf near Christchurch
Decb 15. 1865

My dear Hooker!

I have to thank yourself & Mrs Hooker very much for the letter you were so kind enough to send me; the more so as you were unwell and the great loss of your venerable father must have made you unable to think about your friends. It is needless to say, that the news of your irreparable loss has affected us very deeply and that nobody more feels and condoles with you, than I do. I hope that since that trying time your health has been again improved, so that you will enter your new duties with full vigour, because I suppose you will be the successor of your father.

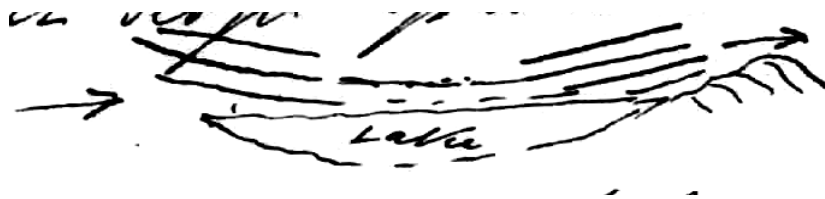
Concerning our correspondence I shall never think of reckoning with you; if you have the time to send me a few lines, I shall be only too delighted to receive them. Otherwise I shall continue, if I have anything to communicate which will interest you, to write and to send you my reports and other matters. With the next wool ship which leaves in January, I have the intention [2] of sending another parcel of plants for your examination and herbarium. – I do not think that there are many novelties amongst them, but nevertheless, it will be a welcome addition. I send also some larger specimens for your Museum.

By the mail I send you a newspaper with a report of mine about two alpine passes and I added the opening address of our Superintendent before our Prov. Council, in which he is kind enough to acknowledge my labours. It is natural that I was very much gratified by it.

With next mail I shall send you a very interesting map of the Canterbury plains, containing Mr Doyne's contour levels, with his report, in which he renders full justice to me & acknowledges the assistance received from me. – This was the best manner of answering

Mr T.¹²⁵ anonymous accusations. In every case, if you have a free moment, do not forget me altogether, because [3] you can hardly imagine, how delighted I am always to receive your news.

The more I see and travel, the more I become convinced of the power of glaciers & I am sure, that as soon as I am able to lay the whole observations before the scientific world, that I shall obtain a hearing. I have some convincing proofs that glaciers at the lower end of the hollow rise, by the glacier shelves, which slope upwards.



This is of course exaggerated.

But what I want before is that all our lakes are sounded all over. I know very well it will give only an approximation because many of them will be nearly filled & the original form in almost all of them will be obliterated.

Mrs Haast has been very ill, but I am happy to say that her stay at the sea shore, now more than 2 months, has improved her health very much & there is all hope that she will improve still more.

Our Prov. Council is just sitting, so I am exceedingly busy, but shall write [4] a longer letter when I send the plants. Do not forget me for the R.S.

With kindest regards to Mrs Hooker,
believe me my dear Hooker,

yours very sincerely,
Julius Haast

55: Haast to Hooker, 13-2-1866

Kew DC 174 f. 322

ChChurch N.Z.
Febr. 13. 1866

My dear Hooker!

May I introduce to you my friend Mr J R Hill¹²⁶ of this city, who is going to England on a visit and who takes great interest in Natural History principally in reference to acclimatisation.

I shall be very grateful to you, if you can show him some attention. This gentleman would [2] have taken a parcel of dried plants with him for you, had I found the time to

¹²⁵ Travers

¹²⁶ J R Hill was the manager of the Bank of New South Wales in Christchurch and an honorary member of the Canterbury Acclimatisation Society, who visited England to purchase live birds to bring back to New Zealand.

prepare it, but being on the eve of starting for the sources of the river Rakaia, I have been overwhelmed with other business.

Next wool ship will bring a box for you.
Believe me my dear Hooker,

ever yours very sincerely,
Julius Haast

[3] Dr J D Hooker FRS
Director of the Royal Gardens
Kew

56: Hooker to Haast, 19-3-1866

ATL MS-Papers-0037, folder 098-01 & 02

Kew
March 19/66

My dear Haast

I do not like to let another mail go to N.Z. without a few lines to you, if only to thank you for your most kind & acceptable letter of Dec 15th & to tell you that I have taken up Pt. II of N.Z. Flora again & a most frightful worry it is – each of these orders of Cryptogms. is now a separate study & pursuit, with separate literature & as it appears to me very little harmony with its fellows.

15 years ago I had a definite idea what I was about in [2] writing up each, now each is cut up into genera classes orders &c. as if it was a Kingdom of Nature instead of an order of Cryptogamia. I hope only to make the outlines of each order pretty clear, to the beginner & must be content if I partially succeed.

My time is so occupied with Garden duties for the first few months of my incumbency that I have no time for Geology, & as I do not go out at night this winter I see & hear no news scientific. I have got a good working Herbarium staff & so shall never have difficulty in sending you the names of Flowering [3] plants & ferns – most I can name off hand you know; the rest I can direct an aide where & how to hunt for.

Thanks for the interesting newspapers. I am delighted to hear that your labors are so highly appreciated.

Tyndall & Huxley talk of going to the Parallel Roads of Glen Roy this Easter. I told them they will find that part of Scotland probably covered with snow. Whether or no I am too Rheumatic to accompany them & shall go to S.W. instead to Torquay, for 3 days, where my mother is wintering. If T. & H. succeed in their expedition, they will no doubt make out something.

Darwin is much better. I have not seen him for a year & think of running down next Saturday to do so.

I am still most curious for N. Z. [4] seeds & plants. Seeds should be sent at once, by post. My chief wants are:

1.) Roots of *Ranunculus lyallii* in a pot of earth, moist, but not too wet, entrusted to a passenger: if enclosed in a small box with slip of glass in front, so much the better.

2.) Trunks (dry) of *Cordylines*; – about 4 ft of top, with leaves folded down on the trunk



in this fashion; if flowers on, so much the better. One specimen of each kind is enough.

3.) Live trunks of Tree Ferns, 3-4 or 5 feet long, laid in a wood (not tin) box with a little moss, & sent in an airy part of a fast sailing passenger ship.

4.) Seeds, by post, – as collected. We have not even your common *Clematis*! The Panama or 2nd post brings them very quick. I cannot imagine why, but N.Z. seeds do not as a rule, germinate. [5]

Your vegetable sheep is a great attraction. A friend of yours Mr Donald Mackay called a few weeks ago, & I showed it to him & he was delighted to see it. I should greatly like all the species thus sent; & pray remember, that I will gladly pay all reasonable expense for any of the above things.

[In margin: – *Fossil plants; Chevalier*]

You are not forgotten for the R. S. both Murchison & others are interested for you – but you must not be disappointed if you do not get in the first year. The struggle is tremendous & Geologists & Chemists abound on the lists. I know of no Botanical candidate this year, so that this addition to your claim which I added myself will I hope make [6] your chances certain for a second year, if not this.

If ever you can send me any of the stone implements with which the natives formerly dug their ground (not green jade ornaments etc) I should be glad for my friend Sir J. Lubbock.

I am glad to hear better news of Mrs Haast.

With united regards

Very sincerely yours

Jos. D. Hooker

57: Haast to Hooker, 14-6-1866

Kew DC 174 ff. 323-324

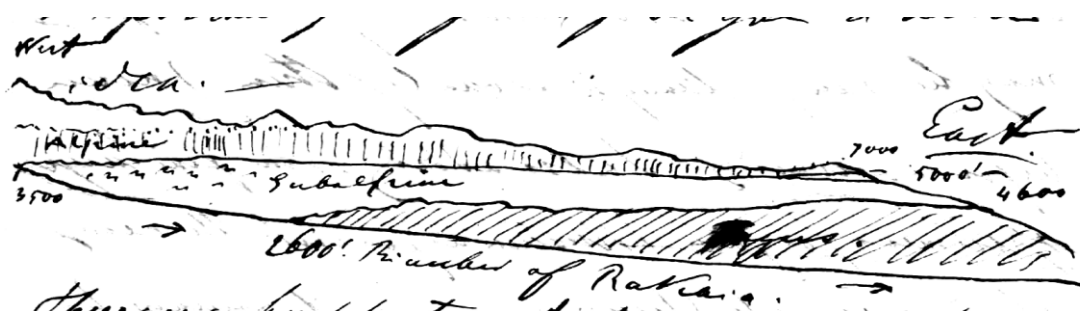
Glückauf near Christchurch

June 14. 1866

My dear Hooker

Many thanks for your kind letter of the 19th of March with the seeds, which has given me great pleasure. I am glad to hear that you are occupied with the Vol. II of the NZ. Flora & that we may hope to come soon into the possession of it. Notwithstanding the great difficulties in your way I have no doubt, that it will be a very instructive and interesting work.

When your letter arrived I was just beginning with arranging my collections for you, which will go by the *Donna Anita* leaving 20th end of this month. It contains a large collection about 350 numbers of which a few may be new, although several of them I never before observed. I also added some fine large specimens for your Museum as for inst. the new alpine *Dracophyllum*, & on my next journey I shall try to get you some more of the large *Raoulia*'s – Will you be kind enough to send me a list of the names; there are of [2] course most of them which I know, but never the less I like as an additional check to have all the names once more. – I ticketed every one of them and stated exactly where I obtained them; of course it is natural that the altitude vary very much according to their nature. – I thought it would give you a much better insight than to state simply the localities. – I have added sometimes mountainous, subalpine or alpine; mountainous, the region of *Fagus*; subalpine that of shrubs & conifers; & alpine, herbaceous plants grasses etc. above this; the rivers in the higher region of course, have often alpine plants near their courses; the following diagram will perhaps give you a better idea.



There are a few plants sent by Mr Armstrong¹²⁷, a very zealous man & collector. He is gardener to Mr Gould. Should the new grass he brought [3] from the sources of the Waimakariri be really undescribed, will you oblige me to name it after him?! – I think he deserves it the more, as he is always collecting & just has taken your Wardian cases in hand & does all the work gratis in love for science and as he says respect for you.

I shall send some seeds by next post, but as you wish some live plants, I have at once taken it in hand, to send you a good Wardian case, but as you know it will require some time before the plants will be able to bear the journey. – Fortunately I brought from my last journey some live plants of our alpine regions with me, [marginal note here:]* Mr Gould¹²⁸ gives the rest, [end of note] which I am only too happy to send to you. Amongst them are half

¹²⁷ John Francis Armstrong (1820-1902), English horticulturalist, and his son Joseph Beattie Armstrong (1850-1926) both collected botanical specimens for Haast. John Armstrong originally worked for George Gould and was later appointed Government Gardener of Canterbury and curator of Christchurch Botanical Gardens.

¹²⁸ George Gould (1823-1889), English merchant and trader in Christchurch.

a dozen of healthy roots of *Ranunculus lyallii*, good plants of *Celmisia coriacea* & *spectabilis*, some of the finest alpine *Veronicas*, *Olearias*, *Senecios*, *Dracophyllums* & many other things which will form a welcome addition to your collections in Kew. – You will have [4] no expense whatsoever as our Government has authorized me to pay for cases, freight, etc., as well as for the expenses to obtain for you the fern trees & *Cordylines*.

If after having received them you will send us something for our Museum, I shall personally be very grateful, although I may state, that we do not expect anything what so ever in return.

I think you will fully agree with me that it is better to send the things in Wardian cases than to risk these by trusting them to the care of a passenger. There is unfortunately no time with this wool ship, which is to sail on the 20th of this month to get the *Cordylines* dried as well as the fern trees ready. You will get them, collected by Mr Armstrong, by the next wool ship.

We have only a few seeds at present & it is now too late to collect, but I shall take good care that you [5] will receive by next year all what you can desire.

What you tell me about the R. S. has greatly gratified me and I trust that your exertions will have the desired result. I do really not know anything which would make me greater pleasure than to be elected a FRS. I value it far more higher than any distinction a king or potentate could bestow upon me. I have at present no stone implements, but shall try to obtain some for your friend.

I am very sorry to say that Mrs Haast has been very ill indeed, but begins now to be a little stronger.

You wrote me some time ago about fossil plants. I have large collection, but according to a promise to Dr Hector, I do not want to send anything away till they have been examined by a good palaeontologist.

The greater part are packed away in cases for want of room, but as we are now building a museum I shall soon be able to get them opened & if I can not send you the originals [6] at least I shall be able to have careful drawings made for you. I have more than a dozen of magnificent ferns of different genera & many more – & dicotyledonous plants. – young cretaceous? (Grey & Buller coal measures and others belonging to our carboniferous series; the same age as the Australian coal measures.¹²⁹

Hitherto I have been prevented of doing anything for want of room, but as this evil will soon be remedied, I can then devote more time to our collections.

I have just finished a report on the exploration of the headwaters of the Rakaia which will be printed with sections & sketches. I have treated in it the glacier question & I trust that some of the sections & the conclusions I arrived at will not be altogether uninteresting to you.

¹²⁹ no closing bracket in original.

A very eminent artist Mr N. Chevalier¹³⁰ is just gone to Mt [7] Cook to study that magnificent scenery after nature & to send some pictures to the Paris exhibition. Thus you will have an opportunity to see that wonderful country with young glaciers painted by the hand of a thorough master.

You will see from the newspaper I sent you that my brother in law Mr George Dobson¹³¹, a very promising Engineer of 25 years of age, who was district Engineer at the West Coast is now missing for nearly 3 weeks. He is a most excellent bushman & it seems that as it is suggested, he met with foul play by the hands of some ruffians, or that in crossing the bush, he broke a limb or had another accident, which prevented him to reach habited ground. Five large parties are out searching for him, but I have very little hope. You may imagine that we are all in great anxiety about it.

I shall write by next mail again & tell you, when the vessel left & some more particulars about [8] the contents of the case.

With our united kind regards,
ever yours very sincerely,
Julius Haast

P.S.

I just received a few more packages of seeds from Governor's Bay for you, & in order that you may receive them as soon as possible, I have them posted at once; there are altogether 20 packets. – I hope to be able to send soon some more.

58: Haast to Hooker, 14-7-1866

Kew DC 174 f. 325

Christchurch, July 14 1866

My dear Hooker

I write only to tell you that I have sent by the *Donna Anita* a box containing dried plants. It is marked JDH No 4 Kew & is addressed fw to Messrs Dalgety, Du Croz & Co, 92 Cannon Street, London EC, whence you will get it. As every specimen is ticketed, I need not send another list, but should feel very much obliged to you, if you would send me a list of names in return as an additional check. I have also added some parcels of seeds brought to me in the last moment, which I enclose without being able to note the localities or names with the exception of a few, which however I hope will not be the less welcome. I added also some large specimens from our Alps. At the same time [2] I put into the case some reports, to show you, what we are doing here. Please to have a look at Doyne's map with some levels of the Canterbury plains. Does it not show you well the working of the huge post Pliocene rivers?

I am going in a few days to Wellington to have a long chat with our friend Hector. If he tells me, that he does not intend to have soon a palaeontologist out, I shall send you my large collection of fossil plants, to be described in England & to be returned afterwards, except the duplicates.

¹³⁰ Nicholas Chevalier (1828-1902), Russian-born Australian artist.

¹³¹ George Dobson (1840-1866), New Zealand engineer, surveyor and explorer; Haast's brother-in-law.

I just returned from the West Coast, where we buried my poor brother-in-law George Dobson, of whom I wrote you in my last letter. The murderers had buried the body in the bush, where it was found after [3] great exertions only. The newspaper, which I send by this mail, will give you all the details of this horrid sickening affair. As long as the world stands no more cold blooded murder could have been committed.

The journey across the Alps from Christchurch to Hokitika on the new road was really glorious. It took in a coach with 4 horses 2 days. Your two Wardian cases are already partly planted; you will be satisfied with them. I shall send them in a wool ship next season & in the charge of a passenger to whom I can thoroughly trust.

By the bye our provincial meteorologist Mr Robert Langley Holmes¹³², a very earnest hard working & deserving man & one of my best friends, told me the other day, that he should like very much to be a member of the meteorological Society of London. [4] He, as well as myself, we do not know any meteorologist in London; perhaps that you could request one of the gentlemen of the Kew Station to propose my friend, who would not be a discredit to the society. But I hope it will not give you the least trouble.

I rather expect anxiously the mail as there will be the result of the RS. elections; although I have made up my mind, that there is no chance for me this year, nevertheless, trusting to my "luck" I wish to know the result of the elections. Should I be successful I owe it only to you & it will make another addition to the great many obligations I already owe you.

Excuse my haste but I am writing against time.
Ever my dear Hooker,
with united kind regards,

yours very sincerely,
Julius Haast

59: Haast to Hooker, 5-9-1866

Kew DC 174 f. 326

Christchurch, Sept 5. 1866

My dear Hooker

I wrote you a few months ago sending you a box with specimens, which I trust will have arrived safely. Today I write only to enclose what I consider undescribed mountain plant, collected by my friend J. D. Enys¹³³ on the summit of the Craigieburn Range. (Waimakariri) on shingle ----- altitude 6000'. All the other shingle plants from Mt Torlesse were there too, but this was the only new one. In the case it should prove [2] an undescribed species will you be good enough to name it after the discoverer, who is a very diligent collector.

¹³² Robert Langley Holmes (1833-c.1914), Irish meteorologist who worked as an assistant for Haast, before taking up residence in Fiji.

¹³³ John Davies Enys (1837-1912), Canterbury runholder and naturalist.

I had the enjoyment to pass a fortnight with Hector & came home quite refreshed from such intellectual intercourse & am now very busy to plot all my alpine field work which will take me a few months more, but which will make a very interesting map. There are two of my friends, who intend to go home next February, by one of the wool ships, so that we are safe to have your Wardian cases under safe custody.

Excuse my haste, but I fear to miss the mail.
With united kind regards,
ever my dear Hooker,

Yours very sincerely
Julius Haast

Dr J D Hooker FRS.
Director of Royal Gardens etc.
Kew

60: Hooker to Haast, 19-12-1866

ATL MS-Papers-0037, folder 098-03 & 04

Kew
Decb 19th/66

My dear Haast

Your last very interesting dried collection has arrived in excellent order & contains some capital things. Especially the *Rostkovia gracilis* hitherto not found out of Aucklands Group. I have delayed the Supplement to the Handbook to enter the most important discoveries, which includes also a new *Logania* very near *L. tetragona* a bit of all these shall go to you. Mueller tells me that you have found the *Arundo phragmites* in [2] New Zealand. I have not seen it & hesitate to introduce on no better authority than his report.

Lauder Lindsay has just published a long paper on N.Z. Lichens, which it is impossible for me to take into consideration for the Appendix.

Your reports are most interesting & I have read your lecture with great profit.

I do not think I have written to you since the sad loss of your brother in law. Allow me to express my most true condolences on this terrible affair. I hardly ever read any thing more [3] fearful, & to his relations the details must be harrowing. What a shock to Mrs Haast.

I shall be delighted to get the ward cases; pray take care that the Earth is well fastened down in the case & not sodden with water. It is a good plan to lay a thick layer of moss over the earth & chips of wood over that from side to side. I am very impatient for *Ranunculus lyallii* & shall thank Mr Gould very much.

I have written to the Kew Observatory about Mr Holmes becoming a member of the Meteorological Society & with your recommendation. [4] I anticipate no difficulty.

The little plant contained in yours of Sept 5 is *Lobelia roughii* (shingle Waimakariri range).

It is very long I fear since I have written to you, but I have been exceptionally hard worked of late, & want to push on the “Genera Plantarum” my “Opus magnum” with Mr Bentham, a very heavy job & which does not as yet repay the cost of printing!

The new alpine *Dracophyllum* is *D. traversii*. There is no ticket to your specimen (can they have opened & lost it at the Custom House) so that I am not able to enter your habitat in the Supplement.

You ask for things for your Museum, but do not say what. [5] Our Museum is confined to objects illustrative of or connected with the vegetable kingdom & I have advised our Curator to work out a series of as interesting things as he can, which I will send you. If they are all what you want pray excuse it.

As to Fossil plants. I have been obliged myself, with great reluctance to give up the study wholly. I am as it is, overworked with the Garden, scientific meetings & as little society as I can possibly afford. From some tracings that Hector sent me yours must be extraordinarily interesting.

The several packets of seeds you have kindly sent [6] are all sown & some are germinating, but somehow or other New Zealand seeds are the worst to preserve vitality of any I know – it is a very curious fact.

Of news scientific I have but little. Darwin spent a forenoon here ½ a month ago, & enjoyed it, but was as usual quite knocked up by it. He has just completed Ed IV of his Origin & is started on the printing of his more extensive work “on domesticated Animals & cultivated plants”.

Lyell has brought out the 1st vol. of the new ed of his Principles, greatly altered & [7] improved. Huxley has published an admirable little manual of Physiology (Human). The last part of Linn. Trans you will find to contain a most remarkable paper by Lubbock on Insect transformations.

The causes of change of climate – on surface of globe seem as far off solution as ever. Lyell has made the subject the speciality of his volume but there are certain points which I think he has altogether overlooked & especially the influence of Vapor in conserving heat as shown by Tyndall’s admirable experiment.

Post-pliocene Geology is now the rage & the determination of the limits of this Historic era seems very far off. We learnt [8] even that the Crannogs date only as far back as 1600 in Ireland; – others that Bronze implements are Roman others that stone d[itt]o. may be coeval with Roman. This matter will no doubt be settled in the next 10 years of treasure-hunting & digging.

Meanwhile I look with greatest interest to the post pliocene fossils, vegetable especially, of New Zealand & Australia.

Mrs Hooker unites in kind compliment to Mrs Haast.
Ever most sincerely yours
Jos. D. Hooker

61: Haast to Hooker, 2-1-1867

Kew DC 174 ff. 328-329

Geol Survey Office Christchurch

Jan 2 1867

My dear Hooker

I enclose a few scraps of plants which I received from Mr Potts, requesting me to forward them to you for examination. He wants to make a difference in the *Metrosideros lucida* because he has found that the leaves of different plants have invariably those characteristics he describes in his notes. Please to tell me your opinion about these different plants.

Your two Wardian cases will go end of this month. I am anxious to hear that you have received my last box of dried specimens & I hope that there are some novelties amongst them.

I enclose the names of two of my friends which I should like to see elected to the Linnean & Geological Society resp. of London; they are both very good amateurs & work hard in their leisure time for the advancement of science in New Zealand.

Will you do me the favour to second them or to find some of your friends who will be good enough to render them that kind service. [3]

With our united best & most sincere wishes at the beginning of the new year, believe me my dear Hooker,

ever yours very sincerely,
Julius Haast

Mr Potts is collecting for you at present all the peninsula plants & I have about 50 already collected by Armstrong; there are some apparent novelties amongst them. I shall send all together, when I shall return from my campaign of this year.

[Enclosed nomination slip:]

I beg to propose as fellow of the Linnean Society of London
Carl Fischer Esq.^{re} MD. of Auckland, New Zealand.
Christchurch, NZ. Jan. 2. 1867

62: Hooker to Haast, 18-1-1867

ATL MS-Papers-0037, folder 098-06

Kew

Jay 18/67

My dear Haast

I write in haste & chiefly to enclose the accompanying list of your last valuable collections. I just managed to squeeze one or two notes & habitats from them into the revises of the Supplement of the Handbook – that child of much labor [2] is at last out of my hands & I hope the copies will be sent off in a few days.

Lyell has been brought out the Vol. I. of the new Ed. of his Principles. I have looked at the chapters on the climate of the Globe & astronomical causes of probable change of climate, & like the finish. A good ideal new book. I think Geology [3] is hardly advanced enough to speculate on Cosmical changes due to Astronomical causes.

Most sincerely yrs

Jos. D. Hooker

63: Haast to Hooker, 27-1-1867

Kew DC 174 f. 327

Christchurch NZ

Jan 27 1867

My dear Hooker

I have only time for a few words, as I am on the point of starting for a short journey & shall write more fully by next mail. The *Blue Jacket* sails tomorrow. She has two Wardian cases with alpine plants on board for you, for London. Please to claim them as soon as the vessel arrives that no time will be [2] lost in their transmission to Kew. A list follows by next mail. Unfortunately I could not send the fern trees & *Cordylines* because the friend on the peninsula who promised me faithfully to get them ready according to your instructions has had serious illness in his family & could not attend to it, but I trust to be able to send them by another vessel. [3]

I see in the papers that the *Donna Anita* with my box of plants for you has safely arrived in London, so that I may hear soon from you.

Forgive my hurry but it is late at night & I have still a heap of work before me.

With united kind regards,
ever my dear Hooker,

yours very sincerely,
Julius Haast

Please do not forget me at the R.S. this year! [4]

I add a few packages of fresh seeds & have a large collection of peninsula dried plants, amongst them a few new things; I shall send them by post next month if back in time.

J H

64: Haast to Hooker, 24-3-1867

Kew DC 174 ff. 330-331

Bealey River at Junction with Waimakariri.

24 March 1867.

My dear Hooker

Your welcome letter of the 19th Decb reached me here when returning from the sources of this important river. I am delighted to hear that my last collections have interested you & given you an opportunity of completing more your Handbook which is my constant companion in my rambles. The *Arundo phragmites* seems to be very common in some localities. I thought I had sent you some; but my next collections will contain it, with more details.

I hope ere this reaches you that the two Wardian cases have arrived safely. You do not owe any thanks to Mr Gould, but to his new gardener, Mr Armstrong, who in his leisure time has undertaken the packing & planting of the cases. I exchanged with him some of the living plants, principally *Ran. lyallii* & *Celmisias* & alpine *Veronicas* [2] against others he possessed, so as to enable him (Mr Gould) to send also a Wardian case to his friend in England. I brought them all with me from the sources of the Rakaiia. I have during this trip got another splendid lot of large roots of *Ran. lyallii*, *Celmisia petiolata*, *lyallii*, *coriacea*, *viscosa*, & *Veronica haastii*, which go tomorrow with the coach to Chch, to be at once planted. If the 2 cases should safely arrive, I shall forward another with other new things. They have been packed according to the instructions you are good enough to give me.

Many thanks for the trouble you have taken for my friend Mr R Holmes at the Meteorol. Society, I too hope that he will be elected.

I found some more of this *Lobelia* [3] *roughii* on the shingle slopes of Mt Torlesse, which I ascended a fortnight ago to bring more "vegetable sheep" down for our own Museum. One of them 2 by 3 feet & about 50 lb weight, I carried myself down on my back for about 2500 feet; a nice job! – but it is a magnificent specimen & I do intend to send you another much larger one than that sent previously, as my companion has also a nice load. Concerning the *Lob. roughii* it is very interesting to see, not only where they grow (between small fragments of particular size) but the use of the spines on the leaves, which keep the fragments in their place. In taking up some of the plants, I lifted pieces of stone half an inch cube up to which the leaves clung tenaciously.

The *Drac. traversii* which I sent you was from Arthur's Pass 3013 feet, [4] grows in this terrain only, near & on the alpine passes; namely Harper pass between the Taramakau & Hurunui. 3008 feet Arthur's Pass & near Browning Pass about 4600 feet & when almost continually the moist westerly winds bring rain, I think that about 300 days in the year it either rains there or the clouds lie upon these passes. The vegetation on these passes is very peculiar & distinct on the eastern & western side.

I shall be very grateful for anything you will send us for our museum. Our collections illustr. of the vegetable kingdom are very poor & therefore your contributions will be doubly acceptable.

Do you perhaps know anybody who should like to receive a fine collection of moa bones & N.Z. bird skins in exchange for other [5] specimens of natural history? I could send of both some very good collections indeed. As Prof Owen has evidently made some mistakes in his description, however invaluable they are, I should have sent him some, which would have enabled him to rectify them but as he never answered my three last letters, I think he does not care for them or any other information I could give or have given him.

I collected again some ripe seeds during this trip & please to try again your luck. I know you have more work on your shoulders, than a man can conveniently undertake & shall never reckon with you, however delighted I always shall be to receive a few lines from you.

Hector is at the West Coast, he went overland exploring & had a narrow escape of being starved, as the poor fellow made a nasty fall & got his shoulder dislocated, which his companion put to right again, as that he has had now both shoulders dislocated. But I heard yesterday with great pleasure that he is perfectly well again & at Greymouth.

In about two months I shall send you my last report on the headwaters of the Rakaia, properly illustrated with maps, sections & views (the Govern[men]t made "an effort" this time) in which I have treated also of post Pliocene glacier geology & which I trust will not be without interest even to European geologists. I wish you would also have a look at the sections I sent to the Geol. Society. I think I got a new *Coprosma*, as neither *repens* or *pumila* answers to it & on which the *Nestor notabilis* [7] or snow parrot feeds. I shall send you from home a parcel per post. The plants are not yet dry enough; they are only in fruit. I shall begin to collect in our swamps sections of wood, with which some are filled; perhaps it will give us an insight into the climatological changes if there have been any, what however I do not yet see.

By this mail I have already ordered Huxley's new work. I consider he is (at least for a foreigner) the most clear headed writer on scientific matter I know.

Excuse my hurried lines, but I have only one night to do a great deal of writing & want to be off tomorrow morning. What would I give, could you be only one day my companion [8] during my mountain rambles!

Will you present my best respects to Mrs Hooker & believe me my dear Hooker,
yours very sincerely,
Julius Haast

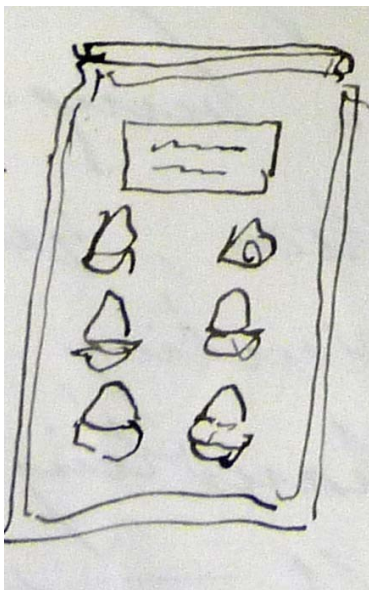
Dr Jos D Hooker FRS. etc.
Kew

65: Hooker to Haast, 1-4-1867
ATL MS-Papers-0037, folder 098-07 & 08

Kew
April, 1/67

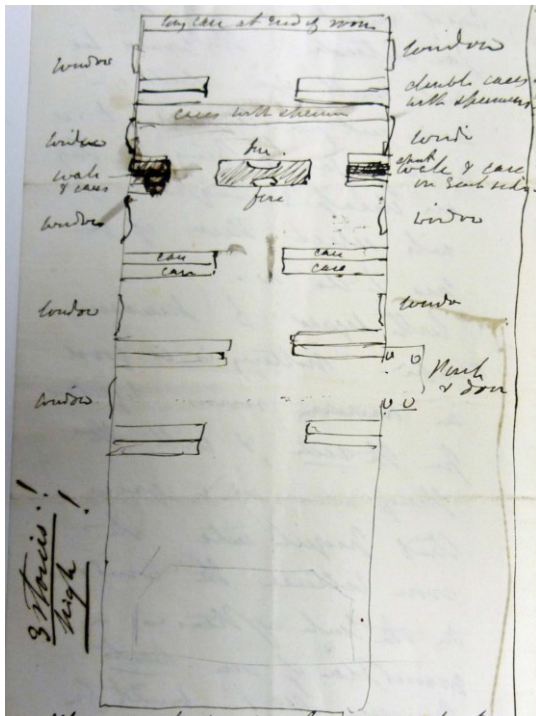
Dear Haast

Enclosed is list of contributions to your Museum & Bill of lading for the same.



I would most strongly advise you to preserve all such things in large glass jars, closed with a bung. They look well thus, you save all dusting, cleaning and handling of the articles themselves, & there is [2] no possibility of losing labels when once attached to the bottles. You can also shift them about anyhow. The jars should be of various size, & it is a good plan to mount the articles on a card which is placed upright in the jar. Thus you have here 6 ----- stems mounted on a card placed in the jar

The label may be on the [3] card inside or on the jar outside. It would be well worth your while to have sent from England £50 worth of jars & bungs – they are cheap enough. I will select them if you care to do so.



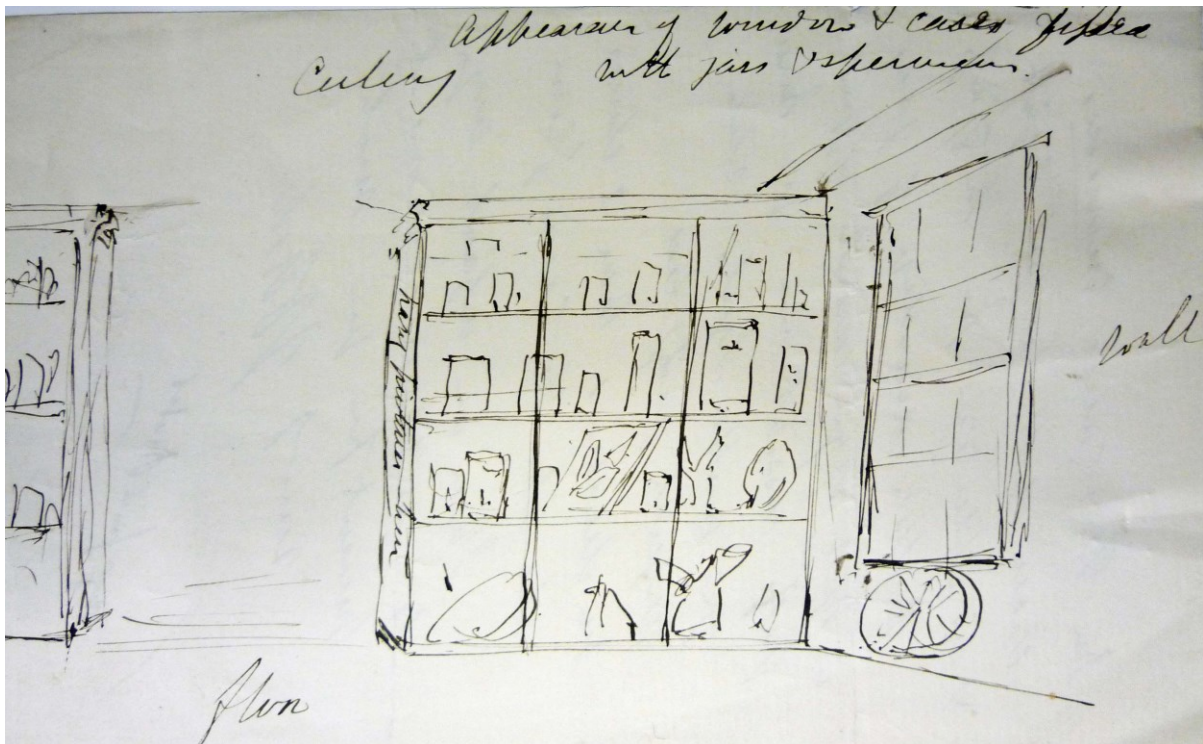
With regard to Museum shape – nothing is so good as rooms lighted from the side & with the things arranged in cases that project into the room between the windows. On the back of this is a groundplan of our best Museum No 1. built for the purpose. Nos 2 & 3 are [4] from adapted buildings.

This also gives great accommodation for visitors & divides them up too. [5] One thus gains enormous space with perfect light & no reflection from the glass. Another advantage of jars is that if you cannot afford glazed cases at once you have your smaller objects still perfectly protected.

Our Museum 1 has 3 stories all like the Ground Floor.

I have an infant very ill¹³⁴ – so excuse more at present from your most sincerely

J. D. Hooker



¹³⁴ Haast has added an annotation in the lower margin: “Wegen seines Kindes” (German), meaning, “because of his child”.

66: Hooker to Haast, 19-4-1867

ATL MS-Papers-0037, folder 098-09

Kew
April 19/67

My dear Haast

I have the pleasure of informing you that you were recently chosen by the Council of R.S. as one of the 15 to be balloted for at the General Meeting – a fortnight hence, when your election will no doubt be ratified. I am exceedingly glad of this if only as recognition of the services you have done to my science & which of themselves is amply [2] justified in the opinion of the Council any thing I could say on your behalf. There were upwards of 60 candidates the largest number ever known & I have been given to understand that the Council was unanimous with regard to 14 of the 15 – a most wonderful unanimity. – I need not add that yours was not the 15th name!

I have yours of Jay 27th announcing the departure [3] of the *Blue Jacket* with the 2 Wardian cases – Many thanks.

The *Ranunculus lyallii* has just arrived alive from Mueller: the most important contribution we have had for a long time; the plants are small & weak after their long voyage but will I hope live.

You will have long ere this received my acknowledgement of the long looked for *Dona Anita*.

Many thanks for the seeds that accompanied your letter.
Ere this you will have [4] received a box of seeds from us.

Ever sincerely
Jos. D. Hooker

Do you hear much from Mueller. I wish I could calm that poor fellow, he is mad after distinctions, decorations, honors & rewards, & seems almost to work for nothing else. It is such a pity. So good a man & one who has done such an enormous deal as he has for science, to spoil all by this insatiable greed of personal distinction. I am sure that F.R.S. is enough for now to satisfy any reasonable man's scientific ambition. I am so warm an admirer of Mueller, that I should be glad if you have the opportunity, of pointing out indirectly, how unworthy of science, is this love & parade of titles which with us real workers are all of them of little account & some (as Foreign orders) contemptible – it is doing him great mischief in the eyes of scientific men here & I can see it embittering his own life.

67: Hooker to Haast, 17-5-1867

ATL MS-Papers-0037, folder 098-11

Royal Gardens Kew
Kew
May 17/67

Dear Haast

I wrote by last mail about R. S. &c. & have to day received yours of 24 March. Most interesting it is in every way to me.

I am so very sorry about poor Hector's accident, how unfortunate he is – poor fellow. He will be delighted to hear of your getting into R.S. He wrote to me very recently about it.

It certainly is curious that *Arundo phragmites* should not have ever been sent me – it shows how curiously [2] common things are often overlooked. I have also by last mail acknowledged the cases the living contents of which are doing well – do pray send another – I will return them as soon as I can. *Celmisias*, *Aciphyllas*, *Ranunculi*, *Veronicas*, are as acceptable as anything we could have.

What a curious thing *Lobelia roughii* must be. I am surprised at its climbing properties & hardly understand them. [3]

You cannot do better than send your Moa bones to W. H. Flower¹³⁵ Esq. F.R.S. Museum of Coll of Surgeons – & say I have suggested this disposition of them assuring you that some notice will be taken of them. – The best person to dispose of the bird skins would be Dr Sclater¹³⁶ Secy of the Zoological Society, Hanover Square, London.

Certainly Huxley is a wonderfully clear-headed writer, we have no one like him at all in Natural History. How different from Owen!

It will be most interesting to determine whether your [4] swamp timber plants are identical with existing.

I have no geological news. My time being terribly cut up this year with the Paris Exhibition. I do long for more “Vegetable Sheep”.

Mrs Hooker deces her best compliments to yourself & Mrs Haast.

Ever most sincerely yrs
Jos. D Hooker

Please persevere with sending seeds, some always grow, but, like all “damp climate” seeds, those of N.Z. soon lose their vitality.

68: Hooker to Haast, 18-5-1867

ATL MS-Papers-0037, folder 098-10

Royal Gardens Kew
May 18/67

My dear Haast

I have to announce the arrival of the long looked for 2 cases of live plants. I am sorry to say the contents were nearly all dead. This so often happens that I must beg you not to feel disappointed with the result. The following are the living:

Aciphylla
Earina

¹³⁵ Sir William Henry Flower (1831-1899), English comparative anatomist and surgeon, later director of the Natural History Museum in London.

¹³⁶ Philip Lutley Sclater (1829-1913), English lawyer, ornithologist and zoologist.

Dicksonia lanata
Alsophila colensoi
Cordyline gouldiana [2]

If these live & flourish these alone will amply repay us.

About ½ a dozen other things were alive, but we had them before. They are welcome however I assure you.

You do not say whether you would like the cases returned with live plants; please let me know as soon as possible & what kinds of plants they should be, as I should like to send them in autumn. [3]

Mueller has sent us a live plant of *Ranunculus lyallii*. – Any of the other alpine *Ranunculi* & the *Aciphylla* &c. will all be welcome. Also seeds of any & all *Veronicas*, we have very few alive.

Ever most sincerely yrs
J. D. Hooker

Enclosed herewith are seeds of Tussock grass of the Falkland Islands, ripened at the Hebrides. It grows in Sandy Peat by the sea but must be protected from [4] cattle & rabbits etc.

69: Haast to Hooker, 24-5-1867
Kew DC 174 ff. 332-333

Christchurch, May 24 1867

My dear Hooker

I wrote you last in March from the headwaters of the Waimakariri river and returned 3 weeks ago to town, having closed my autumn campaign. Since then I had the great enjoyment of receiving volume 2 of your NZ Handbook, which came most welcome and is worthy of the first volume. We Colonists may feel proud of such a capital flora of these islands & I trust that our legislature, according to the feelings of your numerous admirers, will show you their gratification & appreciation in one form or other. Many thanks for the Handbook as well as for the list of plants. I enclose a few observations & queries to the latter, as you have omitted to give me some important names & you will very much oblige me, if you will send me an answer. I am just [2] preparing another collection for you, which I shall send by the bookpost, consisting of collections made by Messrs Armstrong, father & son, on the Banks Peninsula during their Sunday rambles & my own collections at the headwaters of the Waimakariri, amongst which there are some interesting & I trust new things. I am just beginning to go through Vol I of the new edition of Lyell's *Principles*, but have not yet advanced enough to tell you my impressions. Hochstetter writes to me that he has just sent me a new work by Sartorius von Waltershausen¹³⁷ "on the climate of the geological periods" and that he considers it a most excellent work. Have you seen it?

In a few weeks I shall have the satisfaction of sending you my Rakaia [3] Report which is well illustrated (for a young Colony). At our West Coast I have observed some very

¹³⁷ Wolfgang Sartorius von Waltershausen (1809-1876), German geologist.

puzzling things which give me much to think, and which often unsettle me all together. Namely I have repeatedly found there morainic accumulations overlying in thin layers undisturbed post Pliocene alluvium. Is thus the conclusion not far, that glaciers of such enormous thickness & extent could spread over fluvial beds and in retreating cover them with their detritus load? And what becomes then of the excavating power of ice of which there are again innumerable & clear instances everywhere around us.

I have now made up my mind, not to write a single line in future upon the subject, till I am quite clear with myself & I can explain sufficiently these difficulties in my way. Sometimes, I must confess, I feel very disheartened [4] when I see that thus new facts seem to throw all my former work over board & that I have as it were to begin again.

In this letter I had to thank you for so much that I overlooked to do so for your magnificent lecture on Insular Floras. I see Unger¹³⁸ & Heer with their Atlantis fare badly. Many other very important deductions can be made from this interesting work, however small & which the end about the eating of the old moons is very telling & true. I still remember vividly of having read the Bishop of Oxford's¹³⁹ observations about Darwin's theory & your answer & when called upon and certainly the change has been most wonderful in such a short time.

Hector left about a fortnight [5] ago. We spent a few pleasant days & he just came back from the West Coast, where he had been about six months & he looked rather thin and tired.

Our latest great news is the meeting of the two drives in our great railway tunnel through Banks Peninsula (1 5/8 miles long). The level & measurements were perfect & we shall in about 2 months go by rail from here to Lyttelton. My sections & specimens in illustration will instruct you without doubt, I shall send them to the Geological (the section is 40 feet long & you will see the greater portion of it at the Paris Exhibition).

Ever my dear Hooker with united kind regards,
Yours very sincerely,
Julius Haast

[6]
Notes & Queries to my Rakaia Collections of 1866.

107. is certainly not *Coprosma baueriana* as it does not agree with it according to your description. Moreover my specimens are truly alpine & not found below 5000 feet.

105. Please to have another look at this plant, which does not well agree with *Ourisia macrophylla*.

9. If this is *Aciphylla squarrosa*, what do you call the very narrow needle leaved one?

294. is not *Carm[ichaelia] odorata* (from Banks Peninsula). In the first instance this species is not scented & secondly *odorata* is truly alpine.

¹³⁸ Franz Unger (1800-1870), Austrian botanist and palaeontologist.

¹³⁹ Samuel Wilberforce (1805-1873), English bishop in the Church of England and opponent to Darwin's theory of evolution.

235 *Craspedia alpina* grows in great abundance amongst grass close to Christchurch in the old river bed of the Waimakariri.

91 is quite different in habit and growth from *Geum parviflorum*. The latter grows mostly from fissures of perpendicular rocks near waterfalls or at least in [7] very shady moist localities (or near to dripping water). My specimens 91 are growing on alpine meadows, the flower stem is straight & altogether the habitus of the plant seems different.

54 What is the new *Aciphylla* with the red lines. Certainly, at least according to my convictions, not *Monroi*, both grow together & are very different in character, moreover the red lines are constant.

338 What is the plant from summit of Arthur's pass, a white berried *Coprosma* (?) with enormously thick stems creeping over boulders. I send you a large specimen. What is 336 Armstrong's large grass?

Will you, if possible, send me the names of the following numbers, which you overlooked to do,

306

305

307 [re above three numbers:] Grasses. [8]

40. *Wahlenbergia*

13. *Raoulia*

99. *Dracophyllum*

230 *Gaultheria*

221.

122. *Coprosma*

158 *Poa*

Dracophyllum traversii grows in this province only near & on the alpine passes where a great amount of moisture is prevailing during the whole year. Its beautiful form & dark brown-reddish hue give quite a character to the landscape, not found elsewhere in the Southern Alps. It grows upon Arthur's & Harper pass & near Browning's pass from 2500-4000' – Hector thinks that it is identical with *D. latifolium*.

70: Haast to Hooker, 29-6-1867

Kew DC 174 ff. 336-337

Christchurch
June 29 1867.

My dear Hooker

Your two welcome letters of the 1 & 19 of April are in my possession & I do really not know how to thank you for all the kindness you have shown me. My selection by the Council of the RS has given me so much joy that it is impossible to express it in words. I know very well I do not deserve such a great distinction, the greatest in my opinion to which any scientific worker can aspire & more worth than all the orders of the world & I owe it only to your friendship & influence, because I have as yet done nothing which should give me a right to expect such a distinction.

I hope that in the mean time my two Wardian cases have safely arrived & that you have found the plants, of which I send you a [2] a list, were in good condition. If this first trial went well, I have another lot in readiness, including *Veronica epacridea*, *Senecio cassinioides*, *Celmisia lyallii* & *petiolata* etc.

Many many thanks for your magnificent contribution for our museum the arrival of which I am expecting most anxiously. I fully agree with you concerning the large glass jars & I shall return to the subject as soon as I have a little more money for our museum. The catalogue is highly interesting & was most welcome.

I am glad that our museum plan is entirely according to your valuable suggestion; we shall have numerous windows from both sides, just like in your plan, only we have added a gallery running all [3] round & which is lighted from above.



It gives lots of room & is very cheap to build. Unfortunately we are very badly off at present, so that the museum, like many other things, has not yet been begun, but the Government is compelled to find me room because my boxes & packages will soon fill the whole Government Buildings.

I must confess I was rather startled about the *Ran. lyallii*, which Mueller sent you; although I rejoiced that this plant had safely arrived. Last year Mueller wrote me very anxiously about it, that he had a splendid place near a little lake among fern trees in his garden. I therefore sent him 3 roots at once & it would really be very funny if he had sent them to you instead. But before I will accuse [4] him of such a strange proceeding I shall ask him about it, because it may be possible that he received some roots at the same time from another quarter, although I do not know, who has been in our Alps collecting living plants.

Your observations about him are unfortunately too true, our correspondence has shrunk considerably for the last two years, he has really no time now to write letters except when he wants collections to send to foreign courts or museums. – I do not think that even indirectly I can do much good in that respect, he would only consider me envious of all his honours. It will perhaps interest you to hear something more [5] about him. What a pity that such a bright intellect is thus occupied with things unworthy of himself & that he forgets that true fame follows in the wake of downright honest work. Some time ago he wrote to me very anxiously about moa bones, but as I intended to offer my duplicates to several of the continental museums in exchange, in order to know, when he intended to send them, so that I might not write to his friends, I requested him to tell me when he wanted to send them, but he never answered my question; why I can easily understand.

His Melbourne friends are very angry with him, because he broke off two engagements, the first because he thought that the young lady, to whom [6] he had been engaged for some time was now not good enough for him & too old. He was afterwards

engaged with a young lady of 16, very accomplished & nice (as I was told) but she was living with her uncle, who unfortunately failed, he broke it off again for that reason, of which the poor girl was of course quiet innocent. Poor fellow, Der Hochmuthsteufel¹⁴⁰ (allow me that German word), took possession of him. Do not think that I want to do him any harm in your eyes, because no one will more stand up for one poor friend, than I should, in case of need. It was only to show you, how all his bright qualities are once shadowed by [7] this unfortunate greed for personal honours.

I was truly grieved to hear that one of your children was very ill when you wrote, but hope that the coming spring has soon restored his health. Concerning my own little family I am happy to say that since the birth of our second son, my wife has wonderfully improved in health.

With united kind regards to Mrs Hooker and yourself,
believe me my dear Hooker,

ever most sincerely yours,
Julius Haast

I wish you could see my collection of articulated *Dinornises* I have six complete skeletons namely *giganteus* (11 feet) *robustus*, *elephantopus*, *crassus*, *casuarinus* & *didiformis*. It is a glorious sight & of course unique in its way. By the bye have they at the Geol. Survey any moa bones or should they like some?! [8]

Owen made some very curious mistakes but really I do not know how to make him acquainted with them, because he never answered my letters about the *Plesiosaurus australis*. I shall send you photographs of the whole lot. It is difficult to have a concept of the size of *D. giganteus* without having seen the skeleton.

Yours de coeur
JH

71: Haast to Hooker, 1-8-1867

Kew DC 174 ff. 338-339

Glenmark, Aug 1. 1867

My dear Hooker

A very heavy south wester with deluges of rain has caught me here & kept me imprisoned already for three days; a little brook near the house is a raging torrent & my intentions to dig for moa bones in a swamp close bye are thus frustrated.

Although I have not your two welcome letters of May at hand, knowing their contents, I shall answer them now & when I return before I post this, add what I may have forgotten.

Notwithstanding you tell me not to be disappointed about my two Wardian cases, I am so very much, principally, as all [2] the *Ranunculus*, *Celmisia* & *Veronica* plants, which I

¹⁴⁰ Pride got the better of him.

valued most, seem to have been destroyed. I shall be very glad indeed if you will have them filled & return them by one of our quick passenger ships. Mr Gould told me that a case which he sent arrived in much better condition; namely he covered it with thick canvas, which in fine weather was removed & one of his friends on board watered the plants when necessary.

By one of the next wool ships (in December) I shall try the same dudge & select one of the passengers to undertake the covering etc. & watering, if the Capt'n will not undertake it & we shall then see if it is not possible to get them safely into your [3] possession. The *Ran. lyallii* plants (6) were much better & larger than those I gave to Mueller, but we are perhaps more successful next time. Many thanks for your suggestions about sending my collection for exchange. By last mail I had at last a letter from Owen, who saw in a newspaper about my moa excavations but he never mentions my former letters in which I wrote him repeatedly about the Tertiary [Tertiary] age of his *Plesiosaurus australis*, but is very anxious to obtain the necessary material for further Memoirs.

It is my intention to follow your advice & send [4] the moa bones in question to Mr Flowers; if Prof Owen, resp. the British Museum will give him a fair exchange for them he is welcome, in every case he is welcome to describe them & if he likes correct former mistakes, of which he made some curious ones, which will be clear to you, when you see my paper with the photographs of the 6 skeletons I have set up & are a magnificent sight. But I do not wish to be misunderstood, with regard Owen's. Nobody admires more his skill & knowledge & without his Memoirs my task would have been a much more difficult one, although it seems to me that he rather works more for fame, than it is right. [5] Thus for instance he has, as I shall be obliged to show, made much more species than there exists, male & female birds – *elephantopus* & *crassus*. – *casuarinus* & *didiformis*. As I have such a large material – more than sixty individuals, I believe I can prove it satisfactorily. I came here to go over the same ground for small bones, which escaped me before as for inst. beaks of smaller species, caudal vertebrae etc. & which are necessary for the completion of some of the skeletons I have set up or intend to send to Europe.

Another small parcel of plants collected by Armstrong, father & son, are going by this mail. Please to let me have the [6] names, as they are very anxious to get the correct ones, as we are not quite certain with some of them.

Did you see my large tunnel section at the exhibition put up about the middle of May? Unfortunately the 2 boxes with specimens had not yet arrived end of May. Heaven knows what became of them. In a few weeks I shall be able to finish it (there about 100 yards in the centre missing in the Paris one) & send two complete sets with the section (40 feet long) to the Geol. Society & to the Geol Survey (L.). It is most instructive & sets, if it were necessary, the crater of elevation theory at rest. Hector has done [7] the chemical portion & we intend to publish the whole together. I have to admire every day more his accomplishments & clear head as a geologist; he would save me many a sleepless night, were he nearer to me, that I could consult him.

The *Lancashire Witch* has arrived & I hope to be able of telling you soon if the valuable contents of the case you sent us are all right. Did you have a look at my West Coast glacial sections? You shall have a real vegetable sheep by one of the next wool ships; it was destined for you, when I brought it down from Mt Torlesse.

With kindest regards, von *Haus zu Haus*¹⁴¹,
ever my dear Hooker,

yours most sincerely,
J. Haast.

[8]

Glenmark, 3 Aug.

I shall not come to town before the mail leaves & therefore can not send the parcel of plants,
which will go by next Suez mail.

Ever yours faithfully,
JH.

72: Haast to Hooker, 7-8-1867

Kew DC 174 ff. 334-335

Christchurch Aug 7. 1867.

Dear Hooker!

The following plants are very much desired to be introduced into the colony; should therefore
the one or the other be in the possession of your gardens & you could spare them, I should be
very glad if you would have them put into the boxes, (resp. Wardian cases).

Imantophyllum miniatum
Croton variegatum
Jubaea spectabilis
Yucca quadricolor
Dasyilirion acrotrichum
Latania borbonica
Pandanus javanica variegata
Alocasia metallica
Samangia sarafrigiensis [?]
Geranium Miss Martin
[*Geranium*] floribunda alba vari
[*Geranium*] Lady cullum
[*Geranium*] International
[*Geranium*] Victoria Regina
[*Geranium*] Martial de Charfloin
[*Geranium*] Surpasse Gloire de Narey
Osmunda regalis cristata
Dendrobium nobile
Dactylis glomerata variegata
Variegated Japanese maize
Caladium Arggrites
[*Caladium*] chantini
Sarracenia purpurea
[*Sarracenia*] flava pieta
Cibotium princeps
Rhipalia [*Rhipsalis*] any species

¹⁴¹ House to house, or from home to home.

Lilium auratum [3]

The parcel of plants goes only with this letter, as it was not ready for the mail. I send also a parcel with seeds, all collected by J. F. Armstrong, head gardener of my friend Gould. I hope they will be of value to you & germinate.

I copied the list, given me by Armstrong, so if there are any mistakes, as it was not clearly written please erase it.

4 Sept 1867.

Very urgent business prevented me from finishing this letter for last mail & I am therefore very glad that I can add that your splendid contribution to our museum has arrived safely & in first rate order. Please to receive my very warmest thanks; it will make, united with our NZ timbers, make a nice show. – Also the large parcel of seeds was very welcome & will I trust augment considerably our introduced flora.

Mr Armstrong has just been appointed Government Gardener, so that you may now expect regularly cases with living plants. I should be very grateful to you if you would procure me a proposal paper of the R. S. of this year as I should like to keep it as a valuable record to myself & my family.

My gigantic collection of moa bones has nearly worried my life out, as I wanted to follow Owen & found very often that he was misleading me. Owen wrote me in the meantime & wanted very badly bones of different species which are missing in the British Museum. I shall now send duplicates of all what I have got to Prof Flowers with my paper, the photographs of my six skeletons, articulated by me & my assistant. He may then exchange with Prof. Owen for me & look over my work & if he considers it worth it have my photographs published. I shall write to him at length about it & add some good bones as a present for his troubles. Do you like to get some for yourself personally?!

With united kind regards,
ever my dear Hooker,

yours most sincerely,
Julius Haast

Dr J D Hooker FRS etc
Kew

73: Hooker to Haast, 31-10-1867

ATL MS-Papers-0037, folder 098-12 & 13

Royal Gardens Kew
Oct. 31/67

My dear Haast

I am in receipt of yours of Aug 1 & the valuable packet of seeds, which I have had sown at once – many thanks for them. The next box that goes to you shall contain as many as we can send of the live plants you have enumerated, – but it is a queer list, clearly enough written. Thank you.

I am delighted that the Museum things please you.

I will get a copy of your R.S. papers – it is a very dry cold affair; we are [2] very Quaker in diction, & go at it viva-voce in Council.

Many thanks for offer of Moa bones, but I do not think I could stow them away. I confine my little spare space to some pottery-ware (Wedgewood) in which I am interested, & Stone implements, flint flakes etc. If you could get me some of them I should be obliged indeed.

Armstrong's last dried plants that came with your letter are miserable, actually worthless, [3] & all crushed up too. I wonder he cannot see that he is sending the commonest things of the island. But there is no accounting for these things – you, with the labors of Hercules on your shoulders, & no special knowledge of Botany, sent me loads of new things; & he is a horticulturalist by trade, sending me the commonest weeds of the field & forest, that have been gathered by every one from Cook's time onwards. It is a want of discrimination that no education ever mends. Pray do not tell him all this. I see too by the way he "tumbles up" seeds that he will not do much good in that way. [4]

I paid £14 the other day to R.S. for your Entrance fee & first years subscription – for which I send the receipts.

No doubt the best way with Ward's cases is as you state to send them with thick canvas covers & a friend of some discrimination on board who will take the covers off in fine weather, & water the plants occasionally. Bidwill brought us lots of fine things that way himself.

With regard to seeds, Armstrong does not collect these ripe enough, & N.Z. seeds, under the best of circumstances, germinate very ill. I should like to receive a small box of seeds as big as 2 or 3 fists – packed in earth not too moist, in layers. Of course they must be packed & despatched at once. [5]

Poor Mueller I am really vexed about him; all you say is too true, & there is no helping it. No remonstrance or caution is of any avail – hurry scurry is his ruling genius. The amount of work he has done is marvellously great, but of well digested work almost nil.

I greatly regretted not seeing your tunnel sections at Paris; they were not yet set up when I left in June! & I have not been since.

I long for the Photographs of your *Dinornis* bones: which glorious creatures they must [6] be. I hope to see Flower today & will speak to him on the subject of your letter. Owen is rather past caring about his blunders, & is grown very deaf.

Darwin holds pretty well for him. His book will be out in November.

I am working away at my duties here of the Garden & at "Genera Plantarum", a dreadful drag on my time & purse, as to save expense Bentham & I print ourselves, & sell it by commission. This [7] keeps down the Trade profit but we shall not cover our outlay for years. We print 1000 copies, some 350 are sold of Pt. I & fewer in proportion of 2 & 3, but as

the last concludes a volume I hope that the public will begin to buy up. There will be three huge volumes.

The presidency of the Brit. Assn for 1868 weighs heavily on me, I have a morbid dislike to public honors, & though I feel duly flattered etc all that sort of thing, I would get out of it if I could & pay any money to do so. Indeed I did refuse the offer for 3 months, til the [8] Botanists closed round me & put it before me as a duty to my own science to accept.

Ever my dear Haast sincerely yours
Jos. D. Hooker

74: Haast to Hooker, 10-12-1867

Kew DC 174 ff. 340-341

Glückauf, Chch. NZ
10 Decb 1867

My dear Hooker

Your welcome letter of the 14 of Aug with the desired note arrived here in due time & I was delighted to see that there were at least some new things in the last collections. Many thanks for your notes. Concerning the Armstrong collections, I wish to point out that they were all collected near Christchurch within 5 or 6 miles & that thus there is little probability that there are many or any novelties amongst them, but as both father & son will go in the mountains to collect during this year's season, I hope they will be more successful; I should be grieved to see them disappointed because after all there are very few people who take an interest in botany; I mean to say so much; that they go & collect for the love of the thing. And there [2] fore I was very grateful to you & glad to see that you had named the new *Hymenophyllum* after them.

I have been so terribly busy of late with my moa skeletons, opening our infant museum & many other things that I have not yet found the time to look over your notes & compare them with the plants, but which I shall do in the course of next winter, when I shall be back from my journeys which will keep me the whole summer & autumn in the field, but I shall add here a few observations on those points which I can give without looking at our herbarium.

107 *Coprosma serrulata*. It has a large red fleshy berry, grows in bushes 8 to 10 feet high, very thick & forms with *Olearia Dracophyllum* etc [3] almost impenetrable thickets in our subalpine regions (300 – 4000). Higher up it becomes more stunted & creeps over the ground.

The Genus 91 have white flowers. I am certain that 91 is quite distinct from the others. I shall try to get for you the desired series of specimens.

No 54 I sent you specimens & as I thought good ones in flower & fruit. The red lines are constant & I shall pick you out good specimens from our collections, which show them well. It is a plant which dries very badly. There is not the least doubt in my mind, that it is a distinct *Aciphylla* & not *monroi*.

According to your suggestion in a former letter I took the liberty to send a large collection of moa bones to Mr Flower. R C of Surgeons, but requesting him, if Prof Owen [4] will send me an adequate collection of other specimens of natural history in return, to hand these over to him. I also have sent him a series of photographs, drawings, notes etc. also with the request to let Prof Owen use them in case he will do so. I know that this is somewhat curious way of doing things, but the reason is simply that when our Government heard that Prof Owen was very anxious to get some bones in exchange & some information about them, they requested me to do so. On the other hand, as I have not been well treated by him before, I did not like to send Prof Owen those things directly because I thought he would perhaps after all, as in some things I found that he had made slight [5] mistakes, put them aside & then all the trouble would be for nothing. Moreover as those bones cost us a great deal of trouble, time & money to collect, I thought that it would not be unfair to obtain at least some return for them. Thus if Prof Owen does not use my notes for the reason above explained, & does not want the bones, I am certain that Mr Flower will not let them lie idle. Moreover I am quite willing to send to him from my next excavations a nice collection for his trouble. If you see him, have the kindness to tell him that I shall be very grateful to him, if he will be kind enough to further my views.

I enclose a few small photographs in order to show you, what I have done. It is a fine collection & interesting to see the 6 skeletons together. [6] I hope you will see the large photographs of which I have sent a set both to Mr Flowers & to Prof Owen & I have to request you not to judge me too hard, if there are blunders of which I have no doubt. Remember under what disadvantages I labour here. I tried to do my best.

I was delighted to see that you will be the president of the next meeting of the British Association; there will be some slight difference between the two opening addresses of the two presidents of 1867 & 1868, although I must confess, I was agreeably surprised that the former president, like a sensible man, did not go out of his depth.

It is with great expectation that I await the mail which will bring me the news that you have received my last Rakaia Report & what you think of it. [7]

Your handbook has had already at least one good effect, namely to teach our gardeners the correct names; before that time at their meetings they talked sometimes a wonderful gibberish & principally for our native *Veronicas* they had amongst others a wonderful array of names. *Veronica dogibendibus* was one of them. (*carnosula*). This at least is the joke which is told of one of them!

I hope I shall get some novelties this year, as I am going over new ground & am fortunately in the right season. Your valuable addition to our museum looks first rate & is highly admired. I shall write during my journey, when I find some little time for it.

Ever my dear Hooker,
most sincerely yours,
Julius Haast

Dr J D Hooker FRS
Kew

75: Haast to Hooker, 28-1-1868

Kew DC 174 ff. 342-343

Governor's Bay, Banks Peninsula

28 Jan 1868

My dear Hooker!

I have not written for two months because I have been absent from town & when returning to this spot in order to nurse a sprained ankle, before I am off again to the West Coast. In the meantime I had the great pleasure to receive your welcome letter of the 31 of Oct, enclosing the 2 receipts of the RS & the last of the living plants you were kind enough to send by the *Mermaid*. Many thanks for your kind foresight in paying my subscription, which without doubt Mr White has at once returned to you. I sent it at once when I received the news of my election & had I known that the time [2] was so short, I would have sent it before hand, although I did not know how much I had to pay. The plants arrived also in the meantime quite safely, about a fourth of them were dead, but fortunately some of the novelties were in splendid condition & forms a welcome addition to our flora.

Armstrong is just starting for the central chain to collect living plants & you may thus expect some good specimens by one of the next resp. last wool ships, which go about May & I shall take good care that they are well looked after by a passenger.

About Armstrong's bot. collections I must say that he was only collecting round Christchurch & on the foot of the Peninsula, as he had no time to go inland, his object being mainly to show you what is the general [3] character of the vegetation around. But as he intends to collect on his mountain trip also for the herbarium let us see what he brings.

On my last trip which did not bring me far inland, I was not fortunate in plants, as the ground is everywhere so overrun with sheep & I should have swelled only Armstrong's specimens; there are two or three things however which will come with my West Coast plants when I return from that trip in April. Mr Armstrong & Mr Potts have both promised me to collect good ripe seeds for you & I have no doubt that they will do so. In about 6 months I shall have finished my principal geol. fieldwork in the province & then I shall have ample time to obtain & send for you all what you may desire for your gardens.

Concerning Owen, I [4] must confess that I wronged him in some respects, because when I looked well into his memoirs, I found that most of his discrepancies he corrects himself & that otherwise his work is exceedingly valuable full of information; with the exception of 2 glaring mistakes the whole is a splendid work, this is as far as I can judge. Of course I am a very poor comparative anatomist, but my master has been nature & with that one goes seldom wrong.

I was very anxious to have Hector here in order that he might look over my moas & tell me if he sees anything which ought to be corrected, but unfortunately our King Cole (Jukes¹⁴² writes me about your Engl. King Cole) will not give him breathing time & he is now always in the field, so that he could not find [5] time to run down to Christchurch, but I trust that he will do so when Prince Alfred¹⁴³ comes to New Zealand. Although I do not think, he cares much about that sort of thing.

¹⁴² Joseph Beete Jukes (1811-1869), English geologist and naturalist.

¹⁴³ Alfred Ernest Albert (1844-1900), second son of Queen Victoria.

The last news from England are rather startling; I fear that under that Fenian swindle there lies something much deeper; it often strikes me, as if you were on the eve of a terrible social revolution in England, that property has been accumulating in too few hands, that the Trade Unions & such like societies will do an enormous mischief in the course of time; I fear something is rather in our present system of financial politics, which will end in a terrible smash in the great centres of population. I only hope that we shall not see it in our times.

Concerning Maori stone implements [6] I am very sorry that I cannot send any at present, because this part of NZ is very poor in that respect. Hector is the man to get them from, but as I trust in my luck, I have no doubt that one day I shall come upon an old Maori burial place & get a lot of them, when you will not be forgotten.

I shall soon write again.
Ever my dear Hooker,

Yours most sincerely,
Julius Haast

Dr Jos D Hooker FRS.
Kew

76: Haast to Hooker, undated

Kew DC 174 f. 344

Glückauf near Christchurch

My dear Hooker

The bearer of these lines is my particular friend Mr J D Enys, who is a very arduous botanical collector and who has contributed of late much material from our mountain ranges.

My friend will be able to give you much valuable information of the geographical range of our subalpine & alpine vegetation [3] as the Mt Torlesse range belongs to his sheep run on which he has collected & observed for years, whilst for botanical purposes he has crossed several times the central range to the West Coast, principally in search of ferns.

I shall feel very much obliged to you, if you will show to my friend any little attention in your power, for which I shall be very grateful to you.

Believe me my dear Hooker,
yours very sincerely,
Julius Haast

Dr J D Hooker FRS. etc.
Director of Royal Gardens
Kew

77: Hooker to Haast, 1-5-1868

ATL MS-Papers-0037, folder 099-01 & 02

Royal Gardens Kew
Kew
May 1/68

My dear Haast

By a ship this week I have received a most magnificent testimonial for New Zealand of a superb Writing Table & of inlaid New Zealand woods. I really know of but 3 or 4 names of individuals who have had any hand in this most gratifying & costly cadeau – & I am sending my thanks, which are deep & loud & long, in a very promiscuous manner. [2]

I have yours of 10th Dec & 28th Jay to thank you for, but this horrid Panama Mail, coming as it does on the day of the India, China & Australia mails, always overwhelms me with work.

Thanks for what you say about the Armstrong's, I should be most grieved to say anything that would chagrin them – but I am sure you will quite understand, that it can never be worth my while to send over & over again lists [3] of the commonest N.Z. plants & those to be made out from wretched specimens: but such is the fact – their collections do not contain one good specimen, & not one good or rare plant, or new to the district. The common Flora of N.Z. is now as well known as that of England – the rarer Flora of your districts you generally have well nigh exhausted; & in consequence it requires some critical knowledge to obtain much novelty of interest, & some long & careful systematic observations to clear up such obscure affairs as *Celmisias*, *Coprosmas*, & *Astelias*, *Veronicas* etc. [4] Mr Flower exhibited a superb set of your Moa bones at one of the Soirees; & your Glacial views still reappear at the Geographical Societies etc & are greatly admired.

Your Rakaia Report came very late to hand. It is a most interesting one, & full of curious matter, food for future generalizations. What a wonderful water system is your's! The sketches are capital.

I have had 4 days holiday in Wales with Huxley, & spent the time on Snowdon, which is the [5] finest mountain of its size I ever saw – I had never before visited it! Certainly the Lakes & tarns on it bear out Ramsay & your views of the scooping more than any I have ever seen.

This last year has been one of incessant & hard work with me, besides the Garden duties, I have had a pr---- of correspondence with India, the Colonies & various Foreign states that has cut up all my time.

The 2^d Vol. of Lyell is out & I think it better than all Editions put [6] together since the first.

Darwin is also out, now 3 months, but I have not had a moment to read it! – he is much better & busy on his work on Man.

A thousand thanks for promise of more vegetable sheep & bigger. I exhibited the others at the Linnean Soiree last Wednesday, where they were greatly admired. [7]

I do not think that we are yet near a social Revolution in England – the land is in a vastly greater number of hands than the newspapers say & though accumulating in some

counties, it is dividing up in others. As population increases so will crimes of violence, & the Fenian affair comes under them, & not under a political movement, though that coloring has been given to it. A few American Irish desperadoes can give a bad color to any cause. The results of the trials shows how calmly & judicially we can afford to take it all. You can have no idea how Ireland has advanced since I knew it – & this advance of the best classes, of Catholics & Protestants [8] drives the worst class to desperate deeds. We are bad enough God knows – & England & Ireland too, but in all these matters, it is not our worst faults that get visited as they should be by retribution, & little as we know of ourselves, others know less! & this is my idea of every nation. Even yr nation lives in a perpetual misunderstanding of itself, & in attributing sorry natives to its misfortune! & England is no exception!

Most truly yours
Jos. D. Hooker.

78: Haast to Hooker, 16-7-1868

Kew DC 174 ff. 345-347

Christchurch, July 16. 1868

My dear Hooker

Many thanks for your letter of the 1 of May. I am delighted to hear that the cabinet has given you pleasure & I am certain your pleasure can not have been greater than ours to be enabled to show you thus in a little way, how very grateful we NZ colonists are for all the trouble you have taken with our flora. And I may add that this was quite a private affair & nobody asked for subscriptions, at the contrary, much more money could have been got if it had been necessary & I know of several people who were greatly disappointed that they were not allowed to contribute towards it. And may I be allowed to add, that I hope you will enjoy its use many years, strong in body & mind & although occupied with other work you will not altogether forget our flora, your Antipodean friends, who all of them have [2] great obligations towards you. And amongst them none is more indebted to you, than myself, to whom you have extended from the beginning of our correspondence the hand of a true friend, & who never can be grateful enough for all the kindness he has experienced. You will perhaps smile at all this, because Englishmen although they feel just as deeply as we Germans do, do not like to show their feelings; but remember that I am a German & have therefore a right to be a little more expansive, than you Englishmen generally like or wish to be.

Concerning my last collections I am sorry to say that I have almost nothing worth sending. I was sometime at the West Coast, but got nothing new & moreover in going through the surf, I got my plant papers wet & all the plants went to the dogs. – But I hope that next summer I shall have [3] an opportunity to collect & shall certainly not neglect to go in for the difficult genera you mention.

From my last West Coast journey I came back with a very unsettled mind about glacial theories. Imagine, I found there what I consider true moraines along the coast, underlaid by undisturbed beds of alluvium & sand, often several miles long & I said to myself, why should those enormous glaciers reaching the sea not be able to furrow into these soft beds? The line between the alluvial beds & the morainic accumulation is quite sharp & well defined.



Löse mir, oh Oerindur
Dieses Räthsel der Natur.¹⁴⁴
Schiller.¹⁴⁵

There is no doubt in my mind that the morainic beds are of subaerial origin & not submarine.

You see there is still plenty of material to sift, before the great truth will favour us with its appearance. [4]

Many thanks for your report, which has interested me very much, what wonderful place must Kew be & I hope to live to see it again. The “vegetable sheep” is ready & will be sent by the first opportunity.

I still think notwithstanding what you say to the contrary, that some social changes are imminent, in England & some other European states. If we look at the history of Rome we see that agrarian riots have always occurred & will occur as long as so much property can come into a few hands. There is at the same time a momentum of still greater importance, namely that the working classes are now better & I may say imperfectly educated, that they thus become dissatisfied with their conditions. They seek to remedy the evil, which brings them to do wrong & when once on the revolutionary path, heaven knows when they will stop. – I know, you can answer [5] me that I am here too much of a doctrinace, but watching as I have been the events in Europe for the last 20 years with an eye to social reforms, I fear that my conclusions are right. It will perhaps take many years more before such social changes, as I anticipate will be attempted, but the attempt will be made. I do not speak here only of England, but of many of the wealthy European states, where the working man element struggles to the surface.

I had the enjoyment to see Hector here for a week & I regretted very much when he left, because with him head & heart are combined. As my engagement with the govt terminates end of this month, we made some plans, which if realised will bring me to Wellington & in close connection with him. But it will take some months before they can be realised.

Some time ago I saw a friend of mine who had been in Melbourne. He told [6] me that our friend there was really going too far in his desire to excel everybody. He quite seriously meant that there must be some monomania in him. Poor fellow, I hinted in several of my letters, that appearances could do him harm, but I did not wish to speak more pointedly.

Strange, a few years ago, I had a fit of a similar nature, but in a very mild form, but since then I found that I am drifting in the opposite extreme. Thus for instance, when I was

¹⁴⁴ “Löse mir, oh Oerindur | Dieses Räthsel der Natur“ (German), meaning: Solve for me, oh Oerindur [name], this mystery of nature.

¹⁴⁵ Friedrich von Schiller (1759-1805), German poet, philosopher, historian and playwright.

elected an FRS, it gave me immense pleasure, but only for a short time & afterwards I had the painful feeling as if I were there under false pretences.

I have not yet seen either Darwin's work, nor the second volume of Lyell, but expect them soon in my book box.

With kindest regards,
believe me my dear Hooker,

yours most truly
Julius Haast

[Enclosure: (f. 346)]

*Some three months ago, a man brought an elephant over to New Zealand, which he landed at Otago & travelled afterwards over land with him. Arrived at the Waitaki, he intended to give the animal a spell of a few days, seeing such fine feed. The grass resp. vegetation had been burnt last year & a very fine crop of succulent young plants of *Coriaria* was growing there. The elephant fed amongst them four hours, went then to a creek close by & had a long drink. In turning back, he began to reel fall on the ground & expired after three hours. He died thus 7 hours after first beginning to feed amongst the tutu.*

I think this is a very curious fact & worth being published. It is also remarkable, that the Elephant should, like sheep & [2] cattle, touch the *Coriaria*, whilst the horse never does so.

Your Wardian case is already planted. Armstrong is doing all in respect to it, but he gets some of the rarities from my garden, where I keep them as f. inst. *Senecio cassinioides*

79: Hooker to Haast, 1-10-1868
ATL MS-Papers-0037, folder 099-03

Royal Gardens Kew
Oct 1/68

Dear Haast

I have no time left but to acknowledge yours of Jul 16, which I will answer at leisure.
Most sincerely yours
J. D. Hooker.

~~No time to send one of enclosed to Travers by this post separately.~~
Please give one of enclosed to Travers.

80: Hooker to Haast, 28-10-1868

ATL MS-Papers-0037, folder 099-04 & 05

Mr Darwin's
Down Bromley Kent
Oct 28/68

My dear Haast

I have some letters of yours to answer but they are not here with me & I have matters to write about that with me put all others out of my head & about which I may probably tax your kindness to the full.

My eldest boy (William¹⁴⁶) is about to sail for Canterbury in 14 days, & being only 15, in delicate health, & very young of his age, this is a matter of great anxiety to me. About 8 weeks ago he was seized, apparently without cough or cause, with haemorrhage from the lungs: he had no warning, it lasted some 10 days, & there has been no return. The 2 medical men who have carefully examined him, report him sound, but growing too fast & insist on a long sea voyage & absence from England [2] for two winters – after long & anxious deliberation I have determined to send him out to Hector, via Canterbury, the only really eligible ship & Captain about to sail for N. Zealand being the *Matoaka*, Captⁿ Stevens¹⁴⁷ – & ask Hector & my other friends, to look out for some eligible party with whom to board & work him, during the succeeding 6 or 12 months, in the hope that a Colonial life may suit him. This Secondary object (of a Colonial life) is forced on my attention by the circumstances that the boy has shown no disposition for any intellectual pursuit whatever: & an inaptitude almost amounting to incapacity for Classics, History or other mental requirements. He has been 7 years at school, & there & at home, borne the [3] highest character for morals & conduct, but a very poor one indeed for anything else; & he never looks at a book if he can help it! For the rest, he is a most amiable, affectionate & endearing boy who we feel it very very hard to part with. He is good at arithmetic & dislikes it least of all his lessons, & I am getting him ground up in book-keeping preparatory to his going to N.Z. Not that a desk will do for him, with his possibly weak lungs, but that if employed on a farm, he may be as useful, as if he could take the harder bush work which it would be dangerous to put him to at the present.

From your last letters it appears doubtful whether you will remain at Christchurch – if you are there when the *Matoaka* arrives, will you have the greatest goodness to see Willy, & see to his being lodged & boarded with [4] respectable people at once – with people, if possible who will keep an eye to using him for my great anxiety is to get him put to active employment as soon as possible after arrival, & I will willingly pay any trustworthy party, farmer or other who would take & employ him in a way that could lead to his settling; for hitherto he has displayed no desire to do any thing he is not set to do. He will do what he is told with pleasure & would make an active & trustworthy assistant on a farm. Being remarkably “young of his age” physically & physiologically he will no doubt improve in respect of “self culture”, & the ship life may master this. I can only tell you what he has been & what seems to me the best sort of life for such a lad. He has been at an excellent school for morale & elementary education, kept by friends of ours & he has no vice, or evil temper whatever. [5]

¹⁴⁶ William Henslow Hooker (1853-1942), eldest son of Joseph Dalton Hooker and his wife Frances Harriet nee Henslow (1825-1874). He was known by friends and family as Willy/Willie.

¹⁴⁷ Captain Alfred Stevens of the *Matoaka*.

As I must follow a definite course in sending him out; it has been to send him to Hector, & this for 3 reasons 1st – he knows my family previously, 2nd I know no one well but you in Canterbury & you may not be there 3rd Hector can I doubt not employ Willy in the Museum, or send him out with his Surveyors till some definite employment turns up for him: and to get him usefully employed at once at whatever cost to me, is of the first importance.

I may tell you, that during his last holidays, he was with his Grandmother at Norwich where my Uncle Mr Gunn¹⁴⁸ was arranging his splendid collection of post-Tertiary fossils in readiness for the British Association. He took Willy with him, who was a most useful & pleasant & industrious help day after day. Willy knew & cared nothing for the objects, but liked to help & never flagged, – do that in the field he would prove a useful scrub I do not doubt in the matter of labelling &c the [6] specimens. In his present state he must avoid much fatigue & any hardship as a precaution.

If all else fails & Willy shows no aptitude or disposition for a settlers life, he must just come home again; but I do not anticipate this, but the contrary.

Such my dear Haast is an outline of the case, as accurate as I can give it. I am here with my wife, & 2 children (Willy one of these) for a few days, with my friend Darwin, who has formed the same opinion of Willy as I have, & is most affectionately interested in the boy. He also thinks a settlers life the best for him, decidedly.

I shall of course lodge a credit in New Zealand, to meet any expenses that you & Hector may think should be incurred beyond the mere ----- over of the boys lodging & travelling.

Captⁿ Stevens of the *Matoaka* has kindly promised to keep the boy under [7] his especial care. I am most anxious that he should not be drawn into card playing, & grog sipping, he is to avoid climbing & other exertions that may bring on haemorrhages. I hope also Capt. S. will give him leave to easy ship's work, dead reckoning & so forth.

Should you know of any eligible opening for Willy at Canterbury, in any shape especially of a reputable settler, young or old, who would employ him on his farm, with the view of his being himself a settler, please let Hector know.

I may tell you at once, that I have seen no signs of his becoming a scientific man. He is young, – he may develop such tastes but there being no prospects, I would be wrong to put off other employment on the chance of it. If the love of science comes, & comes strong enough, & lasts long enough, it will then be time to think of it. Meanwhile employment after 3 months on board is of the very first moment, & rather shoe-making [8] than idleness.

I shall finish this by answering your letters at home tomorrow.

Darwin is wonderfully improved & much with us. Asa Gray¹⁴⁹ of Boston & wife¹⁵⁰ are here too. He is a charming man, & most able Botanist: he goes to Egypt for winter & spends next summer at Kew.

¹⁴⁸ Reverend John Gunn (1801-1890), amateur geologist and president of the Geological Society of Norwich.

¹⁴⁹ Asa Gray (1810-1888), American botanist.

Darwin is still busy on his work on Man, sexual selection being his great theme.

Ever most sincerely
J.D. Hooker

Closed in haste
Oct 30/-

81: Hooker to Haast, 30-10-1868

ATL MS-Papers-0037, folder 099-06 & 07

Royal Gardens Kew
Oct 30/68

My dear Haast

I wrote to you this morning by Govt. bag – & the letter was hardly gone when in came Sir G. Grey & Dr Knight, delighted I was to see them both – & both were delighted with Kew. I fancy that they will take up their quarters in Lodgings here.

Sir G. most kindly desired to have my son at his place & do everything for him through his agent there, strongly recommending it as the warmest spot in N.Z. Should the boys health break down, [2] which I do not at all anticipate, I shall ask Hector to send him there – but in other respects I would much prefer that he was amongst regular hard working people.

It is possible that there is an opening for him amongst some friends of our present Governess of the name of Wicksteed¹⁵¹, at New Plymouth, farmers & most estimable people – if so they will communicate with Hector.

Sir G. Grey & Knight were delighted to see the Cabinet in my drawing room & very proud I was to show it to them. [3]

Do not be alarmed at the soft beds underlying the glacial deposits. They are common enough & the mistake is to assume that the glacier ever had need to plough them. We know nothing of the bottom of a glacier – all we know is of its effects when it meets projections, as rocks etc. Why may not the soft beds be deposited under the vaulted undersurface of the glacier & be ground there to sand & silt melted off its undersurface & brought down by the subjacent stream dammed up by the glacier. Be all this as it may, glacial detritus resting on soft beds is common enough.

What you say of impending changes [4] in England may be true enough, though I doubt these being either great or sudden – but I doubt altogether the soundness of the argument that draws conclusions from previous events in other countries. I altogether deny the current dogma that “History repeats itself” – it often “imitates itself” but as consecutive circumstances are never similar, so history never can repeat itself in any logical sense. If we

¹⁵⁰ Jane Lathrop Loring Gray (1821-1909), the wife of Asa Gray.

¹⁵¹ Wicksteed family first arrived in Wellington in 1840 and later moved to New Plymouth to take up farming. John Wicksteed was resident agent for the New Zealand Company in New Plymouth and his wife Emma was an artist and teacher.

are (as is almost invariably the case) taken by surprise when sudden changes occur it is because we have not the means of comparison with former precedents of change. When all is over it is lazy to draw parallels, in which case all we do is to cull the coincident precedents & ignore the dissident. We are bad enough, education is at a fearfully low ebb. Property is too much massed [5] by far, but we really do not know whether it is in the hands of thousands or of millions, & if on the one hand a few proprietors are accumulating many more are dividing up & selling in lots. The current statements of the distribution or rather of the massing of property in the hands of a few are wholly erroneous. The number of land holders in England is prodigious.

After all the great “drag on the wheel” of the working mans missing affluence, is that the really able amongst them, who are calculated to be leaders, rapidly become proprietors in some shape & hence conservative.

I suppose my dear fellow, that every one has some such temporary fit of ambition or vanity, as you had, & as has rooted & [6] branched & leafed & flowered in poor Mueller & is now bearing bitter fruit. I doubt if any one “worth his salt” has been far from it at one time or another, but then with you & the better constituted minds it is more symptomatic of noble aims dormant; it was functional disturbance not morbid, disease, as with him.

You at least have no cause to think FRS was earned on slender grounds – nor has any one who came in unanimously or all but as you did, & would have the first time, had not all parties argued that both you & Hector should come in & you must be first. Poor Mueller has now a dreadful wait about his pecuniary Sacrifices for [7] Science. Why I suppose that had any of us gone in for business we would have made our fortunes, & no small credit too – the brains & energy that get us scientific repute were more than fit for that surely. We all liked Science best, & were content to swap worldly goods against mental enjoyment & we have our rewards? But all this reasoning is thrown away upon poor Mueller.

There is a ----- Fritz Müller¹⁵² at S. Brazil, who makes admirable observations on fertilization of plants, & is writing a book to be called “Darwin confirmed” or some such title.¹⁵³

I have just returned from Darwin’s where my wife & 2 children have been staying with Prof. & Mrs Asa Gray of Boston. I could [8] get down in Surrey tonight only & back to Kew to work.

What a curious fact about the Elephant poisoned by Tutu. I will send it to Gardener Chronicle.

The 2 ward cases are filling for you to go out by my boy in the *Matoaka*. Please have one of these filled with *Veronicas*, 3 or 4 of a sort is enough. Others with *Fagus* except *fusca* – *Libocedrus*, *Dacrydium colensoi*, *Phyllocladus alpinus*, *Dracophylla*, shrubby *Senecios*, *Celmisia*, *Olearia* except *furfuracea*, *Metrosideros lucida*, *Notospartium*, *Carmichaelias*, *Pennantia*, *Hoheria*, *Plagianthus lyallii* and any & all Alpines.

¹⁵² Johann Friedrich Theodor Müller (1821-1897), known as Fritz Müller, was a German physician and biologist who emigrated to southern Brazil and was an early advocate of Darwinism.

¹⁵³ The book was first published in German as *Für Darwin* in 1864, and English translation by William Sweetland Dallas was published in 1867.

Ever my dear Haast most s[inscerel]y yours
J. D. Hooker.

82: Haast to Hooker, 31-10-1868

Kew DC 174 f. 348

Glückauf, Oct 31. 1868, N.Z.

My dear Hooker

In looking accidentally over a parcel of plants, I find that I never sent the enclosed specimens, which were destined for you. Of them No 1-4 were collected on the bottom of Lake Ellesmere, a sheet of brackish water several miles long & broad & separated from the sea by a bank of shingle which at its lowest point rises about 8 feet above high water mark. When the water is risen to that height in the lake, it breaks through & empties itself with great vehemence. This occurs about every two years. Consequently in some parts the lake is dry for 18 or 20 months [2] in others only 2 or 3 months every two years.

The bottom thus laid dry is covered almost everywhere with a carpet of bright green succulent herbage, which attracts the cattle from far & near, making them very fat. – I just happened to pass last February when the lake was at its lowest & collected the enclosed specimens, which as far as I could observe form nearly the whole vegetation of the lake bottom.

The other plant from Waimakariri, which as far as I can remember, I never sent, has a most frightful smell & grows between grasses & *Aciphyllas*. I remember that when camped in its favourite localities, I [3] thought human excrement had been deposited in the spot & that each of my party looked at his boots, thinking he had perhaps trodden in something. It is, as far as I can make out, a species of *Chenopodium*, if so, it has not been described in the Handbook.

I have not yet seen your presidential address but from what I hear from my friends in England, it has created a great sensation. I hope to receive it by next mail.

Hector, I suppose told you that in a month or two he will join our ranks. Miss Monro¹⁵⁴ is a very nice girl & as far as I can hear is well adapted for him, so that his – natural selection – is a good one & I trust therefore that their struggle will be very trifling. – After this I better stop.

I also enclose two ferns which we can not make out to our satisfaction; please look into them.

I am happy to say that Mrs Haast's health has wonderfully improved & that she is now quite strong. Also my 3 boys are going on famously.

I intend having another collecting campaign this year in our mountains.

With united kind regards to Mrs Hooker & to yourself,
ever my dear Hooker,

¹⁵⁴ Georgiana Maria Monro (1849-1930), married James Hector in Nelson on 30 December 1868.

your most sincerely,
Julius Haast

Dr J. D. Hooker FRS.
Kew

83: Hooker to Haast, 30-11-1868
ATL MS-Papers-0037, folder 099-08

Royal Gardens Kew
Nov 30/68

My dear Haast

My boy Willy sailed by the *Matoaka* on the 11th. Will you kindly have him met at Lyttleton, & sent on to Hector at Wellington. I am most anxious that he be put to some work as soon as possible, & I have asked Hector to look out for a good opening for his going in for a settlers life.

Some friends of mine, (Dr [2] Campbell¹⁵⁵, my travelling companion in Sikkim) has communicated with a party of settlers, cousins of his, of the name of Ingles at Kaikora, they are said to be most steady fellows – it is possible that they may offer Willy a temporary home & employment with them, & I have told Hector of this. Should you know any thing of the Ingles farm kindly communicate with [3] Hector. They may take no notice, but I must be preparing my friends for all contingencies. This sending a lad of 15 spinning round the globe is a terrible responsibility. A very nice family of the name of Fish¹⁵⁶ go out with him & offer to look after him on the voyage. Mr Fish is a surgeon of good repute at Islington & takes his family to Canterbury to settle. A Mr Delawain (or some such name¹⁵⁷) may also ask after the lad, he [4] is a connection of my dear friend Dr. Gibson¹⁵⁸, under whose advice Willy is sent off.

Now my dear Haast, I think I am trying your friendship with a vengeance. Willy takes 2 cases of live plants & lot of seeds for you & your correspondent.

Most sincerely yours
J. D. Hooker

¹⁵⁵ Archibald [or Arthur] Campbell (1805-1874) of the Bengal Medical Service accompanied Hooker during his travels in Sikkim in 1848-9.

¹⁵⁶ See note in Yaldwyn & Hobbs, 1998, p. 245.

¹⁵⁷ This is most likely in reference to Frederick William Delamain (1835-1910).

¹⁵⁸ Dr Alexander Gibson (1800-1867), Scottish surgeon and botanist who worked in India.

84: Hooker to Haast, 25-12-1868
ATL MS-Papers-0037, folder 099-09

Royal Gardens Kew
Dec 25/68

Dear Haast

Herewith I send bag of seeds of the Canadian Rice that feeds all the ducks on the Canadian Lakes; growing on their margins.

It lies long without germinating. Plant it where the birds cannot get at it.

Very many happy returns of the season to [2] yourself & Mrs Haast.

Can you find out for me how the stone war club (Pate I think it was called) was used – was it held with the pummel to the little finger or to thumb, & was the blow a thrust or driving one or a direct strike like a sword cut. The theoretical point involved is, that [3] being a development of the rush stone cell, it was used like it, as a thrusting instrument, & this is said to be the case.

In haste Most sincerely yours
Jos. D. Hooker

85: Hooker to Haast, 29-12-1868
ATL MS-Papers-0037, folder 099-10

Kew
Dec 29/68

My dear Haast

I have received your kind letter of Oct. 31. Many thanks for it. I enclose a list of the plants it contained, one of which the Fish gut appears to me quite new & is of great interest. The others are all common but nice things.

I am so glad that you have heard good of my Presidential address – a copy was sent to you as soon as I got the separate sheets.

I wish I could see much in it myself.

I cannot tell you how thankful [2] I felt to get it over & practically resign the Presidential Chair, for I do not formally give up til next August at Exeter.

Thanks many for your account of Hectors intended, in whom we are deeply interested. He sent by same mail a photograph of her, a charmingly simple nice looking girl.

I was amused at your frustration? of Nat. Selection!

We are very glad to hear that Mrs Haast's health has [3] improved – my experience is that women are seldom really & never continuously well until some 15 or 20 years after marriage – Mrs Hooker is stronger now than ever since she was a girl – it is the nature of them!

I have no news, living very quiet. I cannot tell what have become of Sir G. Grey & Dr Knight – the latter expected to be much at Kew & took a house – a lodging not far off, – but I have seen nothing of him since. [4]

Willy is I hope at Canterbury ere this. Hector is I suppose off to Australia on a wedding trip, as he expected to be.

I hope that the case of living plants will arrive in good order.

I enclose Willy's letter under cover to you – as he will scarce have left Canterbury ere this. My love to the dear boy, if within reach of you.

Ever most sincerely yrs
Jos. D. Hooker

Wardian cases especially

86: Haast to Hooker, 3-1-1869

Kew DC 174 ff. 349-350

Glückauf, 3 Jan 1869.

My dear Hooker

I have received your two letters of the 28 & 30th of October & am delighted to think, that I shall be able to be of some little service to you, although I am very sorry that the reason you send your son out is not cheering when considering his health.

All I can say is that we shall receive your boy as if he were one of our own; I shall meet him when he lands and he will stay with us until something is decided upon for him. Mrs Haast will also do her best to make him feel at home in a strange country, the more so as she has brothers of the same age as your son.

I do not think there would be any difficulty in finding a suitable [2] family for him to be placed with, as there are a great many gentleman farmers here & at the same time hard working people. I would select one who is farming a few thousand acres of land of his own, on which he keeps stock (sheep & cattle) breaking it up gradually & taking off a few crops, before it is laid down in English grass. Consequently your son would learn at the same time agricultural & pastoral pursuits & live a healthy outdoor life.

I know also several runholders, family sheep farmers, where I could place him, but I think that it would not be so convenient & suitable for his health.

I have written to Hector today about him & of course can [3] take no further steps in the matter until he writes, as the decision rests with him.

In every case you may be sure, that I shall do everything in my power to further your wishes in the matter & should he remain in Canterbury, I hope he will always look upon me as a friend, whose house is always open for him.

You will be already aware that Hector married a few days ago & he no doubt will write also upon this subject to you.

I am delighted to hear that you sent us 2 Wardian cases & some seeds, which will come very useful in planting our domain & park, where our future museum will be built & I shall seek to send you the desiderata you mention of which I have already several ready. [4]

Many thanks for your capital address, the perusal & study of which has been a source of great enjoyment to me. From the newspaper I send by this mail you will see that it has here done a great deal of good, because the papers took it up & assisted me, based upon your address to carry my point to have the museum built out of town, instead in the centre of it, where there was no sufficient space & a great deal of dust & other inconvenience. Concerning the glacial beds, I am very glad that similar observations have been made in other parts of the world. I expected, seeing that they were often for several miles, the possibility, that they could have been formed under the [5] terminal face, but that most simple & natural explanation will after all be the right one, but I trust I shall one day find some more detail sections about the same subject.

Having now undertaken the position of the Director of the Canterbury Museum, I shall not more travel so much as I have done hitherto, but I shall not fail to have each year a few weeks or months of field work, during which I shall continue to collect. Our Museum will be built according to your plan, only it is the intention to add a gallery, which will be lighted from above, as we have only a limited sum for building.

Mr Chevalier, the eminent artist, spent last week a day with us, he leaves for Point de Galle to join Prince Alfred, who has invited him to join him for the whole voyage. – Mr Chevalier, who lives generally in Melbourne, knows poor Mueller very well & he could not tell us enough, how hard he was trying to make himself miserable. He thinks that there is fear, he will lose his position, if he goes on, as he does, but he assured me that it is of no avail to write or talk to him. – What a pity, that he did not marry a sensible wife, she would soon knock all that nonsense out of him.

I shall not tell you anything about that unfortunate Maori war, which lingers on in the most ridiculous way & will certainly ruin the country entirely. The custom duties are already heavy enough & there are no end of taxes besides. At the same time everything is gone down in price, land, sheep, cattle & other property, so that the colony at present looks very gloomy. I suppose I shall hear from you again & I shall write as soon as the *Matoaka* arrives, probably before the February Panama mail leaves.

Ever my dear Hooker,
yours most sincerely,
Julius Haast

Dr J D Hooker FRS
Kew

87: Haast to Hooker, 25-1-1869

Kew DC 174 f. 351

Glückauf near Christchurch
Jan 25th 1869.

My dear Hooker

The bearer of these lines Mr L. Powell¹⁵⁹, one of my friends, who for several years has been the House Surgeon of our hospital returns by the *Hydaspes*.

Unfortunately I heard too late of his going otherwise I would have sent you some live plants through him. However he has thought of it himself & will bring you a Wardian case of NZ plants as his own gift, which I trust he will be able to hand over to you safely. [2]

If you should be able to show Mr Powell some little attention I should be very grateful to you. He is a very intelligent man & one of the few people in Canterbury, who takes an interest in science.

Ever my dear Hooker,
yours most sincerely,
Julius Haast

Dr Jos D Hooker FRS
Kew

88: Haast to Hooker, 12-2-1869

Kew DC 174 f. 352

Glückauf, Chch, NZ
12/2/69

My dear Hooker

I am truly glad that I can give you very good account of your son Willy who arrived last Monday the 8th of this month in Lyttelton & in capital spirits & health.

I went at once on board & took him with me home, where he has been staying until yesterday morning, when according to your instructions I sent him on pr steamer to Hector.

We were very sorry indeed that we could not keep him a week longer with us, but I had to obey orders from head quarters. From all I could hear & see, Willy has improved very much in every way.

For the first 10 days he was very seasick & as Dr Marshall¹⁶⁰ tells me, he sunk so low, that his pulse [2] was not higher than 44, but after that he began to improve very quickly, he had a ravenous appetite and has always been in excellent health ever since.

He has been a general favourite on board ship, as I could see when he left. As far as I can judge I fully agree with you, in thinking that a settler's life would be the best for him;

¹⁵⁹ Dr Llewellyn Powell (c. 1842-1879), physician and lecturer in botany and zoology at Canterbury College.

¹⁶⁰ Dr E H Marshall, physician and surgeon, Surgeon Superintendent on the *Matoaka* in 1868.

light healthy outdoor work. He is still far too delicate for much fatigue, as we could easily see during the few days he was staying with us.

Both Mrs Haast & I had quite a wrong impression about your son; from what you said in your letter we expected to see a dull boy, but we found him just the contrary; quick, intelligent & full of life & I think you are mistaken, if you believe that he will never enter into scientific life. As our great German Goethe¹⁶¹ observes “Although the vine has only very small [3] inconspicuous flowers, it nevertheless produces the golden wine.”

I am sure Willy will make friends wherever he may be, as he has such winning ways & I can only say that we were very sorry that we could not do more for him, but I hope that should he ever return to Canterbury, he will always consider my house his home.

The Wardian cases arrived in excellent order & their contents & the package of seeds were very welcome indeed. Many thanks for both. I have handed them over to Armstrong for our public gardens & he conjointly with me will fill the former according to your wishes. I have procured for him leave of absence & a small vote of money, to go into the Alps in the proper season, to collect the live plants you want & I shall also bring some with me. – I also [4] have already a good many in my own garden for transplanting. I did not see Mr Delamain¹⁶², who lives out of town, I suppose he did not come, knowing that I was in town.

With united kind regards to Mrs Hooker & yourself,
ever my dear Hooker,

yours most sincerely,
Julius Haast

89: Hooker to Haast, 3-5-1869

ATL MS-Papers-0037, folder 099-12 & 13

Royal Gardens Kew
May 3/69

My dear Haast

You have indeed our warmest thanks for your kindness to Willy. I cannot tell you what a happiness your letter was to us, & what a load it took off our minds. Hector wrote from Wellington, by the same mail, in hourly expectation of his arrival, but had to close before he turned up.

I am so pleased that you form a good opinion of him, poor lad he is very affectionate [2] and warm hearted, & will I am sure do his duty by any one who shows a little regard for him.

I am now exceptionally busy in clearing off matters before going to St. Petersburg to join the great Botanical & Horticultural Congress which will assemble there on the 17th. I go by Berlin three days hence & shall visit Moskow before returning to my work at Kew which will be very full [3] indeed. The Congress is expected to be a grand affair, though, occurring

¹⁶¹ Johann Wolfgang von Goethe (1749-1832), German politician, writer and poet.

¹⁶² Frederick William Delamain (1835-1910), English-born member of Canterbury Provincial Council and horse breeder who first arrived in New Zealand in 1852.

as it does, in the midst of the Lectures of the Continental Professors, I do not see how it can be well attended. I go in my private capacity, as England refuses to send a Commissioner, though the Emperor has requested it! So much for our new Chancellor of the Exchequer, Mr R. Lowe¹⁶³, so I volunteer to go at my own cost rather than that England & Kew should not be represented, on so important an occasion. Mrs Hooker will accompany me & [4] we shall make it our vacation trip.

I am now naming the last sets of your plants & hope to get the list ready & off before I go to Russia. I do not find anything new amongst them.

I am delighted to hear of the plants in the Ward's case having arrived in good health – the ---- in them are sometimes dreadful. Hector sent us 6 boxes full & exactly as many plants arrived alive! & those all of the *Dammara* – the scoundrels had evidently stuck them down into the Hold of the ships, & the rats had eaten through & through [5] the cases, had made their nests therein & eaten up all the plants!

I am greatly flattered to know that my address has found favor in New Zealand. The Govt. are about to remove our Nat. Hist. Collections to a glorious open space on the Thames Embankments!

I have little or no geological news to give you – doubtless you have seen Huxley's clever onslaught in the *Athenaeum*. Sir W. Thompson¹⁶⁴ has answered him I hear in a paper to the Glasgow Philosophical Society, but whether effectively or no I [6] cannot say.

Darwin has had an ugly tumble from his horse, which slipped or stumbled, fell & rolled over him: the muscles of his back are much injured but Paget hopes that there is no further hurt. I went down & saw him a week ago, he was stiff, wheeled about in a bath chair, looked pulled down but was in capital spirits. His book on Man occupies all his thoughts now.

Wallace's book is out & is [7] excellent, though lacking the freshness of Bates¹⁶⁵, which I still think ranks next to Darwin's Naturalist's Voyage. Wallace's reasonings upon the Geographical causes that have regulated the Malayan distribution are most able & suggestive: thoroughly well reasoned out.

Poor Mueller I am truly sorry to hear Mr Chevalier report of him but not surprised. He tells me he has been made Companion of the Order of St Michael & St George, & thanks me for my aid – I was obliged to tell him that I had not even heard [8] of the Order being given anywhere out of the Ionian Islands, & his was the first intimation. I had however tried hard on three occasions to press his claims for Knighthood. The fact is that Govts pretty well know that Scientific men are above these things, & only take them when "noblesse oblige" or official etiquette demands it & very wisely rarely offers them to Scientific men. There is a talk of placing a few at the disposal of the Scientific bodies. I am sure they will refuse such an invidious offer as dispenses of court favors.

¹⁶³ Robert Lowe (1811-1892), English statesman, Chancellor of the Exchequer from 1868 to 1873.

¹⁶⁴ Thompson (sic); Sir William Thomson (1824-1907), Irish mathematical physicist and engineer, presented a paper with the title "Of Geological Dynamics" (1869), in response to Huxley's address to the Geological Society of London (1868).

¹⁶⁵ Henry Walter Bates (1825-1892), English naturalist and explorer.

With united Kindest regards to Mrs Haast & yourself
Ever my dear Haast

Most sincerely yours
J. D. Hooker.

90: Haast to Hooker, 9-6-1869

Kew DC 174 f. 353

Glückauf, June 9 1869

My dear Hooker

I received your kind note of the 19 of March with the last of the Kew ferns for which my very best thanks. I never received the bag of Canadian rice seed, which therefore must have miscarried somehow.

As I have seldom an opportunity to see the Maoris, I wrote to my friend Stack¹⁶⁶, a missionary of the English church living amongst the natives to get me the necessary information for you. I enclose his letter from which you will see that your inference is quite correct.

I enclose you also a copy of a letter which I have addressed to Sir R. Murchison & I trust from your friendship that if you can give me a helping hand you will do so.

It has been a very severe struggle for me to come to the conclusion that I better leave, & go somewhere where I shall find a larger & more grateful sphere of occupation. – Our Prov. Council consist of 39 members of which about ½ dozen are educated men, who value science, but the rest consist mostly of uneducated or what is worse of so called practical men, who consider scientific men imposters or science a luxury.

I was thus witness year by year of a great struggle to keep my department up & I had to fight my battle day by day.

So the other day, when a vessel arrived from Europe, which had several cases of specimens for the museum on board, a member of the government told me, he hoped, they would be the last, because it was next to impossible to obtain a vote for showcases.

Fortunately Hector has his salary secured by a bill, so that they cannot touch him, otherwise the attempt would also be made. If I had looked out for myself instead of devoting all my energy to my work, I could have made an independency, & go on with my work, without governmental pay, but I value science higher & do therefore not regret it for a moment.

May I therefore request you to see Sir Roderick & push my claims to his consideration a little; or if you should hear of some other chance for me, I should be very glad.

¹⁶⁶ Reverend James West Stack (1835-1919), New Zealand missionary, writer and interpreter.

We had a severe earthquake here a few days ago, you will find the details in the newspaper I shall send you by this mail.

Your two cases have been planted & will go when the plants have well taken root. [4] Nearly all your desiderata are in them. Amongst them is also *Ranunculus godleyanus* & *Senecio cassinioides*, which when acclimatized in your gardens, will form one of the greatest ornaments for form, colour & scent, which in the valleys you observe at ¼ of a mile distance, perfuming the whole air.

When I heard last from Hector, Willie was very well & working in the Museum.
With united kind regards,
ever my dear Hooker,

yours most sincerely,
Julius Haast

Dr Jos D Hooker FRS
Kew

I understand thoroughly French & know also Italian & of course Latin etc.

91: Haast to Murchison¹⁶⁷, 9-6-1869
Kew DC 174 f. 354

[Copy of a letter addressed to Sir Roderick Murchison, 9 June 1869.]

Dear Sir Roderick

I have left your kind and interesting letter of the 20th of May 1867 so long unanswered because I hoped that long before I should have been able to send you for the Royal Geographical Society a copy of my topographical map of the Southern Alps of N.Z., which I finished end of July of last year and was, as you may imagine, an arduous undertaking. Unfortunately when that map was finished the Provincial Government of Canterbury had become so impoverished that they would not undertake either to have it published or to have a copy made of it, to be presented by you to the Royal Geographical Society.

As I had not the time to copy it myself, I at last resolved to have it done by somebody else at my own expense and I hope that I shall [2] be able to send you that copy by next mail, accompanied with the necessary notes in explanation. My geological map has also hitherto not yet been published, but I trust that this will be done in due time in connection with the NZ Geological Survey.

When my work was so far finished the government requested me to arrange the collection made by me in a new museum building, which is just being erected, but owing to the fact that the revenues of this once so rich & flourishing province have dwindled down to scarcely anything, there is very little chance that when the museum (greatly by private subscriptions) is built and the collections arranged, there will be no means to maintain it in a

¹⁶⁷ Copy sent to Hooker.

proper & efficient manner & although I should deeply regret leaving Canterbury & New Zealand, where I have spent so many years of my life, still I have made up my mind to do so in case I could obtain another [3] appointment where I should have a larger sphere for my labours. I need scarcely say, that if I had private means of my own, that I should never think of leaving New Zealand, where still so much might be done and which one day will become, notwithstanding all the unfortunate political & native disturbances, a most important portion of the civilized world.

Our mutual friend Hector tried very hard to retain my services as curator of the Colonial Museum and assistant director of the Geol. Survey, but also the General Government, although most willing to do so, could not find the necessary funds; that unfortunate Maori war swallowing up more than the revenues of the colony.

Under these circumstances I take the liberty to address myself to you and request you, that you will kindly remember me, should a suitable [4] appointment in any part of the world become vacant or be created.

The eastern world, China & Japan amongst others would doubtless offer an excellent and grateful field for the labours of a geologist, if the governments of those countries wished to employ one.

And, as doubtless in all cases where the services of a geologist are required, your advice is sought & acted upon; I have no doubt that if anybody could give me a helping hand, you would be able to do so. I can leave end of this year or in the beginning of the next. etc.
JH

92: Haast to Hooker, 1-7-1869

Kew DC 174 f. 357

Christchurch NZ July 1 1869

My dear Hooker

I wrote you by last mail & forgot to tell you that we have been very unfortunate with the two last Wardian cases you sent us. It seems that they were opened during the voyage to be watered, so that as we opened them we found the plants all more or less mildewed, which became worse from day to day. All the Rhododendrons in the one case very soon died & only 3 or 4 of the other are still alive.

Since the severe earthquake of the 5th of June, another has visited this island on the 24th, but which was scarcely felt here. It was most severe near the big lakes in the province of Otago & crossing the Alps to Hokitika at the West coast.

It will perhaps interest you to hear that I found near [2] the mouth of the Rakaia an extensive Moahunter camp. I opened already some of the hangi or ovens, about 6 feet in diameter, in which the stones on which they cooked the *Dinornis* are still undisturbed. I also got a great lot of moa bones, evidently broken to get the marrow(?) out & with them some primitive stone flakes, often only simply pieces of sandstone boulders which they doubtless used as knives. I shall go on with these excavations & tell you more about them by & bye.

Have you any desiderata in New Zealand timber? If so, I could get you a good collection. Please send me in that case a list of your desiderata, so that I may have time to get them for you before I should leave NZ for another field.

The controversy between Prof Dove¹⁶⁸ [3] in Berlin & the Suisse savants concerning the origin of the Foehn interests me very much. I can only say that I consider Dove perfectly right according to my knowledge of the subject & in drawing conclusions from our NW wind, which in every respect resembles or is identical with the Foehn, although there is no Sahara here in this hemisphere to give it that character.

If I should find time I shall send what I have to say on the subject to our Leopoldina. With united kind regards to Mrs Hooker & yourself,

believe me, ever yours most sincerely,
Julius Haast

Dr J D Hooker FRS.
Kew

93: Haast to Hooker, 5-8-1869

Kew DC 174 f. 356

Glückauf, Aug. 5. 1869.

My dear Hooker

Your letter of May came in my possession & I hope & trust that you have returned safely with Mrs Hooker to Kew after an interesting & successful trip. From the papers I observed however, that England after all sent a commission & that this gentleman died in St Petersburg.¹⁶⁹

I have not yet seen Huxley's paper, unfortunately there are now so many scientific publications that it is impossible for a scientific man, who has not private means to keep them.

Wallace's book is excellent & I enjoyed very much the perusal of it.

You will be interested to hear something about the Saurian remains of the Waipara. [2] When examining the Saurian remains by themselves there is not the least doubt in my mind that they are true species of *Plesiosaurus* and other genera, such as *Icht[h]yosaurus* etc., so that palaeontologically speaking, they must be, when compared with European geology at least, Cretaceous, but stratigraphically the beds in which they are found, overlie our brown coal & lignite beds & those, quartzose trachytic & doloritic rocks, which are the exact counterpart of the Rhenish Miocene strata trachytes, brown coal series & all. – Moreover no characteristic Secondary fossil has ever been found amongst them [3] but Tertiary shells, or at least what we must consider Tertiary shells. I have just written a paper

¹⁶⁸ Heinrich Wilhelm Dove (1803-1879), German physicist and meteorologist.

¹⁶⁹ Sir Charles Wentworth Dilke (1810-1869), travelled to Russia as English commissioner at a Horticultural Exhibition, he died on 10 May 1869 at St. Petersburg. (See *Dictionary of National Biography*, vol. 15).

with sections about the matter & shall return once more to the subject when I have put it in print.

You will say poor Mueller; imagine a scientific man of his standard being delighted with such a paltry bauble as the Companionship of the lowest British decoration, given I suppose principally to clerks & such like. If they had made him a KC or something like it, he would perhaps have any cause to be pleased.

However it makes him happy & we ought therefore not trouble ourselves about it. I have not heard from Willie for a long time, so I suppose he is happy & at work. [4]

I am happy to say, that Mrs Haast & my three boys enjoy excellent health. Mrs Haast joins me in kind regards to Mrs Hooker & yourself.

Excuse my haste, but I cannot help it, having a great deal to write before this mail leaves. Soon I shall send another lot of plants.

Ever my dear Hooker,
yours very sincerely,
Julius Haast

94: Hooker to Haast, 13-8-1869

ATL MS-Papers-0037, folder 099-14 & 15

Kew
Aug. 13th

Dear Haast

I have yours of 9th June & went to see Murchison last week, but found that he was off on his travels – if he does not turn up at the Brit. Assn. I shall write to him; but in such cases it is far better to see your man than to write, especially as M is not young.

I am indeed vexed to find that after such a mass of work as you have done for the Colony, over & above the Geological, [2] you should be bought down – but it is no unusual case & it is little use trusting in Governments for recognition of Govt. services. With regard to your position, I would however venture to recommend caution. Colonies rise & fall in condition more rapidly than fixed centres of population – & you must not forget that a married man having a sphere & orbit of his own in any community risks much in leaving it, & it may be better to put with little where you are than incur the great expense [3] with fatigue & change to health & of a change to perhaps a warm climate, worse society for your wife, & little opportunity of educating your children. Geology, as a science, has had lately the pieces of the small cake that is divided amongst the Scientific men, – & the fairly well paid Colonial appointments given to Geology have been quite exceptional. How few Scientific men start with such advantages, as you did & become a solely persona of science, F.R.S. within so short a time. It was 16 years after I took my degree before I had £100 a year income! I lived on my father, struggling upwards. Now I would not presume to alarm you, but I [4] would think seriously before you took the step of leaving the Colonys for any other temporary appointment, or for any appointment in a hot country – or for any position to which your wife can not accompany you. Those collateral pieces of all such appointment are prodigious, the discomfort great, & nothing can make up for the separation from wife &

children. All you say of the unscientific entourage of C.C. is true enough, but where will you find better? & where else will you find as many personal friends. Then too at N.Z. you have opportunities of investing savings & so forth in a way you cannot do here, & of putting your children out & so p----- [5] I know from personal & bitter experience, the feelings that now sway you & would urge you to be careful not to give them too much weight. As to China & Japan the prospects of any good (if any at all) appointments there are nil, & the expenses of living there enormous.

A thousand thanks for the letter of Mr Stack which is very explicit & satisfactory.

The Australian mail is this moment in & as the Marseilles goes out to night. I must close.

Most sincerely yrs
Jos. D. Hooker

95: Hooker to Haast, 30-9-1869

ATL MS-Papers-0037, folder 099-11

[In a different hand]

Royal Gardens Kew
Sep. 30/69

Dear Dr Haast

I am very concerned to hear of the death of the Rhododendrons, but not surprised. Captains of ships are now so careless about Ward's cases, that we get more dead plants than alive from all parts of the world. I must send you some good seeds, when ripe.

Your account of the Rakaia ovens, with the *Dinornis* bones, is extremely interesting – [2] I should like very much to have one or two of the stone implements, should you be able to spare me them.

Many thanks for your offer of supplying desiderata in timbers for our Museum. I am having a list made out – meanwhile we have no good slabs of any Conifer except the Kaudi [Kauri] & Totara. We like slabs about four feet high, & as broad or less, with bark on one side or both. [3]

Sir Roderick Murchison is still in Scotland; when he returns I shall consult with him as to any opening there may be for you in the Colonies or elsewhere, but the more I think of it, the more averse I feel to recommending any man with a wife & family to accept temporary employment, & especially geological surveys in tropical regions.

Ever, my dear Haast, most sincerely yours
Jos. D. Hooker

P.S. Mr. Stack's letter respecting the use of the Mere as a thrusting [4] instrument, is most interesting, I forwarded it to the Ethnological Society.

96: Haast to Hooker, 30-10-1869

Kew DC 174 f. 355

Chchurch, NZ

Oct 30 1869

My dear Hooker

Your kind letter of 13th of May came in time to dictate to me a course of action, which otherwise I would not have followed, namely I had told the Govt that unless they would give me a larger salary than £400 a year I would not stay, which they thought they could not carry.

But when I read your letter the force & the sound sense of your argument struck me so, that I at once went to tell them I would accept it. In any case, I can make another £100 from the general government as friend Hector does his best to give me a share of the Geol. Survey work whenever he can. In the meantime I had a letter from Weld¹⁷⁰, who is over in Western Australia as Governor, about coming there, but I also told him, following your advice to stay, that I would not [2] leave unless for a permanent position.

Accept my warmest thanks for the interest you take in us, for which we shall always be very grateful.

I have written by this mail to Murchison to tell him that I intend not to leave.

I send you by this mail a newspaper which contains the debate in the Provincial Council about the museum; you see that there were many members who fought my battle well. I have now to cut my coat according to my cloth & plot on until the colony advances & then I have no doubt my better days will come with it, the more so if Hector remains in New Zealand, who always stood like a true friend by me, a feeling which I have always fully reciprocated.

You will find in the same paper my anniversary address to the Phil Institute in which I treat of physical [3] science in connection with our schools. Generally people admitted that I was perfectly right, but I am sorry to say a few of the straight land parsons have given me a hit in the dark; however it can not do me any harm & I shall carry my point in course of time here, as it will be carried in Europe. I am collecting specimens of timber just now; please send me a list either of what you possess of NZ timber or what are your desiderata, so that I can put aside for you what you want. I hope you enjoyed your trip to Russia & that you had fair weather. I was there in 1847 & I retain still a vivid recollection of the land & people.

Mrs Haast sends her kindest regards to Mrs Hooker & to yourself.

Ever yours most sincerely,

Julius Haast

Dr J D Hooker FRS

Kew

¹⁷⁰ Sir Frederick Weld (1823-1891), English politician who served as colonial governor in a number of places including Governor of Western Australia and Premier of New Zealand.

97: Haast to Hooker, 26-3-1870

Kew DC 174 ff. 358-359

Christchurch, March 26. 1870

My dear Hooker

I have two letters of yours to answer (30 Sept. & 5 Novb) & to thank you very much for the parcels of seeds you sent me by Dr Powell, which I have distributed to the best advantage. There were many desirable things amongst them, which I trust will come up.

Concerning the stone implements of the Moahunters I am very sorry to say that there are amongst hundreds of flakes only very few regular stone implements, but I shall try to send you at least so much that you may have an idea what they are like.

However for the last few months I have been in the field doing geol. work for Hector in our Secondary strata, which are full of interest & instruction & of which you will have more by & bye.

At the same time [2] I lost a good deal of time with an art exhibition in our new museum building, which is however a great success & as it will close in a few days I shall then begin to bring all the collections over, when I shall find an opportunity to put the wished for specimens aside for you.

If you send me a list of Desiderata of timber (dimensions etc.) I shall try to supply your wants, but I have again to request you to have some patience with me being single handed, so that I can not get the things so quickly as I should like.

Concerning another appointment, I told you in one of my former letters that I wrote to Sir Rod. Murchison about it again, communicating to him my intention not to leave New Zealand. Since then I had an offer as Colonial Geologist from Western Australia, which however I did not accept. [3]

I wrote over to Hokitika to where Mr Jolie¹⁷¹'s plants went, to hear if they arrived safely, but have not yet had any answer. The vegetable sheep will go as soon as I am in the new museum. It is stowed away in such a way that I can not reach it before.

I am very glad indeed, what you say about Mueller's CMG, although I can not see well your distinction between scientific attainments & services. Any man who has obtained great scientific attainments can not have done so without rendering at the same time service to the commonwealth. A say this because you are rather a little bit too hard upon foreign decorations, which are not all given for nothing. – No Government can judge by itself of the scientific services of any man except by being told so & in the case of Mueller, it was you, who brought his claim forward. In the same way you could [4] have passed the claims of somebody else less deserving than Müller was & you would have carried your point, because the English government knew, that from the high official & scientific position you occupy, that you & not they were the best judge.

In one of your letters you told me that foreign orders were in some aspects contemptible & having Mueller's example before me & your expression, I was on the point to

¹⁷¹ Edward Jollie (1825-1894), New Zealand surveyor and politician.

refuse some decorations which were offered to me without my knowledge & consent, but my friends told me not to be so foolish.

Thus for inst. the Grand Duke of Hesse¹⁷² Darmstadt sent me the Knight's Cross 1st Class of his order because the director of his Museum Dr Kaup¹⁷³, to whom I had sent a series of photographs of my large articulated *Dinornis* skeletons & in exchange [5] some cases of *Dinornis* bones, laid them before the Grand Duke, who seems to take some interest in such scientific matters & the consequence was that he offered me the decoration. Now was it contemptible of me to accept it; & under the circumstances could the Grand Duke guided by Kaup (as the English Government was guided by you in the case of Müller) go so far wrong?! I think you will smile when you read all this but as there is no man in England whose good opinion I wish more to retain than that of yourself & who has shown himself always a kind friend, you will forgive me that I dwell so long upon a subject which is not genial to either of us.

I beg to congratulate you very heartily being made a CB. In this case I fully admit, the distinction between services rendered & scientific attainments is very clear, because any [6] body going to Kew, who can not judge of your scientific attainments, sees your services before him. I suppose this is only the first step to KCB.

By the *Charlotte Gladstone*, which sails in a fortnight, I shall forward the two Wardian cases filled by Armstrong; there are several of the plants which will be very welcome to you & I only hope they will arrive in good order; perhaps that it will be good if you send me a list of your desiderata in plants for next year's campaign. I also shall forward collection of seeds by sample post, as soon as possible; several friends are collecting for me.

Autumn has set in very early [7] this year.

I hear from a friend in Melbourne that poor Müller's position is very insecure & that there are doubts expressed that his salary will be voted. They say that he has neglected the Botanical Gardens, which has already been placed in other hands, for his own personal aggrandisement etc., but I think the principal reason is ostracism. Poor fellow, my father-in-law tells me that he feels it most bitterly.

With united kind regards,
ever my dear Hooker

yours most faithfully,
Julius Haast

¹⁷² Louis III, Grand Duke of Hesse (1806-1877), ruled as Grand Duke from 1848 to his death in 1877.

¹⁷³ Johann Jakob Kaup (1803-1873), German zoologist and palaeontologist, director of the natural history museum in Darmstadt.

98: Hooker to Haast, 28-03-1870

ATL MS-Papers-0037, folder 100-01

Royal Gardens Kew
March 28/70

Dear Haast

I send scraps of an apparently new *Clematis* sent by Armstrong, if possible please get us better specimens.

I am dreadfully busy this month, which is [2] the last of our financial year.

No new news.

Ever yrs most sincerely

J. D. Hooker

Thanks for yours of October 30.

99: Haast to Hooker, 31-5-1870

Kew DC 174 f. 360

Glückauf near ChCh., N.Z.
May 31. 1870

My dear Hooker

I wrote to you by the March mail telling you that the 2 Wardian cases for you would go by the *Charlotte Gladstone*, but the last day before they had to be closed and it seemed a fine night, Armstrong imprudently left the covers off and a tremendous shower of rain fell, which made them so soaking wet, that he told me they could not go before they were thoroughly dried in the inside. Consequently we were obliged to let the *Ch. Gladstone* sail without them. They are now in first rate [2] order & will go by the *Caduceus* which will leave in a few days. I shall send you bill of lading by next mail.

A few days ago I began clearing my storeroom to get at the collections piled up, in order to bring them to the new museum building, when I found to my dismay that rats and mice had ruined a good many things. Amongst others your beautiful large vegetable sheep, which was quite mined through, having probably served as a passage was so far gone that when I lifted it, it fell all to pieces. So I shall [3] to my great regret not be able to send it & I have to make another pilgrimage to Mt Torlesse to get a new specimen for you. I wish I had sent it before, but as I had no room, it had, like many other things, to be stowed away and was afterwards not get-at-able.

Is the flora of Western Australia well known? – It is very possible that I shall go with leave of absence of this government for 6 months to that colony, to make a running geol. & mines survey, as Governor Weld wishes me so much to come. In that case I shall of course also collect botanically. [4]

I am hard at work in our new Museum & every spare moment is taken up with drawing geol. sections and writing a report upon some work done for Hector in the Amuri District, where most interesting saurian remains occur and which as far as I can make out is very young Mesozoic rocks (cretaceous).

With united kind regards,
ever my dear Hooker,

yours most sincerely,
Julius Haast

I send by bookpost a small pamphlet & a newspaper.

Dr J D Hooker CB. FRS
Director R. Gardens
Kew

100: Hooker to Haast, 16-06-1870
ATL MS-Papers-0037, folder 100-02 & 03

June 16/70

My dear Haast

Your long & interesting letter of March 26 arrived 11 days ago & I hasten to thank you much for it.

I am very glad to hear that the seeds by Dr Powell were acceptable. I hope to send a lot more soon. Many thanks for the promise of the stone implements – pray do not rob your Museum for my collecting fancy. A few flakes will be most acceptable whether or no you can spare the implements. [2]

I am very glad to hear that you are at Geological work again & in so pleasing a field as the Saurian Reptiles. What a wonderful discovery they are.

A list of our timbers should have gone with this, but it is not ready, it shall be sent by next mail. I shall be delighted to get the long looked for “Vegetable sheep” for our Museum – I think you have a copy of our Museum Guide, as I find [3] I sent you one some time ago. I herewith send the new Garden Guide, which I hope you will like.

Pray do not think that I suppose all foreign decorations to be given for nothing, or that I would for a moment think you did not deserve any more of the kind, & still less that you should refuse it – which would be very wrong under the circumstances you mention.

A thousand thanks for keeping Armstrong up to returning the Ward cases; I do hope that the plants will be well established, & the earth [4] made secure in the box by cross-battens – we have been most unfortunate with Ward cases from N. Zealand for years back. I will send you a list of our principal wants.

As a rule the fault with the cases is 1. Too much earth; 2. Want of drainage by broken pots &c. at the bottom of the box. 3. Earth not fastened down.

Pray let *Hymenophyllum* & epiphytic Lycopodia established on blocks of wood be hung or nailed, to its sides & top of the case.

Poor Mueller, I hear that he is most uncomfortable; great fault is found with his Gardening, & garden management; which he will [5] not give up. I suspect he is unwise in retaining the duties of gardening proper, which must want an experienced practical man, & that he would be happier if he would fall back on the Scientific Directorship, for which he might secure a good salary by a compromise with Govt. I am sure I would gladly retire on Science here!

My boy returned a month ago in capital health & spirits. Thanks to your & Hector's easy care [6] of him he had acquired none of the roughness or coarseness that is often attached to youths thrown so much on their own devices in foreign countries & especially colonies. He is now with a private Tutor, a clergyman in Shropshire.

I have no Scientific news to give you this time my correspondence being all in arrears & having the Nepenthaceae to work up for the Candolle's Prodrumus¹⁷⁴. [7] I am keeping consequently as much at home as I can & out of society in London.

I saw Darwin last Sunday remarkably well for him, & busy still on his work on Man, which will be out in Autumn.

We have had a fearful drought of 4 months that has tolled heavily on Kew Gardens which are on poor sandy soil – but last night we were relieved by thunder storms & raining [8] looked as gloomy as your Southern Alps in rainy weather.

My New Zealand shelf of plants slowly increases, but it is interesting how few N.Z. there are in cultivation & especially *Veronicas*. There is not a single *Celmisia* in cultivation nor a *Ranunculus* except your *lyallii*!

Ever most sincerely yours
Jos. D. Hooker

101: Haast to Hooker, 28-6-1870

Kew DC 174 f. 361

Glückauf 28 June 1870

My dear Hooker

I enclose receipt for the 2 Wardian cases by the *Caduceus* Capt. Roberts¹⁷⁵, which will sail in a few days & hope they will safely arrive, as the capt. promised me to take the greatest care of them. You have as freight to pay for them. – I also received your note of April with the seed of *Cedrus atlantica*, for which my best thanks. Armstrong will get you a complete set of the new *Clematis*; he tells me, he has got some more novelties.

I am in the midst of arranging the new museum; it is a tiresome job; I never thought [2] that it would last so long.

¹⁷⁴ Hooker's monograph "Nepenthaceae" was published in 1873 as the seventeenth volume of Augustin Pyramus de Candolle's *Prodrumus Systematis Naturalis Regni Vegetabilis*.

¹⁷⁵ D. T. Roberts, captain of the *Caduceus*.

I have not seen Hector for a long time, but hear from him nearly every week. He complains of his health, which is doubtless the effect of overwork and worry, (meeting of the General Assembly) because he wants to get reports etc. out in time & he has too little assistance.

We have a very long winter this year. It began in April & goes on still without interruption. Rain, snow, for 4 or 6 days with a few fine days & cold nights between.

When is Darwin's new book coming out? I expect it with [3] great impatience. Darwinism is now a great fact, and when one of our ignorant N.Z. parsons described him (Darwin) the other day as the Antichrist. – O sancta simplicitas. However I think you hear enough of that in England.

Believe me ever yours most sincerely,
Julius Haast

Dr J. D Hooker FRS CB.
Kew

1 Juli

I left this letter open in order to add the receipt of the Capt., but he writes me to say that for cases which he takes free, he does not give a receipt, but have the kindness to look over the list of arrivals of vessels & have the cases claimed at once. – The Capt. will take the greatest care of them. The *Caduceus* did not leave sooner because the weather was so very bad, that they could not load her as fast as usual.

[note by recipient:] Plants arrived all dead in the case.

102: Hooker to Haast, 16-08-1870
ATL MS-Papers-0037, folder 100-04

Royal Gardens Kew
Aug, 16/70

My dear Haast

I send herewith according to your kind request a list of the specimens of New Zealand wood that we possess & shall be glad of any that you can from time to time procure for us. We rather you enclose the slabs of the full breadth of the trunk & 2-4 ft long in preference to trans [2] verse sections which tell much less & may hence be of smaller size.

I am very sorry to hear of the rats having destroyed the long looked for Vegetable Sheep! What a pity, for I know how great a trouble it is to procure such specimens.

You ask about the Flora of W. Australia – it is botanically well known [3] on the whole. Preiss, Drummond & many others have collected extensively to several hundred miles in all directions: but the ----- are so ---- that much remains to be found.

Thanks for the newspaper & pamphlet by book post. Willy is at a private Tutors in Shropshire & doing very well indeed. He has taken to mathematics with some zeal & considerable prowess.

I am now extremely busy at descriptive Botany clearing off old arrears. I [4] have just finished a Monograph of Nepenthaceae & of Rafflesiaceae for D.C. Prodromus & have much work for the Flora Indica, W. Africa. Flora & Genera Plantarum in hand.

I have given up my holidays this autumn & shall still go to Kew & to work.

With writers kind regards to Mrs Haast & yourself.

Ever most sincerely yours

Jos. D. Hooker

Grasses & seeds about sand hills giving timber

103: Hooker to Haast, 14-11-1870

ATL MS-Papers-0037, folder 100-05

Royal Gardens Kew
Nov, 14th/70

My dear Haast

It is now some time since I have had the pleasure of addressing you, & in the mean while I have been & are so busy with the Rubiaceae for "Genera Plantarum" that I have been obliged to postpone all correspondence that was not pressing. That ----- order is in such a state of hopeless confusion, is so large, & the depiction of its ovules & embryos so difficult [2] that after 2½ years work I am only half through it, & it is clear that at this rate no "Genera Plantarum" can go on! So I am devoting all my time to it & begging my correspondents to excuse me.

The case per *Caduceus* has arrived, & again I regret to say with every plant dead. I think the case must have been put in the hold of the ship. [3] The plants were not rotted or tumbled about. They just were killed as they stood – stock dead – a noble set it must have been, of *Veronicas* especially.

I have had no holiday this autumn - & kept to my Garden & Rubiaceae working steadily on. I went to Liverpool (British Association) meeting for 3 days only. Huxley's address was admirable – the agenda wanted any prominent interest.

Darwin is well (for him). His book will be out in December.

You shall have another [4] good batch of our seeds this winter. The last hot summer has been very favourable to many of them ripening well & I hope germinating with you when they arrive.

No doubt you find the Museum arrangement very hard work – it requires a great deal of time forethought & knowledge, to arrange a public museum well for scientific men & popular use also.

Most sincerely yours

Jos. D. Hooker

Thanks for the promise of another vegetable lamb, or sheep!

104: Haast to Hooker, 17-3-1871

Kew DC 174 ff. 362-364

Glückauf
17 March 1871

My dear Hooker

I feel really quite ashamed that I have not written for such a long time, however my excuse is that I have been so busy, that my whole correspondence has greatly suffered by it. However I shall not longer delay to thank you for your letters of the 16 June, 16 Aug & 14 Novb; of which the two latter I received in the field, as I have been some three months at work for Hector with a geol. detail survey of the Malvern Hills.

I shall not fail to send you some Moahunter stone implements by the first opportunity.

Concerning the vegetable sheep & the timber; both will come in due time; unfortunately I have no assistance in that respect & I do not yet know, when I shall get away to Little River to collect the desired specimens of timber. Mr Enys however tells me that he has got a fine vegetable [2] sheep ready to send down to town; (his run encloses portions of Mt Torlesse). I shall go however as soon as I can to get some timbers, cut as you suggest, or if I cannot get away, get leave of absence for Armstrong & send him.

Concerning Mueller I have to repeat what I stated before; he would be all right, if he would put away his foolish vanity; but now he has lost the friendship of almost every other scientific man in Australia, by assuming to let them feel that his position in the scientific world is far above theirs & talking of nothing except of his connections with emperors, kings & perhaps grand dukes. – Even his oldest friends in Melbourne have lost their patience with him. – He writes to me now only when he wants some NZ specimens & then in a rather distant way, probably because some time ago, I told him my mind about some matters in connection [3] with our museum; he was offended when I told him that if his European friends wished NZ collections, they much better might write directly to me or to Hector. – He is past recovery & I should not at all feel surprised if one fine morning he would lose his place altogether. It would be a great injustice, I admit, but Colonists are different from older governments & are difficult to manage. – Mueller ought to take a lesson from Hector; he is the model for a scientific man in a colony; he has everything his own way, because he knows admirably how to manage the people.

Your Garden Guide is admirable; many thanks for it. What would I give could I walk with it in my hand, or what would still be infinitely better, under your guidance through that magnificent establishment under your care. – However at present idle wishes. [4]

Mrs Haast & myself, we were both truly delighted to hear such capital accounts of Willie. His stay in the colony will have given him some independence & self reliance & I have no doubt that now he will go to work like a man to make up for lost time. Will you tell him that we shall always be delighted to hear from him & that if he writes to us we shall certainly answer his letters with great pleasure.

I can easily imagine that you have your hands full, because publications like the *Prodromus* & the *Genera Plantarum* require without doubt all your attention & energy. – We (I mean the Phil. Institute) are now going in to order this & some other of your larger publications for our infant library. Darwin's book must now be out; I need scarcely say that I expect it with the greatest impatience.

We have suffered this year from the opposite side, namely humidity. [5] We had a very wet summer, but looked towards the autumn with great expectation for fine weather; however we have been sadly disappointed, as it has been raining almost incessantly since the beginning of February. A great quantity of the grain is ruined & many people have lost their whole crop & whilst I write the same horrid weather is going on.

Armstrong has been collecting seeds & I hope to send you a parcel by next mail. Amongst others he has a fine lot of the *Ranunculus godleyanus*, grown in his garden.

I did not tell you that Weld could not wait till this March & consequently obtained the assistance of a geologist from Melbourne for Western Australia, who went there last October already. In some respects I am sorry, because I should have enjoyed my trip very much, although I do not yet know how I would have managed it to get away for such a long time.

We are very anxious here for the introduction [6] of foreign grasses to improve our pastures & I should be very grateful to you, if you could spare us seeds of grasses from other countries, which you think might be useful to us. And also if he could spare us a named collection of NZ grasses for a time, in order to get the authentic names, because with the best will, some of the species I could not recognise. I should afterwards return you the collection.

I suppose you must feel sometimes rather depressed when looking at the progress your “*Genera Plantarum*” makes, however as the German says “Gut Ding will Weile haben¹⁷⁶” and so looking at the object of your work you will not grudge the time.

Your last letter with the news of the arrival of the 2 Wardian cases has quite upset me. After all the care we have taken, the expenses it has involved, because Armstrong was 5 weeks away in the mountains, it is really disheartening. I gave written instructions [7] to the capt'n, who faithfully promised me to use all care with the cases. You speak only of one case, but there were two. – I shall now not send anything until I can trust the Wardian cases to a passenger on board, whom I know personally as reliable in every respect. – Poor Armstrong was quite in despair about it, because every precaution had been used for their safe travelling.

I liked Huxley's address very much, although everyone expected he would speak boldly out in some other respects; I rather liked Rolleston¹⁷⁷'s address too; as his brother, our Superintendent¹⁷⁸ is an intimate friend of ours, of course anything from his belongings interests me more than from a mere stranger.

My Museum goes on slowly but steadily; as I have no scientific help, it is sometimes tougher work than I like. It is a great pity that Hector does not come oftener to Christchurch, because he always gives me most valuable aid, notwithstanding [8] his very short stays.

I posted to you an address to our Phil. Inst. on Moas & Moa Hunters, which I hope you will find time to look through; as I overlooked some important points I shall bring an Appendix. – The subject to me is full of interest & I intend to follow it up.

¹⁷⁶ Good things take time.

¹⁷⁷ George Rolleston (1829-1881), English physician and zoologist, professor of Anatomy and Physiology at the University of Oxford.

¹⁷⁸ William Rolleston (1831-1903), served as Superintendent of the Province of Canterbury from 1868 to 1876.

Also the excavations undertaken for the Museum in Glenmark lately, have brought to light some very fine moa bones as well as other remains. Amongst them the bones of a gigantic eagle are the most important, so that even the moas has their winged enemies.

I shall write soon again.

With united kind regards to Mrs Hooker & yourself,

ever yours most sincerely,
Julius Haast

Mrs Haast has lately presented me with a little girl; this is No. 1; hitherto we had always boys. Therefore great joy in Glückauf. [9]

PS.

I beg to enclose two proposals to the Linnean & Geol Societies; both are good men & deserve to be elected. Potts is a very good ornithologist & not a bad botanist; he has the finest garden in the province & Enys is a capital collector & pushes on well. – Will you be kind enough to stand godfather with me?

105: Haast to Hooker, 18-4-1871

Kew DC 174 f. 365

Christchurch, NZ.
April 18. 1871

My dear Hooker

I sent you by last mail an address of mine in which I treat of Moas & Moa hunters but as I overlooked some points, have written a continuation, which I enclose.

Hector has since sent me a copy of a paper of his in which he came to somewhat opposite conclusions, but I think I shall be able to show that there is nothing to prove the incorrectness of my conclusions & I shall by & bye answer his points more fully.

Will you be kind enough to see that my two papers, as well as that as Stack's are taken notice of by the same publications in which Hector's paper is printed. Otherwise it would certainly prejudice my case.

The mail leaves in a few minutes so excuse my haste.

With kind regards,
ever your most sincerely
Julius Haast

Hector tells me that he has sent you his paper for publication.

106: Hooker to Haast, 27-7-1871
ATL MS-Papers-0037, folder 100-06

Royal Gardens Kew
July 27/71

My dear Haast

I sent both your very interesting papers on Moa's & moa hunters to "Nature" without loss of time – with a request that they should be each inserted. Dr Hector's I think had the start of you by a mail. But really I did not take notice – I sent yours without delay & I did the same by Hector – [2] yours being much the longest will probably be most delayed in publication.

I am still especially busy not having overtaken the arrears that accumulated during my Morocco-trip – and since unfortunately.

So pray excuse me.
I am my dear Haast Yours Ever most sincerely
J.D. Hooker

107: Hooker to Haast, 14-12-1871
ATL MS-Papers-0037, folder 100-07

Royal Gardens Kew
Dec 14/71

My dear Haast

It is long since I have written to you, but I have been expecting the vegetable sheep & stone implements which you announced that having procured for me in your letter of 17 March.

I have myself been over occupied this whole autumn & winter in various ways. The demand upon this Institution having [2] increased beyond our means considerably of late & having been in want of two assistants for now many months owing to disagreements between myself & the Office which heads my department.

Many thanks for your kind enquiries about Willie – he is still with Mr La Touche¹⁷⁹ working steadily & making some progress – he will try again for the Matriculation of the London University in [3] February, but I am not very hopeful of the result.

By next mail, I shall send you a list of seeds including grass seeds of all the kinds I can procure for you. I fear I cannot send you a named collection of N.I. Grasses; once each one is in the Herbarium, & that our rules do not allow of being sent out of the country. If you have put the names I sent to the various numbered collections you sent me, these should supply you with a good set of names. If not, [4] and you will send me a collection of your Grasses I will return them authentically named.

You are right, I would send no Ward cases except under faithful charge of a passenger.

¹⁷⁹ Reverend James Dignes La Touche (1824-1899), vicar of Stokesay, Shropshire, also an amateur naturalist, geologist and historian.

I hope that Nature inserted your article on Moa Hunters as I forwarded it at once with a letter to that effect; as indeed I do all yours & Hectors communications, lately I have been too busy to read Nature regularly if at all.

I am much interested in your account of the gigantic eagle. What can it be, pray tell me more about it. [5] Accept my hearty congratulations on the arrival of your little girl & on Mrs Haasts recovery.

I am still plodding at the "Genera Plantarum" & have almost completed Rubiaceae. Bentham has finished Compositae so I hope that we shall have a number out in a few months.

Can you get me seeds of *Cordyline indivisa*? & more of *Areca sapida*.

With united regards
Ever sincerely yours
Jos. D. Hooker

108: Haast to Hooker, 2-1-1872

Kew DC 174 f. 366

Canterbury Museum
Christchurch, NZ, Jan 2. 1872

My dear Hooker

I was truly glad to hear of your safe return from your Morocco trip, which as I see from a letter of yours, published by Mueller in Melbourne, must have been of very great interest indeed & of the results of which you have every reason to be satisfied. Concerning Hector's or my moa hunter papers, it does not matter because the presently to be issued volume IV of our *Transactions* will bring the whole matter to light & the scientific world will be able to judge on which side is the evidence, in favour of either view.

Last mail I sent you a paper with a third communication on the same subject, and [2] hope that you will find time to glance over it.

There will be in the volume some illustrations with it, showing the character of the stone implements used by them. – Speaking of these implements, I am sorry that it was overlooked to put in Prof Flower's 2 cases which were shipped a few weeks ago, a parcel of these Moa Hunter kitchen middens, things which I made ready for you; but they will be added to the first case I shall send to England.

I shall leave again in a week for the interior & as I shall be occupied with geol. detail work in the mountains, I shall have ample opportunity of collecting & I shall not fail if I obtain anything which might be of interest to you to send it.

I hope you will give an account of your Morocco journey, so that your [3] friends can travel with you once more over the ground and enjoy the fruits of your labours.

We are just building already a new & large wing to our museum building, which is arranged according to your plan, which you communicated kindly to me in one of your letters.

I am truly sorry that now you find so seldom an opportunity to write to me & you would do so oftener, did you know what great pleasure your letters always give me.

Darwin's book on Man¹⁸⁰ has greatly delighted me. We had in our Phil. Institute 2 papers on Darwinism, which will rather amuse you & the parsons (we are unhappily a priest ridden settlement) had all their say. One of them a high dignitary of the church, who spoke very strongly, when driven in a corner by me, had to confess, that his [4] knowledge of Darwinism was derived from reviews in *The Guardian*¹⁸¹ & similar church publications. My answer was, what would he think of me, if my whole knowledge of Christianity was derived from Payne or Greig & I would speak authoritatively on the subject; I shut him up altogether.

I indulge sometimes to make puns or riddles, here is my latest:

Why were the ancestors of the Maoris on terms of intimacy with some portion of the ancient Hebrew nation? Because they were very fond of moa-bites.

Please forgive me!

With our united kind regards and compliments of the season,
to Mrs Hooker & yourself,

ever yours most sincerely
Julius Haast

109: Hooker to Haast, 29-3-1872

ATL MS-Papers-0037, folder 101-01

Royal Gardens Kew
March 29/72

My dear Haast

Though our correspondence has slackened of late, it has not been the will but the time that has been wanting. My duties ever increase upon me frightfully & I get all sorts of Govt "odd jobs" to do, in matters of advice & administration, which though outside my Kew duties, I cannot shirk.

Now you are going into the m[oun]tains again pray [2] let me have the long looked for & long promised big vegetable sheep! if you possibly can manage it for me.

Lyell has just published the 11th Edⁿ of Vol. 1 of Principles: which I have been reading the revised chapters of X-XIII – they show hardly any diminution of intellectual origin; but how dreadfully complicated the geographical & climatic problem has become, that all looked so simple in Ed. I! [3]

¹⁸⁰ Charles Darwin, *The Descent of Man, and Selection in Relation to Sex*, London, John Murray, 1871.

¹⁸¹ *The Guardian* was a weekly Anglican newspaper published in England from 1846 to 1851 and was for many years the leading newspaper of the Church of England.

Darwin is pretty well & still busy at his book on expression; – he is beginning to complain of the debility of age & constant illness telling permanently upon his powers, & he doubts his being able to continue any intellectual work much longer.

Huxley broke down & went to Egypt – whence he has returned & he is now at Naples I hear. His little son¹⁸² is now staying with me for a few days, a fine sharp little fellow of 11-12.

We have had a severe winter up to Christmas, & since January a wonderfully mild one bringing vegetation forward [4] in a most remarkable manner, but the Equinoctials have brought snow wind & torrents of rain, & the East winds will no doubt follow & do the usual mischief. The Scilly Islands defy climate & I had a hamper of flowers thence the other day, with *Griselinias* – *Brachyglottis* – *Eurybia* – *Plagianthus* etc etc in full flower. Plants that won't grow at all in the open air here.

Your third paper on the Moa bones has not come to hand. I shall be delighted to read it when it does – are you sure that you sent it?

With united kind regards
Ever most sincerely
Jos. D. Hooker

110: Haast to Hooker, 31-7-1872

Kew DC 174 ff. 366A-367

Christchurch, July 31 1872

My dear Hooker

I have two letters of yours to answer of Decb 14 last & March 19th & to thank you for your interesting “Account of the great Atlas”, which is full of suggestive matter & for the fine collection of seeds. Today I can at last announce to you that the long promised vegetable sheep is safely packed together with some moa hunter things & that they will go with the *Wild Duck* expected to sail September the first. I had great trouble to get this vegetable sheep at last, because 2 of them were broken before they came to Christchurch. It is finer & larger than the one we have in our own museum, but it goes to the right place, where it ought to be. [2]

Although I was 2 months amongst the mountains & ascended several, & to 6000 feet high, which had never been visited, with a view of botanising, I am sorry to say the result was most discouraging. In fact there was nothing to be had, I got a few *Celmisias* & *Raoulias* in inaccessible spots, but all known to science, but the alpine meadows are totally eaten down by sheep & I was thoroughly disgusted. One has now to go far into the interior before one can get a virgin field for collection.

I am glad to hear such good accounts of Willie & I trust he will have passed successfully the examinations for immatriculation at the London University. Concerning the names of the NZ grasses, I have always carefully put the names to them [3] which you sent

¹⁸² Leonard Huxley (1860-1933), son of Thomas Huxley. Leonard became a school teacher, writer and later edited the two volumes of *The Life and Letters of Joseph Dalton Hooker*, published in 1918.

me, but somehow in many instances they do not agree with the descriptions. I suppose somehow the names were displaced or better said, the original numbers; however I shall manage them very well. I did not send you an extra copy of the *Harpagornis* paper of which I got only a dozen, knowing that you would receive at once the volume of the NZ. Institute *Transactions*. Owen expressed his satisfaction & entire coincidence with my work. Since that paper was written, I was so fortunate as to get nearly a complete skeleton & another somewhat smaller one which I intend to describe shortly. What a wonderful sight it must have been to see that giant tackle one of the moas.

I am curious to know what you think of the moa controversy; I [4] really can not understand Hector in that matter. He still quotes Mantell & Buller, whilst the former has altogether come round to my views & Buller simply repeated Mantell, whilst all the great Maori authorities without exception agree with me. We heard so much about the moa ovens in Otago, but when I examined them along the sea coast, I found that the Maori ovens never go lower than 3 feet above high water mark, whilst the moa ovens, separated from them by 5 or 6 feet of drift sand or silt, begin several feet below high water mark, which showing a great change in the level of the country. As a proof of the recent extinction of the *Dinornis* the moa feathers are quoted, but which were found 18 feet below the surface in undisturbed fossil or Cal. alluvium the same is the case with the cave specimens, which as I heard from [5] very good authorities, were obtained & preserved under similar circumstances. I intend to send a resume of the whole question with drawings etc. to the Ethnol. Society of London, but want first some more material; "*Nature*" did not allude to my paper at all.

I have requested several people to get for me the seeds you want & hope to get some soon.

I really feel with you concerning the "odd gov^t. jobs." I know in my small sphere what it is; they take more work than the regular work.

I trust Darwin's health will improve so that he can go on with his work, it would be a great pity, that he could not fulfil his intentions. Lyell is wonderful clear still & does, as you say, not show the effects of age. I am a great admirer of Huxley & my wife partages [6] my feelings. She has only read one of his books *Lay Sermons*¹⁸³, but she thinks it is worth hundred others. What is the price of your *Genera Plantarum*? I hope I shall be able to subscribe for a copy for our museum library, where we are dreadfully poor in botanical works.

We have had a long & severe winter but trust that an early spring will reward us for our long inconvenience. Notwithstanding the weather, I had some extensive excavations made in the Glenmark swamp, this time reaching the very centre & getting a magnificent collection of *Dinornis* bones of all kinds.

I understand that Hector & Hutton¹⁸⁴ do not at all pull [7] well together for which I am very sorry, because it will injure the cause of science in NZ, but as neither the one nor the other even told me a word about it, I of course can not say anything about it. Both have many friends & thus great harm is done to both.

¹⁸³ Thomas Henry Huxley, *Lay Sermons, Addresses and Reviews*, London, 1870.

¹⁸⁴ Frederick Wollaston Hutton (1836-1905), English soldier, geologist and museum curator in New Zealand.

I suppose it is the course of the world & one has not to complain of its ways.
With united kind regards to Mrs Hooker & yourself,
believe me, yours very sincerely,
Julius Haast

Dr J D Hooker CB FRS
Kew

111: Haast to Hooker, 26-10-1872
Kew DC 174 f. 368

Canterbury Museum
Christchurch N.Z.
Oct. 26 1872

My dear Hooker

I have only time for a few lines being overwhelmed with work, but I wish to show you my sympathy in the great trouble you have had with the chief of your department. It is the old story; one can make a man a minister or even an emperor without making him a gentleman or even giving him gentlemanly feelings. However no doubt, as I see from the home papers, you will have the best of it & in this respect you will be a gainer by the whole affair [2] as your position will be so defined for the future, that nobody can interfere with you any more.

For the last month I have young Armstrong in the field collecting timber for the Vienna Exhibition & for the Kew Museum. I shall thus be able to send you slabs of all the Canterbury timber, those of the alpine regions included, & Hector has put also some people to work to do the same for you. Thus you will get a fine collection & NZ fairly represented.

I hope Willy is going on [3] to your satisfaction; if you have photograph of him lately taken, I should like one.

I have had extensive excavations made in a cave & they prove now incontestably the great age of the *Dinornis* & the long time since they are extinct.

I wish Hector for his own sake would not make such a goose of himself; I shall be obliged in my next paper not to spare him.

With united kindest regards to Mrs Hooker & yourself,

ever yours sincerely,
Julius Haast

Dr J D Hooker FRS.
Kew

Your box is ready to go by the first wool ship.¹⁸⁵

¹⁸⁵ Marginal note on page 2 of manuscript letter.

112: William (Willy) Henslow Hooker to Haast, 29-12-1872

ATL MS-Papers-0037, folder 105-04

Kew London
Dec 29. 1872

Dear Dr Haast

I heard from my father that you desired one of my photographs. I have great pleasure in sending you the last I had done, in fact it is only once that I have been photographed since I left New Zealand, it was taken in France about 6 months ago, where I was staying to learn a little French.

Almost immediately [2] I arrived home from N.Z. I began working for the London Matriculation examination, which I passed last January (72) having been once rejected in June, since then I have been to France & am now in a shipbrokers office in the city.

I occasionally receive letters from some of my friends in New Zealand. Capt Fairchild¹⁸⁶ now master of the *Luna*, writes me a letter occasionally, he was master of the [3] *Sturt* on which vessel I was on during the most part of my time in N.Z. I do not think I will ever forget my stay in N.Z. everybody I had anything to do with was uncommonly kind to me. I can hardly thank you & Mrs Haast for your kindness to me on my first arrival there.

Please remember me kindly to Mrs Haast. I hope your Museum is succeeding as well as before. And your little [4] boy who if I remember right beat his mother & all around him with a geological hammer you had presented him.

Believe me Dear Dr Haast

Yours Truly
W. H. Hooker

113: Haast to Hooker, 10-1-1873

Kew DC 174 f. 369

10/1/73

My dear Hooker

I have only time to tell you that I have added to a case to the British Museum which left in the *St Leonards*, a small box for you containing the long promised "Vegetable Sheep", which I trust will come safely to hand.

I have also a large collection of timber ready for you, the duplicates of which went to Vienna, but they are scarcely fit to travel; as soon as they are dry, I shall not fail to forward them directly to you, hoping that [2] they will form a welcome addition to your museum. Hector has also been collecting the NZ timbers in the same way, so that your representation of NZ will be a good one in the future.

I have been hard at work all along, have had to stick to the museum & office for a long time & thus had no chance of collecting in your line.

¹⁸⁶ Captain John Fairchild (1834-1898), New Zealand master mariner, captain of a long series of Government steamers, including *Prince Alfred*, *Sturt*, *Luna*, *Stella*, *Hinemoa*, and *Tutanekai*.

Hector paid us a visit during our little exhibition, but we did not see so much of each other as I should have liked, owing to various causes not in our own control.

There was once a chance that I should go as Exhibition Commissioner to Vienna [3] but somehow the matter did not arrange itself, as the govt wanted me to do too much emigration business. I must confess I was rather disappointed as I should have liked so very much to see my old & new friends at home. However it cannot be helped.

I think I told you about my cave excavations, but I have not yet found the time to publish anything about it.

If you have a few moments, do write me a few lines.
With united kindest regards to Mrs Hooker & yourself,

ever yours most sincerely
Julius Haast

added to a case addressed to Prof Owen, British Museum, a case with address, containing a large specimen of *Raoulia mammilaris* (vegetable sheep).

Dr Jos D. Hooker CB FRS
Director R. Gardens Kew

114: Hooker to Haast, 6-2-1873
ATL MS-Papers-0037, folder 101-02

Royal Gardens Kew
Kew
Feb 6/73

My dear Haast

I have two unanswered letters of yours – the last October 26th – & now only write to acknowledge, apologize & say that I will write to you fully by next mail.

We have all extraordinarily busy of late with various matters of vital importance to this Institution all arising out of the [2] wretched Ayrton¹⁸⁷ controversy as the enclosed shows.

Most sincerely
J.D. Hooker

Please do not forget the vegetable sheeps!

¹⁸⁷ Acton Smee Ayrton (1816-1886), British barrister and Liberal Party politician.

115: Hooker to Haast, 21-05-1873

ATL MS-Papers-0037, folder 101-03 & 04

Rl. Gardens Kew

May 21st, 1873

My dear Haast

I take the opportunity of an Examination time (the last Ex. I shall hold) to answer your long & kind letters, which have too long lain unacknowledged. The fact is that as our Establishment here enlarges, & embraces more & more subjects, & is hence the recognised referee of various Govt. Departments, the more I get tied to the desk – & I need not tell u that as I grow older domestic & [2] private calls on ones time multiply to an alarming extent.

Thanks for the coming “vegetable sheep” which I shall be delighted to “fold” – & for your directions with regard to the timber specimens now at Vienna. So also for your kind sympathy in the official troubles I have been subjected to; – as to Prof Owen, it was only to be expected, he & I had been friends for 30 years, though he once behaved treacherously to me once before – & I knew that it could not last. His character for treachery is only too well established: – let it [3] all pass.

Willy is getting on steadily at a ship brokers office where he is Clerk – he is wonderfully slowly developing into a man; but is so trustworthy & industrious that I have no fear of him – he has taken to Volunteering & has an ensigns commission in the P.V. Brigade – which occupies his morning hours & often evening too, & he has taken to the Violin & to turning – so that he is well occupied at home.

Bullers book has done him great credit here.

Darwin is considerably better for him, though still a sad invalid. He is busy [4] bringing together many of his scattered papers for a separate publication.

Huxley is better though far from strong. He is S[e]c[retar]y to R.S. now, so that his health is to me, who has the honor to be President Elect, a matter of great moment.

We shall get into our new House, a splendid building next November, when I take the Chair – much against my personal wishes, but so much wished for by the Council who unanimously pressured me, & biologists generally, & so concurred on by Scientific men at large that I could not have [5] declined the honor had I felt even that personal reasons should overrule others.

I have read with great interest the *Dinornis* description but I cannot reason on it – have no time now to stop & reason on what I read.

Poor Sir C. Lyell has lost his wife¹⁸⁸ – a dreadful blow at any age & the more so, as he is very feeble & she has long been as much a nurse as a wife & assistant to him in all matters whatsoever. She was a wonderful person. [6]

You ask what the *Gen[era] Plant[arum]* costs. I will let you know when I get home.

¹⁸⁸ Lyell married Mary Elizabeth Horner (1808-1873) in 1832.

Bentham & I pay the whole cost out of our own pocket, that we may thus keep down the price. We are dreadfully out of pocket & have just paid the printers bill for the 4th part (£350.00) before being anything like repaid for the outlay on the previous parts.

With united kind regards
Ever my dear Haast

Sincerely yrs
Jos. D. Hooker

Pray still send seeds when you can & plants too if possible. Would you like a named set of Pine cones &c for your Museum?

116: Hooker to Haast, 2-7-1873

ATL MS-Papers-0037- folder 101-05

Royal Gardens Kew
July 2^d/73

My dear Haast

The vegetable sheep has duly arrived & is of such beauty & interest that I shall have a case & table made for itself. Many thanks for this fine object.

The timbers will be much prized, as our collection of New Zealand wood is very poor indeed.

What a chance it would have been had you gone [2] to Vienna as Commissioner – you might have come on here & that would have been a pleasure.

We are very very busy here as Govt. work of all kinds accumulates on my hands every year, & my time is terribly taken up with Reports &c. so that I now hardly ever look at a Geological or Zoological paper & I have actually not read Darwin on [3] Expression! – Mr Darwin is very well for him, & busy working up his miscellaneous papers for publication. Huxley has been much of an invalid & is ordered 3 months of cessation of all labor – I start with him tomorrow for Auvergne to amuse ourselves amongst the Volcanoes. I shall avoid Vienna, which would launch me into a lot of labor.

Willy is well, takes kindly to his office, & plays violin duets with his mother & turns vigorously with the lathe in the evenings. He [4] has also joined the Volunteers.

In November I take my new duties as President of the R.S. if elected by the Society (& I hear of no opposition) a post I certainly did not & do not covet, though quite sensible of the very high honour it confers & great responsibilities it entails. We shall enter our splendid new apartments at Burlington House, as will the Linnean – both Societies will be sumptuously provided for.

With united kind regards to Mrs Haast in which Willy joins

Ever my dear Haast, most sincerely yours
Jos. D. Hooker

117: Haast to Hooker, 15-8-1873

Kew DC 174 f. 370

Canterbury Museum.

Christchurch N.Z.

Aug 15th 1873

My dear Hooker

The bearer of these lines, my friend & neighbour Mr Ed. Stevens¹⁸⁹ is paying the home country a visit and as he is a passionate horticulturalist, I could not do better than give him a letter to you & I shall be very grateful if you will devote a few moments of leisure to my friend, for which I shall be very grateful.

Mr Stevens will tell you all our news, but I shall write more fully by the mail.

With united kindest regards,

ever yours sincerely,

Julius Haast

Dr J. D. Hooker PRS CB

Director R. Gardens

Kew

118: Haast to Hooker, 29-8-1873

Kew DC 174 f. 371

Canterbury Museum.

Christchurch N.Z.

Aug 29th 1873

My dear Hooker

I have two welcome letters of yours, of Febr 6 & May 21st to hand, one enclosing one of Willie & am glad to hear such good news. Allow me to congratulate you most heartily to your election as president of the Royal Society, which post I hope you will fill many years to the advancement of science in England. I naturally rejoice the more, as the choice has fallen upon a biologist, and upon a scientific man who is known all over the world for his readiness in helping everywhere with word & deed, when required.

What you tell me about Owen has not altogether surprised me; for years [2] to give you my experience, I have helped him with specimens of our extinct avifauna; I pointed out his mistakes, for which the large material in my hands gave me an opportunity, letting him correct them & carefully avoiding to hurt his feelings; but as by a mistake he receives instead of the fragmentary sternum of *Pal. crassus*, a parcel with numerous pieces of sternums of different species, the ticket having been put on the wrong parcel, he at once goes out of his way & tells the world that I have made a tremendous mistake & describes all those pieces in detail, which to say the least was a dirty trick; however I told him my mind about it, [3] to which he has never answered.

¹⁸⁹ Edward Cephas John Stevens (1837-1915), English-born New Zealand businessman and politician who was chairman of the Horticultural Society in Canterbury.

It is a great pity that a man of such wonderful knowledge should descend to such mean ways, which certainly will not add to his fame.

Will you tell me if you received all the timbers after the Vienna Exhibition is over? The reason is that the best pieces were picked out to send to Vienna & the rest which remained here is not quite so desirable. The reason is that when it was resolved to send out for its collection, it was already summer, quite unsuitable a time, most of the pieces, when sawn, split open from the heat, so we picked the best & the rest I placed in a shady locality for seasoning, hoping to get another set from it after the winter. Thus should the timbers not go to you, please let me know, [4] & I shall pick the next best set from the lot.

I hope you have safely received the vegetable sheep. I have no seeds of any kind, but shall make it a point next autumn to go in for collecting. It will give my old bones some exercise, having now been confined to the museum and office for several years.

I should be delighted to receive the collection of named pine cones you speak of, very much, in fact any botanical specimen you can spare.

I do not know if ever I sent you a photograph of the interior of our museum when the Moa skeletons stand, so I better add one to this letter, since this photograph was taken, 6 new skeletons have been added.

With united kind regards,
ever my dear Hooker,

very sincerely yours,
Julius Haast

119: Hooker to Haast, 2-9-1873

ATL MS-Papers-0037, folder 101-06

Royal Gardens Kew
Sept 2/73

Dear Haast

The bearer Dr Berggren¹⁹⁰ is I believe already introduced to you & so it only remains for me to say how glad I shall be that you should facilitate his researches, by introductions, advice etc. I look to his obtaining enormous results & am extremely interested in his journey.

He accompanied Nordenskiöld¹⁹¹ [2] to Spitzbergen & made splendid collections there.

Ever sincerely yrs
Jos. D. Hooker

¹⁹⁰ Sven Berggren (1837-1917), Swedish botanist and explorer.

¹⁹¹ Nils Erik Nordenskiöld (1832-1901), Finnish-born Swedish botanist, geologist and arctic explorer.

120: Hooker to Haast, 10-3-1874

ATL MS-Papers-0037, folder 101-08 & 105-03

Royal Gardens Kew
March 10/74

Dear Haast

Thank you much for your two letters of last year which should have been answered long ago but that the additional work of the Presidency R.S. has cut my foreign correspondence down to the minimum. In fact the work was new to me, as with the exception of the one year of the British Association, I had hitherto [2] steadily refused all offers of Presidential Chairs; & I need hardly say that in a Society like the Royal with much private property in land & funds, a huge Library, & a vast deal to do for Government (all Gratis!) besides its scientific labors & publications. I say with all this there was not very much to do but much to learn. Add to this public dinners & speeches & the cup of my labors is brim-ful.

I have thanked you for [3] the splendid vegetable sheep, and have sent you the box of Pine Cones &c. for your Museum.

Thanks for the photographs of your Museum.

As to New Zealand wood of Vienna Exhibition. I have just received 86 from Dr Featherston¹⁹² in the pouch of the NZ Govt, but all are I think Hector's. This I cannot tell yet, for the data as to the collections have not yet arrived. [4] Can you help me to Woods used for walking sticks for our Museum.

I want 4 specimens of each, which would enable me to get them straightened polished & reported on by a manufacturer. There [5] is an immense demand for good walking sticks.
[letter incomplete]

121: Haast to Hooker, 3-6-1874

Kew DC 174 ff. 372-373

Canterbury Museum,
Christchurch, N.Z.
June 3^d 1874

My dear Hooker

You will think me a very negligent correspondent, that I have not written sooner, but I have been so overwhelmed with work and rather in indifferent health, that I have waited for this mail in order to thank you for the fine collection of cones, which arrived a few weeks ago and in excellent condition. They were very welcome and made our collection, which contained already a good number of cones, still more complete. – Once more, receive my warmest thanks for them.

I have no doubt that your new position as P.R.S., although the highest and [2] most honourable scientific position in the United Kingdom, gives you no end of extra work, which considering that you have had already your hands full, must sometimes rather embarrass you.

¹⁹² Isaac Earl Featherston (1813-1876), English-born New Zealand politician and from 1871 New Zealand Agent-General in London.

– And therefore I am still more grateful to you, that never the less you find still time to send me now and then a few lines.

Dr Berggren is still here, he went to the south and appears to have got lots of new things; he is a nice young man and I have seen a good deal of him, although pressure of work and the state of health of Mrs Haast would not allow me to go with him for a longer trip into the Alps.

Concerning the timber from the Vienna Exhibition, all the slabs cut thinly are from Canterbury & Westland & [3] obtained through me, the Canterbury Prov. Govt paying the expenses of the collecting. – However I fear they were got in a very bad time of the year, Novb. – As soon as I economically can, in winter, I intend to go on another trip to have the timber cut in the right season. In Vienna all the timber was mixed up.

Some time ago I sent you my presidential address, which I trust did come to hand, but I am sorry to say the museum work has augmented so much, that I scarcely find now the time for any steady scientific work at all; but perhaps better times are coming.

Mrs Haast, I am sorry to say, has been ill for more than 3 months with low fever and is only now slowly recovering; as soon as we could move her we brought her to the seaside and I trust that she will soon be able to return home in better health.

Will you kindly send the enclosed to the Geol. Society and second the nomination; Mr Dobson is my brother-in-law and has great talent for geol. research, so that he will not be quite an unworthy fellow of the society. – I had sent the same nomination before to Mr Flower (who died some time ago & which I heard accidentally) but nothing came of it.

I am anxious to hear, what chance Buller had this year with the RS. Poor fellow he would be greatly [5] disappointed, should he be passed over again. – However he must abide his time.

It is now more than 18 months that I have been chained to the desk & museum & I really feel, as if I must go away. There is after all nothing like mountain air and the free life of an explorer.

I was delighted to hear such good accounts of Willy, if he will be as successful in money making, as his father has been in biological research, he will, to speak colonial slang, make no end of a pile.

With united kindest regards to Mrs Hooker & yourself,

ever yours sincerely,
Julius Haast

[6] PS.

Poor Mueller, I had a letter from him today, he complains as usually most bitterly about the treatment he has received, in taking the gardens from him, but it appears that there are two sides of the question & that he is not altogether free from blame. – He was offered a professorship at the Melbourne University, but which he refused with indignation, (so Dr

Bleasdale¹⁹³, one of his friends told me), as being unworthy of a botanist of his position. – All this of course makes the Melbourne people still more disagreeable. Well I suppose we all have our little weaknesses, but can conceal them better, than our poor friend.

122: Hooker to Haast, 22-9-1874

ATL MS-Papers-0037, folder 101-09

Royal Gardens Kew
Sept 22/74

My dear Haast

I much wish however shortly to thank you for yours of June 3rd.

I did receive your Presidential Address & read it too, which is more than I can say for 9/10 of the matter sent to me. I do however keep up with Colonial & Indian Science at the expense of all other.

I am concerned to hear of Mrs Haast's health; has [2] --- fever got at you in New Zealand? Is it from sewage & a form of typhoid? You surely can have no other type of low fever in so healthy a climate.

I sent the Certificates to the Geolog. Soc. through Flower who assures me that he never received those you sent before. Flower has been very ill & is still in "exceedingly bad health".

Buller has an excellent chance [3] chance of R.S. but last year claims of others were overwhelming: he is quite safe for election some time. There are not two opinions as to his eligibility, but it is now an affair of time so many old stayers who before cared not for it, now come forward.

Poor Mueller writes to me in the same strain as to you. I quite agree with you that he was very ill advised to have refused the Professorship – [4] he might have worked it as he pleased – it would have given him status & pleased his friends.

As to the Garden it was bad in one way under him, & it will be bad in others now. The whole thing was far beyond the demand of the Colony in a scientific point of view & believed it is an instructional & horticultural one.

Ever sincerely yrs
Jos. D. Hooker

¹⁹³ John Ignatius Bleasdale (1822-1884), English Catholic priest who was based in Melbourne since the early 1850s. He was a trustee of the Melbourne Public Library, Museum and National Gallery; founder of the Melbourne Technological and Industrial Museum and the School of Chemistry; Chancellor of the Archdiocese of Melbourne from 1874 to 1877. (See Home et al., *Regardsfully Yours*, vol. 1, Berne, Peter Lang, 1998, p. 521)

123: Haast to Hooker, 21-10-1874

Kew DC 174 f. 374

Canterbury Museum

Oct 21 1874

My dear Hooker

I send you by this mail a parcel of papers containing a paper of mine, together with an appendix, which was printed in the newspapers, but which I had now printed on a slip in order to send it only to a few scientific friends in order that they know how the matter stands.

As Hector is going to England, I wish to right myself with the scientific men at home. I shall not make a single comment upon the whole business, except say that this, although on a minor scale, has been going on for years, but in order not to have any quarrels I have quietly submitted to it, and I will only add that if I had taken, on Hector's strong recommendation, one of his workmen in my employ & the same had come & had said: Dr I have some private notes [2] on some important excavations, which have not yet been published by Dr Hector, will you read them for me; I would at once have put him down as an ungrateful scoundrel, who made me a dishonourable proposal and he would have left my room much quicker than he entered it. There is an unwritten code of honour, against no man, who respects himself, ought to sin.

However I will not say another word and only express my regret that I should bother you with the matter, but I care too much for your good opinion, that I am in self defence compelled to lay the matter before you.

I beg to enclose the names of two candidates for the Linnean, both well deserving men, will you be kind enough to see them elected. [3]

I had just now a letter from Dr Berggren, the Swedish botanist, from Auckland, he informs me that he has made a great many discoveries in cryptogamic botany, which I am sure will give you pleasure; he is a hard working man, who thinks for himself and has a future before him.

Dr Buller, who has arrived here, wishes to be kindly remembered to you; he is full of the glories of Kew.

For the past six months I have had great domestic troubles, my poor wife having been so very seriously ill, as soon as we could move her, she went (a few days ago) to Melbourne to go to a hydropathic establishment, which I trust will restore her.

With best wishes, Monsieur le president,
ever most sincerely yours,
Julius Haast

Dr J D Hooker CB PRS
Kew, London

124: William (Willy) Henslow Hooker to Haast, 17-11-1874

ATL MS-Papers-0037, folder 101-07

Kew London
17th Nov^r 1874

Dear Dr Haast

I am very sorry to have to inform you of the death of my mother. She died very suddenly on the 13th inst. She was quite well during the forenoon, but at about 1 o'clock she was seized by a fit & expired within two hours. My father will be unable to write by this [2] mail.

Please give my kindest remembrances to Mrs Haast.
Excuse this short letter.

Yours very truly
W. H. Hooker

125: Hooker to Haast, 2-1-1875

ATL MS-Papers-0037, folder 102-01

Kew
Jay 2nd/75

My dear Haast

This will be handed to you by Mr Lancelot Dixon, a connection of my own through my Uncle Dr Turner¹⁹⁴ of Liverpool. Mr Dixon goes out with his whole family (7) to settle, & I venture to give him a letter of introduction to you, as you may possibly give him hints that may be most useful to him, [2] and I am sure that you will kindly do so if opportunity occurs.

I hardly know when I wrote to you last. I think I have since my terrible & overwhelming loss – that has altered the whole tone, texture & color of my life. Since then at any rate I have yours of Oct 21, telling me of your grievance which distresses me much. Few things are to me more painful than scientific disputes whether [3] for precedence, priority or aught else; & I can only hope that yours, like worse ones, might be yet healed & that nothing will occur to exacerbate it.

I hear too that Mrs Haast has been ill. I do hope that the illness is transient & that Melbourne will set her up again.

I have signed & sent the Linnean papers & will look after their elections.

Kindest regards to Mr [4] & Mrs Buller.

Most sincerely yrs
Jos. D. Hooker

¹⁹⁴ Dawson William Turner (1815-1885), of Liverpool, headmaster of the Royal Institution School in Liverpool, the brother of J D Hooker's mother.

126: Haast to Hooker, 9-1-1875

Kew DC 174 f. 375

Canterbury Museum
Christchurch, NZ.
Jan 9. 1875

My dear Hooker

In answer to your welcome letter of Sept. 22, I am much obliged to you for your kind enquiries concerning Mrs Haast's health. Some 3 months ago she went to her parents in Melbourne & has been there under careful medical treatment ever since. It appears that she was suffering with a disease common to married ladies & which our medical attendant did not find out. – She is much better & she is now in good hopes that she will be able to join me again very soon. I do not think she had ever really fever & suppose it was one of the effects of her internal complaint.

Concerning the certificate, I did not send it to Prof Flower but the late Mr Flower¹⁹⁵, the ethnologist, who sent us many good things for the museum & who offered me his services [2] for such purposes. Many thanks for your kind assistance.

I am truly glad to hear that Buller has good chance to be elected this year. Poor fellow, he has great troubles. One of his sons is laid up a cripple after rheumatic fever & the other who went with him to the Northern Island was thrown out the coach, has his arm broken & his skull fractured. Poor Mrs Buller, who was here nursing Percy (3 years old), went off yesterday after receiving a telegram more dead than alive. I enquired this morning & hear that the doctors give some hope for saving his life. Buller himself was not hurt.

I send you herewith 3 more papers, which show you how that unfortunate matter with Hector stands. There is not another opinion here, amongst the unbiased people, that the governors (a few Wellington men) have perpetrated a great wrong & we shall [3] not rest until we have brought the whole case before a higher tribunal, because if this were to pass, there is an end of all scientific research.

At the same time the fellow lies at his heart's content. However judge for yourself. I would not trouble you with the matter, but I care too much for your good opinion. As Hector is going home, he will of course present the matter in another light, – if he can & as “les absents ont toujours tort”¹⁹⁶ I wish to right myself. The thing has made me quite ill, to be surrounded by ingratitude & treachery. However, as I intend to come also home with Mrs Haast during the course of this year, when I hope to find you & Mrs Hooker in good health, I shall then be able to defend my case more effectually, should it be necessary. – What a joy it will be for me to make the personal acquaintance of you & yours & feast upon the treasures in your gardens & museums. [4]

I hope Willie is going on quite well, I trust he will not neglect his music, as this is the best companion one can choose, except a wife, when one has leisure hours. It has always been one of the greatest enjoyments in my life. I came only back from some geol. work in the hills, but I did not get any plants worth having, the sheep are a perfect pest for the botanist, as they eat everything down before it has come to flower.

¹⁹⁵ John Wickham Flower (1807-1873), British geologist and archaeologist.

¹⁹⁶ The absent are always in the wrong.

My museum is getting bigger every day. I have a new building vote for additions of £14,000, as you see I shall soon have a building which will rival with Melbourne & during the time this building will be erected, I shall make my trip home.

If you can give Buller a helping hand, please do so, he has all the enthusiasm of a scientific student.

Tyndall's address is very fine, but I fear, he will for some time be in no end of hot water.

Ever yours sincerely,
Julius Haast

127: Haast to Hooker, 14-1-1875

Kew DC 174 f. 376

*Canterbury Museum,
Christchurch, N.Z.
Jan 14th 1875*

My dear Hooker

I can not tell you how the sad news, which Willie was good enough to communicate to me, has affected me. These are those terrible trials to which we poor mortals are subjected to and against which all philosophy is of no avail. We must quite patiently submit to them.

A few days ago I wrote to you in anticipation of the great pleasure I was feeling to meet you in your family [2] family circle and now a profound gap has been made in it. I need scarcely assure you that I feel most deeply with you all and sympathize with you in your bereavement.

You will be glad to hear that Dr Buller's mother, who lives close to me, received a telegram from him telling her that the little boy was much better and considered out of danger. I trust that his life will be spared were it only for his parents' sake.

With kindest regards,
Yours very sincerely,
Julius Haast

Please give my best greetings to Willie & thank him for his letter.

128: Haast to Hooker, 24-3-1875

Kew DC 174 f. 378

The School of Mines
INGENIO EFFODERE OPES
Ballaarat 1870

Ballaarat, Victoria
March 24. 1875

My dear Hooker

You will be astonished to receive a letter from me from here, but I came over to Australia to fetch my wife, whom I am happy to say is quite restored to health & will return with me to New Zealand in a few weeks.

I beg to enclose a proposal paper for the Geol. Society, which please to second & do the necessary for which I am much obliged to you. Mr Barnard¹⁹⁷ who is registrar of the School of Mines is a most deserving man and a good geologist & mineralogist & deserves to be a fellow.

After my return to New Zealand I shall write again.
With best wishes,

ever yours most sincerely,
Julius Haast

129: Haast to Hooker, 2-4-1875

Kew DC 174 f. 377

Melbourne, April 2. 1875

My dear Hooker

I wrote to you by last mail from Ballaarat requesting you to be kind enough to second my proposal paper of Mr Barnard, School of Mines there.

Since then I have been in Sandhurst, and Mr Thureau¹⁹⁸, the lecturer on geology in the sister school, a very intelligent & hard working man, who received his education in Clausthal in the Harz, has requested me to do him the same favour. – If it will not give you too much trouble, will you be kind enough to be godfather also to my friend? – I think it is a very good thing to unite, as it were, all seekers of truth in geology under the same banner.

My wife is not quite so well as she was, she is dreading the sea voyage [2] as she is so shockingly a bad sailor. However, when once again with her children & with proper care, I have no doubt that she will ultimately recover.

Australia is very interesting in many respects, but I like New Zealand much better.

¹⁹⁷ William Henry Barnard (c. 1831-1900), born in Surrey, England, he was duly elected F.G.S. and held the position of registrar of the Ballarat School of Mines from 10 October 1872 to 19 October 1881.

¹⁹⁸ G. Thureau was a lecturer at the Sandhurst School of Mines.

We shall start on our return voyage in a few days.
With united kindest regards,

ever sincerely yours,
Julius Haast

130: Haast to Hooker, 6-5-1875

Kew DC 174 ff. 379-380

Geological Survey of Canterbury
Christchurch, N.Z.

May 6th 1875

My dear Hooker

Your welcome letter of Febr. 2 was sent to me from Dunedin by Mr Dixon after his arrival in Dunedin, where, as he tells me, he intends to settle. I have written to him, that I shall be very glad to help him in any way I can to further his aims. In the meantime I tried all round if I could not find a place in one of our merchant's offices for his son, but there was no vacancy anywhere & they told me moreover, that they could not engage anybody without seeing him. However should there be a chance, I shall telegraph to him to send his son to me & I will then do what I can to get him a place.

I also wrote to Mr Dixon that I thought that there was a good [2] chance to obtain cheap & fine land in the Northern Island & I advised him to write to Buller, who has settled in Wellington, being sure that he would do all in his power to advance the aims of one of your relations.

You will be glad to hear that I brought my dear wife back from Melbourne quite restored to health. She had been suffering for years from an inflammation of the neck of the womb, which had been neglected here altogether & which brought about the distressing symptoms. She is now better than she was for years & she is happy & merry, that it is a perfect joy for me to see her. – I only trust to Providence that she will continue to do so.

Mr Dixon speaks also of a small box you intended to send, but which was not to be found amongst his luggage when he left the steamer [3] in Melbourne. I suppose, as you do not speak of it, you did not send it.

When in Melbourne I placed the papers concerning the McKay¹⁹⁹ affair in the hands of my scientific friends there, who are quite unbiased in the matter, not adding a word of comment of my own. They came to the unanimous decision that I had been most infamously treated, that an uneducated workman was far less to blame, than my so called scientific friend, the treachery of whom was unconceivable. – There can be only one voice on the matter & I leave it confidently to the future, in the meantime I have broken off all connection with the NZ Institute until this extraordinary decision of a small local clique in Wellington is rescinded.

Of course I do not want you to [4] enter into my personal quarrels, but as P.R.S. you ought not to give ----- ----, when appealed to, as to the principle at stake, because if such a

¹⁹⁹ Alexander McKay (1841-1917), Scottish-born New Zealand geologist.

thing is allowed to pass, there is an end to all scientific research, where you have to employ workmen or assistants.

There was a chance that I should go home for the museum, but we have had a change of ministry, the incoming lot being against spending too much money on education, science, etc. & so the prospect will be knocked at the head, at least for the present.

I have seen a great deal of Müller when in Melbourne & I must tell you, that it is perfectly painful. There is no doubt that he has been badly treated by the govt, but it was greatly his own fault, as he was always worrying them about having too much to do; more over the Botanical Garden is neither [5] the one or the other or never was. – it is quite a monomania with him, not only to complain bitterly from morning till night to everybody he can get hold of, but he thinks that everybody in Victoria Australia & the whole world over is jealous of him & wants to do him harm & although I spoke to him very plainly, it was of no use. – Some of his medical friends are really frightened for him, if only one could get him away for a time – of course I have done everything I could in pleading his cause with the acting governor & some of the ministers, but they all say, that they can not give him the gardens back, & that they are at their wits ends what to do. From what he told me I fear he entertains you more of his troubles than you would like.

I advised him strongly to marry & I assured him a clever wife would be the best remedy for all evils, but he won't listen.

It is a great pity, because there is no [6] man, who has higher principles and the wish to do right as poor Müller. However we are all “In diesem irdischen Jammerthal²⁰⁰” & we must make the best of it.

With united kindest regards,

ever yours most sincerely,
Julius v. Haast

131: Hooker to Haast, 29-6-1875

ATL MS-Papers-0037, folder 102-03 & 04

Kew
June 29/75

My dear Haast

Thank you [very] much for your kind letters including your expressions of deep sympathy with me on my unutterable loss.

This I need not say has thrown me completely out, & the want of my help-mate together with the increase of my official duties, have together stopped all but official correspondence. I was very unwell in spring & took a short tour into the South of France. My daughter was so unnerved by the shock she received, that I had to [2] send her far away to

²⁰⁰ In this earthly vale of tears.

friends in Algiers, whence she has returned much better. The Governments too have granted me an Assistant Director & Prof Dyer²⁰¹ has just been appointed to my entire satisfaction.

I sincerely rejoice at the good news that your last letter (May 6th) brought to me two days ago – namely that Mrs Haast had made so excellent a recovery. It is wonderful what a change of climate does for man & woman too.

A thousand thanks for your kindness to the Dixon's. My Aunt²⁰² who is not with me [3] for the moment, will be very grateful.

I cannot tell you how concerned I am at the breach between the scientific departments at Christchurch & Wellington of which you acquaint me. If I could be heard on a subject of what I know only one side, I would urge on you the advisability of not making a class or local question of it. I refer to your "breaking with the Wellington Institute". I hope this is not a final decision.

The affiliation of the N. Z. Societies has been quoted over & over again as one of the greatest of beneficial moves & been set up as an example for us to imitate, & any premature rupture in it will be damaging to Science at large, & toll heavily [4] against whoever takes the initiative in announcing his intention of leaving the association. Remember too that all these causes of rupture are temporary. The institutions stand! the members go! I speak from my experience of British Scientific Institutions. I never knew any one gain by breaking with any of them, & I have known many to lose. Their enemies in the Institution chuckle over it; their friends in it feel that their cause is lost; that it is desertion in fact if he again has no partisans in the Institution he should accept this as a proof that his is the losing side & take it without personal feeling.

Dr Hector is home, but so busy that I have hardly seen him.

I signed & sent on Mr Barnards proposal paper.

Poor Mueller! What you say of him [5] is all true – it is a hopeless case but I do not see why as a scientific man he should not be perfectly happy where he is in a scientific post, with every licence for work. All the accounts I heard of the Garden tally with what you tell me of it – it is a thousand pities that he would not contract the laying out & decoration of it to a good subordinate. I urged him over & over again to consult the feelings of members of Government & the colonists in that matter. The greatest pity of all is that he has alienated all his friends in the Colony – even the oldest & best. [6]

I am much interested in the so called *Cordyline* that was cultivated for food by the N.Z. aborigines. We have it alive & it has nothing to do with *Cordyline*, but what it is I know not – it never flowered I am told in N.Z. & does not here.

Ever very sincerely yours
Jos. D. Hooker.

²⁰¹ William Turner Thiselton-Dyer (1843-1928), English botanist, later director of the Botanical Gardens at Kew and J D Hooker's son-in-law.

²⁰² Ophelia Dixon Turner (1828-1896), had married the educationalist Dawson William Turner in 1846.

132: Hooker to Haast, 8-7-1875

ATL MS-Papers-0037, folder 102-02

Kew
July 8/75

My dear Haast

Allow me to introduce the bearer, Mr P. C. M. Veitch²⁰³, who goes out under the auspices of the eminent firm of that name, to collect living plants & seeds for themselves.

I need not say that I am deeply interested for Science sake in the result of this enterprise [2] & I have consequently directed Mr Veitch's attention to the Southern Alps & the magnificent things *Celmisias*, *Ranunculi* etc which we owed to your exertions.

Any directions hints etc that you can give to Mr Veitch will be most thankfully received by himself & by

Yours most sincerely
Jos. D. Hooker

133: Haast to Hooker, 30-7-1875

Kew DC 174 f. 383

Christchurch July 30 1875

My dear Hooker

You can easily understand that I am very much disappointed that after all my arrangements for my journey home were made, a change of Ministry has been the cause that that journey had to be postponed, perhaps for a long time. And that change has been a bad one for scientific pursuits or higher education, as the present executive consists of rich but uneducated men, who look with suspicion upon all knowledge, say *cui bono* to everything & although the moneys for the building of a University College was voted, they will not build it & actually offer to the contractors for a large addition to the Museum (£13,000) & who [2] had actually begun with the work, compensation, but I have all hope, that they will not succeed; this is one of the drawbacks of having democratic institutions *par excellence*. – However let us hope that the reign of these gentlemen will be a short one & that the future will be more favourable to my plans.

I have very little news to give, as the Museum gives me a great deal of work & since my return from Australia, I have been busy with re-arrangements.

I am just now working at some notes on 3 whales, of which I secured the skeletons & of which very little is known.

Next spring I shall visit some localities in the south of this province, where there are some [3] ranges, which I have never examined botanically & I trust to get some new things

²⁰³ Peter Christian Massyn Veitch (1850-1929), South African-born English horticulturist and botanical explorer who worked for the Veitch Nurseries family firm. Veitch was sent out by the company to collect plants and seeds between 1875 and 1878, initially travelling to Sydney, before going on to collect in Fiji, New Zealand, New Guinea and Borneo. He later succeeded his father to become head of the Exeter nurseries.

for you; botanical researches have always had a great charm for me & I trust, some new treasures are still waiting for me.

My wife since her return from Australia continues to gain strength day by day & is now in better health than she has been for years.

I trust you will not altogether forget me, but send me a few lines whenever you have a few moments to spare.

With united kind regards,

ever yours very sincerely,
Julius v. Haast

Dr J D Hooker PRS.
Royal Gardens
Kew

134: Haast to Hooker, 28-8-1875
Kew DC 174 ff. 381-382

Christchurch, NZ.
Aug 28. 1875

My dear Hooker

I wrote to you on the 30th of July & have since received your welcome letter of July 30th from which I observe with great pleasure that Miss Hooker has returned to you much better in health.

My wife, as I told you in my last letter, continues to become stronger every day & has never been in better health, it appears that one cause of the very alarming symptoms was the excessive use of Chloral, which was given to her to induce sleep & which was continued for months here. However our medical man did it for the best.

Concerning the building of the main hall to our museum, I am happy to say that the govt has ceased its opposition & the work is now going on to my great satisfaction. [2]

There is no apprehension that the Phil. Inst. of Canterbury or any other affiliated society will leave the NZ. Institute, which simply administers the funds which belong to all the societies, but after all what has happened & which has been crowned by the actual falsification of the minutes of the Wellington Phil Society in changing the title & other equally strange things, there will be doubtless concerted action of the principal societies to have the management of the NZ Institute so altered, that such disgraceful proceedings can not more take place.

In the meantime I have resigned the presidency of the Phil. Inst. & shall not publish anything in the *Transactions* until the Phil Institute has received an authoritative opinion from home as to the principle [3] at stake. I have done this after consulting several of my scientific friends in Melbourne who were quite unbiased & have judged only the matter as it were from

Hector's & McKay's defence. – As I have done this under protest, there can be no question of the losing side; there was simply might against right.

If however any unbiased scientific tribunal at home says that I am in the wrong, I shall be the first to apologise, but if the principle for which I stand up is the correct one & this decision will appear in the volume, I shall continue to read papers in our meetings & publish them in the volume, because the course I have taken has been the correct one.

This is all very tiresome & I know that a man, who has a grievance, is a nuisance, but as you have always taken so much kind interest in [4] our scientific advancement, I hope you will pardon me, that I once more have alluded to that unfortunate matter in answering some points in your letter.

There has been a change of ministry in Melbourne & some of Müller's friends have taken the ministerial benches & I am curious to see if & what they will do for him; I can not see how it will all end, I was very much struck, that at a dinner at Sir Red Barry²⁰⁴, in Melbourne, who had invited all the principal scientific men, Mueller spoke to them all as if they were strangers, giving each his proper title, whilst I, knowing most of them only as correspondents, spoke to them as friends ought to treat each other.

Afterwards I told Mueller I found this very strange, but his answer was *Mein lieber Herr Doctor von Haast*, (he gave me always my proper title & of course he expected me to call him Herr Baron –) none of them have stood by me in my troubles; they were all envious, jealous etc. – Of course I could say nothing more. – of course when others spoke to me about him, I always told them that when there were great lights there were great shadows, that Mueller had done good work & was an earnest worker & that his little eccentricities should be overlooked.

But I am anxious to get soon again into the fresh mountain air amongst rocks & plants, there I shall forget the little miseries of this world. I hope only some new botanical treasure will give me a new opportunity to send you some further parcels.

Ever yours sincerely
Julius Haast

135: Hooker to Canterbury Philosophical Institute, 15-12-1875

ATL MS-Papers-0037, folder 103-01

Kew
Dec 15/75

Dear Sir

I have carefully examined all the documents which you have transmitted to me, with the view of giving you the opinion you request, upon the following questions, submitted to me in your letter of Sept. 3 1875.

²⁰⁴ Sir Redmund Barry (1813-1880), Irish-born judge in Melbourne.

1. "Has a paid workman a right to publish his employer's discoveries or theories arising therefrom, without his employer's consent & knowledge, & prior to his publication of the same".

In answering this regard must be had to the following considerations.

Paid workmen are of two classes; they may be mere laborers, paid to excavate & collect materials which may be discoveries, or may tend to discoveries: of such workmen nothing further is claimed than the specimens & all such information as to their locality, superposition, aggregation & condition, as the employer may be able to extract from the workmen. Or the workmen may be skilled assistants, & be paid not only to excavate & collect materials but to make scientific observations, obtain [2] results & suggest theories to the employer, all of which are the property of the employer.

In the case submitted to me, it is obvious that the workman was employed & paid as an ordinary excavator and collector, & was hence not bound to give other information to his employer than he did give. The fact of the employer having called for no report from him, & of his having torn up as worthless a report which the workman volunteered to draw up, & did draw up & give to the employer, is, as it appears to me conclusive upon this head.

2. "Does the case Dr von Haast & Mr A. McKay come within the above conditions".

It comes under the first head of the conditions.

3. "Was the publication of Mr McKay's paper by the Governors of the New Zealand Institute in the face of the evidence submitted to them, justifiable?"

4.

Here again I must offer a few preliminary observations.

A Scientific Society is bound to bring before its meetings papers worthy of this [3] honor which are contributed to it for that purpose, except these be known, or strongly suspected, to be surreptitiously acquired, or forgeries, or plagiarisms etc., and if found to be worthy of publication, the Society is further bound to publish them.

And with regard to reclamations from or by others that may have accompanied the paper, & have been forwarded to the Society after the reading of the paper; the Societies' Officers & Council must use their judgement whether to publish these along with the paper, or in order of being received, or not at all.

I have carefully examined Mr McKay's paper, & compared it with Dr von Haast's reports, & having regard to Mr McKay's employment & pay, & to the time that elapsed since the excavations were made, I have come to the conclusion that there was no ground for regarding Mr McKay's paper as otherwise than worthy of being read & published, & I further think that the New Zealand Institute would not have been justified in the view of the author, & its members & the public, refusing to publish it.

As to the other points raised in your letter I have the following observations to offer.

I do not observe the discrepancies between Mr McKay's Report published in the New Zealand Times of August 6th/74 & the paper published in the Institute, & which

discrepancies are regarded by your committee as serious; those I have observed appear to me to be unimportant, but this may be from want of having had the more serious discrepancies fancied pointed out to me.

Mr McKay's paper appears to me to be very different in character scope & aim from Dr von Haast's, & not to diminish the value of the latter; – it stated at the outset that the excavations were made for Dr von Haast to whom a Report (that was not called for) & the specimens, were given; & of which Report, the paper is stated to be an amplification with views of the author's added.

The descriptions are not minute, but very general indeed, many of the important discoveries are not alluded to; & the theory adopted is very much what Dr von Haast had propounded some [4] years previously, & is at variance with that adopted by Dr Hector, through whom his paper was communicated to the Institute.

With regard to the change of title of Mr McKay's paper, except cause was shown for a contrary opinion. I should regard this, & the placing it in order of printing after, (though read before) Dr von Haast's paper, as a judicious & an entirely justifiable proceedings, calculated under the circumstances to remove any apparent subordination of Dr von Haast's labors to Mr McKay's. The dates being given to all the papers, no suspicion of deception is tenable, & I see no ground for the supposition "that the change was intended to make it appear that the subject of the paper is not the result of Dr von Haast's researches in the Sumner Cave." Mr McKay's statement at the outset disposes of this charge. Lastly knowing no reason why Mr McKay should not have communicated to Dr von Haast his intentions of publishing on the caves, on the exploration of which he was employed by Dr von Haast, I cannot but regard his conduct in so doing either as an inconsiderate act; or as evincing an absence of that consideration for the employer's position that the employed should entertain.

Kew
Dec 15/75
Jos. D. Hooker

136: Haast to Hooker, 30-3-1878

Kew DC 174 f. 384

Canterbury Museum
Christchurch, March 30th 1878

My dear Hooker

I have not heard from you for such a long time that I must again write and to enquire after you & yours.

Sometime ago Mr Silow of London, who kindly has acted as our agent, wished to receive some cereals of New Zealand. When beginning to collect for him, I thought that it would perhaps be interesting for you to receive also a series of grain & grass seeds for your museum, & consequently I have made a collection for you, which will be sent to you in the course of a month or six weeks.

All the details as to their production I shall send when I forward to you the bill of lading.

If there are other desiderata [2] I shall gladly procure them for you in this or any other direction.

In the midst of shifting part of our collections in to the new additions to the museum & seeing a large volume on the geology of Canterbury through the press, I have my hands more than full & my private correspondence has suffered of late.

I have given a letter of introduction to my brother in law Mr Rob. Dobson²⁰⁵, a young man of great promise, who has just sailed for England. His lungs giving way, the doctors thought this might perhaps assist him to pull up again, were he to make the voyage to the home country and back again. Poor fellow, he leaves a young wife²⁰⁶, daughter of T. Potts, a great friend of ours, on the point of being confined & a most excellent position. He is my wife's brother. If you can show him any little attention I shall be very grateful to you.

If you have [3] a moment to spare, I hope you will write and not altogether forget me.
Ever my dear Hooker

very faithfully yours
Julius von Haast

137: Haast to Hooker, 15-1-1879

Kew DC 174 f. 385 & 386 enclosed list

Canterbury Museum
Christchurch, Jan 15th 1879

My dear Hooker

Some time ago I wrote to you that I was preparing a collection of Canterbury cereals for you & I have now today the pleasure to enclose a list of the names & bill of lading. I trust the box will come safely to hand & its contents of some use to you. If the samples are too small or if there are other kinds you wish, please let me know.

I have now so far advanced with my Museum work, that I can breathe a little more freely, the more so, as my *Report on the Geology of Canterbury* will leave the press [2] in about six weeks, of which of course I shall have great pleasure of sending you a copy.

I suppose you have now abandoned the botany of New Zealand for other and fairer fields. I think a second edition of your Handbook would be of great value, as no doubt many novelties have been added to our knowledge. In that case I should be glad to go on some other collecting expedition in some parts of our Alps where hitherto no collections have as yet been made. I mean the western slopes of the Mt Cook ranges, where no doubt a lot of new things would reward careful & systematic research. [3] In fact I am sure, as so many of our alpine and subalpine forms are so very local, that all over both islands, when all the ranges are once thoroughly investigated, a great deal of new & interesting material will be obtained.

Hoping to hear soon from you, believe me,

²⁰⁵ Robert Dobson (1852-1893), Haast's brother-in-law.

²⁰⁶ Clara Dobson, nee Potts, (c. 1856-1903), had married Robert Dobson in 1876.

very faithfully yours
Julius von Haast

Sir Jos. D Hooker KCMG PRS
Kew
England.

[Enclosed list: (Kew DC 174 f. 386)]

Particulars of Grain Samples, grown in Canterbury, New Zealand, forwarded to Sir Joseph D. Hooker P.R.S. Director of the Royal Gardens Kew

No	Description	Localities & quality of Land	Bus to Acre
V2	Potato Oats	Heavy rich land	100
		ordinary	50 to 60
88	Poland [Oats]	Eyreton, light loamy	35
10	Long Tartarian [Oats]	Springston	42
18	Canadian [Oats]	Southbridge	43 ½
4	Barley	According to quality of land	45 to 60
5	[Barley]	Rakaia district	40 abt
7	[Barley]	Riccarton	50 [abt]
19	[Barley]	No particulars	
98	Chevalier Barley	Fernside, light stony Land	30
100	Flathead [Barley]	Mandeville poor plain land	30
28	Beans	Woodend	Over 60
105	Horse Beans	Kaiapoi rich loamy	70
29	Peas	Prebbleton	unknown
8	Cocksfoot	Pigeon Bay. took medal at International Exhibition	
23	Perennial Rye Grass	No particulars	
109	Perennial Rye grass	Flaxton	unknown
31	Pearl White [Rye]	No particulars	
81	[Pearl White Rye]	Fernside, good loamy	30
3	Tuscan Wheat	Rich loamy	60 to 70
		Ordinary Plains	40
		Christchurch	57
24	Chudham [Wheat]	Christchurch	57
26	White Tuscan	Beechcroft	Abt 44
27	Short [wheat]	Does not shake out with the wind unless left until very ripe	63
25	Kalafal [wheat]	Rangiora	Average 53
30	Hunters White [wheat]	Dunsandal	unknown
63	[Hunters White Wheat]	Kaiapoi rich loamy	60
67	[Hunters White Wheat]	Fernside. good light	50
32	Velvet Chaff [Wheat]	Southbridge	unknown
71	[Velvet Cliff Wheat]	Kaiapoi	unknown
13	[Velvet Cliff Wheat]	No particulars	unknown
65	Hunters White [Wheat]	Inglewood	unknown
77	Purple Straw Tuscan	Fernside. good loamy	31
78	White Tuscan	St Helena (Canterbury) rich loamy	55
112	[White Tuscan] spring	Eyreton. drained swampy	50

138: Hooker to Haast, 29-5-1879
ATL MS-Papers-0037, folder 102-05

Royal Gardens Kew
May 29/79

My dear Haast

I am very much obliged to you for your kind intentions in sending us the grain samples, but they are really of no use to us – being in no way different from English grown grains. They arrived the other day in capital condition.

We shall keep a few for your sake more than their own & look out for some recipient for the remainder. [2]

Ours is not an agricultural Museum, which would extend our already large bounds too widely.

Yes I am still more interested in New Zealand Botany than in that of any other part of the globe whatever & would much like to see a new Edition of the Handbook which I have recommended Mr Kirk²⁰⁷ to take up.

Not that I expect much novelty after what you have done except possibly [3] amongst the Grasses & Cyperaceae.

My time is now so absorbed by administration work & home foreign Indian & Colonial correspondence that I have little left for Botany & that must be devoted to the “Indian Flora” & “The Genera Plantarum” both very unprofitable works, but very necessary & very honourable for an Institution like Kew to conduct.

I shall be very glad to see your Geological Report, & I wish I could see your [4] Museum, which I am told is a very fine one indeed.

New Zealand plants come slowly into cultivation, but we have at last *Ranunculus lyallii*, which is likely to do well & become a favourite. *Cordyline indivisa* is almost extinct in Europe the other species are easily grown, but I have seen only one of this for many years & that was at Cork. Some seeds would be very acceptable.

I send the seeds of a Himalayan dwarf Bamboo – rare object.

Ever my dear Haast
very sincerely yrs
Jos. D. Hooker

²⁰⁷ Thomas Kirk (1828-1898), English-born New Zealand botanist and public servant.

139: Hooker to Haast, 7-11-1879
ATL MS-Papers-0037, folder 102-06

Royal Gardens Kew
Nov 7/79

My dear Haast

I have just received your kind present of the Geology of Canterbury & Westland, which I am reading with great interest. How I should have enjoyed the exploration of the Mt Cook Glaciers with you, though I should gladly have been spared the sight of our poor friend Sinclairs disaster. I assure you that I am very proud of “my [2] Glacier”. The notices of plants interest me very much, especially the *Veronicas* & *Aciphylla*. *V. traversii* is one of the hardiest plants we have, but is the only species that has (unprotected) stood a single winter at Kew. We have now *V. lycopodioides* alive! but there is not a title of the New Zealand Flora in cultivation in England, & we still above all want the *Celmisias*, *Olearias*, the [3] *Senecias*, *Raoulia*s. I suppose however that your scrambling days are over – & I must live in the delightful memory of the enthusiasm with which I used to unpack the bundles of Treasures that the C.O. bag brought from you. I still hope that Kirk or some competent botanist will publish a 2n Edition of the N.Z. Flora.

Dr Berggren has been at Kew for some months working up his Cryptogams. He seems to have been a good deal disappointed in the want of novelty which he met [4] with which surprises me; as except Colenso & you & I, no one had collected Musci or Hepaticae to any extent in the Islands.

Dr. B. did not however visit Milford Sound or Dusky Bay where most novelty was to be expected.

We are tremendously busy here – the duties increase, the collections accumulate & the correspondence requires to exceed all bounds.

Ever my dear Dr Haast

Very sincerely yours
Jos. D. Hooker

140: Hooker to Haast, 10-4-1880
ATL MS-Papers-0037, folder 104-01

Royal Gardens Kew
April 10/80

My dear Haast

Allow me the honour of introducing to you Miss North²⁰⁸, a lady who is visiting New Zealand for the purpose of painting the natural features & [2] especially the Trees etc of the Islands: in continuation of a series of such views which she has made in all parts of the world & presented to the Royal Gardens, together with funds (£2000) wherewith to build a gallery for their Exhibition to the [3] public. I am most anxious that Miss North should be directed to the best & most characteristic specimens of your trees & that she should be reassured of their

²⁰⁸ Marianne North (1830-1890), English naturalist, botanical artist and traveller.

correct names; & any aid towards this end that you could afford to obtain for her would be conferring a great boon [4] upon Science & herself.

Miss North's accomplishments no less than her unique liberality entitle her to every facility that the Government can afford.

Her father²⁰⁹ was for many years a distinguished member of Parliament (for Hastings).

Ever my dear Haast,

sincerely yours

J.D. Hooker

141: Hooker to Haast, 14-12-1880

ATL MS-Papers-0037, folder 104-02

Royal Gardens Kew
Dec 14/80

My dear Haast

Allow me the pleasure of introducing to you Mr. W. Guise.

Mr Guise²¹⁰ is son of Sir William Guise²¹¹ Bart of Glo[uce]stershire, who has for long been President of [2] the Cotteswold Field Club, & the world of Science is greatly indebted to him for his most valuable aid in fostering Science in the West of England. He is moreover an excellent Geologist & most intimate friend of my father in [3] law Mr Symonds²¹² of Pendock.

Mr Guise is visiting the Colony & would like much to see your Museum under your auspices.

Ever sincerely yours

Jos. D. Hooker

²⁰⁹ Frederick North (1800-1869), English politician, Liberal Party Member of Parliament for Hastings, a Norfolk Deputy Lieutenant and Justice of the Peace.

²¹⁰ Sir William Francis George Guise (1851-1920), the son of Sir William Vernon Guise.

²¹¹ Sir William Vernon Guise (1816-1887), English naturalist, Fellow of Linnean Society and Geological Society.

²¹² William Samuel Symonds (1818-1887), English Anglican priest and geologist.

142: Haast to Hooker, 22-12-1880

Kew DC 174 f. 387

Canterbury Museum
Christchurch, Decb 22. 1880

My dear Hooker

Allow me to introduce to you the bearer, my old friend Dr Coward²¹³, who after many years of an active colonial life is paying a visit to the home country. I shall be very grateful to you if you will give him an opportunity to see all the glories of Kew.

Most faithfully yours
Julius von Haast

Sir Jos. D. Hooker
KCSI. FRS.
Director Royal Gardens
Kew

[mounted on opposite page:]

Dr. Coward
Ch. Ch. N.Z.
13 Durham Villas Phillimore Gardens

143: Hooker to Haast, 21-1-1881

ATL MS-Papers-0037, folder 104-04

Royal Gardens Kew
Jay 21/81

My dear Haast

The bearer of this note Mr Thomas Miller is brother in law of one whose name is very familiar to you as my very intimate friend & a most eminent Scientific man: B. H. Hodgson²¹⁴ F.R.S. of Himalayan renown. [2]

He goes out to Canterbury as Head Master etc. The High School of Christchurch²¹⁵ & I beg to recommend him warmly to you & Mrs Haasts acquaintance.

Ever sincerely yours
J. D. Hooker

²¹³ John William Smith Coward (1816-1888), runholder, medical doctor and coroner in Canterbury.

²¹⁴ Brian Houghton Hodgson (1800-1894), English naturalist and ethnologist who worked in India and Nepal.

²¹⁵ Thomas Miller was appointed the first headmaster of Christchurch Boys' High School in 1881.

144: Hooker to Haast, 22-1-1881
ATL MS-Papers-0037, folder 104-03

Royal Gardens Kew
Jay 22/81

My dear Haast

I think you will be glad of the enclosed photo of our pencil drawing of the late W. Swainson²¹⁶ for your Museum. It was drawn for my father [2] by Mr Fitch²¹⁷ in 1837, & is an excellent likeness of him as I remember him.

Most sincerely yours
Jos. D. Hooker

145: Haast to Hooker, 19-5-1881
Kew DC f. 388

Canterbury Museum
Christchurch, May 19th 1881

My dear Hooker

I have lately received several notes from you & was very glad to receive the photo of the spirited pencil drawing of the late W. Swainson, for which please receive my warmest thanks. When Miss North passed I was in Melbourne & therefore could not have the pleasure to receive her. – Mr Miller began his work yesterday, he is a very nice man & [2] has already made many friends. I think both Mrs Miller & himself will make splendid colonists. Finally I have done what I could for Mr Guise, who has lately left for the North. I shall always be delighted to do what I can for those you will kindly address to me.

Lately I went to Melbourne to have a good look at the exhibition, which I found very interesting. I saw a great deal of Müller & [3] found him not quite such a bore with his grievances. I suppose by this time he begins to feel, that it is of no use. It is a pity, because he is otherwise an exceedingly nice fellow, with whom I enjoyed several evenings very much.

I am sorry to say, I am now bound so much to the Museum, that I cannot get away so easily, however next spring [4] I intend to have a geological & botanical ramble in the Alps.

We are steadily advancing in New Zealand & notwithstanding its large debt, it will be a great country some day.

With kindest regards,
most sincerely yours,
Julius von Haast

²¹⁶ William John Swainson (1789-1855), English naturalist and artist who emigrated to New Zealand in 1841.

²¹⁷ Walter Hood Fitch (1817-1892), Scottish artist and botanical illustrator.

146: Haast to Hooker, 26-6-1881

Kew DC 218 ff. 142-143

Private

Christchurch, June 26th 1881

My dear Hooker

I take the liberty to write to you concerning a matter, in which I should like very much to have your kind assistance & I have no doubt, that if you see your way, you will not fail to give me your powerful help. Some time ago when our Premier the Hon^{ble} John Hall²¹⁸, an old friend of mine was talking over several matters with me, he expressed his astonishment that I had never received the C.M.G. My answer was that the Government had never offered it to me. He thought my friends in England, like those of Hector & Buller might have moved [2] in the matter, and on my reply that I did not wish to write to them about it, he offered to bring the matter before the Cabinet & he had no doubt that it would at once be recommended by the Colonial Government.

However a few days ago I had a private note from him, in which he informs me, that owing to the unseemly rows they had last year in our parliament about a similar case where the leader of the opposition Sir George Grey, now an out & out democrat, beat upon mischief, asked for all sorts of information in a similar case & dragged 2 of the judges into the mire, they thought better not to move at present in [3] the matter, as they did not wish to subject me to a similar treatment. Hall thought however it would come more gracefully from a scientific friend of mine in England & should the home government write & ask their opinion, they would then have a chance to recommend me most strongly for that distinction.

I have now been over 23 years in New Zealand, always at work & I need not be ashamed of what I have done & for which, without seeking for them, I have received many distinctions from several sides, except from the very country for which I have been working. Moreover [4] I began in 1858 or 4 years before Hector came to New Zealand, so that I can claim to be the senior of the band of scientific men, still now striving to advance New Zealand in every respect. Owing as I do to you another great distinction, my election into the Royal Society & for which I shall be grateful to you my whole life, I think that you will give me a further sign of your kind feelings in taking the necessary steps to get me made a C.M.G. As you are in constant communication with your government, it will not be difficult for you to bring my name forward & I have no doubt that you will [5] succeed. We have lately been building a technological museum & I am hard at work to get proper specimens for it & to start also soon a school of technical science. A school of design has also been started by us, in which I have had most valuable assistance from South Kensington in purchasing for us all the necessary material for teaching. You see we try to advance in every direction & if only health & strength remain with me some years longer, I hope to see all these institutions in full work & doing good service to the colony. Now I am so overwhelmed [6] with museum work of all kind, and to this come my lectures at our university, that I have no time for anything else.

This accounts for my not doing much original work at present, often do my looks go longingly towards the mountains, but there is very little chance for me going there for some time to come.

I hope to hear soon from you and with many thanks & kindest regards,

²¹⁸ Sir John Hall (1824-1907), English-born New Zealand politician and 12th Prime Minister.

I remain ever faithfully yours,
Julius von Haast

147: Haast to Hooker, 6-8-1882

Kew DC 174 f. 389

Christchurch, Aug 6th 1882

My dear Hooker

I am quite ashamed that I have never thanked you for your welcome note of Aug 28th of last year & for the kind expressions contained therein, but I have been so overwhelmed with official work of all kinds, that my private correspondence had to suffer; however believe me, that my gratitude is not less great & sincere.

I read your letter to our last Premier Sir John Hall, who assured me, that this [2] government knew nothing of the distinctions conferred upon our scientific friend & that they owed them solely to their friends in England. Consequently I did not more trouble myself about the matter, but was much pleased to hear from Sir Arthur Gordon²¹⁹ before he left, that he had sent a strong recommendation to the Engl. Govt on my behalf. I am the more glad that he did this, without my having ever alluded to the subject, consequently it will be the more honourable if it [3] should come.

I need scarcely assure you, that Darwin's unexpected death has also at the Antipodes been regarded as a great public loss. However men of his stamp never die & the good they have left behind them, will go increasing from generation to generation.

I have just sent a copy of the letters I possess of him, to his son²²⁰, although as I told him, there may be very little which might be useful for his biography, except that it shows his great kindness of heart [4] & his leniency towards other scientific workers, even so far away. *Möge ihm die Erde leicht sein.*²²¹

I trust that you will give me some opportunity to enrich your beautiful museum with New Zealand specimens, if I only knew what would give you pleasure.

With kindest regards,
ever very sincerely yours
Julius von Haast

²¹⁹ Sir Arthur Charles Hamilton-Gordon (1829-1912), British politician and colonial administrator who served as Governor of New Zealand from 1880 to 1882.

²²⁰ This is most likely in reference to Sir Francis Darwin (1848-1925), the third son of Charles Darwin, who edited an autobiographical account by his father and an edition of selected letters.

²²¹ German rendition of Latin funerary phrase *Sit tibi terra levis*, which translates as, "May the earth rest lightly on you".

148: Hooker to Haast, 17-1-1883
ATL MS-Papers-0037, folder 104-05

Royal Gardens Kew
Jay 17/83

My dear Haast

Just a line to say how delighted I was to find you were gazetted C.M.G. – a most highly deserved honor. It is no small thing for the Science of New Zealand that in that group alone there should be 3 such eminent men. May you live to the K. is my hope.

Your offer me seeds of *Cordyline indivisa* – they will be most acceptable.

You will be glad to hear that I am figuring *Notospartium* for the [2] Botanical Magazine – it is a charming plant.

Your vegetable sheep makes a magnificent show in our Museum, but we cannot name the species! It appears different from any in the Flora, but they are horribly difficult & I fear that the Genus must go into *Helichrysum* or *Gnaphalium* – a horrid bore!

Our labor increases here hand over hand & I see no good to the future of this Establishment or house? & the Colonies develop [3] their resources.

When will N.Z. have a Botanical Garden worthy of the name – it is extraordinary that Sydney, Melbourne, Queensland, & S. Australia should all have excellent working Bot^l Gardens & N.Z. none to speak of.

Very sincerely yrs
J. D. Hooker

149: Hooker to Haast, 10-3-1883
ATL MS-Papers-0037, folder 104-06

Royal Gardens Kew
March 10/83

My dear Von Haast

I am desirous of proposing Colenso for the Royal Society, & it is very essential for this purpose that his Certificate should have the signatures of the Fellows in the Colony – You could therefore oblige me by signing in the column below my name. Darwin would gladly [2] have signed had he been alive, for he knew Colenso when in the *Beagle!* – is this not like going back generations in the history of Science, & to the very dawn of New Zealand science!

We are as busy or rather busier than ever here, as the Kew Reports will show you, & the work of the Establishment has become very laborious, leaving little time for [3] personal correspondence.

I hear of you sometimes indirectly, & of your splendid Museum, & I am a devoted reader of the Transactions of your N.Z. Institute.

The "Genera Plantarum" is finished at last, thanks to Bentham's indefatigable industry & his liberality for he has provided nearly all the funds. He is now in his 83rd year & very feeble, but he comes to Kew 3 days a week from London where he lives. [4]

No one has succeeded with your noble Alpine *Ranunculi*; & *R. lyallii* & one or 2 others have been raised repeatedly, but not even the most skilful gardeners can keep them alive. It is the same or nearly so with *Celmisias* & with *Cordyline indivisa*. The other *Cordylines* grow and flower luxuriantly with no attention. *Myosotidium nobile* is another instance of a plant often flowered but which will not be kept afterwards.

Ever my dear Von Haast
very sincerely yours
Jos. D. Hooker.

150: Haast to Hooker, 18-5-1883

Kew DC 174 f. 390

Christchurch
May 18th 1883

My dear Hooker

I was very glad to see once more your well known & welcome handwriting, when I received your note of March, concerning Colenso's certificate. I signed it at once & forwarded it to Buller, who had not yet signed it. I shall be truly glad if Colenso is elected; he is one of the "Vieille Garde". I congratulate you most heartily on the completion of the *Genera Plantarum*, a work which will remain a classical proof of your energy, [2] perseverance & deep research (of course I speak also of Mr Bentham) & to which every botanist has to go for information.

I can now get some seeds of *Cordyline indivisa* from Mt Herbert (Banks Peninsula), where it grows to 2500 feet, & is often covered for weeks with snow, (at least the bottom). Perhaps that from such hardy plants it will grow. Shall I send you some?!

I have unfortunately very little time for scientific work. The lectures during term time take the greater part of my time & in our holidays I [3] have to get rid of the museum work I had to put off.

The latter has grown over my head & being hard up for money I cannot afford to get any scientific assistance I want so very badly. We were obliged to start a School of Art from the Museum Trust funds (according to our deed) & this has quite crippled us.

However I hope for better times.
Very faithfully yours,
Julius von Haast

Sir Jos. D Hooker FRS KCSI.
Director Royal Gardens
Kew

151: Haast to Hooker, 17-3-1884

Kew DC f. 391

Canterbury Museum
Christchurch, March 17 1884

My dear Hooker

I wrote to you a fortnight ago sending you some seeds of *Cord. indivisa*, which I trust has arrived safely & will grow with you. Today I take the liberty to send you a nomination paper of Mr Arthur S Atkinson²²² in Nelson for the Linnean Society, with the request to be his sponsor & speak a good word for him. This Gentleman, the leading barrister in Nelson [2] & a brother of our Premier, is a very ardent naturalist, who has for a number of years devoted all his spare time to the study of our spiders & will soon bring out the first part of his labours. At the same time he is a very liberal minded man, always ready to assist science whenever he can. So we think he really deserves the distinction. Perhaps some of your friends will assist us also.

Please forgive me that I am giving you this trouble, [3] but I know your kind feelings towards other scientific workers & this has emboldened me.

Ever faithfully yours,
Julius von Haast

152: Haast to Hooker, 17-3-1884

Kew DC 174 ff. 392-393

Christchurch, March 17th 1884

My dear Hooker

I should have written to thank you for your welcome letter of July 17th & the kind congratulations contained therein on my appointment as CMG, but I was writing from day to day for the seeds of *Cordyline indivisa*, which had been promised me so long ago. At last the same has arrived & I have posted it at once. As these seeds were collected high on the range where the plants are exposed to ice & snow & much rough weather even in summer [2] I hope that they will germinate very well & grow luxuriantly with you. If not, please let me know, & I shall send another lot.

It will be easy to get you some of the “vegetable sheep” in flower & to preserve it in any way you will point out to me. The Road to Hokitika passes close to the hillside at 3080 feet & in ascending some 2000 feet or even less, large patches are reached. I can go either myself or send a man up to the locality or still better interest some shepherd in the neighbourhood to watch for me for the right time. I found them in blossom from December to even March, according to the aspect & altitude.

I have no doubt that [3] your labours increase, of which your yearly report gives ample evidence.

The same is the case with us here. Every year I am getting more geological students. Every year the museum takes larger dimensions, but our funds instead of increasing at the same ratio, diminish, because new departments become added. Sometimes I feel much

²²² Atkinson, Arthur Samuel (1833-1902), New Zealand politician and lawyer.

disgusted, however as kind nature has given me a very large stock of optimism, I always try to make the best of it. I feel there is very little chance for a botanical garden in New Zealand, at least for many years to come, with [4] centralisation all chances for such an establishment were gone. A rich province could have got the necessary funds, but the Parliament is much too jealous of Wellington to vote the necessary funds & poor Hector has every year to pass through the ordeal of an annual niggardly vote for the little garden he tries to keep up in Wellington. – We passed lately a week together in Nelson at the meeting of the NZ University Senate. In the small Museum there I found the bones of a gigantic kiwi & quite distinct from the small Dinornithidae. I have named it *Megalapteryx hectori*. As long as Owen lives, I dislike entering [5] the field, but the bones do not belong to me, so I could not send them to him even on loan & moreover it would be too dangerous.

Have you read Green²²³'s little book. *The High Alps of New Zealand*²²⁴? It is well written & he describes his adventures in a pleasant style & manner.

Lately I took the liberty to give a letter of introduction to my old friend, Cowlshaw²²⁵, one of the leading lawyers here. You will find also Mrs Cowlshaw²²⁶ a most amiable woman who is a great friend of my wife.

Mr Cowlshaw has always taken great interest [6] in the intellectual advancement of NZ. As Provincial Solicitor of Canterbury he drew the Canterbury College & Museum Trust Bill, passed them against some strong opposition through our former local parliament, got proper reserves & has always continued to be a powerful advocate for scientific research.

With kindest regards,
ever faithfully yours,
Julius von Haast

153: Hooker to Haast, 6-5-1884

ATL MS-Papers-0037, folder 104-08

Royal Gardens Kew
May 6/84

My dear Haast

This morning's post has brought me your welcome letter of March 17th & the seeds of *Dracaena indivisa*, a capital stock of this valuable plant. They seem perfectly fresh & will no doubt grow apace. Many thanks for them.

As to vegetable sheep, there are certainly several kinds & we cannot satisfactorily identify those of the five specimens you sent that are not in flower. I suspect that some may change their habit, & that as they grow old & big & hard they [2] no longer flower; – is this possible? Any how I am forced to conclude that it is only by getting a whole lot together for comparison, that any thing can be satisfactorily determined about them. Either a skilled

²²³ William Spotswood Green (1847-1919), Irish priest, naturalist and mountaineer.

²²⁴ W. S. Green, *The High Alps of New Zealand*, London, Macmillan, 1883.

²²⁵ William Patten Cowlshaw (1839-1903), Australian-born New Zealand lawyer and politician in Canterbury.

²²⁶ Helen Cowlshaw, nee Bossley, (died 1901), originally from Sydney, married William Patten Cowlshaw in 1865.

observer must study them on the Mts; or get no end of good specimens from different localities & study them at home.

An intelligent shepherd with an eye for distinguishing differences could select, sort in flower & send them down – I would gladly pay £5 or so for a good collection of large specimens. [3] Those you sent are noble features in our Museum.

Nor am I at all satisfied with the generic determinations of them. Even after all the time & pains spent over them by Bentham & myself – *Raoulia*, *Gnaphalium*, Asteraceae & *Anaphalis* & *Leontopodium* are a very bad lot & want working up all specifically before their generic characters can be resolved, – & then – I suspect that it will be hard work to get a fixed character for any of them; – but so it is with many genera of Compositae.

Meanwhile whatever you can get me of *Raoulia*s or sheep, shall be studiously examined, & reported upon. Pray keep a good flock in your own Museum, & send me [4] corresponding numbers.

I am much interested in what you tell me of the bones of the Gigantic Kiwi – I am very glad that you are describing them yourself.

I have seen Mr Green & his book – the latter really adds nothing to our knowledge, & such adventures as his are very stale – surely a few pages in a magazine would have served all the purpose.

Your friends the Cowlshaws have not turned up yet – I shall be delighted to see them.

Ever sincerely yours
Jos. D. Hooker

Could you send trunks of the *Cordylines* with leaves & inflorescences upon them? Say tops of trunks 2-3 feet long, with the leaves turned down & tied round the caudex. I have from you a sketch of a very narrow leaved kind with a very stout caudex covered with the remains of old leaves, from Bank's Peninsula. I have no idea to what species to refer it. I would willingly pay a collector £5 for each specimen of *C. indivisa*, *australis* etc etc. or more if necessary.

154: Haast to Hooker, 3-7-1884 [postscript 4-7-1884]

Kew DC 174 ff. 394-395

Christchurch July 3. 1884

My dear Hooker

I was very glad to receive your letter of May 6th & to hear that the seeds of *Dracaena indivisa* had arrived in good order. Let us hope that you will be quite successful with them. As they were from such a high & exposed altitude, I believe that they will produce plants which will grow with you in the open. Concerning your wish to receive our *Cordyline* or *Dracaena* as trunks with leaves & in florescence, I shall do my best to procure them for you, but hope to do so without any expense to you. I shall first send you our common *C. australis*, then the *C. indivisa* from the top of Banks Peninsula & from [2] some other localities, but I fear I shall not be able to get any from the North Island. You better write to Hector or Kirk in

Wellington or Cheeseman²²⁷ in Auckland. As I am writing to the latter today, I will mention it to him, so you need not write, because I am sure if Cheeseman can procure it, he will do so, with great pleasure & forward, as I shall do, with direct steamer. Concerning the vegetable sheep I have found also the biggest flower, but they are always so hard that it is impossible to get a piece out of them & then they continue flowering, so that before the specimens are dry generally nothing remains [3] of the flowers. Would it be useful to cut out a piece from each big vegetable sheep in flower & preserve it in spirits of wine or any other fluid you could suggest?! That would be the simplest. Those near Christchurch (Mt Torlesse & the mountains near Mr Eny's home station) can easily be got, but those in the more alpine regions are more difficult to obtain, but I shall do what I can; only please answer me by return of post about the fluids. As it comes in our long vacation, my son Heinrich²²⁸, who I am happy to say is a junior & senior scholar of our university, can do some of the collecting.

I think you are rather hard upon poor Green. He has done his best, [4] & there is a large public, who is delighted with such light literature. Moreover I have personally no cause of complaint; on the contrary, he has worked very hard to get for me the Gold Medal of the R. Geogr. Society, and though late, it is very welcome & I am naturally very grateful to him for having drawn the attention of the Council to my work, of course you are quite right, as to the scientific value of his excursion, which is nil.

Dr v. Lendenfeld²²⁹, who followed him, is a specially trained man for the work & you will be glad to see his Memoir, which as I understand will be published as an extra number of Petermann's *Mittheilungen*.

Ever most faithfully yours,
Julius von Haast

[5]

4/7/84

PS

I re-open my letter to add that I have seen the collector (Duncan) who procured for me the *C. indivisa* seed & to whom I went to make arrangements with him for getting the trunks etc. I find now that the seeds I have been sending you did not come from the top of Banks Peninsula, which as he now tells me were not good & seemed to him uncertain, but that they were collected by him in the Collingwood ranges, north of Nelson, at about the same altitude (3000 feet) & that the trees looked exactly the same as those on Mt FitzGerald in Banks Peninsula. I have now charged him to be certain to procure me not only seeds from those trees but also a specimen with inflore[scen]ce & leaves as you wish it.

Once more, Glückauf

J v H

[6]

I fear I am getting as bad, (or as an ardent admirer of the fair sex) as good as a lady in continuing with my P.S.s. I wish namely to ask your kind assistance to our candidate for the Royal Society, Prof George Ulrich FGS, the Director of the School of Mines in Dunedin. He is not only an excellent field geologist & mining engineer, but the best mineralogist in Australasia. I have known him for nearly a quarter of a century & every year he has proved

²²⁷ Cheeseman, Thomas Frederick (1846-1923), English-born New Zealand naturalist, botanist, ethnologist and museum director.

²²⁸ Heinrich Ferdinand von Haast (1864-1953), New Zealand lawyer, the son of Julius and Mary Haast.

²²⁹ Robert Ignaz Lendlmayer von Lendenfeld (1858-1913), Austrian zoologist and mountaineer.

himself more & more to be an excellent friend, so please give us a helping hand for which I shall be very grateful to you.

J v H.

155: Hooker to Haast, 16-8-1884

ATL MS-Papers-0037, folder 104-07

Royal Gardens Kew

Aug 16/84

My dear Haast

I am in receipt of your kind letter of July 3 about the *Raoulias* & thank you heartily for your offer of getting me *Dracaena* specimens. I think there are two ways of getting the flowers in a state for description.

- 1 Cut out cubes or rather a wedge with flowers an inch or two square, & dry them without pressing.
- 2 Put similar pieces into alcohol or any common cheap [2] preservation fluid.

But the fact is that the vegetable sheep want a careful discrimination in their native mountains – it looks to me as if some of these were rather protean, & that young plants, or straggling branches of old differed in habit & foliage from the antiquated masses.

I was delighted at your getting the R.G.S. Gold Medal. I had always held out for it being given to Scientific explorers, & not to mere trotters over countries however new.

I shall most gladly do [3] my best in re R.S. for your friend Dr George Ulrich²³⁰ (this means Ulrich!²³¹), but not being on the Council my voice is that of go between only. Baker one of my staff is however on the Council & I shall put him up to it.

Thanks too for your attention to the *Cordylines*. They too want careful working up.

Above all a good Colonial Garden is wanted where all these species & varieties would be grown side by side for comparison & study.

Most sincerely yrs

Jos. D. Hooker

²³⁰ George Henry Frederick [Georg Heinrich Friedrich] Ulrich (1830-1900), German-born New Zealand mineralogist, university professor and director of the school of mines.

²³¹ marginal note in other hand.

156: Haast to Hooker, 10-11-1884

DC 174 f. 396

Christchurch, Novb 10 1884

My dear Hooker

The bearer of these lines, whom I wish to introduce to you, is my friend Mr Joseph Todhunter²³² of Kingsmoor, who wishes to consult you in regard to our nephew Charles Todhunter²³³, who intends to study botany as his special branch.

I should be very grateful to you if you would kindly give him your advice, which would be most valuable to him. [2] His parents living in New Zealand, can of course not judge, which would be the best course to pursue.

With the compliments of the season from home to home,
ever most faithfully yours,
Julius von Haast

Sir Jos. D. Hooker KCSI CB FRS.
Director of the Royal Garden
Kew

157: Hooker to Haast, 17-4-1885

ATL MS-Papers-0037, folder 104-09

Royal Gardens Kew
April 17/85

My dear Haast

I have to thank you very much for the specimens in spirits of the two *Raoulias* which are rightly named *R. eximia* & *mammillaris*. They arrived quite safely thanks to Mr Bealey²³⁴.

There is still much to be done towards the elucidation of that genus, & I am disposed to think that a careful study of good specimens may lead to its being broken up & possibly the species being distributed [2] amongst *Gnaphalias* & allied genera, – as it is the genus is founded chiefly on habit – never a safe guide.

I still watch the progress of N.Z. botany with keen interest & Kirk & Cheeseman between them have done much for it of late, but every spare minute now must go to the Flora of British India, which after 15 years of labor of self & collaborators being has only got 2/3 way down. Unfortunately too – most of my fellow laborers are no more & as the modern Botany is more & more Anatomical & physiological, I get [3] little help of systematists. The larger Genera are especially difficult, & the taxonomy & literature of Indian Botany is in the last degree perplexing.

I hear great things of your Museum, which must be a very fine thing.

²³² Joseph Todhunter of Kingsmoor House, Great Parndon, Essex, was a member of the Essex Archaeological Society.

²³³ Sir Charles George Todhunter (1869-1949), New Zealand-born civil servant who worked in India.

²³⁴ Samuel Bealey (1821-1909) English-born New Zealand pastoralist and politician in Canterbury.

Ever my dear Haast
Very sincerely yours
Jos. D. Hooker

158: Hooker to Haast, 18-7-1885

ATL MS-Papers-0037, folder 104-10 & 238-65

Address Kew
The Camp.
Sunningdale.
July 18/85

My dear Haast

I am in receipt of yours of June 3rd respecting the display of tree ferns & living plants of Kew G^d in connection with the exhibition of Colonial Produce in 1886.

I need hardly promise that any & every thing that we can do shall be done & with good will.

You must however be prepared for difficulties, which you cannot foresee. In the first place it will be impossible by any art short of sorcery, to get your importation of tree ferns into leaf in time for the Exhibition. We have dealt with quantities of these things. I feel satisfied that two years is the minimum time needful to get them [2] into sightly, much less ornamental condition. Then too Kew is much too distant a spot from which to tend the Exhibits of living plants. Nor as you observe have we the houses or spare lands to accommodate, or the lands to grow them on. The only way to carry out your plan is to get the R.I. Horticultural Society, in whose grounds the exhibition takes place, to undertake the cultivation, we giving all aid & lending you whatever plants we can of tree-ferns & *Cordylines* etc. in good condition, advising & helping as much as possible.

Dyer is on the council of the R.H.S. & is now engaged in the endeavor to arrange this matter between the Society & your Agent-General, & I doubt not will succeed to the satisfaction of all parties for you may depend on our not [3] letting the matter fall through.

I am only an Honorary Fellow of the Society & so have no voice in its affairs, further than sitting on the Scientific Committee of the Council as Chairman which puts me in a good position for aiding you.

At present the greatest difficulty, as it appears to me, will be the getting the Landscape Effect in plants which you contemplate. This will require I suspect a house for the purpose, for it is impossible to keep ferns alive in the atmosphere of London unprotected. The dust, drought & draughts of any part of the Exhibition buildings that are thoroughfares of the public are what you have no conception of. Even in our comparatively very small Fern house at Kew we have to saturate the air; flood the trellis & syringe the plants copiously daily [4] & hence cannot admit the public till from 1-6 pm. If exposed to the air of Exhibition buildings the ferns would be shrivelled up in a week. Of course *Cordylines* & *Phormium* will stand a deal of bad usage.

I am glad to hear that Buller is coming so soon – as he will be able I hope to let us know what amounts of space you can give to your “Vegetative Landscape”.

I do not wonder that you are busy – we look forward with terror to next year – for all the Colonies are looking to Kew, & though none have the claims on me that N.Z. has, we are strongly interested especially in Ceylon, Jamaica, Guiana, Hong Kong, Singapore & others, in all of which Kew has established Botanical Gardens. Then there is India, which subsidises Kew & [5] demands our services of Right. I suppose we shall survive it all, but these annual Exhibitions, (in all of which since 1851 I have had the honor (onus oneris) of serving) are burning fearful incubi on the times, thoughts & temper of Scientific men in office.

I do not allude to such matters as you ask Council about, for those are gratifying & interesting, but to the juries, Committees, Councils, Commissions, public meetings, feasts, speeches etc. etc. etc. which are nauseous.

My late wife & I edited the whole of The Jury Reports of the 1851 Exhibition during our 4 weeks honeymoon! Sometimes sitting up half the night & more.

It will be a real pleasure to see you & your family next winter. I write [6] from my little country place some 20 miles from Kew, where I enjoy quiet & rest that are denied me at the “House of call of all Nations” – which is my definition of the Royal Gardens.

Ever my dear Haast
Most sincerely yrs
J. D. Hooker

You may depend on my reporting progress.

159: Hooker to Haast, 28-3-1886

ATL MS-Papers-0037, folder 104-11

The Camp. Sunningdale.
March 28th /86

My dear Haast

I have been wondering what has become of you – for Dyer told me that he had seen you, & I made a pilgrimage to the Exhibition buildings a week ago to find you, but found nothing but empty boxes, not a spot to leave a card even, & not a servant to give me any further information except that you were not there.

Please drop me a line to [2] say how, when, & where you are to be seen – you have still to be “admitted” formally to the Royal & I should like to be your introducer.

I live 25 miles from London, & hope you will come & give me a day or two here – this we must arrange when we meet. Meantime please address

C/o Dr. Lombe²³⁵, Bemerton, Torquay
Whither I go on Tuesday to see my sister, Mrs Lombe²³⁶ & shall be 10 days away. [3]

²³⁵ Dr Thomas Robert Evans-Lombe (d. 1902), of Bemerton, Torquay, married J D Hooker’s sister Elizabeth in 1853.

²³⁶ Elizabeth Evans-Lombe, nee Hooker, (1820-1898), sister of J D Hooker.

Ever sincerely yrs
Jos. D. Hooker

160: Haast to Thiselton-Dyer, 30-6-1886

Kew DC 174 f. 399

*8, Trebovir Road,
South Kensington. S.W.
June 30 1886*

My dear Professor

Many thanks for your kind congratulations. It is always gratifying in this age of money & political intrigue to see scientific work recognised. We are very sorry that we are not avail ourselves of your hearty invitation for July 2^d, as we have another engagement for [2] that day. The only free day we have next week is Thursday the 8th of July & if convenient, we shall be very glad indeed to spend it with you. Please let me know if this will suit you.

With united kindest regards to Mrs Dyer & yourself,

very sincerely yours
Julius von Haast

161: Haast to Thiselton-Dyer, 3-7-1886

Kew DC 174 f. 400

*8. Trebovir Road.
South Kensington. S.W.
July 3 1886*

My dear Professor

Having to go to Cambridge for receiving an honorary degree on the 9th & having to deliver a lecture on the 17th, which I have as yet begun, I fear that much against my will, we have to put off our so much wished for visit to you, till August, as my wife [2] is going to France & Germany on the 20th of this month & will only return about the 17th of next month.

This we very much regret, but under the circumstances it cannot be helped.

With united kindest regards to Mrs Thiselton-Dyer²³⁷ & yourself,

ever sincerely yours,
Julius von Haast

²³⁷ Hooker's daughter Harriet Ann Hooker (1854-1945) was a botanical illustrator who had married the botanist William Turner Thiselton-Dyer in 1877.

162: Hooker to Haast, 26-11-1886
ATL MS-Papers-0037, folder 104-12

The Camp. Sunningdale.
Nov. 26/86

My dear Haast

The Director of Kew writes to me, in surprise & great disappointment, saying that Kew is to have nothing from the New Zealand department of the Exhibition & that there are several most interesting timbers that are much wanted to complete the New Zealand selection of woods at Kew.

I cannot suppose but that he is mistaken, for I feel assured that your repeated assurances of donations to Kew were made in good faith. He is also [2] very sorry, as am I, that you have not visited Kew, where your name has so long been a Household word.

With kind regards to Eva²³⁸ & Mrs Haast
Ever sincerely yours
J. D. Hooker

²³⁸ Eva Veronica von Haast (1871-1909), the youngest daughter of Julius and Mary von Haast, accompanied her parents on their journey to Europe in 1886. [pers. comm. Peter Knowles, Melbourne, 24 February 2013].

Appendix 1:

Undated letter (fragment): Hooker to Haast, [ca. 1867]

ATL MS-Papers-0037, folder 098-14

them I have now devoted a large shelf of our magnificent Temperate House to N.Z. plants & am most anxious to increase the collection, but it is surprising how badly N.Z. seeds come up. It is a universal complaint.

I shall be much interested in your Rakaia Geology.

I can quite understand you often feeling disheartened at the small progress one makes in interpreting Geological phenomena – but this is reliable. I often tell & ask myself, are the interpretations which we all allow, really the true ones; do for instance, hard masses, 6000 ft of schists, owe their crumples to pressure? – it is hard to believe that quartz rock was (once pasty &) folded on itself like crumpled leaves of a book – it is all very easy to say oh, it was a pasty state – but Good Luck have we any proof that it was in a pasty state – we can only beg the whole question.

I spent a Sunday with Darwin last week & found him very greatly improved in health, printing Vol II of his new book, & about to proceed to another.

I am most sincerely yours
Jos. D. Hooker

Appendix 2:

“Obituary. Sir Julius von Haast”, (*Lyttelton Times*)

Kew DC 174 f. 401

Obituary.

*Sir Julius von Haast,
K.C.M.G., Ph. D., D.Sc., F.R.S., &c.
Born 1824: Died 1887.*

(From the “Lyttelton Times”, August 17th, 1887.)

The sudden death of Sir Julius von Haast, at an early hour on August 16, will be read of far and wide with deep regret. His services towards this Colony were of the most valuable kind, and to us his loss is of that description which men are wont to term irreparable. In addition to this he will be missed in many scientific circles in many European countries, in which his reputation deservedly stood high, and where he had earned high honours, and earned them well.

The immediate cause of his most unexpected death was heart disease, from which he had been a slight sufferer for some years, but from which no present danger was apprehended.

Sir Julius was apparently in his usual state of health on Monday, and attended Mr Tendall’s lecture in the rooms of the Y.M.C.A. in the evening. There he complained of feeling somewhat unwell, but as he had been suffering from a slight cold for some days, but little attention was paid to the matter. He remained to the end of the lecture, and actually proposed the vote of thanks to Mr Tendall at its close. After a short speech which the motion necessitated, however, he said that he felt worse, and it was with some difficulty that he walked the short distance home to the lodgings, where he and his family were residing temporarily. Faintness and pains in the chest then attacked him, and he went at once to bed. Dr Prins was sent for, prescribed a slight sedative, and went away. There appeared to be no cause to apprehend anything serious, and Sir Julius himself declared that he was sure he would be better after his night’s rest. But after half-past one this morning, Lady von Haast, who was watching in the room, was alarmed by hearing him breath very heavily. Dr Symes, who lives on the opposite side of the street, was immediately summoned, but when he arrived the sufferer was dead. He passed away without a word or sign of suffering.

Sir Julius von Haast was born near Bonn early in 1824, and was consequently in his sixty-third year. He arrived in New Zealand in 1858, having come to the Colony with the intention of reporting its possibilities, as a field for German emigration, to the Prussian Government. A strange chance turned his energies into widely different channels, and altered totally the whole tenor of his future life. By one of those singular coincidences that often govern the lives of men, a frigate of the Austrian Imperial Navy was coasting down to Auckland on the very day his immigrant ship cast anchor. it was the Novara, then within a few months of completing her tour round the world with a company of savants, whose researches were being made in the interests of their country. Sir George Grey had seen them at the Cape, and it is needless to say that the geysers, and solfataras, the terraces, the glaciers, and the fiords of New Zealand lost none of their charms under his description. The geologist of the expedition, the late Dr Ferdinand von Hochstetter was bent on exploring such a rich and untouched scientific field, but saw little chance of executing so very natural a

wish. Luckily a geologist was just what the Government of the day required – Judge Richmond was one, the late Mr H. J. Tancred was another. A short, polite note from Governor Gore Brown to Commodore Baron Wüllerstorff-Urbair, the commander of the frigate; another equally polite and nearly as short from the complaisant commodore to the Governor settled the matter. Dr von Hochstetter was given leave of absence from the frigate for six months to make explorations at the charges of the Government of New Zealand. Sir Julius, then plain Dr Haast, was associated with him, became his colleague and trusted friend, while his subsequent journeys, his scientific conclusions and opinions were accepted by the Austrian savant as authoritative concerning the geology of this Colony. There is little space here to enlarge upon that first eventful inroad of the scientist and explorer on the wonderland of our Northern Island, and the fastnesses of the King Country. They may be followed in detail in the pages of that fascinating book, in which Hochstetter gave the results of his explorations to the world at large. But, be it noted in passing, that at least one white member of the little expedition still survives, in the person of Mr Koch, still in the Survey Department of the Colony, then the surveyor and artist to the party.

Such was the beginning of a laborious life, destined to be continued laboriously to its very close: a life in which severe physical toil and privation of the pioneer was eventually supplanted by the still more wearing mental worry of the ever-busied and successful man of science.

The North Island explorations finished, Hochstetter, after a short survey of the Nelson coalfields for the Government of that Province, went Home again. The independent Colonial career of Sir Julius dates from then. His first appointment was as Provincial Geologist of Nelson, and while in that service during the latter part of 1859, he undertook more explorations in the south-west of the Province, then an uninhabited wilderness. Coal and gold were shown to exist in abundance, and the official “Notes on the Geology and Geography” of the country, published by him, were rich in interests of a widely varied character. The next year proved another turning point in his career.

In Canterbury, towards the end of 1860, the fate of the great Moorhouse tunnel scheme was trembling in the balance. Messrs Smith and Knight, the original contractors, had come and put down their experimental borings, and driven their shafts. They had quickly met with rock of the most terrible hardness, and supposing the whole of the hill to be of the same adamantine nature, threw up the project as an impossibility at the price. The sanguine Superintendent was unconvinced. He sent for Dr Haast to report on the geological formation of the hill. The report was to the effect that Lyttelton Harbour was an extinct crater: the strata of the hill in question would be found to consist of a number of ancient lava streams of varying hardness, which the tunnel would cut obliquely; and that, consequently, the rock would be of all consistencies, from basaltic impenetrability down to something little worse than consolidated ashes. Armed with this scientific authority, Mr Moorhouse went to Melbourne, Messrs Holmes and Richardson took the contract; the tunnel became a possibility, a probable success, a great accomplished fact. The commercial connection between the plain down to the Waitangi with its only harbour was assured. It was a triumph of reasoning from scientific observation. No achievement of the deceased gentleman has had more lasting results on the fortunes of this Province, none is less known to its inhabitants. Indirectly, in fact, it secured the prosperity of the plains.

From February, 1861, Dr Haast continued with the Provincial Government of Canterbury. The first years of his service as Provincial Geologist were almost wholly spent in exploration.

The mineral resources of the Malvern Hills, the features of the Mount Torlesse Range, and the wild "back country" adjacent to it were examined and reported on in 1861. The wonders of the Mount Cook district were explored in 1862. The sternness of those solitudes, until that time untrodden, must have then been doubly striking – its glacier system sketched and mapped, its botanical curiosities examined. Hochstetter Dome, Franz Joseph, and Müller glaciers, and many another German-sounding name, bear witness to the nationality of him who first explored their fastnesses, no less than to his courage, endurance, and skill. The labour must have been very arduous. Mountains to climb, provisions and instruments to carry, pinching cold to be endured, icy streams to ford or swim at the risk of life – scientific pioneering is no child's play. As one who was with him in the times when the Otago and Canterbury boundary line was being fixed, and Haast Pass discovered says – the expedition was out six months that time, by the way – "Twenty-seven days on a pound of flour a-piece, and what you can catch didn't serve to make us fatter or happier men." But the late savant was the happy possessor of great physical powers, and he survived it all and more; and what was better, embodied the enormous quantity of knowledge gained in useful reports to his employers, which reports can still be studied with advantage. Lake Wanaka and the unexplored ranges and head waters of that part of the country were visited in 1863; Ashburton and Rangitata searched for coal in 1864. The goldfields of the West Coast traced in 1865 – the Provincial geologist was greedy at work.

In 1866 the first great "finds" of moa remains was made at Glenmark. In that year the first seven skeletons which formed the nucleus of the collection unique and unequalled, and the glory of the Christchurch Museum, were set up by the then taxidermist, Mr Fuller. The fossil remains of the Glenmark moa-swamp proved the endowment of the Museum, and a constant source of enrichment through exchanges, &c. A few years the geological survey of the Province was fairly complete, and the Director thereof was enabled to give his almost undivided attention. With him it was a real labour of love, and his energy and thoroughness soon made it swell into such proportions that a larger house than the modest apartments in the old Provincial buildings became an absolute necessity. The building in the Domain was opened in September, 1870, and has gradually, or rather rapidly, considering the normal progress of museums, developed to its present magnificent proportions under the untiring attention of its late Director, whose best and most fitting monument it will ever be. One of its most pleasing features in the eyes of men of science is the impossibility of telling the Director's peculiar "hobby," so full and complete has it been made in every department. It is the outcome of the loyal, unceasing efforts of a quarter of a century, and marks the middle period of the life.

As Director of this Museum and a constant helper in any educational or artistic work that fell to his lot as a citizen, Dr von Haast had been making his name respected in the Colony. Meantime his fame had spread to Europe. He was a corresponding member of all sorts of Societies, and medals, order, and titles were his in abundance. Among the most valuable of them all was that medal of the Royal Geographical Society, which is only given to discoverers and explorers of the first rank, such as a Murchison, a Livingstone, or a Stanley. It was given especially for those arduous Alpine explorations to which we have referred already. It was the first bestowed for work in New Zealand, and therefore a more peculiar honour even than of ordinary. At length came the knighthood, which is the token of British appreciation of Colonial merit and hard work. In 1885 Sir Julius was chosen by the Government as the Colony's representative and Commissioner at the Great Indian and Colonial Exhibition. How he went, and how well he discharged the duties of that office is matter of recent history, and needs no repetition now. The great and rare distinction of

Doctor of Science, so jealously guarded, and so seldom bestowed, was given him by the University of Cambridge in August last. It was, perhaps, the greatest event of his public life, and soon followed in Paris by his appointment as Officier de l'Instruction Publique des Beaux Arts et des Cultes – a distinction also conferred on very few men.

Sir Julius, with all his European scientific work, was not forgetful of Colonial Societies. He was one of the 12 original founders of our local Philosophical Institute, and constantly read papers before it; while his addresses as President were both of interest and of real scientific value. He was a thorough believer in the future of the Colony, and his last words the other night showed how stoutly he always spoke up for it and for its people while on his European journeyings.

By the arrangement of the Board of Governors of Canterbury College, Sir Julius, after the Exhibition, set out on an extended tour of the great museums of Europe. In spite of serious illness at Bonn he carried out his proposed scheme, and visited Paris, Brussels, Berlin, Dresden, Vienna, Halle, and also Venice, Florence, and other Italian centres early in this year. A vast quantity of things were obtained for the Museum, and Sir Julius had the personal pleasure of meeting scientific friends of years' standing through correspondence. The enormous labour gone through in connection with his Exhibition work, and the subsequent wear and tear of travelling while in weak health, appear to have overtaxed his strength. It is exactly a month since he returned. He leaves one daughter and four sons born in New Zealand, one of whom is studying painting at Düsseldorf, and another son by a former wife is an officer in the Prussian army.

Such is in outline the life of one of the first scientific celebrities of this Colony. It was as we have said, a laborious life. Few are likely to make a better record. Of all the useful and toilsome careers of Colonists who have borne the burden and heat of the day, none have been more so. Few, indeed, have been so useful. It is an example of persevering enthusiasm that all may lay to heart. In some respects, too, Sir Julius von Haast may be said to have been fortunate in death. It came suddenly, at the end of a completed life. There was nothing to tell of failing mind, and little to speak of the weakened body of old age. He was at the plenitude of his intellectual powers. And best of all, as some will think, his services and his merits had been most widely recognised, and perhaps more liberally rewarded, than generally falls to the lot of the scientific man. To him success rarely brings that wealth which is the golden signboard of the successful man, nor does he look for it. Honours, medals, and titles fell to his share, and Sir Julius had many of those most coveted among his confrères. A musician of no ordinary attainments, a man well-read in many matters quite outside his own profession, an enthusiastic untiring worker, a man of genial, kindly nature, full of sympathy, and of a ready wit in every relation of life, whether as husband, father, friend, equally admirable, he will be sadly and widely missed. His place will be hard indeed to fill.

Appendix 3:

Biographical register of names mentioned in the correspondence

- Alfred, Duke of Saxe-Coburg and Gotha (1844-1900), second son of Queen Victoria
- Armstrong, John Francis (1820-1902), English horticulturalist, Government Gardener in Canterbury
- Armstrong, Joseph Beattie (1850-1926), English nurseryman, son of John Armstrong
- Arrowsmith, John (1790-1873), English geographer and cartographer
- Atkinson, Arthur Samuel (1833-1902), New Zealand politician and lawyer
- Ayrton, Acton Smee (1816-1886), British barrister and Liberal Party politician
- Banks, Joseph (1743-1820), English botanist and naturalist who took part in Cook's first voyage
- Barnard, William Henry (c. 1831-1900), English geologist and registrar at Ballarat School of Mines
- Barry, Redmund (1813-1880), Irish-born judge in Melbourne
- Bates, Henry Walter (1825-1892), English naturalist and explorer
- Bealey, Samuel (1821-1909), English-born New Zealand pastoralist and politician in Canterbury
- Bentham, George (1800-1884), English botanist and author of important botanical works
- Berggren, Sven (1837-1917), Swedish botanist and explorer
- Berkeley, Miles Joseph (1803-1889), English clergyman, cryptogamist and mycologist.
- Bidwill, John Carne (1815-1853), English botanist who worked in New Zealand and Australian
- Bleasdale, John Ignatius (1822-1884), English Catholic priest in Melbourne
- Brown, Robert (1773-1858), Scottish botanist who explored in Australia with Matthew Flinders
- Bruce, David (1824-1911), Scottish Presbyterian minister of St. Andrew's Church in Auckland
- Buch, Leopold von (1774-1853), German geologist and palaeontologist
- Buchanan, John (1819-1898), New Zealand botanist and artist
- Buller, Walter Lawry (1838-1906), New Zealand lawyer, ornithologist and naturalist
- Butler, Samuel (1835-1902), English author, Canterbury pastoralist and explorer
- Campbell, Archibald [or Arthur] (1805-1874) physician in the Bengal Medical Service in Sikkim
- Carpenter, William Benjamin (1813-1885), English physician, zoologist and physiologist
- Chaillu, Paul du (1831-1903), French-American explorer and anthropologist

Cheeseman, Thomas Frederick (1846-1923), English-born New Zealand naturalist and botanist

Chevalier, Nicholas (1828-1902), Russian-born Australian artist

Colenso, William (1811-1899), Cornish missionary, printer and botanist in New Zealand

Collet, Sophia Dobson (1822-1894), English writer and feminist freethinker

Cook, James (1728-1779), British explorer and captain in the Royal Navy

Cooke, Reuben, manager of Samuel Butler's Station Mesopotamia in Canterbury

Coward, John William Smith (1816-1888), runholder, medical doctor and coroner in Canterbury

Cowlishaw, Helen, nee Bossley, (died 1901), wife of William Patten Cowlishaw

Cowlishaw, William Patten (1839-1903), Australian-born New Zealand lawyer and politician in Canterbury

Crawford, James Coutts (1817-1889), Scottish scientist, explorer and public servant in New Zealand

Cunningham, Allan (1791-1839), English botanist and explorer who collected plants in Australia

Darwin, Charles (1809-1882), English naturalist and geologist, a close friend of J D Hooker

Darwin, Emma (1808-1896), nee Wedgwood, the wife of Charles Darwin

Darwin, Francis (1848-1925), third son of Charles Darwin, edited an edition of his father's letters

Dechen, Ernst Heinrich von (1800-1889), German geologist and inventor

Dieffenbach, Ernst (1811-1855), German physician, geologist, naturalist and writer/translator

Dilke, Charles Wentworth (1810-1869), English commissioner at Horticultural Exhibition in Russia

Dixon, Lancelot, and family - immigrants to New Zealand in 1875, initially settled in Dunedin

Dobson, Arthur (1841-1934), London-born New Zealand surveyor, engineer and explorer

Dobson, Clara, nee Potts, (c. 1856-1903), daughter of Thomas Potts, married Robert Dobson in 1876

Dobson, Edward (c. 1816-1908), English engineer, Provincial Engineer of Canterbury Province

Dobson, George (1840-1866), New Zealand engineer, surveyor and explorer, Haast's brother-in-law

Dobson, Robert (1852-1893), Haast's brother-in-law

Dove, Heinrich Wilhelm (1803-1879), German physicist and meteorologist

Doyle, William Thomas (1823-1877), Irish civil engineer who worked in Nelson and Canterbury

Drummond, James (c. 1787-1863), Scottish botanist and naturalist in Western Australia

Duncan, a botanical collector working for Haast in Canterbury in 1884

Enys, John Davies (1837-1912), Canterbury runholder and naturalist

Evans-Lombe, Elizabeth, nee Hooker (1820-1898), sister of J D Hooker

Evans-Lombe, Thomas Robert (d. 1902), of Bemerton, Torquay, medical doctor

Fairchild, John (1834-1898), master mariner, captain of New Zealand government steamers

Falconer, Hugh (1808-1865), Scottish geologist, palaeontologist and botanist

Featherston, Isaac Earl (1813-1876), English-born New Zealand Agent-General and politician

Fenzl, Eduard (1808-1879), Austrian botanist, professor and museum director

Fish, Mr, a surgeon who immigrated to New Zealand with his family in 1868

Fitch, Walter Hood (1817-1892), Scottish artist and botanical illustrator

Flower, John Wickham (1807-1873), British geologist and archaeologist

Flower, William Henry (1831-1899), English comparative anatomist and surgeon

Frankland, Edward (1825-1899), English chemist

Fraser, Charles (1788-1831), Scottish botanist who was the Colonial Botanist of New South Wales

Gibson, Alexander (1800-1867), Scottish surgeon and botanist who worked in India

Goethe, Johann Wolfgang von (1749-1832), German politician, writer and poet

Gould, George (1823-1889), English merchant and trader in Christchurch

Gray, Asa (1810-1888), American botanist

Gray, Jane Lathrop Loring (1821-1909), the wife of Asa Gray

Green, Mrs, corresponded with Haast regarding arrival of specimens sent to J D Hooker in 1863

Green, William Spotswood (1847-1919), Irish priest, naturalist and mountaineer

Grey, George (1812-1898), politician, Governor of South Australia, New Zealand and Cape Colony

Guise, William Francis George (1851-1920), the son of Sir William Vernon Guise

Guise, William Vernon (1816-1887), English naturalist, Fellow of Linnean and Geological Society.

Gunn, John (1801-1890), reverend and geologist, president of Geological Society of Norwich

Haast, Eva Veronica von (1871-1909), the youngest daughter of Julius and Mary Haast

Haast, Heinrich Ferdinand von (1864-1953), New Zealand lawyer, son of Julius and Mary Haast

Haast, Julius (1822-1887), provincial geologist in Canterbury and director of Canterbury Museum

Haast, Mary Ann (1844-1913), nee Dobson, the second wife of Julius Haast

Haidinger, Wilhelm Karl von (1795-1871), Austrian geologist, director of Austrian Geological Survey

Hall, John (1824-1907), English-born New Zealand politician, 12th Prime Minister of New Zealand

Hamblin, Caleb Osburn (1835-?), captain of the American whaler *Robert Edwards* 1863-67

Hamilton-Gordon, Arthur Charles (1829-1912), British politician and Governor of New Zealand

Harris, Mr, friend of Julius Haast who accompanied plant specimens to England for Hooker in 1862

Harvey, William Henry (1811-1866), Irish botanist and co-author with Sonder of *Flora Capensis*

Hector, James (1834-1907), Scottish geologist, first director of the Geological Survey of New Zealand

Heer, Oswald (1809-1883), Swiss geologist and naturalist

Hill, J R, of Christchurch, banker and member of Canterbury Acclimatisation Society

Hochstetter, Ferdinand von (1829-1884), German geologist, geographer and explorer.

Hodgson, Brian Houghton (1800-1894), English naturalist and ethnologist who worked in India

Holmes, Robert Langley (1833-c.1914), Irish meteorologist who worked as Haast's assistant

Hooker, Frances Harriet Henslow (1825-1874), the first wife of Joseph Dalton Hooker

Hooker, Joseph Dalton (1817-1911), English botanist, director of the Royal Botanical Gardens at Kew

Hooker, Maria Elizabeth (1857-1863), the young daughter of Frances and Joseph Dalton Hooker

Hooker, William (1785-1865), English botanist and first director of the Botanical Gardens at Kew

Hooker, William Henslow (1853-1942), eldest son of Joseph Dalton Hooker

Hutton, Frederick Wollaston (1836-1905), English geologist and museum curator in New Zealand

Huxley, Leonard (1860-1933), English school teacher, writer and editor, son of Thomas Huxley

Huxley, Thomas Henry (1825-1895), English biologist and comparative anatomist

Jamieson, Thomas (1829-1913), Scottish agricultural scientist and geologist

Jenner, William (1815-1898), English physician and professor of anatomy

Jollie, Edward (1825-1894), New Zealand surveyor, farmer and politician

Jukes, Joseph Beete (1811-1869), English geologist and naturalist

Kaup, Johann Jakob (1803-1873), German zoologist and palaeontologist

King, John, of Timaru – a visitor to Samuel Butler's Station in 1861

Kirk, Thomas (1828-1898), English-born New Zealand botanist and public servant

Knight, Charles (c. 1808-1891), New Zealand physician, public servant and botanist

Kotschy, Karl Georg Theodor (1813-1866), Austrian botanist and explorer

La Touche, James Dignes (1824-1899), vicar and amateur naturalist, geologist and historian

Lendenfeld, Robert Ignaz Lendlmayer von (1858-1913), Austrian zoologist and mountaineer

Lindsay, William Lauder (1829-1880), Scottish physician and naturalist

Louis III, Grand Duke of Hesse (1806-1877), ruled as Grand Duke from 1848 to his death in 1877

Lowe, Robert (1811-1892), English statesman, Chancellor of the Exchequer from 1868 to 1873

Lubbock, John (1834-1913), English banker, politician and scientist

Lyell, Charles (1797-1875), British geologist, best known for his *Principles of Geology*

Lyell, Mary Elizabeth Horner (1808-1873), from Bonn, the wife of Sir Charles Lyell

Mackay, Donald, of Christchurch, a friend of Haast's who visited Hooker at Kew in 1866

Marshall, E. H., physician and surgeon, Surgeon Superintendent on the ship *Matoaka*

Marshman, John Parker (1823-1913), Treasurer of Canterbury Province and Agent-General in London

Maude, Thomas William, Canterbury Provincial Secretary

McCoy Frederick (1817-1899), Irish palaeontologist, professor and museum director in Melbourne

McKay, Alexander (1841-1917), Scottish-born New Zealand geologist

Menzies, Archibald (1754-1842), Scottish surgeon, botanist and naturalist

Miller, Thomas, was appointed first headmaster of Christchurch Boys' High School in 1881.

Mitchell, Thomas (1792-1855), Scottish explorer and Surveyor General of New South Wales

Monro, David (1813-1877), Scottish physician, landowner and politician in Nelson

Monro, Georgiana Maria (1849-1930), daughter of David Monro, married James Hector in 1868

Moorhouse, William Sefton (c. 1825-1881), Superintendent of the Province of Canterbury

Mueller, Ferdinand Jacob Heinrich von (1825-1896), German-born Australian botanist in Melbourne

Müller, Johann Friedrich Theodor (1821-1897), German physician and biologist in southern Brazil

Murchison, Roderick (1792-1871), Scottish geologist and president of Royal Geographical Society

Neumayer, Georg Balthasar von (1826-1909), Bavarian scientist who worked in Melbourne

Nordenskiöld, Nils Erik (1832-1901), Finnish-born Swedish botanist, geologist and arctic explorer

North, Frederick (1800-1869), English politician, Liberal Party Member of Parliament for Hastings

North, Marianne (1830-1890), English naturalist, botanical artist and traveller

Oliver, Daniel (1830-1916), British botanist, librarian and keeper at the Botanical Gardens in Kew

Owen, Richard (1804-1892), English comparative anatomist and palaeontologist

Palliser, John (1817-1887), Irish geographer and explorer who led expedition in western Canada

Perthes, Jacques Boucher de Crevecoeur de (1788-1868), French archaeologist and antiquary

Petermann, August Heinrich (1822-1878), German cartographer and editor

Potts, Thomas (1824-1888), New Zealand naturalist, ornithologist, entomologist and botanist

Powell, Llewellyn (c. 1842-1879), physician, botanist and zoologist in Christchurch

Preiss, Ludwig (1811-1883), German-born botanist and zoologist in Western Australia

Prestwich, Joseph (1812-1896), British geologist and businessman

Ramsay, Andrew Crombie (1814-1891), Scottish geologist and glacial theorist

Reeve, Lovell Augustus (1814-1865), English conchologist, photographer and publisher

Roberts, D. T., captain of the *Caduceus*

Rolleston, George (1829-1881), English physician and zoologist

Rolleston, William (1831-1903), Superintendent of the Province of Canterbury

Rough, David (1815-1899), Harbourmaster in Auckland and later Collector of Customs in Nelson

Schiller, Friedrich von (1759-1805), German poet, philosopher, historian and playwright

Schimper, Andreas Franz Wilhelm (1856-1901), German botanist born in Strasbourg

Schrimpton, Frederick, of Timaru – a visitor to Samuel Butler's Station

Sclater, Philip Lutley (1829-1913), English lawyer, ornithologist and zoologist

Sinclair, Andrew (1794-1861), Scottish physician, botanist, and Colonial Secretary in Auckland

Solander, Daniel (1733-1782), Swedish naturalist who took part in James Cook's first voyage

Sonder, Otto Wilhelm (1812-1881), German botanist and pharmacist

Sonklar von Innstädten, Carl Albrecht (1816-1885), Austrian geographer, surveyor and explorer

Stack, James West (1835-1919), New Zealand missionary, writer and interpreter

Stevens, Alfred, captain of the ship *Matoaka*

Stevens, Edward Cephas John (1837-1915), English-born businessman and politician in Canterbury

Stringer, Richard (d. 1911), Haast's assistant and later a farmer in Canterbury

Swainson, William John (1789-1855), English naturalist and artist, emigrated to New Zealand in 1841

Symonds, William Samuel (1818-1887), English Anglican priest and geologist

Thiselton-Dyer, Harriet Ann, nee Hooker (1854-1945), botanical illustrator, daughter of J D Hooker

Thiselton-Dyer, William Turner (1843-1928), English botanist, director of Royal Botanic Gardens

Thomson, Thomas (1817-1878), Scottish surgeon and botanist who explored and worked in India

Thomson, William (1824-1907), Irish mathematical physicist and engineer

Thureau, G., a lecturer at the Sandhurst School of Mines

Thwaites, George Henry Kendrick (1811-1882), English botanist and entomologist

Todhunter, Charles George (1869-1949), New Zealand-born civil servant in British India

Todhunter, Joseph, of Kingsmoor House, Essex, member of the Essex Archaeological Society

Travers, Henry Hammersley (1844-1928), New Zealand naturalist and taxidermist

Travers, William Thomas Locke (1819-1903), politician, lawyer, botanist in Nelson and Christchurch

Turner, Dawson William (1815-1885), headmaster of the Royal Institution School in Liverpool

Turner, Ophelia Dixon (1828-1896), married to the educationalist Dawson William Turner

Tyndall, John (1820-1893), Irish physicist and professor of Natural Philosophy in London

Ulrich, George Henry Frederick (1830-1900), German-born New Zealand mineralogist

Unger, Franz (1800-1870), Austrian botanist and palaeontologist

Vancouver, George (1757-1798), English explorer and officer of the British Royal Navy

Veitch, Peter Christian Massyn (1850-1929), South African-born horticulturist and botanical explorer

Vicomte d'Archiac, Adolphe (1802-1868), French geologist and palaeontologist

Wallace, Alfred Russel (1823-1913), British naturalist, explorer, geographer and anthropologist

Waltershausen, Wolfgang Sartorius von (1809-1876), German geologist

Weld, Frederick (1823-1891), English politician, Governor of Western Australia

White, Mr, of London, acted as agent on behalf of Haast in 1868

Wicksteed, John & Emma, farming family in New Plymouth

Wilberforce, Samuel (1805-1873), English bishop in the Church of England

Woodward, Henry (1832-1921), English geologist, president of the Geological Society of London

Wyatt, C. W., passenger on the *Chrysolite* from Lyttelton to England in c. 1862.