manuscripts from Kew 1766-1938). In 1839-41 the presence of Ernst Dieffenbach (MS Papers 798 and 1109 and in MS 1839) as naturalist to the New Zealand Company had seemed to portend a continuing government commitment to scientific investigation but that hope was shattered by Governor Gipps' parsimonious policies from N.S.W.<sup>18</sup> Rather it was the initiative of one representative of New Zealand's own nascent scientific tradition in Auckland, the inventive, innovative, versatile Dr A. G. Purchas—who persuaded his Provincial Government to employ Ferdinand Hochstetter, geologist to the Australian Novara expedition, to examine brown coal deposits from the Hunua field. This heralded the next era of New Zealand science in 1859-60: the age of growing governmental involvement and the institutionalisation of science. Hochstetter, who re-introduced the German-Austrian tradition of science into New Zealand, is represented in Turnbull by correspondence in the Haast Papers (MS Papers 37) and in other smaller items (Misc. MS 338 and MS Papers 915).

## III. Provincialism and Hectorian Centralism, 1861-1905

At first the initiatives lay and were firmly grasped by the emerging scientific cultures at the provincial level. Julius von Haast, later Provincial Geologist in Canterbury (1861-68), accompanied Hochstetter on an apprenticeship survey introduction to New Zealand natural history in the North Island and Nelson (MS 1858) and remained in the country to represent the great Humboldtian tradition of German science as a resident leader and doyen of institutionalised science in Christchurch (see esp. MS Papers 37 and 171). Haast correspondence appears in other collections including those of E. P. Ramsay (MS Papers 942), the Australian naturalist; Mantell (MS Papers 83); J. D. Enys (MS Papers 670) and Sven Berggren (MS Papers 1002).

In 1862 J. C. Crawford (MS Papers 1001), the importance of whose papers we have mentioned above, was appointed Provincial Geologist for Wellington and at the same time came the appointment of James Hector to Otago in the same capacity. Science now throve—whether wholly efficiently is another matter—on interprovincial rivalry and a degree of local determination to emulate Otago's rather successful applications of science and technology to problems arising from the prosperity of the gold-rush period. For governments, Provincial and General, the scientist now emerged in the guise of one who might, when economy demanded, find minerals, coal and other wealth to tide a sagging exchequer and workforce over until better times on the land, the run and the overseas markets. But the scientist saw himself as more fundamentally useful and motivated than that.

How motivated and how useful we can judge from the original materials now available on this period of embryonic professionalism