

RAE OF THE ARCTIC*

by

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ANYONE WHO WAS asked to name a nineteenth-century doctor who is remembered more for his geographical explorations than his medical activities would think first of David Livingstone. If asked to mention a second he would probably find it difficult. Yet there are at least two other medical men, both of them Scots, who in the Arctic contributed as much to geographical knowledge as Livingstone did in Africa. One of these was Sir John Richardson. Born in Dumfries in 1787 he qualified at the Royal College of Surgeons of Edinburgh in 1807. He joined the navy and later returned to Edinburgh and obtained his M.D. at Edinburgh University in 1817. For a time he practised as a physician in Leith but he then rejoined the navy and took part in several expeditions to the Arctic. He will feature later in this account.

The other was Dr. John Rae. Although Rae was one of the great Arctic explorers of the nineteenth century, he has, for reasons that will appear later, been largely neglected. Even in books dealing with the exploration of the Arctic he generally receives only a brief mention. The medical profession has paid little attention to him. Short obituary notices appeared in the *British Medical Journal*¹ and in the *Lancet*² in 1893 and he is mentioned by Comrie in his *History of Scottish medicine*.³ There are only two important contributions about him in the medical literature; an article by Ross Mitchell⁴ in the *Canadian Medical Journal* in 1933 and a contribution by Fortune⁵ in the "Doctors Afield" series in the *New England Journal of Medicine* in 1963.

John Rae was an Orcadian who, after qualifying in medicine in Edinburgh, joined the Hudson's Bay Company. After ten years as a surgeon at Moose Factory in Hudson Bay, he became an explorer and in the next ten years he is said to have travelled 23,000 miles in the Arctic, most of it on foot, and to have surveyed 1700 to 1800 miles of new coastline. He was the first person to ascertain the fate of the expedition under Sir John Franklin which had been missing in the Arctic for seven years. In 1953 the Hudson's Bay Record Society commemorated the centenary of that event by publishing a volume of *Rae's Arctic correspondence*.⁶ This has an introduction by J. M. Wordie and R. J. Cyriax which gives an account of Rae's life and an assessment of his achievements. The spring 1954 number of the Hudson's Bay Company journal *The Beaver*⁷ was a "Rae number" and contains much information about him. These were the two main sources for anyone interested in Rae until 1967 when a hitherto unknown manuscript of an autobiography by Rae came to light. It was

*An abridged version of a talk given to the Scottish Society of the History of Medicine on 27 October 1973.

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purchased by the Scott Polar Research Institute at Cambridge and although it has not been published it has been described by Alan Cooke.⁸

RAE'S EARLY LIFE

John Rae was born on 30 September 1813 at the Hall of Clestrain in the parish of Orphir on the mainland of Orkney. He was the fourth son in a family of nine, six boys and three girls. His father John Rae was not an Orcadian but came from Lanarkshire and was factor to the estate of Sir William Honeyman Bt. (Lord Armadale). His mother Margaret Glen Rae was a Campbell from Argyll. A year after John Rae's birth, on 16 August 1814, the Hall of Clestrain was visited by Sir Walter Scott during his tour of Orkney and Shetland.⁹ This must have been a great event in the Rae household. In later life John Rae claimed that he recalled the incident. As he was only an infant at the time it is unlikely that he could have a personal memory of the visit but no doubt it was a frequent topic of conversation in the family circle and it thus became so familiar to him that he would recall it vividly.¹⁰

The young John Rae spent his boyhood at home. In his early years he may have attended a local school, but his later education was in the hands of private tutors. His main interest in these years was in the outdoor life. He learned to shoot as soon as he could hold a gun and he became expert in the handling of small boats. "I there acquired as perfect a knowledge of boating as could be obtained by constant practice, because to my brothers and myself our boat was our chief plaything. In it we put to sea in all weathers, the stormier the better, and we stayed out as long as it was possible to remain at sea in any small undecked craft. Our father had given us a beautiful, fast, sailing boat of about eighteen feet that could beat anything of her size in that part of the world".¹¹ He also learned to fish and to go egg-collecting on the sea cliffs—"By the time I was fifteen, I had become so seasoned as to care little about cold or wet, had acquired a fair knowledge of boating, was a moderately good climber among rocks and not a bad walker for my age, sometimes carrying a pretty heavy load of game or fish on my back. All of these requirements, often though useless, were of great service to me in after life".¹²

He must have been familiar with the annual visit of the ships of the Hudson's Bay Company which called regularly at Stromness to water and to embark Orcadians for service in the company's vast territories in Rupert's Land. Since early in the eighteenth century the company had recruited many of their servants in the Orkneys. They had proved themselves well fitted to endure the hardships of life in the company's territories and were "admirable servants, dour but loyal, steady and exhibited comparative sobriety".¹³ Rae's father was the local agent for the company and was responsible for the recruitment of tradesmen and young untrained men. Some thirty-five to forty men left annually¹⁴ and amongst these young John would have seen his two older brothers William and Richard leave to make their way in the fur trade.

At the age of sixteen Rae went to Edinburgh to study medicine. We know nothing about the reasons which led him to take up medicine and very little about his time as a medical student. He matriculated at the university for one session only, 1829 to 1830, and he attended T. C. Hope's class in chemistry. This must have been an exciting

time to be a medical student in Edinburgh. In spite of the Burke and Hare scandal, Robert Knox was still riding the crest of the wave with enormous classes in anatomy (504 in session 1828–1829) and had just been presented with a gold vase by his students as a token of their loyalty and admiration.¹⁵ There were many other great teachers such as Robert Jameson in natural history, John Abercrombie in medicine, George Ballingall, John Lizars, Robert Liston and James Syme in surgery, and Robert Christison in materia medica. Among Rae's own contemporaries as medical students were Edward Forbes, John Goodsir and J. Y. Simpson. Yet all Rae has to say about his student years is that they were "as uneventful as anything well could be—steady plodding through the various courses of study considered at that time requisite before going up for a surgeon's diploma".¹⁶ The only other comment he makes is a description of one of the snowball fights that used to take place between the students and the lads of the town.¹⁷ On 18 April 1833 at the age of nineteen he obtained his qualification as licentiate of the Royal College of Surgeons.

VOYAGE TO HUDSON BAY

Rae presumably returned home to Orkney immediately after he qualified. On 7 June 1833 his father received a letter from the secretary of the Hudson's Bay Company appointing John as surgeon to the ship *Prince of Wales* for its voyage to Hudson Bay that year. Rae himself has little to say about the outward voyage.¹⁸ The *Prince of Wales* was a ship of 400 tons and was nearing the end of her active life. Rae's comments were that he had a good cabin and that he had to deal with a fever among the steerage passengers. These were the first serious cases he had to deal with himself and his anxiety was great, but all recovered. He mentions that he learned how to handle the ship and gives a lyrical description of his first sight of the sea-ice.¹⁹

The *Prince of Wales* went to Moose Factory, the company's post at the foot of James Bay and after discharging its cargo and passengers took on board the bales of fur and those company servants who were homeward bound either on leave or at the end of their engagement. She sailed for Britain with Rae still aboard, but on reaching Hudson Strait the ship ran into dense pack ice between Southampton Island and Cape Wolstenholme and despite all the efforts of her captain they were forced to turn back and they went to Charlton Island in James Bay. The island was uninhabited and covered with snow when they reached it but they found some old houses which they repaired for winter quarters. Although they received some supplies from Moose Factory the thirty or so men suffered severe hardship and Rae was faced with an outbreak of scurvy. Seventeen men were affected and of these two died. In the spring, as soon as the ice cleared away a little, Rae with two sailors explored the whole shore of the island in a bark canoe. This was his first survey work.

RAE AT MOOSE FACTORY

The *Prince of Wales* then returned to Moose Factory to pick up the 1834 cargo of furs before returning to England. At this point Rae formally joined the Hudson's Bay company as a surgeon: "Thinking from what I saw that I should like the wild sort of life to be found in the Hudson's Bay Company's service I accepted the appointment of surgeon at Moose Factory".²⁰ He was actually offered a contract for five

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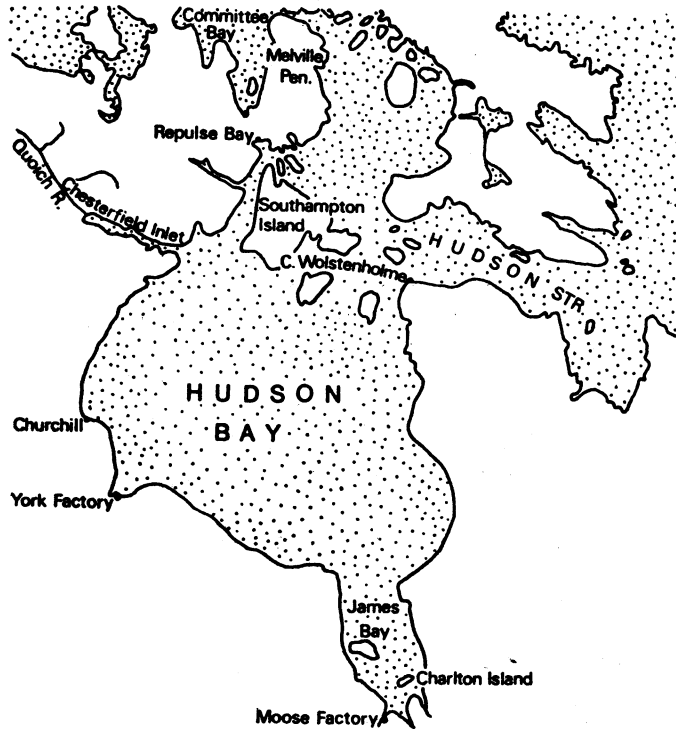


Figure 1.
Map of Hudson Bay

years as "Clerk and Surgeon" but accepted for only two years at a salary of £100 per annum. J. G. McTavish, the chief factor at Moose Factory, said of him "he is a very attractive and pleasant young man, hardy and well adapted to the country, however, he only wishes to feel his way and may in time take a notion of remaining; as to his medical capacity all I can say is that he appears to wish to study his profession".²¹

Rae was not by any means the first medical man to be attracted to the adventurous life with the Hudson's Bay Company. In his history of the company, Rich says "The surgeon little removed from the barber-surgeon from whom he had descended, would take his qualification from Surgeon's Hall and would be the sort of partly educated forthright servant of whom the Company was so much in need. Certainly the surgeons of these days played a very full part in the expansion of the Company into the interior".²²

In the event Rae did "take a notion of remaining" and he spent the next ten years at Moose Factory. During these years his duties included the medical care not only of the company's employees but also that of the local Indians. "Wherever we act as medical men our services are given gratuitously. We go to a distance if an Indian is at a distance and have him taken to a fort and he is fed and clothed there".²³ It is on

record that on one occasion in winter Rae went to Fort Albany on a medical call and on the return journey covered the distance, approximately 100 miles, on snow-shoes within forty-eight hours. It was during this time that he came to know the people and the terrain and learned all the different methods of hunting, fishing, sledge hauling, snow-shoe walking and camping out in all seasons which were afterwards so useful to him in his Arctic expeditions.

RAE BECOMES AN EXPLORER

This was Rae's background when he became an explorer. The man who influenced him to change his activities was another remarkable Scot, George Simpson. In 1821 the two major fur companies in America, the Hudson's Bay Company and the North-West Company, after a period of bitter and at times war-like rivalry, were amalgamated as the Hudson's Bay Company. George Simpson was the man selected to bring together the hostile elements of the two companies. He was appointed joint governor of the company's territories in 1821, and from 1826 until his death in 1860 he was virtually the uncrowned king of the whole of Canada north and west of the St. Lawrence River.

Following the amalgamation of the two companies the Hudson's Bay Company was under pressure to do something more with its territories than just exploit them for the fur trade. One of the first necessities was to explore the northern areas which were largely unmapped. In 1837 George Simpson sent out an expedition under the joint leadership of Peter Dease, a chief factor of the company, and his cousin Thomas Simpson²⁴ to explore the Arctic coastline. Dease and Simpson first travelled westward from the mouth of the Mackenzie River as far as Point Barrow in Alaska and then in 1838 and 1839, travelling east from the mouth of the Coppermine River, they discovered Victoria Land and explored the coast of the mainland as far as a river which they named the Castor and Pollux River. When he was on his way back to England in 1839 to report the results of their discoveries Thomas Simpson met a violent and mysterious death at Turtle River in what is now North Dakota. It is still uncertain whether he was murdered by some Indians who were with him or whether he committed suicide.

The discoveries of Dease and Simpson left only a small area of the northern coastline unexplored. George Simpson was looking for a man who had the necessary initiative and experience to undertake the task of completing the map and in Rae he found his man. On 11 May 1844, Simpson wrote to Rae as follows: "An idea has entered my mind that you are one of the fittest men in the country to conduct an Expedition for the purpose of completing the Survey of the Northern Coast that remains untraced . . . As regards the management of people and endurance of toil either in walking, boating or starving, I think you are better adapted for this work than most of the gentlemen with whom I am acquainted in this country".²⁵

Rae had already been earmarked for promotion in the company; he had been appointed to take charge of the Rupert River District, but when he agreed to lead the expedition to the Northern Coast this appointment was cancelled. Rae had no training as a surveyor so, in preparation for his exploration, in the fall of 1844 he travelled from Moose Factory to Red River (Winnipeg) where he was to receive

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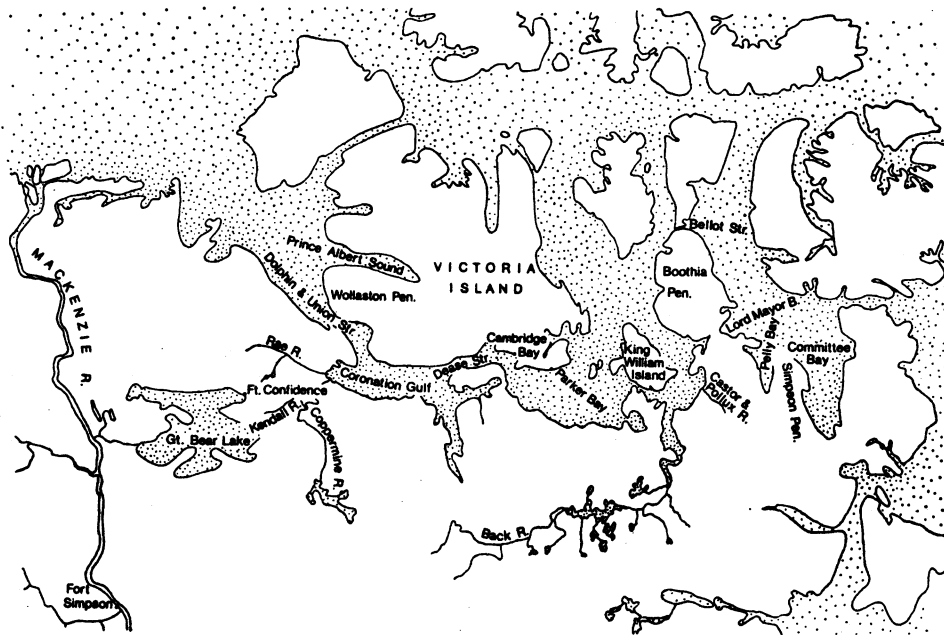


Figure 2.

Map of the Canadian Arctic from the Mackenzie River to Hudson Bay.

instruction in surveying from a man called Taylor. When he reached Red River, having travelled more than 1,000 miles mainly by canoe, he found Taylor ill and dying. He therefore proceeded in the winter of 1844 to Sault Ste. Marie, a journey of 1,200 miles, on snow-shoes, and thence via Detroit to Toronto where he obtained the necessary instruction on the use of the sextant and other elementary techniques required for survey work. This occupied him during the spring and summer of 1845. In the fall of that year he travelled to York Factory from which his expedition was to start. On this journey Rae met R. M. Ballantyne²⁶ on the Winnipeg River. Ballantyne describes the meeting thus: "In the afternoon we met another canoe in which we saw a gentleman sitting. This strange sight set us all speculating as to who it could be for we knew that all the canoes accustomed annually to go through these wilds had long since passed. We were soon enlightened, however, on the subject. Both canoes made toward a flat rock that offered a convenient spot for landing on; and the stranger introduced himself as Dr. Rae. He was on his way to York Factory for the purpose of fitting out at that post an expedition for the survey of the small part of the North American Coast left unexplored. Dr. Rae appeared to be just the man for such an expedition. He was very muscular and active, full of animal spirits and had a fine intellectual countenance. He was considered by those who knew him well to be one of the best snow-shoe walkers in the service, was also an excellent rifle shot, and could stand an immense amount of fatigue".²⁷

Rae reached York Factory in October 1845. He had intended to proceed to Churchill that year but Hudson Bay was already full of ice and he spent the winter at York.²⁸

RAE'S EXPLORATIONS

John Rae made four expeditions to the Arctic between 1846 and 1854. Except for the first they were all concerned with the search for the missing Arctic expedition led by Sir John Franklin.²⁹

In June 1846 he left York Factory with two boats and ten men drawn from the Hudson's Bay Company's servants. Four of these were fellow-Orcadians. He also had two Eskimo interpreters, a father and son called Ouligbuck. They sailed up the west coast of Hudson Bay to Repulse Bay. That summer they crossed the neck of land at the base of Melville Peninsula which is now called Rae Isthmus but could not proceed further because of the state of the ice in Committee Bay. They therefore returned to Repulse Bay and wintered there. A stone house was built which had a tarpaulin roof and two windows made of double panels of glass which Rae had taken with him—double glazing! The walls of this stone house remained standing until well into this century and have been visited and photographed by several parties.^{30,31,32} Throughout the winter Rae and his men lived mainly on fresh meat and fish which they had obtained by hunting and fishing in the fall and they used as fuel a kind of heather, *Andromeda tetragona*, which was later described by Sir John Richardson as "an interesting and beautiful herb in the eyes of a botanist but giving no promise to an ordinary observer that it could supply warmth to a large party during a long Arctic winter".³³ In the spring of 1847, travelling on foot and with sledges, Rae and four of his men again crossed Rae Isthmus and explored to the west as far as Boothia which they found to be a peninsula and not an island as had been claimed. They also explored the west coast of Melville Peninsula. When they eventually returned to York Factory they had been away for fifteen months and although they had taken food supplies for only four months all the men were in good physical condition. This demonstration that a large party could be self-supporting in the Arctic during the winter was one of the main achievements of this expedition. Rae wrote an account of this expedition which was not published until 1850. Copies of the original edition of *Narrative of an expedition to the shores of the Arctic Sea in 1846 and 1847* are rare and valuable but a facsimile edition was published in Canada in 1970.³⁴

In 1847, when concern about the fate of the two ships *Erebus* and *Terror* commanded by Sir John Franklin was mounting, the Admiralty decided to send out three relief expeditions, two by sea, one from the west and one from the east, and the third overland. The last expedition was to be led by Sir John Richardson who had made two previous overland expeditions to the Arctic with Franklin, in 1819–1821 and 1825–1827. Richardson, after reading about Rae's first expedition, thought that Rae would be a most suitable companion and he persuaded the Admiralty to ask the Hudson's Bay Company for Rae's services. In the summer of 1848 Richardson and Rae with a party of men from the two services³⁵ descended the Mackenzie River to the Arctic Sea and then travelled east along the coast as far as the Coppermine River. No news or trace of the missing Franklin Expedition was obtained but a new river was discovered on which Richardson "bestowed the name of my active, zealous and intelligent companion Mr. Rae, as a testimony of my high sense of his merits and exertions".³⁶ The party then ascended the Coppermine River and crossed to

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Fort Confidence on the north-east arm of Great Bear Lake where Dease and Simpson had wintered ten years earlier.

This expedition was not a success. The service men were unused to the methods and rigours of travel in the Arctic and Rae found them "the most awkward lazy and careless set I ever had anything to do with".³⁷ It was also said that Rae and Richardson "got along badly almost from the start".³⁸ It is true that, in his private letters to Sir George Simpson, Rae made some disparaging remarks about "my excellent superior officer" but this probably does no more than reflect the irritation of a young, vigorous and independent man to an older leader (Richardson was sixty-one in 1848) who was steeped in naval traditions. There is ample evidence that the two men respected each other and remained friends for many years.

During the winter of 1848-1849 it was arranged that Richardson and the service men would return to England in the spring and that Rae should continue the search with some of his own men. Although it had been a mild winter it was a late season in 1849 and it was June before Rae could leave Fort Confidence. He had instructions from Richardson to cross Dolphin and Union Strait and to explore the coasts of Wollaston and Victoria Lands which at this time were thought to be separate islands. When Rae reached the coast he was prevented by misty weather and the condition of the ice from crossing the strait. He explored the river which had been named after him for a distance of thirty miles but this was the only new territory surveyed and nothing was learned about the missing Franklin ships.

On his return to Fort Confidence in the autumn of 1849 Rae went to Fort Simpson on the Mackenzie River where he resumed his service with the Hudson's Bay Company as chief trader in charge of the Mackenzie District.

In the spring of 1850, however, when on his way south with the season's fur collection, he met the outward brigade of canoes which brought despatches telling him that there was still no news of the missing expedition and ordering him to continue the search. He was unable to proceed to the coast immediately but after making the necessary arrangements for men and supplies he returned to Fort Confidence in October 1850. He took with him a carpenter, a Shetlander named Kirkness, and between them Rae and Kirkness built two boats from timber which they obtained locally. Apart from the boat building the winter was spent mainly engaged on domestic tasks. Rae wrote "nothing apart from the securing of buttons and seams of my travelling breeks, to the splicing, fitting and serving of our boats' rigging but I had my hands at. Such duties and occupations for a Chief Factor may be thought *infra dig* by my brother officers, but I care little about that as long as the work is done to my mind".³⁹

Remembering his failure to cross to Wollaston Land by boat in the summer of 1849, Rae left Fort Confidence in April 1851 and travelling on foot via the Kendall and Coppermine Rivers he reached the coast and crossed the Dolphin and Union Strait while it was still frozen. He explored the coast to the west and proved that Wollaston Land and Victoria Land were parts of the same island. He got as far as the entrance to Prince Albert Sound before returning. When he arrived back at the junction of the Kendall and Coppermine Rivers he was met by the rest of his party with the two home-made boats. In these they descended the Coppermine River now

in flood and then sailed eastward through Coronation Gulf and into Dease and Simpson's Strait. From Cape Alexander they crossed to Cambridge Bay on Victoria Land and proceeded east and north exploring new territory and naming capes, bays and islands. The home-made boats stood up well to the battering of the ice but by mid-August Rae decided that there was too much ice ahead. Leaving the boat Rae and two companions continued on foot for a further thirty-five miles. The terrain was bad "in two hours a pair of new moccasins with thick undressed buffalo-skin soles, and stout duffle socks were completely worn out, and before the day's journey was half done every step I took was marked with blood".⁴⁰ The next day they waited, hoping to cross to land they had seen to the east, but conditions remained unfavourable and they turned back. On the return journey in Parker Bay they found two pieces of wood which had clearly come from some ship, and one of them bore British Government markings. When these were brought back to England there was much speculation as to whether these pieces of wreckage had come from one of Franklin's ships. Rae himself never claimed that they had done so. The party arrived safely back at Fort Confidence in September. This was undoubtedly Rae's most successful expedition. Although he did not obtain any definite news of the Franklin expedition he surveyed a vast extent of new coastline.

Rae now returned to England⁴¹ and almost immediately he wrote to the Governor and Committee of the Hudson's Bay Company proposing a further expedition to complete the survey of the northern coastline of the mainland. The company accepted this proposal and in November 1852 Rae wrote a letter to *The Times*⁴² describing his plans. In a postscript to the letter he wrote "I do not mention the lost navigators as there is not the slightest hope of finding any traces of them in the quarter to which I am going".

In late June 1853 Rae left York Factory again with two boats and thirteen men. He later picked up an interpreter, the younger Ouligbuck, who had been with him on his first expedition. His plan was to sail up Chesterfield Inlet from Hudson Bay and then to make his way overland to the mouth of Back's River. When they were travelling up Chesterfield Inlet they came to the mouth of a large river which seemed to come from the north-west, so they sailed up it. Unfortunately the course of the river altered to the north-east and after reconnoitring the country lying to the west Rae decided that it was too rugged and inhospitable. They therefore descended the river which Rae "called the Quoich after the Highland Glen of that name".⁴³ Instead of continuing up Chesterfield Inlet, Rae now returned to Hudson Bay and sent back one of the boats and seven men. With the remainder of his party he proceeded to his old winter quarters at Repulse Bay. They did not re-occupy Fort Hope, his former stone-built house, but lived first of all in tents and then in snow-houses which they found much more comfortable. Again the party lived largely on game—deer, ptarmigan, seal and "salmon" which they obtained by hunting or fishing. In the spring of 1854, after a short reconnaissance trip to set up a supply depot, Rae set off with four men. They crossed Rae Isthmus and Simpson Peninsula to Pelly Bay and on 21 April they met an Eskimo to whom they put the usual question as to whether he had seen any white men in the region. The episode was described by Rae as follows: "met a very communicative and apparently intelligent Eskimo; had never



Figure 3.
Portrait of John Rae. Woodcut from a photograph by Brady.

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met whites before, but said that a number of Kabloonans, at least 35 or 40, had starved to death west of a large river a long distance off. Perhaps about 10 or 20 days journey. Could not tell the distance, never had been there and could not accompany us so far. Dead bodies seen beyond two large rivers; did not know the place. Could not or would not explain it on chart".⁴⁴ This was the first authentic news of the fate of the Franklin expedition. From this man Rae obtained a gold cap-band. He told him that if any other Eskimos had similar items obtained from the dead Kabloonans he would purchase them if they brought them to his base camp at Repulse Bay. Rae then continued with the prime object of his expedition. He reached the mouth of the Castor and Pollux River (Dease and Simpson's furthest point) and proceeded to explore the coast to the north. He discovered that King William's Land, as it was then known, was an island separated from Boothia peninsula by a strait (now called Rae Strait). He also discovered several new bays and islands; one of the latter he named "Bence-Jones Island after the distinguished medical man and analytical chemist of that name to whose kindness I and my party were much indebted, for having proposed the use, and prepared some extract of tea for the expedition. This article we found extremely portable and as the tea could be made without boiling water, we often enjoyed a cup of that refreshing beverage".⁴⁵

Rae had intended to explore the whole of the west coast of Boothia as far as Bellot Strait, but the weather was bad and he turned back having reached Pointe de la Guiche (Lat. 68° 57' 52" N). On the return journey in the region of Pelly Bay and later at Repulse Bay he received further information and obtained numerous articles from the Eskimos which enabled him to piece together the details of the fate of the Franklin expedition.

Briefly the story was as follows. Four years before⁴⁶ a party of white men had been seen dragging sledges down the west coast of King William Island. They were thin and hungry, and some of the men fell down as they walked. Later in the year thirty-five to forty bodies had been found on the seashore near the mouth of a large river. The description of the terrain given by the Eskimos tallied with the country at the mouth of Back's Great Fish River. Some of the bodies had been buried, others were in tents, and a few were huddled under a boat. The articles which Rae obtained clearly identified the party as the remnants of the Franklin expedition—they included Franklin's Guelphic Order of Hanover, a silver plate with his name on it; forks and spoons bearing the crests of seven officers of the *Erebus* and five of the *Terror* and other identifiable relics. It was July before Rae had all this information and too late in the season for him to contemplate going himself to the scene of the disaster. He decided to return with his news so that further costly expeditions should not be sent searching in the wrong area. He and his party left Repulse Bay on 8 August; they reached York Factory on 31 August, and Rae sailed in the company's ship *Prince of Wales* on its return voyage and, after a stormy crossing of the Atlantic landed at Deal on 22 October.

RAE IN LONDON

Rae wasted no time in communicating his important information. Although 22 October 1854 was a Sunday, he went straight to the Admiralty and presented a report

which he had written at Repulse Bay in July. The following day this report together with a letter written by Rae on board the *Prince of Wales* in the English Channel on 20 October appeared in *The Times*.⁴⁷ The reaction to the news was not at all what might have been expected. Instead of being hailed as the discoverer of the vital clue to the mystery which had baffled the Royal Navy for seven years, Rae found himself attacked on all sides. The basis of these attacks were first that he had accepted as truth the statements of savages who had probably murdered the weakened sailors for the articles they had acquired; second, that he had not gone to the scene of the disaster himself; third, that he had accused men of the Royal Navy of cannibalism; and fourth, that he had rushed home to collect the reward of £10,000 offered by the Admiralty for information about the Franklin expedition.

Looking back from the vantage point of more than a century, it is fair to say that these aspersions on Rae were unjustified, although at the time they may have apparently had some substance. No one at that time knew the Arctic or the Eskimos as well as Rae: to the average Briton the Eskimos may have been regarded as illiterate savages but Rae had made friends with them and he knew them to be a gentle, cheerful and truthful race. In 1863 speaking at a meeting at the Royal Geographical Society he said "when he first brought home information he had gained from them they were called liars and storytellers, he knew better. He never in his life found an Eskimo tell a falsehood, unless it was to gain some particular object, and when they did tell a falsehood it could easily be detected by a little cross-questioning. When they had nothing to gain by suppressing the truth, you could fully rely on their statements".⁴⁸

The reason why he did not go to the scene of the events described by the Eskimos has already been mentioned—by the time he had obtained the information necessary for him to identify the locality accurately it was late in July and the season was much too far advanced for a journey to be made that year. Unfortunately his report gave the impression that he had obtained the information from the first Eskimos whom he met in April and had he then abandoned his pre-arranged plans he might have reached the estuary of Back's River and returned that season. It must be remembered also that on this occasion Rae was not officially engaged in the search for Franklin but was on an expedition on behalf of the Hudson's Bay Company.

Rae's report to the Admiralty contained the following sentence "From the mutilated state of many of the corpses and the contents of the kettles it is evident that our wretched countrymen had been driven to the last resource—cannibalism—as a means of prolonging existence".⁴⁹ This more than anything else turned public opinion against Rae. The very idea that officers and men of the Royal Navy should resort to cannibalism even *in extremis* was inconceivable in the mid-nineteenth century, and naturally also the suggestion was distressing to the relatives of those on the expedition who had waited so long for news. Two things must be remembered: first, Rae was reporting what he had been told by the Eskimos and they would not consider that cannibalism in these circumstances was anything unusual (Eskimo folklore is full of stories in which men in dire straights have survived as a result of cannibalism); second, Rae's report was made to the Admiralty and it was *they* who submitted it for publication. It is clear to anyone who reads Rae's own letter to *The Times* that he had no idea that his official report would also be published. Whether

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the publication of the report with the statement about cannibalism was due to thoughtlessness as a result of the great speed with which the information was passed to the press or whether it was the first step in a calculated scheme by the Admiralty to discredit Rae, it is difficult to say, but the damage was done and Rae never recovered from it.

In March 1850 the Admiralty had offered a reward of £20,000 to anyone who brought help to the Franklin expedition or £10,000 to anyone who succeeded in ascertaining its fate. Rae claimed he had no knowledge of this reward until he returned to York Factory in 1854. He was in the Arctic at the time the reward was announced and, although he was in England in 1852, by that time the subject would no longer be a topic of current interest. Even Rae's strongest critic is prepared to admit this.⁵⁰ Nonetheless, on his return to England, Rae claimed the reward. After considerable delay and in spite of much opposition, by Lady Franklin among others, the reward of £10,000 was eventually given to Rae.⁵¹ This was the only recognition which he received. Of all the major figures in the Franklin search he was the only one who did not receive a knighthood.

This was the end of Rae's Arctic explorations. There were several suggestions that he should lead a further expedition to confirm his information and to try and find more details of what had happened but, no doubt soured by his reception, and the doubts cast on his veracity, he refused to go. Although he lived for another thirty-nine years and did many interesting things, the important phase of his life was over and this is therefore an appropriate point at which to leave his story.

RAE AS AN EXPLORER

John Rae is today regarded by those best able to judge these matters as an outstanding Arctic explorer. His own estimate of his Arctic journeys was 6,555 miles on foot and 6,700 miles by boat and new land surveyed 1,765 miles and in 1854 he wrote "I have seen more of the Arctic coast of America than any man living".⁵² He was, however, ahead of his time and in the mid-nineteenth century when Arctic exploration was firmly in the hands of the Royal Navy his methods were completely unorthodox. His position is well described by Stefannson, who in the twentieth century followed the Rae tradition and is acknowledged as one of the greatest authorities on the Arctic: Rae behaved on his expeditions like a menial, did his own work and lived like a savage in snow-houses and so forth "This behaviour did not seem cricket to the British public. . . . The object of polar exploration was to explore properly and not to evade the hazards of the game through the vulgar subterfuge of going native".⁵³

As a result of his explorations his name appears today at four places on the map of Arctic Canada—Rae on Great Slave Lake,⁵⁴ Rae Isthmus between Repulse Bay and Committee Bay, Rae Strait between Boothia Peninsula and King William Island and Rae River flowing into Coronation Gulf.

RAE AS A DOCTOR

Rae's medical activities were virtually confined to the ten years that he spent at Moose Factory from 1834–1844. The journals from Moose Factory for these years are extant in the archives of the Hudson's Bay Company and, while they make

fascinating reading, they tell us little about Rae's duties as a doctor.⁵⁵ There is no evidence that during those years he had any serious epidemics or other illness to contend with. There is one interesting reference to an outbreak of food-poisoning in 1839: "John Corrigan and George Davidson ailing today with bowel complaints and in the evening a statement was made by the people generally thro' Dr. Rae that they attributed their ailment (some others asserting that they were ailing also in a slighter degree) to the cook's want of cleanliness in dressing their food and his obstinacy in paying no attention to their representations and remonstrances". The matter was settled by telling the cook that if it was proved that he was responsible for the men's illness he would have to pay for their loss of time! On the whole Moose Factory seems to have been a fairly healthy place during these years; in the journals there are references to births and deaths, to Indians being brought to the post for medical aid, to men being off sick and to cases of syphilis and scrofula but few specific mentions of Rae's medical involvement in these cases. One instance of an Indian presenting himself with a burn on his leg is described "on examining . . . 's leg and foot Mr. Rae considers him to be very little injured if he is even at all injured by the scalding which he represented yesterday incapacitating him from performing the journey to Abitibi" and the following day "Dr. Rae says that the reported scalded leg and foot appear to be as sound and whole as the other".

In his autobiography⁵⁶ Rae confirms that Moose Factory was a healthy place: "when engaging to remain at Moose I stipulated that I should only attend to professional duties but after a while I found that these in so healthy a place with so few people were quite insufficient to give me occupation. I therefore readily agreed to do a part of the general work on condition that this should never interfere with my attendance on the sick . . .". Referring to his medical work he describes one most interesting patient. This was the father-in-law of his predecessor at Moose, aged sixty, who appeared to have pleurisy. "On closely examining the chest there was no evidence of the right lung doing its work whilst the intercostal spaces on the same side had a distended appearance. At this time the cough was so incessant and distressing that it was requisite that my poor friend did not get hold of razors or other edged tools. . . . I tapped the chest in the usual manner but certainly was not prepared for the rush of matter that followed the operation". More than five pints of pus were removed with instantaneous relief and the patient made a complete recovery. Rae mentions that rheumatism and diseases of the chest were common amongst the Indians and that he had to deal with numerous axe wounds and injuries caused by gunpowder and the careless use of firearms. Referring to the treatment of Indians, Rae has this to say: for rheumatism "embrocations of the most powerful kind and strengthening plasters"; regarding medicines "those for internal use should have some strong or unpleasant tasting harmless stuff added, which greatly contributes to their value, the Indian being in this respect like many people nearer home, who cannot believe that a pleasant or tasteless medicine can be of any use".

By the time Rae left Moose he was much more involved in the general activities of the Hudson's Bay Company than in medical activities. When he was at York Factory in 1845, before setting out on his first expedition, Letitia Hargrave⁵⁷ refers to Rae doctoring Willie (her brother) for an axe-wound of his foot "he had got his

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diploma unusually early and has not been home nor (he says) opened a medical book for seven years". During his years as an explorer Rae obviously looked after the health of his men well and there are no indications that any of his men suffered from illness, severe frost-bite or any of the conditions that beset many of the Royal Navy's Arctic expeditions. Indeed there are numerous references to the well-being of his parties when they returned to their base. The lists of the medical supplies which he took with him on his first (1846) and fourth (1854) expeditions (Table 1) do not contain any remarkable items, but merely simple remedies which reflect the therapeutic fashions of the times. That he was meticulous about detail in medical matters is indicated by the following, taken from a letter written to George Simpson before his first expedition: "As I have no pocket case of surgical instruments and find the want of it when travelling, I hope you will not be offended at my requesting you to send

TABLE 1
MEDICAL SUPPLIES TAKEN BY RAE ON EXPEDITIONS

1846	1854
½ doz. Turlinglons Balsam	1 oz. Tinct. Opium
1/6 Gro. Vial Corks	½ oz. Croton oil
½ doz. Essee of Peppermint	2 lb. Castor oil
1 Lancet	1 lb. Olive oil
½ lb. Soap Liniment	2 lb. Epsom salts
½ lb. White lint	2 oz. Calomel
½ lb. Gum arabic	½ oz. powdered opium
½ lb. Castor oil	2 oz. compound colocynth Pills (<i>in pills</i>)
2 jars Baz ointment	½ yd. Adhesive plaster
2 jars Cal ointment	1 box Basilicon ointment
2 yds. Spread plaster	1 box Calomine ointment ½ lb.
½ lb. Blister plaster	1 box Saturnine ointment
2 doz. Purges	1 box Spermaceti ointment
4 lb. Epsom salts	½ lb. white lint
1 doz. Vials 1 oz.	1 tooth key and scarificator
1 doz. Vomits	
2 jars Sat. ointment	
Total cost £2. 6. 9.	

me one with the sextant etc. I should wish it of the best quality to fold like a pocket book, the outside of Russia leather, the caustic holder to be of silver, not ivory".⁵⁸

In May 1853 while he was in Montreal on the way to his fourth expedition he was given an honorary M.D. degree by McGill University. Fortune⁵⁹ says, "no information can be gleaned from the University records to explain why he was awarded this coveted and unusual degree for it was usually reserved only for those who had distinguished themselves in the art or science of Medicine. Rae had done neither. . . ." Rae himself wrote "when at Montreal the medical faculty there in the most kind manner presented me with an honorary diploma as M.D. of the McGill College without any examination which was very fortunate for a few questions on medical subjects would have floored me. I shall now have a title to the name of Doctor, which has so long been given without my having any right to it".⁶⁰

Finally a word about Rae and scurvy. Although James Lind's *A treatise of the scurvy*⁶¹ was published in 1753, and the regular use of citrus juice was introduced by the Navy in 1795, the disease continued to be a problem on long voyages and journeys during which fresh food was not available, and it was by no means universally accepted by the middle of the nineteenth century, particularly as regards the Arctic regions, that lack of fresh food was the sole cause of the disease or that it could be cured or prevented by the use of supplementary lime juice. It has already been mentioned that in the winter of 1833-1834, when Rae and his companions were stranded on Charlton Island, they were attacked by scurvy, and two men died. Rae experimented with the use of a brew made from the tips of spruce trees, a remedy which is mentioned by Lind in his *Treatise*, without much benefit. When spring came he was walking in the snow when he noticed what he at first thought was blood beside one of his footprints. When he investigated however he found that the red staining of the snow was due to the crushing of cranberries which had been preserved through the winter underneath the snow. The sick men were carried out in the sunshine and allowed to feed themselves on the cranberries and they then rapidly recovered.

This was Rae's only personal experience of scurvy. In 1875-1876 a Royal Navy expedition under the command of Sir George Nares, who had been Captain of the *Challenger* on its famous expedition round the world, penetrated further north in the Arctic than any previous exploration. Although well-provisioned, the party was seriously affected by scurvy; fifty-nine officers and men were affected and four men died. When the expedition returned to England, a committee was appointed by the Lords Commissioner of the Admiralty to enquire into the matter. Rae gave evidence to the committee⁶² and his evidence contains a great deal of interesting information about the way he and his men lived during his arctic expeditions. It is clear that his men undertook fully as strenuous work as the naval parties and that their living conditions were more primitive. When asked to explain the lack of scurvy on his expeditions and its occurrence in the naval expedition, Rae admitted that it was curious and that he could not completely explain it, but he drew attention to three important differences which he thought might be significant: (1) his parties lived to a large extent off the land and resorted to pemmican and other preserved food only in emergencies; (2) while on an expedition he and his men virtually abstained from

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alcohol whereas the naval parties had their regular ration of spirits and a double ration before setting out on a sledging expedition; (3) the men who accompanied him were used to living in the Arctic and sub-Arctic regions.

When he was asked specifically if he thought lime juice would have prevented the outbreak of scurvy Rae replied, "I am not warranted to saying so much simply because my personal knowledge of the effects of lime juice is not great, in fact nothing. I have not had sufficient experience to give an answer of any value, and were I to say so it would be speaking of what I know nothing about personally". He was also asked what he considered was the cause of scurvy and his reply was "I consider scurvy a blood disease, caused by a deficiency of something that it gets from vegetables and that when you have no vegetables or no bread there is something that the system wants which is in very small quantity in animal food and therefore you have to eat a very great deal more than you want in order to get at this quantity from the meat". Surely a prescient statement, made thirty years before Gowland Hopkins' convincing demonstration of the existence of "accessory food factors" and fifty years before the identification of Vitamin C!

POSTSCRIPT

Rae resigned from the Hudson's Bay Company in 1856. He lived for a short time in Hamilton, Ontario, but in 1860 he married and shortly thereafter he settled in London, England. He was given an LL.D. by Edinburgh University in 1866 and was elected a Fellow of the Royal Society in 1880. He died at his home in London on 22 July 1893 and was buried in the kirkyard of St. Magnus Cathedral, Kirkwall, Orkney. Within the cathedral there is a magnificent sculptured memorial. It is a life-sized figure of Rae lying wrapped in his buffalo robes with his moccasins on his feet and with his gun beside him. For once the prophet found honour "in his own country and in his own house".

ACKNOWLEDGEMENTS

I am greatly indebted to Alan Cooke and to the Scott Polar Research Institute for permission to see the manuscript of Rae's autobiography and to refer to information obtained from it. Material from the Moose Factory Journals for 1833-1843 is published by kind permission of the Hudson's Bay Company.

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