
The First Year's Work of the National Antarctic Expedition

Author(s): Clements R. Markham

Source: *The Geographical Journal*, Vol. 22, No. 1 (Jul., 1903), pp. 13-20+37

Published by: geographicalj

Stable URL: <http://www.jstor.org/stable/1775046>

Accessed: 10-05-2016 08:16 UTC

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at
<http://about.jstor.org/terms>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



The Royal Geographical Society (with the Institute of British Geographers), Wiley are collaborating with JSTOR to digitize, preserve and extend access to *The Geographical Journal*

great Antarctic travellers, standing on the edge of that immovable ice which imprisoned their ship, with Mount Erebus for a background. One can almost hear the cheers and see the waving caps as the *Morning* slowly moved away. Think of them now, entering cheerfully upon a second winter! Think of the terrible hardships and sufferings they have gone through for science, and for their country's credit! Is there any tale of derring-doe surpassing the story of those who have planted the cross of St. George in $82^{\circ} 17' S.$?

But, as I have already said, the news is too great, far too important, to be told in a portion of an anniversary address. It is a very glorious record, and it needs suitable illustration and explanatory maps. All this I will endeavour to furnish at an evening meeting, when the grand results of their expedition must be placed in detail before the Fellows.

The *Morning* must go south again next December. The funds must be provided. But a small sum is needed, about £12,000. I will not contemplate the possibility of its being refused by the Government, for the Government is directly responsible for the safety of the seamen and marines who were invited to volunteer. Our relief ship must go on her pious errand once more, to succour, not improbably to save, our countrymen. That England could fail in such a duty is surely impossible.

THE FIRST YEAR'S WORK OF THE NATIONAL ANTARCTIC EXPEDITION.*

By Sir CLEMENTS R. MARKHAM, K.C.B., F.R.S.

WE must all, I think, feel that this is a great occasion. We have received news of the splendid work done by our countrymen in the far south, and we are assembled to acquire some idea of the nature of that work, and of the general results. We shall effect this object by means of Mr. Skelton's photographs, and of the best map we have been able to construct with the materials that have reached us. We do not intend to discuss or to describe the scientific results of this work. We have not the means. All *that* is reserved for the grand day when we welcome the return of Captain Scott and his fellow-explorers to this country. To-night should rather be devoted to an endeavour to understand and to appreciate the high qualities, the indomitable energy, the strict sense of duty, the courage and hardihood which enabled our countrymen to make the extensive discoveries which are shown on the map. They represent an achievement which is quite unsurpassed in my time.

* Read at the Royal Geographical Society, June 10, 1903. Map, p. 120. For note on map see p. 37.

Before following the memorable voyage, I must say a very few words on the subject of the arrangements for the expedition in this country. When the two Societies approached the Government with a view to obtaining assistance in June, 1899, Mr. Balfour spoke in the strongest terms of the importance of such an expedition, both from a scientific and a national point of view, and he was told that it would be necessary to build a ship specially adapted for the service, among other reasons for the sake of the magnetic observations. An estimate was submitted to him amounting to £100,000 if the expedition lasted for three years, or £90,000 if for two years. It was decided that the expedition should be for two years. Mr. Balfour promised a parliamentary grant which amounted to £45,000. The public subscribed the other moiety, this Society giving £8000. The *Discovery* was launched, and has proved most admirably adapted for the work. It has been said that she is the most expensive vessel that was ever built in this country for scientific purposes. It is equally true that she is the cheapest. For she is the only vessel that was ever built in this country for scientific purposes. She has been a great success, and she will be a great success even if she has to be abandoned in the Antarctic ice. The famous voyage performed in her, the vast and important scientific results achieved through her means, will remain for ever as the record of her success, even though the staunch old *Discovery* leaves her ribs in the far south. But this will not be if human help, guided by no ordinary ability and skill, can avail. For if the ship is strong and adapted to her work, still stronger and still better are her crew. No more striking proof of this is needed than the way they have rallied round their beloved commander. Captain Scott's deeds speak for themselves, and he was supported by such officers as Armitage, Royds, Skelton, Shackleton, and Barne; by Koettlitz, Wilson, Bernacchi, Hodgson, and Ferrar; and by twenty-six seamen and marines, all good men and true. Alas that one of the best of all, the devoted and chivalrous Shackleton, is no longer with them! The Admiralty has lent the men, without whom the work could not have been done; but we must always remember that we owe this to the good offices of our lamented associate, Admiral Sir Anthony Hoskins. We owe much more to his memory than even that.

One word with regard to the management of the business of the expedition. Since December, 1900, a Joint Finance Committee, appointed by the Councils of the two Societies, of which I have been chairman, has transacted all the business. The three other members are the treasurers of the two Societies and a distinguished official of the Treasury appointed with the approval of Mr. Balfour; these three business men have conducted the affairs of the expedition on business principles. Efficiency has been secured without waste or extravagance, and most especial care was taken with regard to the examination of the provisions by an expert under official supervision. The committee has worked

and is still working harmoniously, and there has scarcely been a difference of opinion among its members. As a test of its business capacity, we have the fact that the expedition is well within the estimate, and that the committee had a balance of £7000 to meet all further expenditure, if the two ships had returned this year in accordance with the instructions. Captain Scott sat on the committee from its commencement until the departure of the *Discovery*.

Under such auspices the expedition left New Zealand on Christmas Eve, 1901, and entered the Antarctic ice. Her objects were to study the nature of Ross's great ice-barrier; if possible, to discover land to the eastward; to secure various scientific results during the voyage and in winter quarters; and from winter quarters to explore the volcanic region, and to make discoveries to the south and inland to the west. Most thoroughly and completely have the explorers carried out these instructions. Their deeds have far exceeded all that I had hoped, or even conceived possible. Let us now follow their proceedings, and endeavour to get some notion of their surroundings with the help of Mr. Skelton's photographs.

On reaching safe winter quarters, the great work of sledge-travelling was commenced with some autumn journeys. The severity of the weather was intense, both from low temperature, -42° to even -57° below zero, and from the furious gales; but the journeys were of great use, both for obtaining information respecting the lie of the land, and for the acquisition of experience. There was one fatal accident, which is admirably described by Captain Scott.

"Mr. Barne reached the crest of the hills at about noon on March 11, and camped for lunch, during which meal the wind sprang up very suddenly, bringing a heavy drift; the temperature fell, and the party, not experienced in such conditions, suffered much from frost-bites and general discomfort. In these circumstances, and imagining themselves closer to the ship than they actually were, they decided to leave the sledges and make for her. Soon after their start the gale increased, and they were enveloped in a whirl of drifting snow and entirely lost their bearings. Mr. Barne did his best to keep the party together, the more so when it became evident that the slope on which they stood was affording a less and less secure foothold. Before long, however, one of the men, Evans, slipped and disappeared from sight. After shouting and receiving no reply, Mr. Barne, cautioning the men to remain where they were, decided to follow, and very deliberately started to slide down the slope himself. He was firmly under the impression that the slope was one well known to us all close to the ship, and that after making certain he would be easily able to regain the summit and bring the men on. After waiting for some time, another of the men (Quartly) decided to follow Mr. Barne, and was immediately lost to sight. The experience of these three was identical: after the first start they were soon going

at a speed which left them absolutely no control of their movements, and this continued for some 400 or 500 yards, until they were suddenly brought up in a patch of soft snow within 15 feet of a sheer drop into the sea.

"Meanwhile, of the party above, one, Hare, had decided to go back to the sledge to change his footgear, and the remaining five, after a long wait, proceeded along the slope, as they supposed, towards the ship, led by an able seaman (Wild). Luckily, Wild had nails in his boots, for, after travelling some distance, he suddenly and without warning (so thick was the snow) found himself within an ace of stepping over the cliff into the sea. He had the presence of mind to shout to the others to stop, which they were all able to do, except poor Vince, who missed his footing, shot past Wild, and was immediately lost to view. Vince was a thoroughly good man, always cheerful and bright, and popular throughout the ship. With great difficulty the remaining four men succeeded in retracing their steps, and eventually reached the crest of the hill, from whence, taking a more easterly course, they fell on some landmarks and found their way to the ship. Great credit is due to Wild for the manner in which he conducted and kept together the small party. A large search party was immediately despatched on their return to the ship, and the siren was kept going. With some difficulty the search party succeeded in finding the sledges, and in the vicinity they found Mr. Barne, Evans, and Quartly half frozen and wholly dazed; they did not know how they had again reached the summit of the hill. No trace was found of Hare or Vince. A further prolonged search was made on the following day, a roped party descending the slope with crampons, but without result. On the third day I got up steam on the bare possibility of finding an ice-foot below the ice-cliff over which Vince had fallen, and whilst we were preparing to weigh, Hare was seen descending the hill opposite the ship; he was quickly brought on board, and found to be neither frost-bitten nor in any way hurt by his exposure; he had turned to find the sledges, failed to do so, wandered aimlessly about, and finally lost consciousness; thirty-six hours later he awoke, to find himself buried in snow and only a trifle stiff; he imagined it to be the morning after the accident, and was astounded to learn that he had slept through a whole day.

"On taking the ship around to the scene of the accident, we found on ice-foot, and it was evident that Vince must have fallen directly into the sea from a cliff 150 to 200 feet in height."

When Captain Scott addressed the ship's company in a few words after service on the following Sunday, there was scarcely a dry eye. All mourned the loss of their comrade, George Vince, a cheerful and popular messmate, and an excellent seaman.

The winter passed cheerfully. There were plenty of amusements; but there was also plenty of hard work. Mr. Bernacchi tended his

magnetic instruments with zealous care, and took regular observations with the electrometer. The temperature and salinity of sea-water at various depths were ascertained. Mr. Hodgson was indefatigable in all weathers, keeping holes open in the ice for his nets and fish-traps. Dr. Wilson's work, as regards vertebrates, is exceedingly valuable; and I am assured that the biological collections are most important, and will form one of the great features of the expedition. The meteorology is under the charge of Lieut. Boyds, and nothing can exceed his care and diligence. A series of meteorological observations for two years, in $77^{\circ} 50' \text{ S.}$, more than 500 miles further south than any ship has ever wintered before, will be most valuable.

As the sun began to return, the magnificent range of mountains to the westward began to appear in surpassing grandeur. The glow of the sun when it was still below the horizon just caught them, and the sides facing the north were lit up with a pinkish-orange tint, the other sides being dark and shadowy. In September the early spring travelling commenced, when the cold was even more intense than in the autumn. Royds and Skelton were the chief explorers of the volcanic island on which Erebus and Terror rear their giant cones. With four men, they were away twenty-one days, with the thermometer always -40° , and once as low as -58° . This cold is too intense for sledging, and in addition they encountered a furious gale, which lasted for five days. In spite of the weather, Skelton and two men found a way over the big ice-ridges of the barrier down to the sea-edge, using crampons and ice-axes, and being roped together. A close examination was thus made of the position where the barrier abuts upon the land at Cape Crozier. In a subsequent journey Royds found the post cairn at this point, and deposited a notice for the relief ship.

There were several sledging journeys for short distances conducted by the scientific staff, chiefly with the object of geological investigations; but the great results were to be obtained from the southern and western parties.

Captain Scott established a dépôt 60 miles to the south in a journey of ten days, from September 23 to October 4, when there was a heavy gale, and the thermometer fell to -51° . On November 1 he started with eighteen dogs, accompanied by Lieut. Shackleton and Dr. Wilson. A supporting sledge under Lieut. Barne went as far as the first dépôt. At first all went well, but after a fortnight the dogs got weaker and weaker, and a long tract of soft snow had to be crossed, which occupied them for thirty days, bringing the sledges up in relays. Practically the dogs became useless. The explorers had to do all the work themselves. But, nothing daunted, the gallant men pushed onwards, lightening the weight by leaving a dépôt in $80^{\circ} 30' \text{ S.}$

They reached $32^{\circ} 17' \text{ S.}$ On their return Lieut. Shackleton broke a blood-vessel, and was only just able, owing to his extraordinary
No. I.—JULY, 1903.]

c

pluck, to keep up with the sledge; while Scott and Wilson, suffering from snow-blindness and hunger, dragged the sledge back, 240 lbs. each, and reached the ship on February 4, after an absence of ninety-four days.

I calculate that they must have gone over 981 statute miles. The story will be told by Scott himself—a story of heroic perseverance to obtain great results; a story which is unmatched in polar annals. It will tell us, too, of new geographical facts and deductions of intense interest; of a new and hitherto unknown world in the far south, reached with such extreme difficulty—

“Yet even here Britannia's flag has thrown
Her shadow on the ice, and hailed the land her own.”

The achievement of the great western party, dragging sledges over mountains and glaciers, with such leaders as Armitage and Shackleton, is only second to Scott's memorable journey. They were dragging 240 lbs. per man; first over 29 miles of sea-ice, and then for 19 miles up a snow-filled valley to the foot of the mountains. They also had to work by relays. Crampons, blocks and tackles, ice-axes, and crow-bars were needed; and so they climbed the ice-slopes with loaded sledges, and travelled many miles over bare blue glacier amidst magnificent scenery, reaching an elevation of 9000 feet, at a distance of 142 statute miles inland from the ship as the crow flies. They were fifty-three days away.

The loss of the dogs was felt as a great calamity, because each dog was given in charge to a man, who became much attached to it. There are, however, several puppies.

Another calamity was the loss of all the boats, which during the winter got frozen into a mass of solid ice. After hacking at this ice for months, it was found impossible to extricate the boats.

But now all the travelling parties had returned, and the longed-for relief ship *Morning* hove in sight on the 23rd of last January.

The meeting is acquainted with the history of the relief ship; how she was bought, fitted out, equipped, and despatched last year by the Geographical Society, with funds subscribed almost entirely by our Fellows. We all know the great dangers of polar navigation, and that a ship in those regions may be in need of succour after the first winter. Consequently, annual communication has been the rule with all Government expeditions since the Franklin disaster. We were bound to follow this example; and the necessity for our action has since been proved.

The *Morning*, fitted up with provisions, including a good supply of frozen meat, and coals for the *Discovery*, left Lyttelton, N.Z., on December 6, and crossed the antarctic circle on Christmas Day. She is commanded by Captain Colbeck, a very able and capable ice-navigator, who has under him zealous officers and a good crew. In about 67° 40' S.,

an interesting discovery was made of a new island, of which several excellent photographs were taken. A landing was effected, and a survey was made; it was named Scott island.

Outside the pack the *Morning* encountered a heavy south-east gale, bergs and heavy floe pieces being a source of continual danger, and the ship was subjected to a most severe straining. At one time she could show no canvas. The season was very late, and the navigation difficult. But Captain Colbeck followed up his clue, found the record at Cape Crozier, and finally sighted the *Discovery's* masts.

It was found that several miles of ice intervened between the two ships, and it was not long before it became clear that the ice was not likely to move during that season. All hands at once went to work to transfer stores and provisions on sledges, and before it became necessary to depart, the *Morning* had supplied fourteen tons, and twenty tons of coal. But there was barely time.

The arrival of the *Morning* was most providential, but she leaves the *Discovery* with only provisions to last until next January, and eighty tons of coal.

In returning, the *Morning* was in some danger of being detained. She was beset, but was saved by her skilful ice-navigation, aided by a strong south-westerly gale. Her detention would have been a terrible calamity. She, however, returned safely to Lyttelton, N.Z., last March.

Captain Colbeck deserves high commendation for the skill and ability with which he conducted a very arduous and difficult voyage; for his excellent judgment in finding the winter quarters of the *Discovery*, his rapid transfer of stores, and the seamanlike qualities which enabled him to work his vessel safely out of the ice under circumstances of no ordinary difficulty. The officers worked under him with zeal and intelligence, and the conduct of the men was excellent throughout the voyage.

It will be seen that a second voyage of the *Morning* is absolutely necessary for the safety of our gallant countrymen. There are thirty-seven souls in the Antarctic ice, consisting of five naval officers, one officer of the naval reserve, five members of the scientific staff, twenty-four naval seamen and marines, and two other good men. We have a balance of £7000. Only a small additional sum is needed, namely, £12,000. Without it those heroes who have done so much for science and their country's credit will be in grave peril.

We must provide for wages for both ships; we must send out the means of blasting and forcing the *Discovery* out of her icy prison; we must repair the *Morning*, so terribly strained and knocked about; we must store her with coals and provisions.

There are difficulties and dangers yet, but the chief dangers are financial. Our gallant Colbeck and his people will overcome the rest.

Meanwhile, the heroic Discoveries are still working for us at their numerous observations under increasing hardships caused by the small stock of coal. They have full faith in us, and that the needful funds will be found by us. Look once more at your maps. Look at their discoveries. Do not these men deserve well of their country? Will not their country recognize their services? I feel sure that it will, and that we shall yet welcome them all here, after one of the most successful and glorious achievements that have ever adorned our geographical annals.

NATIONAL ANTARCTIC EXPEDITION: REPORT OF THE COMMANDER.*

UNDER the title of "Brief Summary of Proceedings," Captain Scott sends the following report addressed to the Presidents of the Royal and Royal Geographical Societies. It is dated "*Discovery*, Winter Quarters, February 23, 1903."

As is known, the *Discovery* left Port Chalmers, New Zealand, on Christmas Eve, 1901, heavily laden.

With a fair wind, we made good progress under sail alone until our arrival in the pack.

On the evening of January 1 we passed several table-topped bergs, and on the following day, in lat. $66^{\circ} 30'$, fell in with streams of loose field-ice.

The antarctic circle was crossed early on the 4th, the pack remaining easy and the weather favourable, except for occasional thick fogs.

On the 6th the pack became much heavier and our progress consequently slower; later all traces of a swell disappeared, and we forced our way through rotten floes of very large area.

We passed through several leads of open water on the 7th, and on the morning of the 8th crossed the southern edge of the pack in lat. $70^{\circ} 25'$, long. $173^{\circ} 44'$, the edge being well defined, with a clear open sea beyond, and soundings in 1480 fathoms.

Opportunities were taken before and after this to sound, dredge, and take water samples, but owing to closeness to the coast and the thick pack which was usually about us, much less of this work was possible than I could have wished.

We arrived at Cape Adare on the evening of the 9th, having to force our way through a line of thick pack in entering Robertson bay; after taking magnetic observations, watering ship, and leaving a record, we weighed anchor again at 3 a.m. on the 10th, passing out close under the land, where we became involved in a very heavy pack running fast to the northward past several grounded bergs. After several hours of struggling, I was glad to get through this into clearer water.

We turned down the coast, passing outside the Possession islands,

* Map, p. 120.

31st; continued along the north shore of "Black island" past the north-western point, across the channel, to within 3 geographical miles of "Brown island;" here the sledges could go no further. Walked over the rough lines of rocky *débris* to the island, wading channels in places; ascended to summit, 2750 feet, which was found to be a volcanic cone, with crater. Saw that the glacier at the back of Mount Discovery was not the source of the esker-like lines of rock *débris* and ice-worn boulders, but that it passed away in a long tongue along the shore of the mainland towards the north; also that a long deep bay existed between "Brown island" and the mainland, having Mount Discovery and the plateau mountain at its head; that the channel (?) between "Brown island" and Mount Discovery is choked with lines of heaped-up *débris*.

1903.—Returned to ship round the south of "Black island," and reached it January 8.

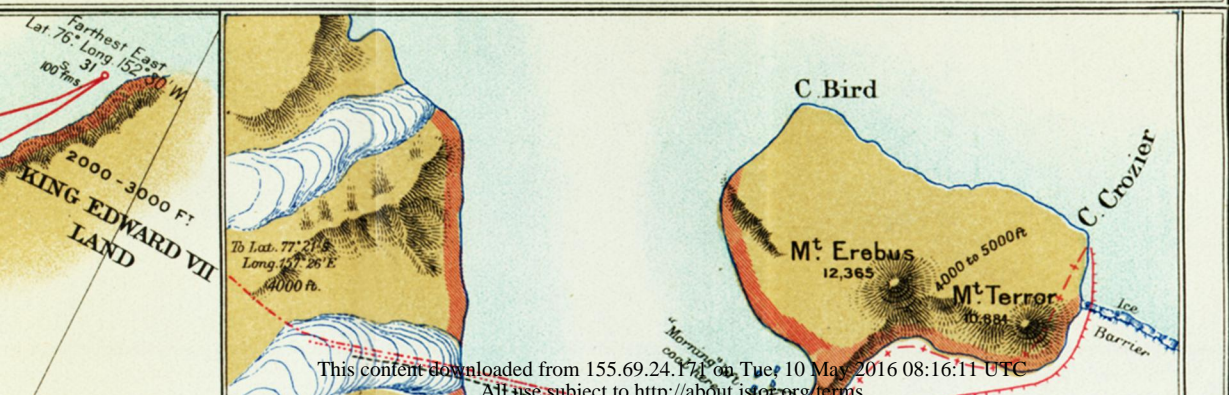
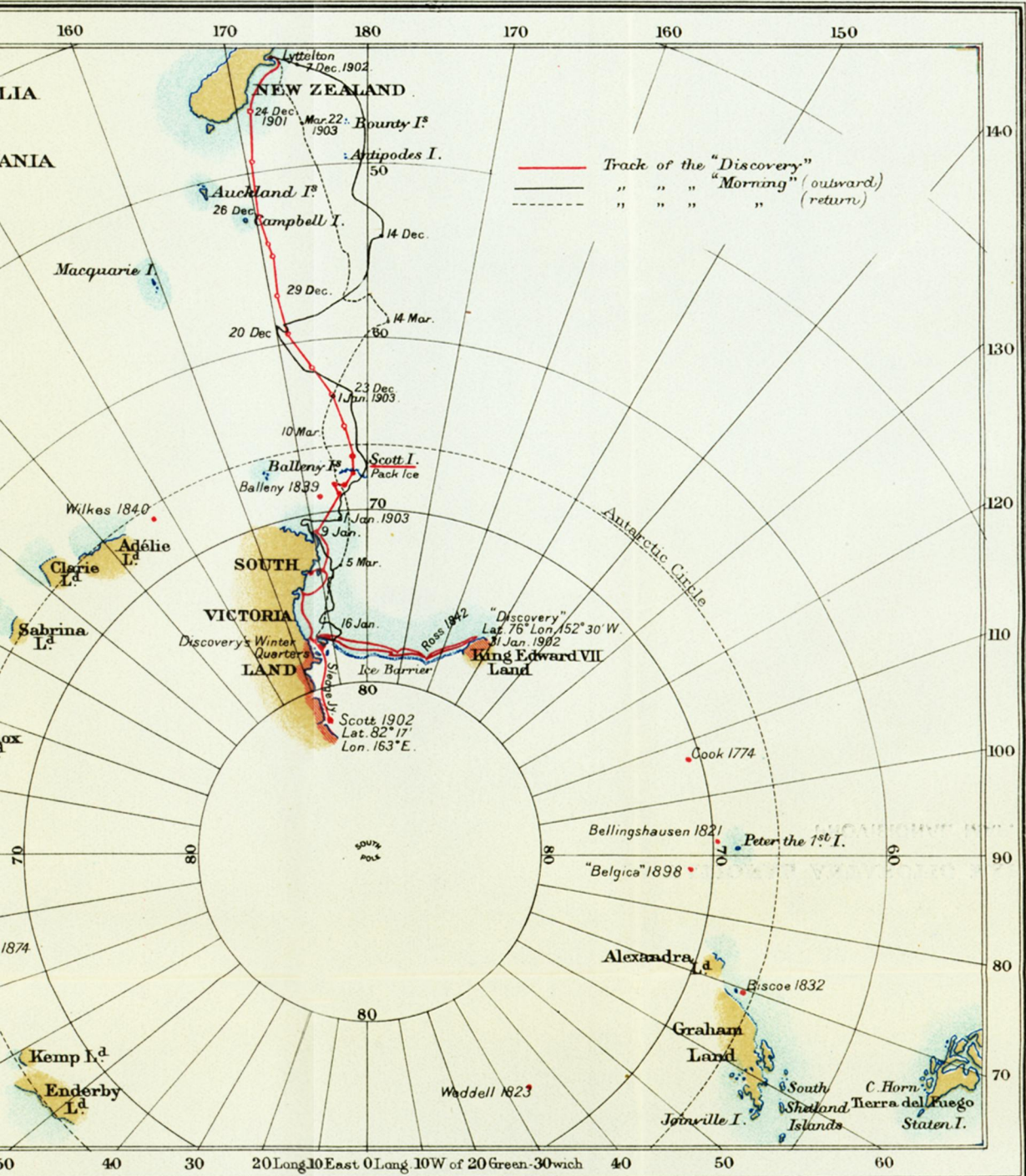
5. *To "Bluff," to ascend it and ascertain the lie and general arrangement of the pressure ridges, etc., as the ice passes that point.*

January 14.—Mr. Ferrar and I left ship; found going very heavy, so did not reach the "Bluff," though our course was direct for it, till the 20th. Camped upon the outskirts of long esker-like lines of rock *débris* and broken rough ice, which fringes this side of the mountain range for half a mile or more in extent. Weather now very stormy; could not leave camp till the 23rd. Walked to the land over the *débris*, crossing two movement or shearing cracks along the base of the land; ascended a shoulder near the "Bluff" end to a height of 300 feet, and had a fair view; could go no further, as the weather continued bad, and looked as though getting worse, so returned to camp; left, on return journey, in a blizzard, used sledge-sail, and arrived at ship on 26th.

NOTE ON THE ANTARCTIC SKETCH-MAP, p. 120.—As the complete charts showing the results of the surveys made by Captain Scott and the officers serving under him have not yet been received, the map of the antarctic regions which accompanies this paper must be considered as only provisional. It has been prepared from all the information at present available, including the report which Captain Scott has addressed to the presidents of the Royal Society and the Royal Geographical Society. A rough sketch of the winter quarters of the *Discovery* by Lieut. Barne, and another of Erebus and Terror island by Lieut. Royds, have furnished the basis for the enlarged inset plan, but the remainder of the new work has been drawn from letters and reports, in which are, however, given the latitudes and longitudes of several positions. The track of the *Morning* has been approximately laid down, from a preliminary chart on a small scale, by Lieut. Evans, and sent home by Captain Colbeck. Lieut. Shackleton has, since his return, looked over a proof of the map and made several corrections, but until the complete charts, based upon numerous observations and careful surveys, arrive, it is, of course, impossible to give anything more than an approximate idea of the geographical work of the expedition. Upon the present map, the newly discovered land is shown in red, while the remainder of the coast-line has been principally taken from the admiralty charts and other material.





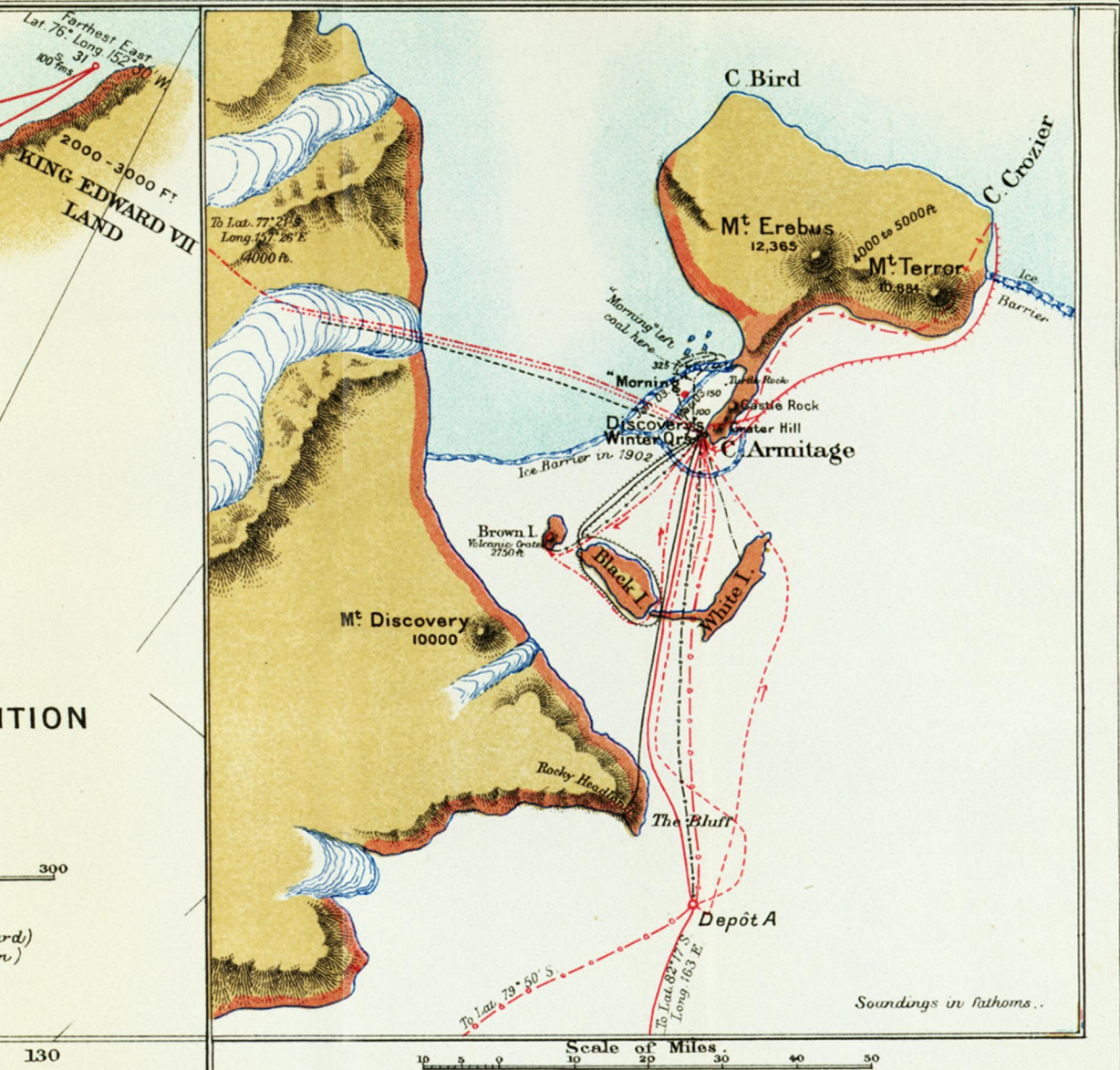
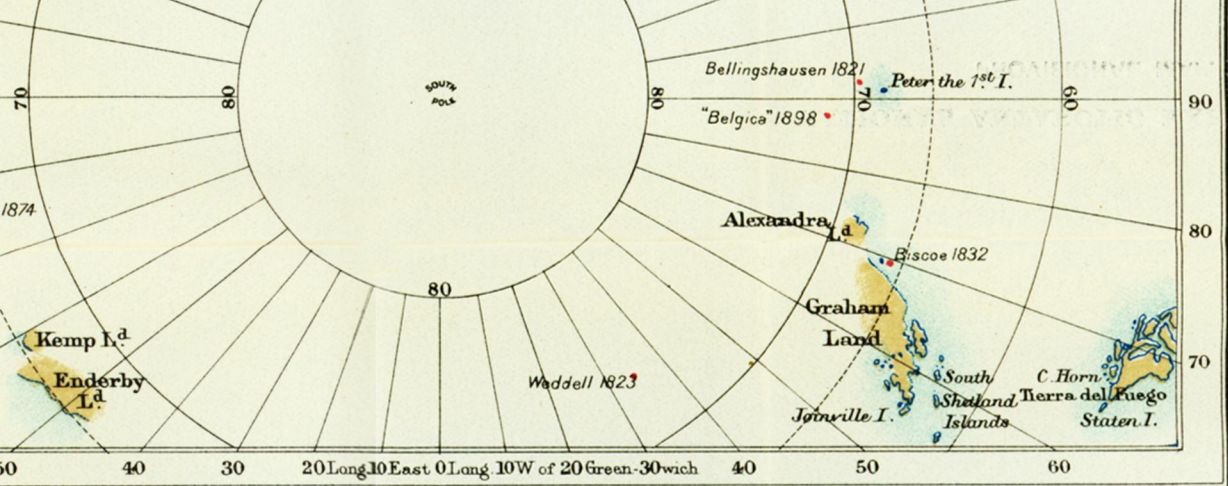






Published by the Royal Geographical Society.

Scott, Shackleton,
Armitage & Skelton
Koettlitz & Ferrar
Barne, Dec. 20
Scott & Shackleton
Ryder, Skelton
Ryder, Skelton
Koettlitz, Hodgkin
Scott & Armitage



- | | |
|--|---|
| Scott, Shackleton, Wilson (Main S. journey) Nov. 2 - Feb. 5, 1903. | Koettlitz & Ferrar Jan. 14 - 26. |
| Armitage & Skelton (Main W. journey) Nov. 29 - Jan. 19. | Shackleton, Wilson, Ferrar Feb. 18 - 22. |
| Koettlitz & Ferrar Nov. 29 - Dec. 18. | Koettlitz & Bernacchi Sep. 24 - Oct. 2. |
| Barne, Dec. 20 - Jan. 30. | Barne, Nov. 1 - 23. |
| Scott & Shackleton Sep. 17 - 19 & Sep. 23 - Oct. 4. | Armitage & Ferrar Sep. 10 - 24. |
| Royds, Skelton, Koettlitz, Mar. 3 - 20. | Scott, Shackleton, Skelton, Wilson, Ferrar, Sep. 2 - 5. |
| Royds, Skelton, Oct. 4 - 25, Nov. 3 - 20. | Koettlitz & Skelton Nov. 3 - 7. |
| Koettlitz, Hodgson, Ferrar, Dec. 29 - Jan. 8. | Royds & Koettlitz Sep. 10 - 19. |
| Scott & Armitage, April 1 - 3. | |