The Imperial Trans-Antarctic Expedition Dr Beau Riffenburgh © Scott Polar Research Institute, University of Cambridge

'It has been an open secret for some time past that I have been desirous of leading another expedition to the South Polar regions,' Ernest Shackleton wrote in *The Times* on 29 December 1913. 'I am glad now to be able to state that ... an expedition will start next year with the object of crossing the South Polar continent from sea to sea.'

It was an audacious plan – one that smacked of Shackleton's unbounded energy and imagination. Four years earlier, following his triumphant return from a farthest south of 88°23'S on his *Nimrod* Expedition (1907–09), Shackleton had hoped to return to the Antarctic to become the first man to the South Pole. That goal had been pre-empted by both Roald Amundsen and Robert Falcon Scott, but Shackleton still viewed the far south as a venue in which to achieve fame and fortune. Crossing the continent seemed just the project to catapult him once again onto the international stage.

Not that the idea was unique to him. In 1908 the Scottish scientist William Speirs Bruce had proposed an expedition to cross the continent from the Weddell Sea to McMurdo Sound, but he had been unable to attract the necessary funding. Three years later, when he published his small book *Antarctic Exploration*, Bruce was still extolling the value of such an expedition, and one explorer who agreed with him was the German Wilhelm Filchner. In 1911 Filchner launched an expedition to attempt such a crossing and, after discovering a giant ice shelf at the base of the Weddell Sea, he erected a station at its extreme eastern end, at what he named Vahsel Bay. But only a day after it was completed, the whole area upon which it stood calved away from the ice shelf. The bad luck did not end there: within days the expedition ship *Deutschland* was trapped in the drifting pack ice, ending any hope of land operations.

Filchner's misfortunes did not make Shackleton hesitate, nor did the scepticism of a variety of polar experts, including his friend (and later biographer) Hugh Robert Mill. Shackleton's plan was to land a dozen men at Vahsel Bay, six of whom would make the trans-Antarctic journey of approximately 1,700 statute miles, sledging with dogs to the South Pole and thence on to McMurdo Sound via the Beardmore Glacier and the Great Ice Barrier (now known as the Ross Ice Shelf). A second ship would go directly to the Ross Sea region, where the party would establish a base in McMurdo Sound and then lay depots of food and fuel across the Barrier, ready to be used by the group crossing the continent. Scientific studies would be conducted at both bases as well as by the trans-Antarctic party and from both ships.

The two vessels chosen for the expedition were *Polaris* and *Aurora*. The former was a Norwegian-built barquentine of 350 tons, which Shackleton immediately renamed *Endurance* in honour of his family motto: 'Fortitudine Vincimus,' or 'By endurance we conquer.' The latter, at 386 tons, was a one-time Newfoundland sealer purchased from Shackleton's old comrade Douglas Mawson, who had used it for his Australasian Antarctic Expedition (AAE). Although Shackleton received several large donations – £24,000 from the Scottish textile manufacturer Sir James Caird, £10,000 from the English businessman Dudley Docker, and £10,000 from the British government – the costs of running ships in separate regions of the Antarctic meant that the expedition was desperately underfunded.

Although more than five thousand men and boys (and three girls) applied for positions, the number of expedition members with Antarctic experience was extremely limited. Among the intended shore party, Shackleton's second-in-command, Frank Wild, had been south with Scott, Shackleton, and Mawson; artist George Marston had been part of Shackleton's *Nimrod* expedition; and photographer Frank Hurley had been a key member of Mawson's AAE. Aboard *Endurance*, second officer Tom Crean had served under Scott on both *Discovery* and *Terra Nova*, and third officer Alf Cheetham had served on *Morning*, one of the relief ships for *Discovery*, then *Nimrod*, and finally Scott's *Terra Nova*. However, the captain, Frank Worsley, and eventual first officer, Lionel Greenstreet, were Antarctic novices. On the other side of the continent, only three members of the Ross Sea Party had spent much time in the Antarctic: commander Æneas Mackintosh on *Nimrod*; Ernest Joyce on the *Discovery* and *Nimrod* expeditions, and boatswain James Paton on *Discovery*, *Nimrod*, and *Terra Nova*.

Endurance sailed from London on 1 August 1914, but was still in British waters when the general mobilisation of troops was announced in anticipation of the coming war. In a grand gesture typical of the flamboyant Shackleton, he offered the ship, men, and provisions to the government for the war effort. The Admiralty declined his offer, but several of the expedition members – including two army officers and the ship's chief officer, D.G. Jeffrey – felt their duty lay at home and resigned from the venture. The rest continued south, except Shackleton, who remained behind to address a number of financial matters, eventually catching up with the slow-moving Endurance at Buenos Aires.

In October *Endurance* continued to South Georgia, where the whalers told Shackleton that the pack ice was unusually heavy and had drifted farther north than usual. They advised him to delay his departure, so, for more than a month, the party remained at South Georgia, making improvements to the ship, training sledge dogs, and laying in additional stores. *Endurance* finally sailed for the Weddell Sea on 5 December 1914, but, as foretold, the pack ice was much farther north than usual. For the next six weeks the ship made slow time south, as she dodged around or forced her way through the heavy ice. The Antarctic coast of Coats Land was sighted on 10 January 1915, and Shackleton briefly considered landing at what he named Glacier Bay, but decided instead to maintain course for Vahsel Bay. It was a fateful choice, because not far from their destination the ice closed tightly about the ship – holding her in a grip that, with the temperatures already beginning to drop, it would never release.

Drifting at the mercy of the ice, on 22 February *Endurance* reached the 77th parallel, her farthest south. But there, with land on the horizon, the ship drifted slowly to the west, away from her intended destination. 'It was more than tantalizing, it was maddening,' Alexander Macklin, one of the ship's two surgeons, noted in his diary. 'Shackleton at this time showed one of his sparks of real greatness. He did not rage at all, or show outwardly the slightest sign of disappointment; he told us simply and calmly that we must winter in the Pack, explained its dangers and possibilities; never lost his optimism, and prepared for Winter.'

The interior of the ship was converted into more comfortable winter quarters, and although the Sun disappeared the first week in May, Shackleton kept his men busy with regular duties, training with the dogs, and other activities and entertainments, while the scientists turned their land-based research into a sea-based programme. Perhaps the man least affected by the turn of events was Hurley, who, after more than a year at Commonwealth Bay – the windiest place on Earth – and man-hauling towards the South Magnetic Pole, was ready for most anything the Antarctic could throw at him. 'H is a marvel,' Worsley wrote. '[H]e perambulates alone aloft & everywhere, in the most dangerous & slippery places he can find,

content & happy at all times but cursing so if he can get a good or novel picture. Stands bare & hair waving in the wind, where we are gloved & helmeted, he snaps his snaps or winds his handle turning out curses of delight.'

Throughout the winter, the gyre in the Weddell Sea continued to take *Endurance* in a roughly clockwise direction. In the middle of July, a 70-mile-per-hour blizzard struck, and thereafter the pressure from the ice increased. In the following months, the ship groaned and howled as she was tormented by the ice – beams were twisted, door frames were thrown out of alignment, and wooden braces were dislodged. On 24 October the pressure forced the entire ship to shake furiously, then list to starboard. As water began to pour in by the damaged sternpost, Shackleton ordered the engines fired up to drive the pumps. It was not enough, and despite men frantically pumping throughout the day and night, the water continued to rise. Finally, on the evening of 27 October, Shackleton gave the order to abandon ship.

With the dogs and everything that could be readily carried, the 28 men set up five tents to form what they called Dump Camp about 100 yards (90 m) away on a large ice floe. Understanding the need to keep his party in good spirits – particularly the seamen, who seemed ill at ease away from the confines of the ship – Shackleton made sure that the 18 fur sleeping bags were given to the sailors and junior expedition members, while the higher ranks and scientists kept the less well-insulated wool bags. Shackleton also explained his plan: to man-haul two of the three lifeboats – *James Caird* and *Dudley Docker* – and any necessary supplies over the ice towards Snow Hill Island, some 200 miles (320 km) away, where the Swedish explorer Otto Nordenskjöld had left a well-stocked hut in 1903. The men all had new winter clothing, and each was allowed to take two pounds of personal possessions, although exceptions to this limit were made, including meteorologist Leonard Hussey's banjo, which Shackleton knew would be important for entertainment.

In anticipation of the march ahead, on 30 October, Crean shot the three puppies and Mrs Chippy, carpenter Harry McNish's cat, which had become the ship's mascot – a realist, Shackleton knew they could not afford to carry anyone who could not contribute. For parts of the next three days the boats were dragged over brutally difficult surfaces before, having made less than one and three quarters miles (2.8 km) in total, Shackleton decided such efforts were futile and the attempt was abandoned. A new living site – known as Ocean Camp – was established, and the party settled in to await the breakup of the ice, when the men could take to the boats and attempt to reach Paulet Island, some 400 miles (650 km) away.

In the following weeks, huge amounts of material were salvaged from the ship and the area around it, including the third boat, *Stancomb Wills*; containers of food; materials to build a kitchen; and the 120 negatives that Hurley and Shackleton adjudged the best of the more than 500 images already taken. Hurley had gone into the depths of the wreck and dived into four feet of mushy ice to retrieve these, which had been soldered in tin containers. It had been a courageous undertaking because *Endurance* was not safe, as shown on 21 November, when her bow dipped, her stern raised in the air, and she slipped beneath the ice.

A month later, concerned that their drift was actually taking them farther from potential safety, Shackleton, in consultation with Wild and Hurley, determined to try again to manhaul the boats to open water. On 23 December, leaving behind *Stancomb Wills*, the men – many of whom harboured doubts and resentment about the decision – began to drag the other boats and the necessary supplies west. Each back-breaking day's labour resulted in an average gain of little more than a mile (1.6 km), and on 27 December McNish – still

aggrieved over the loss of his cat, and bitter that Shackleton had rejected his offer to build a sloop from the wrecked parts of *Endurance* – verbally abused Worsley and refused to proceed, claiming that with the loss of the ship his duty to obey orders had terminated. Shackleton promptly mustered all hands and read aloud the ship's articles, which, according to him, kept them under his command for the duration of the expedition. There have been conflicting reports as to whether he also threatened McNish with a pistol. Regardless, on the surface Shackleton 'won' the confrontation, but he was evidently swayed by the incident, for within two days he gave up on the march and established a new camp.

The party remained at what was called Patience Camp for about three months, during which Wild returned to Ocean Camp to retrieve *Stancomb Wills*. While at Patience Camp, the drift took the party past Paulet Island, and Shackleton decided on Elephant Island as his new target. On 9 April 1916, when the ice had finally broken up enough to allow them into the boats, the expedition set sail between ice floes and into stormy seas. For six days the men huddled in the small boats, cramped and constantly soaked by freezing water, while suffering terribly from thirst, hunger, and seasickness. But Shackleton and Worsley drove them on, and on 15 April they landed at an exposed rocky beach on Elephant Island, named Cape Valentine. A number of the men were incapacitated, but the next morning Wild and four others located a safer place to set up camp – a spit of land they named Point Wild.

Although the members of the expedition were now on dry land for the first time in 16 months, they were far from safe, because their supplies were low, their health poor, and no one from home knew where they were. In true Shackletonian fashion, their leader determined to go for help – to South Georgia, some 800 nautical miles (1,480 km) across one of the most dangerous seas on Earth. 'Shackleton sitting still and doing nothing wasn't Shackleton at all,' Macklin wrote. 'We'd had all that at Patience Camp.' Thus, there would be no waiting, and in the following days McNish carried out extensive work on the 22-foot (6.7-m) *James Caird*, including stiffening the keel, adding an extra mast, and overseeing the construction of a canvas decking to protect its interior.

Shackleton carefully selected five companions for the voyage — Worsley, who was an exceptionally skilled navigator; Crean, who had consistently proved his stamina and value; McNish; and seamen Tim McCarthy and John Vincent. It is likely that McNish and Vincent were taken in part so that Shackleton could keep an eye on them — McNish was an obvious malcontent, and Vincent's bullying had seen him demoted from boatswain to AB.

The six men left on 24 April, heading north to clear the pack ice, and then turning east towards South Georgia. For the next two weeks, the small boat was buffeted by gales and mountainous seas, including one giant wave that nearly swamped her. There was little protection from the icy water, which soaked the men and their sleeping bags below. The freezing conditions meant that the boat was soon covered with ice, and the undernourished men had to chip it off while desperately holding on, knowing that if anyone's grip slipped, he would go overboard to certain death. The continuing storm and regular heavy cloud cover also meant that it was extremely difficult for Worsley to take the necessary observations for navigation. Nevertheless, on the fifteenth day they sighted South Georgia. Heavy seas and weather prevented them from landing for two days and threatened to wreck *James Caird* on the cliffs, but on 10 May they were finally able to make a landing near the entrance of King Haakon Bay on the island's south side. Unable to sail around the island, the men rested for several days before moving to the head of the bay, where they turned the boat over to create a shelter they named 'Peggotty Camp.'

As Vincent was too weak to continue, he and McCarthy were left under the command of McNish, while Shackleton, Worsley, and Crean headed inland. Their aim was to cross the interior of South Georgia and find help at the whaling station at Stromness Bay. However, although the station was only 22 miles (35 km) away, the spine of the island comprised an unmapped mountain range crisscrossed with glaciers and snowfields. Equipped only with an adze for an ice axe, screws in their boots for crampons, and a rope, the three marched for 36 straight hours, ascending, according to Worsley, to more than 5,000 feet (1,525 m), rarely stopping for food or rest, and having to backtrack up steep hills when attempted ways forward proved impossible. Exhausted and near the end of their endurance, they finally reached Stromness, where they were taken to the station manager, Thoralf Sørlle, to whom they told their story. Yet despite the first proper food, wash, and shelter they had enjoyed in months, Worsley set out that very night with a relief ship to collect the three men – and James Caird – from King Haakon Bay.

Shackleton was now determined to rescue the men at Elephant Island as soon as possible. Having organised passage back to England for McNish, Vincent, and McCarthy, he arranged for the whaler *Southern Sky*, then in Stromness Bay, to pick up the rest of his stranded crew. However, she was thwarted by pack ice about 60 miles (100 km) from Elephant Island and forced to withdraw to the Falkland Islands. There, Shackleton boarded the trawler *Instituto de Pesca*, *no. 1*, which the Uruguayan government loaned for another rescue attempt. But she, too, was forced back by ice, this time about 18 miles (30 km) short of Elephant Island.

Shackleton, Worsley, and Crean then travelled to Punta Arenas in Chile, where, with contributions from local residents, they chartered the schooner *Emma*. However, about 90 miles (150 km) north of Elephant Island, the engine broke down, and the ship had to retreat. Finally, the Chilean government agreed to send down the steel tug *Yelcho*, under the command of Luis Pardo. On 30 August 1916, after 137 days on Elephant Island, the men there were ferried out to *Yelcho*, which departed the moment the last expedition member was aboard, before the ice could trap her. They returned to Punta Arenas, and then continued to Valparaiso.

The men at Elephant Island had not had an easy time. The two remaining boats had been overturned and placed atop stone walls about four feet (1.2 m) high, and they had been forced to live for more than four months in this tiny shelter. Several of the men had suffered serious physical or psychological problems during the boat journey to the island – navigator Huberht Hudson had a nervous breakdown, steward Perce Blackborow's toes were severely frostbitten, and engineer Lewis Rickinson had a heart attack during the landing. In the months there, Macklin and fellow surgeon Jim McIlroy had to amputate Blackborow's toes, as well as dealing with numerous other medical issues. Despite these problems, Wild managed to hold the party together, and all 22 men were brought back safely.

Soon after arriving at the Falklands, Shackleton had been informed that 10 of his men from the Ross Sea Party had been stranded in McMurdo Sound. Once those from *Endurance* were safe, Shackleton's attention turned to rescuing his men in the far south.

The Ross Sea Party had been poorly organised and equipped from the beginning. *Aurora* had entered McMurdo Sound in mid-January 1915, but had been unable to reach Hut Point, the most desirable location to set up base, due to its proximity to the Great Ice Barrier. Instead, Æneas Mackintosh, the party's commander, unloaded the supplies for the depots some 12

geographical miles (22 km) north, at Scott's old base at Cape Evans. Placing first officer John Stenhouse in charge of *Aurora*, Mackintosh and the land party began sledging oil and food south to Hut Point and thence on to the Barrier to establish initial depots for the crossing party, which they thought could already be on its way.

In the following months, while the depot operations slowly continued, *Aurora* was anchored off Cape Evans. However, as Mackintosh intended to use the ship as the main living quarters, large quantities of food, fuel, and clothing were never landed. In the first week of May, *Aurora* broke loose from her moorings and, firmly held in a large ice floe, drifted helplessly into the sound and away from the base, leaving 10 men ashore in two locations. For the next nine months, with her engines out of commission, she drifted slowly north, until in February 1916 the ice holding her broke up and she was able to limp to New Zealand. Stenhouse attempted to organise a relief expedition, but nothing happened until the British, Australian, and New Zealand governments finally decided to take charge. Then *Aurora* was quickly repaired, refitted, and placed under the command of John King Davis, the former captain of *Nimrod*, the master of *Aurora* under Mawson, and the man who had been Shackleton's first choice as captain of *Endurance*. Little had Davis known when he turned down the offer that he would later have to rescue some of Shackleton's men in his own former ship.

Those men were in desperate straits. After wintering at Cape Evans – where they used the supplies left by Scott's expedition – nine of them resumed depot-laying in the expectation that Shackleton's party was en route. Three had to return to base in January 1916 due to a faulty Primus stove, but by late that month the other six had laid depots all the way to Mount Hope at the base of the Beardmore Glacier. One of them, the Revd Arnold Spencer-Smith, who had been suffering from scurvy, died on the return journey across the Barrier. Mackintosh, too, was ill, and Joyce, by far the most experienced of them, became the *de facto* leader. The five remaining men struggled to Hut Point in March, where they were forced to wait for the sea to freeze over before crossing it to Cape Evans. When the sound froze in early May, Mackintosh and Victor Hayward immediately headed north, despite the knowledge that the sea ice might still be unstable. A blizzard blew in shortly thereafter, and the two were never seen again. It was not until July that the remaining three men were able to return safely to Cape Evans, to be reunited with the four already there.

Once in Valparaiso following the rescue of the men from Elephant Island, Shackleton discovered that the governments organising the Ross Sea relief expedition were exasperated by having to do so and did not want him involved in it. Nevertheless, he headed to New Zealand, where Davis, although firmly retaining command, allowed his old friend to join the ship. With Davis' expertise, *Aurora* made rapid progress south, arriving at Shackleton's old base at Cape Royds on 10 January 1917. While the members of the relief party were ashore, the seven surviving members of the Ross Sea Party arrived unexpectedly. Following a thorough but unsuccessful search for Mackintosh and Hayward, Davis turned the ship north. With *Aurora*'s arrival at Wellington on 9 February, the expedition had finally ended.

In many senses, the Imperial Trans-Antarctic Expedition was a failure. Not only had none of its geographical or scientific goals been attained, but a ship and three men had been lost, along with most of the scientific specimens. And yet the manner in which Shackleton held his party together on the ice, and then proceeded to rescue them via one of the most astonishing open-boat voyages in history and a remarkable crossing of South Georgia made not only an epic tale of adventure but earned Shackleton recognition as one of the greatest leaders in the history of exploration. A century on, his successes in protecting and saving his men are much

more admired than the actual crossing of the Antarctic continent, which was finally completed 40 years later on an expedition led by Vivian Fuchs. So although Shackleton did not succeed in carrying out his plans, he left a glorious legacy of what can be achieved by the human will and indomitable spirit.