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9-803-127

REV: DECEMBER 2, 2010

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Leadership in Crisis: Ernest Shackleton and the Epic Voyage of the *Endurance*

For scientific discovery give me Scott; for speed and efficiency of travel give me Amundsen; but when disaster strikes and all hope is gone, get down on your knees and pray for Shackleton.

—Sir Raymond Priestley, Antarctic Explorer and Geologist

On January 18, 1915, the ship *Endurance*, carrying a highly celebrated British polar expedition, froze into the icy waters off the coast of Antarctica. The leader of the expedition, Sir Ernest Shackleton, had planned to sail his boat to the coast through the Weddell Sea, which bounded Antarctica to the north, and then march a crew of six men, supported by dogs and sledges, to the Ross Sea on the opposite side of the continent (see **Exhibit 1**).[1] Deep in the southern hemisphere, it was early in the summer, and the *Endurance* was within sight of land, so Shackleton still had reason to anticipate reaching shore. The ice, however, was unusually thick for the ship's latitude, and an unexpected southern wind froze it solid around the ship. Within hours the *Endurance* was completely beset, a wooden island in a sea of ice.

More than eight months later, the ice still held the vessel. Instead of melting and allowing the crew to proceed on its mission, the ice, moving with ocean currents, had carried the boat over 670 miles north.[2] As it moved, the ice slowly began to soften, and the tremendous force of distant currents alternately broke apart the floes—wide plateaus made of thousands of tons of ice—and pressed them back together, creating rift lines with huge piles of broken ice slabs. For months the wooden timbers of the *Endurance*, held between three of these floes, creaked and moaned under the immense pressure of the moving ice. It seemed only a matter of time before she would succumb, crack, and sink.

On October 28, 1915, "the ice mill," as expedition photographer Frank Hurley called the floes, snapped the hull of the *Endurance*. Shackleton ordered all hands to abandon ship and take refuge on the ice. That night, as his men settled into tents and sleeping bags salvaged from the sinking ship, Shackleton wrote in his diary, "A man must shape himself to a new mark directly the old one goes to ground. . . . I pray God I can manage to get the whole party to civilization."[3]

Research Associates Erica Helms and Phillip Mead prepared this case under the supervision of Professor Nancy F. Koehn. This case was developed from published sources. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

Shackleton's Early Life

The *Endurance* expedition was Shackleton's third Antarctic journey and his second as commander. He began, like most English polar explorers of his time, with no knowledge of frozen landscapes and almost no experience on ice. Born in 1874 in County Kildare, Ireland to an Anglo-Irish father and Catholic mother, Shackleton grew up in a solidly middle-class family whose ambitions for him focused primarily on his becoming a doctor. In his youth, Shackleton developed a fascination with the sea and English poetry. He was an avid reader of *The Boy's Own Paper*, a British weekly published on Saturdays that promised "escapism, practical advice, [and] moral uplift" and was full of stories of naval lore.[4] Later, he admired the work of the 19th-century poet Robert Browning, memorizing verses about manhood and heroism. From adolescence onward, he was enthralled by the idea of man mastering nature.

At 16, he convinced his father to allow him to go to sea. The elder Shackleton found his son a position on a merchant vessel at the rank of "boy," which the explorer later described as a scheme to draw him back to school: "My father thought to cure me of my predilection for the sea by letting me go in the most primitive manner possible as a 'boy' on board a sailing ship at a shilling [about $6 today] a month!"[5] As the lowest-ranking member of the crew, Shackleton began his maritime career by scrubbing decks and polishing brass railing. He was attentive and observant, absorbing every bit of information about life at sea that came his way.[6]

Shackleton flourished in the merchant marine.[7] By age 24, he attained the rank of full master, which qualified him to command a commercial vessel. Unlike in school, where his performance was consistently below average, at sea he was considered "more intelligent than the average officer" by a supervisor, who noted that "his brother officers considered him to be a very good fellow."[8]

In the marine, Shackleton quickly displayed a self-confidence that alienated some men but won over more. After his first voyage, his captain wrote that Shackleton was "the most pig-headed, obstinate boy I have ever come across."[9] Still, Shackleton's audacity earned him respect and even promotions. Shortly after receiving certification as an officer, he astonished a ship's master by refusing the fourth mate's position he was offered, saying "he had been to see the ship and he did not like the 4th mate's quarters but would go as third [mate]."[10] Rather than dismissing Shackleton, the master concluded that he "rather liked the chap" and gave him the post requested.[11]

Despite rapid advancement, Shackleton developed a reputation for not flaunting his rank over the regular sailors. One of them later wrote an admiring description, saying he was a "departure from our usual type of young officer . . . he never stood aloof in any way, but was eager to talk—to argue as sailors do . . . he was very human, very sensitive."[12]

As Shackleton scaled the maritime ladder, he became restless and complained to shipmates that he needed an "opportunity of breaking away from the monotony of method and routine—from an existence that might eventually strangle his individuality."[13] In 1896, at age 22, he met and fell in love with Emily Dorman, the woman he would marry six years later. He told a fellow sailor that he wanted "to make a name for myself and her."[14]

In December 1899, Shackleton was assigned to a ship that would carry troops to South Africa, where Britain was fighting the Afrikaner-controlled South African Republic and Orange Free State in the Boer War. In March 1900, on his second transport mission, Shackleton befriended a young lieutenant named Cedric Longstaff, son of Llewellyn Longstaff, the principal benefactor of a proposed British Antarctic expedition. Shackleton convinced Cedric to write him an introduction to his father. After interviews with Longstaff; Sir Clements Markam, the president of the Royal Geographical Society; and Albert Armitage, the proposed second in command, Shackleton received

an appointment as a member of the National Antarctic Expedition (NAE), which was set to sail in 1901.

The Exploration Industry

Founded in London in 1830, the Royal Geographical Society (RGS) encouraged the advancement of geographic and scientific knowledge by promoting and funding expeditions to Africa, Asia, the Arctic, and the Antarctic. As one society member explained in a history of the organization published in 1917:

> . . . the main function of the [RGS] was to accumulate the fullest possible information about the great unexplored and little-known areas of the Earth's surface—probably covering more than half—[and the RGS] never lost sight of the fact that exploration ought to be conducted on scientific methods; that the results of a thorough knowledge of the surface and all that it sustains furnish the data for many problems, not only of scientific interest, but of great practical value to humanity; and that geography was of high value to education both as a branch of knowledge and as a mental discipline.[15]

In the late 19th and early 20th centuries, the quest for scientific knowledge drove many explorers and their supporters to mount elaborate polar expeditions (see **Exhibit 2**). So, too, did the powerful forces of patriotism and adventure. Explorers from a range of countries who succeeded in mapping new territory or reaching previously undiscovered areas were hailed as heroes. The islands, bays, and mountains they reached were often named after their respective monarchs or sometimes even after themselves. And for the most accomplished explorers, scientific and geographic discoveries in far-off lands led to professional success, fame, and fortune at home.

Because the physical risks associated with polar exploration were enormous, many missions resulted in devastating loss. During a 1902–1903 expedition to Antarctica, Swedish scientist Otto Nordenskjold's ship was crushed by pack ice, marooning the party for two frigid winters before it was rescued. On the 1912 Australian Antarctic Expedition, explorer Douglas Mawson lost his two trekking companions and barely survived the return trip to base camp. Canadian Vilhjalmur Stefansson's 1913 northern Arctic voyage was a lengthy ordeal in which the team's ship was lost and 11 men died.[16] The costs of such exploration were high, often exceedingly so, but these ventures were considered successful whenever new lands were discovered and at least some men returned alive. Despite clear dangers, the field of polar exploration was crowded with adventurers eager to embark on new missions in the north and south.

Race to the South Pole

At the time of Shackleton's appointment to the NAE in 1901, Britain was one of many nations engaged in a fierce competition to be the first to reach the South Pole and claim it under the nation's flag. In 1895, the Sixth International Geographical Congress had convened in London and declared developing a better understanding of Antarctica to be the most urgent scientific issue of the era. And since the late 18th-century voyages of the explorer James Cook, Britain had held records for the northernmost and southernmost points reached by boat. By 1900, however, it faced intense international rivalry. In 1898, Norwegian Roald Amundsen had led the first ski and sled expeditions in Antarctica, and the following year his fellow countryman Carsten Borchgrevink became the first to spend a winter on the continent. Explorers from Australia, Belgium, France, Germany, Sweden, and other nations were also determined to pursue Antarctic exploration in the interests of science and

nationalism. Within this context, the NAE's commission included not only collecting scientific samples but also attempting to claim the South Pole in the name of England.

Shackleton's appointment to the NAE linked him to an adventure that many, if not most, contemporaries considered heroic. As one expedition patron wrote in 1912, polar explorers "have to possess . . . the very highest qualities in man—physical and moral courage, endurance under terrible privations in terrible climates."[17] Moreover, some journalists and promoters contended that polar explorers endured this suffering for the noble cause of science—for the discovery of new lands, species, and climates.

But in the intensifying international competition to reach the South Pole during the early 20th century, Britain suffered from several disadvantages. None of the members of the National Antarctic Expedition—including the commander, Major Robert Scott of the Royal Navy—had previous polar experience. Although he was a skilled seaman, Scott had never seen pack ice before he arrived in Antarctica with the NAE.[18] As important, although successful Norwegian expeditions had used dog teams and skis to move over ice, few British explorers were practiced at either form of transport. Scott's crewmen on the NAE would not learn to ski until their arrival in Antarctica and would ultimately abandon both skis and dog teams later in the expedition.

Previous British expeditions also had a record of costly and dangerous mistakes. Earlier trips demonstrated that the country lacked skilled manufacturers of equipment that could withstand extreme weather conditions and subzero temperatures. Proper nutrition had also proven to be a serious problem on past polar ventures, when leaders rationed food inadequately and relied mostly on a diet of canned and salted meat. Without fresh meat or produce, many British explorers suffered from scurvy, a condition caused by vitamin deficiency that resulted in bleeding gums, swollen joints, and skin tissue damage.[19]

These and other obstacles burdened the 1901–1902 voyage. Scott and Shackleton failed to reach the South Pole, but they did succeed in pushing farther south, and thus getting closer to their objective, than any previous expedition. It was a tremendously dangerous undertaking, however, made more perilous by frequent clashes between Scott and Shackleton over supplies, routes, and traveling speed. With average daily temperatures no higher than 4º Fahrenheit (F) (-15º Centigrade [C]), there was simply no margin for error or any other factor that compromised the efficient functioning of the expedition. Dogged by disagreements, harsh storms, and ill health, the two men and their teammate Edward Wilson almost died on the return trek northward.

Three years later, in 1905, Scott published an account of the trip titled *Voyage of the Discovery*. Scott's book reinvigorated Shackleton's Antarctic ambitions, for it portrayed Shackleton in a profoundly unflattering light, referring to him as "the invalid" and virtually blaming him for the expedition's failure to reach the pole. Shortly thereafter, Shackleton began planning an expedition of his own.

To launch a journey to the South Pole, Shackleton would need both aristocratic patronage and scientific support. The expenses of an expedition would be at least £30,000 (almost $3 million today) but could easily run much higher. In 1901, the Royal Geographical Society and another funder had paid £45,000 (about $5.2 million) for Scott's custom-built *Discovery*, more than twice what most polar ships of the era cost.[20] Knowing he needed to secure as much backing as possible, Shackleton solicited a list of 70 leading businesspeople and philanthropists, appealed to the RGS to gain scientific legitimacy, and used family connections to gain access to London elites. To emphasize the uniqueness of his mission, he promised to attempt using a car and a motorized sledge on the ice and to forgo the use of sled dogs in favor of ponies.

By 1907, Shackleton had raised the necessary funds and secured important scientific endorsements, and the *Nimrod* set sail. The journey south took two years and made Shackleton a national hero. With three companions, the explorer succeeded in trudging to within 100 miles of the South Pole, beating Scott's record of farthest south by more than 350 miles. Shackleton and his three men were debilitated by hunger and frostbite, however, and the commander realized that if they pushed on to the pole, they would probably not survive the return trip. Knowing that another explorer would likely reach the pole before he had a chance to try again, Shackleton made the wrenchingly difficult decision to turn back. Still, the new record for "farthest south" set by the *Nimrod* expedition was enough to earn Shackleton a knighthood when he returned to Britain in 1909.

Two years later, in December 1911, Norwegian explorer Roald Amundsen finally won the race to the South Pole. Just a month later, Robert Scott's second expedition also reached the pole, but the leader and his four-man team perished during the return trek, doomed by poor planning, severe hunger, and utter dejection at having lost the claim to the Norwegians. When news of Amundsen's feat reached Europe in May 1912, Shackleton, too, was dismayed. Both he and his country had been eclipsed in the important race for the pole.

But it would not be long before Shackleton set his sights on another mission. The adventurer soon began publicizing a new plan: "The discovery of the South Pole will not be the end of Antarctic exploration. The next work [is] a transcontinental journey from sea to sea, crossing the Pole."[21] "I have had some hard knocks," he wrote to a patron, "but I let the past rest, and am now looking forward to carrying out the last big thing to be done in the South."[22]

Preparing for the Imperial Trans-Antarctic Expedition

Over the next two years, Shackleton pushed ahead with preparations for crossing Antarctica. His plan called for a ship to travel into the Weddell Sea and deposit a crew of six men who would then journey overland across the continent to the Ross Sea on the other side (see **Exhibit 1**). A second ship would sail directly to the Ross Sea and dispatch several men to lay supply depots for the second half of the overland party's trek. That ship would then await the overland party's arrival on the Ross Sea coast.

Both the sea and land portions of Shackleton's transcontinental plan involved significant risks. The Weddell Sea, infamous for its large and unpredictable ice floes, posed initial dangers. Several well-known expeditions to the area had failed in the past because of impenetrable ice and swirling currents. And while the sailing leg of Shackleton's plan posed major perils, the overland journey seemed nearly impossible. Crossing Antarctica required a march of 1,500 miles, which Shackleton calculated could be made at a rate of 15 miles a day—only one mile a day slower than the impressive pace set by Amundsen, the finest and fastest polar explorer of the era, on his last Antarctic trip.[23] Amundsen's team relied heavily on skis and sled dogs during that historic trip, but Shackleton was not highly skilled at either of these forms of ice travel.

Furthermore, much of the route Shackleton selected had never before been explored. To avoid the hazards of the Weddell Sea, previous expeditions had gone back and forth toward the South Pole from a boat anchored at the Ross Sea coast. But Shackleton aimed to lead the first-ever overland crossing of Antarctica. He would begin his trek at the Weddell Sea coast, chart a new path to the pole, then proceed to the Ross Sea coast on the opposite side of the continent. And unlike any previous expedition, Shackleton's plan called for the deployment of *two* polar vessels: one to launch the expedition from the Weddell Sea and another to meet the transcontinental trekkers at the Ross Sea. The massive logistical complexity of organizing two crews and equipping two polar ships apparently

daunted even Shackleton, for he toyed with the desperately unlikely idea of using just one ship to deposit the overland party, half-circumnavigate the continent, and deposit the relief party. Shackleton's plans drew criticism from the Royal Geographical Society, which held the scientific credibility and political power to either raise or cripple any proposed expedition. The explorer knew the importance of an endorsement from the respected institution—without it, potential donors might be reluctant to support a venture as risky as the transcontinental venture. Although the society's members complained of the "impossibility of getting any clear answers out of Shackleton" about his plans, they elected to grant him a small symbolic donation of £1,000 (about $88,000 today).[24]

Funding

Shackleton spent enormous time trying to secure funding for his expedition. It was tough going. At the very least, he would need £50,000 ($4.4 million today), but the amount could run as high as £80,000 ($7 million) given the complex nature of his two-ship plan.[25] As Britain and other European nations prepared for war, public and private investors were leery of all kinds of private ventures, even those they had once financed. For example, in 1910, the British government had granted Scott £20,000 (almost $1.9 million) for his second Antarctic voyage. But in 1913, the state offered Shackleton just £10,000 ($880,000), to be paid only if he raised more than £30,000 ($2.6 million) himself. Some of Shackleton's friends considered the mission too dangerous and declined to support it financially.

Rumors about the leader created another major obstacle to funding the expedition. Since the *Discovery* voyage, Shackleton had developed a reputation for being somewhat weak physically. As explorer Eric Marshall, who trekked south with Shackleton on the *Nimrod* expedition, observed about the trans-Antarctic plan, "Shackleton [knew] that he was physically incapable of severe strain at 11,000 ft."[26] Marshall continued, "I therefore considered the chances of crossing the Antarctic plateau were too remote to be considered seriously, and . . . any work I put in for that object was a waste of time."[27]

Shackleton complained repeatedly that no man should be required to both raise the funds and plan the logistics for the same expedition. He approached fund-raising, however, with the creativity and verve of a determined entrepreneur. He hired a photographer and sold shares of whatever photos might be taken of the Antarctic journey and of any publications that might result. He cultivated friendships with members of the press, who promoted his journey as a chance to "re-establish the prestige of Great Britain in . . . Polar exploration" and described the leader as "one more proof of the dogged nature of British courage."[28] With the help of Ernest Perris, editor of the London newspaper *Daily Chronicle* and a friend of Shackleton's wife, he created a list of several hundred of the wealthiest and most likely donors in Britain. He sent each individual a personal letter and a copy of an expedition prospectus he had commissioned in the form of a large quarto pamphlet.[29] Dame Janet Stancomb Wills, sole heiress to a tobacco fortune, donated funds and became a lifelong friend, even writing admiring poems to the explorer.[30] Another important gift came from Sir James Key Caird, a Scottish magnate who was struck by Shackleton's determination and confidence and promised him £24,000 (about $2.1 million today), the largest single donation received.

With Shackleton's persistence, money came in. By late 1913, he had raised just over £51,500 (about $4.5 million today) through a combination of grants and loans.[31] While continuing his fund-raising efforts, Shackleton turned to the challenge of finding men and gear for the voyage. Ships equipped to make polar expeditions required special construction and, like Scott's *Discovery*, were often commissioned by sponsoring organizations or governments. In an era when most shipwrights built with steel and iron, polar vessels needed reinforced wood hulls to resist the relentless pressure of ice floes. Moreover, Shackleton's voyage demanded particular features such as darkrooms for a

photographer and berths for sled dogs. As a private agent, Shackleton searched throughout Europe for not one, but two, boats that fit these criteria.

In a Norwegian shipyard, he found a craft named *Polaris*, built by a partnership of would-be "polar safari" directors whose business had failed. The *Polaris* was a wooden ship of 300 tons, equipped with extra cabin space and a darkroom for the expected amateur photographers and huntsmen—perfect for Shackleton's purposes. Later, the explorer admitted having reservations about the *Polaris*, particularly about the large and seemingly overweight stern, but at £11,600 (about $1 million today) it was a bargain, and he bought it on credit. He renamed the vessel *Endurance* after his family motto, "By Endurance We Conquer." This was the ship that would travel through the Weddell Sea. For the other part of the expedition, on the Ross Sea side, he bought the old *Aurora*, a tried and tested Antarctic vessel owned by Australian explorer Douglas Mawson. Since the *Aurora* was already docked in the South Pacific, using it eliminated the expense of moving a ship 12,000 miles from Britain to Australia, the point of departure for many expeditions because of its relative proximity to Antarctica.[32] The *Endurance* would have to be moved from Norway to England, where crew members and provisions would come aboard. From there, it would proceed to South America, another common point of departure for Antarctic missions, where final additions to the staff and stores could be made.

Supplies

Shackleton also needed to prepare the expedition's equipment, including food, clothing, and camping and traveling gear (see **Exhibit 4**). In the late 19th and early 20th centuries, the question of nourishing a crew properly in subzero conditions presented key challenges to every polar expedition. If the men did not eat enough, they would die; if they did not eat the right combinations of food, they would grow ill, often fatally so. But what amounts and varieties of food constituted proper nourishment? In the years when the science of nutrition was still in its infancy, opinion among polar explorers varied widely.

Most polar expeditions, including Scott's last venture in 1910–1912, probably saw severe cases of scurvy, a condition caused by a lack of certain vitamins. In response to theories that the vitamin C in citrus fruit could prevent scurvy but "tended to be destroyed by evaporation," Shackleton commissioned sealed pills of lime juice for the Imperial Trans-Antarctic Expedition. He consulted with British Major General Wilfred Beveridge, an expert in chemical research, and together they devised the "composition cake," a compact version of a day's food for one man.[33] The explorer vividly recalled that on his last polar trip, hiking rations had been too small and nutritionally inadequate. By contrast, the composition cakes developed for the *Endurance* crew supplied nearly 3,000 calories apiece and were made from a variety of ingredients. Shackleton paid similarly strict attention to the quality of equipment and clothing for the journey, buying only the latest technology in polar wear: windproof Burberry coats, fur-lined sleeping bags, and sturdy tents. Equipping the *Endurance* with such customized rations and high-end materials added at least £2,400 (about $210,000) to the expedition expenses.

Crew

In December 1913, Shackleton made his first public announcement of the expedition in a published advertisement for volunteers. The notice for crewmen reportedly read: "Men wanted for Hazardous Journey. Small Wages, bitter cold, long months of complete darkness, constant danger, safe return doubtful. Honour and recognition in case of success."[34] According to Shackleton's friend Hugh Robert Mill, the initial notices elicited responses from 5,000 applicants. Shackleton divided the

candidates into the categories "Mad," "Hopeless," and "Possible."[35] He met briefly with those in the "Possible" category and relied largely on his instinct for judging character in evaluating them.

Bridges Adams, an acquaintance who directed an acting company, remembered a conversation in which the commander explained his views on hiring. Adams recalled that Shackleton "was fascinated when I described the formation of a repertory company, and how character and temperament mattered quite as much as acting ability; just *his* problem, he said—*he* had to balance his types too, and their science or seamanship weighed little against the kind of chaps they were."[36]

Shackleton looked for qualities he associated with optimism, a personal trait he felt was essential for men undertaking a potentially dangerous and difficult mission. Those who displayed cheerfulness and a sense of humor tended to fare well in interviews with him. Dr. Alexander Macklin (see **Exhibit 3**), a Scottish physician, apparently won a place in the medical crew of the *Endurance* because of his quick wit. During the interview, Shackleton asked, "Is your eyesight all right? . . . Why are you wearing spectacles?" and Macklin answered, "Many a wise face would look foolish without spectacles." "All right," Shackleton responded with a laugh, "I'll take you."[37]

When the explorer reviewed the qualifications of veteran Antarctic officers, he placed a premium on demonstrated perseverance. For example, Tom Crean (see **Exhibit 3**), a sinewy Irishman with a reputation for alcoholism, received an invitation to join the expedition when Shackleton learned Crean had saved two lives on Scott's last expedition. It had not been an easy rescue. Without stopping to eat or sleep, Crean had hauled the weakened men in a sled across 20 miles of Antarctic ice, making the journey to safety and a depot in two days.

In hiring crew hands, Shackleton gave preference to men who had worked on fishing trawlers in the frigid North Sea between Britain and Norway. The leader knew these sailors were accustomed to spending long hours on frozen, windswept decks and believed they would be able to tolerate the harsh conditions off Antarctica.

The expedition leader's most important hire, however, did not interview for the job at all. Frank Wild, one of Shackleton's compatriots on the southern march of the *Nimrod* expedition in 1909, volunteered immediately following the explorer's announcement. Having trekked to within 100 miles of the South Pole together, both men had unshakable confidence in the other's ability to survive the most difficult mental and physical trials. Shackleton appointed Wild as his second in command for the *Endurance* expedition.

Heading South

In July 1914, the *Endurance* sat docked in the Thames, preparing to depart for the Antarctic. Shackleton mused that he and his crew were ready to "carry on our white warfare" against the snow, ice, and cold of the frozen continent.[38] Another war, however, was about to intercede.[39] Two weeks later, Shackleton went ashore from the dock and read in newspapers that the British government had declared war against Germany. He immediately sent a telegram offering to turn the entire expedition over to the military effort. The First Lord of the Admiralty, Winston Churchill, issued a laconic reply by telegram: "Proceed." Churchill followed with a longer letter explaining that too much effort and capital had been invested in Shackleton's expedition to forgo it.[40]

Despite the Admiralty's official approval, Shackleton and his crew could not help but be troubled by the moral ambiguity of departing their country on the eve of war. In a letter to his wife, Shackleton reassured himself that the expedition was indispensable to the nation: "there are hundreds of thousands of young men who could go to the war and there are not any I think who could do my

job."[41] Yet, as the ship left for the South, Shackleton's final dispatch promised "our thoughts and prayers will be with our brothers fighting at the front."[42]

On August 8, the *Endurance* departed for Buenos Aires ahead of Shackleton, who stayed behind to attend to last-minute details. When the leader finally reached Argentina in October by separate vessel, he found that his expedition was far from ready for its voyage south. Frank Worsley (see **Exhibit 3**), appointed by Shackleton as captain of the *Endurance*, had proved largely incapable of keeping discipline on board during the journey to South America. In response, Shackleton decided to re-structure the ship's command in order to reduce the captain's discretionary authority. Further changes to the composition of the crew were needed when three sailors were dismissed for drunk and disorderly conduct. Meanwhile, 69 sled dogs arrived from Canada but, because of a contract dispute, the selected dog trainer never appeared. Shackleton finally chose to embark without one. Another significant challenge involved Shackleton's credit, which was all but ruined by over-extended loans he had taken for the expedition and by rumors that his brother had been involved in criminal scandals. The commander decided to proceed to South Georgia Island, the location of Britain's southernmost whaling village. He suspected that in the remote settlement there, where captains might not know of his poor credit reputation, he had the best chance of obtaining the remaining supplies he needed.

At South Georgia, Shackleton confronted new, unexpected obstacles. Noting that the ice floes were the farthest north they had seen in living memory, local seamen warned that his ship might get trapped and advised him to postpone his mission until the following year.[43] Shackleton decided to hole up in South Georgia for several weeks, watching for any change in the ice. A month later, with conditions unchanged, the *Endurance* departed the whaling outpost for Antarctica.

First Weeks On Board

As the ship headed south, Shackleton and his crew took measure of each other. "Shackleton afloat" was "a more likeable character than Shackleton ashore," the expedition's physicist, Reginald James (see **Exhibit 3**), later remembered.[44] Most of the men knew the commander only from the short job interview. Once on board, they were surprised and pleased by how their leader interacted with them, and the crew gave him the good-natured nickname of "Boss." "When [Shackleton] came across you by yourself," Dr. Macklin remembered, "he would get into conversation and talk to you in an intimate sort of way, asking you little things about yourself—how you were getting on, how you liked it, what particular side of the work you were enjoying most." The commander even brought his love of poetry into conversations on deck. "One found it rather flattering at the time, to have him discussing Thackeray, for instance, or asking you if you'd ever read Browning," Macklin noted. "I never had, and he would tell me what I was missing."[45]

But for all his congeniality with the men, Shackleton ran a tight ship. He demanded unquestioning loyalty and responsiveness to his orders, avoiding direct arguments or negotiations with his men. Wild, Shackleton's second in command and most trusted mate, became, as Macklin put it, a "sort of foreman." "When we wanted things," the doctor recalled, "instead of going to Shackleton we went to Wild."[46] Whenever one member of the expedition complained to Wild about a problem with another, the lieutenant listened patiently to the complaints. Often, he noticed, the opportunity to vent frustration was enough to dissipate whatever tensions had arisen.[47] In addition to smoothing over disagreements, Wild's approachability and overall geniality helped Shackleton to preserve some distance from the crew and maintain an aura of authority.

On December 7, 1914, the men spotted the first pack ice. It was a surprising and ominous sight given that the *Endurance* was still a good distance north of Antarctica and that it was then mid-

summer in the southern hemisphere. The expedition members, largely unaware of the warnings the South Georgia whaling captains had given Shackleton, were captivated by the views of the frozen sea. In these first days heading toward Antarctica, the men seemed giddy with anticipation.

The pace slowed, however, as the boat continued south through thickening ice. By Christmas Eve, a strong wind closed the pack around the ship. The Boss ordered a celebration for the holiday, and the men decorated the mess room, feasting on soup, mince pies, plum pudding, and canned goods such as herring and rabbit.[48] On New Year's Eve, the *Endurance* jammed between two floes, which upended the boat six degrees and threatened to sink her. The crew hauled her out using an ice anchor and chain.

On January 10, 1915, after weeks of dodging floes, the crew spotted Antarctic land. Five days later, they saw a good bay with an apparently smooth path to the interior, which Shackleton named the Dawson-Lambton Glacier, after a British patron of the *Nimrod* expedition. The commander did not stop there, however, hoping instead to land at Vahsel Bay, about 200 miles southwest, which would shorten the distance of the overland crossing (see **Exhibit 1**).[49] The *Endurance* approached Shackleton's destination, skirting the coast until icebergs forced it to draw back from shore. The wind and moving ice soon froze the ship 80 miles offshore, within sight of the desired landing point.

Wintering on the Endurance

The ice proved unrelenting. On January 27, after nine days in the grip of the pack, Shackleton ordered the boiler fires put out and began to prepare for a long wait. Journal entries from the time reveal that the leader dreaded the effects of idleness and boredom on a crew with no responsibilities or routine. Consequently, he insisted that every man maintain his ordinary duties as closely as possible on an immobile ship. These included swabbing the decks and hulls, organizing and rationing supplies, keeping the anchor chains free of rust, and watching for navigable breaks in the ice. Shackleton also appointed individuals to hunt for seal and penguin whenever supplies of fresh meat ran low. He ordered Henry "Chippy" McNeish, the ship's carpenter, to start making furniture for his cabin and for a hut to be located at a future base camp. The scientists were to begin collecting specimens from the ice and taking meteorological observations.[50] Meals and entertainment were to be continued on a strict schedule.

To some expedition members, the prospect of waiting out the winter aboard an inert ship was, as Hurley wrote, "extremely unpleasant." The photographer anticipated both physical and psychological discomfort during the long months in the ice, "owing to the . . . cramping of the work and the forced association with the ships party—who, although being an amiable crowd are not altogether partial to the scientific staff."[51] As they reconciled themselves to their shared situation, tensions occasionally flared among men of different specialties: officers who directed the expedition, scientists who conducted experiments, and sailors who kept the vessel running. (See **Exhibit 3**.) The passing of time intensified these interpersonal stresses. Confined to tight quarters in an immobilized ship, the men's personality quirks and differences of habit caused irritation, though most crew members kept their complaints about one another private. For example, in his diary, motor expert Thomas Orde-Lees sniffed at McNeish's rough table manners. The carpenter, in turn, wrote disapprovingly of the coarse language used by members of the trekking party.[52]

From the beginning, the men had perceived social and professional disparities among themselves. But in the circumstances of early 1915, Shackleton did not wish to amplify these distinctions. In a deviation from military and maritime norms, he ordered officers, scientists, and sailors to share the manual drudgery on ship equally. Orde-Lees, who held a major's commission in the British Army, struggled "to put aside pride of caste." Though he thought "scrubbing floors is not fair work for

people who have been brought up in refinement," he admitted that sharing labor worked well to extinguish jealousies among the crew. "As a disciplinary measure," he wrote, "it humbles one and knocks out of one any last remnants of false pride."[53]

In mid-February 1915, a crack appeared in the ice ahead of the ship, creating a 200-yard vein of waterway in which the ship might move. The men jumped from the deck with picks and shovels in hopes of extending the opening toward shore. After a full day of heavy digging with virtually no progress, they gave up. The Boss presented the overall situation as one of delay rather than disaster, altering his plans to prepare for a landing the following summer. Privately, he worried that the unpredictable circular currents of the Weddell Sea would carry the *Endurance* to a position that would make the transcontinental trek all but impossible.

Nevertheless, Shackleton was determined to use the winter months productively and keep his men occupied. For example, the long wait provided a much-needed opportunity to drill the sled dogs. The Canadian mutts brought on board in Buenos Aires had an inborn tolerance for severe cold. But they were unruly and had never been trained to pull supply-laden sledges.[54] Shackleton divided the dogs into six teams for such work, assigning specific men to lead each group. The men and dog teams later competed in a "dog derby" that inspired lively competition among the crew members.[55]

In addition to sufficient activity, Shackleton's own demeanor was essential to maintaining morale during the long stay on the boat. One day, for example, the Boss surprised and entertained his men by waltzing across the pack ice with Captain Worsley to a whistled tune. Orde-Lees wrote that the display typified Shackleton's positive outlook:

> That is Sir Ernest all over. . . . He is always able to keep his troubles under and show a bold front. His unfailing cheeriness means a lot to a band of disappointed explorers like ourselves. In spite of his own great disappointment and we all know that is disasterous [sic] enough, he never appears to be anything but the acme of good humor and hopefulness. He is one of the greatest optimists living.[56]

But the days became weeks, and the weeks became months, and still the ice held the ship. As April passed, daylight hours became fewer and fewer until, by early May, the men found themselves in the complete darkness of the Antarctic winter. Before the light faded fully, the crew had hunted aggressively for seals, stockpiling 5,000 pounds of meat and blubber.[57] Now, with daylight gone, outside temperatures averaged -17º F (-27º C). The men converted the main hold of the ship into communal living quarters kept comfortable with the heat of a coal stove and the light of a paraffin lamp hung from the ceiling.[58] There was little work to be done outside in the dark, so the men passed the time by writing in diaries, reading, listening to music from a hand-crank phonograph, and playing cards and chess. Once a month, they would gather to hear photographer Hurley tell stories and show lantern slides of the many exotic places he had visited over the years.

Midwinter storms in June stirred increasingly tempestuous currents beneath the ice. While winds and skies above the ship appeared relatively calm, distant storms began shoving the floes against, past, and under the boat, making the timbers groan and occasionally shifting the angle of the hull. Inside, the men decorated their living quarters for a feast to celebrate Midwinter's Day, when the sun began its gradual reappearance on the Antarctic horizon. The crew continued the celebration by mounting a variety show that included humorous songs, skits, and poems.[59]

On July 13, 1915, with the outside temperature hovering at -30º F (-34º C), Shackleton called Worsley into his quarters for a conversation that he never forgot. Until then, the mission of the crew had been to wait out the winter and hope to move the following summer. But during those winter months, millions of tons of shifting pack ice had pressed against the *Endurance* on all sides,

weakening the timbers that held it together. The structure could not withstand the enormous pressure of the floes for much longer. "It had never occurred to me that we should lose our ship," remembered Worsley. Shackleton broke the news: "'The ship can't live in this, Skipper. . . . You had better make up your mind that it is only a matter of time. It may be a few months, and it may be only a question of weeks, or even days. Wild and I know how you feel about the *Endurance*, but what the ice gets . . . the ice keeps.'"[60]

For the next five months—more than 150 days—the crew waited anxiously, each night expecting the ice to swallow the ship. During late October, the men suffered constant jolts from the shifting of the floes. Since January, the *Endurance* had drifted 685 miles northward (see **Exhibit 1**), toward softer but also more dangerous ice capable of either opening a path to survival or swallowing the ship into a watery abyss. On October 17, the ice rose and fell, as if moved by one enormous wave, and drove the *Endurance* to a 30-degree tilt, where it froze again. The men ate dinner with their legs against the sides of the hull, Worsley wrote, "feet against a batten & plates on their knees."[61]

Abandoning Ship

On October 24, the ice began its final attack on the *Endurance*. Three pressure ridges, which had been torturing the vessel throughout its drift northward, converged at the back end of the boat, suddenly ripping away the rudder. Gallons of water spilled in. Shackleton directed the men to pump the water out while the carpenter worked furiously to build a dam. These efforts held the boat intact for four days, but by October 27, 1915, the "stout little ship," as Hurley poetically put it, "that bride of the sea," finally gave in.[62] The decks warped under the immense pressure of the ice. The timbers of the boat creaked and groaned loudly. Finally, the keel—a strip of wood on the exterior used to reduce rocking—tore away, and water rushed in.

Shackleton ordered the crew to abandon ship, and the men spent the night camped on the thick ice nearby as the temperature fell to -15° F (-26° C). Early the next morning, Shackleton dragged petrol cans from the wreck of the boat and began preparing hot powdered milk for breakfast. "His first thought," Third Mate Greenstreet explained, "was for the men under him. He didn't care if he went without a shirt on his back so long as the men he was leading had sufficient clothing. He was a wonderful man that way; you felt that the party mattered more than anything else."[63] Hurley meanwhile remembered feeling reassured by Shackleton's presence during the first night on the ice:

> Sir Ernest was ever on the watch, and as I took refuge in one of the tents from the stabbing wind, the last sight I had that night was of a sombre figure pacing slowly up and down in the dark. I could not fail to admire the calm poise that disguised his anxiety, as he pondered on the next move. What was the best thing to do? How should he shape his tactics in the next round of the fight with death, with the lives of twenty-eight men at stake? I realised the loneliness and penalty of leadership.[64]

Shackleton quickly decided to march the men across the ice in the hopes of reaching Paulet Island, 350 miles northwest (see **Exhibit 1**), where a storehouse from a 1903 expedition still stood and was believed to contain significant rations. The Boss intended the crew to drag two of the three whaleboats salvaged from the *Endurance* to the edge of the ice and then launch them for an open-boat journey through the remaining nautical distance to the island. Shackleton recognized that this plan presented several "grave dangers." First, most members of the party were completely inexperienced at trekking in polar conditions—only six of the men had been slated to participate in the original transcontinental march. The rest were capable scientists and sailors, but Shackleton could not predict how they would perform at crossing such unpredictable terrain. At any moment during the march, the ice underfoot might crack and split, separating the men or dropping them into the water.

Furthermore, dragging the lifeboats over rough ice could damage the small ships beyond repair. Without boats, there would be no hope of escape from the floes, even if the group managed to reach the edge of the pack.[65] The alternative plan suggested by Worsley—camping on the nearest floe and waiting for the ice drift to carry them north to the island—might have been safer. But, Shackleton thought, "the right thing to do was to attempt a march. It would be, I considered, so much better for the men to feel that they were progressing—even if the progress was slow—towards land and safety, than simply to sit down and wait for the tardy north-westerly drift to take us from the cruel waste of ice."[66]

The march proved much more difficult than Shackleton or any of the crew expected. Estimating that the party could manage to drag two of the three whaleboats—each named for an important donor to the expedition—crew members left the *Stancomb Wills* behind and pulled the *Dudley Docker* and *James Caird* across the ice. Filled with supplies, each boat weighed nearly a ton, and soft ice made the work of pulling the boats even more backbreaking. The sledge runners kept sinking, allowing the bottoms of the boats to drag on the jagged surface of the floe. By the end of the first afternoon, they had marched a little over a mile.

The following day, heavy snow and melting ice kept the men from resuming their march until afternoon. A few hours later, Shackleton halted travel as another heavy snowfall began. On the third day, the men found themselves hip-high in soft snow as they moved. After only a quarter of a mile, Shackleton stopped to confer with Wild, Worsley, and Hurley. Although Hurley was not trained as an officer, he possessed the survival skills of a pioneer and a blustery, independent spirit that made his commander wary.[67] By keeping Hurley close by and informed, Shackleton aimed to keep him in check. The advisory group concurred that there was little choice but to call off the grueling trek and hunker down on the floe. They would wait for the ice around them to break up a bit and seize the first opportunity to launch the lifeboats toward Paulet Island. From there, Shackleton hoped that a small party of men would march to Wilhelmina Bay, where they would be able to make contact with a whaling ship (see **Exhibit 1**).

Life on the Ice

On November 1, 1915, Shackleton ordered a more or less permanent camp established approximately four miles from the *Endurance*, on a 20-foot-thick ice floe. The men named the site "Ocean Camp." Shackleton divided the crew into five tents, choosing one strong head for each. With energetic leadership in each small group, he hoped to keep morale high and discipline intact.[68] To his own tent he assigned two of the more controversial members of the expedition: James, the physicist, whose clumsiness, academic demeanor, and general unfamiliarity with shipboard life had made him the focus of much teasing, and Hurley, whose tremendous energy and ingenuity sometimes manifested themselves as arrogance.[69]

As always, Shackleton ordered the crew to keep busy. Days began with an early breakfast of seal steak or canned provisions, after which each man set about his chores.[70] While the cook prepared the next meal, others melted ice into drinking water, repaired equipment, tended the dogs, or helped the carpenter strengthen the lifeboats.[71] Most of the men spent long hours each day hunting seals, whose meat was the mainstay of the team's diet and whose blubber fueled the camp stove. The hunters consulted the expedition's doctors to find the most efficient way to kill their prey. Using knives, pickaxes, and any other weapons that could be improvised, they experimented with various techniques. In the evenings, the men played cards or talked until what they called "lights out" at 8:30 p.m.—in fact, November in the Antarctic Circle meant nearly 16 hours of sunlight each day, so the

crew often crawled into their tents before dark.[72] By 10 p.m., the only movement in camp was that of the designated night watchman making his rounds.[73]

Despite this quickly fashioned routine, the iceberg settlement was vulnerable to the constantly changing conditions of life on the ice. During the first night at Ocean Camp, for example, Shackleton paced—"listening," he later remembered, "to the groans and crashes that told of the death-agony of the *Endurance*," still audible four miles away. While pacing, Shackleton spotted "a crack running across our floe right through the camp. The alarm whistle brought all hands tumbling out, and we moved everything from what was now the smaller portion of the floe to the larger portion." Even after their long march and the ordeal of shipwreck, the ice would not allow the men a solid night's rest. "The men turned in again," Shackleton noted, "but there was little sleep."[74]

Over the next few weeks, the officers and crew retraced their steps across the ice to the wreck of the *Endurance*—now dubbed "Dump Camp"—to recover valuable food, the third lifeboat, and other supplies. "This adventure was liberally spiced with danger," according to Hurley, "owing to the fact that the *Endurance* was suspended above 2060 fathoms [approximately 12,000 feet] of ocean by the great tongues of ice that were thrust though her ribs."[75] Nevertheless, he noted, the men took to their task with characteristic good humor: "A great cheer arose whenever a case of high food-value came to light. I arrived on the scene just in time to see a keg of sodium bicarbonate greeted with groans."[76] In total, the crew recovered more than three tons of stores from the wreck of the *Endurance*, including valuable boxes of flour, sugar, rice, walnuts, barley, lentils, canned vegetables, and jam.[77] They pulled wood from the ice and pried nails from planks to deliver to the carpenter, who needed them to reinforce the whaleboats for the long open-boat journey that the party assumed it would soon be making.

After most of the foodstuffs had been recovered, Hurley recalled that he "went down to the wreck, unknown to the leader, with one of the sailors, to make a determined effort to rescue my films and negatives." The photographer and sailor "hacked" their way through the spears of ice and the broken pieces of the ship. Hurley located his darkroom and decided to plumb the water-filled compartment for his photographs. The sailor lowered Hurley by the legs into the "semi-darkness of the ship's bowels."[78] As Hurley emerged with three tins of negatives, Shackleton discovered the two and gave them a tongue-lashing for having risked another venture into the ship, which could sink at any moment.

Hurley convinced the expedition leader to include 120 of the best negatives in the supplies to be hauled back to civilization. Still, Hurley remembered that Shackleton's insistence on decisiveness in the selection of plates caused him "a painful hour." "Sir Ernest and I went over the plates together, and as a negative was rejected, I would smash it on the ice to obviate all temptation to change my mind."[79]

The Endurance Sinks

On November 21, 1915, nearly four weeks after the men had abandoned the *Endurance*, Shackleton stood examining the ship in the distance. One member of the expedition wrote in his diary: "This evening, as we were lying in our tents, we heard the Boss call out, 'She's going, boys!' . . . And, sure enough, there was our poor ship a mile and a half away, struggling in her death agony. She went down bows first, her stern raised in the air. She then gave one quick dive and the ice closed over her forever. . . . Without her, our destitution seemed more emphasized, our desolation more complete."[80]

Within minutes, the dark spot of water into which the *Endurance* sunk froze over, blending into the white ice that extended endlessly in all directions. Since abandoning the ship, the team had

expected it to sink. But the vessel's loss nevertheless dealt a very powerful blow to the men's morale. Shackleton himself was stunned. He recorded the event briefly in his diary and added: "I cannot write about it."[81]

Alone on the Ice

In the weeks that followed, an acute episode of sciatica—a painful condition caused by compression of a spinal nerve—confined Shackleton to his waterlogged sleeping bag. As he lay in his tent, he debated how to keep control over his men. James recalled that despite poor health and limited mobility during these weeks, Shackleton was "constantly on the watch for any break in morale, or any discontent, so that he could deal with it at once."[82]

Using navigational devices salvaged from the *Endurance*, the men closely monitored the movement of the ice floe they were camped on, hoping that winds and currents would carry them north to Paulet Island (see **Exhibit 1**).[83] But mid-December calculations revealed that they were drifting alternately northwest and east, in an overall direction *away* from land.[84] Shackleton consulted with Wild and Hurley about attempting a second march westward toward land to counteract both the eastward drift of the floe and the sense of idleness and helplessness that was beginning to settle over the men. It was believed that the edge of the pack ice—and thus an opportunity to launch the boats—lay between 150 and 180 miles to the west.[85] Reaction to the news that the team would be moving again was mixed; many felt that because of slightly warmer temperatures, the ice would be too soft to traverse. Shackleton determined that the group would travel at night to capitalize on colder temperatures and thus more solid ice underfoot. After an early Christmas feast at which the men were treated to unlimited helpings of food, the entire party set out at 3:30 a.m. on December 23, 1915.

The march west proved exhausting and discouraging. Men in harnesses pulled the boats and supply-laden sledges over slushy, uneven ice for hours at a time, but the effort gained them little ground. The team covered only a mile and a half per day, making an extended trek seem all but impossible given the wet conditions, constant hunger, and total fatigue they experienced. On the fourth day of the march, Shackleton set out with a small party to scout ahead. When he returned to the group, McNeish declared his refusal to continue with the march. Angry, exhausted, and plagued by foot pain, the carpenter openly challenged Shackleton's authority, contending that his duty to follow the leader's orders had officially ended with the sinking of the *Endurance*.[86] After a bitter confrontation with McNeish, Shackleton gathered the group together and reviewed the ship's articles, making one significant change. Although he was not legally obligated to pay the team for their time after the ship was lost, Shackleton declared that every man would be paid in full for each day until they reached safety.[87] The Boss's address and revisions to the articles quieted the situation, but McNeish's near-mutiny had given voice to what each member of the team knew: that continued struggle over soft ice would be fruitless. Two days later, Shackleton halted the trek on the following grounds:

> We had been on the march for seven days. . . . We had marched seven and a half miles in a direct line, and at this rate it would have taken us over 300 days to reach the land away to the west. As we had food for only forty-two days there was no alternative but to camp once more on the floe and to possess our souls in patience until conditions appeared more favorable for a renewal of the attempt to escape.[88]

The team dubbed their new location "Patience Camp" and settled in to wait for the currents they hoped would carry them to Paulet Island. The ice surrounding the camp was too wet and broken to allow another attempt at marching with the sledges, yet it remained too thick to allow launching of

the three boats.[89] As the supply of foodstuffs from the *Endurance* dwindled, the men relied increasingly on seal, penguin, and occasionally sea lion for nourishment. By mid-January, food could no longer be spared for the dog teams. Shackleton ordered that most of the animals be shot, an event that was deeply disturbing to all.

Harsh weather frequently confined the men to their tents. But rest was difficult even there, as the sleeping bags, often wet by day, froze solid in the cold of night.[90] In the evenings, Shackleton divided his time among the tents, reciting poetry or playing cards with the men.[91] Days, then weeks, then months passed in this manner.

At daybreak on April 7, 1916, Shackleton and several members of the crew spotted Clarence Island, a small speck of land due east of the slightly larger Elephant Island (see **Exhibit 1**) in the distance, indicating that strong currents were carrying the floe toward land. As Shackleton wrote in his diary that day:

> The swell is more marked today, and I feel sure that we are on the verge of the floe-ice. One strong gale followed by a calm would scatter the pack [ice], I think, and then we could push through. I have been thinking much of our prospects. . . . The island is the last outpost of the south and our final chance of a landing-place. Beyond it lies the broad Atlantic. Our little boats may be compelled any day now to sail unsheltered over the open sea, with a thousand leagues of ocean separating them from land to the north and east. It seems vital that we should land on Clarence Island or its neighbour, Elephant Island.[92]

After further deliberation, Shackleton decided that when the floe broke up and the boats could be launched, the crew would set sail for Deception Island, west of Clarence and Elephant Islands (see **Exhibit 1**). At Deception Island, the Boss expected to find stores left for use by shipwrecked sailors, as well as a small church for passing whalers. The team hoped to fortify itself with provisions there and use wood from the church to build a sturdier boat if necessary.[93]

Into the Boats

On April 9, 1916, 15 months after the *Endurance* had first lodged in the ice, Shackleton gave the order to launch the lifeboats in search of land. The Boss divided the men into three groups; he would command the *James Caird*, and he appointed Worsley to lead the *Dudley Docker* and navigator Hubert Hudson to steer the smallest boat, the *Stancomb Wills*.[94] William Bakewell, one of the men assigned to the *Stancomb*, wrote about the first day at sea: "Our first day in the water was one of the coldest and most dangerous of the expedition. The ice was running riot. It was a hard race to keep our boats in the open leads. . . . [W]e had many narrow escapes from being crushed when the larger masses of the pack [ice] would come together."[95]

The first night of the journey brought further upheaval. The team camped on a flat ice floe, only to be rocked awake in the middle of the night as an ocean swell cracked open the ice beneath them, throwing one man still encased in his sleeping bag into the frozen waters below. The man was pulled to safety, but there would be no more rest that evening. Following the incident, Shackleton ordered hot milk and a small ration of food for all the men. For the rest of the night, they huddled around the blubber-fired stove, anxiously awaiting the morning and listening to the calls of killer whales.[96] During their time at Patience Camp, the men had witnessed killer whales bursting from beneath the surface of the water with enough power to shatter ice floes above.[97] Now, they waited and hoped that the floe they stood on would not attract the whales that encircled them.

The days that followed in the boats were equally terrifying and painful. The men faced powerful squalls of ice and snow, frostbite, intense thirst, and waves that threatened to overturn the boats. Sleep was virtually impossible. Night temperatures fell to -7°F (-22° C), creating layers of ice inside and outside the boats.[98] After several days, the weather cleared enough for Worsley to attempt a reading of their longitude and latitude using a sextant, an optical navigation device. The men estimated their progress thus far as anywhere from 30 to 60 miles toward their target. The reading, however, delivered what the captain privately called "a terrible disappointment": far from progressing northwest toward their destination, the three boats had actually drifted 30 miles east and 11 miles south of their departure point.[99]

The expedition leader announced that because they had not made as much progress as hoped for, a change in plan was necessary. In consultation with Worsley and Wild, Shackleton revised the destination of the three boats; winds made the closest land at Elephant Island unreachable, so they would aim instead to reach a bay on the Antarctic mainland (see **Exhibit 1**).[100]

For the remainder of that day, the three boats tossed about in choppy waters strewn with chunks of ice. By late evening, winds shifted dramatically again, bringing snow showers. At dawn the next day, Shackleton surveyed his team: "Most of the men were now looking seriously worn and strained. Their lips were cracked and their eyes and eyelids showed red in their salt-encrusted faces. . . . Obviously, we must make land quickly, and I decided to run for Elephant Island."[101] Hoping to make use of the southeast wind, Shackleton announced the fourth change in destination since the boats had departed Patience Camp.[102]

Elephant Island

After two more days and nights of frigid gales, severe thirst, and frostbite, the three small boats struggled ashore at Elephant Island. The men were ecstatic to be on solid ground for the first time in more than 16 months. But Elephant Island was far from hospitable. The small spot of land offered no shelter from the elements and little else save ice-covered rocks. Shackleton described the conditions two days after landing: "The icy fingers of [a] gale pushed relentlessly through our worn garments and tattered tents. The snow swathed us and our gear, and set traps for our stumbling feet. The rising sea beat against the rocks and shingle, and tossed fragments of floe-ice within a few feet of our boats."[103] It was only a matter of hours before the men began to show signs of dejection and hopelessness. "Some of the party," Wild noted, "had become despondant [sic] & were in a 'What's the use' sort of mood & had to be driven to work, none too gently either."[104]

The men's outlook and overall health and the party's dwindling food supply confronted Shackleton with a critical decision:

> The conclusion was forced upon me that a boat journey in search of relief was necessary and must not be delayed. The nearest port where assistance could certainly be secured was Port Stanley, in the Falkland Islands, 540 miles away; but we could scarcely hope to beat up against the prevailing north-westerly wind in a frail and weakened boat with a small sail area . . . South Georgia [Island], which was over 800 miles away but lay in the area of west winds [which would carry the boat toward the island], must be our objective.[105]

Once the decision to set forth for South Georgia was made, Shackleton took great care in deciding who would accompany him. He chose Worsley for his navigational skill, Crean for his tough and hardworking spirit, McNeish for his abilities as a carpenter and sailor, Able Seaman Timothy McCarthy for his commendable performance on the recent boat trip, and Able Seaman John Vincent

for his physical strength. An added benefit of taking the sometimes difficult McNeish and Vincent was that they would not be left to spread contentiousness among those remaining on Elephant Island. On the journey to South Georgia Island, Shackleton would monitor them personally for signs of rebellion.[106] Knowing that the wait for rescue would be tedious and uneasy, the commander had to consider who had the temperament to withstand the wait and who might be too short-tempered or demoralizing to others. Wild was appointed leader of the remaining men, who would wait on the island for a rescue ship to be dispatched from South Georgia.

Led by McNeish, some of the men began strengthening the battered whaleboat *James Caird* for the journey, while others upended the *Dudley Docker* to create a rudimentary shelter for the party that would live on Elephant Island. They would need as much protection as possible from the weather, as blizzard winds often gusted up to 80 miles per hour, and temperatures in May and June would average only 11° F (-12° C).[107]

Before setting out, Shackleton left instructions with two of the men who would stay behind. To Wild, he wrote: "In the event of my not surviving the boat journey to South Georgia you will do your best for the rescue of the party. You are in full command from the time the boat leaves this island. . . . On your return to England, you are to communicate with the [Royal Geographical Society] Committee. I wish you, [Orde-]Lees & Hurley to write the book. You watch my interests. . . . I have every confidence in you and always have had."[108] In a letter to photographer Hurley, Shackleton wrote: "I here instruct [you] to take complete charge & responsibility for exploitation of all films & photographic reproductions of all films & negatives taken on this Expedition."[109]

Voyage in the *James Caird*

On April 24, 1916, the 22-foot *James Caird* set out from Elephant Island carrying Shackleton, his five selected crewmen, a six-week supply of food, and a few navigational devices and aids. The weather on the first day of the trip was fair, allowing them to travel 45 miles.[110] By the second afternoon, however, the boat was in the grip of a powerful gale and was tossed violently. Shackleton divided the six-person group into two teams that would alternate standing watch and resting in four-hour shifts. "The routine," recalled Worsley, "was three men in bags deluding themselves that they were sleeping and three men 'on deck'; that is one man steering for an hour, while the other two [were] pumping, baling or handling sails."[111] The man stationed at the helm suffered constantly, braced against giant icy waves that hit the ship and washed over the deck. The other two men on watch were hardly better off, however, as the boat required pumping at least two or three times per shift. The frigid air left the ship's brass pump so cold that it numbed the user's hands within five minutes, making it necessary for the two men not steering to change places regularly.[112]

Even for those on a rest shift, every hour was painful. The team's sleeping bags were arranged in the bow of the ship, a spot accessed only by slithering on hands, knees, and stomach over a layer of rocks used to ballast the boat. Once inside the bow, the sleeping area was a cramped five- by seven-foot space where the movement of the boat was felt most intensely. "When we had slept for an hour or so we would wake up half-smothered," Worsley recalled. "More than once when I woke suddenly I was unable to collect my thoughts or realise where I was, and had the ghastly fear that I was buried alive."[113] Plagued by seasickness in these claustrophobic quarters, the men slept little despite their bone-tired state.

By the third day, the *James Caird* had progressed 128 miles from Elephant Island but was off course from the position the crew had expected. For the next 24 hours, the ship was engulfed by a fierce gale that signaled entry into the Drake Passage, a waterway between Antarctica and South

America that is one of the roughest patches of ocean in the world. In this area, unique atmospheric conditions formed hurricane-intensity winds and immense waves as high as 90 feet and as wide as a mile.[114] During the long hours from dusk to dawn, clouds obscured the moon. A match to check the compass could be spared only once or twice per night.[115] This lack of light to navigate by made steering under stormy conditions even more arduous. But, as Shackleton and Worsley realized, the need to remain on course was paramount. If the boat veered even a mile off and missed South Georgia Island, it would be carried into 3,000 miles of open water with no chance whatsoever of finding land.[116]

By April 28, 1916, the group had traveled 238 of the 800 miles to South Georgia. After five days of exposure to the elements, physical pain came to the men with every movement: skin was rubbed raw by wet clothes, saltwater boils developed, legs swelled from constant immersion in salt water, and hands burned from frostbite.[117] To counter the extreme cold, Shackleton determined that the men would have a small hot meal every four hours during the day and hot powdered milk every four hours at night. With sleep nearly impossible, food was the only source of both strength and comfort. The mainstay of their diet on the boat was what the men called "hoosh"—a sort of stew made from the specially formulated "composition cakes" of beef protein, fat, oats, sugar, and salt combined with water. The cakes had been intended as fuel for the historic trek across the continent, but instead they sustained six struggling men on a desperate rescue mission.[118] Shackleton monitored the condition of his crew closely, watching for symptoms that required attention. "Two of the party at least were very close to death," Worsley recalled. "Indeed, it might be said that [Shackleton] kept a finger on each man's pulse. Whenever he noticed that a man seemed extra cold and shivered, he would immediately order another hot drink of milk to be prepared and served to all. He never let the man know that [the milk serving] was on his account, lest he become nervous about himself."[119]

On the eighth day at sea, the crew noted with alarm that the *James Caird* was sitting low in the water, no longer rising and dropping with the tremendous motion of the waves. The source of the trouble was ice, which covered every exposed piece of wood, canvas, and rope. The crew immediately set to work chipping away the ice, a dangerous task that required the men to balance themselves on the slick surfaces of the deck in near-total darkness. "Once," Worsley noted, "as the boat gave a tremendous lurch, I saw Vincent slide right across the icy sheathing of the canvas. . . . Fortunately he managed to grasp the mast just as he was going overboard."[120]

The most harrowing moment of the entire voyage, however, was yet to come. In Shackleton's own words:

> At midnight I was at the tiller, and suddenly noticed a line of clear sky between the south and south-west. I called to the other men that the sky was clearing, and then, a moment later, realized that what I had seen was not a rift in the clouds but the white crest of an enormous wave. . . . During twenty-six years' experience of the ocean in all its moods I had never seen a wave so gigantic. It was a mighty upheaval of the ocean. . . . I shouted, "For God's sake, hold on! It's got us!" Then came a moment of suspense that seemed to last for hours . . . somehow the boat lived through it, half-full of water . . . We bailed with the energy of men fighting for life, flinging the water over the sides with every receptacle which came into our hands.[121]

After two weeks at sea, the *James Caird* was within 80 miles of South Georgia Island, and Shackleton recognized the need to land as quickly as possible. The ship's supply of drinking water had been contaminated by sea salt as well as hairs from the reindeer-skin sleeping bags. Thirst began to plague them. As the men grew increasingly parched, swallowing became so painful that it precluded eating. Although their ultimate destination was the whaling station on the east coast of South Georgia, Shackleton determined that, given the rough seas, constantly changing winds, and the crew's desperate thirst, it would be impossible to travel the additional 150 miles needed to sail

around the island to the whaling station. Thus they would aim for a landing on the uninhabited west coast.

The next day, winds increased and the sea swells began to grow in both size and force, eventually developing into a full-fledged hurricane that tossed the *James Caird* in all directions and threatened to tear it apart at its seams. Once the storm subsided, varying currents kept the ship from landing until May 10, when, after five attempts, Shackleton and his crew sailed into a narrow cove on the west coast of South Georgia Island. From the boat, they saw plant life for the first time in over 17 months.[122] Shackleton recalled the moment when the men finally stumbled ashore: "We heard a gurgling sound . . . peering round, we found a stream of fresh water almost at our feet. A moment later we were down on our knees drinking the pure, ice-cold water in long draughts which put new life into us. It was a splendid moment."[123]

Crossing South Georgia Island

The six men had accomplished the nearly impossible task of sailing a small open boat through 800 miles of the world's most turbulent waters. But they were still far from obtaining a rescue ship to retrieve the 22 members of the *Endurance* crew stranded on Elephant Island. Shackleton had intended to rest briefly at the landing spot and then sail around the island to the whaling station on the opposite side. During the first night at South Georgia, however, a storm drove the moored ship into the rocks along the coastline, damaging it beyond repair.[124]

To Shackleton, there remained only one way to reach the whaling station on the opposite coast: an overland trek across South Georgia. Although the distance was only 29 miles, the interior of the island was a tangle of 10,000-foot peaks and glaciers that no person had ever crossed.[125] Indeed, Shackleton's map of South Georgia depicted only the coastline; the interior was uncharted, nothing more than white space on the page.[126]

Shackleton was eager to set out as soon as possible. He decided that Captain Worsley and Second Officer Crean would travel with him, while the less healthy McNeish, Vincent, and McCarthy would remain on the coast in a makeshift shelter created by the overturned *James Caird*. The three men crossing the interior would carry minimal rations and supplies. In addition to three days' worth of food, they took two compasses, a pair of binoculars, a small stove, a large coil of rope, and an ice axe. To improve the hikers' traction when climbing over ice, McNeish fitted their boots with makeshift crampons fashioned from boat screws.[127]

Early in the morning on May 19, 1916, Shackleton, Worsley, and Crean set out on the arduous inland trek. Within an hour, they were trudging uphill through soft, ankle-deep snow. When a dense fog settled in, they tethered themselves together with rope with Shackleton in front forging a trail and Worsley in back plotting their course.[128] A navigational mistake took them downhill; when they realized that the route they had chosen was impassable they headed back uphill. The going was difficult, so they developed a system of taking a one-minute rest every 15 minutes and eating small hot meals every four hours to combat exhaustion.

After several hours, they reached a row of five high peaks that stretched across the path before them. Between the peaks there appeared to be passes leading through to the other side of the range. The three headed for the closest pass, only to discover after scaling it that there was no way down on the other side and no access to the neighboring pass—there was nothing to do but descend the same path they had come on.[129] They repeated this process at the second pass, which was also impossible to descend on the other side. They began the uphill climb to the third pass, which by late afternoon

brought them to 5,000 feet above sea level. They had been climbing for 13 hours and were utterly exhausted, but Shackleton sensed that Worsley and Crean would persevere as long as he himself kept moving and leading. The third pass was also impossible to descend, so they made their way down again and began the climb to the fourth and last pass between the mountains. At the top of this pass, there was no time to waste with drawn-out decisions; a fog was rolling in from behind and they needed to reach a lower altitude before nightfall, or they were certain to die in the cold.[130] It was a risk, but Shackleton saw no alternative. They began a slow descent down the icy slope on the other side of the pass; after half an hour, they had progressed only 300 feet.

Seeing no other way to descend quickly enough to outpace the coming nightfall and falling temperatures, Shackleton announced, "It's a devil of a risk, but we've got to take it. We'll slide."[131] Using the coiled rope as an improvised sled, the three men braced themselves in a row and shot down the mountain, descending 1,500 feet in just minutes. They had another brief meal and continued the march, eventually spotting what they took to be the Blenheim Rocks, a natural landmark near one of the whaling stations. They soon discovered that in their fatigue they had taken a wrong turn and were considerably off course. Once more, they turned back and reset themselves in the proper direction.

Just before dawn on May 20, after 24 hours of trekking with no rest save for brief meals, the three men paused momentarily. Almost immediately, Crean and Worsley fell into a deep sleep. Shackleton did not dare close his eyes. If he did, he knew they would all freeze to death. Instead, he watched his sleeping colleagues for five minutes before rousing them, explaining that they had been asleep for half an hour and it was time to start out again.[132] At sunrise, the men came over a slope and saw in the distance the outlines of Stromness Bay, site of the whaling station 12 miles away. Their location was confirmed when, at seven o'clock, they heard the sound of a steam whistle calling the men at the station to work.

Eight hours later, they reached the edges of the whaling station having traveled 36 hours without sleep or shelter.[133] The appearance of the three foul-smelling men dressed in rags, with overgrown beards and faces covered in grime, came as a great shock to the whalers, who knew that the *Endurance* had sailed from South Georgia two years earlier but who had long since given the crew up as lost.[134] The Norwegian station captain, whom Shackleton knew, did not recognize his fellow seaman in his ragged state. As soon as the explorer made his identity known, however, the amazed captain took the three men in and fed them generously. When they were finally full, Shackleton and his comrades set about the task of scrubbing away 18 months' worth of dirt and grease. "I don't think I have ever appreciated anything so much as that hot bath," Worsley recalled.[135] Later that day, the station captain dispatched a ship to recover McNeish, Vincent, and McCarthy from the other side of the island.

Back at Stromness Station, Shackleton's first question to the captain was about the war that England had entered as the *Endurance* departed. He remembered the exchange:

> "Tell me, when was the war over?" I asked.
>
> "The war is not over," he answered. "Millions are being killed. Europe is mad. The world is mad."[136]

Return to Elephant Island

Shackleton wasted no time in making preparations to rescue the 22 men still on Elephant Island. In another South Georgia port, he found the *Southern Sky*, a ship owned by a British company. There

was no way to ask the company for use of the ship, as there was no telegraph on South Georgia, but Shackleton arranged with port officials to borrow the vessel on the condition that he accept all responsibility for it.[137] The *Southern Sky* departed South Georgia on May 23, 1916 with Shackleton, Worsley, Crean, and a crew of whalers on board. The ship was able to get within 60 miles of Elephant Island, but severe pack ice forced a retreat within a week. A stronger boat would be needed for the next attempt.

Shackleton sailed the *Southern Sky* 500 miles northwest to the Falkland Islands, where telegraph lines were available to cable London. The news that Shackleton had survived caused great popular excitement—even King George V sent a congratulatory telegram. But World War I raged on, and Britain had no ships available for nonmilitary ventures. The government instead offered the *Discovery*—the ship originally used by Scott in 1901—which could be made ready to sail by late September.

To Shackleton, there was no question that his crew must be rescued before then. It had been almost six weeks since the *James Caird* set out, and the Boss knew that the stranded men would be starting to look for a rescue ship on the horizon. To delay the relief effort until the fall would surely threaten their lives, for they could not subsist indefinitely on that harsh, frozen slip of land. He appealed to several South American governments for a ship strong enough to travel through ice. In early June, officials in Uruguay offered a crew and a ship called the *Instituto de Pesca No. 1* at no cost. Shackleton set out again on June 10 but was forced to retreat within days when the ship sustained damage in the pack ice.

By early July, Shackleton grew frantic searching for a rescue ship that could reach Elephant Island. "The wear and tear of this period was dreadful," Worsley recalled. "To Shackleton it was little less than maddening. Lines scored themselves on his face more deeply day by day. . . . He had not had a grey hair on his head when we set out to rescue the men the first time. Now, on the third journey, he was grey-haired."[138] Worsley also noticed that Shackleton began to drink, something he had never known the Boss to do before.

In the port of Punta Arenas, Chile, Shackleton told the desperate story of his rescue efforts to the vice president of the British Club, an association of English citizens living in the area. Within days the members had raised £1,500 (about $110,000 today), enough to charter a boat for another attempt.[139] The *Emma* set out in mid-July and was at sea in rough weather for several weeks. She came within 100 miles of Elephant Island before conditions proved too severe for the boat and she returned to port.

It had now been over three months since the *James Caird* left Elephant Island. Shackleton telegraphed England, asking an old friend to obtain information from the Admiralty about the *Discovery* and the cause of the lengthy delay in preparing her to sail. The response was discouraging: "Impossible to reply to your question except to say unsympathetic attitude to your material welfare and customary attitude of Navy to Mercantile Marine which it seems resulted from desire of Admiralty to boom its own relief Expedition."[140] The British Navy, it appeared, was more concerned with deflating Shackleton's legendary ego than with facilitating a rescue attempt for his men.

Furious and humiliated by the Admiralty's response, Shackleton approached Chilean officials and begged for assistance.[141] They obliged by furnishing him with the *Yelcho*, a small steamer, on the condition that he keep the steel-hulled boat out of the pack ice.[142] No one, least of all Shackleton, knew whether this vessel was strong enough to make the journey unscathed. On August 25, he, Crean, and Worsley departed for a fourth attempt at rescuing their stranded comrades.

On August 30, 1916, four months after the departure of the *Caird*, and more than two years after the original departure of the *Endurance* from London, the *Yelcho* pulled within view of Elephant Island. In the months of waiting, the 22 men had built a shelter out of the two remaining lifeboats. They subsisted mostly on seal steaks, occasionally enhanced by some small treat such as jam from the few remaining canned goods. Meager nourishment, heavy winds, and alternately icy and slushy conditions took a toll on the men both mentally and physically. Several suffered from badly infected wounds that would not heal. Others had frostbite, and the doctors were forced to amputate one man's toes on an improvised operating table constructed of boxes and blankets. By August, the men on the island could no longer hold out hope that anyone had survived the voyage to South Georgia. They agreed that, when the weather permitted, a party would set out in the *Stancomb Wills* for an attempt at intercepting one of the whaling ships working in the waters near Deception Island.[143]

Some cheered loudly and others stood speechless as the Chilean ship came into view that day. As the *Yelcho* approached, Shackleton stood on deck counting the number of figures on shore until he reached 22. Worsley watched and recalled: "He put his glasses back in their case and turned to me, his face showing more emotion than I had ever known it to show before."[144] The commander had completed the most important mission of his life: he had led his men "through Hell" and every last one had survived the ordeal.[145] Shackleton later described the moment of rescue: "I called out, 'Are you all well?' and [Wild] answered, 'We are all well, Boss,' and then I heard three cheers."[146]

With snow threatening overhead and the pack ice shifting below, Shackleton was in a hurry to get his crew aboard and depart as quickly as possible. Although he declined an invitation to come ashore to see the men's improvised hut, the commander did take time to ensure that all the expedition's records, photographs, and films were brought onto the rescue boat.[147] Within an hour, the *Yelcho* was fully loaded and bound for civilization.

Homeward Bound

Following the rescue, Shackleton and his men rejoined a world very different from the one they had left two years earlier. Orde-Lees noticed some of the new details of everyday life: "The theatres and the changes in women's attire were the most interesting. We noted very little change in motor car construction but enormous strides in aviation."[148]

By far the most difficult changes to comprehend were those brought about by the Great War. Europe was engulfed by fighting. Millions had perished, and the standards by which heroism were measured had changed dramatically. Orde-Lees was struck by his country's new attitude: "People think nothing of being killed, nowadays it is looked on as an honour. Opinions have changed on all sorts of subjects. They call it the Roll of Honour now instead of the casualty list. . . . Maybe one or two of us congratulated ourselves on still being in time to do our bit."[149] The names of two *Endurance* crew members would soon be added to the Roll of Honour that so amazed Orde-Lees. In September 1916, just three weeks after returning to England, the newly enlisted Timothy McCarthy died behind his gun. Not long after, former Third Officer Alfred Cheetham was killed by a German torpedo off the northeast coast of England.[150] In all, at least 15 of the 28 *Endurance* crew members went on to serve in the armed forces during World War I.

Although Europe was fixated on the horrors of the war, the story of the *Endurance* crew's survival was astonishing enough to attract popular attention and generate newspaper headlines. From South America, Shackleton sent long and detailed telegrams to the London *Daily Chronicle*, which printed stories on the polar epic for several months.[151] Hurley, too, wasted no time in setting to work on developing his photographs in a borrowed darkroom in Punta Arenas. Immediately upon his return

to London, large spreads of the images appeared in several newspapers.[152] The photographer soon returned to South Georgia Island hoping to replicate some of the landscape images lost during the time on the ice.

Despite an initial wave of interest and press coverage, the vast new terrors of the first modern war made Shackleton's feat in the South seem largely insignificant. The small victory of the polar team's survival was little consolation to a nation that had seen, for the first time, poison gas and machine guns and bombers flying overhead. In Europe, the war had changed the very meaning of leadership and heroism. Unbeknownst to the 28 men stranded in the Antarctic Circle, the glory that surrounded their departure had turned to indifference.

In addition to a tepid public welcome, Shackleton faced considerable debt when he finally returned to England in May 1917. Four years earlier, he had begged and borrowed extensively to finance the *Endurance* trip. Hoping to raise much-needed funds, he embarked on a lecture tour that took him across the United States. After the tour, he knew his next duty would be to find a commission in the British military, even though, at age 42, he was legally exempt from service. (Some historians have suggested that the explorer's decision to enlist was motivated in part by the knowledge that his credibility in any future venture would be dependent on a record of patriotic service in the war.[153]) After much wrangling, Shackleton found a post related to Arctic transport in northern Russia, where he worked alongside several former members of the *Endurance* crew.

When the war ended in 1918, more financial difficulty awaited Shackleton. In 1919, Hurley released *In the Grip of the Polar Pack*, a celebrated film about the Antarctic and the *Endurance* that helped alleviate some of the expedition's debts.[154] Shackleton also published a popular memoir that year but never saw any profits from its sales. The heirs of a former benefactor demanded repayment of the family's investment in the failed expedition. Having no other significant assets, Shackleton signed over the book rights in order to settle the matter. The explorer continued to lecture on the *Endurance* voyage, using Hurley's photographs to enliven his presentation. But remaining public interest in the story gradually waned.

By 1920, the Boss was hungry for another adventure. Although the world had ceased to be fascinated by polar exploration, Shackleton never lost his passion for confronting the challenges of the ice. Without a defined plan or goal, he managed to convince John Rowett, a former classmate, to fund another Antarctic trip aboard a ship called the *Quest*. In September 1921, the *Quest* left London with Shackleton and eight former members of the *Endurance* crew aboard. Hearing from the former commander that a new expedition was planned, Worsley, Wild, Green, McIlroy, Hussey, Macklin, McLeod, and Kerr returned to England from the corners of the world to which they had dispersed, eager to embark on one last venture with the Boss.[155] Despite the lack of concrete mission, the men were delighted to once again be together on an Antarctic voyage.

When the *Quest* stopped in Rio de Janeiro for supplies, Shackleton suffered a heart attack. He recovered, waving away suggestions that he seek medical attention, and prepared his ship to continue. On January 4, 1922, the party arrived at the familiar whaling station on South Georgia Island, the last stop before Antarctica. Early the next morning, in his cabin aboard the docked *Quest*, Shackleton suffered a second, and fatal, heart attack. He was 47. At the request of his wife Emily, his crew members buried him on South Georgia Island (see **Exhibit 5**).

Remembering Shackleton in his memoirs some years later, Worsley wrote:

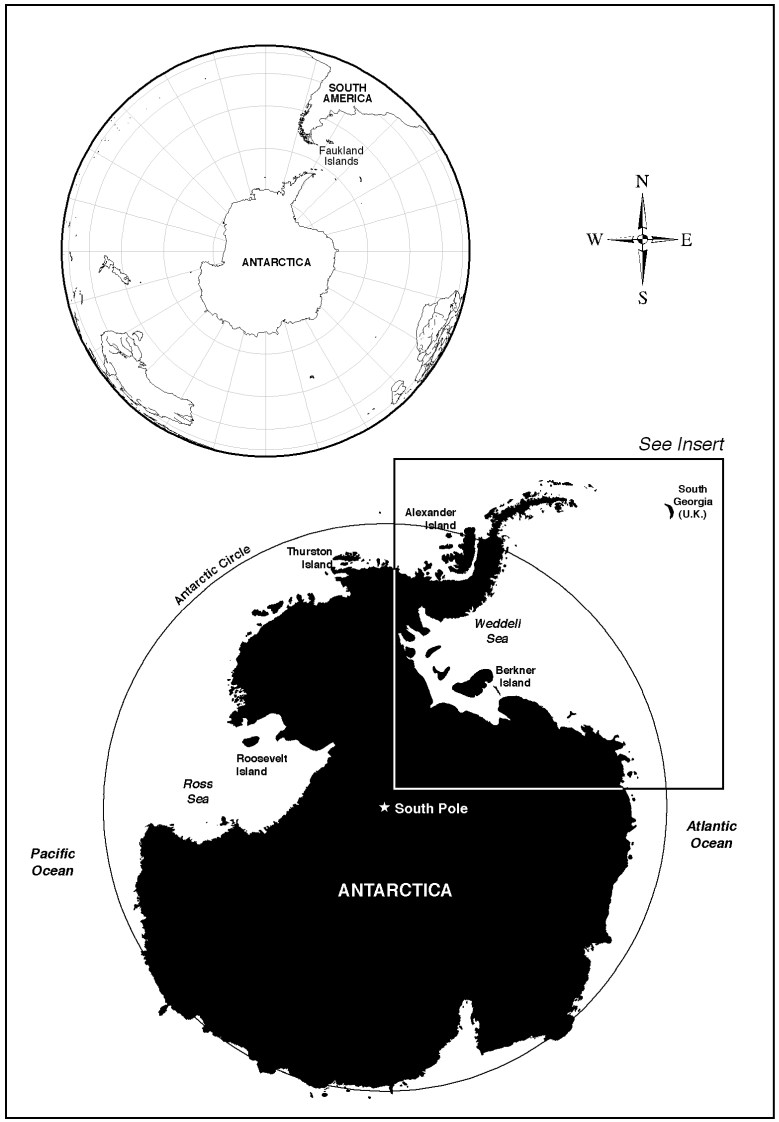
> He was not only a great explorer: he was also a great man. Twenty-two years of his life he had devoted to Polar work—work which had brought him fame and earned him a knighthood. He had forced his way to within ninety-seven miles of the South Pole and had returned with

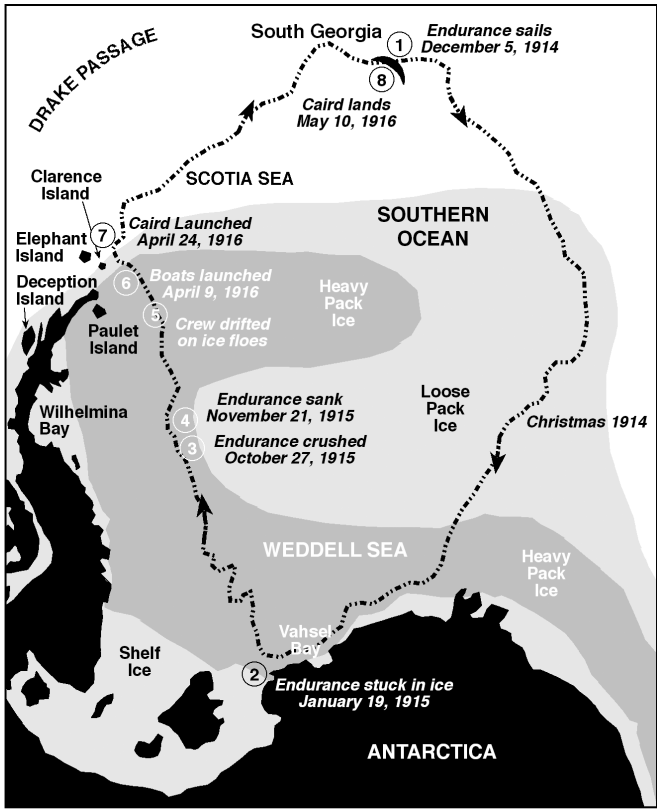
all his men. He had discovered the Beardmore Glacier and added two hundred miles of Antarctic coastline to the map. He had conquered scurvy—the scourge of all explorers till his time—and had never lost a man who was under his protection. He had been the means of enabling the Magnetic South Pole to be located.

And what of him as a man? I recalled the way in which he had led his party across the ice-floes after the *Endurance* had been lost; how, by his genius for leadership he had kept us all in health; how, by the sheer force of his personality he had kept our spirits up; and how, by his magnificent example, he had enabled us to win through when the dice of the elements were loaded most heavily against us. . . .

He was a proud and dauntless spirit, a spirit that made one glad he was an Englishman. Surely there is no end with such a man as Shackleton: something of his spirit must still live on with us; something of his greatness must surely be a legacy to his countrymen. . . . "He had a way of compelling loyalty," writes one who sailed with him. "We would have gone anywhere without question just on his order." What more glowing tribute could any man wish for?[156]

Exhibit 1 Map of the *Endurance* Voyage





Source: Casewriter.

Exhibit 2 Chronology

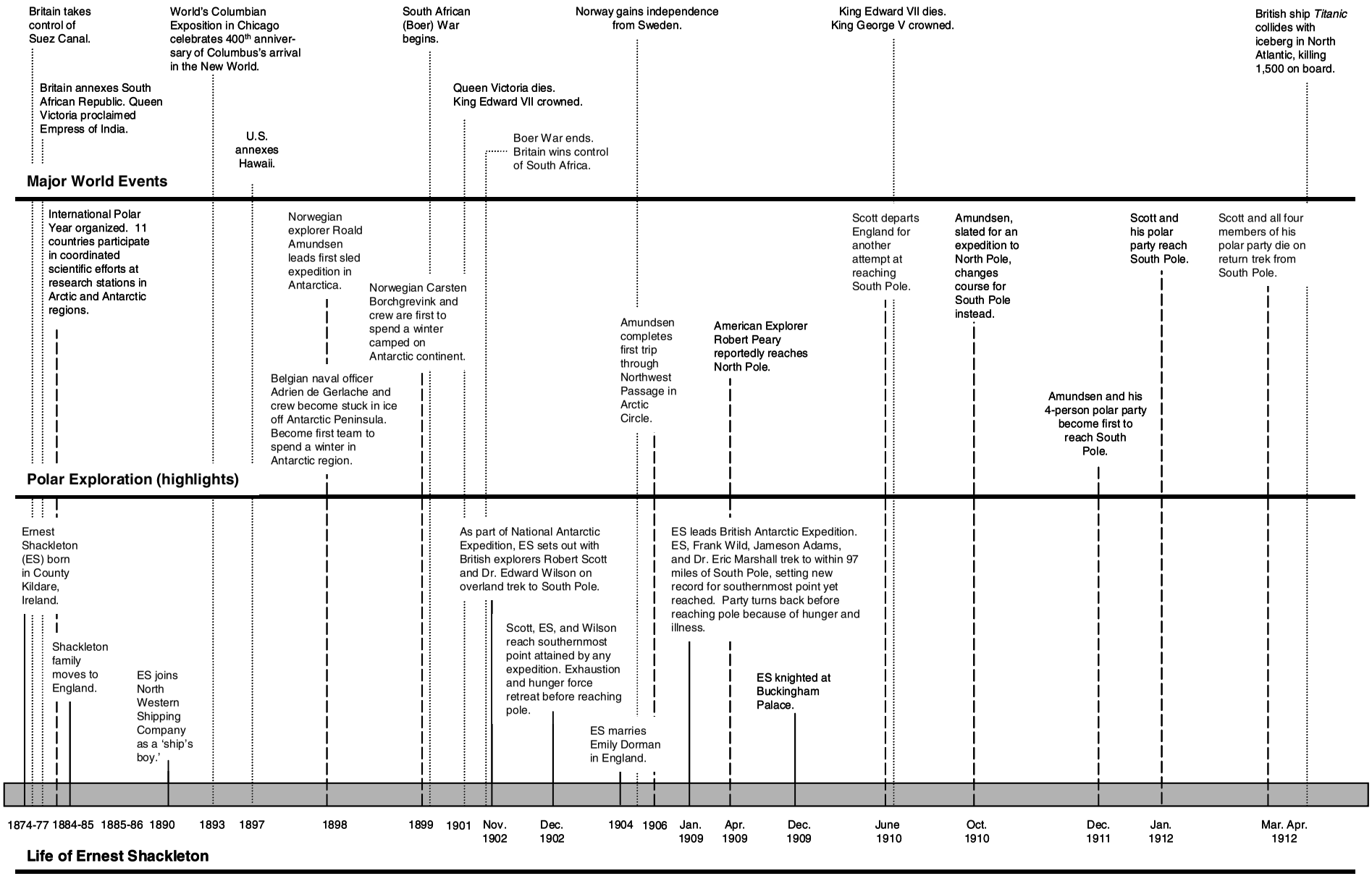
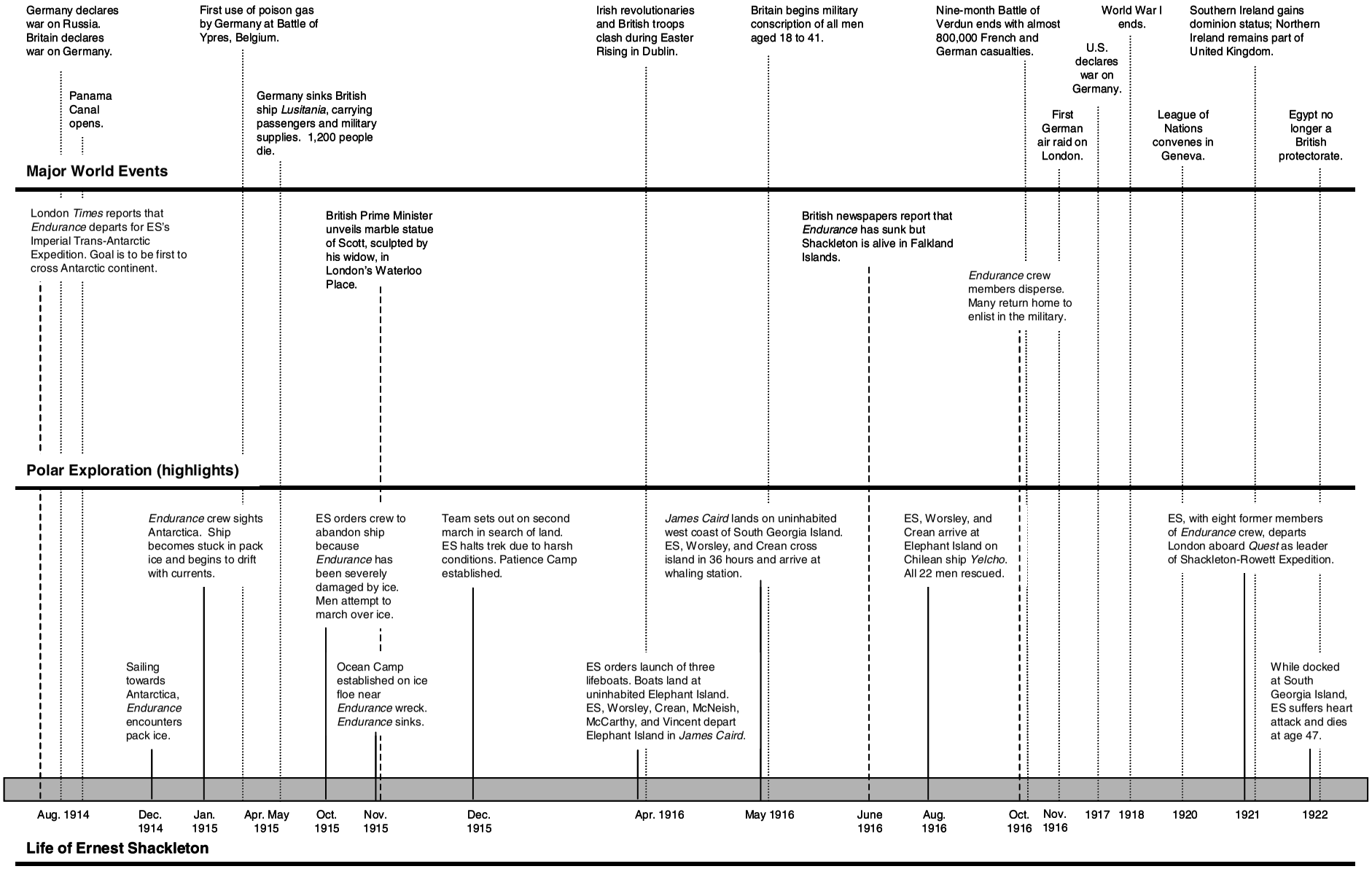


Exhibit 2 (continued)



Source: Casewriter.

Note: Timeline not to scale.

Exhibit 3 Members of the Imperial Trans-Antarctic Expedition

Sir Ernest Shackleton, Leader, Ireland.

Frank Wild, Second in Command, England. Before joining the *Endurance* expedition, Wild spent time in the navy and merchant marine. Universally well-liked and respected by the crew, he had persevered on the treacherous southern march with Shackleton on the *Nimrod* expedition and was fiercely loyal to the leader thereafter. Another member of the *Endurance* party noted in his diary that Wild was "calm, cool or collected" in almost every situation.[157]

Frank Worsley, Captain, New Zealand. Worsley, like Shackleton, was captivated by the romance and adventure of encounters with the polar landscape. And like Shackleton, he had begun his maritime career at age 16. Deeming him sometimes erratic and impractical, Shackleton trusted his expertise as a sailor but doubted his abilities as a manager of people.[158] Despite these shortcomings, his loyalty and abilities as a navigator proved invaluable from the moment the *Endurance* left England.

Lionel Greenstreet, First Officer, England. Greenstreet served in the merchant marine before joining the *Endurance*. He was a keen observer of human behavior and situations and a reliably hard worker.[159]

Thomas Crean, Second Officer, Ireland. One of 10 children from a farming family, Crean joined the Royal Navy as a teenager. Self-conscious about his lack of formal education, he was a tough and seasoned seaman who accompanied Robert Scott on both of his Antarctic trips and was awarded a medal of bravery for his performance.[160]

Alfred Cheetham, Third Officer, England. An Antarctic veteran with a heavy Liverpool accent and an upbeat disposition, Cheetham had more polar experience than any *Endurance* crew member except Wild.[161] He had sailed with Shackleton before, on the *Nimrod*, and communicated well with officers and sailors alike.[162]

Hubert Hudson, Navigator, England. Hudson attained the rank of "mate" in the merchant marine and hoped to use his experience onboard the *Endurance* to reach "master" level. Although they considered him good-natured, his comrades found his demeanor bewildering at times. Orde-Lees once wondered whether Hudson was "on the brink of a mental breakdown or bubbling over with suppressed intellectuality."[163] Although physically strong at the outset, Hudson eventually suffered from a number of mental and physical ailments during the expedition.

Louis Rickinson, First Engineer, England. Little is known about the quiet Rickinson, a hardworking combustion engine expert. He followed orders well and rarely, if ever, questioned the authority of his superiors.

Alfred Kerr, Second Engineer, Scotland. Like his fellow engineer Rickinson, Kerr was quiet. Before joining the *Endurance* crew, he worked as an engineer on oil tankers.

Dr. Alexander Macklin, Surgeon, Scotland. Only 24 when the *Endurance* sailed, Macklin, with his calm, reserved exterior, seemed older. As a doctor, he was particularly concerned about the effects of malnutrition and vitamin deficiency on the team. He was also one of the expedition's best rugby players.[164]

Dr. James McIlroy, Surgeon, Ireland. Never content when confined to an office, McIlroy served as a doctor on passenger ships to Africa and Asia before joining the *Endurance* expedition. He had a sharp, sardonic wit, and even the subjects of his frequent impersonations appreciated his incisive sense of humor.

James Wordie, Geologist, Scotland. The expedition's geologist was educated at Cambridge, alongside physicist Reginald James. Wordie brought a dry sense of humor to the *Endurance*, although his overall demeanor was generally reserved.

Leonard Hussey, Meteorologist, England. Hussey worked as an archeologist in Africa before departing for Antarctica with Shackleton. Friendly and upbeat, he was a capable banjo player who often entertained the other expedition members.

Reginald James, Physicist, England. Passionate about his scientific work, James left an attractive university post to become a member of the expedition. With little experience outside of academe and almost no knowledge of shipboard life, he was an ideal target for teasing and joking by others on the boat. Although serious, he later surprised the crew by becoming one of the most talented performers in the humorous plays mounted while the *Endurance* was immobilized.[165]

Robert Clark, Biologist, Scotland. Clark was neither humorous nor talkative, but Shackleton hired him on the strength of a colleague's recommendation.[166] Although the other members of the expedition respected his physical strength, willingness to do unpleasant work, and talent at football, he often kept to himself or to the company of the other scientists on board the *Endurance.*

Frank Hurley, Photographer, Australia. Hurley was an independent-minded and strong-willed adventurer who discovered photography as a teenager and later traveled to Antarctica with Douglas Mawson's 1912 expedition. In addition to being a highly regarded photographer, Hurley was a skilled outdoorsman and survivalist. He could build or improvise needed equipment and machinery with whatever materials were on hand. Well aware of his talents, Hurley was considered somewhat arrogant. Aboard the *Endurance,* he was referred to as "the Prince."[167]

George Marston, Artist, England. Marston applied to be official artist of the *Nimrod* expedition at the suggestion of his friends Helen and Kathleen Shackleton, sisters of the explorer. He was physically strong and participated in several sledging excursions on that trip, leading Shackleton to engage him again for the *Endurance* crew.[168]

Thomas Orde-Lees, Motor Expert, England. Orde-Lees was a physical training instructor and captain in the British Marine before joining Shackleton's expedition. Although he was hired to provide expertise in skiing and the use of motorized sledges, Orde-Lees became the crew's unofficial storekeeper after the *Endurance* was immobilized. He kept vigilant—even obsessive—watch over the party's food supplies and often disagreed with Shackleton about how best to conserve provisions and feed the men. Snobbish at times, Orde-Lees was extremely conscious of class differences among crew members and did not much like the fact that all men on board were expected to share the burden of manual labor equally.

Henry McNeish, Carpenter, Scotland. Known as "Chippy," McNeish was one of the men who most often clashed with Shackleton. Although he was difficult to get along with, his fellow crewmen respected his talent as a carpenter and his many years of sailing experience. McNeish brought a pet cat with him on the *Endurance* expedition, and the animal's antics were a source of entertainment for many months. When the team was forced to march after abandoning ship, Shackleton ordered that the cat be shot. McNeish never forgave the commander for that decision.[169]

Charles Green, Cook, England. Green, the son of a baker, was a cook on merchant and passenger ships before joining Shackleton's expedition. Despite the tremendous difficulties of cooking under the circumstances of the expedition, he was tirelessly dedicated to his post, working from early morning to late evening every day.

William Bakewell, Able Seaman, United States. Bakewell, the only American aboard the *Endurance*, had worked on farms and railroads before changing careers to become a sailor. He first encountered Shackleton in Buenos Aires while looking for passage to England and applied for a position when he heard that some men had been fired from the crew.[170]

Walter How, Able Seaman, England. Shackleton liked How's amiable disposition and was impressed by his previous experience aboard ships in polar regions.

Timothy McCarthy, Able Seaman, Ireland. McCarthy was a popular member of the *Endurance* crew, known for his good-natured demeanor and ability to get along well with many different types of people. Before Shackleton hired him, he had been in the merchant marine.

Thomas McLeod, Able Seaman, Scotland. McLeod brought 27 years of experience at sea to his work on the *Endurance*.[171] He had sailed with Shackleton's 1909 expedition and with Scott's ill-fated mission in 1912.

John Vincent, Able Seaman, England. Vincent, who had navy and commercial fishing experience, was a tough personality and not well liked by his *Endurance* crewmates. Shackleton kept close watch over the sailor, who often behaved like a bully.

Ernest Holness, Fireman/Stoker, England. Holness worked on fishing boats before being hired onto the *Endurance*.

William Stephenson, Fireman/Stoker, England. Stephenson was an officer's servant in the British Marine before joining Shackleton's expedition. Along with Holness, Vincent, and McNeish, Stephenson was one of four *Endurance* crew members whom Shackleton did *not* recommend for the Polar Medal, an award given after the voyage in recognition of exceptional service.[172]

Perce Blackborow, Steward, Wales. The youngest man on board, Blackborow joined the expedition in Buenos Aires as a stowaway. Hidden by his friend Bakewell, he was discovered the day after the ship sailed. But Blackborow was bright and hardworking, and he soon came to be considered an official member of the crew.

Source: Adapted by casewriter from Caroline Alexander, *The Endurance* (New York: Knopf, 1999) and Roland Huntford, *Shackleton* (London: Hodder and Stoughton, 1985).

Exhibit 4 Preparations for the *Endurance* Voyage: *The Times* (London)

ANTARCTIC TRAVELLING.

SIR ERNEST SHACKLETON ON EXPLORERS' FOOD.

NEW MARCHING PLANS.

Sir Ernest Shackleton, in conversation with a representative of *The Times*, yesterday described some of the physical hardships which he and his comrades will have to face on their forthcoming expedition to the Antarctic. Dealing with the subject of food for travellers in that region, he emphasized the value of sugar, the craving for which, he said, is most acute. Sir Ernest Shackleton added :—

To show you how valuable to the explorer sugar is, there was an occasion when we marched 321 miles, drawing laden sledges, in 14½ days. Every two hours we took two or three lumps of sugar each. Within 10 minutes of eating this we could feel the heat going through our bodies. The highest temperature of that march was 62deg. below zero.

Talking of temperature, it is a remarkable fact that while high up on the plateau our thermometers would not register any body temperature except just after we had finished eating. Just after a meal the mercury rose to within a point or two of the normal. This curious circumstance has suggested a new arrangement of the hours of march. Night and day in the ordinary sense will not exist for us. On the coming expedition a 19-hour day is to be adhered to. On awaking one hour will be devoted to preparation; after this there will be a four-hour march, followed by an hour's rest, another four-hour march and a second hour's rest. Sleep time, which formerly lasted from 7 or 8 p.m. till 6 a.m., will be shortened to eight hours—the period after which loss of heat becomes more important than gain in rest. We shall by this means save 35 hours in a week, and do about eight hours of marching a day. The arrangement will be better for both men and dogs.

No Alcoholic Stimulant.

We shall take with us no stimulants except tea and cocoa. We drink the tea at midday to refresh us for the "afternoon" march. The cocoa is taken last thing at night to preserve body heat during the hours of sleep. The greatest temptation which assails an Arctic explorer is the desire to drink on the march. At his feet lies potential liquid in unlimited quantity. But the snow is at 40deg. below zero and must be melted in the mouth. The heat required to melt it is much too precious to be thrown away, representing as it does strength and energy.

It was extraordinary how we used to crave for different kinds of food at different times. When eating starchy food to counteract dysentery on one occasion we all longed for meat, on another occasion, when eating meat exclusively, we craved starchy food. Seal blubber, which in winter quarters would have made us ill, was searched for eagerly on the march. A man who found a piece of blubber in these circumstances believed he had discovered a prize. We liked thick, fat puddings. Light articles of diet like jellies, into which we could not get our teeth, were useless to us. One of the finest dishes we ever tasted on returning to winter quarters consisted of the contents of ten tins of sardines laid out on fat bacon and covered with pastry. This *chef d'œuvre* concluded a 12-course meal. Never once did our thoughts turn to alcohol.

Colds from England.

"Catching cold" is almost unknown in the Antarctic. The only time we ever suffered from a cold was just after we had opened a bale of English clothes to serve them out for winter wear. The germs apparently were lying dormant, having been inhibited by the cold. They "woke up" on being heated. The men whose duties took them into the open recovered in a day. The others suffered during four or five days.

Polar explorers commonly get bad colds on returning to civilization. The reason, in Sir Ernest's opinion, is that the white blood corpuscles, "phagocytes"—whose duty it is to kill hostile germs—become atrophied or "lose their skill" in the pure Antarctic air. He added :—

There was an interesting illustration of this when the Nimrod anchored near an island, to the south of New Zealand. The men went ashore and ran about naked on the beach. When they came on board they found themselves bitten all over the body by sandflies. Their bodies swelled up terribly. We reached New Zealand three days later, and then were surprised to find that, while all those who had not been bitten contracted colds, those who had been remained unaffected. Apparently their white blood corpuscles had "wakened up."

Absence of sunlight has a most peculiar effect on the human complexion. When we emerged from four months of night our faces were green and yellow. The sun, however, soon restored our normal colour. Another curious point noted was that all the 15 men of the shore party were discovered to have blue-gray or blue eyes. The Antarctic explorer is not so favourably situated as the Arctic. In summer 100 different kinds of flowering plants are to be found within 500 miles of the North Pole. The tracks of the Arctic hare are met with 100 miles from the Pole. In the case of the South Pole, on the contrary, no flowering plants exist within 1,700 miles. Within 750 miles all animal and plant life is non-existent.

Source: "Antarctic Travelling," *The Times* (London), January 13, 1914, p. 5e.

Exhibit 5 Ernest Shackleton's Obituary: *The New York Times*

SIR ERNEST SHACKLETON.

It was the irony of fate that Sir ERNEST SHACKLETON, engaged in the least dangerous of his expeditions, should die at anchor in a harbor off South Georgia Island. Across the snow-covered mountains of the unknown interior he and his companions had fought their way in 1915 to secure relief for the other men of the ill-starred Endurance, marooned on Elephant Island in the Antarctic. SHACKLETON was always an idealist. The traversing of South Georgia Island was a desperate but necessary undertaking. Arrived on the beach of the whaling station at last, the adventurers presented themselves like ghosts to the manager. "Our beards," wrote SHACKLETON, "were long and our "hair was matted. We were un-"washed, and the garments that we "had worn for nearly a year without "change were tattered and stained." The story told by these strangers who seemed to have fallen from the skies was almost incredible. They had endured the most terrible privations. But their commander was in a state of mental exaltation. "We had pierced the veneer of outside things," he said. "We had 'suffered, starved and tri-"'umphed, groveled yet grasped at "'glory, grown bigger in the fullness "'of the whole.' We had seen GOD in "His splendors, heard the text that "Nature renders. We had reached "the naked soul of man."

That expedition, the chief object of which had been to cross the Antarctic Continent, was as much a wreck as the Endurance, shattered by the ice-floes, dismantled, her masts twisted out of her, her smokestack down. As SHACKLETON turned away from her to hearten his men for the long drift on the ice, he tore the fly-leaf out of the Bible that Queen ALEXANDRA had given the ship, "with her own writing on it," and also he saved, for they had to travel light, the page of Job that contained the verse:

> Out of whose womb came the ice?
> And the hoary frost of heaven, who hath gendered it?
> The waters are hid as with a stone,
> And the face of the deep is frozen.

It was doubtless his idealism and the religious strain in him that made SHACKLETON a Captain to be loved as well as obeyed. All could see and feel the genuine worth of the man. When the crew of the Endurance at last reached Elephant Island in their three frail boats the honor of being the first to land where man had never set foot before was assigned to the youngest of the party, who happened to be so frostbitten that SHACKLETON had to lift and push him ashore. As a subordinate on SCOTT's Discovery expedition SHACKLETON was the life of the party and always the handy man, doing the hardest work and never sparing himself. "SHACKLETON," SCOTT says in "The Voyage of the Discovery," "is editor of our monthly "journal, The South Polar Times; "he is also printer, manager, type-"setter and office boy." Strong as he looked, indomitable as was his spirit, SHACKLETON fell ill at last and scurvy threatened him. SCOTT wrote in his diary: "His breathing has be-"come stertorous and labored, his "face looks pinched and worn, his "strength is very much reduced, and "for the first time he has lost his "spirits and grown despondent." At the first opportunity SHACKLETON had to be invalided home.

But he was soon back in the Antarctic, this time as leader of the Nimrod expedition. The South Pole was his objective, but, provisions failing, he was stopped 100 miles short of it. In his next adventure, with the thoroughly equipped Endurance, fate again dealt him a cruel blow. His last enterprise, with the Quest, was to comprise everything that was still worth seeking in the Southern Pacific and the Antarctic Circle. Every man aboard was a dreamer as well as a man of science, and the record when made up was to transcend in interest either "The Heart of the Antarctic" or "South." But SHACKLETON had endured too much. His strong constitution failed him on the very threshold of the new adventure.

Source: "Sir Ernest Shackleton," *The New York Times*, January 31, 1922, p. 11.

Endnotes

[1] A sledge is a type of heavy sled, mounted on runners and used for traveling over snow and ice.

[2] Caroline Alexander, *The Endurance* (New York: Knopf, 1999), p. 71.

[3] Ernest Shackleton, diary, October 29, 1915, SPRI. Quoted in Roland Huntford, *Shackleton* (London: Hodder and Stoughton, 1985), p. 456. All SPRI references are to the Scott Polar Research Institute at the University of Cambridge in Cambridge, England. The authors are grateful to the Scott Polar Research Institute for providing copies of major portions of the diaries of Sir Ernest Shackleton and Dr. Alexander Macklin.

[4] Huntford, *Shackleton*, p. 10.

[5] *The Captain* (April 1910): 42. Quoted in Huntford, *Shackleton*, p. 11. During Shackleton's lifetime, one pound sterling was equal to 20 shillings, and one shilling was equal to 12 pence. In 1971, the nation converted its money to a decimal system, making £1 equal to 100 pence.

[6] Hugh Robert Mill, *The Life of Sir Ernest Shackleton* (Boston: Little, Brown, 1923), p. 31.

[7] A nation's merchant marine is made up of the ships and crew of its commercial shipping industry. Some merchant marine vessels transport cargo and raw materials, while others are passenger ships. "Merchant Marine," *Encyclopaedia Britannica,* 2003, Encyclopaedia Britannica Online.

[8] A.B. Armitage to Hugh Robert Mill, undated, SPRI. Quoted in Huntford, *Shackleton*, p. 29.

[9] An unnamed captain quoted in Mill, *The Life of Sir Ernest Shackleton*, p. 33.

[10] O.T. Burne to Hugh Robert Mill, May 10, 1922, SPRI. Quoted in Huntford, *Shackleton*, p. 17.

[11] Ibid., p. 17.

[12] J.A. Hussey to Hugh Robert Mill, June 19, 1922, SPRI. Quoted in Huntford, *Shackleton*, pp. 21–22.

[13] J.A. Hussey to Hugh Robert Mill, July 27, 1922, SPRI. Quoted in Huntford, *Shackleton*, p. 25.

[14] James Dunsmore, "Shackleton of the s.s. 'Flintshire'," *The United Methodist*, May 4, 1922, p. 213. Quoted in Huntford, *Shackleton*, p. 18.

[15] J. Scott Keltie, *Geographical Journal* 49 (May 1917): 363.

[16] Huntford, *Shackleton*, p. 680.

[17] Campbell Mackellar, *Scented Isles and Coral Gardens* (London: John Murray, 1912), p. 199. Quoted in Huntford, *Shackleton*, p. 169. Several years later, in an essay in the *Nimrod's* shipboard magazine, Shackleton himself wrote that "War in the old days made men. . . . We have not these same stirring times to live in and must look for other outlets for our energy and for the restless spirit that fame alone can satisfy." *The Antarctic Petrel*, TBL. Quoted in Huntford, *Shackleton*, p. 182. All TBL references are to the Alexander Turnbull Library in Wellington, New Zealand.

[18] Huntford, *Shackleton*, p. 54. Newspaper writers at the time downplayed the significance of Scott's inexperience, citing his "youth" and reputation as a "competent young officer" as ample evidence of his ability to learn quickly and distinguish himself as leader of the NAE. *The Times* (London), May 29, 1900. Quoted in Huntford, *Shackleton*, p. 27.

[19] "Scurvy," *Encyclopaedia Britannica*, 2003, Encyclopaedia Britannica Online.

[20] Huntford, *Shackleton*, p. 47.

[21] *Daily Mail* (London), March 11, 1911. Quoted in Huntford, *Shackleton*, p. 350.

[22] Ernest Shackleton to Elspeth Beardmore, January 13, 1914, NMG. Quoted in Huntford, *Shackleton*, p. 355. All NMG references are to the National Maritime Museum in Greenwich, England.

[23] Huntford, *Shackleton*, p. 367.

[24] A.J. Hinks to Douglas Freshfield, May 1, 1916, RGS. Quoted in Huntford, *Shackleton*, p. 369. All RGS references are to the Royal Geographical Society in London, England.

[25] Margery Fisher and James Fisher, *Shackleton* (London: James Barrie, 1957), p. 306.

[26] Eric Marshall to John Kendall, July 20, 1952, SPRI. Quoted in Huntford, *Shackleton*, p. 367.

[27] Ibid., September 15, 1950, SPRI. Quoted in Huntford, *Shackleton,* p. 367.

[28] *The Times* (London), December 30, 1913. Quoted in Huntford, *Shackleton,* p. 366.

[29] Mill, *The Life of Sir Ernest Shackleton,* p. 197.

[30] Huntford, *Shackleton,* p. 375.

[31] "Shackleton Has $250,000. This Will Be the Minimum Cost of His Expedition, He Says," *The New York Times*, December 31, 1913, p. 2.

[32] Mill, *The Life of Sir Ernest Shackleton,* p. 196.

[33] Fisher and Fisher, *Shackleton*, p. 319.

[34] Huntford, *Shackleton*, p. 365.

[35] Mill, *The Life of Sir Ernest Shackleton,* p. 195.

[36] Bridges Adams to James Fisher, July 31, 1955, SPRI. Quoted in Huntford, *Shackleton,* p. 386.

[37] Alexander Macklin, interview by James Fisher, March 12, 13, 1956. Quoted in Fisher and Fisher, *Shackleton*, p. 314.

[38] *Daily Chronicle* (London), October 29, 1914. Quoted in Huntford, *Shackleton*, p. 383.

[39] Huntford, *Shackleton,* p. 383.

[40] Fisher and Fisher, *Shackleton*, p. 324.

[41] Ernest Shackleton to Emily Shackleton, August 31, 1914. Quoted in Fisher and Fisher, *Shackleton*, p. 324.

[42] *Daily Chronicle* (London), October 29, 1914. Quoted in Huntford, *Shackleton,* p. 383.

[43] Alexander, *The Endurance*, p. 25.

[44] Reginald James to Hugh Robert Mill, May 12, 1922, SPRI. Quoted in Huntford, *Shackleton*, p. 386.

[45] Alexander Macklin, interview with James Fisher, March 12, 13, 1956. Quoted in Fisher and Fisher, *Shackleton*, pp. 336–337.

[46] Ibid. Quoted in Huntford, *Shackleton,* p. 422.

[47] Alexander, *The Endurance*, p. 57.

[48] Alfred Lansing, *Endurance: Shackleton's Incredible Voyage* (London: Weidenfeld & Nicolson, 1999), p. 27.

[49] Huntford, *Shackleton*, p. 409.

[50] Fisher and Fisher, *Shackleton*, p. 339.

[51] Quoted in Alexander, *The Endurance*, p. 42.

[52] Alexander, *The Endurance*, p. 64.

[53] Thomas Orde-Lees, diary, December 16, 1914, TBL. Quoted in Huntford, *Shackleton,* p. 425.

[54] Lansing, *Endurance: Shackleton's Incredible Voyage,* p. 36.

[55] Lansing, *Endurance: Shackleton's Incredible Voyage,* p. 44.

[56] Quoted in Alexander, *The Endurance*, p. 68.

[57] Lansing, *Endurance: Shackleton's Incredible Voyage,* p. 37.

[58] Lansing, *Endurance: Shackleton's Incredible Voyage,* p. 43.

[59] Lansing, *Endurance: Shackleton's Incredible Voyage,* pp. 44–45.

[60] F.A. Worsley, *Endurance: An Epic of Polar Adventure* (New York: W.W. Norton, 1931), p. 4.

[61] F.A. Worsley, diary, October 18, 1915, SPRI. Quoted in Huntford, *Shackleton,* p. 444.

[62] Quoted in Alexander, *The Endurance,* p. 89.

[63] Lionel Greenstreet, undated interview with James Fisher, SPRI. Quoted in Huntford, *Shackleton*, p. 456.

[64] Frank Hurley, "Shackleton's Argonauts," in *Antarctic Eyewitness* (Sydney: Angus & Robertson, 1999), p. 231.

[65] Huntford, *Shackleton*, p. 457.

[66] Shackleton, *South*, p. 72.

[67] Huntford, *Shackleton,* p. 460.

[68] Michael Smith, *Tom Crean: Unsung Hero* (Seattle: Mountaineers Books, 2000), p. 187.

[69] Huntford, *Shackleton,* p. 436-437. Greenstreet described Shackleton's tent assignments: "He collected with him the ones he thought wouldn't mix with the others . . . they were not so easy to get on with, the ones he had in his tent with him—they were quite a mixed bag." Quoted in Alexander, *The Endurance*, p. 103.

[70] The *Endurance* diary of Dr. Alexander Macklin provides a record of what the crew members ate on a daily basis. Most entries note the components of each meal and often include a brief comment about taste and portion size. *Endurance* diary of Alexander Hepburn Macklin, October 29, 1915–1919, November 1916, SPRI, Ms 1588;bj.

[71] Lansing, *Endurance: Shackleton's Incredible Voyage*, pp. 80–82.

[72] Lansing, *Endurance: Shackleton's Incredible Voyage,* p. 82.

[73] Lansing, *Endurance: Shackleton's Incredible Voyage*, p. 82.

[74] Shackleton, *South*, p. 69.

[75] Hurley, "Shackleton's Argonauts," p. 235.

[76] Hurley, "Shackleton's Argonauts," p. 235.

[77] Lansing, *Endurance: Shackleton's Incredible Voyage,* p. 71.

[78] Hurley, "Shackleton's Argonauts," pp. 235–236.

[79] Hurley, "Shackleton's Argonauts," p. 236.

[80] Quoted in Shackleton, *South*, p. 82.

[81] Shackleton, *South*, p. 82.

[82] Quoted in Alexander, *The Endurance,* p. 110.

[83] Shackleton's diary demonstrates that he was a vigilant monitor of changes in location, weather, and food supply. On most days, he recorded the crew's ever-shifting longitude and latitude, a description of weather conditions and wind direction, and the number of slaughtered seals and penguins brought back to camp. Diary of Sir Ernest Henry Shackleton, January 1, 1915–1930, December 1915, SPRI, Ms 1537/3/7; bj.

[84] Alexander, *The Endurance,* p. 110.

[85] Lansing, *Endurance: Shackleton's Incredible Voyage,* p. 90.

[86] Alexander, *The Endurance,* p. 112.

[87] Alexander, *The Endurance,* p. 113.

[88] Shackleton, *South*, p. 87.

[89] Shackleton, *South*, p. 93.

[90] Alexander, *The Endurance,* p. 118.

[91] Alexander, *The Endurance,* p. 117.

[92] Shackleton, *South*, p. 95.

[93] Shackleton, *South*, p. 95.

[94] Huntford, *Shackleton*, p. 506.

[95] Quoted in Alexander, *The Endurance,* p. 119.

[96] Shackleton, *South*, pp. 97–98.

[97] Alexander, *The Endurance,* p. 123.

[98] Alexander, *The Endurance,* p. 124.

[99] Quoted in Alexander, *The Endurance,* p. 123.

[100] Shackleton, *South*, p. 101.

[101] Quoted in Alexander, *The Endurance,* p. 124.

[102] Lansing, *Endurance: Shackleton's Incredible Voyage,* p. 158.

[103] Shackleton, *South*, p. 114.

[104] Quoted in Alexander, *The Endurance,* p. 131.

[105] Shackleton, *South*, p. 115.

[106] Alexander, *The Endurance,* p. 134.

[107] Alexander, *The Endurance,* p. 176.

[108] Lansing, *Endurance: Shackleton's Incredible Voyage*, p. 191.

[109] Lansing, *Endurance: Shackleton's Incredible Voyage,* p. 190.

[110] Alexander, *The Endurance,* p. 144.

[111] Alexander, *The Endurance,* p. 144.

[112] Lansing, *Endurance: Shackleton's Incredible Voyage*, p. 223.

[113] Worsley, *Endurance: An Epic of Polar Adventure*, p. 108.

[114] Lansing, *Endurance: Shackleton's Incredible Voyage,* p. 225.

[115] Alexander, *The Endurance,* p. 145.

[116] Alexander, *The Endurance,* p. 145.

[117] Alexander, *The Endurance,* p. 147.

[118] Alexander, *The Endurance,* pp. 143–144.

[119] Worsley, *Endurance: An Epic of Polar Adventure*, p. 106.

[120] Quoted in Alexander, *The Endurance,* p. 147.

[121] Shackleton, *South*, pp. 127–128.

[122] Alexander, *The Endurance,* p. 150.

[123] Shackleton, *South*, p. 131.

[124] Lansing, *Endurance: Shackleton's Incredible Voyage,* p. 257.

[125] Lansing, *Endurance: Shackleton's Incredible Voyage,* p. 258.

[126] Lansing, *Endurance: Shackleton's Incredible Voyage,* p. 263.

[127] Worsley, *Endurance: An Epic of Polar Adventure*, p. 143.

[128] Alexander, *The Endurance,* p. 159.

[129] Alexander, *The Endurance,* p. 160.

[130] Alexander, *The Endurance,* p. 161.

[131] Worsley, *Endurance: An Epic of Polar Adventure*, p. 155.

[132] Alexander, *The Endurance,* p. 162.

[133] Worsley, *Endurance: An Epic of Polar Adventure*, p. 162.

[134] Lansing, *Endurance: Shackleton's Incredible Voyage,* p. 272.

[135] Worsley, *Endurance: An Epic of Polar Adventure*, p. 163.

[136] Shackleton, *South*, p. 149.

[137] Shackleton, *South*, p. 151.

[138] Quoted in Alexander, *The Endurance,* p. 168.

[139] Huntford, *Shackleton,* p. 612.

[140] Alexander, *The Endurance,* p. 168.

[141] Alexander, *The Endurance,* p. 169.

[142] Lansing, *Endurance: Shackleton's Incredible Voyage,* p. 277.

[143] Alexander, *The Endurance*, p. 182.

[144] Worsley, *Endurance: An Epic of Polar Adventure*, p. 179.

[145] Shackleton quoted in Alexander, *The Endurance*, p. 185.

[146] Shackleton, *South*, p. 155.

[147] Worsley, *Endurance: An Epic of Polar Adventure*, p. 180.

[148] Thomas Orde-Lees, diary, August 30, 1916, SPRI. Quoted in Huntford, *Shackleton*, p. 624.

[149] Ibid. Quoted in Huntford, *Shackleton,* pp. 623–624.

[150] Alexander, *The Endurance*, p. 195.

[151] Alexander, *The Endurance,* p. 189.

[152] Alexander, *The Endurance,* p. 189.

[153] Alexander, *The Endurance,* p. 190.

[154] Alexander, *The Endurance,* p. 189.

[155] Alexander, *The Endurance,* p. 191–192.

[156] Worsley, *Endurance: An Epic of Polar Adventure,* p. 295-298. Since the late 1990s, a tremendous resurgence of interest in Ernest Shackleton and the *Endurance* story has resulted in projects ranging from books and films to a charter school. Recent media productions include an A&E movie, a PBS/NOVA movie, a giant-screen film, and an exhibit at the American Museum of Natural History. Publications include two business volumes focused on the explorer's leadership strategies, at least 15 children's titles, and dozens of historical books about the

expedition. In Massachusetts, the not-for-profit Shackleton Schools—founded and run by two Harvard Business School graduates—use a curriculum of academics, service learning, and outdoor expeditions to teach leadership and courage in the spirit of the *Endurance* leader.

[157] Quoted in Huntford, *Shackleton*, p. 403.

[158] Alexander, *The Endurance*, p. 63 and Huntford, *Shackleton*, p. 390.

[159] Alexander, *The Endurance*, p. 63.

[160] Alexander, *The Endurance*, p. 21.

[161] Alexander, *The Endurance*, p. 19.

[162] Huntford, *Shackleton*, p. 400.

[163] Quoted in Alexander, *The Endurance*, p. 63.

[164] Alexander, *The Endurance*, p. 60.

[165] Alexander, *The Endurance*, pp. 57–58.

[166] Huntford, *Shackleton*, p. 404.

[167] Alexander, *The Endurance*, p. 21.

[168] Alexander, *The Endurance*, p. 21.

[169] Alexander, *The Endurance*, p. 196.

[170] Alexander, *The Endurance*, p. 23.

[171] Alexander, *The Endurance*, p. 21.

[172] Huntford, *Shackleton*, p. 656.