

The British Imperial Antarctic Expedition 1920–1922: Paradise Harbour, Antarctic Peninsula

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ABSTRACT. On 12 January 1921 the British Imperial Antarctic Expedition 1920–1922 led by 27 year old Cambridge graduate John Lachlan Cope, arrived at Paradise Harbour situated west of Andvord Bay on the Danco Coast, Graham Land. The four-man party was landed by Norwegian whalers, on a small island with a promontory they named ‘Waterboat Point’ now Waterboat Point (64°49’S, 62°52’E), because of an abandoned water-boat there. Fortunately ready accommodation was available in the boat and to this were attached cases of provisions to form an improvised hut with an extension added before winter. Cope and Wilkins his deputy leader stayed just six weeks and after helping to build the hut, in effect abandoned the other two members of the expedition, Bagshawe and Lester. The two men voluntarily remained and in the belief that they would be paid, vigorously pursued a varied scientific programme. Although lacking essential items including certain scientific instruments, they were comparatively well off until relieved by Norwegian whalers in January 1922. The expedition that lasted one year and a day and was supported logistically by Norwegian whalers, became the smallest British expedition to overwinter in Antarctica and was the only expedition at that time. Bagshawe and Lester produced an impressive record of observations in meteorology, biology, oceanography, glaciology, botany and geology. In 1951 when Chile established Presidente González Videla Station, remains of the water-boat and hut were present, but today little evidence remains of the site destroyed by natural processes, human intervention and buried by guano. With exception of a few papers and chapters in books, *Two men in the Antarctic* (Bagshawe 1939) remains the definitive work on this generally forgotten expedition. For this paper primary resources have focused on original manuscripts. Although much material including financial records if indeed they existed, has been lost, surviving documents provide insights into the expedition. Reasons for the eventual loss of Bagshawe and Lester’s field station are discussed.

Introduction

John Cope, born at Twickenham on 31 March 1893, (B.A. Lachlan-Cope, personal communication, 17 July 2000) was educated at Tonbridge School in 1906–1911 and attended Christ’s College Cambridge in 1911–1914 where he graduated in natural science and medicine (Jones 1981). On the recommendation of Dr Arthur E. Shipley, Vice-Chancellor at Cambridge, Cope was appointed biologist and surgeon by Sir Ernest Shackleton (Richards 1981) to the Ross Sea party of 1914–1917, led by Lt. Aeneas L.A. Mackintosh (McElrea and Harrowfield 2004).

After the relief of the seven survivors on 10 January 1917, he married later that year Norah Robinson daughter of Lord Rosmead and they subsequently had four children (Jones 1982). He then served with the Royal Navy (possibly Royal Naval Air Service) until the end of World War 1 (Lachlan-Cope 1983).

During service with the Ross Sea party and disappointed with efforts to undertake microbiological studies at Cape Evans, Cope considered plans for his own Antarctic expedition. The Ross Sea party physicist R.W. Richards later recalled, ‘he may have had some notion of utilizing the depots set up by the last Shackleton expedition [BAE 1907–1909]. . . during the winter of 1916 I frequently heard Cope refer to these depots [although] the main difficulty would be locating them again’ (Richards 1919).

A grand plan: the British Imperial Antarctic Expedition

In January 1919 Cope released a detailed prospectus ‘for [the] furtherance of geographical and scientific knowledge of Antarctica. . . and being desirous of conducting this further Expedition on lines similar to those of the late Capt. Sir Robert Falcon Scott, CB RN; . . .’ Cope’s five objectives spread over five years, were to ascertain the extent of mineral and other deposits during exploration in the Ross Sea area and at Cape Ann (Enderby Land); to obtain further evidence of the localities and migrations of whales of economic value and to create British industries in this trade; to circumnavigate the Antarctic and to generally extend knowledge of Antarctica with the view to obtaining further scientific data of economic importance. He proposed to use Scott’s former ship *Terra Nova* and after establishing a wireless and meteorological station on Scott Island, a headquarters with communications equipment would be built at New Harbour between Cape Bernacchi and Butter Point, along the coast of Victoria Land. A further hut was proposed for scientific parties at Cape Crozier on Ross Island. The ship would then winter over at Cape Ann and after exploring Coats Land, winter over in the South Shetlands (Cope 1919a).

Cope contemplated use of an aircraft to be named later The Kangaroo (*The New York Times* 24 December 1920) for surveying the interior and making a flight to the South Pole in two stages. ‘This flight,’ he said ‘is not being made merely as a stunt. After the flight to

the South Pole the aeroplane would be used during the next four seasons. . .’ (*The Daily Telegraph* (London) 6 February 1920). With his 54 man party Cope planned to leave England in June 1920, and Wellington in October. He estimated the cost of the five year expedition at £100,000 and began to contact people whom he hoped would support his expedition and to receive applications for potential staff.

A party of 22 men would be led by Major (later Sir) Raymond Priestley, a veteran of Shackleton’s 1907–1909 expedition and Scott’s 1910–1913 expedition ‘who wishes to accompany the Expedition in charge of the New Harbour Party but is at present prevented from giving any definite answer owing to private reasons unconnected with the Expedition’ (Cope 1919c).

Two further members of Scott’s 1910–1913 expedition, Lt. Victor Campbell RN; as captain (Hinks 1919) and William Burton RN; as third engineer (Larkman 1919), were also offered positions, although Burton who met Cope in London advised that it was impossible for him to sign on at present (W. Burton, personal communication, 23 December 1981). Cdr. J. Jefferies RN; was offered the position of navigating officer (Hinks 1919).

James (Frank) Hurley, a veteran of Sir Douglas Mawson’s 1911–1914 expedition and Shackleton’s 1914–1916 expedition (Weddell Sea party) applied from Sydney for the position of photographer (Cope 1919c) although for reasons unknown, was not appointed or chose to withdraw.

Included were two fellow members of the Ross Sea party; Ernest Joyce also a veteran of Scott’s 1901–1904 and Shackleton’s 1907–1909 expeditions, as second in command and Alfred Larkman, who would sign on in Canada as chief engineer (W. Burton, personal communication, 23 December 1981).

These appointments aroused interest at the Royal Geographical Society (RGS) with the secretary, Arthur R. Hinks, stating in a note to the president Col. Thomas Holdich, ‘it is curious that Mr Cope did not mention these names to the President and that two naval officers [Campbell and Jefferies] should be expected to sail with an Able Seaman [Joyce] as second in command’ (Hinks 1919) a point later queried by Shackleton.

Cope’s early supporters included scientists William Bruce an oceanographer and leader of the Scottish National Antarctic Expedition 1902–1904, and Robert Rudmose-Brown a geographer also of Bruce’s expedition, who considered Cope’s plans ‘ambitious but they are sound and workable’ (Rudmose-Brown 1919); eminent historian Hugh Robert Mill; Rear Admiral John Parry CB, RN and Arthur Shipley, Vice-Chancellor, University of Cambridge, who had previously supported Cope’s joining the Ross Sea party.

The chief scientist initially appointed early in 1919, was Robert C. Mossman a meteorologist also on Bruce’s expedition. Although ‘his medical examination was satisfactory’ (Cope 1919b) he was for reasons unknown, replaced with an Australian George Hubert Wilkins.

Wilkins had served as photographer with the controversial Vilhjalmur Stefansson’s Canadian Arctic expedition 1913–1916, having in 1913 learned to fly. As a newspaper reporter and cameraman for the Gaumont Film Company and with experience in aerial photography during World War 1, Wilkins stood to enhance his experience.

By March 1919 with the budget still set at £100,000, Cope continued to seek support from the RGS Council which requested further details. Support from the Society was crucial as it provided credibility for the expedition and paved the way for financial support. By now Cope had expedition stationery, an office at 66 Victoria Street London, and was busy trying to enlist support and raise finance. E.R. Dinsley a journalist with Central News London acted as secretary (replaced a year later by I.N. Partington) and finance was managed by V. Osborne of Connolly Brothers, Chalfont Street, London, who had power of attorney.

Cope then visited Cambridge and met the geographer Frank Debenham of Scott’s 1910–1913 expedition and geologists Priestley and James (later Sir James) Wordie, the latter a member of Shackleton’s 1914–1916 expedition. Reporting to the RGS, Debenham gave his opinion on Cope’s first proposal:

There was a long talk during which we jointly and severally told him we thought he was not the person to lead such an expedition and also that his plans were poor and in some respects ridiculous. In spite of a very thorough ‘dressing down’ he seemed to bear no malice, and in fact agreed with most of what we said. . . (Debenham 1919).

Cope also sought help from the media. An undated letter to the Editor of *The Times* and probably compiled by Cope, also listed as signatories, Edward E. Cooper, Lord Mayor of London, Admiral Percy Scott RN; businessman Charles E. Fryer, and Capt. E.R.G.R. Evans RN. It is uncertain if this was ever sent. In a letter to Mill in May, Cope wrote ‘The Times have undertaken to make a strong appeal to the British Nation for subscriptions. . . provided that the Royal Geographical Society will form a Financial Committee and appoint a Treasurer to receive all funds’ (Cope 1919d).

Although many expressed concern at the expedition including Shackleton who visited the Society on 1 May, Cope pressing ahead sought support from Apsley Cherry-Garrard, Lady (Kathleen) Scott and Mrs Emily Bowers, requesting copies of lists with quantities and prices for stores and equipment.

Writing to the RGS on 17 May and further seeking approval, he now advised that Mossman and Hurley ‘are definitely accompanying me and Priestley is only withholding his decision to go with me for purely private reasons. Concerning the selection of a competent sailing master I have received definite applications from two men who have both had experience in Antarctic navigation . . .’ (Cope 1919e).

Although by mid May £15,300 had apparently been received from subscribers in London, no evidence of

donors has been located. Cope then proposed visiting large industrial manufacturing centres in the midlands and in the north; in England, the region situated approximately between the River Trent and Scotland (Cope 1919f). Later Wilkins reported that when 'people advanced considerable sums of cash [with] this spent in purchasing stores and supplies I was bound to keep faith with those people' (Wilkins 1922).

All was not well and on 26 May the RGS council decided against supporting Cope. Early supporters also began to withdraw and by the end of June, £10,000 had to be paid towards the cost of the *Terra Nova* then engaged in the North Atlantic sealing industry (Cope 1919c; Tarver 2006: 164–165). Other ships considered were the *Ermak* a Russian icebreaker fitted with an aircraft landing platform and the *Pelican*.

Cope's second proposal: The British Imperial Trans-Antarctic Expedition

After his meeting with Debenham, Priestley, and Wordie, Cope met the RGS expeditions committee. He then modified his plans and in late June 1919 called on Debenham and Priestley to discuss his revised proposal. Debenham wrote:

He told us he had £12,000 and was going to take a small party of five men or so to Charcot land and [to] march across to King Edward VII Land. It took a very short time to prove to him that it was a perfectly ludicrous plan and in the course of conversation one of us mentioned that the only thing for a small party to do in that area was to improve on Nordenskjöld's journey along the west side of the Weddell Sea. A few days later he wrote saying he was going to do that and asked for advice as to what was required etc. Before going any further we tried to find out whether he was really going and as far as we could see, he had got the funds though he would never say from where. We then decided that as he was definitely going, we would give him what tips we could, to prevent the whole thing being a fiasco as far as the work was concerned (Debenham 1919).

Debenham and Priestley agreed to provide advice on scientific aspects and recommended a six man party.

In September Cope appealed to RGS president elect Sir Francis Younghusband to whom he forwarded his amended proposal and to the council, which met on 15 December when his correspondence was again considered. He also lectured at public meetings and on 4 February 1920 the expedition's 'second in command' Ernest Joyce, arrived in Southampton on *Ionic* (*The Daily Telegraph* (London) 5 February 1920).

Misleading information given by Cope and reported by the media (*The Daily Telegraph* (London) 6 February 1920) raised the ire of Shackleton. He contacted J.R. Stenhouse (also of the Ross Sea party) who had in January been demobilised, to clarify matters relating to supplies landed at Hut Point on 11 March 1915 (Stenhouse 1920). A letter from Shackleton who 'had no desire

to be drawn into public controversy' to the newspaper refuting Cope's statements followed (*The Daily Telegraph* (London) 7 February 1920). The same month the RGS sought Shackleton's opinion.

Shackleton who had appointed Cope in London (Richards 1981) and participated on the Relief Expedition with *Aurora* in 1916–1917, was very aware of Cope's service with the Ross Sea party. In a scathing assessment of Cope's second and, probably, also the first proposal, he considered him 'inefficient, lazy and incompetent' and further stated 'he used to camp at the slightest pretext and read novels in his sleeping bag until late in the morning until marching, through the men with him, urged him to proceed...' Overall he regarded the proposal as '...thoroughly impracticable, absolutely suicidal, and [it] shows a complete ignorance of Antarctic experience and travel... I am prepared to support any man whom I know to be competent...' (Shackleton 1920).

Unfortunately Shackleton overlooked how Cope in his capacity of Ross Sea party surgeon, had in all probability saved the life of Richards, who suffered a cardiac disorder in the winter of 1916 (R.W. Richards, personal communication, 25 September 1981). And to what extent was Shackleton also recalling his own expedition that had hoped to cross Antarctica in 1915–1916?

Debenham had long ago regarded the financial state of the expedition as chaotic (Debenham 1921a) and earlier supporters continued to withdraw. Included was 'a certain party with a promise to advance money for a boat being built for Cope' (Wilkins 1922). Not to be beaten, Cope focused on the Antarctic Peninsula. By now Wilkins, given his experience, was doubtless looking forward to flying in Antarctica, but then unexpectedly before departing Australia, he received a cable from Cope stating he was unable to afford an aircraft. Wilkins decided to withdraw although on return to London, was persuaded to stay on under a revised programme.

It is clear that even before the expedition was underway, that Wilkins was far from satisfied. Writing as chief of scientific staff (and photographer) with permission of Cope, from the expedition office to the president and council of the RGS, he made it clear that 'I propose to make positively sure that I am not the Chief Scientist on the expedition' (Wilkins 1920).

The same month Wilkins had a meeting in London with J.W. Gregory a geologist at the University of Glasgow who had an association with Scott's first expedition, 'in reference to Antarctic staff'. Gregory promised to mention the matter to some of his students although in a letter to Hicks considered 'I should have to take further advice before persuading a man to enlist for 3 1/2 or more years in the Antarctic' (Gregory 1920a). In a further letter Gregory stated

I was favourably impressed with Wilkins as a man, [although I] did not see that he had much scientific qualification. I said I would let the students know the appointments were vacant, but did not promise to encourage them... of course one of our men [Dr

Alexander Stevens, geologist and Chief of Scientific Staff with the Ross Sea party] knows Cope and Joyce, so I should have referred any student to him for personal information. . . (Gregory 1920b).

In mid February 1920, Cope, most unhappy with constant barriers before him, sought legal advice on the very slanderous and defamatory statements made against him in connection with his expedition by a certain person who is also a Fellow of your Society [RGS] and that this same person has taken steps to use his influence with the Society's Council to persuade it to publicly place an official ban upon my client's intended expedition (Knapp 1920).

Cope's stance was understandable as Richards had already observed in 1915–1916, that 'when his professional dignity was impinged, he took things very much to heart' (Richards 1977).

Continuing to seek recognition by the RGS, the society not wishing to enter what could become an expensive and prolonged legal argument, then gave Cope a final opportunity to appear with his staff, before the expedition committee on 23 February 'to make good his plans.' On this occasion Debenham was also invited to attend and comment on scientific aspects. Cope advised the committee that he was prepared to abandon the proposed station on Scott Island in the Ross Sea and unless he could obtain a second ship, and also to waive plans for a land party at New Harbour. Instead he would now focus on the proposed circumnavigation with landings at various points, yet it is strange that on this occasion, there is no mention of the Antarctic Peninsula.

The government grants committee of the Royal Society from which Cope had sought £2000 (RGS 1920a) now declined support and the patronage of HRH Prince Albert, later created Duke of York on 3 June 1922 (*The Daily Telegraph* (London) 12 March 1920) was also removed, including an invitation for His Royal Highness, to attend Cope's lecture to the Royal Aeronautical Society, because of his numerous engagements. Now without an aircraft, it is likely that Cope's lecture 'Aerial surveying in Antarctica' did not take place.

With Shackleton having urged the RGS to 'enlighten the public' (RGS 1919), on 2 March 1920 the society publicly announced it was unable to approve Cope's plans or leadership or to give the expedition its countenance and support (*Sydney Morning Herald* 6 March 1920) and conveyed this in writing to Cope. The society stated that it could not support an appeal for £150,000 and take responsibility for the lives of nearly sixty men for five years in the Antarctic (RGS 1920b).

The Admiralty, first approached nearly a year previously, also declined support 'as Their Lordships have been unable to assure themselves, during the period of preparation of the expedition, that it was such as to justify the appropriation of Naval Funds. . . [and] have not given permission to Lt. [V.L.A.] Campbell or to any other Naval Officers now serving to accept posts. . . [although] they would be prepared to consider a request

for advice as regards charts and instruments' (Boddell (?) 1920).

However, there were positive aspects. Norway agreed to assist Cope with transport of supplies and personnel and the Colonial Office (CO) approved of its officials in the Falkland Islands and their Dependencies, providing in-kind assistance including the interchange of information (Darnley 1920).

Cope was not capable of leading an expedition and his proposals with limited resources were over ambitious. He probably assumed with World War 1 now over, the expedition would have attracted the necessary financial support. Furthermore he probably did not anticipate such a backlash from major players in the Antarctic community, with some clearly working against him. It appears that money was spent as soon as received and it was then perhaps too late to call the expedition off. Cope was determined to go although given his experience with the Ross Sea party, as Richards recalled, he was 'totally unsuited to life in Antarctica [and] as a man he was inefficient and impractical' (R.W. Richards, personal communication, 19 September 1982).

Cope's third proposal: the Antarctic Peninsula

By June 1920 and with objectives scaled down, Cope had sights set on the abandoned hut of Nils Otto Nordenskjöld's Swedish South Polar Expedition 1901–1904 on Snow Hill Island off the Antarctic Peninsula. As part of planned exploration further south, depots would include winter accommodation in 'snow huts' built under Wilkins guidance (Debenham 1922a). At this time his 'second in command' Joyce for reasons unknown, decided to pull out. Joyce was busy lecturing and showing films on the Ross Sea party, and with his father planning a commercial world tour including chartering a liner and also, contemplating a tourism venture in the Ross Sea (A.G.E. Jones, personal communication, 12 November 1981; D. Joyce, personal communication, 19 September 1989).

In addition to Wilkins who returned briefly to Australia on military duties then left to obtain up to 30 dogs in Canada, two further members were selected. They proved to be a wise choice.

Thomas Wyatt Bagshawe (Fig. 1) then aged 19 was born on 18 April 1901. He came from from Dunstable and was placed by his father under Wilkins' charge without Wilkins knowledge (Wilkins 1922). This was presumably an instruction from Bagshawe senior to his son or perhaps to Cope. He was educated at Rugby and read geology at Cambridge. He abandoned his studies to join the expedition as geologist. Maxime Charles Lester (Fig. 2) aged 30 was born on 25 September 1891 and came from St. John's Wood, northwest London. He was then second mate on a tramp steamer and was appointed navigator and surveyor. This level-headed, quiet mannered man had served with Henry R. Bowers, of Scott's last expedition. on the training ship HMS *Worcester*. No record has been



Fig. 1. Thomas Wyatt Bagshawe

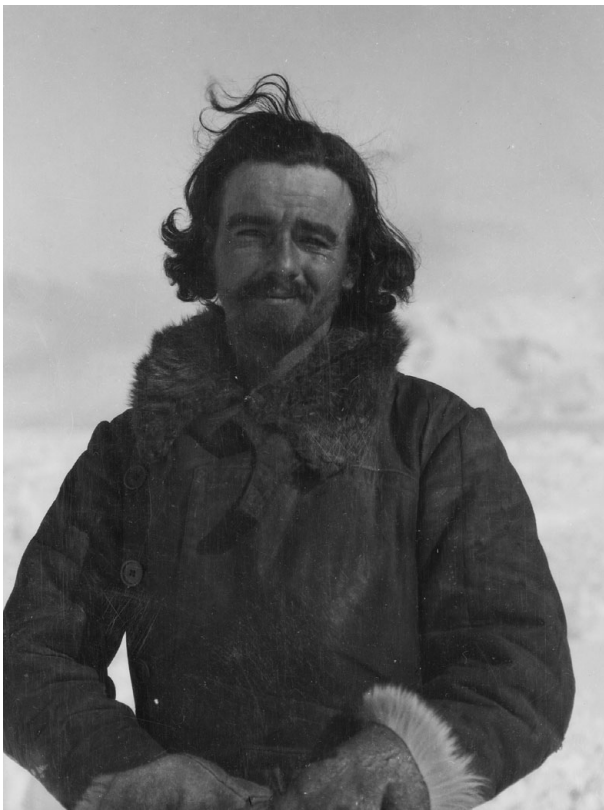


Fig. 2. Maxime Charles Lester

found concerning how either man made initial contact with Cope.

Food and sledging equipment, including a mascot dog, sledges, ski and snowshoes, were obtained in England and Norway and travel arrangements including freighting of supplies, was arranged courtesy of the

whaling firms owned by Lars Christensen of Sandefjord. Although Christensen was very interested in Antarctica and geographical discovery, he was soon aware of Cope's limited finances and tried to forestall departure. This was done by instructing his captain not to support Cope and by ordering the hold up of stores unless payments were forthcoming (Lester 1920). Nevertheless the under financed expedition with debts in Norway and shortages of equipment such as cutlery and canvas, still proceeded.

Wilkins later wrote that 'Upon receiving a guarantee from Cope that he had further backing, I was to meet him in America. I received cable guarantees & was forced to give up a Government appointment in order to keep my word which was more binding than any legal agreement that might have been drawn up' (Wilkins 1922).

In Montevideo, Uruguay, Wilkins having been unable to obtain dogs (no evidence has been found that he visited Canada) and presumably en route to the Falkland Islands to locate and purchase dogs, he had further doubts on the expedition. Displeased with the overall operation and his involvement, he sent a vitriolic message to Debenham complaining about the conduct of Cope, Lester and Bagshawe (Wilkins 1920). Considering the situation Debenham wrote 'The only thing that is quite clear, is that there has been a most effective bust up' he wrote (Debenham 1920). Wilkins promised to write to Debenham from New York explaining the situation although never did.

In England on 25 September 1920 and with the expedition close to departure, an agreement signed between Cope and Lester was witnessed by Dinsley. Cope agreed to pay £600 as remuneration for his duties and further agreed to pay Lester, not later than six months after his return to England, an additional £1000 from the profits of the expedition (Cope 1920a). There is no evidence that Bagshawe or Wilkins signed a similar agreement although for Bagshawe, this is hinted in Lester's journal (Lester 1921h).

Cope left on 28 September for Norway to join the factory ship *Thor 1* (Capt. Vermeli Hansen). He was followed ten days later by Bagshawe and Lester from Cardiff (where they had a difficult time) with the bulk of the stores on the factory ships *Svend-Foyn 1* (Capt. Ole Andersen) conveying Bagshawe, and the *Ørn 11* (Capt. Johs Johannessen) with Lester. Bagshawe and Lester arrived at Montevideo on 7 November where clothes were purchased with a small amount of cash made available by Osborne.

By now Cope's secretary Dinsley, regretted he became involved and writing to Bagshawe and Lester stated:

I am very sorry to think that I took it on. Cope should never have left England without seeing everything was aboard the ship. He appears to have relied on others for everything and I'm heartily sick of the whole business. Osborne is like an oyster as far as money is concerned. . . I'm in for a pretty rough time

unless Cope sends me some cash along and pretty quickly. . . I am writing him a red hot letter to New York which he will not like at all. Now you have some cash via Osborne, I hope you will get the essentials. Look after yourself and don't trust the other fellow to do the job (Dinsley 1920).

Deception Island

Bagshawe and Lester then proceeded to Whalers Bay at Deception Island in the South Shetlands, arriving on 20 November and a few days later discovered Christensen

had given [a] guarantee for stores which Cope purchased in Norway [but] did not fulfill his part of the agreement. . . with the result that the captain had to tell Cope that he could not proceed and if anyway he did, he would have to pay his passage and could not touch the unpaid stores (Bagshawe 1920a).

The expedition was seriously in debt, yet Cope either disorganised or knowing full well what he was doing, had the audacity to suggest the captain of the *Thor I* take command of the 'expedition ship' 'at a salary double that [he] presently received!' (Bagshawe 1920a). Matters were fast coming to a head. Cope was worried, perhaps feeling remorseful and was by now already thinking of quitting. On 22 November he wrote to Bagshawe from Montevideo:

It is with extreme regret that I write you this letter, but something has seriously gone wrong at home. . . I am informed that your father had vowed to stop me and the whole expedition. Be this as it may, news received here from Norway forbids Captain Hansen to take me or to allow any expedition equipment to be used unless I send a large sum of money home. This is quite impossible for me to do here. . . I have been let down completely in obtaining cash for film rights. . . if he [Lars Christensen] does not relent, I must go straight back home to face the music there, whatever tune they are playing. Please explain to Lester and in the event of my not coming, I look to you both to play the game and be men. . . it is absolutely no fault of mine and when you return in April [1921] I hope you will communicate with me at once (Cope 1920b).

At this stage Bagshawe and Lester had heard nothing of Wilkins and the sledge dogs, nor had they received orders or advice from Cope. From Deception Island they experienced whaling on *Ørn II* and a *Svend-Foyn I* catcher *Graham* (Capt. Sverre-Skidsmo), and examined geology and penguin colonies on Deception Island. That season eight floating factories and 47 whale catchers were operating in Antarctica and took 8448 whales (Headland 2009: 270).

The expedition rallied on 10 December, when *Thor I* received a radio message from Cope stating 'All accounts paid. Christensen withdrawn all conditions' (Bagshawe 1920b). At Whalers Bay stores were transferred from the factory ships *Bombay* (Capt. Johansen), *Ørn II* and *Thor*

I to the catchers *Selvik* (Capt.?), *Chloe* (Capt.?) and *Odd I* (Capt. C. Olsen).

Wilkins had managed to purchase eight dogs from residents of the Falkland Islands and on meeting Cope in Montevideo then discovered

. . . the guarantees were not substantial & that he [Cope] had made arrangements to carry out plans entirely different to that discussed in London. It was then too late to retract and I agreed to go on and do what was possible for that summer in the Antarctic, but if conditions would allow work of a satisfactory nature to be done during the winter, then I might decide to stay on. . . (Wilkins 1922).

Leaving Uruguay with 'debts [there] amounting to approximately £600 and without having refunded money advanced in accordance with his undertaking' (Butler 1921), Cope and Wilkins were conveyed via Port Stanley to Deception Island, on the factory ship *Solstreif* (Capt. Bjørnaes Hansen) arriving 24 December. Here dogs were attended to, instruments examined and stores checked. Bagshawe had faith in Wilkins whom he considered 'very nice, quiet and level headed and ought to have a good influence' (Bagshawe 1920c). Lester's opinion was not recorded.

Cope's fourth proposal: Hope Bay and Paradise Harbour

Reports of heavy sea ice in Antarctic Sound ruled out access to Snow Hill Island at the northeast end of the peninsula and the only alternative was to land on the western side. Cope now modified his plan and perhaps influenced by Wilkins, decided to land at Hope Bay on the northwest corner. Here a party from Nordenskjöld's expedition had built a rock hut and wintered in 1903. The whaling captains perhaps because of ice conditions, refused to land the party there and a disappointed Lester maintained 'it soon became apparent that our failure to be landed at Hope Bay in the first instance meant the doom of the original plans' (Lester 1923: 177).

On 2 January 1921 Cope announced that he and presumably also Wilkins, planned to look for a landing site then would return to collect Bagshawe, Lester and the stores. In Cope's absence Bagshawe and Lester were shown by Capt. Hansen a telegram from Lars Christensen, stating all accounts were in fact not settled; that Cope must not be allowed to proceed except on one condition that the films taken and camera, were to be returned to Christensen.

Apparently this condition was made to cover debts' despite the fact that Cope stated on 10 December and confirmed in Dinsley's telegram, that all accounts had been settled. Although 20,000 feet of film was returned to Montevideo, 2000 feet was retained and stores on the *Thor I* were released 'on condition that Wilkins films the whaling industry' (Lester 1921a).

By now if not already planned, Wilkins was considering leaving the expedition. Cope concerned that this

would 'leave the party weak from a man-hauling point of view' then said to Bagshawe and Lester 'if in the event of Wilkins declining to go further, would we proceed with him alone together with the dogs.' Lester replied that he would do everything in his power to influence Wilkins not to go back. 'I refused to proceed without Wilkins. . .with exception that the situation has been made rather awkward for Cope, since he is the leader, I do not think there is any cause for worry as I am certain that Wilkins will not fail to proceed, once we get started. . .but now things are "looking up", and all is going to be a success, I feel it; I know it. We shall do well' (Lester 1921b).

The expedition left Deception Island on 11 January and with the party on catchers, steamed south towards Paradise Harbour south of Gerlache Strait on the west coast of Graham Land. Cope and Wilkins were on *Odd I*, with Lester and 50 × 102kg bags of their coal donated by the whalers on *Chloe* and Bagshawe on *Selvik* with further supplies.

The whalers familiar with the territory considered they would have little difficulty crossing the Peninsula to the Weddell Sea and this would greatly reduce the planned journey south from Snow Hill Island. This opinion was shared by Debenham although he had not visited the peninsula. He later suggested, 'if the dogs make good, the journey should be a simple one' (Debenham 1921a) although maintained 'Wilkins comes out in very poor light. . .he was responsible for the change in plans which took them to the cul de sac [Paradise Harbour] which we had warned them against instead of Hope Bay, where they would at least have been able to get about a bit' (Debenham 1922b).

In spite of some stores inadvertently left at Deception Island, and perhaps retained by the whalers, the men and supplies landed at noon on 12 January on a small rocky island with an extension they named 'Water-Boat Point' (now Waterboat Point) protruding into Aguirre Passage a channel east of Lemaire Island. Unloading from *Selvik* and *Odd I* was completed by 8pm although *Chloe* did not leave until midnight. Coal was landed on nearby Coal Point Island.

'The Island' so-named by Bagshawe and Lester, was about 213m long and 107m wide, with the highest point six m above sea level. It was almost entirely occupied by a colony of gentoo penguins and 'at high tide was separated from the "little island" to the south which we called South Island; by a small channel 25 feet wide [7.6m], but at low tide it was possible to walk from one island to another.' South Island was about 259m long, by about 68m wide and 6m at its highest point, and was occupied by gentoo and chinstrap (termed by them 'ringed' or Antarctic) penguins. The total population they estimated at 12,000 gentoo and 1150 chinstrap penguins (Bagshawe 1939: 36). A small bay northeast of Waterboat Point they named Life-Boat Bay on account of placing their lifeboat there, and the bay below the glacier southeast of South Island, was named Glacier Bay.

Establishing winter quarters

Apart for tents, ready accommodation was available in the form of an abandoned Norwegian water-boat placed as a whalers' depot (Headland 2009: 272). This was left on wooden rollers by the Norwegian factory ship *Neko* about eight years previously, nearly one metre clear of high water and on an elevated ridge of rocky ground occupied by gentoo penguins. Bagshawe wrote

Our real blessing was the old water-boat which we immediately decided should be our home. Without it we would have been obliged to live in tents, or, at the best in a hut made of packing-cases, throughout the winter. It was a flat-bottomed boat, 27 feet [8.3m] long, 10 feet [3.2m] wide at its greatest breadth and with an outside height of 3 feet 9 inches [1.14m], entirely covered in by a deck, a hatchway giving access to the interior. It had been left lying across a neck of rock about 6 feet [1.8m] from the high tide level fore and aft. It was too heavy for us to lift, and we were forced to put up with the minor trouble of its tilt at an angle of 8°. We chose the aft portion for our sleeping-quarters and fixed it up fairly comfortably. We filled the parts between the cross-timbers at the bottom with sennegrass [a moisture absorbing hay from Norway], covered the latter with sacking, and then reindeer skins, and laid our reindeer-skin sleeping bags on the top of all (Bagshawe 1939: 38).

It was not the first time a boat had been used for accommodation. When Shackleton and his party landed on Elephant Island 15 April 1916, two of the ship's boats *Dudley Docker* and *Stancomb Wills*, were upturned, linked, elevated and converted into an improvised hut with walls of rock, canvas, and snow. Here 22 men spent four months, with 12 of them sleeping on a beach gravel floor a little above the high tide level.

The morning after arrival work began with enthusiasm although '...unfortunately we were obliged to remove many of the young [penguins] to make room for our stores' (Bagshawe 1939: 38). That day Lester feeling more optimistic observed

Wilkins was up at 8/30 and baled out our lifeboat. Cope is cook and has been busy fixing up our 'house' and I would like mother and the people at home to just peep inside and take a glimpse at our Robinson Crusoe comforts. Our ceiling is only about 3ft 6ins [1.06m] from the ground. . .Bagshawe has been fitting a bookcase and overhauling general stores (Lester 1921c).

The top of the mound was leveled for a hut to be attached to the water-boat and Bagshawe recorded progress.

Today we have been building our hut which goes over the middle part of the boat and projects off the side. We have made the frame-work of large lengths of deck wood. The hut projects about seven feet [2.1m] above the boat-deck and sticks out about eight feet [2.4m] beyond the side of the boat. The first portion



Fig. 3. The hut at Waterboat Point.

is to be used for stores and the sides are formed of provision cases.

We have one fear for our dwelling place and that is this. The boat is on a slope and we fear that one day we might slide into the sea. We have however blocked up the end and strengthened it as far as we possibly could. Another fear is that as we have a large number of cases on the deck [and] the deck might fall through but this is very unlikely. . . (Bagshawe 1921a).

As Lester further explained, by using lengths of deck wood, some 15cm nails and other items donated by the whalers, progress was good.

This day we have partly finished a hut, which is built half in the boat and half in the ground. The uprights have been inserted part of the wall has been put up, made out of wooden box sides, also boxes of stores. Our stove has been fitted up. The latter article is made out of a kerosene drum, and will be a very serviceable affair (Lester 1921d).

By the end of the following day (15 January) the roof was completed. This was made from packing case boards, lined with sennegrass and covered with sail canvas and most of the sides formed from boxes of pemmican, chocolate and milk. A small hole was left as a window but with no glass available, this was covered with canvas food bags sewn together. Bagshawe explained 'they let through the light fairly well and served their purpose during the good weather, although they were not strong enough to withstand bad weather' (Bagshawe 1939: 41). As a result they were required to burn candles inside all day and every day.

Their hut (Fig. 3) orientated approximately northwest-southeast, was 1.8m square and the height above the boat was 1.75m. From the door there was a fine view.

One side of the second portion is of overlapping wood and the other of (store) cases. The front is half boarded and the part above the door is used for windows. This part is to be used as a galley and in one corner we have placed a stove for cooking. This is made of an iron tub with a square piece cut in the side for the door and a hole in the top for a chimney. We have a long tin chimney that extends through the roof. The stove is not fixed up yet (Bagshawe 1921a).

Using geological hammers, sacking was nailed around the sides of the water-boat to prevent leaks and to block out draughts, spare eiderdowns were fastened around the inside of the 'lounge'. Lester was satisfied with the result.

Saturday January 16th

I wish Mother could see the absolute comfort of our new abode. . . We sleep in the after end of the boat and fore and aft. . . At the end of the deck is the kitchen with the pots and pans hanging up neatly, and all the milk, chocolate, pemmican, sauces, beans etc stacked up neatly all round. Cope is responsible for the interior comforts. Ranged along the sides we have eiderdown quilts to keep the heat in. . . ' (Lester 1921e).

Bagshawe fitted up the meteorological screen on nearby raised ground 50 m from the hut, together with a rope to the hut providing security in bad weather. The screen mounted on top of eight pemmican boxes with door on the north side, had been made by the carpenter on the whaling ship. Mounted on top, was an improvised wind vane with fitting for a portable Short and Mason Tycos anemometer although when strong winds wore out their hand-held anemometer, velocities were estimated using Beaufort's Scale. Inside the screen were maximum and minimum, dry and wet bulb thermometers and a swing thermometer (or aspirated thermometer) for obtaining the equilibrium for ambient air temperature to enable calculation of relative humidity. Aneroids for measuring atmospheric pressure were supplied by T. Cooke and Sons and a pocket version was lent by Priestley.

On 17 January Lester considered that the hut was now complete. Pictures were hung, a blubber lamp was made by Wilkins from an old whale vertebra, a door was constructed from old box lids, raw seal hide became hinges, a trench was dug into the sea 'for sanitary purposes' (Lester 1921f) and a layer of gravel was spread in the hut (Bagshawe 1921c).

There was however discomfort, as rain percolated through the deck of the water-boat although it had the advantage that planks swelled and cracks closed. Rain also caused leaks in the kitchen and 'How we envied those expeditions equipped with a proper hut!' mused Bagshawe (Bagshawe 1939: 64). Felt boots were soon sodden.

Daily diet

With exception of limited items such as curry powder to flavour seal meat, the party was well off for food and had sufficient provisions for two years. On the night of arrival Wilkins caught a seal and the first meal ashore consisted of seal liver and steak, fried with onions. By the end of January the daily diet was established.

Breakfast. . . About 9. Pemmican, ship's biscuits, tea, sledging biscuits (Polar Joes). Little music [from the gramophone] to follow

Tea . . . About 4.30. Tea, sardines, baked beans or usually biscuits and jam or marmalade. Music during meal.

Supper. . . About 9pm. Usually seal meat either in stew, liver, fried or minced. Rissoles sometimes. Last night we had seals brain. We ate a quarter each and thoroughly enjoyed it. To me it tasted like soft roe without the fishy taste. We also had fried liver of which Cope and Wilkins consumed a large quantity and ended up dead beat. . . (Bagshawe 1921b).

From his experience with the Ross Sea party, Cope was only too familiar with seal meat. The meat minced or boiled, was considered quite good and fried liver, heart or kidneys, was declared excellent. Fried blubber was fine but was best eaten as 'delicious little cubes with their agreeable nutty flavour' straight from the frying pan using improvised forks made from boxwood. Bagshawe considered Cope an excellent cook and 'the way he cooked seal-liver and kidney reflected great credit on him'. However the diet changed in the months that followed when 'seal and penguin meat was eaten on alternate days until the latter became too bad for consumption, when it was replaced by beans or sardines-the latter fried. . . pemmican formed the principal item of diet [for] we had no tinned meats, which was a good thing, as it compelled us to live on the flesh of the land' (Lester 1923: 180).

A change of plans

On 9 January 1921 three days before arrival at Paradise Harbour, Wilkins had expressed discontent with the expedition and, by late February, Cope who seven weeks earlier, disagreed with Wilkins that there was nothing to do (Lester 1921b), was similarly disillusioned. Bagshawe described his own feelings

It has been obvious that our chances of getting across Graham Land are very small and carrying out our original plans next to nothing (ie to explore the west coast of the Weddell Sea) (Bagshawe 1921d).

There was little prospect in moving far from base and on 25 January, Cope announced that he proposed to return on the first whaler to Montevideo. Later he would obtain a schooner and return next season and the expedition would then move to Hope Bay (Bagshawe 1921d).

On 19 January an exploratory trip was made of Andvord Bay in the six metre long lifeboat, to examine suitable landing sites. As a preliminary reconnaissance on 30 January and using snow shoes, they scaled a peak they named Mount Lunch Ho! (Mt. Hoegh 2921m) east of their base. Despite Bagshawe collecting nearly 14kg of rocks and samples of moss and lichen, it was clear that even with dogs, they could not advance further across the peninsula. On 25 February, Cope called a meeting. Lester declared

. . . if we could see our way to remain at the base and continue the work already begun, it would be of very great assistance to him [Cope] both materially and morally. . . We told Cope that we were perfectly

willing to assist him to the best of our ability and that we would agree to stay behind, until he or the whalers should return. We made only one stipulation. As by the end of the [next] season our agreements would be fulfilled, we claimed the right of either carrying on with him for another year, or of being placed in a position to return home on his arrival. Cope was delighted with this and now asked Wilkins what he was going to do. Wilkins said his mind had been made up for a long time passed; his things were packed for some days and he intended to embark on the first catcher that arrived. Cope was taken aback with this statement and asked Bagshawe and myself what we proposed to do under the circumstances. After due consideration, we said that as far as we were concerned, our plans remained unaltered (Lester 1921g).

Lester was far from happy with the lack of communication.

We had not been landed at Hope Bay as originally intended, but put ashore in an entirely different spot, which in itself involved great alteration in plans. This would not have mattered so much, provided that we could have crossed the mountains of Graham's Land and thus picked up a trail on the other side. But the fact remains that we had been here for some considerable time, and even now saw no prospects for getting away from base' (Lester 1921g).

Cope who clearly had made up his mind to quit and with his wife home in England, then suggested that he would return from Montevideo 'in his own boat, or the whaler picks us up between Feb 14 to 28. 1922. . . [with] about six men for staff' (Bagshawe 1921e). The same day Cope requested Bagshawe and Lester to sign a statement concerning events [leading] up to the present position and which necessitated his immediate return to Montevideo. Our original plans to land at Hope Bay and explore the Weddell Sea were unable to be carried out for the following reasons

1) The whaling captains refused to take us to Hope Bay and gave us the alternative landing at Andvord Bay

2) Captain Wilkins refused to go to Hope Bay because in his opinion no useful work could be accomplished there. . .

The above reasons together with the unwillingness of the whaling people to assist us to find a suitable landing place here instead of Hope Bay has led to the present state of affairs. . .

Mr M.C. Lester owing to private affairs of no connection with the expedition is unable to continue on the expedition after the end of the next whaling season.

Mr T.W. Bagshawe is willing to continue with the expedition for the extra year subject to his parent's approval (Lester 1921g).

Lester in his journal added that after the year ended, Cope suggested 'I returned home with a letter from him. Needless to say I disagreed at once; not only because

I considered it the proper thing for the leader to attend to his own affairs, but for many other reasons besides' (Lester 1921g).

Cope then outlined his final instructions to Bagshawe and Lester. 'I must thank you for the work you have already done and then for the consideration, interest and devotion you have shown by remaining here under the circumstances of which you are both aware.' He stated the duties relating to scientific observations in meteorology, tides, biology and geology, requested a good series of photographs, keeping a careful record and said to look after the dogs and let them breed. 'I feel confident that you will do good and useful work and none more useful than keeping up the end of the expedition here. . . in any case [I] shall be here between the fourteenth and twenty-eighth of February 1922. . .' (Cope 1921).

Nearly two years later, Wilkins in a carefully worded letter, provided the RGS with his recollection of events.

Lester and Bagshawe agreed in the first place to remain if I would do so. I pointed out the futility of this, said I had no confidence in Cope getting a boat and advised them to return with the whalers at the end of the season. This they agreed to do but overnight Cope persuaded them to stay and they stated that, even though Cope could not return the next year with a boat of his own, they were particularly anxious to spend a winter in the Antarctic, at Deception Island even, if no where else was suitable. I gave as my opinion that it was perfectly safe for them to stay at Andvord Bay. They had an abundance of food (for two years without other supplies but meat), together with any number of sea elephants & seals & provided always that they did not go out on the sea ice or over the glaciers they could come to no harm. In my opinion they were temperamentally suited as companions but pointed out it was an utter waste of time & I personally could not afford to indulge in the gratification of an idle boast of wintering in the Antarctic. I would however do my best to give them the opportunity of changing their minds after they had been together for a few days and before I finally left the neighbourhood. . . Cope and the others if they cared to could return to Montevideo on the *Solstreif*. Bagshawe. . . expressed himself as being quite happy & determined to stay on. Lester also was keen to stay (Wilkins 1922).

The next day Cope and Wilkins (with Lester), left in the lifeboat for Nansen Island about 22 nautical miles (40 km) away to arrange for transport to Montevideo and for a whaler to return as soon as possible next season to collect Bagshawe and Lester. Bagshawe was left in charge of the base and despite having reservations at being on his own he nevertheless worked on the hut, attended to the dogs, and continued with meteorological and ice observations.

The four-day voyage covered 90 nautical miles (166 km), accomplished little, and was not without incident. After grounding on a submerged reef, the boat nearly

capsized and required frantic baling. On 5 March the three men returned in the catcher *Graham* and Capts. Andersen and Vermelli Hansen, unhappy with the expedition, gave the entire party the opportunity to leave on *Svend Foyn I*. Now aware that Bagshawe and Lester were remaining, the whalers before leaving at the end of the season, offered to check on them although 'their proposition was submitted to Cope, who refused, saying that it was quite unnecessary' (Lester 1922c).

The two men having come so far to participate in science, believing they would be paid and concerned that if they went home they would be laughed at, after giving the whalers a whisky and enjoying lunch on board, returned to Waterboat Point. An optimistic Bagshawe recorded the whalers 'were as nice as they could be to us. . . There is certainly no fear of them not picking us up. . . he [Capt. Andersen] said we could trust them absolutely' (Bagshawe 1921f). Cope and Wilkins then departed leaving Bagshawe and Lester thinking they would return in 10 months. The proposed science programme would now give some credibility to the dysfunctional expedition and Bagshawe who got on reasonably well with Cope, assumed a leadership role.

Although Cope said he would return for the men, Wilkins was not prepared to make such commitment. Clearly looking ahead to his future, in a letter to the RGS a year later he stated:

The day before departure I made arrangements with Captain Hansen to call at Andvord Bay for the boys hoping that by this time, they would be tired of playing "Robinson Crusoe" and would return with us. . . Cope demanded that Captain Hansen 'should in no way interfere with his expedition. . . I told Cope that I would expose his action to the people to whom he was more or less responsible (Messrs Debenham and Priestley) which I did. . . At that time there was no question of whalers not visiting South Shetlands in 1921 and in my mind was a plan to return myself with an aeroplane that year. (This plan was completed but forgone at the urgent request of Sir Ernest Shackleton to join him and make use of his aeroplane) (Wilkins 1922).

Back in England Cope was soon busy fulfilling lecturing engagements and reportedly, was on the scientific staff of the *Encyclopedia Britannica* (R.W. Richards personal communication, 10 June 1982).

In July a disturbed Debenham writing to Hinks declared 'There can be no real difficulty picking them up next year as they are at one of the whalers' regular haunts. What is more important is that when picked up, they should come clear back to England and not be waylaid by Cope with fresh schemes' (Debenham 1921b).

Preparing for winter and a hut extension

A meat storage facility was made with a large box contained the breasts, legs, livers and hearts of 50 penguins. Meat from a further 50 birds was put in a second box and both were covered with rocks and ice. Bamboo

markers indicated where they were and by late March, the supply included meat from 200 penguins and 30 seals. As penguins were cut up for food, measurements, weights and other details were taken, and the stomach contents with pebbles and diet were meticulously recorded.

A cracked cross member supporting the deck of the water-boat was stabilised by four posts between the floor and ceiling, the lower bow was braced outside with a four metre length of timber, and large rocks were embedded in the ground. Canvas stitched by Lester over the boat, was painted with a mixture of 50:50 paint and seal-oil and then 'we were able to go to bed in complete comfort. . . ' (Bagshawe 1939: 65).

On 23 March 1921 with the ground surface leveled by Bagshawe, work began on the east wall for an adjoining outer stores hut to work in during winter. Cases of pemmican were placed lengthwise and carefully laid on each other to be both vertical and level and in the spaces overlaid with battens, sand was rammed to provide strength and prevent draughts. Over cracks filled with sennegrass, sacks and strips of canvas were nailed and an opening left in the east wall enabled access to coal. At the end of March and with just one case spare, all walls with battens for bracing were completed.

On 27 March only the roof and door remained to be constructed and guy wires affixed to rocks. The roof made using 13 bamboo poles interlaced and tied at every crossing, was attached using metal bands from supply cases nailed to the poles and the walls and roof was then covered with the canvas lifeboat sail sewn to the bamboo crossings. This was achieved by Lester on the roof and Bagshawe below, passing the needle up through the canvas. It was a well built structure measuring 3.1 by 2.7m and 1.8m high and after being given a canvas cover, was painted with the mixture of paint and seal oil.

The door was fabricated from a box containing cigarettes and hinges were of seal skin; these later replaced with hinges from the gramophone box. Within the hut eiderdowns were attached for insulation to walls and ceiling, a table, seat and stool were made, a door curtain was hung from wire rings, a bracket fitted for the clock and a stand made for a Primus stove. A depot of stores was placed nearby.

The weather took a turn for the worse on 1 April, with heavy rain and strong gusts from the northeast. Fortunately the huts remained intact although the outer hut leaked. Loose coal was piled beside the east wall and enclosed with an outer row of coal in sacks. As a final job the floor of the outer hut had a layer of gravel spread on which paving was laid and by 22 April, all was ready for the winter.

By May the water-boat was very cold and soon, ice formed on the inner surface of the outer hut roof. Lester commented 'The temperature in the kitchen, where we cook and eat our meals, and write up our logs and play the gramophone, is now well below freezing. Only about 75 penguins, [are present] in the rookery this evening' (Lester 1921h). A dispirited Bagshawe vented

his feelings on 9 May 'Everything freezes. To-night my ink pot has frozen up and the mince nearly froze before I finished it. We sit and shiver and laugh while eating our meals. When we get out of the mess we are in at present, we might be more comfortable. Anyway we hope so' (Bagshawe 1921g, this varies from Bagshawe 1939: 89).

A biscuit tin was converted to an oven and 'for protection against the adverse winds we filled up [with gravel], and closed the cases which formed the east wall and battened them together. . . cracks were filled with sennegrass [and] we paved the floor of the kitchen with pemmican cases which made it drier to walk on' (Bagshawe 1939: 91). A step ladder was made from the kitchen to the boat-deck, a shovel from a kerosene tin and candle holders from cigarette tins. Sudden thaws experienced soon after arrival, added to their discomfort and the outer hut roof also leaked resulting in everything becoming sodden. Surrounding muddy guano, made an unpleasant surface and on 17 May, they moved from the boat to the hut for meals and an oar was wedged as a prop to prevent accumulated snow from collapsing the roof. Winter arrived with frequent, strong gusting winds.

In England there was considerable concern for the welfare of the two men. The disturbed father of Bagshawe writing to Hinks at the RGS in late July 1921 remarked

I saw Sir Ernest Shackleton this week. . . I did not know that the Geographical Society had formally repudiated the expedition [and had] tried to persuade my son to relinquish this idea of going with Cope to the Antarctic but could not do so. The two young men-my son and Lester-are abandoned, and I do not know what is likely to happen to them (Bagshawe, A. 1921).

Curiously Lester's family does not appear to have expressed the same concern or taken any action. In reply Hinks made clear to Bagshawe senior the RGS position.

The committee of the Royal Geographic Society had already publicly announced in all the principal newspapers that it was not able to approve the plans or leadership of the expedition, or to give it in any way its countenance or support. . . anyone who joined the party after this did so with his eyes open and I think must take the risks of an ill-considered venture. . . I am sorry to have to write in this unsympathetic strain to you. . . it would be quite impossible for it [the Society] to take part in any attempt to rescue your son from his uncomfortable position' (Hinks 1921a).

In a further letter to Bagshawe senior in July, Hinks wrote 'I did not know Wilkins was in London. . . I should like to have an opportunity of cross questioning him on the extraordinary action in leaving your son and his companion alone' (Hinks 1921b).

Domestic duties and science

A new daily routine began in August with breakfast and the meteorological reading at 8am; tea and biscuits for lunch at 1pm, supper at 6.30, and bed at 8pm. Saturday

was kept for cleaning up. Describing their domestic activities Bagshawe wrote

We never look forward to Saturdays on account of having to clean up. The whole days work consisted in – Tidying up and sweeping up hairs from bunks. Emptying ash trays and seeing to matches and candles. Also the floor below the hatchways [was] swept and the rug shaken. The lounge has then to be swept, rugs shaken and table cleaned. In the kitchen we wash up teeth mugs, mincing machine, plate used in outer hut for meat, dish clothes, pemmican cutter cleaned, candle sticks cleaned. Ice replenished both in large pannikin and in vat for washing up pots. Floor swept and rug shaken. In outer hut general tidying up and in a morning's work chipping ice off the floor with the geological hammer. Besides this coal has to be got ready for tomorrows fire and fire wood dried. Outside dog-meat to dig up, dog boxes to clear of snow and dogs to be fed. Ash-box and slop pail to be emptied. . . (Bagshawe 1921h).

Although meteorological readings, ice and some penguin observations had continued since their arrival, the work load increased in late August when gentoo penguins returned, followed by chinstraps on 1 November. Then 'Lester very considerately and without hesitation, put aside any idea of eating the eggs until there were sufficient for observation purposes. . . we felt that the scientific work should have preference' (Bagshawe 1939: 149).

Numbers were applied with enameled paint on 46 boulders and also coloured pebbles used, for identification of study nests during the incubation phase. Indian ink and a brush sometimes attached to a long bamboo and even the fountain pen filler, helped identify birds. When making observations a card carried in a map holder hung around the neck, had notes and sketches of birds under observation.

In mid November readings were obtained on the improvised tide gauge placed in a boulder filled barrel. This consisted of half an oar and a pole calibrated at Deception Island which had bands painted alternate six inches (15cms). Between these they marked each three inch (7.5cm) interval with a white line, divided with red lines across the centre. On the 15 November when erected, Lester wrote 'This is very gratifying to both of us, because outside the value of any little results we may obtain regarding tides, it also means that we can extend our observations in other directions. . .' (Lester 1921i). A few days later he added 'each day the tides are getting less, and I am anxious to see a reoccurrence of that particularly long flood-tide, which we had before' (Lester 1921j).

As the various projects increased, a methodical approach was adopted under which the work was shared. 'Notes were normally first made in pencil in the field-book and then written up carefully immediately afterwards in the log-books' (Bagshawe 1939: 158). In addition to penguins, observations included mammals, oceanic birds and in geology, botany and marine bio-

logy with dredged specimens preserved in formalin and alcohol.

The end of the expedition

Cope, now in England, contacted Debenham in September 1921 asking to meet him. Debenham reporting to Hinks wrote 'I told him that I was completely "done" with him. Cope took it quietly and said "my actions will prove your opinion wrong; I intend to relieve them myself." So heaven help them' concluded Debenham (Debenham 1921c).

Cope who had received the silver Polar Medal with clasp 1914–1916 and in 1921, the 1917 clasp, for participation on the Ross Sea Relief Expedition 1916–1917, returned the 1917 clasp on 17 September, just four days after issue but with no indication why (UK Hydrographic Office 2010). He was perhaps embarrassed that having been rescued five years previously, he had then been unable to finance a relief ship for Bagshawe and Lester, thereby letting his men down and feeling guilty of abandoning them.

Wilkins on his return to Britain joined *Quest* as aerial observer (use of an aircraft did not eventuate) and naturalist, for the Shackleton-Rowett Antarctic Expedition 1921–1922 and left England on 17 September 1921. That day at Waterboat Point, there was fine weather with a temperature of 18 to 11°F (–8 to –11.7°C). Lester took advantage of the sunny day to obtain 'sun altitudes' while Bagshawe with the chronometer, read and noted times (Bagshawe 1939: 122).

In a letter written to Bagshawe and Lester from Montevideo on 28 November, Wilkins made reference to a meeting with Bagshawe's father who 'was very worried over your position, for it appeared both from Cope's actions and letters that he. . . could not be depended on to assist you and Lester to return. . . [the whalers] have a personal interest in you two fellows welfare and they would I am sure spare no effort to help you. . . Had no whaling factory ships been calling at [the] South Shetlands this year, it was very likely that Shackleton would have called for you' (Wilkins 1921). Following Shackleton's death at Grytviken South Georgia on 5 January 1922, the expedition eventually returned to England that year on 17 September.

Visiting the RGS on 6 November Wilkins compiled on society stationery, his retrospective account of the expedition. Clearly embarrassed over his actions, he wrote

I am sorry to take up your time with this, but have gone blindly on assuming that people understood my moral character sufficiently well to discredit any rumours of base action no matter how wrong my judgment in other matters may be, or how much I should be blamed for going through as far as possible with a proposition in which had given my word of honour. Although Cope was not found to be up to his promises, that was no real excuse for me to behave in the same manner (Wilkins 1922).

Wilkins was concerned that he would be seen that 'in effect, I abandoned the two boys on an Antarctic island, they being in a starving condition without food but 25 [sic] cases of whisky to drink' and he further claimed these were landed without his knowledge. Wilkins then left for 'an extensive trip through Europe on official and secret duties' (Wilkins 1922).

On Sunday 18 December 1921 *Graham* carrying Capt. Skidsmo and Andersen (*Svend Foyn 1*) and Hansen (*Thor 1*) together with Arthur George Bennett, whom Bagshawe and Lester thought from a distance was Cope having had a change of heart, the government administrator from the Falkland Islands, arrived to collect the two men. With some effort they landed, delivered mail and gave them some bread. Capt. Andersen insisted on inspecting Lester's ankles for symptoms of scurvy. Two days later Lester wrote

all were unanimous in their opinion that we looked quite healthy. This must be due to the rigid rule of sticking to seal and penguin meat throughout our entire stay here, together with the almost entire absence of tinned food. During the year, neither of us has been obliged to refer to the medical chest, except, perhaps for minor injuries such as cut fingers' (Lester 1921j).

Referring to the visit an appreciative Bagshawe later wrote

Captain Andersen had gone to all the trouble of making a special trip from Deception Island to see if we were safe and well. He was just like a father to us. . . [and] arrived with the idea that they could take us away there and then. . . They agreed to pick us up in two or three weeks time with all the gear. . . [and] promised to send off wireless messages for us when they returned to Deception Island (Bagshawe 1939: 161–162).

Bagshawe and Lester, now close to completing their self-imposed year at Waterboat Point, aimed to complete the longest record at the time for a penguin species and to ensure everything was carefully packed for removal.

Of the whalers brief stay Bagshawe recalled 'The visitors spent some time on land talking and drinking our health. Went on board and had several cups of coffee and bread.' They were given such luxuries as a crate of potatoes, onions, a great tin of butter, sausages, cheese, tins of milk, sardines, crab and pineapple [and] a whole sheep carcass (Bagshawe 1939: 161–162). While on board however they

were surprised and disgusted to hear that Cope had deserted us and returned to England and that the promised £150 was a bluff. Of course there was a fearful to do when the whalers got ashore as they seemed to think it was probable that we should go back with them (Bagshawe 1921i).

The £150 payment was not included in the signed contract (Cope 1920a) and was probably of a verbal nature on a spur of the moment with no further reference located.

They also learned that the Arctic explorer Otto Sverdrup and Debenham along with Priestley, were preparing to raise funds to mount a relief expedition. Debenham communicating with the RGS made himself clear '... it is most important that any work the two youngsters may have done, and their gear, should not fall into Cope's hands' (Debenham 1921c). Other supporters included Mrs Vivian Osborne the wife of Cope's finance manager and the firm Lever Brothers. Meanwhile Bagshawe senior had sought a legal opinion that 'on advice of his solicitors, Debenham and Priestley, his son and Lester were to hold on to all pertaining to their work' (Lester 1921l).

Before the whalers departed they were given a glass of whisky 'and it caused much amusement when we told them that it was out of the same bottle which was opened for them nearly a year ago' (Lester 1921k). They agreed to return in two or three weeks time and on departure took the remaining six dogs on *Solstreif* to Deception Island where it was hoped to find them homes on the ships. With exception of at least two dogs, Peggy and Swift, which died in March and August, the remainder seemed content in their improvised kennels, where they spent most of their time as no further sledging was done.

That evening Bagshawe and Lester dined on potato chips fried in butter, followed by tinned pineapple with Viking milk and 'what a sensation [it was] to get one's teeth into a nice crust of bread, after a years abstinence' (Lester 1921k). For Christmas Day, the meal included omelettes of penguin eggs with bread and butter, tinned pineapple, a crème de menthe sweet, a cigar and a tot of burgundy.

With their self-imposed sojourn nearing closure, meals now included fried shag breast and liver with dried vegetables, chipped potatoes and mutton chops that were 'so long they overhung the plates.' Bagshawe and Lester later learned they were given most of the whalers' provisions with the whalers having 'difficulty in getting a meal together and had to bake new bread.' The sheep carcass was the last on the ship.

On New Years day Lester completed his plane table survey of the area and the hut was prepared for departure. A notice stating

Door Locked
Entrance through coal bale on
East side of hut

was painted on the door; battens were fixed; a tally was made of kerosene, meat, blubber and other stores including 130 cases of pemmican, 48 cases of dog pemmican, 10 cases of Santogen chocolate, 10 cases of Cerebos salt, 1 case each of apple rings and raisins, 10 cases of salt, books, writing materials, chessmen and dominoes, a nautical atlas, 10 eiderdowns, 6 fur rugs, two sacks of finneskoe, two Primus stoves, clothing including four fur suits, boots and equipment such as 22 dog harnesses, 10 new sets of man harness, the life boat, a sledge boat, two sledges, the meteorological screen and a supply of coal (Lester 1922a).

Lester compiled a map indicating locations of Hansen Island and Port Lockroy and was also responsible for hut work. Guy wires were tightened; the coal supply covered; water replenished; the kitchen door was nailed shut and covered with canvas and the hut interior left immaculate. The outer door was then nailed shut with battens over it ‘to make the inner hut more secure, should the outer hut blow away’ and they made their way out by way of the coal-hole in the east wall, this closed with a small wooden door. Stones and coal were then heaped around the door and the men moved into a tent nearby.

A total of 52 boxes with stores and specimens packed for removal included the library with Nordenskjöld’s and Charcot’s scientific reports; 23,400 State Express cigarettes and 14 cases of whisky. Emptied boxes forming walls were filled with stones and empty kerosene tins. They did not take down the meteorological screen as it provided a mark and supported the flag staff. Along with stores placed in the water-boat, a letter dated 5 January 1922 was left.

For purposes of security we have placed articles (writing materials, saw, sugar, chocolate etc in the boat and anything which is not to be found in the hut and is on the list, will be found in the boat. A [further] letter containing information about stores and general notes will be found in the step-box immediately below the mid-ship hatchway (in the boat).

The way to get into the boat is through the after or west half of the mid ship hatchway which is nailed down. Hinges will be found on the south side of the hatchway cover (Bagshawe 1922a).

On 10 January taking advantage of the sun and an almost cloudless day, Lester succeeded in getting one latitude and eight azimuths for variation, and four sets of altitudes for longitude, the latter involving 24 sights. He later hoped to make comparisons with the Svend Foyn chronometers and thereby obtain ‘a very readable result – I hope. We are therefore, very pleased with the sum total of our work’ (Lester 1922b).

Bagshawe and Lester departed on Saturday, 14 January 1922. A sentimental Bagshawe acknowledged:

We both felt pangs of regret at leaving the old hut and the inhospitable island. . . Who will be the next people to visit the place the picture of which for ever will remain imprinted on our minds. It should have been an experience which though I would not care to repeat, I would not have missed at any price. The experience gained is priceless. . . (Bagshawe 1922a).

The whalers, who had delayed the eventual pick-up, arrived unexpectedly one evening on *Graham* and no time was lost in packing up. On the wall alongside the door Capt. Andersen nailed a box in which was placed a glass frame stating;

NOTICE

These goods being the property of the British Imperial Antarctic Expedition, it is forbidden to touch in any way or

Interfere with them without permission except by shipwrecked

Persons.

Signed:-

A.G. Bennett.

Whaling Magistrate

Deception Island

January 13th 1922

Bagshawe further stated ‘This was Captain Andersen’s order and is to prevent any whalers from taking any of the stores away’ (Bagshawe 1922a). As Bagshawe stated, the hut was in effect under government seal. The remaining dogs had been given in December to the whaling captains and ‘Captain Andersen required Mr Bennett as customs officer to ‘officiate at the disposal of the whisky.’ The cases were opened on board with Bagshawe and Lester receiving two cases each and the remainder was given to the whaling captains (Lester 1922d).

Lester somewhat critical of their leaders wrote

It shows a peculiar indifference to our safety, but perhaps there must be a reason. It would appear that he [Wilkins] did not come down here to work for Cope at all, but to observe if possible the photographic possibilities, and then, after giving futile excuses about there being nothing to be done here, make straight for home again. Bagshawe and myself are very upset about the prospects of our pay, which seem very far off at present. As I stand now, I am adrift in the Antarctic, nine thousand miles from home, with a capital of 17s/2d, and very nice too. At a farthing a mile I could not get more than; less than, a ninth of the distance to England (Lester 1921k).

There was some doubt about the whalers being unable to return, owing to the fact that until August they were unable to sell the oil (Bagshawe 1922b).

Lester described their departure.

Last night at about 20 minutes to nine it came like a bomb-shell. The siren shrieked in the midst of our potato and tea supper. In fact we had only finished our supper of fried chips and were engaged in the operation of stirring our tea. . . We looked at each other for the fraction of the second and ceased to mix the sugar and milk with the tea.

They swiftly prepared to depart and were soon on board and later signed the ships articles.

It was raining and blowing with greater intensity each minute, and gusts were beginning to thump the now deserted hut. I wonder how many winds will swirl round it, before the outer hut roof, then the inner hut roof, and finally, it goes. . . When the hut disappeared then the chimney, and the meteorological screen, also the last penguin flipper had disappeared into the gloom, we bid silent farewell. . . (Lester 1922c).

Bagshawe ending his account wrote:

We were on board in quick time and we bade good-bye and a good luck to the place which had been our home and protection for exactly one year. Lester

seemed much upset and we both felt sad at leaving our old home to the compassion of the wind and weather. We both had bad and pleasant times there. From the whaler we watched the hut disappear from view (Bagshawe 1922a).

On board the catcher they shaved, bathed, had their hair cut by the steward and were shown 'an extraordinary cutting from a newspaper concerning the activities of Mr and Mrs Cope' (Lester 1922c). This was perhaps a media release from London dated 30 September 1921, in which Dr J.L. Cope declared he has made important discoveries and expected to return to the Antarctic in November, accompanied by his wife (*Sydney Morning Herald* 3 October 1921).

Bagshawe and Lester were transferred to *Svend Foyn* where a large cabin was allocated and the 'tally list showed that everything was absolutely correct.' Bagshawe then sent a wireless message 'Safe on board Svend Foyn. Both coming straight home.' To which he received from his father 'Glad received cable. Communicate nothing of your experiences to anyone till I advise you. Further secrecy vital' (Bagshawe A. 1922).

A stop was made at Nansen Island where rocks and further tide data was collected. On the basis of the tidal records here, they concluded that at Waterboat Point, there was probably a difference of about six feet (1.8 m) between the two tide levels.

Many were very pleased to see Bagshawe and Lester in good health, even though the governor of the Falkland Islands Sir John Middleton, writing to Winston Churchill MP and Secretary of State for the Colonies remarked, 'Considerable doubt was expressed as to whether Bagshawe and Lester would survive a year when left. . .the Government regarded their position with no little anxiety' (Churchill 1922; Middleton 1922a).

On arriving in the Falklands on 3 April 1922 a telegram sent on 3 March was received by Bagshawe and Lester at Government House from Cope stating, 'Congratulations. Keep expeditions gear and home safe' (Cope 1922; Bagshawe 1922c). Cope had long ago lost interest and it is not recorded if Bagshawe and Lester were paid, with the former cabling home for £50. They also received news of Shackleton's death.

In May 1922 Middleton writing to Churchill, requested expenditure of £35 for awards of a salvor to Capt. Andersen and binoculars to Capt. Skedsmo for picking up Bagshawe and Lester (Middleton 1922a). This was approved as a 'token of appreciation in rescuing these men and the cordial thanks of His Majesty's Government have been conveyed to them through the Ambassador in Christiania [now Oslo]. . .' (Middleton 1922b; Churchill 1922).

In June while still in transit, they were interviewed by reporters from *Sandefjords Blad*, a daily newspaper, and specifically requested 'not to put anything in the paper which may be detrimental to Cope' as recalling advice

from Bagshawe senior, this could result in the possibility of legal action (Bagshawe 1922d). By the end of the month, they were back in England.

On their return Bagshawe joined his father in the family engineering business and later published scientific papers, his classic account *Two men in the Antarctic* (Bagshawe 1939) and a further book for children, *Pompey was a penguin* (Bagshawe 1941). He was Honorary Curator of Cambridge Folk Museum (1940–1946) and served on the committee of management at the Scott Polar Research Institute (SPRI) 1940–1941, where he founded a much-needed fund for display cases. He died at Worthing on 28 January 1976.

The quiet mannered Lester, visited Debenham and acquainted him with the expedition. He then resumed training and service in the Merchant Navy as second officer with the British India Company, serving in the Canadian and British Navies in World War II including service in the North Atlantic. He also published his account on the expedition (Lester 1923) and later served on the RRS *William Scoresby* with the Discovery Expeditions 1926–1927 in Antarctica. He died in London on 3 March 1957.

In the 1920's Cope was living on proceeds from lecturing and teaching. Reporting to Mill in January 1926 that his book on the expedition was 'well started and will be finished soon [but] naturally and by necessity, it is my primary duty to earn enough money to keep my wife and children' but he never completed the work (Cope 1926). His draft along with other papers appears to have not survived. A decade later he published his only book, on family medical insurance.

In 1930 he resumed studies in medicine at Westminster Hospital. Then in 1933 and with four children, after qualifying at the Society of Apothecaries (LMSSA) London and licensed to practice medicine and surgery, he began in Bournemouth and later became a general practitioner in London and Birmingham. He died on 27 December 1947.

Cope rarely discussed his Antarctic experiences or met his grandson who later experienced three winters with the British Antarctic Survey as a physicist/meteorologist at Halley Bay and Signy Island (Lachlan-Cope 1983).

Along with Lester, Wilkins returned to Antarctica. Following the Shackleton-Rowett expedition in which Wilkins served as naturalist, he participated in a c.800km trans-Arctic crossing northwest by air with Carl Ben Eielson from Point Barrow Alaska in 1926, with a landing on pack ice. In 1928 they flew over the Arctic Ocean to Spitsbergen. The same year he was knighted by King George V and married Australian actress Suzanne Bennett. His polar aviation career was enhanced on the Wilkins-Hearst Antarctic Expedition to Graham Land 1929–1930, and continued in 1931 with a voyage in the submarine *Nautilus* under Arctic ice and in collaboration with American Lincoln Ellsworth, he participated in further visits to Antarctica between 1933 and 1939 and in

Arctic Russia. The Wilkins Ice Sheet and Wilkins Sound are named after him.

Where did the hut, stores and water-boat go?

Now 90 years later the question must be asked, what happened to the heavy water-boat full of stores, and the hut, along with twelve months of supplies including coal cached nearby? The author considers there are four possibilities, destruction by wind; tsunami; general disintegration of the water-boat and human intervention with perhaps, a combination of all four.

Destruction by wind of the hut and extension

Meteorological records from the expedition and recent observations, confirm that the region can be subjected to violent wind gusts from the east, northeast and southeast. In the 2007–2008 summer season gusting at Gabriel Gonzales Station peaked in excess of 100km/hr and resulted in destruction of the meteorological screen (G. Nunez, personal communication, 1 January 2008).

Bagshawe and Lester experienced several occasions when they feared for the safety of the well-constructed hut, such as on 9 May when Bagshawe wrote

we had an awful day...the wind blew in enormous gusts and rained very sudden sledge-hammer blows against the walls of the hut. Fortunately the strength of the gusts lessened towards evening. The roof of the outer hut caused us anxiety as it flapped up and down in a most alarming manner...To keep down the canvas sail we placed a case of pemmican on it where it overlapped the roof and tied a weight near the middle (Bagshawe 1939: 88).

On 2 May gusting from the northeast was estimated at 50mph (80k/mh); on 9 May severe gusts from the east exceeded 60 mph (96 k/mh) (Bagshawe 1939: 216) and again on 19 June when there was a 'series of lulls and fearful sledge-hammer gusts from the NE' [northeast] and 'the stinging of the snow on our faces when we took the meteorological readings was very painful. The following day we had to dig ourselves out of the hut...'. (Bagshawe 1939: 218, 97).

It is unlikely that the hut on the water-boat and later extension was dismantled by whalers and more probable that wind gusting as predicted by Lester, demolished these and this happened within two years of departure. Differential internal and external pressures, external vortices, vibration from sudden gusts and removal of the roof and adjoining outer structure, would have also exposed the interior to vortices and led to the eventual collapse of walls. Yet as with a large cache of stores beside the water-boat, one would perhaps expect some evidence as at earlier historic sites to remain.

Destruction by tsunami

A second scenario concerns major ice calving which at high tide, could create a substantial wave that might lead to parts of the hut and boxes of supplies being washed

off the mound. Supporting this possibility is Bagshawe's observation.

3 February [1921] was a gusty day [from the south east] at times... At night the waves washed up to the bow of the water-boat, but as it was raised a little, luckily nothing got wet. The tide was very high when it was in and came within a few inches of the end of our boat (Bagshawe 1939: 50).

Ice calved from the glacier terminal face again on at least one other occasion.

Our fear was that if the tide was high, it might set up waves large enough to swamp this low-lying island [then] at half-past one [in the morning] with a terrific roar the whole mass [of ice] came down [but] fortunately the tide was low at the time though great waves rolled out, [and] luckily there was no harm (Bagshawe 1939: 60).

A year later on 5 January 1922, 'a glacier fall at Lemaire Island caused a swell which reached the bow of the water-boat' (Bagshawe 1939: 167).

Similar instances occurred during the stay of Shackleton's men on Elephant Island (Shackleton 1919: 232; Thomson 2003: 252). At Waterboat Point, if the hut fitted to the boat and additional structure had not already been destroyed by wind or human interference, a large wave from ice calving would have contributed to its collapse. Given the possibility of ice floes in the bay and topography with its large boulders, such a wave would have to be substantial and may have dissipated below the boat.

Disintegration of the water-boat

Although nearly a decade old, the water-boat was a well-built, heavy vessel. There were cracks in the deck that let in water and a cross member was perhaps weakened as Bagshawe and Lester suggested, by the weight of boxes forming three walls. It is therefore possible this led to collapse of the deck with boxes then dislodged by wind gusts or waves. With the hatch securely fastened on departure and the canvas covering effectively sealing the hull, whether this was subsequently opened and led to collapse of the hull, is a matter of conjecture.

Water-boats were an integral part of the whaling operation and two weathered but well-preserved examples are near the site of the Hektor Station at Whalers Bay on Deception Island and perhaps of similar age.

Human intervention

Did whalers remove the stores and equipment? It is clear from archives that accounts had not been settled in Norway, South America and perhaps England as well. The whalers unhappy with management of the expedition from the outset, were almost certainly out of pocket. Furthermore the supplies left included much useful food, clothing, coal and equipment and removal, if it occurred before the end of the 1921–1922 summer season, is because of debts owed to Norway a strong possibility and understandable. The site was readily accessible.

With Captain Andersen having difficulty understanding English, the government administrator's instructions could easily be misinterpreted and have had little meaning. Also the British government, aware of the expeditions financial position stated '... Mr Cope is said to have broken faith in money matters with a Norwegian whaling company which had assisted him' (Middleton 1922b) and this would have been known to Lars Christensen.

Although some supplies were present when the fifth Chilean expedition arrived during a hydrographic survey in late January 1951, proximity to the sea and the presence of penguins would result in them being in poor condition. Yet a box of R. Bell & Co matches collected by Victor Bunster del Solar in 1951, was returned to Bagshawe in perfect condition.

That same month as the Chilean expedition arrived, Chile decided to establish its third Antarctic station at Paradise Harbour. A group of 23 airmen under the command of Arturo Parodi Alister and the architect Rene Ureta constructed the station that opened on 12 March 1951 and was named, Base Presidente Gonzalez Videla after the President of Chile.

While no evidence has been located for earlier intervention by whalers, Bernard Stonehouse was told by Chilean colleagues, that remnants of the water-boat were 'burnt and bulldozed, along with builders rubbish in a clearing-up operation'. As Stonehouse recalled 'it is difficult to imagine those who built the station in 1951 and subsequently used it, were ever informed of the historic significance of the site or that there was any political motive' (B. Stonehouse, personal communication, 26 May 2011; Stonehouse 1991). According to R. Headland, the Chileans were uncertain what the remains were (R.K. Headland, personal communication, 10 April 2007).

It has not been established if members of the Falkland Islands Dependencies Survey or Argentine expeditions called here although this is possible and geologist J. Annexstad who visited in 1960–1961, saw no trace of the water-boat, the hut or caches of stores (J. Annexstad, personal communication, 13 January 2006).

When Stonehouse visited the site in 1991 he observed 'both the water-boat and the extension appeared to have been burnt, leaving the base of the boat, roots of doorposts and an outline of the extension' this also confirmed by R. Burton. A rope surrounded the site (R. Burton and B. Stonehouse, personal communication, 26 May 2011).

The site today

According to the list of protected Antarctic Historic Sites; No.56 (US State Department 1994: 2260) the base of the water-boat; roots of door posts and outline of the hut and extension is visible. This is no longer the case and requires an amendment.

In January 2008 using photographs taken by Lester, a close inspection using binoculars from the northwest end and from Zodiac, was made by the author late in the season when few penguins were present. Some large

boulders in photographs were identified and the stumps of one or possibly two posts were partially visible in guano. The area where the water-boat was originally located now has only large rocks and boulders, probably re-distributed when the site was cleared in 1951 although one boulder was clearly identified.

Elsewhere near the east side of the ridge, boulders, a further stump perhaps from a wall stud, and near ground level, a possible bottom wall plate, is all that remains visible. The ash piles and traces of coal from 1921 are perhaps covered with guano and there is no sign of the 'sanitary trench'.

A few artefacts including an intact pill bottle and bottle fragments, perhaps associated with the expedition or the Chileans, have been found on the shore of Life-boat Bay. They were saved by personnel from Chile's station for display in the new visitor centre. Near the end of the ridge, large galvanised containers may be from Cope's expedition and were used for ice storage or water. Poignant artefacts are in the polar museum at SPRI. These include the box of matches, Bagshawe's geological hammer, a telescope, compass, Canadian snowshoes and improvised candle holders made from tins.

Today the site has considerable archaeological potential but this is not possible. Guano and nests of gentoo penguins extend over the entire mound and could only be investigated carefully in good weather during winter when penguins are not present, but resulting in damage to nests.

On 20 January 2007, HRH Princess Anne, Patron for the UK Antarctic Heritage Trust, presented a bronze plaque with detailed inscription based on Bagshawe's hut and boat layout diagram (Bagshawe 1939: 41).

Bagshawe and Lester's scientific legacy

Of Bagshawe and Lester's observations, undoubtedly the most important were those concerned with meteorology and penguin biology and these provided valuable comparative and new data.

Meteorology

The observation site established on 17 January 1921 was well chosen and the instruments were of good quality. Bagshawe and Lester compiled a detailed record, with 2152 observations between 17 January and 17 December 1921 (Lester 1922e). Observations included; maximum and minimum temperature; surface ground temperature; wind direction and force; percentage of cloud cover and movement where apparent; precipitation (snow and to a lesser extent, rain, sleet and hail), between 17 January–20 June every four hours night and day; then from 21 June–16 December 16, each two hours night and day. When exceptionally high or low barometric pressure occurred, half hourly observations were made (Bagshawe 1939: 209–229).

Heavy rain fell on five days in February; five in March; three in April 1921 and on four days in January 1922 up to departure. Sleet and hail was frequent and

snow was recorded each month with the heavy falls recorded in July, October and November with in the latter month the heaviest. Often snow was 2–3" (5–8cm) deep although occasionally wind such as on 26 May created drifts five feet (1.5m) deep (Bagshawe 1939: 95). These accumulated around the hut, stores and over the kennels.

The highest temperature recorded was 49.8°F (9.8°C) in January and the lowest summer temperature also in January was 25°F (–3.9°C). The lowest temperature recorded in winter was –16°F (–26.6°C) for August 1921. The yearly temperature average was 26.1°F (–3.3°C) (Bagshawe 1921j, 1939: 209–229). All work ceased on the 18 December when the whalers arrived and preparations began for departure a month later.

Lester experienced in meteorology, summarised the weather. 'At no time during the year could the conditions be called very severe, but they were trying in the extreme. . . The very great and rapid fluctuations in temperature, with the constant freezing up and thawing out of everything, the almost incessant winds and overcast sky accompanied by heavy precipitation and thick weather, were detrimental to our work. . . [and the] continual changes in the temperatures gave us little opportunity of becoming acclimatised (Lester 1923; 183–184). He also observed 'sudden changes in the direction of the wind were frequent, and from no quarter could it be said that it blew steadily for any length of time; it was nearly always gusty, and the gusts from the south-east, and especially from the east, were the most violent of them all (Bagshawe 1939: 228–229)'. The strongest wind of nearly 70mph (113/km/hr) occurred on 24 September from the southwest (Bagshawe 1939: 222) and overall, the weather was similar to that experienced by Jean-Baptiste Charcot in 1903–1905 and 1908–1910.

Zoological data

Comprehensive notes were made on the occurrence and habits of cetaceans (blue, fin, humpback, killer and bottlenose whales); seals (elephant, leopard, including penguin predation, Weddell and crabeater); penguins (gentoo, Adelié, chinstrap and macaroni) and oceanic flying birds, including giant petrel; snow petrel; Wilson's storm petrel; blue-eyed shag, Dominican gull, brown skua, Antarctic tern and snowy sheathbill; the latter throughout the winter.

Although neither of the men were experienced biologists, the study of 50 nests of gentoo and chinstrap penguin breeding, diet and behaviour including arrival and feeding, was a major addition to Antarctic science. G. Murray Levick's books from Scott's northern party, 1910–1913, at Cape Adare (Levick 1914, 1915) were invaluable. Similar observations and measurements were made although simultaneous recording of a number of birds was difficult. For example 24 pairs of gentoos were observed hourly over 24 hours from 3–16 December when females exceeded time spent by males on the nest by 16.33%. At Waterboat Point penguins were absent from about 10–16 June compared with Levick's obser-

vation for Cape Adare, 14 March–13 October 1911 as the period in which no penguins were present (Levick 1914: 114, 17). Bagshawe wrote:

We contented ourselves with noting down the simple facts as they occurred, some of which supplement the studies of the two [Charcot] expeditions. . . Rather than bring an observation to a successful conclusion by the use of conjecture or imagination, we preferred to discount it altogether, and so avoid a possibly inaccurate inference. . . (Bagshawe 1938: 185).

A gap in observations occurred during the first breeding season and efforts focused on hut building. The following season a continuous night and day study was made and the cycle with that for gentoos was, then, one of the longest recorded. Bagshawe suggested further areas for research and collections included skins and skulls prepared by Cope and Wilkins, 'a complete set' of fifty penguin embryos for both species and 52 gentoo and 72 chinstrap blown eggs. After pick up of the party, dredging was undertaken for marine specimens including molluscs.

Tidal and current observations

The tide pole erected on 21 October 1921 was occasionally damaged by ice floes. Observations including whether falling or rising tide, were made each two hours during the day from 21–30 October; every hour day and night from 31 October–6 November and every hour day and night from 16 November–16 December (Lester 1922e), when their work was completed. At the same time, a note was made of barometric pressure, wind direction and force, and state of the sea.

At Paradise Harbour there was probably an interaction between two tidal systems with the principal force from the moon's gravity creating standing wave systems, although the tidal system could also be amplified by the local geography (R.M. Kirk, personal communication, 14 June 2011). This resulted in a tidal range at Waterboat Point of 1.8m between the two tide levels (Bagshawe 1939: 181), compared to that at higher latitudes such as in McMurdo Sound for example, where the moon has less influence.

Tides were also recorded at Svend Foyn Harbour, Nansen Island, every hour day and night from 24–27 February 1922 where 'instead of a very high tide succeeded by a very low one, there was a very low tide, then a not very high one. . .' (Bagshawe: 1939: 181).

Current movements were estimated from ice flow with direction and approximate speed recorded in knots. They set northerly and easterly, usually averaged half to one knot with at the time of study, both wind direction and force also noted. Before leaving Waterboat Point, labels were prepared for four sealed bottles released in Aguirre Passage on 13 January 1922, however no record exists of any being found.

Sea ice and glaciological data

An ice-log recorded falls from glaciers, glacier terminal faces and of icebergs, including frequency and estimated

dimensions and the thickness of sea-ice at seal breathing holes. Ice movements were recorded and daily charts indicated the position. Other observations included ice-foot formations, drawings and notes of snow and ice phenomena.

Geology and botany

Numerous specimens were collected and included erratics and samples from outcrops. A map indicated landings; notes and sketches; observations of sediment in calved ice; also of algae, mosses and lichens were collected on the peninsula and nearby islands. It has not been established where these samples ended up.

Surveying and charts

With earlier help by Wilkins, a detailed plane table survey at a scale of 1/2 inch = 100ft (1.3cm = 30.5m) (1:24,000) with a base line of 337 ft (103m) extended for convenience to 350 ft (107m) for Waterboat Point and vicinity, was made by Bagshawe and Lester, who also completed immaculate diagrams on how to establish meridian altitude of the sun and deviation of amplitude and of chronometer daily rate.

A unique photographic record including panoramas, by Lester, of the region, whaling, scientific work, other expedition activities with extensive notes, were made to enable improvement of charts for whaling areas, sketches of prominent landmarks and of islands.

Conclusions

Cope planned a major expedition at a time when the world was heading towards a serious recession. Unfortunately he was over ambitious, poorly organised, took little notice of others more experienced in such matters and was not suited as leader for an enterprise beyond his ability. As a result he was subjected to a barrage of criticism and has often been denigrated for his actions. Needless to say, Cope had a vision and with training in biology, he was aware the expedition could make major contribution to Antarctic science; especially in the fields of meteorology and zoology at a time, when no other country had a scientific party in Antarctica. Credit must be given for this.

Before even arriving on the peninsula he knowing full well that the financial situation was spiraling out of control, on arrival at Waterboat Point, he adopted a strange attitude (some may say a cowardly one). He unfortunately took the easy way out, ceasing involvement with the expedition he had worked so hard to get off the ground. It has never been established why Cope, an intelligent yet 'complex man' and 'the complete extrovert' (R.W. Richards, personal communication, 25 September 1982) was so determined to organise an expedition to Antarctica. Did he hope to achieve the recognition prevented from his involvement in the Ross Sea party in 1915–1916, with three of his colleagues having died and the remainder of the party suffering incredible privations?

Wilkins who was considerably more experienced in polar matters was an opportunist. Once discovering there was nothing in the expedition for him personally, including flying and photography, he set his sights in other directions. He too decided to pull out of Cope's expedition although later regretted his action and went on to achieve prominence in polar exploration.

Bagshawe and Lester were left to make the best of an unsatisfactory situation and emerged as the true heroes. By their own volition they decided to see the year through and although living conditions were basic, they had plenty of food, maintained good health and, through sheer determination, achieved remarkable and often under-rated results. Their science observations are their legacy although from surviving records, it seems Lester was perhaps the more capable.

The Norwegian whalers too must be credited for their genuine concern and major logistic support provided during a busy season and doubtless also, the financial contribution made toward supplies. Without their assistance there would have been no expedition.

Bagshawe and Lester's expedition was the first British expedition to spend a winter on the west side of the Antarctic Peninsula. They were devoted to a well organised scientific programme. Their observations in meteorology and biology, supplemented that of earlier expeditions to the peninsula and the study of the gentoo and chinstrap penguins which complimented those of Adélie penguins by Levick in 1911 (Levick 1914), added considerably to the knowledge of Antarctic species. Further observations including those for tides, sea ice, glaciers, botany and in geology were valuable and also the specimens collected provided much new information.

As Debenham wrote, the men had 'whole ship loads of hope [and] not content with a meteorological log, an ice log and a natural history log, all needing constant attention and involving shortage of sleep, they cheerfully embarked on a tidal log' (Debenham 1939, in Bagshawe 1939: xii). Robert Burton considers it was an interesting situation in which 'two young men, [managed to] mitigate the rigours of life in unpleasant conditions through their sense of humour' (R. Burton, personal communication, 26 May 2011) with Lester having the greater humour of the pair. This enabled them to get by and make the most of their time. It has also been stated that in the end the well organised Bagshawe and Lester 'collected more data per man than any other expedition until the advent of computers and satellites' (Fogg 1992: 130). Although they left satisfied with their contribution to Antarctic science, it seems they had no further contact with John Cope.

Today it is pity that because of unfortunate circumstances in 1951, more of the water-boat and hut are no longer visible and the site is now the domain for gentoo penguins. That aside, it must be remembered that this is not the first time an historic site in Antarctica has been damaged or modified. A further example is the remnants of two magnetic huts from Scott's 1901–1904 expedition,

bulldozed by the US Navy in January 1964 before they could be recorded, with only a few panels salvaged (B. Norris, personal communication, 4 September 2001).

At Paradise Harbour the Chilean authorities are very conscious of the need to preserve remaining evidence and have taken steps to ensure the site is protected in accordance with the Antarctic Treaty (1959) and the subsequent environmental protocol to the Treaty (1991). An improvised notice drawing attention to the site has since been replaced by the UK Antarctic Heritage Trust, although this would benefit by relocation. The plaque mounted on the west side below the site is unfortunately positioned in a way, that it cannot be viewed by visitors to the station and, is barely legible from close off-shore. A better location would be on the rock face below where the 1921 meteorological station was located, beside the track used by visitors. By doing so visitors could view the plaque and learn more of the extraordinary British Imperial Antarctic Expedition 1920–1922

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The letters CO refer to Colonial Office; RGS to Royal Geographical Society, London, UK; SPRI to Scott Polar Research Institute, University of Cambridge, UK; BANZARE to British, Australian, New Zealand Antarctic Research Expedition; BIAE to British Imperial Antarctic Expedition; NAE to National Antarctic Expedition; BAE to British Antarctic Expedition; ITAE to Imperial Trans-Antarctic Expedition; AAE to Australasian Antarctic Expedition; RIM to Royal Indian Marine. Bagshawe, A. 1921. Letter to A.R. Hinks, 23 July 1921. London: RGS Cope folder.

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