

ALEKSANDR STEPANOVICH KUCHIN: THE RUSSIAN WHO WENT SOUTH WITH AMUNDSEN

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ABSTRACT. Aleksandr Stepanovich Kuchin (1888–1912) was already an experienced mariner and oceanographer when Amundsen invited him to join the *Fram* expedition of 1910–12. Expecting a voyage through the Barents Sea, Kuchin found himself on an expedition to the Antarctic. While Amundsen's sledging parties sought the South Pole, Kuchin remained with the ship, completing an excellent oceanographic survey of the southern Atlantic Ocean. Returning to Russia in 1912 he was recruited, by the geologist and explorer V. A. Rusinov to join a scientific expedition to Svalbard. As deputy leader of the party and captain of *Gerkuless*, the expedition ship, Kuchin played an important role in the Svalbard survey. Then once again found himself heading in an unexpected direction: on completing the Svalbard work, Rusanov decided to attempt the Northern Sea Route to the Bering Strait. *Gerkuless* disappeared and was never seen again; her loss, presumably in the Kara Sea, brought to an untimely end the career of a promising young polar explorer.

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Introduction

When King Haakon visited Roald Amundsen's *Fram* in Christiania harbour on 2 June 1910, on the eve of departure for the voyage which would ultimately take the Norwegians to the South Pole, Amundsen introduced him to all 17 members of his expedition (Amundsen 1912, 1: 92). The King made a special effort to put at ease the expedition's oceanographer, Aleksandr Stepanovich Kuchin, a young Russian scientist and the only foreigner in the party.

Sixty-eight years later, in August 1978, a memorial plaque was unveiled by Russian seamen and scientists on a barren headland of Poluoostrov Mikhaylova, an island in the Kara Sea (Shparo and Shumilov 1982:50–51; Barr 1984). The plaque commemorated the crew of the Russian exploring vessel *Gerkuless* [Hercules], presumed lost in the Kara Sea in 1912. Among those remembered was the same Aleksandr Kuchin who, as the ship's

captain and deputy leader of the expedition, had met an untimely death at the age of 24. Between the departure of *Fram* in 1910 and the tragic wreck of *Gerkules* only two years later, the young Russian made his mark as an explorer and scientist in both polar regions.

Kuchin's early life

Kuchin was born on 28 September 1888 in the village of Kusherek on the shores of Onezhskiy Zaliv on the White Sea (Bashmakov 1939: 88; Bregman 1962: 131). Both his grandfather and father had sailed the White and Barents seas; his father, Stefan Grigor'yevich, had commanded sealing and trading schooners, and in was destined to build a wooden schooner that became the arctic research vessel *Persey*, whose illustrious career spanned at least a decade (Vasnetsov 1974: 61).

Aleksandr Stepanovich (Fig 1) was the eldest son. He studied at a country school and then at the high school at Onega, and during the summers worked as ship's boy aboard his father's ships, sealing and hunting in the Barents and Kara seas. On these voyages he visited Svalbard and Novaya Zemlya and made several trips to the ports of northern Norway. In 1904 he was accepted by the Arkhangel'skoye morekhodnoye uchilishche [Arkhangel'sk Navigation College] which, having celebrated its 200th anniversary on 24 March 1981, is one of the oldest educational establishments in the Soviet Union.

His progress through the college was not all plain sailing. During the 1905 Revolution he and his fellow students went on strike to protest the autocratic and arbitrary rule prevailing in the college; specific demands ranged from the dismissal of some of the faculty to relaxation of the rules concerning the wearing of uniform (Bashmakov 1939: 88). As one of the strike leaders Kuchin was expelled. He went to Norway and there, at the age of 17, joined the crew of a Norwegian sealing schooner. He soon acquired a fluent command of Norwegian and even compiled a small Russian-Norwegian dictionary containing some 4000 words, intended to serve the needs of Russian seamen visiting Norway. It was published in Vardø in 1907 at the 'Pomor' printing works operated by Russian political exiles.

In due course Kuchin was allowed to return to Arkhangel'sk and to register at the Navigation College again. Even then he was arrested on the quayside on his return, on suspicion of transporting proscribed literature, but after a fruitless search the charges were dropped. Resuming his studies Kuchin graduated in 1909, receiving a gold medal and his diploma as a deepsea navigation officer. After graduation he returned to Norway where he signed aboard a Norwegian vessel for a sealing trip to Jan Mayen, and then for a voyage to Svalbard.

In Tromsø, between voyages, Kuchin became friendly with the famous Norwegian marine biologist, Johan Hjort, who commanded the research vessel *Michael Sars*. On learning of the young Russian's keen interest in oceanography Hjort gave him a letter of introduction to Professor Bjørn Helland-Hansen, head of the Bergen Biological Station. Kuchin began working in the laboratory at the station, and studied oceanography under Helland-Hansen, who had also taught Roald Amundsen in the summer of 1908 (Huntford 1979: 205–06). Impressed by Kuchin's abilities, Helland-Hansen made him his assistant, and inevitably he also came to know Helland-Hansen's close friend Fridtjof Nansen.

Hence it was scarcely surprising that when Roald Amundsen assembled his team in spring 1910, allegedly for an attempt on the North Pole, he approached Kuchin whom both Helland-Hansen and Nansen had recommended to fill the position of expedition oceanographer. Kuchin and Amundsen signed a contract on 14 March 1910 in Oslo. The opening clauses read:

I, the undersigned, Aleksandr Kuchin, do hereby state that I am being employed to carry out a variety of tasks as a member of the crew of the polar ship *Fram*, bound



FIG 1. Aleksandr Stepanovich Kuchin.

for the Arctic Ocean under the command of Captain Roald Amundsen, leader of the expedition, and sailing from Norway in 1910.

In accordance with the decisions of the expedition leader, its immediate aim is to explore the previously unknown areas around the North Pole.

I promise to execute faithfully all orders he may give and, as far as I am able, to further the positive results of the expedition by means of dogged and indefatigable work. (Bregman 1962: 134)

The fact that Kuchin was the sole foreigner on this strongly Norwegian expedition aroused some comment in the Norwegian newspaper *Morgenposten*, particularly since one of the Storting's original conditions for providing financial support had been that the members should be exclusively Norwegian. However the newspaper reporter surmised that it had been felt that Kuchin's skills as an oceanographer had outweighed this nationalistic intention (Bregman 1962: 133). Despite the last minute confusion and bustle of a scientist preparing for a major expedition, on 29 April Kuchin found time to write proudly to his father and sisters in Onga:

I have not written for a long time since a lot of work has piled up before our departure and I want to get everything finished. Then recently they have been interviewing me and have printed something about my work here at the station... Apparently I have succeeded in making my mark even in Russia. They already know about our expedition and know that I am going with it. I shall try to work hard so that Amundsen will not regret taking a foreigner with him, and a Russian at that. (Bregman 1962: 134–135)

South with Amundsen

When *Fram* put to sea from Christiania on 3 June 1910 she was first bound for a shakedown oceanographical cruise in the North Atlantic. In his work Kuchin was assisted by a second oceanographer, Adolf Schröder, temporarily seconded to the expedition. Both scientists were kept fully occupied. Between 20 June and 7 July they occupied a total of 24 stations arranged in two traverses across the North Atlantic Drift. One, consisting of 13 stations, ran from southwest Ireland across and beyond the Porcupine Bank; the other, farther north, consisted of 11 stations and ran from west of Rockall east almost to the Orkneys (Helland-Hansen and Nansen 1912). Temperatures and salinities were measured at 13 depths down to 500 m at each station (where depths permitted) and the result was a very useful and comprehensive picture of the nature of the North Atlantic Drift.

This shakedown cruise had to be curtailed due to trouble with *Fram's* diesel engine, which necessitated repairs at Bergen. These were completed by 23 July. Somehow space was found for 97 sledge dogs from Greenland, skis, sledges and a wide range of last-minute items, and finally on 9 August *Fram* put to sea (Amundsen 2923: 205), purportedly bound round Cape Horn for Bering Straits from whence she would begin her second drift across the Arctic Basin.

With persistent headwinds *Fram* made only slow progress through the Straits of Dover and took ten days to clear the Channel. But on 22 August the wind swung into the north and she romped before it across the Bay of Biscay. Her erratic motion amazed even Kuchin, despite his now considerable experience in small vessels. In one of the opening entries in his only surviving diary he wrote:

27–28 August. Hellish rolling! The ship is scooping up water over both rails and there is no possibility of sleeping. Everything is flying about my cabin. At 2.00 a.m. I went on watch. Chaos on deck amidships. Everything was sliding about the deck. I stumbled over something in the darkness and twice slid the entire width of the deck. On deck the dogs were howling and yelping... (Bregman 1962: 135)

But at the end of the month there came a marked improvement in the weather, and early in September *Fram* reached the first landfall, Madeira:

6 September... At 8.00 Funchal appeared around a point. The city is located in an amphitheatre on the shores of a bay... A mass of boats met us. The people gazed curiously as the peculiar, unknown ship, with its even more peculiar passengers on deck.

We dropped anchor at 9.00... although not very felicitously. A boat soon appeared with a man in uniform, waving his arms and shouting 'Senori! Cable!' Evidently we had dropped anchor on a telegraph cable. We had to weigh and move to another spot.

We waited impatiently for mail from shore. Finally Leon Amundsen, the leader's brother, arrived with a whole trunkful of letters and newspapers. I received 10 letters and a package of newspapers. Skipper Nilsen announced that we would be going ashore in rotation: one watch on Wednesday, the other on Thursday, and that we could spend the entire day ashore. (Bregman 1962: 136)

The stay at Funchal was a little longer than expected since the propeller shaft bearings had to be overhauled. But then on 9 September, when *Fram* was ready for sea again and Leon Amundsen was the only outsider left on board, Roald Amundsen dropped a bombshell.

At 6.00 p m we began preparing to weigh anchor. When everything was ready the expedition leader called all the members on deck. This invariably tranquil man was now noticeably excited. 'Gentlemen, I have called you here to give you some extremely important news,' he said. 'The plan of the expedition has been drastically changed. I could not announce this earlier since I had important reasons for not doing so. Since

the Americans have reached the North Pole and the Storting has refused to grant us funding, the trip to the North Pole lost its attraction somewhat.

We are now going to the South Pole. Another expedition, namely the British *Terra Nova* expedition under the leadership of Captain Scott has the same goal and is already on its way. This is what has forced us to keep our plans secret. In order to be sure of your support I shall allow you to take a vote. Who wants to go to the South Pole?' Everybody replied 'Yes!'... The news had startled us all. Nobody had suspected it.

Our first thoughts were of our families who were waiting at home. But the depression soon passed. A sort of intoxication set in. New ideas, new plans, as far from the old ones as the South Pole is from the North Pole. (Bregman 1962: 136–137)

In fact Amundsen had taken the decision to go south rather than north as far back as September 1909, soon after the news of Peary's attainment of the North Pole had broken (Huntford 1979: 216–217). The few people taken into his confidence included Helland-Hansen, his brother Leon, Herman Gade, the Norwegian consul in Chicago and his financial manager, and of the expedition members only his second-in-command Lieutenant Thorvald Nilsen, second mate Lieutenant Frederick Gjertsen and Lieutenant Kristian Prestrud. These last three had had to be informed in order to complete the necessary preparations; many of the others had been puzzled and even suspicious, particularly of such aspects as the large number of dogs and the very substantial hut which had been taken aboard. But now the secret was out; the disclosure cleared the air and morale improved greatly.

After the last letters had been written Leon Amundsen collected them and was rowed ashore; he was charged with breaking the news to the world once he returned to Norway. At that point Helland-Hansen had been given the specific task of informing Nansen of the change of plans. Once Leon Amundsen had gone over the side *Fram* put to sea, southward bound.

Kuchin was a keen student of human nature and Amundsen's attitude puzzled him; on 13 September he wrote in his diary:

Several times I have talked at length with Amundsen about the journey to the South Pole. I am amazed that he, who has so strongly condemned polar expeditions which are exclusively sporting in nature, is himself now undertaking precisely that. Amundsen replied: 'For me this journey is the product of the need to raise funds for my proposed trip north. Reaching the South Pole will give me the opportunity to raise money... We in Norway have always been reluctant to give money for scientific research, whereas we disburse large sums as prizes in sports. This is part of our national character, and above all we must combat this tendency. If the Americans had not reached the North Pole, they would willingly give me money in order to be the first to get there. (Bregman 1962: 137)

Right from the start Amundsen had told Kuchin that he would not be a member of the shore party which would tackle the trip to the Pole. While that attempt was under way *Fram* was to return to Buenos Aires, then spend the southern winter of 1911 in important pioneer oceanographic work in the South Atlantic under Kuchin's direction. While Kuchin was pleased and proud at being faced with such a challenge he also secretly longed to be a member of the shore party and confided ruefully to his diary: 'It is tough being an oceanographer under such circumstances' (Bregman 1962: 137).

On Kuchin's 22nd birthday, 28 September 1910, *Fram* crossed the Tropic of Cancer making a steady 6 knots before the Trade Winds. The Equator was crossed on 4 October and on the 17th *Fram* passed close abeam to the little volcanic island of South Trinidad. Thereafter there is a gap of a month in Kuchin's diary, the result of the continual activity provoked by the weather of the westerlies. Kuchin was particularly impressed by *Fram*'s performance in rough seas. On 17 November he wrote:

From the time we entered the zone of the Westerlies the climate changed quickly. The air temperature dropped to 3°C at times. The wind has been fresh the whole time,

often reaching gale force; then we would have to take in the topsails. As a result the seas are enormous. The waves are of a size such as I had never imagined. But *Fram* is a good ship and only very rarely do the waves sweep across her decks. But on the other hand she rolls hellishly! She swings from side to side like a pendulum! (Bregman 1962: 138)

Ample cold weather gear was issued for these conditions:

From the stores we have each received two Icelandic shirts, four pairs of thick, woollen underwear, two pairs of goats' wool stockings, a leather jacket, pants and jacket of windproof material and a three-piece outfit of dark blue fabric. Shoes with wooden soles for dry weather and boots for stormy weather provided adequate warmth. (Bregman 1962: 138).

During this period *Fram* ran close past Gough Island, where an intended call had to be abandoned because of rough seas, and stormed on eastwards past the longitude of the Cape of Good Hope. Fresh water was in very short supply and hence Amundsen decided to call at Kerguelen, which they were approaching in late November; there might also be a chance to leave mail with whalers or sealers there. But here again gale-force winds and breakers prevented a landing.

On 1 December Amundsen announced the composition of the shore and ship parties. As he had been told earlier, Kuchin's name was still among those of the ship party. A week later, on 8 December, *Fram* crossed the 100°E meridian and was approaching the longitude of Australia. Christmas Day gave a noon position of 55°S, 150°E, with *Fram* still romping east.

The weather has been remarkably fine. A light southerly breeze and a calm sea. At 5.00 Nilsen relieved me at the helm, or rather he lashed the helm since the ship holds her course superbly. Everyone had already gathered in the saloon, dressed in their best clothes which they had not worn since Madeira.

The steward had made a Christmas tree. Everyone was in a happy mood, although this was no more than normal. We began unwrapping Christmas gifts. I received a book, a box of cigars, and a tie. Then everyone received a silver tiepin with the inscription *Fram*, a napkin ring, ashtrays, postcards, cigarette-holders, and... even toothpicks. (Bregman 1962: 139)

At this point, unfortunately, the only known surviving volume of Kuchin's diary abruptly ends. The rest are believed to have disappeared when some of his luggage was stolen in Buenos Aires.

By 30 December *Fram* was at 60° S, 170° E. Amundsen now decided that he had gained enough easting to reach his goal of the Bay of Whales in the southeast corner of the Ross Sea, and hence headed his ship south. The first ice, a large tabular berg, was sighted on 1 January 1911 and at 8.00 p m next day *Fram* crossed the Antarctic Circle, still in open water. She entered the pack only a few hours later, at 175° 35' E and making maximum use of her diesel engines emerged into the open water of the Ross Sea in only 3 days and 14 hours (Amundsen 1912: 166).

The Barrier, the front edge of the Ross Ice Shelf, hove into view on the afternoon of 11 January, and, swinging east Amundsen headed along it searching for the indentation in its front known as the Bay of Whales. On the 14th *Fram* moored to the edge of the fast ice at the head of the Bay of Whales; large numbers of seals lay basking in the sun, an abundant food supply for men and dogs.

An easy route up the face of the Barrier was quickly found and a site selected for the base hut, Framheim, 4 km from where the ship lay (Amundsen 1912: 176; Huntford 1979: 335). Next day work began on unloading the cargo and relays of dog sledges began hauling it to the site. There a work party began levelling a foundation and erecting the hut. Ten days later, on 27 January, the hut was completed and ready for occupation and the shore

party moved in next day. Next the fuel, provisions and the vast range of supplies necessary for an antarctic wintering had to be sledged up from the ship.

On 4 February, to everyone's amazement, another ship appeared and moored to the ice edge close to *Fram*. She was Scott's *Terra Nova*. Having landed Scott and his party she had next attempted to land Lieutenant Campbell and his eastern party on King Edward VII land. She had failed to reach land, however, and was now on her way back to McMurdo Sound. The British were invited to visit *Fram* and also Framheim and in return the Norwegians, including Kuchin, visited *Terra Nova*. He was both surprised and pleased to learn that there were two Russians in Scott's party, although they were not on board at the time. These were the dog handler, Dmitriy Semenovitch Gorev and the pony handler Anton Lukich Omel'chenko (Dunbar and Bolotnikov 1971). These three were in fact the first Russians to land on the Antarctic continent and their names have been appropriately commemorated in suitable place names. Thus a glacier on Wilkes Land (66° 57' S, 117° 25' E) has been named after Kuchin; Gorev Island (66° 32' S, 92° 59' E) lies off the Pravda Coast in the Davis Sea; and a bay on the Oates Coast (68° 30' S, 151° 47' E) is named after Omel'chenko.

On 9 February, just before setting off on a reconnaissance of the route south, Amundsen came aboard *Fram* to say goodbye to all the members of the ship party in case they had sailed before he returned. He had earlier given Lieutenant Nilsen his instructions for *Fram*'s movements for the next year. First he was to sail to Buenos Aires. Then came the section which most directly involved Kuchin: 'You will sail from Buenos Aires to carry out oceanographical observations in the South Atlantic Ocean. It would be desirable if you could investigate the conditions between South America and Africa in two sections' (Nilsen 1912: 296).

As events transpired Amundsen had still not returned when *Fram* cast off her moorings from the Barrier on the morning of 15 February 1911; Hassel, Wisting, Bjaaland and Stubberud had come down from Framheim to see her off. *Fram* was now manned by only 10 men, divided into two watches; Lieutenant Nilsen had one watch and Lieutenant Gjertsen the other. *Fram* entered the pack on the afternoon of the 22nd at 70° 30' S, 177° 30' E (Nilsen 1912: 300) and emerged from its northern edge at 10.00 pm on the 23rd at 69°, 175° 30' E. The Ross Sea in this latitude was still delightfully calm, but the situation did not last. As soon as *Fram* was out in the open South Pacific she again began rolling as freely as ever. Heading east, having survived two very severe storms, *Fram* rounded Cape Horn in magnificent weather on 31 March. She reached Buenos Aires on the evening of Easter Sunday (Nilsen 1912: 316).

Although no stops had been made for oceanographic stations during this cruise, Kuchin had still been kept quite busy, quite apart from his watch-keeping duties. He had made a careful study of water temperature in the vicinity of icebergs (Bregman 1962: 141) and had collected plankton throughout. Nilsen remarked (1912: 315) that he 'smiled all over his face when he chanced to get one or two 'tadpoles' in his tow-net.'

Fram lay off Buenos Aires for several weeks while she was refitted and re-provisioned. Shortly before she put to sea again on her oceanographic cruise, Kuchin wrote to his mother and sisters on 5 June 1911:

How sorry I am that I did not manage to send a telegram on our arrival here... I see from your letters that you have been waiting for news from me... On the day after we arrived telegrams were published in all the Norwegian and British newspapers. They have welcomed us quite well here in the city and we have been to many celebrations and evening events.

Sometimes it becomes quite boring and I would like to be home but I have to complete this voyage aboard *Fram*. There is less than a year left now. Tomorrow we put to sea again—but not for long this time, only two or three months. Now it will

be scientific work—my favourite occupation. Possibly it is because of this part of the expedition that I came. (Bregman 1962: 141)

In fact *Fram* set sail for her oceanographic cruise on 8 June. Four new seamen were hired to help with the heavy programme which was planned. After a delay of 36 hours while *Fram* lay off Montevideo because a violent *pampero* made it impossible for the pilot to be taken off, she finally weighed anchor on the morning of the 11th. The plan was to complete a double traverse of oceanographic stations from the South American coast across to the African coast and back, cutting across both the Brazil and Benguela currents on the southern traverse and sampling the South Equatorial Current in detail on the northern traverse.

Due in part to the massive freshwater discharge of the Rio de la Plata and in part to a stiff breeze, the first station occupied was on 17 June at 36° 13' S, 43° 15' W. Thereafter successive stations were occupied at approximately every 160 km along a generally east-west course, the final one, station 32 being in the Benguela Current some 480 km off the African coast at 20° 30' S, 8° 10' E, on 22 July (Helland-Hansen and Nansen 1912: 418). The return traverse ran in a gentle curve past Saint Helena and Trinidad back to the Brazil coast; the last station (no 60) lay in the Brazil Current at 24° 39' S, 40° W. Temperatures were measured and water samples collected for salinity determinations at the surface and at depths of 5, 10, 25, 50, 100, 150, 200, 250, 300, 400, 500, 750 and 1000 m; at a few stations readings were also taken at 1 500 and 2000 m.

Originally it had been planned to take bottom samples from each station also; but at the first station, on the third attempt, it took 8 hours to recover a sea bed sample from 4 500 m. At this rate it would have taken at least nine months to complete the double traverse and hence it was decided to abandon the bottom sampling and to make the 1000 m sample the deepest one at most of the remaining stations. With some practice a station involving samples and measurements from the 15 depths down to that level took only about two hours. But as one can imagine Kuchin and Lieutenant Gjertsen, who had also studied at the Bergen Biological Institute under Helland-Hansen and who shared the onerous work, had their hands full with the salinity and temperature measurements (which totalled 891) quite apart from the plankton samples, which ultimately totalled 190 samples.

In assessing the significance of this major pioneer oceanographic effort Helland-Hansen and Nansen wrote (1912: 417): 'This is the first time that such complete sections have been obtained between South America and Africa in this part of the ocean. Undoubtedly a larger number of stations was occupied on *Fram*'s cruise than have been occupied—with this amount of detail—by all previous expeditions in the South Atlantic put together.' Elsewhere Nansen wrote:

Captain Nilsen and the crew of the *Fram* have... carried out a work of research which in scientific value may be compared with what their comrades have accomplished in the unknown world of ice, although most people will not be able to recognize this. While Amundsen and his companions were passing the winter in the south Captain Nilsen, in the *Fram* investigated the ocean between South America and Africa. At no fewer than 60 stations they took a number of temperatures, samples of water and specimens of the plankton in this little-known region, to a depth of 2000 fathoms and more. They thus made the first two sections that have ever been taken of the South Atlantic, and added new regions of the unknown ocean depths to human knowledge. The *Fram*'s sections are the longest and most complete that are known in any part of the ocean. (Nansen 1912: xxiii)

Apart from scientific achievements, on 30 June 1911 *Fram*'s crew celebrated a special event. On that date her course intersected her outward course from Norway to the Bay of Whales. *Fram* had thus completed a double circumnavigation, both of the globe and of the Antarctic continent.

Fram returned to Buenos Aires at midnight on 1 September 1911. On leaving Russia in 1909 Kuchin had been permitted to defer his military service; now that period of deferral had elapsed (Bashmakov 1939: 90) and hence Kuchin now left the ship. Taking with him the vast amount of scientific data and samples collected thus far, he returned by passenger steamer to Norway, although not before some of his baggage, including most of the volumes containing his diary, was stolen in Buenos Aires.

In Christiania in mid-November Kuchin was guest of honour at a meeting of the Royal Norwegian Geographical Society, at which he was again presented to its president, King Haakon. He also received an award of 3000 kroner from the Norwegian Government. Thereafter Kuchin returned to Bergen and for the next two months was busy making a preliminary analysis of the samples and data which he had brought back with him.

Svalbard and the Kara Sea

Kuchin returned home to Arkhangel'sk early in 1912. At a meeting of the *Arkhangel'skoye Obshchestvo izucheniya Russkogo severa* [Arkhangel'sk Society for the Study of the Russian North], of which he had been a corresponding member since 1910, Kuchin met the young arctic geologist Vladimir Aleksandrovich Rusanov. It was a fateful meeting. Only shortly afterwards Rusanov invited Kuchin to be deputy leader of a geological expedition to Svalbard which he was planning to mount that summer (Petrosov and Derzhavin 1945; Barr 1974a, 1984).

Since 1907 Rusanov had spent every summer pursuing geological field work on Novaya Zemlya. He had accumulated considerable experience in handling small boats in arctic waters, and gained a solid reputation as a reliable field geologist. These summers in the Arctic had also kindled in him a deep interest in another field, namely the possibility of the development of navigation along the Northern Sea Route. In his writings on the subject Rusanov stressed the potential importance of the Northern Sea Route to the economy and security of Russia. Indeed what he envisaged fell not far short of what has since been realized by the Soviet Government (Barr 1974a: 586–588).

On the basis of his reputation Rusanov was now invited to lead an expedition to Svalbard to investigate that archipelago's coal resources and to stake claims on behalf of the Russian government (Tsvetkova 1945: 289). Kuchin was one of the first expedition members he recruited; in discussing the personnel in the spring of 1912 Rusanov wrote:

As my chief assistant I can suggest only one person; in my opinion in this situation the most suitable person is Aleksandr Stephanovich Kuchin, the only Russian invited by Amundsen to take part in his recent famous expedition to the South Pole. I can report with a feeling of deep satisfaction that I have already received by cable the assent of this energetic, young scientist, who is prepared to participate in the Svalbard expedition. (Rusanov 1945: 278)

Later, since Kuchin possessed the necessary qualifications, Rusanov decided to offer him the double position of deputy leader and ship's captain. After a long and frustrating search for a suitable expedition ship (Tsvetkova 1945: 290; Barr 1984: 290) Rusanov and Kuchin found and purchased a small sealing vessel, *Gerkules*. Built in 1908, she was a vessel of 63 registered tonnes with a length of 22.6 m, beam 6.0 m; depth 2.6 m. Her paraffin engine could develop 30 hp, giving her a speed of 7 knots under power. She also handled extremely well under sail. Writing to his father about the ship Kuchin was very enthusiastic: 'We liked the ship so much that we decided to buy her. We probably won't find better. We are totally satisfied with her' (Bregman 1962: 144).

While Rusanov travelled south to Christiania and Paris to purchase scientific equipment and to recruit the expedition's medical officer in the person of his fiancée, Mlle Juliette

Телеграмма начальника экспедиции 1912
года В. А. Русанова, оставленная на Новой
Земле, в самондской колонии Маточ-
кин Шар 18 августа, с просьбой отпущать
его, когда представится возможность, по пути
дальнейшего путешествия:

Петербург Н. И. Давыдов и С. Стожков
Юна Шмидбергера остров Кадиседа окружен
льдами занимаюсь гидрографией этнографией
отнесены к южной Маточкин Шару иду
на северозападной оконечности Новой Земли
оттуда на восток Если поблизости судно
направлюсь к ближайшим попутным ос-
тровам. Единственный Новоситирский
Врангель Запасов на воде все здоровые

Русанов

копирована 26 окт. 1912г.

Получена Г. И. Савиновым
25/ix 1912г.

FIG 2. Rusanov's final telegram, sent from *Gerkules* at Matochkin Shar, detailing his proposed journey eastward.

Jean-Saussin, Kuchin, with a skeleton crew, took *Gerkules* north to Aleksandrovsk-na-Murmane (now Polyarnyy) on Kol'skiy Zaliv. Here on 21 June 1912 Rusanov and the rest of the expedition members (including geologist R. L. Samoylovich, zoologist Z. H. Svatosh, and a crew well experienced in ice work) joined the ship. Supplies and provisions were quickly loaded aboard *Gerkules*. At this point, if not before, Kuchin must have

suspected that Rusanov was planning more than a simple summer cruise to Svalbard. The supplies included ample food for a minimum of two years, ammunition to last 18 months, and sufficient warm winter clothing for all members of the expedition.

Over the next two months Rusanov and his colleagues carried out a thorough survey of the coal resources of Spitsbergen, from Bellsund in the south to Krossfjorden in the north (Samoylovich 1913; Barr 1984: Fig 1); dozens of claims were staked on promising-looking coal outcrops. Rusanov and two others even made a double crossing of the island from Van Keulenfjorden to Kvalvagen and back. Then on the night of 20 August *Gerkules* headed west into the open sea from Krossfjorden on what was primarily an oceanographic traverse. *Gerkules* ran west for some 140 km while Kuchin occupied a series of stations.

At some point during this traverse Rusanov appears to have revealed his subsequent plans to the members of the expedition. For Kuchin it must have been very much a case of *déjà vu*; his mind must immediately have jumped back to Amundsen's dramatic disclosure on *Fram's* deck in Funchal harbour. Despite the fact that it was already late August, at what would normally be considered the closing phase of the field season, Rusanov announced that rather than sailing tamely back to Aleksandrovsk or Arkhangel'sk he intended putting his hypotheses about the Northern Sea Route to the test by taking *Gerkules* east to Bering Strait. One assumes that he called for volunteers to accompany him. Three members, Svatosh, Samoylovich, and the bosun Popov (who had fallen ill) elected not to be part of this dubious enterprise (Samoylovich 1913: 281). In order to accommodate them Rusanov now headed back to Grønfjorden, where there would be a good chance of finding a steamer to take the three men south.

Gerkules reached Grønfjorden on 23 August, then, having transferred Svatosh, Samoylovich and Popov to a cruise liner bound for Norway, the little vessel headed east. Her exact route thereafter is not known. What is definitely known is that she reached Matochkin Shar on Novaya Zemlya on 31 August. Here Rusanov left what was to be his final message (Fig 2) to the effect that he now planned to head north and east around the tip of Novaya Zemlya, then east across the Kara Sea. If the ship were wrecked, he planned to make for the closest of the following islands: Ostrov Uyedineniya, Novosibirskiye Ostrova, or Ostrov Vrangelya (Petrosov and Derzhavin 1945: 52). The conspicuous absence of Severnaya Zemlya from this list of potential landfalls was no accidental omission; the archipelago was not discovered until the following year by the Russian Navy icebreakers *Tamymr* and *Vaygach* (Starokadomskiy 1976: 136–141). This situation helps to underline the hazardous nature of Rusanov's enterprise.

Neither *Gerkules* nor her crew were seen again. Searches in 1914 and 1915 yielded no traces, and only in the summer of 1934 was a driftwood post discovered, with the inscription 'Gerkules 1913', on what is now known as Ostrov Gerkules off the Taymyr coast (Litke 1935; Barr 1974a; 1984: 299 and Fig 2). Subsequent searches, discussed in Barr (1984), yielded a scattering of clothing, equipment and papers belonging to expedition members on a little island in the Shkhery Minina, now named Ostrov Popov-Chukhchina after the owners of some of the identifiable items. More recently it has been realized that equipment and clothing found in 1921 at Mys Primetnyy on Poluoostrov Mikhaylova, and originally ascribed to another expedition (Barr 1983), were in fact abandoned by members of the Rusanov expedition (Chubakov, Shparo and Shumilov 1974: 72; Shparo and Shumilov 1982: 50; Barr 1974b: 59; 1984: 301). This is now officially recognised in the Soviet Union; it was to mark the formal recognition that the plaque dedicated to the memory of Rusanov, Kuchin, and the other members of the expedition was unveiled on the site in August 1978 (Shparo and Shumilov 1982: 50).

From the ownership of some of the items discovered we can fairly safely assume that Mlle Jean-Saussin, Popov, Chukhchin, Semenov and Rusanov were still alive when the

party reached the Shkery Minina. But whether Kuchin was still with them at this point cannot be established. And thus far, too, the ultimate fate of the survivors is purely a matter of conjecture.

Although short, the career of Aleksandr Stepanovich Kuchin was undoubtedly a promising one. To gain some idea of the direction which his career might have taken, had he survived, one has only to look at that of the geologist R. L. Samoylovich, who rose to become Director of the *Arkticheskiy Nauchno-Issledovatel'skiy Institut* [Arctic Research Institute] in Leningrad and led a whole series of pioneering scientific expeditions to the Arctic in the 1930s (Kanevskiy 1982: 162–164). Until now Kuchin has received minimal attention in the English-speaking world. One hopes that this article will, in small measure, remedy this situation.

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