

BELLINGSHAUSEN
& THE RUSSIAN
ANTARCTIC
EXPEDITION,
1819–21

~
Rip Bulkeley



Bellingshausen and the Russian Antarctic Expedition,
1819–21

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Bellingshausen and the Russian Antarctic Expedition, 1819–21

Rip Bulkeley

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*For Igor,
who told me – about eight years ago –
that it was needed urgently*

*In the distant future Ocean will set all things free,
and the vastness of Earth will lie open. Navigators
will discover new worlds, so that Thule shall no longer
be the uttermost land of all.*

LUCIUS ANNAEUS SENECA
Medea, ll. 375–9, about 50 CE

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Foreword

In June 1992 I visited the small settlement of Lahhentagge (now Lahetaguse), on the Estonian island of Saaremaa, in which Fabian Gottlieb Benjamin Bellingshausen spent his early childhood years after his birth in 1778. What were then Bellingshausen estates are set in the midst of beautiful countryside and I counted myself privileged to be able to visit the area, especially as the island had only just become open to western visitors with the collapse of the Soviet Union.

Anyone attending the scenes of Bellingshausen's childhood would, almost inevitably, be led to muse concerning what took him to the sea but, as is well known, it was common practice for sons of the Baltic German aristocracy (the Bellingshausens had lived in Saaremaa since 1549) to enter the Imperial Russian service and by joining the Navy Bellingshausen was following a well trodden path. He had a glittering career and ended it as the military governor of the great naval base at Kronstadt, outside St Petersburg, where he died in 1852. But the event for which he is best known is his great voyage of exploration of 1819–21 during which he accomplished the second circumnavigation of Antarctica, after the great James Cook whose voyage of circumnavigation took place in the 1770s.

Bellingshausen's voyage was hugely successful; indeed he is the mariner who, in my opinion, most invites favourable comparison with Cook, but while strolling in the gentle countryside of Saaremaa, I was led to wonder why his achievements were not better known in the west.

But there is, of course, no real mystery to this. Historians were hampered, in the nineteenth century, by the difficulty of securing access to the relevant documents on the expedition and even if this were possible, of understanding them. In fact no western scholar secured such access and writers had perforce to rely on the very limited secondary sources to emerge from Russia, most of which lacked vastly in accuracy. With the advent of the Soviet Union the situation became worse, if that were possible. There appeared an additional overlay of Soviet accounts of the expedition that did not hesitate to interpret the facts so that they conformed to the political aims of the state with regard to Antarctica. This is where the suggestion arose, in many minds regarded as more than a suggestion, that Bellingshausen had been the first to sight the continent. It should be noted here that Bellingshausen himself

never claimed this; he was far too honest and consummate a sailor for such deception. So while one has to respect, admire and, indeed, cherish what might be regarded as the British school of Bellingshausen studies, including works largely derived from Soviet sources, by H. R. Mill, F. Debenham, T. E. Armstrong and A. G. E. Jones for example, one must recognize their deficiencies and treat them with caution.

The situation was totally unsatisfactory for decades. Until now. Here Rip Bulkeley presents in one volume all that the average historian of the Antarctic or of exploration generally might reasonably wish to possess to restore Bellingshausen to his rightful position as one of the very greatest sailors who ever went to sea. Not only does it include all of Bellingshausen's reports to the Admiralty in St Petersburg, in translation, but it is the first full-length study of the Antarctic 'thrust' of the expedition anywhere for 40 years. Moreover, there are translations of three other first-hand accounts of the voyage, including, remarkably, one by an Able Seaman, and the most complete biography of Bellingshausen ever published. Very many of these primary sources have never been analysed previously by any scholar.

This study firmly places Bellingshausen within the development of European understanding of the polar regions. It is a major contribution to Antarctic scholarship and the author deserves our thanks.

Молодец! Большому кораблю – большое плавание!

Ian R. Stone
Editor

Polar Record

Scott Polar Research Institute
University of Cambridge

11 April 2013

Preface

Modern historians will go on answering questions that no one ever asked them.

paraphrased from TOLSTOY'S *War and Peace* (1869)

About 17 years ago I had passed my A-level certificate in Russian and optimistically supposed, on the basis of a rewarding struggle with Pushkin's *Bronze Horseman*, that I could now read the language. While browsing in a charity bookshop I found a 1951 anthology about the Imperial Russian Navy's Antarctic expedition of 1819 to 1821, commanded by Junior Captain Faddei Faddeyevich Bellingshausen. It was a pleasure to do so, because one of my reasons for learning Russian was to read about the history of the earth sciences in that language. Since then my interest in and respect for the Bellingshausen expedition has steadily increased, as well as my understanding of the world in which it took place.

The two ships of the Russian expedition were only the third and fourth sailing vessels known to have crossed the Antarctic Circle, 47 years after Commander James Cook, RN, had done so with HMS *Resolution* and *Adventure* in January 1773. Although the Russian voyage has been widely praised it remains the least well known of the early maritime expeditions 'towards the South Pole'. Non-Russians have tended to explain this on the grounds that for generations Bellingshausen's narrative was 'locked up in the Russian language', as an egregiously insular Briton once expressed it (Anon., 1847: 91). An English translation eventually appeared (Bellingshausen, 1945), but other primary sources for the Antarctic phases of the expedition remain untranslated. There are few enough of them. Neither the manuscript of the commander's narrative, which was rather carelessly treated in the first edition, nor the naval records of the expedition, such as watch-keeping log-books and the journals kept by officers, have survived. Even Russian historians have little to work with.

But the Bellingshausen expedition also suffers from another, more serious information deficit. It was almost a hundred years before anyone published a detailed study of Bellingshausen's book, *Two Seasons of Exploration in the Southern Ice Ocean and a Voyage around the World*, referred to here as *Two Seasons* (Bellingshausen, 1831; Shokal'skii, 1928).

About twenty years later a brief golden age of research into the expedition dawned in the Soviet Union. Second and third editions of *Two Seasons* appeared, and other primary sources were also published, such as the 15-sheet track chart drawn by the commander (Belov, 1963). In 1960 a new journal of Antarctic studies, *Antarktika*, was established. For a few years historians reported their research there alongside natural scientists.

Then, less than 30 years after it began and for no apparent reason, that burst of productive historical investigation died away. Since the 1970s most Soviet or Russian treatments of the Antarctic aspects of the expedition have repeated the findings of earlier scholars without contributing new discoveries or insights of their own. Instead, researchers began to focus on the six months spent by the expedition in Australia, New Zealand and the South Pacific (Shur, 1970; Kabo and Bondareva, 1974). Outside Russia, Pacific studies scholars had already translated passages from *Two Seasons* (McNab, 1909; Henderson, 1933). Then from the 1970s Glynn Barratt of the University of British Columbia conducted a multi-volume survey of early Russian voyages to the region, based on research in Soviet libraries and archives. He translated several passages about the expedition's work in New Zealand and the tropical Pacific from the other primary sources (Barratt, 1979a; 1992). In the present century others have produced similar work, though generally with less emphasis on Bellingshausen (Govor and Massov, 2007).

Even in the 1950s and 1960s some Soviet work on the Bellingshausen expedition had shortcomings. The editors of primary texts omitted certain passages, either trivial or less so, sometimes without showing the gaps. The republication drive overlooked some important documents, such as Bellingshausen's final report, or the first published account of the expedition. (A leading Soviet historian drew attention to this problem (Belov, 1963: 10), but his warning went unheeded.) Also, scholars perhaps neglected certain avenues for research, such as the contemporary European understanding of marine ice that influenced Bellingshausen's ideas and terminology; or the unpublished scientific observations of the expedition's astronomer, Ivan Mikhailovich Simonov, which may yet reside in the archives of the University of Kazan or elsewhere; or the role that may or may not have been played by the expedition in Russian foreign policy.

The sequence of a short flowering of work on the Antarctic side of the expedition, followed by decades of relative stagnation, has furnished both the motives and the basis for this book. As we approach the 200th anniversary of this curiously neglected event, I dare to hope that the memory of 190 brave Antarctic explorers will be served by telling their

story in their own words, as far as that is possible in translation. I could not, however, have achieved anything without the pioneering studies of my Soviet predecessors, among them Shokal'skii, Andreyev, Shvede, Samarov and Belov. For one thing, without their cribs to follow I could never have learned to read the manuscript documents which this book presents. Furthermore, it is only thanks to the efficient services of Russian archives and libraries that it has been possible, perhaps, to take matters a little further forward in the present day.

Nevertheless it may be necessary to explain for some readers that what historians need most of all, rather like natural scientists, are mistakes. Other people's mistakes are often useful, but the most fruitful mistakes are those we make ourselves. By finding them and working through them we know that we are pushing a little more light, here and there, into the for us unbearable darkness of the human past. The worst mistakes, of course, are the ones we fail to notice until after publication. There are always some of those, especially in work like this, done by a single author with finite intellectual, physical and material resources. But that is why historians need each other. It is our professional duty to correct one another's mistakes, and not just selfishly our own. Take a trivial example. I might mention the ship which carried to England the news of Bellingshausen's return from the Antarctic, and call her HMS *Liffey*. But suppose a reader is following events in the English translation, which calls her the *Livia*. Such a diligent reader is entitled to know which is right. In this case I am right, not only because I have checked the Russian text and contemporary British sources, but also because I can see how the slip was made, back in the 1930s, by a translator who may not have been familiar with the rivers of the British Isles. But, and this is the heart of the matter, no one is to blame and no one is scoring points. We all stumble from time to time, and when we do there is nothing more welcome than a colleague's hand under our elbow. And which of us in that situation may happen to be dead and which of us temporarily alive is the last thing that historians, of all people, would be so tactless as to mention.

Apart from translations of *Two Seasons* into German, English and Polish, this is the first book, focused on the main, Antarctic thrust of the expedition and based on original research, ever written by a non-Russian. I have tried to make it readable and useful both for experts in the history of maritime or polar exploration, and for general readers. But, as with all such compromises, different people may be disappointed with different aspects of the end product. The book comprises a set of texts with notes and commentary. Part I provides a biography

of Bellingshausen and chapters which review the cultural and political contexts of the expedition. Part II contains the annotated translations, with brief comments on the historical value of the texts. In Part III one chapter reflects on the achievements of the expedition, another sketches avenues for future research, and the last presents three tributes to Bellingshausen and his fellow pioneers from the later 'heroic age' of Antarctic exploration.

The commentary is intended to support the translated texts, and does not amount to a comprehensive study of the expedition. For example, it does not cover all aspects of the preparations, which are quite well documented. And Bellingshausen's navigational and scientific instructions, which were set out in four long, separate documents, have been summarized rather than translated. They are available in both Russian and English editions of *Two Seasons* (below). Throughout, my aim has been to put readers in close enough touch with Bellingshausen's reports of the voyage, and with other first-hand accounts, for them to reach their own conclusions about the expedition, whether or not they agree with my own. Five of the texts have never appeared in print before, others never in full, others not since the 1820s, and only three, out of 21, have been partly translated. From Bellingshausen himself there are his eight expedition reports, two appended lists of discoveries, and a personal letter to the Minister of Marine, sent from Australia in 1820. Together they provide the commander's view of his voyage without the editorial interventions which marred his later book, but despite their historical value the complete set has never previously appeared in print. Supplementary narratives by Bellingshausen's comrades include a diary kept by Able Seaman Yegor Kisilëv; two pieces by the expedition's astronomer, Simonov, which last appeared in 1822; and a letter written shortly after the expedition by Junior Captain Mikhail Petrovich Lazarev, who had ably commanded HIMS *Mirnyi*, the support ship to Bellingshausen's HIMS *Vostok*. A contemporary report of the expedition's triumphant return to Russia in 1821 and the crew lists, in Appendix 1, complete the collection.

Two other primary texts were omitted for lack of space. The first is the account by Dr Nikolai Alekseyevich Galkin, *Mirnyi*'s surgeon, of the Pacific phase of the voyage, which came between its two Antarctic seasons. The second is the memoir written 32 years after the expedition by Pavel Mikhailovich Novosil'skii, who had served as a midshipman on *Mirnyi*. (See Chapter 10.)

The translated texts began life during or shortly after the expedition. They focus mainly on the two Antarctic seasons, but three of

them (B8, B10, K1) also cover the Pacific phase. As a sourcebook, this collection complements the recently reprinted English translation of Bellingshausen's narrative (Bellingshausen, 2010) and previous translations of Pacific excerpts by Barratt and others. Readers will need to tolerate the repetitions that are inevitable in separate descriptions of the same events, as well as the neglect of style by workaday authors. For a discussion of translation issues, please see the Translator's Note.

I should mention some functional aspects of the book, the hardest of which to settle was which edition of *Two Seasons* to use. The English translation is currently in print (above), but is not quite reliable enough to replace the Russian original. The best-known Russian editions are the first (1831) and second (1949), both of which are freely available on the internet. Only the first edition, however, is there provided with the pagination necessary for citations. The decision to use it was also consistent with the overall method of returning to the earliest surviving sources.

Many places had alternative names at the time, and some still do today. I have translated some place names, even in the Bibliography. Other choices reflect the historical context and the usage of the protagonists. The modern name appears in brackets alongside the first occurrence of a historical name, for example 'Reval (Tallinn)'. As for readers who may not know that Sydney Harbour is still also known as Port Jackson, well now they do. Other readers may like to be reminded that, just as an officer is introduced with his rank, so a warship is introduced with her tally of guns, placed after her name in brackets.

The treatment of dates is explained in Chapter 4. Until then the reader need only remember that dates in the main or commentary text, in other words in the author's voice, are New Style (Gregorian calendar) unless they are labelled '(O.S.)' for the Old Style (Julian calendar). A reader wishing to reverse the process should subtract 11 days in the eighteenth century and 12 days in the nineteenth to find the Julian date. Sums of money are followed by approximately equivalent amounts of sterling in March 2013, which had to be estimated by different means for historic roubles, sterling, and thalers. Because they are so inexact, those figures appear in italics inside braces rather than plain text inside brackets, thus *{£3,300}* rather than (£3,300). The translated texts usually gave lengths in units with exact British counterparts, including the nautical mile; mass and volume (except for tonnage) in Russian units; and temperatures in degrees Réaumur. The reader should try to remember these equivalences: 1 verst \approx 1km, 1 (nautical) mile \approx 1.8km. Both measurements and money are discussed in Appendix 3.

The book necessarily uses some of the technical language developed in sailing vessels or by scientists, and there is a Glossary of obscure terms. I have done my best, in Chapter 4, to explain how navigation, or at least position fixing, used to work before the advent of GPS. However, it was not possible to go deeply into other nautical or scientific matters. Useful sources on the structure and workings of sailing vessels include Biddlecombe (1990) and Kemp (1976). Nor was it possible to introduce every writer or explorer I may have mentioned for illustrative purposes or for completeness of information, especially in Chapter 4. I can only ask forgiveness from the general reader, who may be tempted, at times, to voice the age-old question: 'Who are all these people?'

I have opted for the in-text or author-date citation system because, though cumbersome, it provides a Bibliography and largely confines the Chapter Notes to supplementary matter. However, citations of the first edition (always and only) of *Two Seasons* (Bellingsgauzen, 1831) are so frequent that I have abbreviated them, as follows. The work comprises two text volumes and an *Atlas* volume. The translated title and its abbreviation as *Two Seasons* were introduced above. The first textual citations appear as (*Two Seasons*, 1: 234) and the formula is then shortened to (*TS*, 1: 234). The *Atlas* is cited as (*Atlas*: Sheet #) throughout. To keep the Bibliography simple and limit the number of anonymous entries, I have left references to anonymous newspaper articles and to anonymous official documents in public archives, *if cited only once*, to the Chapter Notes. I have labelled Bellingshausen's reports and the other translated texts as B1 etc. for cross-referencing; see the first part of the Bibliography.

Whatever its faults or merits this book could not have been written ten years ago by anyone living outside Russia. I own some three dozen Russian books about or relevant to the expedition, including a copy of *Two Seasons* that once formed part of the library of the Soviet Union's Vostok Station in Antarctica. But I have hundreds more in my computer. The ease with which I can search the text of the first edition of *Two Seasons* or consult the late eighteenth-century dictionary of the Russian Academy, is something my predecessors never knew. I hope that I have made even half as good a use of the technology as some of them would have done.

Rip Bulkeley
25 September 2013

Acknowledgements and Sources

The texts

Thanks to the courteous efficiency of the State Archives of the Russian Navy (SARN) it was a straightforward matter to examine and purchase photocopies of Bellingshausen's reports (B1 etc.), Lazarev's letter to Shestakov (L1), and other essential documents. SARN were kept regularly informed of the project, to which they gave their consent in principle at an early stage. As the book was being completed in the spring of 2013 they kindly confirmed that consent, with the understandable reservation that, since the Russian texts would not appear in the book, they could not accept responsibility for the accuracy or completeness of the translations. Once the translations had been finalized for publication, copies were deposited with SARN. I am much beholden to my friend Valentin Smirnov for his unfailing assistance at SARN both during and after my visit.

A copy of Kisilëv's diary (K1) was obtained in a similar way from the Manuscripts Division of the Russian State Library (RSL) in Moscow, and in that I was generously assisted by my colleague in the SCAR History Experts Group, Erki Tammiksaar. Photocopies of Simonov's multi-part journal (S1) and article (S2) in *Kazanskii Vestnik* (Kazan Herald) were provided by the Russian National Library (RNL) in St Petersburg.

Translations

Kevin Windle, of the Australian National University, kindly agreed to review my translations, an essential quality control which resulted in many corrections and improvements. Elena Govor, Igor Krupnik, Olga Stone and Natalya Walker also assisted with some tricky passages.

Illustrations

The author is grateful to various sources for the images used as illustrations. Although its subject has never been authenticated, the cover picture is traditionally supposed to represent HIMS *Mirnyi* during the expedition. It was obtained from 'Aivazovskii, Ivan Konstantinovich: the artist's website' (<http://www.aivazovski.ru>), which generously permits free use of

its images. The State Russian Museum in St Petersburg kindly agreed to publication of a rarely seen portrait of Bellingshausen from the expedition itself, a rough sketch taken by Mikhailov in 1820 (Figure 1). Figure 2 is a photograph taken by the author. Figure 3 is taken from Luchininov (1973b: 3); repeated efforts to contact Mr Luchininov or his legal heirs, to seek their consent to the republication of this image, having been unsuccessful, any such parties are invited to contact the publisher. Figure 4, with added labels, is reproduced with permission from David Darling's online *Encyclopedia of Science* (<http://www.daviddarling.info/encyclopedia>). Figure 5 is from the Wikimedia Commons. Figure 6 is licensed with the permission of the Scott Polar Research Institute, University of Cambridge. Figure 7 was extracted – with difficulty – from a poor quality microfilm of its very rare journal at the National Library of Finland.

Map 1 was adapted from a map of Sweden's Baltic provinces in the eighteenth century which was uploaded to Wikimedia Commons as the file *Sw BalticProv en.png* by Thomas Blomberg and licensed under the Creative Commons Attribution-Share Alike 3.0 Unported licence; it is therefore published here on the same terms. Map 2 was adapted from the endpapers in Houben (1934). Map 3 is published with permission from the David Rumsey Map Collection (www.davidrumsey.com). Maps 4 and 5, from Jones (1982), are published with permission from Caedmon of Whitby Press. Maps 6 and 7, from Belov (1963), are published with permission from Transport Publishers, Moscow. Map 8 was adapted by the author from sheet 1 of the Bellingshausen *Atlas* (1831).

Other primary sources

The first edition of *Two Seasons*, which remains essential for work on this subject, was downloaded from the RSL website. The RNL provided an electronic copy of the *Atlas* volume. I obtained copies of other works by Bellingshausen or Simonov from the Australian National Library, the Bodleian Library, the National Library of Finland, and the RNL. I am most grateful to senior librarian Irina Lukka for help at the Slavonic Library of the National Library of Finland, and to my friend Aleksandr Chekulayev for mediating a connection with the RNL while the book was being written. Elena Govor of the Australian National University kindly sent me copies of two of Simonov's early articles and her and Aleksandr Massov's abundant sourcebook *When the World was Wide* (2007).

The incomplete article by Dr Galkin was found at the Bodleian Library and the first editions of Novosil'skii's articles in the magazine *Panteon*

were studied in the copies available through Google Books. I am most grateful to Grigorii Naumovich Gol'dovskii, head of the department of eighteenth- and nineteenth-century paintings at the Russian Museum, for inviting me to view their large collection of works by the expedition's artist, Pavel Nikolayevich Mikhailov. Also to Natalya Nikolayevna Solomatina, who sent me a copy of the album of pictures by Mikhailov for which she wrote the commentary (Petrova, 2012).

I am much obliged to Valentin Smirnov for alerting me to the documents dealing with Bellingshausen's *arendas*, which I consulted at the Russian State Historical Archives (RSHA) in St Petersburg. The Estonian National Archives (ENA) provides a wealth of historical documents online, only some of which could be studied for this project. Several other primary documents for the Bellingshausen expedition were published in the 1950s (A. Lazarev, 1950; Samarov, 1952). I obtained copies of other contemporary sources, such as dictionaries and obituaries, from the providers mentioned above, also from the Internet Archive, Knigafund, Lib.ru, and bookfb2.ru.

Not seen

I have not seen Bellingshausen's original service record, versions of which are held by the Naval Archives in St Petersburg and the State Military-Historical Archives in Moscow. I consulted it, instead, as published in the *Navy List* (Veselago, 1892). Nor have I seen the smaller collection of Mikhailov's pictures which is held at the State Historical Museum in Moscow; but it is well represented in Petrova (2012). To my regret I have never visited Kazan, and so I have not seen documents held there, which include the manuscript of Simonov's unfinished account of the voyage (Simonov, 1990), and several letters pertaining to the expedition.

Secondary sources

Through my bookseller friend Aleksandr Chekulayev I was able to acquire almost every modern Russian edition of *Two Seasons* and other twentieth-century Russian works on Bellingshausen. I obtained copies of further secondary sources from the providers mentioned above as well as from the British Library, Gallica, the Universities of Göttingen and Illinois, and, with the kind help of my friend Reinhard Krause, from the library of the Alfred Wegener Institute at Bremerhaven. The Naval Historical Branch of the Ministry of Defence threw some light on the nautical calendar for me. I consulted additional secondary sources

at libraries in Britain, Finland and Russia. Throughout, my research was sustained by the generous academic hospitality of my *alma mater*: Exeter College, Oxford.

I am grateful to the Hakluyt Society for permission to publish the epigraph to Chapter 2, and to Granta Books for permission to publish the uncannily apposite epigraph to Chapter 8, from Per Wästberg's novel *The Journey of Anders Sparrman* (ISBN: 9781847081759).

Dictionaries

Alexandrov's *Russian–English Dictionary* (1897) contains a surprising wealth of nautical terms as well as useful guidance to the diction of Imperial Russia. Toll's *Universal Dictionary* (1863) is useful for technical terms. Favorov's *English–Russian Naval Dictionary* (1994) is another invaluable source, but an awkward one, because it has to be 'worked' backwards, by guessing at a meaning and then checking it. I also consulted Russian–Russian dictionaries from the eighteenth and nineteenth centuries, but some were constructed etymologically, so that a word could only be found if its root was known. That posed quite a challenge for a foreigner with less than perfect Russian.

Other individuals

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Chronology of Bellingshausen's Life and European Events

<i>Year</i>	<i>Life</i>	<i>Events</i>
1778	Born at Lahnentagge, Ösel	
1779		Death of James Cook
1784	Death of father	
1788		Britain founds colony of New South Wales
1788–90		Russo-Swedish War
1789	Enters Cadet Corps	French Revolution begins
1793		France declares war on Britain
1796		Death of Empress Catherine II; accession of Emperor Paul I
1797	Graduates as midshipman	Russia joins Sweden, Denmark and Prussia in League of Armed Neutrality
1798		Battle of the Nile
1801		Murder of Paul I; accession of Emperor Alexander I; Russia makes peace with Britain
1802	Joins Krusenstern's expedition	Britain and France sign Treaty of Amiens
1804	Promoted lieutenant	
1805		Battle of Trafalgar
1806	Returns to Russia	Russia and France sign Treaty of Tilsit
1807		Britain abolishes the slave trade
1808	First command in Baltic	
1808–09		Finnish War between Russia and Sweden

1812	Posted to Black Sea Fleet	Napoleon invades Russia; Battle of Borodino
1814–15		Congress of Vienna
1815		Battle of Waterloo
1816	Promoted junior captain	
1819	Appointed to command of expedition; sails from Kronstadt	
1821	Promoted senior captain; returns to Kronstadt; promoted captain commander	
1822		Congress of Verona
1824	Completes narrative of expedition	
1825	Death of mother	Death of Alexander I; Decembrist Uprising; accession of Emperor Nicholas I
1826	Marries Anna Dmitriyevna Boikova	
1827	Promoted rear admiral and commander of Naval Guards	Russia, France and Britain defeat the Ottoman Navy in the Battle of Navarino; in the Greek War of Independence, HN Sloop <i>Karteria</i> becomes the first warship ever to fight under auxiliary steam power
1829	Takes part in Russo-Turkish War	
1830	Promoted vice admiral	July Revolution in France; accession of Louis Philippe I
1831	Publication of <i>Two Seasons</i>	
1839	Appointed governor of Kronstadt	
1840–41	Deaths of brothers	

1843	Promoted admiral	
1845		John Franklin leads expedition in search of the North-West Passage
1846	Death of Krusenstern	
1848		European Revolutions
1851	Death of Lazarev	
1852	Dies at Kronstadt	
1852–54		Britain, France and Turkey fight Crimean War with Russia

List of Abbreviations

b	by (in compass bearings)
BGN/PCGN	Board on Geographic Names (USA) / Permanent Committee on Geographical Names (UK)
GPS	Global Positioning System
HIMS	His Imperial Majesty's Ship
HMS	His Majesty's Ship
HN	Hellenic Navy
IRN	Imperial Russian Navy
N.S.	New Style (Gregorian Calendar)
NASA	(US) National Air and Space Administration
O.S.	Old Style (Julian Calendar)
RAC	Russian-American Company
RN	Royal Navy
RNL	Russian National Library, St Petersburg
RSHA	Russian State Historical Archives, St Petersburg
RSL	Russian State Library, Moscow
SARN	State Archives of the Russian Navy, St Petersburg
SCAR	Scientific Committee on Antarctic Research (International Science Council)
sr	silver roubles

Part I

Imperial Quest

*The most famous modern sovereign will be he who succeeds
in giving his name to the Southern World.*

CHARLES DE BROSSES (1752)



Figure 1 Profile sketch of Captain Bellingshausen by Pavel Nikolayevich Mikhailov, about May 1820. © 2012, State Russian Museum, St. Petersburg (Catalogue: R 29063 verso)

1

Port Jackson, April 1820

You should never, on any account, let slip an opportunity to report on your voyage.

INSTRUCTIONS FROM THE RUSSIAN MINISTER
OF MARINE, 1819

To the lighthouse

On the morning of Wednesday, 19 April 1820, Major General Lachlan Macquarie, the governor of New South Wales, and his guest, Junior Captain Faddei Faddeyevich Bellingshausen of the Imperial Russian Navy, stepped out of Government House, a few metres from the south-east corner of Sydney Cove. The 41-year-old Bellingshausen was commander of a squadron of two ships ‘employed on a Voyage of Discovery to the South Pole’, as Macquarie expressed it in his journal (Macquarie, 1820: 11 April). The governor had invited Bellingshausen and his suite of officers to inspect the colony’s splendid new lighthouse, the Macquarie Tower, completed in 1818. The two men breakfasted together, and then took their seats in Macquarie’s carriage to drive out to South Head, one of the two promontories that form the entrance to Port Jackson harbour from the Pacific Ocean. It was a fine autumn day and the outing promised to be delightful (*Two Seasons*, 1: 250–1).

Bellingshausen could probably read English quite well, but had little experience with speaking it. When the Russian sloop-of-war HIMS *Vostok* (28) arrived a week earlier he and Macquarie conversed through an interpreter, Midshipman Dmitrii Alekseyevich Demidov, IRN. But this time rank took precedence over communication, and Bellingshausen was accompanied by his aide Captain Lieutenant Ivan Ivanovich

Zavodovskii, IRN, who had trained and served his previous career in the Black Sea Fleet. The squadron's officers had managed well enough at Portsmouth and London in August 1819, but at that stage they relied not only on Demidov but also on Lieutenant Mikhail Petrovich Lazarev, IRN, commander of the second ship in the squadron, HMS *Mirnyi* (20). Like many others in the service, but not Bellingshausen, Lazarev had trained for several years as a gentleman volunteer in the Royal Navy. For his part, Macquarie had travelled across Russia in 1807, and by 1820 could remember 'a few words of Russian' (Massov, 2008: 58). But with Lazarev still at sea the conversation between Bellingshausen and Macquarie on that ride would not have gone as smoothly as their progress over the governor's well-paved South Head Road.

Not that either of those busy men would have felt the need for small talk. Like any commander of a naval squadron thousands of kilometres from home, Captain Bellingshausen had much on his mind. On the plus side, he had achieved many things during his first season of exploration in the Southern Ice Ocean, and after more than three months of laborious, hazardous and skilful sailing in or near the Antarctic ice fields he had brought his ship safely to Port Jackson.

Another positive development had been the generous welcome extended by the governor, including free water and timber and a prime site for a camp on the north shore of the harbour, directly opposite the British settlement at Sydney Cove. The Russians had lost no time, either, in reaching an understanding with 'Chief' Bungaree, a prominent member of the indigenous community in the area. Construction of the camp, including a sturdy base for one of the instruments provided for the astronomer Ivan Mikhailovich Simonov, began immediately. Everything possible, even empty barrels, was taken on shore to raise the ship as high as possible out of the water for inspection. For their own benefit, the crew were set to building a pavilion for Russian steam baths. On Sunday, 16 April, they were given a holiday for baths and laundry, and encouraged to take a stroll in the woods or forage along the shore – though *not* to cross the harbour. On Monday the ship's carpenters and quartermasters began to calculate the timber needed for repairs and to organize work parties to collect it.¹ By Wednesday, 19 April, the day of Bellingshausen's outing,² those repairs were well in hand.

So if he did frown sometimes, during that rather subdued fifty-minute carriage ride, it would not have been for his ship. Two other matters were of greater concern. The first was the safety and whereabouts of his second, smaller and slower sloop, *Mirnyi*. Lazarev was an excellent seaman and had visited Australia before, in August 1814. But Bellingshausen

would not have been fretting merely for Lazarev's services as interpreter. A month earlier, on 17 March, he had ordered *Mirnyi* to part company so that the two ships could sweep a broad strip of ocean en route to Australia. A few days after that he had taken *Vostok* through one of the worst storms he had ever experienced, during which she nearly collided with a massive iceberg. *Mirnyi* was slower than *Vostok* and had suffered serious damage during their long passage from Rio. Any responsible commander was bound to feel anxious until she reappeared.

The moment when, as the carriage approached the lighthouse, he caught sight of *Mirnyi* tacking into harbour, may have been one of the better ones in Bellingshausen's life. He boarded her even before she dropped anchor (Novosil'skii, 1853a: 65). It is not recorded, but the obvious way for him to have done so was by striding down the inner, western slopes of South Head to Camp Cove, and there commandeering the boat which he mentions that junior members of his party had brought down the harbour that morning.

But now consider this. Lazarev later reported that he came in sight of the lighthouse on the Tuesday evening and anchored for the night to the north-east of it, which places *Mirnyi* off North Head (*Two Seasons*, 1: 277). The lighthouse was a new installation for one of the colony's oldest and most efficient institutions, the lookout station on South Head. In view of the purpose of any lighthouse there would have been staff there, in sight of *Mirnyi*, at last and first light. There was a system of night-time signalling to communicate with ships in need of a pilot, though it is not clear whether communications were also maintained with Sydney at night. Furthermore the Russian ensign, the St Andrew's Cross, would have been familiar to lookouts who had watched three other Russian warships entering or leaving Port Jackson in recent weeks. And they had probably been instructed to watch for *Mirnyi's* arrival, as they were a month earlier for another Russian ship (A. Lazarev, 1950: 149).

It follows with a high degree of certainty that Macquarie knew there was a Russian ship outside the Heads and so informed Bellingshausen before they sat down to breakfast, if not by boat across the harbour several hours before that. For illustrative purposes, the author made no comment, above, on Bellingshausen's recollection of his delight when *Mirnyi* came into view. Well, doubtless he was pleased to set eyes on her. But as we have just seen that was not the whole story. The whole story, which he suppressed for dramatic effect, was that he already knew she had arrived before he got into the carriage.

The trivial example should remind us that historical sources sometimes enhance or embellish their narratives at the expense of truth.

In this book we shall deal with weightier matters than Bellingshausen's outing to the Macquarie Tower. But enhancement is not the only kind of snare that may confront us. Consider, for example, that the two paragraphs before this one need never have been written. And that point need never have been made, either. In short, let readers be aware that history is as full of tricks as a bagful of monkeys. They will immediately find themselves in a better position than many who studied the Bellingshausen expedition before them.

Mail

Even before *Mirnyi* arrived Bellingshausen's other urgent concern would have been with his lines of communication. Whenever possible, duty required him to report on his progress to the Russian Empire's French-born Minister of Marine, His Excellency Jean-Baptiste Prévost de Sansac, the Marquis de Traversay. With *Mirnyi* safely rejoined he signed an official report on his first season of exploration, along with a personal letter to the Minister, the following day (B6, B7).

The means to convey them to far-off Europe may have seemed ready at hand. Since a month before *Vostok's* arrival Captain Edward Sindrey of the 40-ton merchant brig *Queen Charlotte* had been advertising her availability to serve as an express packet between Sydney and London.³ Perhaps there lay Bellingshausen's opportunity to avoid the blunder committed by his brother-officer Captain Lieutenant Mikhail Nikolayevich Vasil'ev, IRN, in command of a second, simultaneous Russian expedition to the North Pacific, comprising another pair of sloops, HIMS *Otkrytiye* (18) and HIMS *Blagonamerennyi* (20).

Vasil'ev's junior commander, Captain Lieutenant Gleb Semënovich Shishmarëv, IRN, reached Port Jackson with *Blagonamerennyi* on 28 February 1820, three days ahead of Vasil'ev in the storm-damaged *Otkrytiye*. The standing orders to both expeditions required them to keep an interim report 'always ready' for transfer to any vessel bound for Europe that they might encounter (*Two Seasons*, 1: 21). But although Port Jackson was likely to furnish just such a rare opportunity, Vasil'ev had not given Shishmarëv a copy of such a report, as perhaps he should have done, knowing that *Blagonamerennyi* would get there first. On the eve of sailing for England with the governor's dispatches and general mail, the English merchantman *The Admiral Cockburn* promptly offered her services to Shishmarëv. But despite having several hours' notice, the latter failed to grasp the opportunity as he in turn was duty bound to do. When *Otkrytiye* made port on 2 March Vasil'ev would learn that he

had missed the boat by a single day. Another six months went by before the next mail left for London.⁴

In Bellingshausen's case, Captain Sindrey was promising more than he could perform. *Queen Charlotte's* regular run was between Sydney and Port Dalrymple (George Town) in Tasmania, with an occasional venture as far as the Cape of Good Hope. In October 1820 she returned to Sydney from Tasmania with a cargo of seal and kangaroo skins, and in January 1821 Sindrey himself was in Tasmania.⁵ Those details show that *Queen Charlotte* made no voyage to London in 1820. Nor did Macquarie, who noted all long-distance departures from Sydney in his journal, record any such event.

On 27 April, however, eight days after the lighthouse excursion, the British whaling ship *Tuscan* arrived in Port Jackson homeward bound. At the end of May Sydney's postmaster, George Panton, announced that *Tuscan* would carry mail 'for Britain direct' in July.⁶ Although Bellingshausen's squadron had already put to sea for the second, tropical phase of their voyage, the commander would certainly have left his dispatches with either Panton or Macquarie. But when he returned to Port Jackson on 21 September he discovered that *Tuscan* had sailed a mere twelve days earlier, carrying the governor's first set of dispatches since March together with general mail (Macquarie, 1820: 9 September). *Tuscan* had been delayed for several reasons. She lost her first captain on her outward voyage; her second fell ill and eventually died at Sydney in November; and one of her owners had to take the position briefly before finally appointing a fourth. Meanwhile she was involved in a lawsuit, and may have had some difficulty assembling her modest cargo of seal skins, oil and wool.

Matters did not always prosper for *Vostok* either. On 14 May, while she was still at Port Jackson, her blacksmith, Matvei Gubin,⁷ was fitting a copper sleeve to protect the top of the first section of the mainmast from friction. He fell about 14m to the deck of the ship below, and died of his injuries nine days later at sea (Appendix 2).

Tuscan made the passage home, under the highly experienced William Dagg, in a creditable five months. After leaving Port Jackson on 9 September she was spotted by the *Sarah* on 26 November, one day out of Rio, and by February she was in the Thames.⁸ One hopes that Captain Dagg was not inconvenienced by the 'severe frost' which surrounded the expedition ships of Arctic explorer Sir William Edward Parry (of whom more later) with 'gurgling ice' at their Deptford moorings that week.⁹ Thus Bellingshausen's report (B7) probably reached the Russian Minister Plenipotentiary in London, his fellow Livländer Count

von Lieven, in early February 1821. Because the eastern Baltic was usually closed by ice until April or even May, it would have been sent across the English Channel to Ostend or Calais and then relayed overland, about 4800km on roads mired by the spring thaw, to St Petersburg.¹⁰ It reached the Ministry of Marine on Saturday, 21 April 1821, a year after it was written.¹¹

The Minister then took the unusual step, for Russia in those days, of releasing the report to the press two weeks after it arrived. The weekly magazine *Syn Otechestva* (Son of the Fatherland) published a summary of the report, prepared in the Ministry and misleadingly described as an extract, plus an edited extract from the letter which accompanied it (Bellingsgauzen, 1821a, 1821b; Bulkeley, 2011b).¹² This special treatment suggests there may have been more going on, politically speaking, than meets the eye. It certainly amounted to a feather in Bellingshausen's cap, because de Traversay could not have done it without consulting his master, Emperor Alexander I, Autocrat of all the Russias, Tsar of Poland, Grand Duke of Lithuania, Duke of Estonia, Duke of Livonia – etc.

The pace of global communications and the international news cycle were not the only things that were rather different in 1820 from what they are today. The Bellingshausen expedition cannot be understood in isolation. It took place against a background of previous European maritime exploration, and within the territorial and economic contest between the major powers which fuelled that exploration. And its participants described it in the general, and where appropriate in the technical language of their day, not ours. To understand the texts presented in this book, it is necessary to take some bearings on the world in which they were written.

2

The Commander

It is less easy to draw a clear picture of Bellingshausen himself than of his expedition.

FRANK DEBENHAM (1945)

Bellingshausen wrote his reports in the language of a particular organization, the Imperial Russian Navy, at a particular juncture in the history of the monarchy which it served. Naturally he also had his own thoughts about what he had achieved, and his own way of describing it. Various approaches to such matters have various merits. The story of Bellingshausen's own background, and his life before and after the expedition, is as good a place as any to begin.¹

Family

Bellingshausen was born in 1778 on the island of Ösel (Saaremaa), which stands at the mouth of the Gulf of Riga in the eastern Baltic. The island was then part of Livland, one of the Baltic or 'German' governorates of the Russian Empire, along with Estland and Kurland. Grouped around the Gulf of Riga, they were roughly coextensive with present-day Estonia and Latvia (Map 1).

The Teutonic Knights had successfully invaded the region in the thirteenth century against Danish, Polish, Russian and indigenous resistance. For the next 350 years its shifting subdivisions were ruled as territories of the Holy Roman Empire by branches of the Knights or by feudal Prince-Bishops, including the Prince-Bishop of Ösel-Wiek with his seat at Arensburg (Kuressaare), the main town of Ösel. As was customary in those times, the Knights enslaved the defeated occupants of their new territories. Bonded labour became the foundation of an agricultural



Map 1 The Baltic governorates of the Russian Empire, about 1800

economy, much of it organized into manorial units. Meanwhile in the fifteenth century Bellingshausen’s German ancestors had moved from the Sauerland, in modern North-Rhine Westphalia, to the Hanseatic city of Lübeck. A hundred years later one of them migrated to Ösel and was granted two small adjacent manors, Hoheneichen or ‘High Oaks’ (Pilguse) and Lahhentagge (Lahetagus), in the parish of Kielkond (Kihelkonde) at the western end of the island. They comprised about 60 hectares of land between them, most of it in Hoheneichen; by 1782 their populations were: Hoheneichen – 148, Lahhentagge – 53. Today their remnants stand above a rocky shore in a district which, to British eyes, seems like a colder, flatter version of Cornwall, in part because its history, courtesy of those reefs and rocks, includes tales of wreckers’ ‘rights’ (*Strandrecht*) and of conflict between smugglers and excisemen (K[örber], 1899, 2: 77–84).

Like their counterparts elsewhere, the landholders of the region veiled the raw facts of possession and exploitation beneath a veneer of gentility. Unsanctioned by a monarchy, their self-endowed caste, the Ritterschaft of Ösel, somewhat resembled the less formally regulated gentry of western European societies. Their lives changed only slowly as the rising nation states of Lithuania, Poland, Russia and Sweden competed to replace the feudal rulers around the Gulf of Riga in the sixteenth and seventeenth centuries, with the lion's share falling to Sweden. Then in 1721 Russia defeated Sweden in the Northern War and took possession of what became its Baltic governorates for the next 200 years. The regional economy was badly hit by war and by the agricultural setbacks of the Little Ice Age. Not surprisingly landlords squeezed their peasants for every penny, which included selling them as goods if necessary. That in turn gave rise to a surge of peasant unrest in the 1780s, during Bellingshausen's childhood (Wittram, 1954: 152–4). The serfs of Livland, some of whom were doubtless serving with Bellingshausen's squadron at the time, were formally emancipated on 18 January 1820. However reformers promptly denounced the measure as unsatisfactory (Merkel, 1820: 290–339).²

The Bellingshausens of Kielkond held on to their manors throughout the hard years of the middle eighteenth century, gradually winning back much of the land from waste between 1732 and 1756 (Hagemeister, 1851: 44, 178, 191). In the time of Bellingshausen's father, however, matters came to a head. Fabian Ernst Bellingshausen was born on 30 March 1735, served the rulers of his country in the Seven Years War of 1756–63 (aka the Pomeranian or Silesian War), rising to the rank of major, and married the 18-year-old Anna Catharina von Folckern in January 1775. In 1778, for unknown reasons, he decided to sell the two manors. He did so by striking a deal with district commissioner Daniel Gottlieb Suckni, who married Fabian Ernst's sister-in-law, Elisabeth von Folckern, in July 1778. Suckni agreed to purchase the two manors for 7400 silver roubles (sr) {£1,620,320 – see Appendix 3}, raised against the future inheritance of the Folckern sisters,³ while the Bellingshausens would move in to Lahhentagge, perhaps as his tenants. The Bellingshausens left Hoheneichen for Lahhentagge in about June 1778,⁴ but Suckni failed to realize the full amount and had to return the smaller manor to them in 1780. It passed to Fabian Ernst's mother, Gerdrute Sophie, although she lived elsewhere. After her son's death in 1784 she, or perhaps her estate, sold Lahhentagge for 5000 sr {£1,040,000} in 1785 to the newly married Johann Wilhelm Ludwig von Luce, who moved in immediately (Hagemeister, 1851: 44–5). As for Hoheneichen, Suckni may soon have

let it to one Johan Adolph Knutzen, who was living there in 1782, before selling it to Luce in 1793, with a mortgage, for 25,000 sr (£4,653,000).⁵

Childhood

Bellingshausen's older brothers Reinhold Johann and Hermann Friedrich were born at Hoheneichen in 1775 and 1776. Following the downturn in the family's fortunes, however, the third son of Anna Catharina and Fabian Ernst Bellingshausen, the future Antarctic explorer and admiral, was born at Lahhentagge on Sunday, 20 September 1778. Six days later he was baptized at the Lutheran parish church of St Michael, about 20km from Lahhentagge, by Pastor Johann Kleiner. His given names were Fabian Gottlieb Benjamin, the first for his father, the second for Pastor Kleiner and for his accommodating uncle and godfather Suckni, and the third for provincial secretary Johann Benjamin Sahmen, whose wife Margaretha Elise may have been his godmother. A younger brother, Otto Wilhelm, was born at Lahhentagge in 1780 but died in infancy (Anon., 1745–1806; see also Paatsi, 1980; Headland, 1992a).

Bellingshausen's father Fabian Ernst died in 1784 at the age of 49, and his widow left Lahhentagge with her sons, for an unknown destination, in about March 1785.⁶ The family's retrenchments enabled Reinhold and Hermann to embark on successful careers in the army, but perhaps they could not afford to do the same for Bellingshausen. In any case he was sent to the Naval Cadet Corps, which functioned, at least in part, as a charitable institution sponsored by the Emperor. The Corps preferred to receive boys as young as possible and train them until they were 17 (Anon., 1822: 16; Anon., 1829, 19: 187). Bellingshausen joined on 21 January 1789 at the age of ten years and four months. By his own testimony he knew 'no Russian' before that point (G[erschau], 1892: 374); the language of his childhood had been German.

In the 1770s the Corps had relocated to the Kronstadt naval base, on Kotlin Island off St Petersburg, after its buildings in the capital were destroyed by fire. A new building was provided, and in 1783 the number of cadets was increased from 340 to 600. A generation later an observer described the training system as follows:

At present the young aspirant after naval renown is placed in a kind of college, appropriated to the reception of this class at Cronstadt, or in another at St. Petersburg, at the age of seven or eight. Here he is taught the elements of navigation, and as the summer opens, is sent out for a few weeks cruise in the Baltic. During this time the weather is fine, no difficulty offers in the contention of the elements to call forth the powers of his mind. He visits a few ports

for the purpose of amusement, and he returns again scarcely recovered from sea sickness, to Cronstadt or Revel, to be locked up by the ice for the winter, till the ensuing summer requires the same routine, with his illness to reconquer, and all his little knowledge to re-learn. In two or three years he becomes garde-marine, and afterwards midshipman; pursuing the same round of duty, gaining some insight into practical navigation, but scarcely any into the more important science of seamanship; ...

During the cruize he scarcely ever deigns to superintend the immediate work of the seamen, or carry into effect the orders of the lieutenant; and seldom goes into a boat on duty, except when proceeding to the ship of the commander-in-chief. He simply walks the deck in his watch, and heaves the log to discover the rate of sailing. Below, he messes in the Ward Room with the lieutenants on his table money which, while in England, was £6 10s. (£3720) per month,⁷ instead of fighting his way through the hardships of a cock-pit, like the English midshipman; and struts to and fro with a segar in his mouth, till the routine of duty returns.

In due time the theory of a ship is learnt, the names of the ropes acquired, along with the words of command for setting and reefing and furling sails, but he understands little of the practice of either. When a difficulty occurs therefore he can rarely put the men right, though even exalted to the rank of lieutenant; for it is one thing to give orders, and another to know how they should be executed. It is impossible that men brought up in this manner can ever command ships or fleets opposed to good seamen, without sustaining certain defeat. Personal courage, of which they undoubtedly possess their full share, can do little at sea, (less even than on land,) against superior skill. (Anon., 1822: 16–17)

Before we dismiss such comments as biased we should note that Admiral Krusenstern, who spent 20 years first as inspector and then as director of the Corps, believed that it had ‘major faults’ (K[örber], 1899, 2: 86). In later life Bellingshausen worked hard to improve the practical and theoretical training of cadets.

Bellingshausen’s age on admission to the Corps may be the key to the first of many puzzles about him, the fact that he had two different but well attested dates of birth. According to the register of St Michael’s church (above), he was born on 20 September 1778. But according to his entry in the *Military Encyclopedia* and his official naval obituary he was born on 29 August 1779 (Krasheninnikov, 1853: 242; Anon., 1853: 26). Conceivably, a false date was given, so that he could enter the Corps as ‘rising ten’ when in fact he was ‘rising eleven’. That would have let him conform by passing out in 1797 at an official age of 17, although he was actually a year older. True, other boys in the class had joined the Corps two or even three years later than Bellingshausen. But factors such as greater aristocratic influence or private tuition may have played a role with them, and perhaps their dates of birth were altered

too. If that is what happened to Bellingshausen, the misleading date could have remained on his service record and been used in official publications.

There has been similar confusion over Bellingshausen's names. Take, first, the question of his putative title. Not every *barin* (gentleman) was a baron. Bellingshausen was the third son of a man descended in a minor offshoot of the Paddas (Pada) branch of his family. But Russian titles of nobility were inherited by all the children of a family and the resultant proliferation went largely uncontrolled. So Bellingshausen would have been a Russian baron if one of his ancestors had been one. But none of them had. When the Russian conquest of Livland was formalized in 1721 the Swedish baronage which had been conferred on one Bellingshausen ancestor in the seventeenth century was effectively annulled. Some Livländer and Estländer gentry tended to ignore such inconvenient facts about their descent, but it is far from clear that they were legally entitled to do so. In practice, some got away with it, some did not bother, and the older and wealthier families, like the Wrangells, acquired patents of Russian nobility. Hence only some of their sons, not including Bellingshausen, were dignified with a 'von' or a formal title of nobility in the class lists of the Naval Cadet Corps. Bellingshausen was sometimes called 'Baron' in his youth, for example by Krusenstern, but from about the age of 30 he dropped the label, to which he was probably not entitled. The family was eventually admitted to the Russian nobility several years after his death.

The family name was, however, listed as number 49 in a register of Livländer gentry compiled after the Russian conquest (Anon., 1747). The German landholders of the region might have surrendered their political sovereignty more than 200 years before Bellingshausen was born, but they retained considerable social autonomy. Added to which, the most important social distinction in the Russian Empire was that between serfs and 'nobles', according to which anyone who was not a serf was in some vague sense a noble. The distinction between titled aristocrats and a middle class made up of minor gentry, merchants and the professions, though real, was less salient.

Bellingshausen's surname was usually spelled (and signed by him) in Russian as 'Bellinsgauzen' (Anon., 1853: 26). Many people, aware that it was a foreign word, would have pronounced the Russian 'g' as 'h', but the subsequent rise of spelling pronunciation has largely put an end to that (Comrie et al., 1996: 36–40). The name was also spelled 'Billinsgauzen' or 'Billensgauzen' in Russian, though never by the man himself.⁸ Even in German, the register of gentry (above)

used 'Bellingshausen', and so did the register of St Michael's church for Fabian Gottlieb's baptism and many other entries. But the records later submitted to support the family's successful quest for Russian nobility all used the more familiar 'Bellingshausen' in both languages, and there is no good reason to depart from that established practice.

Bellingshausen's forenames were a different matter. He held on to 'Fabian Gottlieb' in the class list of the Cadet Corps, one more than most of his comrades. But after receiving his commission as a midshipman he took a Russian forename and patronymic, Thaddei Thaddeyevich in Church Slavonic, which was usually pronounced and written as Fad(d)ei Fad(d)eyevich in Russian. The Russian Empire was a multicultural polity but not an egalitarian one. Subjects of the Emperor who were not ethnic Russians or adherents of the Orthodox Church were usually expected to adopt Orthodox forenames and patronymics on entering government service. Thus the French-born Admiral, the Marquis de Traversay, Minister of Marine from 1815 to 1828, became Ivan Ivanovich; Bellingshausen's mentor Adam Johann Krusenstern became Ivan Fëdorovich; and so on. If Bellingshausen had any say in the matter, his choice of Faddei was a shrewd one, since he would need to remember his name day, and sometimes even to celebrate it. Saint Thaddei of Edessa – there are several – is commemorated on 21 August, conveniently close to what may have been Bellingshausen's equally factitious naval birthday on 29 August (both O.S.).

The Russo-Swedish War of 1788–90 largely coincided with Bellingshausen's time in the Corps and may even have had something to do with his going there. Out of several naval actions one, the Battle of Krasnogorsk on 5 and 6 June 1790, was fought close to Kronstadt. It was a Russian victory, but while the issue remained in doubt the senior students of the Corps, probably not including the officially 10-year-old Bellingshausen, stood to the guns of the fortress alongside the people of the town (Veselago, 1939: 142–3).

Midshipman Faddei Faddeyevich Bellingshausen passed out of the Cadet Corps on 12 May 1797.⁹ According to one authority he came 'among the bottom five of his course' (Tammiksaar, 2007: 138). The class list puts him 41st out of the 76 cadets who remained in the Navy, but although they were not listed alphabetically or by seniority perhaps they were not listed by merit either (Veselago, 1852, 2: 46). Bellingshausen may have had natural gifts for mathematics and draughtsmanship, but perhaps his tutors found him less satisfactory on the ritual side of military life, or in tactical exercises, or in leadership. Because his childhood is obscure, to say the least, it is impossible to say what early

training or experience he received, before joining the Corps, in such matters as mathematics, marksmanship or boat-handling.

Junior career

A few weeks after the coronation of Emperor Paul I on 16 April 1797 Bellingshausen and many of his classmates took part in a review of the fleet, which is said to have been reduced to chaos by a combination of bad weather and interventions from the mentally unstable autocrat (Woods, 2000: 68–9).¹⁰ After that he served on Baltic patrols for six years. In 1801 he was on the lugger *Velikii Knyaz'* (12) when, according to his record, she twice carried dispatches to Vice Admiral Horatio Nelson at Rostock. In fact *Velikii Knyaz'* delivered the first dispatch to the British fleet in or near the Gulf of Finland, and still under the command of Admiral Hyde Parker, on 23 April 1801. Nelson, as Parker's successor, received the second dispatch at Rostock on 26 May. As the Russians left with Nelson's reply they fired an unexpected salute, which drew the remark: 'Did you hear that little fellow salute? Well, now, there is peace with Russia, depend on it ...' (Nelson, 1845, 4: 393). Not being in command of the lugger Bellingshausen is unlikely to have met either British admiral. In the shorebound winters of those years he began to study English, which appears not to have been on the syllabus at the Cadet Corps.

His chance came in October 1802. Senior Captain Krusenstern had been selecting capable officers for a multi-purpose voyage to the North Pacific that would spend some of its time on exploration. He had yet to fill the post of navigational officer on his own ship, the *Nadezhda*. Having learned by chance of Bellingshausen's mathematical skills, he promptly recruited him (Kopelev, 2000: 50).

The voyage was the first Russian circumnavigation, 284 years after Magellan, and lasted from 1803 to 1806. During it, Bellingshausen was promoted lieutenant (Veselago, 1892: 17). The formalities are hard to imagine in the circumstances, but he began taking watches in September 1804 (Löwenstern, 2003: 152). But for a change of plan he might have been detached for a small-boat survey of Sakhalin. He took a full part in the cartographic work and was entrusted with drawing the finished maps at the end of the cruise, which thus became his first published work (Krusenstern, 1814). A fellow officer described him as intelligent, poorly educated, a fine draughtsman, inclined to grumbling and negativity, and more than somewhat big-headed (Löwenstern, 2003: 47, 114, 422). *Nadezhda* returned to St Petersburg in August 1806.

Bellingshausen was promoted captain lieutenant and awarded a grant of 100 assignats a year {£5110}.

Bellingshausen's first commands were the frigates HIMS *Tikhvinskaya Bogoroditsa* (44) in 1808 and HIMS *Mel'pomena* (44) in 1809. Under Admirals Khanykov, Kolokol'tsev and Moller in succession, he took part in a war of manoeuvre against Britain and Sweden in the Baltic. In 1811 he served an unusual tour of duty in command of galleys at Riga. The following year he was transferred to the Black Sea, one of the most testing bodies of water in the world for sailors. Bellingshausen patrolled and surveyed its eastern shores for the next six years with the frigates HIMS *Minerva* (44) and HIMS *Flora* (44). From 1814, at least, Krusenstern saw him as an ideal leader for a voyage of exploration (Krusenstern, 1877a).¹¹ In August 1816 two of Bellingshausen's hydrographic reports were forwarded to the Admiralty with critical comments from the Navy's chief Black Sea hydrographer (Bellingsgauzen, 1855). Perhaps fortunately, Bellingshausen had already been promoted junior captain in March of that year.

The expedition

In 1818 Emperor Alexander I and his Minister of Marine, de Traversay, decided to send out the two parallel exploring expeditions that will be discussed in Chapter 3. On 11 April 1819 Krusenstern recommended Bellingshausen for the command of the First Squadron, bound for the Southern Ice Ocean (Krusenshtern, 1819). The Admiralty offered the post instead to Senior Captain Makar Ivanovich Ratmanov, another Krusenstern veteran. Ratmanov, then at Copenhagen, declined on grounds of ill health and also recommended Bellingshausen (Shvede, 1949: 10). On 4 May 1819 the Admiralty settled for the junior officer. There was no optical telegraph in Russia yet (Chappe, 1824). The geographical distance from St Petersburg to the Imperial Navy's Black Sea base at Sevastopol is about 1700km, a journey that would take a wealthy traveller a month or a courier about eight or nine days (Morton, 1830; Verne, 1876). Luckily for all concerned *Flora* was in port, so that Bellingshausen reached St Petersburg on 5 June (*Two Seasons* (hereafter *TS*), 1: 2–3). He was rewarded with 1000 sr {£60,210} for that fearful journey, presumably by tarantass, alone. On 16 June he took command both of the squadron and of the 28-gun sloop-of-war HIMS *Vostok* (Samarov, 1952, 1: 115).¹²

The captain of the squadron's support ship, the 20-gun sloop-of-war HIMS *Mirnyi*, was Lieutenant Mikhail Lazarev, ten years junior to

Bellingshausen. Lazarev had already made a circumnavigation via the British colony of New South Wales between 1813 and 1816, in the service of the Russian-American Company. By the time Bellingshausen arrived Lazarev and *Vostok's* lieutenants had been supervising the commissioning of the squadron for almost three months. There was no time to reduce *Vostok's* spars before sailing, as Bellingshausen considered necessary. Shorter replacements were shipped, and both ships were reinforced with iron stanchions and other modifications in the second half of June.

On 6 July 1819 Emperor Alexander inspected the four ships of the First (Southern) and Second (Northern) Squadrons at Kronstadt. The following day he invited their commanders to dine at Peterhof. Perhaps feeling the weight of the occasion upon him, Bellingshausen ventured the opinion that the age of maritime exploration was over and there was nothing of any importance left to discover. "To which His Imperial Highness consented to reply: "Let's find out!" (Novosil'skii, 1853a: 34). The First Squadron weighed anchor at 6 p.m. on 15 July 1819, followed by the Second an hour later.¹³ Over the next two years Bellingshausen submitted the eight reports to de Traversay that are presented in Chapters 5 and 6.

Two years later the expedition returned to Europe, making landfall at the mouth of the River Tagus on 29 June 1821. The Portuguese were too busy with a convoluted political crisis to pay much attention to their Russian visitors. Moving on, Bellingshausen was delayed by contrary winds in the Channel Approaches, stopped overnight at Copenhagen, and then had a fair wind up the Baltic. *Vostok* also touched at Königsberg, where astronomer Simonov paid his respects to his famous colleague Friedrich Bessel (Baranov, 1904: 486). Senior Captain Bellingshausen, as he became while still at sea on 10 June 1821, signed his final report (B10) at Kronstadt on 5 August 1821, the day they arrived.

The expedition received an enthusiastic welcome from upper-class inhabitants of St Petersburg (see Chapter 11). On 15 August the Emperor and Empress visited the squadron at Kronstadt. Lazarev and Zavodovskii, Bellingshausen's second-in-command on *Vostok*, were promoted junior captains. Bellingshausen received the Order of St Vladimir (3rd class) and was promoted captain commander, an unusually rapid 'step'. He was granted the lease of a crown estate at Nauditen in Kurland (Naudite in Latvia) valued at 1000 sr {£65,680} per annum.¹⁴ (This type of grant, known as an *arenda*, was a customary part of the emolument of senior officers and did not establish a personal connection with the place in question.) He was also honoured by Emperor Alexander with a private audience. In a parallel anecdote to the previous one, the Emperor is said to have received Bellingshausen in his cabinet and

graciously offered him a chair: 'You have returned from a distant journey and are probably fatigued. Pray be seated, Captain.' (G[erschau], 1892: 382). In an ode celebrating Russia's polar mariners, the traveller and belletrist Count Dmitrii Ivanovich Khvostov saluted him with: 'Thou, Bellingshausen, thou hast beheld the entire world' (1825: 29).

Senior career

From 1822 to 1825 Bellingshausen held various shore-based responsibilities as commander of the 15th squadron, including supervision of the naval arsenal at Kronstadt. That was no sinecure, since among other things it made him one of those responsible for extensive salvage and repairs to the fortress after the disastrous storm and flooding of the River Neva on 19 November 1824, famously commemorated in poetry (Berkh, 1826: 59–72; Pushkin, 1837). (By coincidence, both *Vostok* and *Ladoga* (former *Mirnyi*) were stranded and damaged beyond repair in that cataclysm (Sokolov, 1855: 110–11).) Fortunately Bellingshausen had already discharged his other main responsibility during this period, the preparation of the narrative and charts of his voyage. On 29 October 1824 he handed 59 notebooks, 19 maps and 51 pictures (by the expedition's artist Pavel Nikolayevich Mikhailov) to the Admiralty (Belov, 1963: 11–12). The subsequent *Atlas* volume of Bellingshausen's book included those maps, and he also prepared several others during this period (Belov, 1963).¹⁵ Ten of the notebooks were forwarded for editing to Apollon Aleksandrovich Nikol'skii, a civil servant with literary pretensions who had already handled a similar book (Lisyanskii, 1812). The other notebooks would have been log books, ships' accounts and other records, and officers' journals, which Bellingshausen had collected at the end of the voyage and retained until he finished his work. At that point he probably returned everything except, perhaps, his own journal to the Admiralty for appropriate disposition. The survival of his book, and the disappearance of most other documents created during the voyage, may even be connected with the separation of those ten notebooks from the rest, just before St Petersburg was devastated by the greatest flood in its history. However Bellingshausen's manuscript was also lost some time later. As usual, we have very little to go on.

There is no knowing what Bellingshausen might have achieved if he had gone south again, or indeed north. At the least there would have been another book, and early translation into other European languages. In January 1823 he still had hopes for a second voyage of exploration (Aristov, 1990a: 11), but the North Pacific commission

with HMS *Smirnyi* that he coveted was assigned to Captain Lieutenant Pavel Afanas'evich Dokhturov in August 1824, two months before Bellingshausen handed in his manuscript. With the death of Emperor Alexander on 1 December 1825 his career reverted to what it might have been, had he never sailed with Krusenstern. The new Emperor, Nicholas I, was 'a believer in strong autocratic authoritarianism, [who] took personal direction over the government to a degree not seen in Russia since Peter the Great' (Florovsky, 1979),¹⁶ and whose reign was guided by the slogan 'Orthodoxy, Autocracy, and Nationality', coined by Count Uvarov. Alexander had continued the south-westward expansion, at the expense of the Ottoman Empire, once favoured by Catherine II. Nicholas now raised the stakes by reversing Alexander's decision not to intervene militarily in the Greek revolution. That meant a resumption of war with Turkey, which Alexander had tried to avoid (not always with success). If there ever had been any exploration for exploration's sake under Alexander, those days were now over. Some exploration continued under naval auspices, but it was confined to the national sphere of interest, which meant above all the Arctic, and much of it was financed privately, which was out of the question for Bellingshausen.

Bellingshausen's next command seems to have been intended to set a precedent. In 1805 Admiral Dmitrii Nikolayevich Senyavin had taken a Russian fleet into the Mediterranean for successful operations first against France in the Adriatic and then against Turkey in the Dardanelles. After Emperor Alexander had signed the Treaty of Tilsit with Napoleon in 1807, however, Senyavin's situation with respect to the dominant Royal Navy became an impossible one. Between October 1807 and August 1809 his squadron was first blockaded at Lisbon and then detained at Portsmouth before finally being allowed to return home. For almost twenty years the Russian Navy relinquished the sea route between its home or Baltic Fleet and its Black Sea Fleet, based at Sevastopol. Now that link would be restored. In 1827 a Russian naval contingent was to form part of an international force deployed against the Ottoman Empire, in support of the cause of Greek independence, by an alliance between Britain, France and Russia. But well before those events the ensign of St Andrew had already returned to the Straits of Gibraltar. In late 1826 Bellingshausen took command of a squadron comprising HMS *Tsar' Konstantin* (74) and *Yelena* (38) for a training cruise in the Mediterranean which lasted several months. Having reintroduced Russian seapower to the region after an interval of almost twenty years, he was promoted rear admiral while at sea. The mission also took him back to Portsmouth for about ten days.¹⁷

At some point in 1827 Bellingshausen was appointed commander of the Naval Guards at St Petersburg. Several units of Guards accompanied Emperor Nicholas in 1828, when he took personal command in the Russo-Turkish War. As the Navy began to play a more significant role under Admiral Aleksei Greig, Bellingshausen led a contingent of Naval Guards overland. He raised his flag on HIMS *Parmen* (74) on 18 March 1829 and joined the squadron forming for the siege of Varna. After Russian forces had crossed the Balkan mountain range Bellingshausen transferred to HIMS *Parizh* (110), based at the recently captured Sizeboli (Sozopol), and took part in combined operations against strongpoints like nearby Agathopolis (Ahtopol) until hostilities ended in August 1829. His repeated urgings that the Imperial Navy should launch a direct attack against the weaker Turkish fleet, at anchor inside the Bosphorus, were rejected by his more cautious superiors.

Bellingshausen returned overland to St Petersburg and was promoted vice admiral in 1830, when he commanded a squadron in blockade during the Polish–Russian War. In 1831 he may have played a part in publishing his own book. After some difficulties, the science committee of the Naval Staff secured a special grant from the Imperial Cabinet, the burgeoning bureaucracy which ran the centralized government of Emperor Nicholas. The money was allocated ‘for the use of Mr Bellingshausen’, which suggests that it was he, rather than the science committee, who actually paid the publishing firm of Glazunovs to produce 600 copies of the book (*TS*, 1: iii). The retail price, complete with *Atlas*, was 20 sr (£1,310).

As for what Bellingshausen thought of the finished work, nine years later Krusenstern sent him an enquiry from the mathematician and magnetician Carl Friedrich Gauss, one of the most famous scientists in Europe. After failing to find a copy of the book elsewhere, Gauss (who was learning Russian at the time) had asked Krusenstern to ask Bellingshausen, first, where he could obtain one, and second, for any additional magnetic declinations from the southern hemisphere that had not been included, and which might help to determine the location of the South Magnetic Pole (Bellingshausen, 1840;¹⁸ Belov, 1966). After consulting his journal and reworking his calculations of longitude Bellingshausen met Gauss’s second request with 203 observations, about half of which were not in the book (Bellingshausen, 1840).¹⁹ Despite his obliging response, however, he ignored Gauss’s other enquiry, about how to get hold of the book itself. This surprising lack of courtesy raises the suspicion that Bellingshausen was embarrassed about the text produced by intrusive editing of his draft, especially since copies were still

available at St Petersburg (perhaps without the *Atlas*) for 15 Prussian thalers {£154 – but see *Appendix 3*} (Reich and Roussanova, 2011: 724 fn).²⁰ Lazarev's comments on *Two Seasons* (L2 in Chapter 9) chime with this admittedly unprovable hypothesis; see also Fëdorovskii (2001: 475).

From 1831 to 1837 Bellingshausen regularly patrolled the Gulf of Finland with HIMS *Imperator Aleksandr I* (110). In 1832 or 1833 his portrait was engraved by Ulrich Steinbach, an artist from Mühlhausen in Saxony.²¹ In 1834 a naval medal was issued for his Antarctic expedition. In 1837 he managed to persuade the civil service to relieve him



Figure 2 Statue of Admiral Bellingshausen in Kronstadt, by Ivan Nikolayevich (aka Jean Louis Désiré) Schröder, 1870

of financial difficulties. The Nauditen *arenda* had lapsed in 1828, apparently because the crown was obliged to surrender the estate. It was replaced with another, valued at 2000 sr {£131,370} and backdated to run for twelve years from 24 June 1828 (O.S.).²² In 1839 he distilled his knowledge of naval gunnery into a pamphlet (Bellingsgauzen, 1839).

On 26 July 1839 the 76-year-old military governor of Kronstadt, Admiral Pëtr Mikhailovich Rozhnov, died of a stroke while preparing for a visit by the Emperor. Bellingshausen was appointed the following day and retained the office until his death in 1852 (Timofeyevskii, 1913). The island fortress underwent major reconstruction and rearmament in those years (Shelov, 1904). But from about 1843 Bellingshausen also worked hard to improve the living conditions of seamen and civilians at the base.²³ Only four other pre-revolutionary commanders of Kronstadt held the post for similar or longer periods of time, three of them before Bellingshausen and one, Vice Admiral Fëdor Mikhailovich Novosil'skii, after him. He was promoted admiral in 1843 and appointed to the Admiralty Council in 1844. He was repeatedly decorated, and in 1847 Emperor Nicholas attended the ceremony which marked his fifty years of service.

Bellingshausen died at Kronstadt on 25 January 1852, at the age of 73, and was buried with full military honours. The cause of death is variously given as cholera or a wasting disease (cachexia) connected with a glandular disorder. His tomb in what remains of Kronstadt's Lutheran cemetery was renovated in the last century. A bronze statue of him in the undress uniform of the Naval Guards, by Ivan Nikolayevich (aka Jean-Louis Désiré) Schröder, was erected by public subscription in 1870 (Figure 2).

Private life

Bellingshausen's mother Anna Catharina died at Pernau (Pärnu) in May 1825. In 1826 he married the 18-year-old Anna Dmitriyevna Boikova, possibly at her home, the manor of Burekhino at Velikiye Luki in Pskov province, which lies between St Petersburg and what was then the small coastal province of Reval (Tallinn). The timing of the match is interesting. There were some inter-church marriages in those days, but most were between Orthodox men and Lutheran women.

The couple made their first home at the naval base of Reval and later moved to Kronstadt. According to a draft family tree drawn up in about 1870, they had five children. Two sons, one of whom was probably called Peter, died in infancy or childhood, and three daughters, Elise, Catharine and Helene, survived and married.²⁴ Bellingshausen's widow

died in 1892. The male line descended from his brother, Major General Hermann Friedrich Bellingshausen.

Some ethnically German Russian subjects, for example Otto (Yevstaf'evich) Kotzebue or Ferdinand Friedrich (Petrovich) Wrangell, kept a certain psychological distance between themselves and the Russian Empire while still serving it loyally as naval officers and explorers. However, Bellingshausen had none of their independent means or status. There are several signs, such as his marriage and some of his linguistic usage, that he identified more closely with the Empire than did some of his fellow officers from the Baltic provinces.

Bellingshausen's favourite motto was 'Fortune favours the brave'. His personal beliefs appear to have echoed the moderately humanitarian and deistic principles of the Enlightenment, which was still influential in his part of Europe though beginning to decline elsewhere. In practice he followed the code of his militarized society, and in doing so he achieved an eminently successful career by the standards of his day. Writing long after the event, Körber gave an elegiac picture of a garrison reduced to tears by the loss of their father-figure (1899, 2: 90). Even if he exaggerated, the obituaries described a caring, dutiful, competent and hard-working senior officer who in his prime had excelled in seamanship and hydrography. Indeed Bellingshausen had been totally committed to the Imperial Navy ever since the age of ten. But although he joined the Russian Geographical Society and retained a lifelong interest in the subject (Butakoff, 1853), he considered his own voyage to have been the straightforward execution of a duty placed on him by others (G[erschau], 1892: 382). Unlike hydrographic survey, exploration proper had been only a brief phase of his career, and he probably felt few lasting regrets at leaving it behind him in October 1824.

3

Southward Ho!

Expedition, (2): A march or voyage with martial intentions.
JOHNSON'S *Dictionary of the English Language* (1755)

Ships

In old age Bellingshausen liked to tell people that he had spent 13 years, nine months and 14 days of his life at sea. We need to get a picture of 527 of those days. Take, first, the ships themselves. The wooden sailing vessels used by the navies of the period were the most advanced technology and the most formidable, and expensive, weapon systems of their day. They were highly flexible machines, but their gear-train, or the 'furniture' by which they harnessed wind and water for their propulsion, had two disadvantages. First, the component parts were extremely heavy and incurred severe friction. Coupled with the need to make rapid changes in rough weather or battle conditions, that meant that crews had to be large, and large crews required large stores of perishable food and water. And second, crews and furniture were subject to a high rate of attrition even in peacetime. Injuries and infectious diseases were common, and vital parts of the ship were often broken or carried away. The crew included a specialist repair team, and ships making long voyages into regions with few onshore repair facilities took their spare anchors, cables, ropes, sails and spars with them. They also needed to resupply with water, timber and fresh food, and to find safe, sheltered anchorages when major repairs were necessary. By Bellingshausen's day only one of those limiting factors, scurvy, was beginning to be overcome, partly due to the practical research and example of the great eighteenth-century British explorer, James Cook.

Portugal may be Britain's oldest ally but Russia is one of her oldest naval partners and, some might say, a former apprentice. European officers often took service under foreign monarchs, but the transfer of British officers into the Imperial Navy and of promising Russian cadets into the Royal Navy to be 'finished' at sea, in the eighteenth and early nineteenth centuries, was systematic, official and mutually satisfactory at command level, at least, if not in every Russian wardroom. Admiral Samuil Karlovich Greig, IRN, formerly Lieutenant Greig, RN, is regarded as the second 'father of the Russian Navy' after Peter the Great, and as we have seen his son, Admiral Aleksei Samuilovich Greig, IRN, was Bellingshausen's superior officer in the Russo-Turkish War of 1828–29. There was also an extensive transfer of naval technology, mainly ordnance and shipbuilding, from Britain to Russia in this period.

The plans for HIMS *Vostok* were drawn by master shipwright Ivan Afanas'evich Amosov (Luchininov, 1973b: 12). Amosov later had his own shipyard but in 1818 he was apparently employed in the Imperial Navy's shipyard on the River Okhta, near St Petersburg, under its British director V. F. Stoke.¹ According to Bellingshausen, *Vostok* was a replica of HIMS *Kamchatka* (28), and *her* commander, Junior Captain Vasilii Mikhailovich Golovnin, IRN, noted in turn that *Kamchatka* had been designed as a 32-gun 'cut down frigate' by the French engineer Jacques-Balthazard Le Brun.² *Vostok's* dimensions were: length 129ft 10in (36.53m), beam 32ft 8in (9.96m).³ Her mainmast was cut down by two feet, to match *Kamchatka*, before Bellingshausen reached her (Samarov, 1952, 1: 109). Lazarev reckoned the top of *Vostok's* mainmast was 136ft (41.45m) above her waterline (*TS*, 1: 223), or about 122ft (37.19m) above the spardeck. As mentioned in Chapter 2, Bellingshausen thought her generally over-sparred for her destination and took on shorter spars. She was built in just over six months and launched on 16 July 1818 (Figure 2). After that it took almost another year for her to be fitted, rigged, manned and stored.

Like her sister ship *Blagonamerennyi* in the other squadron, *Mirnyi* was delivered to Kronstadt as a transport (*Ladoga*) and then extensively modified (L1 in Chapter 9; see also A. Lazarev, 1950: 96). Her dimensions were: length 120ft (36.58m), beam 30ft (9.14m) (*TS*, 1: 3–5). Thus *Mirnyi* was similar in size to her predecessor in Antarctic waters, Cook's *Resolution*, and *Vostok* was somewhat larger.

The squadron was provided with four or five open, clinker-built rowing boats. Each ship had a four-oar jolly-boat, and the others were six- or eight-oar skiffs. They were intended for inshore work and could

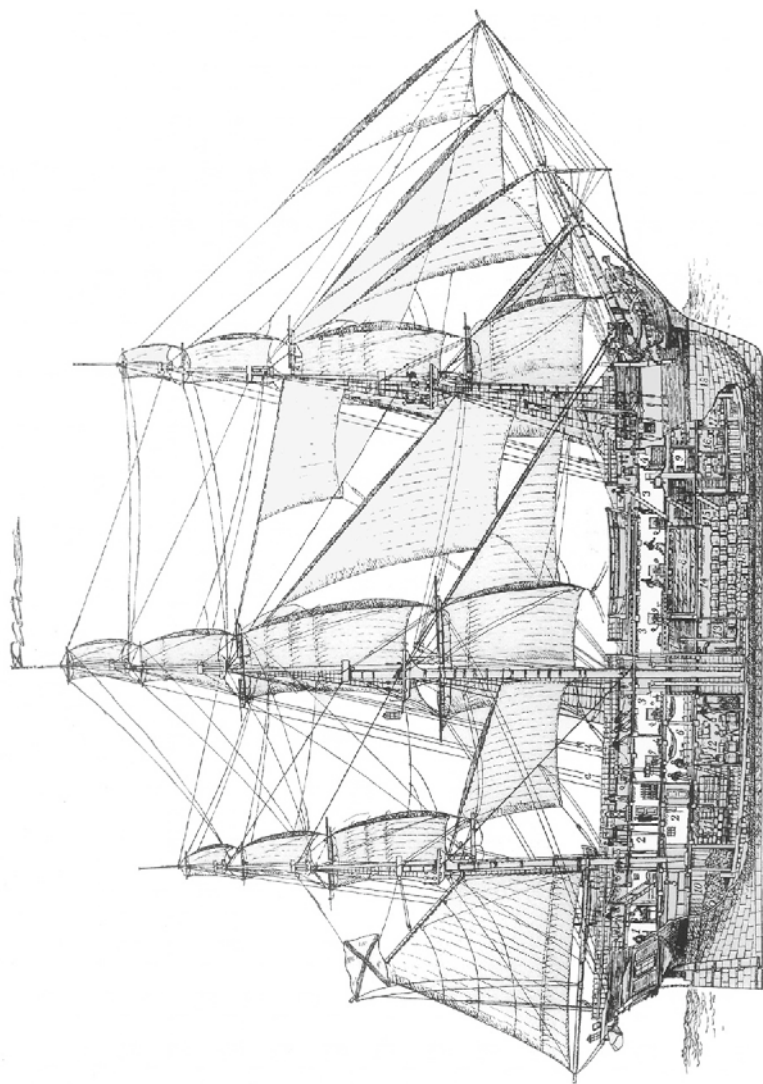


Figure 3 H.M.S. *Vostok*, based on the original plans (Luchininov, 1973b). Note the commander's cabin and chart desk (1), the eagle figurehead, the sick-bay in the orlop (6), and hammocks stowed along the rails

only be used on the open sea in good conditions. In fair weather they were slung from davits at or near the stern; in rough weather they were lashed on the spardeck (Luchininov, 1973a; 1973b; Petrova, 2012). *Vostok* carried 16 18-pound cannon as her maindeck armament and 12 12-pound carronades on her spardeck (Luchininov, 1973b).⁴ The carronade was a short-barrelled naval gun, recently invented in Britain. It was considered particularly effective against boarding parties such as pirates or native war canoes. *Mirnyi* had 14 three-pound cannon and six 12-pound carronades deployed similarly (Luchininov, 1973a).

Each ship was a small three-masted, generally square-rigged warship of the type known as a 'sloop-of-war', having a single main or gundeck beneath an upper or spardeck. Each was flush-decked, that is, with no well in the upper deck around the mainmast. That improved their seaworthiness but reduced the amount of daylight reaching the maindeck. The aftermost part of the spardeck, abaft the mizzen mast, was called the poop, and was the station usually occupied by the officer of the watch. The wheel was mounted forward of the mizzen mast in an area called the quarterdeck. Forward of the mainmast came the waist, and the last section of the spardeck, from just abaft the foremast to the bow, was the foredeck or forecastle. Most of the spardeck was surrounded by high railings along which the crew's rolled-up hammocks were lashed when not in use, but the waist was protected only by side-nettings. The main crew accommodation was on the maindeck underneath the foredeck. The captain's cabin and the commissioned officers' wardroom and cabins were also on the maindeck, underneath the poop and quarterdeck.

Bellingshausen's main concern on seeing the two sloops together was that *Mirnyi* could not possibly keep up with *Vostok*. But if an experienced sea officer from western Europe had set eyes on *Vostok* and *Mirnyi* in June 1819, he would probably have noticed how low they sat in the water before anything else. For normal military purposes warships would be victualled and stored for six months at most. But much like James Cook's expeditions in the 1770s, Bellingshausen's First Squadron had been stored for two years, where possible, and Vasil'ev's Second Squadron for three. Between them, Bellingshausen's two ships carried about 20.5 tonnes of dried peas, 7 tonnes of oat and buckwheat groats for kasha (gruel), and 65.8 tonnes of 'white and maslin' biscuit. Along with that they had probably shipped about 4000 litres of butter to add to their kasha, 28 tonnes of salt beef, and 3926 litres of 'ardent wine', doubtless vodka.⁵ That feat of logistics would have been aided by taking slightly smaller crews and less ammunition than were required

for a military mission, and by including a converted transport, with a relatively capacious hold, in the squadron.

The quantities of groats and butter were not enough to provide kasha throughout the voyage. Bellingshausen purchased 16 tonnes of groats, from an unspecified grain, at Rio (B4). Well packed and salted butter could last well beyond six months, and was regularly exported from Europe to Brazil and Australia. As for spirits, the Second Squadron was due to collect a six months' supply in a foreign port and shipped some or all of it at Copenhagen in 1819 (A. Lazarev, 1950: 105).⁶ Bellingshausen certainly shipped rum at Rio, outward bound (B10). If, like the Second Squadron, the First loaded six months' supply of spirits at Kronstadt and another six at Copenhagen, they could have topped that up with another four months' worth at Rio and at Sydney, and then five more at Rio in 1821. The weak point in such an arrangement would have been Sydney, where rum was often scarce, but could sometimes be purchased by the hogshead or puncheon (239 or 318 litres).⁷

Bellingshausen repeatedly declared that his supply needs were met in full. In December 1820, three-quarters of the way through the voyage, he still had butter and sauerkraut with him as well as meat and biscuit (*TS*, 2: 189). On the 'luxury' side, about 1300gm of leaf tobacco was provided for each man, and Bellingshausen bought more at Rio (B10). For details of the seamen's diet, see Chapter 7.

Vostok departed Kronstadt on 15 July 1819 crammed with her water, stores, spares, a small library, scientific supplies, and a quantity of crosses, mirrors, buttons, earrings and other gewgaws for the 'savages', as the inhabitants of the South Pacific were sometimes called, plus six commissioned officers, one surgeon, one scientist, one artist, 36 warrant officers, gunners, craftsmen, idlers and others, and 71 seamen. Behind her, *Mirnyi* held five officers, one surgeon, one chaplain, 22 warrant officers, idlers and others, and 45 seamen (Appendix 1; *TS*, 1: 7–9). Bellingshausen also had a ship's chest of perhaps 10,000 silver roubles {£602,100} to help with, though hardly meet, the expenses of the expedition in foreign ports.⁸

The pay rates were recorded in the crew lists (CL). The squadron commander's salary, described as a 'most graciously bestowed one-time relief' and probably for the whole voyage of 751 days, was 5000 sr {£301,050} or about {£400} a day, and Lazarev's was 3000 sr {£180,630}. (For his Antarctic expedition in the 1770s James Cook had received a salary of six shillings a day {£436 – but see Appendix 3}.) Most of the Russian seamen were rated 'able' and paid 13 sr 11 kopecks {£790}

a year. The statement in *Two Seasons* that everyone was paid at eight times the normal rate is surprising, and may not reflect the full picture (*TS*, 1: 12). The official pay rates were in silver roubles. But another source explained that officers received eight times the regulation amount if they were paid in assignats, but only double if in silver roubles (Novosil'skii, 1853a: 46).⁹ All officers and men were also paid a bonus of a year's wages, so their total remuneration was perhaps 250 per cent of regulation pay. The officers also received mess allowances of 30 gold ducats (70 sr) a month {£4215} (*ibid.*; see also Euler and Farrar, 1821: 136). That was more in one week than a seaman's annual wage.

Geopolitics

The Bellingshausen expedition was only the fourth unit of the Imperial Navy ever to cross the equator en route for the Pacific. The third unit was Vasil'ev's expedition, which crossed the Line five days ahead of them, and in August 1819, on their way south, both squadrons encountered the second such unit, HIMS *Kamchatka*, commanded by Junior Captain Golovnin, at Portsmouth. Golovnin had just completed Russia's first naval circumnavigation. By crossing his own outward track in the South Atlantic a year before Vasil'ev, Bellingshausen went on to make the second. But the distinction between naval and other voyages is blurred, because from Krusenstern onwards naval officers also took out ships for the state-sponsored Russian-American Company (RAC), and such commercial voyages made up almost half of the 23 circumnavigations initiated in the reign of Alexander I.¹⁰

Both RAC and naval expeditions aimed at supporting Russian settlements in North America and the wider region (Belov, 1963: 5). The remoteness of the North Pacific for western European powers and the isolationism of China and Japan meant that Russian expansion in the eighteenth century did not entail the sort of armed clashes that took place elsewhere, for example in the Seven Years War. But historians have established both that there was an action–reaction sequence, involving naval force projection, between Russia and other powers, and that Russia, being at a military disadvantage vis-à-vis Britain or France, sometimes made intelligent use of deception or disinformation, for example in the matter of the Sandwich Islands (Hawaii).¹¹ Empress Catherine II both planned a circumnavigation in response to Cook and Clerke's exploration of the North Pacific in the 1770s,

which did not happen (Golenishchev-Kutuzov, 1840), and launched a crash programme for translating narratives of foreign voyages, which did. In the early years of the nineteenth century the statesman Count Nikolai Petrovich Rumyantsev and Captain Krusenstern, who had sponsored and commanded, respectively, the innovative RAC voyage of 1803–06, sought not only to guide the geographical endeavours of the Imperial Navy (Kopelev, 2000), but also to obtain for it the leadership role in Russian America (Alaska) (Postnikov, 2004). A policy to that effect was adopted in 1818 (Vinkovetsky, 2011: 49), just when the Bellingshausen and Vasil'ev expeditions were conceived. A year later it was implemented by appointing a naval officer, Lieutenant Matvei Ivanovich Murav'ev, who had taken part in Golovnin's second voyage to the North Pacific, as the next governor of Russian America (Bolkhovitinov, 1997).

Emperor Alexander's decision to favour the Navy above commercial interests in the North Pacific was perhaps inevitable. Events were moving on from the recent alliance with Britain and Prussia against Napoleon. By 1816, according to Archduke Ludwig of Austria, 'England ha[d] been made attentive of late by repeated Russian sea voyages, which had for their purpose more than discovery'. As a result of its activities in the North Pacific, Ludwig continued, Russia was now 'a Power which is not in friendly esteem' with the British (Schenk, 1967: 218). Then, towards the end of 1817, John Barrow, Secretary to the Admiralty, boasted under a thin veil of anonymity that Britain had 'little to fear' from Russian attempts to be the first to make the north-west passage, along the ice-bound northern coasts of North America – by which he meant the opposite (Anon., 1818: 220). Count von Lieven, the Russian Minister at the Court of St James, and through him his Emperor, were certainly aware of changing British attitudes.

The intimate connection between European geographical explorations, by land and by sea, and the expansion of European empires from the fifteenth century onwards, has long been accepted (Driver, 2001). We do not need to demonstrate the interdependence of geographical knowledge and state power by citing philosophers or contemporary maps of European colonization, because we can hear much the same thing from the lips of Emperor Alexander himself. Golovnin had taken HIMS *Diana* (16) to the Far East in 1807–09 and was then held prisoner in Japan for over two years before returning to European Russia overland. Both his conduct and his reports on his voyage and captivity were regarded as exemplary. In 1817 the Emperor turned to him again. Across

the entire interval of 13,000 versts, he said, there was no one he could rely on to tell him the truth about Russian America. What he wanted from the Navy were the facts (Litke, 1971: 89–90). And doubtless he wanted such information in order to use it for what he deemed to be the interests of Russia, not merely to satisfy his abstract curiosity. Even emperors have to forgo certain luxuries.

It is possible, even likely, that the Emperor and his Minister of Marine, de Traversay, were inspired to send out their simultaneous Arctic and Antarctic expeditions in 1819 by the unlikely person of John Barrow. Barrow had described British plans as follows:

Two expeditions, of two small ships each, are fitting out for northern discoveries and scientific researches; the one, we understand, is to proceed northerly into the polar basin, and to endeavour, by passing close to the pole, to make a direct course to Behring's strait; the other is to push through Davis's Strait for the north-east coast of America ... (Anon., 1818: 220)

To see the British challenge from Alexander's point of view, one has to remember that Russia was not a single country extending from the Polish frontier to the Bering Strait. It was, rather, a European state possessed of an external but neighbouring land empire that extended eastwards from frontier posts in the Ural Mountains to Vancouver Island. In that light, the Royal Navy would have seemed to be preparing 'to cut the Russian line'. The fact that the Bering Strait could never become an operational British waterway was not important. The British gesture alone was enough to draw a reaction, as it had from the Emperor's grandmother. So perhaps, when a British commoner proposed to span the Arctic limits of North America with a matched pair of expeditions, a Russian emperor was moved to outvie him by doing the same thing for 'the great globe itself'.

Barratt (1979a: 8; 1988: 187–8) has suggested that the circumstances in which the Bellingshausen expedition was conceived in 1818 demonstrate that it was, to borrow a phrase, an example of the 'militant geography' of the period (Conrad, 1926). Others have disagreed, claiming a 'purely scientific character' for the expedition which marks it out from all similar ventures before or since (Mitin, 1990: 280; see also Gibson, 1976: 77).

Admiral Mitin (above) noted the absence from Bellingshausen's orders of any clauses in respect of future Russian territorial rights, of the kind that had been issued to Columbus, Magellan, Cook and others. To which it can be added that Bellingshausen's shore parties did not conduct possession-taking ceremonies in the Antarctic, even when landing

on an uninhabited place like Zavodovski Island, whereas Cook did so before and James Clark Ross did so after him. What is more, Russia has never made a strong claim to Peter I Island or Alexander I Island, which were discovered but not landed on by the Bellingshausen expedition in 1821. In the 1950s, however, the Soviet government may have taken a different view of the expedition from Admiral Mitin, when it based a claim to rights in Antarctica on Bellingshausen's achievements (Solov'ev, 1951: 5–6).

The 'purely scientific' view of the expedition assumes that what the expedition was asked to do, and what Emperor Alexander hoped to gain by it doing so, were one and the same thing, as if emperors regularly share their ulterior motives with junior captains. But the expedition's non-possessive character may simply have been due to Russia's late maritime arrival and weak position in the Pacific, or to the expectation that any land discovered in the far south would be as useless as Cook had predicted. Next, this view of the expedition depends on the assumption that in and of themselves the natural sciences are morally and politically neutral. Few philosophers or social scientists nowadays share that view (Bulkeley, 2010). And thirdly, in the history of maritime polar exploration the absence of possessive instructions is not unique to the Bellingshausen expedition. It is not even rare. Two British expeditions in 1818 and one in 1819 carried no such instructions (J. Ross, 1819, 2: 63–79; Beechey, 1843: 6–22; Parry, 1821: xix–xxix). As for Mitin's claim that no *subsequent* expeditions, either, were indifferent to the acquisition of territory, the instructions given to the Franklin expedition in 1845, and in the United States to the first Grinnell expedition in 1850 and the Hall expedition in 1871, were just as free of possessive clauses as those given to Bellingshausen. So either we should accept that none of those named, nor the many others which have resembled them in that respect, have ever had anything to do with the national interests of the countries that sent them out, or else we should admit that the Bellingshausen expedition, in its turn, may have been linked to Russian national interests.

It is not enough, however, merely to assert that the Vasil'ev and Bellingshausen expeditions were 'imperial responses to a set of mounting international pressures' (Barratt, 1979b: 8). We need to ask, firstly, how that *could* have been so for the Bellingshausen expedition, and secondly, whether there is any evidence that it *was* so. One way in which the expedition may have assisted Russian foreign policy was by acting as a decoy or diversion. That would have been an appropriate response to the stirrings of British anxiety about Russian intentions in

North America. And the scientific credentials of the southern expedition would have reinforced those of its northern counterpart, bound for a more sensitive region. No outright deception need have been intended. Sometimes in international relations diplomats must have something palliative to *say*, regardless of who believes them. As well as diverting attention, a seemingly harmless action can establish or claim to have established a precedent, such as for access to a certain region. Prestige, also, is a form of power much sought after by states, and they seek to acquire it for their own advantage, not to place themselves on an equal footing with others. The interests of the Russian Empire would have been well served not only by the prestige to be gained from successful polar expeditions (Sokolov and Kushnarev, 1951: 76), but also perhaps by any distraction of unwanted attention, away from more worldly Russian activities in the North Pacific, that a southern expedition might provide.

One thing is clear. As with other Russian voyages to the Pacific during the reign of Alexander I, one of the aims of the Bellingshausen and Vasil'ev expeditions was economic and political reconnaissance. In particular, both submitted reports about a significant new player in the region, the fast growing British colony of New South Wales (*TS* 2: 93–151).

The problem with this aspect of the Bellingshausen expedition, however, is that neither Barratt nor the present author nor anyone else has gone to the Russian archives to find out whether Emperor Alexander's matched pair of foreign ministers, Count Karl Nesselrode and Count Ioannis Kapodistrias, ever discussed the 1819 expeditions with the Emperor, the Marquis de Traversay, or anyone else.¹² There are some relevant facts, however. First, the Emperor made it clear in 1806 that he would prefer to avoid anything like a re-run of the 1789 Nootka Sound Incident, in which Russian interests had been involved as well as those of the protagonists, Spain and Britain (Pierce et al., 1972). Next, the two expeditions were prepared in haste, to the detriment of some of their scientific arrangements, such as the German naturalists and the instrument orders. Third, Count von Lieven in London attended to the forwarding of Bellingshausen's reports himself, and when they reached St Petersburg de Traversay treated them with considerable urgency (Chapters 5 and 6). Fourth, Bellingshausen's next mission, to the Mediterranean, did take the form of a unilateral or benign precedent, paving the way for Russian military forces to join a naval alliance against the Ottoman Empire (Chapter 2). So just possibly that was not his first time in the role. And fifth, if the Bellingshausen expedition was an entirely scientific enterprise it is relevant to discuss how effectively its results were published or at the very least deposited. That question will be addressed in Chapters 8 and 12.

There are two more pieces of evidence for a link between the 1819 expeditions and Russian foreign policy. One is the naming of the ships. Vasil'ev's north-bound Second Squadron comprised *Blagonameremyi* (*Well Meaning*), and *Otkrytiye* (*Discovery*) whereas Bellingshausen received *Mirnyi* (*Peaceful*) and *Vostok* (*East*). A converse allocation would have been more appropriate, so perhaps there was a clerical error. But nothing else about them looks accidental, especially since *Peaceful* dropped her public-relations soubriquet and reverted to her original *Ladoga* after the voyage.¹³ And lastly, when it came to gifts for the savages, some importance was placed on bronze and silver medals with portraits of Emperor Alexander, the names of the ships and the date of their voyage. Here too the Emperor was following the nationalistic usage of his fellow European monarchs, not breaking with it for a more enlightened alternative.

But if the Bellingshausen expedition was among other things an enterprise intended to further Russian national interests, within the shifting interplay of post-Napoleonic international relations, that does not make it somehow 'less scientific'. On the contrary, it would have been very little use, either as a diversion or as a bid for prestige, unless it was to a large extent an exercise in scientific exploration. In short the answer to the simplistic question 'Pure or impure?' is 'Probably both'.¹⁴

Exploration

The Bellingshausen expedition crossed the Antarctic Circle, then at latitude 66°32'14" S (Chapter 4), on 27 January 1820. It was 47 years and ten days since James Cook had made history by crossing the same imaginary line. The age of sail in Antarctic exploration ran for 70 years after Cook began it in 1773, and ended when the magnetic research expedition led by Captain James Clark Ross, RN, with HMS *Erebus* and *Terror*, crossed the Circle northwards on 11 March 1843.

Between the voyages of Cook and Ross, those which added to geographical knowledge of the Antarctic were commanded by Smith, Bellingshausen, Bransfield, Palmer, Weddell, Pendleton, Foster, Biscoe, Kemp, Balleny, Dumont d'Urville, and Wilkes, coming variously from Britain, France, Russia and the United States (Headland, 1989). The list includes voyages made in sealing and whaling vessels and others made in warships. Some were short, single-season probes into high latitudes, confined to a small sector of the polar region; others were extended, multi-season campaigns, exploring large parts of the zone. The second category, under sail, comprises the voyages of Cook, Bellingshausen, Biscoe, Dumont d'Urville, Wilkes and Ross.¹⁵

Within that group, the Bellingshausen expedition of 1819 to 1821 holds a unique position. For really high latitudes, beyond 60° S, Cook had no one's experience to follow; Bellingshausen had only Cook. Cook had two centuries of worldwide British naval exploration behind him. The Russians had carried out some impressive maritime expeditions in the eighteenth century, including Vitus Bering's exploration of the North Pacific and the epic Siberian journey of Joseph Billings (former midshipman, RN) and Gavriil Andreyevich Sarychev, which lasted for eight years. But substantial parts of those expeditions took place by land. When Bellingshausen left Kronstadt the Imperial Navy had less than two decades of global experience, shared between fewer than 50 officers. And none had been sent to explore an uninhabited, harbourless desert, where the only remote and intermittent logistical support would have to be obtained from foreigners, rather than subjects of the Emperor.

Obviously Bellingshausen did not start from scratch, but in some respects neither did Cook. Before the Englishman set out from Plymouth for his historic voyage, on 13 July 1772, Europeans had been pushing ever further south, especially in the South Atlantic, for more than 250 years. One early voyage, that of the French explorer Binot Paulmier de Gonneville in 1503–05, acquired almost legendary status, not because it went far south but because he had supposedly found the 'great southern land' that European rulers coveted. In 1675 the English merchant Anthony de la Roché discovered the island now called South Georgia at 54° S, though he was probably not the first to do so, and in February 1699 the English scientist Captain Edmond Halley, RN, commanding HMS *Paramour* (10), saw tabular icebergs at his furthest south of 52°24'.

Cook's voyage was influenced by four eighteenth-century French voyages, three of which occurred around the time of his. They were made by Jean-Baptiste Bouvet de Lozier in 1738–39, by Yves de Kerguelen de Trémarec in 1771–72 and 1773–74, and by Nicolas Marion-Dufresne in 1771–72. They were not directed towards the Antarctic, because before Cook's second voyage explorers were searching for economically and militarily useful territory, rather than barren high latitudes. (Some of the French discoveries, indeed, were achieved by disregarding their orders.) Bouvet's voyage has been called 'the first real South Polar expedition' (Fricker, 1904: 29). A contemporary map dramatized his month-long passage among tabular icebergs at 57° S in the eastern part of the South Atlantic (de Lisle, 1742). But for Bouvet's purposes the land he glimpsed at 54° S, naming it Cap Circoncision,

was disappointingly 'too close to the Pole' (Issur and Hookoomsing, 2001: 23). With the inaccurate methods of the day, he overestimated its longitude by about 8° E.

If Bouvet's had been the first actual Antarctic expedition, loosely speaking, Cook's was the first official one. His instructions were to start by searching for Cap Circoncision and surveying it if found, then to circumnavigate eastwards, keeping as far south as possible. Cap Circoncision having eluded him, he circumnavigated the Antarctic in three segments between 1773 and 1775, with the shortest lying south of the Pacific in 1774. In his first season he sailed about 16,000km, much of it below 60° S, and encountered many icebergs. In his second and third he generally kept further north, around 55° S, because his second ship, HMS *Adventure*, had parted company on 30 October 1773. But he did make one bold thrust, reaching a furthest south of 71°10' on 30 January 1774. That record stood until 1823. After passing Cape Horn west to east at the end of 1774 he determined the position of South Georgia accurately for the first time, surveyed its north-eastern coast, and claimed it formally for Britain. From South Georgia he turned south for the last time and discovered 'either a group of islands, or else a point of the continent', which he called Sandwich Land, between 57° and 59° S (Cook, 1777, 2: 230).

On 23 February 1775, after a second unsuccessful attempt at locating Cap Circoncision, Cook decided that he had no more 'business farther south' (Cook, 1777, 2: 133). Two days later he set course for the Cape of Good Hope, leaving the Southern Ocean free for whoever dared to follow him. As the epigraph to Chapter 5 reminds us, he had added no great new discovery to the map. With understandable frustration, he expressed his belief that there was indeed a 'large tract of land, near the Pole', some of which he might perhaps have seen himself, adding, however, that 'the sea is so pestered with ice, that the land is thereby inaccessible'. He even predicted, rashly, 'that the lands which may lie to the south will never be explored' (Cook, 1777, 2: 192, 206). In an age which prided itself on the technological advances that could be achieved by human reason, that was a strange way for an officer in a service which did likewise to underestimate his successors.

The hunters

Thus by 1818 only a meagre tally of more or less sub-Antarctic islands had been discovered. They included South Georgia, Cook's sketchily glimpsed 'Sandwich Land', the Kerguelen Islands, the Auckland Islands, Macquarie

of discovery'. In the early part of the nineteenth century they took about 1,000,000 fur seals off South Georgia, leaving 'the beaches bare' (Proceedings, 1895, 5: 470–1).¹⁶

Some of the sealers made substantial contributions to geographical knowledge themselves, such as the Auckland Islands. And a graph of sealing voyages to the sub-Antarctic from 1790–1920 shows that such discoveries were sometimes followed by intense 'rushes'. One such peak occurred in the mid-1840s, soon after the three geographical expeditions commanded by Dumont d'Urville, Wilkes and Ross. But the most prominent spike in the graph is for 1820–21, after William Smith, master and part-owner of the British merchant brig *Williams*, 216 tons, discovered the South Shetland Islands, which lie close to the Antarctic Peninsula, part of the mainland of Antarctica (Basberg and Headland, 2008: Figure 2).¹⁷

Smith first sighted the South Shetlands on 19 February 1819. It then took him eight months and a second, more thorough visit to the archipelago to gain the attention of British officials in South America. On 19 December there followed another, confirming voyage, for which *Williams* was chartered by the Royal Navy and placed under the command of Edward Bransfield, master, RN. They reached the islands in January 1820, and the first naval report of Smith's discovery arrived in Britain on 29 April 1820. But the story did not attract much attention until August (Campbell, 2000: 201–11).¹⁸

Meanwhile on 4 December 1819 the Bellingshausen expedition departed Rio, on the other side of South America, bound by its orders to follow Cook to South Georgia and Sandwich Land and unaware of those important developments. The timing was bad luck. If Smith's discovery had come a year earlier or the expedition a year later, Bellingshausen could have turned south-west after surveying South Georgia or the South Sandwich Islands, instead of east, and many things might have been different. On top of which the Russian Empire had inevitably directed its ships to the conservative Kingdom of Portugal, then ruled from Brazil, rather than have them resupply at more southerly ports like Montevideo or Buenos Aires in the insurrectionary former Spanish provinces of the River Plate, much favoured by American and British sealers. If Bellingshausen had touched at Montevideo two months after Smith left that port for his second visit to the South Shetlands, he would have had some chance, at least, of learning what was in the wind.

At South Georgia a lonely Russian sealer was among the party which told Bellingshausen that after four seasons in the area they were already

familiar with 'Sandwich Land', where there were two active volcanoes (S1).¹⁹ Since they had taken seals there, they almost certainly knew that it was a group of islands rather than a mainland, and told the expedition so. (The sealers were so desperate for company that Bellingshausen had to shoo them off his ship.) The information was small compensation for not hearing about Smith in time for the expedition's first season in the Antarctic. Very small.

4

Wanted on Voyage

What went ye out into the wilderness for to see?

KING JAMES BIBLE, MATTHEW 11:7 (1611)

Like others making scientific expeditions Bellingshausen and his comrades hoped to take the best equipment and instruments and the most up-to-date thinking of their time along with them. They also followed best scientific and nautical practice when recording and describing their discoveries. In order to understand Bellingshausen's reports we need to get some idea of how he expected to and did in fact proceed, and the language he would use to describe his work. For example he never used the word 'Antarctic' which the author has, deliberately, made free with up to this point. His main geographical tasks were to survey South Georgia and Sandwich Land, and then to use maximum effort 'to seek out unknown lands' as close to the South Pole as possible, and to go on doing so in an easterly direction for as long as feasible until the approach of winter. At that point he was to repair and resupply his ships at Port Jackson, in the British colony of New South Wales, and then spend the austral winter exploring parts of the South Pacific. After that he was to visit Port Jackson again before returning to the Southern Ocean to resume his thrusts into the ice fields, still east-about, until he completed his circumnavigation by returning to the South Atlantic around Cape Horn. It would then be time to come home (*TS*, 1: 16–18).

Books and instruments

The list of books purchased in advance for both expeditions (Bellingshausen and Vasil'ev) included several Russian voyages (Sarychev, 1802; Kruzenshtern, 1809; Lisianskii, 1812; Golovnin, 1816;

Rikord, 1816). A recent translation of Cook's third voyage headed the foreign voyages (Kuk, 1805, 1810). A Kronstadt official explained that it had been necessary to buy new copies of Cook's second voyage (Kuk, 1796–1800) because those in the Navy bookstore were missing their first parts. Other foreign voyages and expeditions included those of Anson, de Surville, Mendoza and Pagès. Most if not all were available in translation, for example (Uolter, 1789) for the Anson voyage. Other technical works included the *Nautical Almanacs* prepared by Academician Fëdor Ivanovich Schubert for 1819 and 1820, Baltic charts, manuals of navigation, hydrography and magnetism, and the signals codebook. The only atlas listed was a maritime one of the Baltic (Sarychev, 1809). One copy of each item was provided for each ship (A. Lazarev, 1950: 354–7).¹ The allocation may seem ungenerous. But the commanders received another list of over 50 titles to choose from in the bookstore, apparently products of the translation programme although the details are unclear.² Bellingshausen was also given a copy of the Baudin/Freycinet voyage by a member of the royal family (Péron and Freycinet, 1807–15).

The expeditioners were instructed to buy further books, maps and the British *Nautical Almanac* for 1821 in London. Bellingshausen mentions Dessiou's *Brazil Pilot* (1818) and Purdy's world map (1815), and he probably relied on the latter for the course of European expeditions, including Cook's second. The presence of Purdy's *Tables* (1816) can also be traced in Bellingshausen's reports. Since he bought maps from the firm of Aaron Arrowsmith Bellingshausen probably acquired the latter's world atlas (Arrowsmith, 1817). He refers to Matthew Flinders's *Atlas* of Australia, and probably bought his narrative also (Flinders, 1814a; 1814b). And lastly he may have purchased Christopher Hansteen's great compendium of magnetic research in Copenhagen (Hansteen, 1819). It was published there in the early part of 1819 and Bellingshausen later mentioned that he had taken estimates of the location of the Southern Magnetic Pole with him (Belov, 1966: 22). As for the option, in the Navy stores list, of installing 'a bookcase to hold voyages and books of astronomy, navigation, physics, natural history ...', built to a design originally prepared for La Pérouse, we shall never know.³

A similar list of the instruments to be obtained for each sloop in London included one large marine chronometer, two sextants, one reflecting circle by Troughton, two artificial horizons, two marine barometers, two mercury and two spirit thermometers, two artificial magnets, a hygrometer, a depth-sounding apparatus, an inclinometer, and an aerometer (A. Lazarev, 1950: 356–7). The instruments were ordered in advance, but not all were ready when the Russians reached London in August 1819.

Bellingshausen and Lazarev duly acquired two Arnold chronometers, Nos 518 and 2110, and two Barraud chronometers, Nos 920 and 922, the only items which exceeded their allocation. From Dollond they obtained a 3-foot and a 4-foot achromatic telescope, one with a 12-inch reflector; from Troughton, some artificial horizons and a transit (passage) instrument for the astronomer Simonov. They bought two reflecting circles, probably also from Troughton, but found them too heavy to use at sea. *Vostok* acquired several sextants from Troughton and one from Dollond, all calibrated to 10 seconds of arc, plus two 20-second instruments from Stebbing; *Mirnyi* acquired sextants from Troughton, Dollond and Berge. Several were bought privately by the officers in London or Portsmouth (*TS*, 1: 54–5, 94–5).

On the physical side, the thermometers were generally Réaumur but Simonov used a Fahrenheit instrument as well. Perhaps they purchased one of Dollond's barometer–thermometer–hygrometer combinations for him. Bellingshausen mentioned the inclinometer and a precision pocket compass which he used on shore. He also acquired a Fahrenheit deep-sea thermometer from John Norie's Navigation Warehouse in Leadenhall Street. To his regret he failed to obtain a pendulum for measuring gravity, probably a reference to Henry Kater's newly invented reversible instrument (Kater, 1818). Other scientific supplies, such as specimen boxes, were drawn from stores in Kronstadt.

Bellingshausen was not the only navigator of his day to consider that the British *Nautical Almanac* had gone sharply downhill since the death of the former Astronomer Royal, Nevil Maskelyne, in 1811 (*TS*, 1: 48; Baily, 1822). He must have deplored the lack of an 1821 volume from the Imperial Academy. But he appears not to have realized that by 1819 some English chronometers were hardly worthy of the name. The Russians had consulted Sir Joseph Banks, the septuagenarian president of the Royal Society, who was a partisan supporter of the Arnold family. Arnold senior had supplied 'extremely bad' chronometers to Cook (Gould, 1923: 109, 123), and the Imperial Navy suffered from Banks's bias, because 1819 was not the time to buy an Arnold chronometer. Arnold senior had turned out better instruments than Cook's in later life, but died in 1799. His son, John Roger Arnold, was 'a poor worker', and the business was not rescued by taking on Edward Dent until 1830 (Gould, 1923: 109, 123). The largest error in Cook's chronometers had been a gain of 101 seconds a day. If that was 'bad', in Gould's authoritative opinion, the two supplied to *Vostok* must be termed appalling. By May 1820 they were gaining, one five, the other six minutes a day. As for the one from Barraud – *Mirnyi* took the other – it lost an unspeakable

ten and a half minutes a day (*TS*, 1: 292). In 1819 the Parry expedition, which evidently took such matters more seriously than the Russians, spent five weeks testing *eight* chronometers at Greenwich. (They eventually carried 14.) The five from Arnold were found to be generally inferior to the three from Parkinson and Frodsham. But only one of the Parry Arnolds, No. 497, was as bad or worse than the substandard Arnolds supplied to Bellingshausen (Parry, 1821, Appendix 1: xiii).⁴

The deep-sea thermometer from Norie broke the second time it was used, but Bellingshausen blamed that on carelessness. A German naturalist, the 23-year-old Karl Heinrich Mertens, who was a subject of the Kingdom of Hanover and therefore of King George III of Great Britain, had been approached to fill the aforementioned specimen boxes, but failed to join at Copenhagen as expected. That episode will be discussed in Chapter 10.

Time and space

In order to sail across featureless oceans, let alone discover and report on 'unknown lands', navigators needed to know as accurately as possible where they were throughout the voyage. The earliest method of navigating the open sea, out of sight of land, was known as dead reckoning. It worked by knowing where you started from, the directions you had sailed on successive legs of the voyage and the distance travelled on each leg, and then plotting your track onto a chart. Where it ended was where you were. The method depended on four types of instrument: the mariner's compass for directions of course and wind; the log line, a device for measuring short distances travelled through the water; various sandglasses, especially the half-minute glass, so that speeds in knots (nautical miles per hour) taken during each set of steady conditions could be averaged and converted into the distance travelled; and the charts. Illiterate seamen were able to record this information in real time on a device called a traverse board, and their officers then entered it into columns marked on a small blackboard called the log board before transferring it to the log book. Besides human error and storm damage the method had three major defects. The compass only gave approximate directions. Both the elements against which the ship was moving, the sea and the atmosphere, were in motion themselves, so that their effects had to be estimated on the log board, thus adding to the uncertainty. And lastly the charts were often wrong not only in their contents but also in their distances. In short, laying a track onto a chart (using several other instruments) was not enough to show where the ship really was, and such errors were both dangerous and expensive.

In the early modern period astronomers and mariners began using an instrument called a cross-staff for measuring the angular height of heavenly bodies above the horizon. In the sixteenth century the device was equipped with mirrors so that sights of the sun could be taken by an observer facing the other way, and the instrument was renamed the backstaff. At the turn of the seventeenth century John Davis improved the backstaff into the quadrant backstaff, or quadrant. As European mariners began to explore the oceans south of the equator they lost touch with their usual point of reference, the Pole Star. That made observations of the height of the sun, for which the quadrant was ideal, especially important.

The earth can be treated as a perfect sphere which spins around an axis of rotation once a day. The points where the axis meets the surface of the sphere are called the North and South Poles. The equator is a line connecting points on the surface equidistant from the Poles, thus dividing the sphere into northern and southern hemispheres. The angle at the centre of the sphere C, between the plane of the equator and a line drawn from C to the ship's position P (Figure 4), gives the angular distance or arc between P and the equator (treated as zero). In the notation of Bellingshausen's day and long after it (Anon., 1959) that angle, called the latitude, can be measured from the height of the sun at midday and expressed in 90 units north or south of the equator, called degrees. Each degree is subdivided into 60 minutes, each minute into 60 seconds, and a line of latitude (where a plane at right angles to the axis meets the surface of the earth) is shown like this: 21°22'23" N or S. After the invention of the backstaff and its descendants, the quadrant and sextant, navigators became steadily more convinced that when 'latitude by account', in other words dead reckoning, diverged from 'latitude by observation', the latter, not the former, should be trusted (Patoun, 1734: 308).

The second element of a position on the surface of a sphere is its location *along* a line of latitude, each of which circles the sphere like the equator. That position, called a longitude, is measured from a conventional zero, a line connecting the Poles which crosses all latitudes at right angles, called a meridian. The measurement can be taken east or west either in 360 degrees from zero back to zero, or else in two sections of 180 degrees, divided by the antimeridian, which is the second half of the meridian on the opposite side of the sphere. The longitude of a major observatory was often chosen as zero meridian. During the expedition Bellingshausen and Simonov used the Greenwich meridian, but in publications Simonov later converted his longitudes to the Paris meridian.

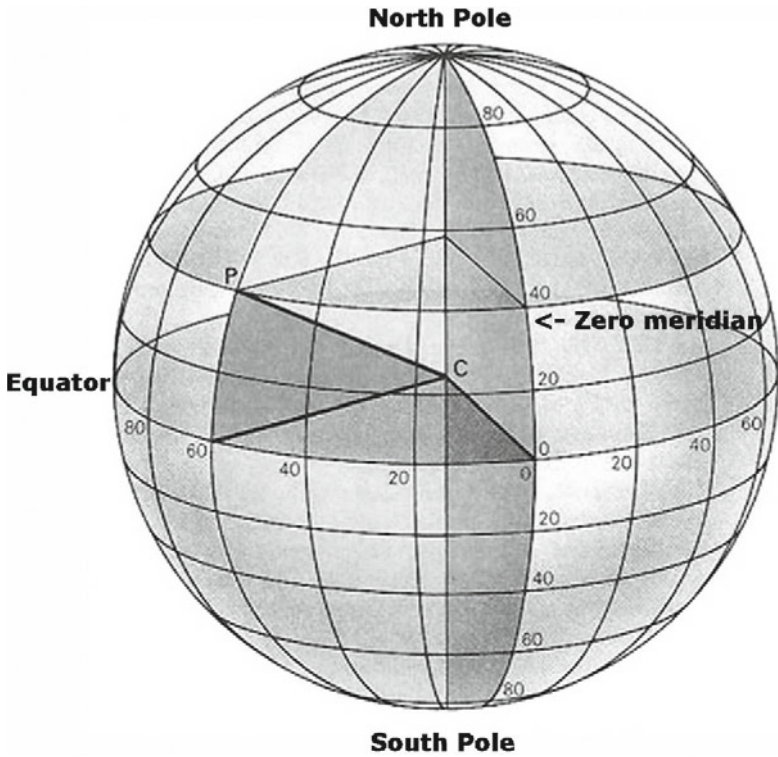


Figure 4 Lines of latitude and longitude on a sphere, from David Darling's online *Encyclopedia of Science*

To be effective, navigational technology needed to measure longitude as well as latitude. The key to doing that was time. The earth's rotation about its axis and its annual orbit around the sun were regarded as perfectly regular. They were thus a natural timepiece, which could be observed indirectly through the phenomena, an ancient Greek word for appearances, which it created in the heavens. Artificial timepieces, from sundials to chronometers, were also devised and calibrated against the natural celestial (in fact terrestrial) timepiece.

Time was the key to measuring both latitude and longitude. To measure latitude you need to know the time of year, in other words the date, because the earth's axis is tilted in relation to the plane of its orbit around the sun and the orbit is not circular but elliptical. That physical system means that the height of the sun at midday, or of any other star

when it 'transits' over the observer's meridian, changes from day to day. Therefore the altitude can only tell you the latitude if you know what day it is. It was also fairly straightforward to measure local time. By finding the maximum altitude (culmination) of the sun with a quadrant or sextant a traveller was fixing local midday.

Latitude depends on time, but longitude *is* time. An observer who travels east or west changes position in relation to the apparent motion of the sun, in other words the time of day. Instead of angular or arc-degrees, described above, longitude can be measured simply in hours, minutes and seconds of time. If the earth rotates 360° in 24 hours or 1440 minutes, one arc-degree equals four minutes of time. (N.B. One arc-degree contains sixty arc-minutes of longitude, so that a time difference of one minute (or one second) equals 15 corresponding arc units of longitude.) By converting, if local time is exactly one hour later than or 'ahead of' Universal Time, the longitude is $1^{\text{h}}0'0''$ E or $15^\circ0'0''$ E. So longitude can be measured as the time difference between P and the meridian.

Figure 3 shows a sphere marked with horizontal lines of latitude and north-south meridians of longitude, all spaced at 20° intervals. A point P on the surface lies at latitude 40° N longitude 60° W. Those are also the angles formed at the centre of the sphere, C, first, between the 'lateral' or East-West plane, joining P to C, and the plane of the equator, and second, between the vertical plane, joining the meridian of P to its anti-meridian, and the plane of the prime meridian at 0° longitude. If you know your position, P, in other words your latitude and longitude, then you are starting to know where you are. (The rest of the story, namely where everything else is, took centuries of geographical exploration to discover.) But there were two problems for maritime navigation. The first problem was that weather or daylight conditions often prevented the necessary astronomical observations, but an estimated position was usually a matter of urgency. That was partly solved by using dead reckoning, including measurements of time by the hourglass, to plot the ship's course between her astronomically measured positions, often referred to as fixes.

The other problem was that longitude was hard to measure because it meant knowing the time at the meridian without actually being there. (And radio had not yet been invented.) During the eighteenth century two solutions were developed. The first was to measure a natural phenomenon, the precise angular distance between the moon and the sun, or another celestial body, for a short period during which the moon was expected to reach such a position, for which the meridian time was already known. The method relied on tables in the *Almanac* showing

such 'lunar distances' against meridian time. It required considerable skill, because a series of observations had to be taken on both sides of the expected position, and the manual calculations, which included making allowance for parallax, were laborious and time-consuming. A refinement of the method was to use the known meridian time at which one heavenly body would be occulted (hidden) by another. If both bodies, such as Jupiter and one of its satellites, were beyond the orbit of the moon around the earth, it was not essential to allow for parallax. However, that variant was also limited by the availability of phenomena and the instruments and skills of navigators.

The second solution was to carry a mechanical timepiece, called a chronometer, set to meridian time. With such an instrument both the dependence on clear weather and the burden of calculation would be greatly reduced. The problem of how to build timepieces that would remain sufficiently accurate and even more importantly, consistent, for months at sea was solved in the middle decades of the eighteenth century by John Harrison, but it took him many years to secure recognition for his achievement (Sobel, 1995). The timeline of European exploration passed this landmark in between James Cook's first Pacific voyage in 1768–71, when the navigator used only the method of lunar distances, and his second, partly Antarctic voyage in 1772–75, for which he supplemented the lunar method with a copy of Harrison's H4 chronometer watch, finding it highly satisfactory. By the time Bellingshausen and Lazarev went shopping in London, British instrument makers were routinely turning out marine chronometers and had brought the sextant to a high degree of perfection. But as Bellingshausen learned only too well, each chronometer departed more or less from true meridian time. It was essential to measure the error, using the known or accepted longitudes of certain locations, such as Ferro (El Hierro) in the Canary Islands, and thereafter to monitor it carefully in case it should change (Chapter 8).

To call this account an oversimplification would be an understatement, because for one thing it has ignored the real problem of navigation, which is not where you are, but how to sail from there to somewhere else. But even the mathematical preliminaries were simplified above. In one of the standard manuals of the period the methods for calculating latitude and longitude each took 28 pages to explain, with examples, and more were needed to discuss the necessary instruments and the size and shape (figure) of the earth, without which the mere geometrical coordinates would be meaningless (Robertson and Wales, 1790).

It should also be mentioned that, on the surface of a perfect sphere, a unit of latitude gives the same distance anywhere between the Poles,

but the higher the latitude, the shorter the distance represented by a unit of longitude. That is why Bellingshausen, sailing in high latitudes, sometimes appears to race between longitudes.

In addition to searching for 'unknown lands', the expedition was expected to contribute to geographical knowledge by remeasuring certain base points, such as Cook's Point Venus in Tahiti. The aim was both to refine such data incrementally, and to establish datum points for Simonov's temporary observatories, from which he was instructed to observe the still relatively unknown southern stars. It is interesting to compare Bellingshausen's coordinates for Kirribilli Point in Port Jackson with modern values, and then to place that comparison alongside others for observers working at nearby locations at about the same time (Appendix 5). Karl Rümker, for example, had superior instruments, took observations of several different heavenly bodies at Parramatta in 1822, 1823 and 1826–28, sometimes with the assistance of Governor Thomas Brisbane, and generally threw the full weight of astronomical science at the problem, even unto the inferior conjunctions of Venus (Rumker, 1829). Despite that, his latitude was 5" too great. Bellingshausen's latitude for the Russian camp on Kirribilli Point, calculated in a few short weeks, was out by a mere 0.8". Predictably, Rümker fared better than Bellingshausen at longitude, with an error of less than 2' from his long series of observations. But Bellingshausen did well, by comparison with others, to arrive at an error of less than 4' on his first visit. On the expedition's second visit Lieutenant Lazarev and Midshipman Ivan Antonovich Kupriyanov, IRN, had errors of about 2' (*TS*, 1: 292; 2: 92).⁵

Estimates of the positions of ships at sea were usually less accurate, because observations had to be made in haste from a moving platform. But once they were on the high seas we have no absolute data against which to check them. Longitude remained especially problematic. Bellingshausen's value for Kirribilli Point in Sydney Harbour was 3'51.7" too far East in May and 3'13" too far West in November 1820. The distance involved is about 11km at that latitude. Elsewhere, Cook and Bellingshausen differed by 41' as to the longitude of the Candlemas Islands, near South Georgia, with Bellingshausen giving the more accurate figure. And Bellingshausen's longitude for Peter I Island, based on scores of observations, was out by 9', or about 5.7km. Modern commentators sometimes treat a ship's charted track from this period as if it had been made with GPS, but they should not be imitated. Such a line represents, at best, an average within a swathe of probability, especially in the longitudinal dimension. But it was a fairly narrow swathe and the further south it went the narrower, for geometrical reasons, it became.

By the late eighteenth and early nineteenth centuries a navigator could determine a ship's position, in good conditions, with an uncertainty smaller than the diameter of her optimum horizon, which in *Vostok's* case was about 50km or 27nm.⁶ That was not enough for safety, however, because visibility was often poor and neither the existence nor the positions of all bodies of land, shoals, reefs and other hazards were yet known. Over and above territorial acquisition, the purpose of maritime exploration was to chart the oceans in sufficient detail to remove the risk of 'discovery by shipwreck'.

Bellingshausen was expected to fix the positions of new discoveries and to survey the coasts of new or relatively uncharted land. The method of the 'running survey' was to take several compass bearings on prominent land features, such as headlands or summits, from 'known' positions along a base line measured with the log, and then plot the coastline by triangulation. Further details could be added by eye, also soundings, though none of the latter appear in Bellingshausen's *Atlas* plates, which are focused on the land (maps) rather than the sea (charts). It was theoretically possible but rarely practicable for two ships to cooperate in making each measurement. The little Bellingshausen mentions about the methods of the expedition suggests that he and Lazarev made separate triangulations of prominent features and then compared notes before leaving the commander to 'take the sense of the meeting'. The more accurate but laborious method known as 'small-boat survey' was not employed during the expedition.

Calendars

By the end of the eighteenth century the calendar reform proposed by Pope Gregory XIII in 1582 had been adopted in most parts of Europe, but not in Russia, which continued to use the Old Style or Julian Calendar except for diplomacy and astronomy. For the eighteenth century eleven, and for the nineteenth twelve days must be subtracted from a Gregorian or Common Era date to find the Julian equivalent, or added for the opposite conversion. (The days of the week were the same across Europe, just with different dates attached, and likewise 1820 was a leap year in both calendars.) However Bellingshausen did not adjust his calendar to allow for the day gained by an east-about circumnavigation until 15 February 1821, about two months after re-entering the western hemisphere. His discovery dates for Peter I Island and the Alexander I Coast in January 1821 were therefore recorded in 'ship's time' (or 'Julian + 1'), eleven days behind the Gregorian calendar rather than twelve.

In the 1960s the maritime historian Mikhail Ivanovich Belov established that until the 1840s the Imperial Navy had used a nautical calendar, in which the new day began at midday, twelve hours before the civil day began at midnight. The first half of the nautical day was the 12-hour p.m. period from midday to midnight, and the second half was the 12-hour a.m. period from midnight to midday. In its log books and other internal records anything that took place between midday and midnight was therefore dated one day later than the civil date for the same event (Gamaleya, 1807, 2: 54). Belov hoped to use the nautical calendar, which he believed had been used in the track chart, as a tool for resolving dating issues in *Two Seasons*, to which he rightly drew attention (Belov, 1963: 19–29). Instances of the nautical calendar occur in various sources for the expedition, and need to be identified, but Belov's interpretation of the track chart is problematic. It ought to mean that morning events, dated elsewhere by Bellingshausen and also shown on the track chart, such as the sightings of Willis's Island, the Alexander I Coast, and Smith's Island, each come before a midday point on the chart dated one day later by the nautical convention. But instead of that, events on both sides of such a point were (usually) assigned to the same date, in civil calendar style. Aware of the overall consistency between the different sources, Belov endeavoured to show that all the expedition's reports and maps, plus the lost original manuscript of *Two Seasons*, had used the nautical calendar, despite being intended for the Emperor, the civil service and the general public, who were not accustomed to it. The question is especially difficult to settle because of the scarcity of externally dated events, such as eclipses or shore-based records of ship movements, against which to correlate dates from within the expedition. Belov gave examples, such as the date of departure from Kronstadt, but some do not appear to support his case.⁷ Nor did he explain why calendar days usually begin with morning events, both in the reports and in *Two Seasons*, or how civil calendar expressions like 'the night of the 22nd to 23rd' or 'the following day in the morning' could occur in the reports. A complete analysis of his argument cannot be given here, but he did not convince the Academy of Sciences at the time (Bulkeley, 2011b), and subsequent scholars have not adopted his general dating theory (Tolstikov, 1980; Pasetskii, 1981; Koryakin, 2009). Fortunately its resolution, one way or the other, does not affect the substantive achievements of the expedition.

Target zone

Bellingshausen was sent to search for 'unknown lands' in a part of the world that we now refer to as the Antarctic. He never used that word

himself, but he did mention ‘the polar circle’ a few times and his orders were to get as close as possible to ‘the Antarctic Pole’ (*TS*, 1: 18). The earliest European notion of the Antarctic was of a vague geographical region, perhaps containing land, at the opposite end of the planet to the Arctic. It became defined as the zone or range of latitudes between the South Pole at 90° S and the Antarctic Circle, which is the latitude at or south of which the sun does not set and does not rise on at least one day of the year each. Like the two Tropics and the Arctic Circle, which form the other boundaries of the five climatic zones, the Antarctic Circle is defined by the tilt or angle (*klima* in ancient Greek) between the axis of the earth’s rotation and the plane of its orbit around the sun (the ecliptic), and by a corresponding angle, the obliquity of the ecliptic (to the equator), which together always add up to 90°. But the first angle is very slowly increasing towards the vertical, thus decreasing the obliquity of the ecliptic and reducing the size of the two polar zones.

The obliquity of the ecliptic was thought to be 23°27′45.64″ in 1820 (Burritt, 1842: 272). So the latitude of the Antarctic Circle, which has the same value as the axial tilt, was 66°32′14.36″ S. The expedition crossed it for the first time on the morning of 27 January 1820 (*TS*, 1: 171). They would have taken a short but appreciable time to do so, because despite the apparent precision of numbers the Circle is not so much a line as a narrow belt or strip of the earth’s surface. Its width is due to several factors. The earth is not a perfect sphere; it wobbles slightly while rotating; the surface of the sea varies in altitude from place to place even in a flat calm — an exceedingly rare event in the Southern Ocean; and the defining phenomena of sunset and sunrise are affected by variable atmospheric conditions and the altitude of the observer. Applying the value provided by NASA for the obliquity of the ecliptic, the theoretical or average latitude of the Antarctic Circle on the day this paragraph was written was 66°33′45.4″ S, about 167km further south than it was in January 1820.

Bellingshausen’s own name for his destination was ‘the Southern Ice Ocean’, and he was evidently keen to discover new land anywhere beyond 55° S. Geographers have generally used the latitude of 60° S to define the region that Cook described as ‘pestered with ice’, although heavy ice could then be met with further north, as it was by Bellingshausen at the southern end of the South Sandwich Islands. In a comparison between Cook and Bellingshausen to which we shall return, Shokal’skii found that the number of days spent south of 60° and the number spent in the ice fields were fairly similar in each case (1928: 194–5). That was also the latitude used to define the scope of

the 1959 Antarctic Treaty and its 1991 Protocol on Environmental Protection. Another important agreement, the 1980 Convention for the Conservation of Antarctic Marine Living Resources, referred to an oceanographic phenomenon, the Antarctic Convergence, but was obliged to define it geometrically, with an outer limit varying between 50° and 60° S in different longitudes. What Bellingshausen meant by 'Southern Ice Ocean' coincided closely with the limits of the Convergence, enclosing as it does most of the sub-Antarctic or Antarctic islands that he visited or discovered.

Ice (1)

Unlike the formidable Arctic explorer Sarychev, for whom ice was merely ice (1802), Bellingshausen had a serviceable list of (usually) clear terms for ice (Appendix 6), though far fewer than the several hundred entries in a modern glossary (Borodachev et al., 1994). Perhaps his most frequent expression was 'ice island'. At first phrased the other way round, 'island of ice' was one of the oldest terms for an iceberg in European languages.⁸ Martin Frobisher, for example, recorded seeing 'divers Ilands of fleeting yce' in 1577. Two pages later, however, and his ship was being 'scraped' by 'mountaines' of the stuff (Hakluyt, 1600, 3: 63–5). The two words, 'island' and 'mountain' (or 'hill'), were often applied to icebergs alongside one other during the seventeenth century. (Perhaps what looked like an island at a safe distance tended to feel more like a mountain on closer acquaintance.) By 1647 the word 'Eisberg' was being used in German, but as that author pointed out by writing 'Gletscher oder Eysberg' it meant a mountain glacier, not an iceberg (Ziegler, 1647: 21). A few years later, after serving as barber-surgeon on a whaling ship, the Hamburger Friedrich Martens published what became a famous description of a group of coastal glaciers called the 'Seven Icebergs of Spitzbergen' (Martens, 1675: 19). At much the same time the word was also being used in Dutch, and soon or simultaneously in German, in its now familiar marine sense (Baudrand, 1682: 451; Scheuchzer, 1711, 1: 189). During the eighteenth century the two usages of 'Eisberg' coexisted in German (Altmann, 1753; Schwabe, 1771, 20: 11–12). But for some reason, possibly including the status of the Seven Icebergs as a wonder of the northern world, English, which is usually one of the most relaxed and absorbent of languages, hesitated for a century before adopting such a wide ambiguity for literary use. Bellingshausen was six years old when marine 'icebergs' were first mentioned in an English text (Pennant, 1784, 1: clxxvii),⁹ but the word was

not imported into Russian until after his death. That meant that Cook and Bellingshausen were restricted to the older expressions, 'ice island' (*ledyanyi ostrov*) and 'ice hill' (*ledyanaya gora*) or 'mountain of ice'.

Several characteristic features of icebergs, such as colouration, incorporation of mineral or biological matter, and the distinction between bergs and floes, and several of their behaviours, such as their 7:8 buoyancy ratio, calving, melting, grounding and flipping, had all been documented by the seventeenth or early eighteenth century. European glaciology was developed further by people who took part in the northern whale fishery like Martens before them, or who listened carefully to what 'the Greenlandmen' and others who got their livings in the Arctic had to tell them (Phipps, 1774: 72). A theory that icebergs (as opposed to floes) could only be formed from glaciers, or in other words on land, was formulated in the sixteenth century, if not earlier (Davis, 1595: 26–30).¹⁰ It was widely accepted in the eighteenth century (Lomonosov, 1952: 463 (original 1763); Phipps, 1774: 70). In particular, it had already been applied to the Southern Ocean, first by Behrens (1738: 50–1) and then by Cook (1777, 2: 230, 240–3). In his only significant difference with Cook, however, Bellingshausen disagreed (below).

Whether directly or indirectly, Bellingshausen probably derived his terminology from three sources. The first was Lomonosov's study of what Russians call the 'northern sea route' (1952). Lomonosov was a man of humble origins himself and certainly listened to working people in the Arctic. The second was the government's translation programme, which included Cook, Phipps (1774), Coxe (1780), Pagès (1782) and possibly an account of the voyages of John and Sebastian Cabot. And third came recent British publications on the subject. The pathbreaking Arctic research of the gentleman-whaler Rev. William Scoresby was receiving much acclaim when Bellingshausen visited London (Scoresby, 1818), and works by another whaler surgeon, John Laing, and the explorer John Ross, both of whom owed some of their terminology to Scoresby,¹¹ were also available (Laing, 1818; J. Ross, 1819). A sensible man in Bellingshausen's position would have purchased all three.¹²

Bellingshausen shared the following expressions with Lomonosov: 'ice hill' (discussed above), 'ice field' (*pole*), 'small ice' (*melkiye l'dy*), 'floes' (*l'diny*) and 'hummocks' (*bugry*) (see Translator's Note). Bellingshausen did not adopt other expressions used by Lomonosov, such as 'great ice', 'upstanding ice', 'flexible ice', and a regional dialect word *padun*.¹³

Since Phipps's voyage was available in the Kronstadt bookstore, its descriptions of ice as fast, loose, packed, solid, firm or heavy may also have influenced Bellingshausen. Phipps's most frequent distinction

was between pieces of ice, of whatever size, and the main body of the ice, both of which concepts were familiar to Bellingshausen, though he did not call anything a 'body'. Terms used by Phipps but not by Bellingshausen included 'blink' and 'streams' of ice.

From Pagès, also in the bookstore, Bellingshausen could learn much about the perils of ice navigation, and especially to beware of 'the dismal prospect of one extended mass of ice' that represented an 'impenetrable state' of the ocean (Pagés, 1792: 175). Encounters with continuous ice would be salient in Bellingshausen's reports for the sound nautical reason that the more solid or continuous a sheet of ice, in the turbulent conditions of the Southern Ocean, the more likely it was to be impenetrably thick (Figure 5).

Bellingshausen greatly respected Cook, so that his descriptions may also reflect Cook's 'solid ice in one continued compact body' (1777, 1: 267). He followed Cook by calling an iceberg an 'ice island' most of the time and reserving 'ice hills' for the more landlike scenery of icebergs inside a largely continuous ice field. To highlight the size of Antarctic icebergs, when compared with the Arctic variety, both men turned to other words. Cook reserved 'mountain' or 'mountainous' for this purpose; Bellingshausen used 'giant' (*ispolin*) or 'enormous mass' (*gromada*). Bellingshausen also echoed Cook elsewhere. For example Cook once or twice described a method of avoiding ice floes by falling off the wind ('bearing up' or 'away') and then luffing back into it (Cook, 1777, 1: 42), and so did Bellingshausen. However, Cook did not invent the trick, because Frobisher described it 200 years before him.

Scoresby, whose work was only available in English, reported that in Arctic waters 'a single sheet of ice' could be up to 160km long, 80km wide, and 6 or 7m thick. Not surprisingly he referred to 'the difficulty of navigating' posed by 'packed ice ... cemented into a continuous field'. Even ice that was only a few centimetres thick could stop or beset a whaler, if it was continuous (1818: 264, 300, 303). He introduced two expressions, 'compact ice' and 'crowded ice', that may have influenced Bellingshausen, although the latter only once. (See also the Translator's Note.)

John Ross had little to say about extended, continuous ice fields, partly because he held his ships in navigable waters as much as possible, and also because he lacked Scoresby's motives, arising from the whale fishery, for approaching continuous ice. Both men published lists of ice terminology just before Bellingshausen came to London (Scoresby, 1818: 264–7; J. Ross, 1819, 1: lxiv–lxvi). Terms defined by Scoresby and Ross but not used by Bellingshausen included 'packs' and 'patches' of ice, and 'calf ice'. By 1811 Scoresby was distinguishing between 'the pack'



Figure 5 Continuous ice: the corvette *Astrolabe* temporarily beset, 5 February 1838, from an original sketch by Ernest Goupil

and 'a pack' in his journals (Scoresby, 2003, 1: 158), but apparently the phrase 'pack ice' had not yet entered any written language.

Ice (2)

The strongest evidence for a link between Scoresby and Bellingshausen comes from their ideas rather than their language. It is impossible to read the two men's descriptions of the formation and growth of marine ice side by side without forming the impression that Bellingshausen had read Scoresby, if not during the expedition then between 1821 and 1824, while he was writing his book. Whether or not that was the case, they shared the opinion, which was becoming rare among polar explorers, that even 'the most stupendous bodies of ice' could have been formed over 'many successive years, or even ages' by successive accretions of snow onto frozen seawater and onto the resulting ice sheets, followed by pressure ridges, collisions and rafting (Scoresby, 1818: 276).

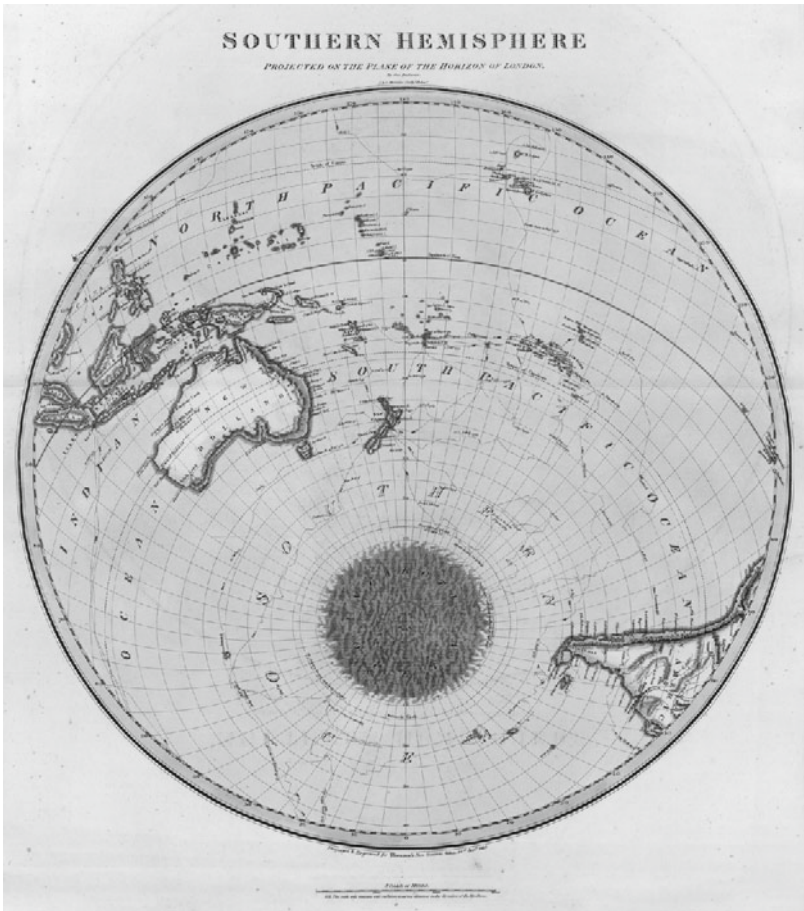
The notion that a 'continent of ice' might be encountered in one or both of the two polar regions was a commonplace of European thought by the time of the expedition. For example it was said that Cook had met southern and northern ice continents on his second and third voyages in the 1770s (Lofft, 1781: 216; Schomberg, 1802, 1: 433). In Britain there was a vogue for the phrase just before the expedition passed through, much of it in response to Scoresby's conjecture 'that a continent of ice mountains may exist in regions near the Pole, yet unexplored, the nucleus of which may be as ancient as the earth itself, and its increase derived from the sea and atmosphere combined' (Scoresby, 1818: 294). The Russians could have purchased another example published during their visit (Freminville, 1819: 84).

But 'continent of ice' had two different meanings. In most cases it was mere hyperbole. The so-called continents of ice could move around or break up, and they were so small that several could fit into an area the size of the Gulf of St Lawrence (Mitchill, 1807: 231). In its second, more scientific sense the phrase was used by physical geographers and others, such as Scoresby, for the theory that each of the earth's poles was surrounded by a vast permanent ice cap. The phrase '*calotte de glace*' appears to have been first coined, and applied to the Antarctic, by Buffon in the mid-eighteenth century (1769: 169, 172). The phrase was slow to catch on, but the *idea* was widely accepted (Saint Pierre, 1784: 166–79; Crichton, 1798, 1: 401; Kant, 1801, 1: 264). Some doubt was expressed as to whether the phenomenon could occur in the supposedly landless Southern Ocean (Malte-Brun, 1812, 2: 430). But a striking

illustration of the hypothetical southern ice cap appeared in an 1817 atlas (Map 3). And on board *Vostok* the expedition's astronomer, who had read Buffon, expressly endorsed the notion of 'impenetrable domes which cover the surface of the sea like a crust around both poles' in an entry in his journal for 19 January 1820 (S1, fourth instalment: 178–9). However, the mighty planetary 'cupolas' in question were not thought to have the stable dimensions attributed to land masses; on the contrary they waxed in winter and waned in summer (Saint Pierre, 1784: 186–98). So by elevating ice caps into 'continents' the savants, of whom Immanuel Kant is the one most likely to have been studied by the then Midshipman Bellingshausen, were adding a decorative metaphor to an idea which had not, until recently, required one (Childrey, 1661: 147–9; Lomonosov, 1847: 464–5).

In English the word 'main' was used to mean a large tract of something solid long before the word 'continent'. Early in the seventeenth century Henry Hudson's navigator, Abacuk Pricket, applied it to the 'Mayne of Ice' which they encountered in 1611 (Pricket, 1625: 597).¹⁴ In 1632 Thomas James referred to 'the main ice' (James, 1704: 465). And whalers and explorers continued to keep a close eye on 'the main body of the ice' (Phipps, 1774, *passim*). But when John Ross published his ice vocabulary, a few months before Bellingshausen reached the London bookshops, he drew a sharp distinction between '*Land Ice*, ice attached to the shore', and '*Main Ice*, a body of impenetrable ice detached from the land, but immoveable, and between which and the ice attached to land, are *floes* and *lanes*' (J. Ross, 1819, 1: lxvi – emphases original).

In the 1820s Russian mariners were in the same linguistic position as English mariners 200 years earlier. Whatever they wanted to say about ice, or geography in general, they had to do it without the word *kontinent*, because it had not yet been imported. Not surprisingly Bellingshausen and his shipmates found the expressions 'main of ice' and 'main ice' just as useful as Pricket and James had done before them. However, and again just as in English, the most common uses for both noun and adjective were those which meant 'mainland', 'main of the land', and 'main land', and the noun was sometimes used in the sense of 'continent'. So when we see Bellingshausen putting 'main' and 'ice' together, at a time when foreigners were talking about 'continents of ice', it is reasonable to ask, first, whether he was referring to the polar ice cap or only to a vast but *local* body of ice, and second, whether he was or was not following John Ross's definition, according to which 'main ice' was not attached to land.¹⁵



Map 3 What some geographers expected: 'Southern Hemisphere' by George Buchanan (Thomson, 1817, Sheet 7)

Fortunately Bellingshausen gave his reasons for calling certain ice formations 'main', including his thoughts, which closely resembled those of Scoresby, about their origins. Glaciation began with the freezing of surface water, which he had studied. The frozen lamina or platelets (*plastinki*) were broken up and re-formed into large blocks of ice by wind and waves. They in turn were compacted into (sometimes vast) ice fields by the same forces, and over time a combination of precipitation, downward underwater glaciation, and further impacts between temporarily

separated and unequal segments, had caused parts of the ice to 'raise themselves into sloping hills' (*TS*, 2: 243–51). An important element in the theory was that the process did *not* require the presence of a large body of land. Such was indeed the latest thinking on the subject, propounded by Scoresby, but if he did influence Bellingshausen that was another piece of the latter's bad luck. Recent authorities, including Lomonosov and Cook, had adopted the longstanding theory, discussed above, that true 'ice mountains', or icebergs, could only originate from *terrestrial* glaciation. Scoresby, perhaps because he was self-educated, had unwisely abandoned that idea. In the same vein, Bellingshausen was unwilling to conjecture that the south polar ice enclosed anything more than a few small islands like Peter I Island, though it might also be grounded in shallows at certain points. By 'main of ice' in his reports and 'main ice' in *Two Seasons*, therefore, he meant precisely what he said, with a strong leaning, as between the two senses described above, towards the 'ice cap' theory as against the 'local hazard' usage of Arctic mariners. He added climatological reasons for supposing that



Figure 6 Main ice? *Mirnyi* and *Vostok* in front of ice cliffs, by an anonymous Soviet artist, mid-twentieth century. Licensed with the permission of the Scott Polar Research Institute, University of Cambridge

the ice formations he had seen stretched ‘beyond the pole’ and ‘must be immobile’ (*TS*, 2: 250). In short he believed there to be a stationary, mostly land-free, self-renewing polar ice cap, some of whose northern ramparts had probably blocked his path (Figure 6 and *TS*, 1: 188–9).¹⁶ Incidentally, Bellingshausen’s lengthy explanation of ‘main ice’, an expression which occurs only once and indirectly elsewhere in *Two Seasons* (*TS*, 1: 189), suggests that it may have been used several times in his manuscript before officious editors intervened.

Discovering continents

In 1847 the British polar explorer, James Clark Ross, declared that:

There do not appear to me sufficient grounds to justify the assertion that the various patches of land recently discovered by the American, French, and English navigators on the verge of the Antarctic Circle unite to form a great southern continent. ... Let each nation therefore be contented with its due share, and lay claim only to the discovery of those portions which they were the first to behold. (J. C. Ross, 1847, 1: 275)

Eight years later a former midshipman on Bellingshausen’s expedition agreed that this was still a question for the future (Novosil’skii, 1855: 30). Ross’s advice poses two important questions for anyone studying the Bellingshausen expedition: What exactly is a continent? and: What counts as discovering one?

When the geographical term ‘continent’ was brought into English (from Latin) in the sixteenth century, its meaning was given as ‘a portion of the Earth, which is not parted by the Seas àsunder’ (Cunningham, 1559: 113), or with phrases like ‘continent or maigne lande’ (Willes, 1577: n.p.). A seventeenth-century dictionary invoked the element of size with ‘a great Extent of Land, which comprehends several Regions and Kingdoms which are not separated by Sea’ (Bailey, 1675). And the question was soon raised of how many such continuous bodies of land there were in the world, distinguished from mere islands by their much greater size. Two, thought Willes (1577) and Edward Brerewood (Brerewood, 1614: 113). One, containing ‘Four eminent parts’ – Africa, Asia, Europe and America – thought the Archbishop of Samos, guessing wrongly that there was a land link between Asia and America (Georgirenes, 1678: iv–v). Three, thought someone else a hundred years later, on the grounds that Africa was *almost* ‘surrounded by sea’ (Black, 1788: xiii).

The strict definition of a continent as a very large body of land completely surrounded by water, or ‘insulated’, was perfectly clear.

The problem was that since only two such entities were known to exist, the old or eastern continent of Europe, Asia and Africa, and the new western continent of America (Saint Pierre, 1784: 152), it was neither interesting nor useful. So the clear but useless definition of 'continent' was repeatedly undermined by references to major parts of the earth that were *not* separated from one another by water, such as Europe, Asia and Africa, as continents (Carpenter, 1625, 2: 115; Varenius, 1734: 105). And that gave rise to confusion:

A Continent is a large tract of land containing many Kingdoms and States, not separated from each other by the sea; such are Europe, Asia, Africa, and America, the four principal parts of the Globe. In reality there are but two continents, one, which consists of Europe, Asia, and Africa; America forming the other ... (Wynne, 1787: 2)

The other effect of shifting the word 'continent' away from 'large island' towards 'large region' was that islands often came to be included in continents instead of being excluded from them (Martin, 1754: 162–4; Robertson and Wales, 1790, 1: 334–41). In the nineteenth century it became almost routine to refer to a regional continent, such as Asia or Europe, 'including its islands' (Duyckinck, 1873, 1: 14; Hughes and Maunder, 1860: 43). The practice has continued to the present day for all continents, with phrases like 'the total area of Antarctica including its islands' (Pook, 2009: 197).

That inclusive, regional sense of 'continent' has been encouraged in English by the availability of another word, 'mainland' (the original meaning of the Latin word 'continen(s)'), to distinguish the largest body of continuous land *within* a regional continent. Similar terms, such as 'fastland', 'Festland', 'terrafirma' and 'tierra firme' do the same in other European languages. In Russian, however, the loan-word *kontinent* was introduced only in the mid-nineteenth century. Its predecessor, *materik*, was closely related to *materaya zemlya* (mainland), and by remaining in use alongside *kontinent* it tended to draw both words towards the 'large island' interpretation. Thus a nineteenth-century author carefully identified three *kontinenty*, the Old and New Worlds plus Australia, and listed Europe, Asia etc. merely as 'parts of the world' (Pavlovskii, 1861: Maps 1 and 2). More recent texts, however, have imported the confusion illustrated above by defining continents as large islands but then listing bodies of land such as North America and Africa as continents, despite the fact that they are not insulated (Khvostov, 2007: 5, 7). Russian has also imported the phrase 'continental islands', which accepts that many islands somehow 'come under' continents.¹⁷ And another

imported word, *massiv*, can be used to refer to the main body of a continent alongside 'its' islands. For an interesting polar example, see Lappo (1945: 27).

Nowadays some scholars seem ready to abandon the confused and under-informative notion of continents altogether (Lewis and Wigen, 1997). Physical geographers pay more regard to the 14 major and scores of minor tectonic plates and cratons which make up the surface of the earth, and it is not hard to find an author using 'continent' merely as a handy synonym for 'plate' (Redfern, 2000). Meanwhile human geographers and other social and life scientists think mainly in terms of various types of region, which can readily overlap and be defined from many points of view. But the matter of continents remains salient with Russians, because theirs has often been described as a transcontinental country, bridging Asia and Europe, though the question of where exactly the boundary lies between the two has never been a simple one.

Turning to the discovery of continents by European explorers, it is clear that several of the regional variety became known to Europeans through a variety of direct and indirect interactions long before they were formally explored, and were therefore never 'discovered' as such. One of the interesting aspects of early European expansion into the Antarctic, for a historian, is the way it combined the practical, quasi-prehistoric diaspora of the sealers with the official, scientific probing of naval expeditions. The classic case of continental discovery, the voyage of Christopher Columbus to the Bahamas, Cuba and Hispaniola in 1492–93, was contested in the following century by English propagandists on the grounds that one of the Cabots, in the service of the English crown, had explored the mainland of North America in August 1497 before Columbus reached the coast of what is now Venezuela a year later. Regardless of the present status of Columbus's voyage, or the validity of the English argument, the event brings home the point raised by James Ross. Can a continent be said to have been discovered by those who first encountered one of its offshore features, such as islands, reefs or even the sediment discharged by a major river, or must the mainland itself have been sighted, and perhaps also recognized for what it was?

One way to address the question is to ask oneself whether island cities or states, such as Copenhagen, Singapore and Zanzibar, are or are not parts of the continents, though not the mainlands, of Europe, Asia and Africa respectively. If you believe they are, then continents are large regions which can include islands and which could therefore be discovered, that is to say found for the first time by representatives of a certain group of people, by encountering their islands. If you believe they are

not, then only mainland discovery will do, and neither Leif Eriksson at Newfoundland, nor Columbus in the Caribbean, nor Abel Tasman at Tasmania were examples of continental discovery.

In short, the question of who discovered the continents is misleading. Doubtless certain mariners from China were the first of their nation to encounter the mainland of Africa, at some point, but does that mean that they 'discovered Africa'? Perhaps, but it makes better sense to accept that different continents or regions of the world took shape for different civilizations over long periods. The Americas took shape for Europeans over several centuries, not unlike the proverbial elephant examined by three blind men, and it could be argued that Antarctica did much the same albeit over a shorter time.

Part II

Reports

*Ты владычествуюши державою морскою:
возмущеніе же волнь его ты укрощаеши.*

ПСАЛТИРЬ: ПСАЛОМЪ 88, С 10.

*Thou rulest the raging of the sea:
when the waves thereof arise, thou stillest them.*

KING JAMES BIBLE: PSALM 89, v 9.

Epigraph chosen by IVAN MIKHAILOVICH SIMONOV
for a popular account of the expedition (1822)

Translator's Note

If a work is deserving of translation, it deserves to be translated as it is — with all its peculiarities, however little these may be in harmony with modern notions.

EDINBURGH REVIEW (1837)

Transliteration

The BGN/PCGN code for transliterating (romanizing) Russian words is the simplest available and provides some phonetic information for non-Russian readers. It was designed for modern Russian, and one has to modernize nineteenth-century Russian before romanizing it. The author/translator has chosen to show the 'yod' form of the letter 'e' as 'ë', and to romanize 'й' (short 'i') as 'i' rather than 'y', because 'y' has two other uses in the code. Most Russian names have been romanized, but the names of monarchs have been translated conventionally.

The authors and titles of Russian publications appear as romanized Russian text in the citations and Bibliography. Thus 'Kuk' or 'Avstraliya', not 'Cook' or 'Australia', if the book is in Russian. But most Russian place names and many publishers have been translated rather than romanized.

Spellings

Russian spelling was changing in the early nineteenth century. The surnames of certain members of the expedition, Captain Lieutenant Zavodovskii, Lieutenant Obernibesov, and astronomer Ivan Simonov, could be rendered more formally as 'Zavadovskii', 'Abernibesov' or

'Simanov'. ('Zavodovski Island' is an English spelling adopted by various official bodies.) The versions chosen here reflect the balance of the texts. On the spelling of ethnically German surnames of Russian subjects, see Chapter 2. Lastly, Russian has difficulties with transliterating foreign names into Cyrillic, and the translator has usually opted for the original name instead of the Cyrillic version, for example 'Fleurieu' rather than 'Floriou'.

Translation

These translations follow the manuscript documents, where they have survived, rather than published Russian versions like Samarov (1952), which sometimes depart from the originals. Not all such differences could be mentioned in the footnotes.

In some respects these versions fall short of full translation. First, the primary task for the expedition was to record the times and places at which land and other phenomena were sighted. The way such data are recorded is important. In the spirit of the epigraph to this Note, but at the risk of vexing general readers, the translator has chosen to mirror the varying diction and style of such passages for the benefit of non-Russian speaking scholars, rather than transform everything editorially into fluent English. Such mirrored elements include abbreviations, partial abbreviations, symbols, numerals versus numerical words, and variable word order in geographical coordinates. The conventional symbols for degrees, minutes and seconds, in particular, are shown exactly as they do or do not occur in the originals. The symbol for 'E' in coordinates required strict attention, because of its resemblance to '0' for zero. Only Bellingshausen's, or the clerk's, occasional use of 'Z' instead of 'S' in abbreviated intercardinal directions like 'SEbZ' (for South-East by South), apparently a relic of Dutch influence on the Russian Navy in the eighteenth century, has been dropped.

For the principal authors of these texts, Bellingshausen and Simonov, the twelve hours between midnight and midday were 'morning', but the twelve hours from midday to midnight were 'after midday', especially in clock times. (Bellingshausen or his editors replaced 'morning' with 'before midday' in *Two Seasons*.) That asymmetry, between 'morning' and 'after midday', would be lost if they were summarily rendered as 'a.m.' and 'p.m.', so they too have been mirrored, and for the sake of consistency *polden'* has also been translated as 'midday' elsewhere.

A second consideration affected the translation of Bellingshausen's main reports. B7, B8 and B9 were replicated, more or less, within the

final report B10. In order for non-Russian speaking scholars to be able to see where B10 *departed* from its predecessors, should any of them wish to do so, it was often necessary to reflect the original wording more closely than would otherwise have been done. More generally, the translator opted to respect the dull repetitions of words in the texts, with a few exceptions for stylistic relief. References to the Emperor have only been capitalized if they were so originally. As for 'Rio Janeiro', it was normal English as well as Russian at the time. In the same spirit, if an author used what are now old-fashioned, but were once standard nautical expressions, such as 'people' for the crew or 'meet' for encounters with floating objects, their usage has been preserved. One advantage of the practice is that it sometimes reveals an author's *reluctance* to avail himself of a handy nautical option, the most obvious example being Simonov's avoidance of the word 'knots' for speed, which he must have heard every day they were at sea. Because of those choices, however, some experts would call these versions subtranslations rather than translations.

It was not necessary to reproduce the somewhat arbitrary, and in manuscripts often indeterminate, capitalization of the originals. Here, cardinal directions only begin with an upper case letter in geographical coordinates. Conversely, designations such as 'Island' or 'Land' in geographical names have initial capital letters in the modern English style, whereas in nineteenth-century Russian they usually went without. Some of the endless semi-colons have been rendered as full points and several paragraph breaks have been added to the handful supplied in the originals. Underlinings in manuscripts and italics in published texts have been shown as italics without comment, in short as 'emphasis in the original'. But the names of ships have been italicized throughout, however they appeared in the originals.

Turning to issues of translation proper rather than style, there are numerous examples in the texts of the Russian historical present, so-called, for which the remote 'point of orientation' sometimes appears to be nothing more than the writer's vivid recollection of events. Such passages have usually been rendered in a past tense.

The Russian word for 'Mr', usually abbreviated as in English, was problematic because only the non-servile minority of male subjects of the Emperor were so addressed, and because it was therefore tucked into many formal titles, such as 'Mr Captain Lieutenant Zavodovskii'. In compound titles between social equals it is often untranslatable. Official ranks have generally been left as they appear in the originals, except for the expression 'Captain of the First (or Second) Rank', which the

translator has simplified to Senior and Junior Captain, thereby ignoring the rare, third rank species. (A Russian captain of the first rank bears some resemblance to a British post captain.) Other ranks in the Imperial Navy did not entirely correspond to similar-sounding ranks elsewhere. Lieutenants were not ranked as 'First', 'Second' etc. And a Russian midshipman was a commissioned officer (known as a 'sub-lieutenant' in the eighteenth century) despite not having completed his training, as one of them explained (Novosil'skii, 1853a: 33).

In his reports Bellingshausen frequently used the first person singular, with or without a pronoun, and occasionally specified the first person plural, or a subject such as 'the crew'. However, Russian verbs in the plural of the past tense do not distinguish between 'we' and 'they' when, as often and quite normally happens, no pronoun is given. Sometimes the sense of 'we' comes from the verb, such as 'sailed' or 'arrived'. But sometimes it does not. For example when Bellingshausen wrote that some persons 'sighted' Cape Bristol on 31 January 1820 (O.S.), he may simply have intended the collective but authoritarian 'we' commonly used in exploration narratives. But just possibly he may sometimes have shown more respect for his subordinates by referring to them as an independent 'they'. Unfortunately it is now impossible to tell which, and the translator was often obliged to settle, reluctantly, for 'we'. (With or without Bellingshausen's consent, several of the 'I's' in his first report from Port Jackson (B7) were turned into 'we's' when it was later published (Bellingshausen, 1823).)

Bellingshausen sometimes referred to his crew as 'people', in the English manner, but more often as *sluzhiteli*, generally translated here as 'men'. Today the word usually means 'servicemen', but at that time it also meant 'servants' and retained overtones of serfdom (Anon., 1794, 5: col. 554). (There was another, less condescending word for servicemen, *sluzhivyye*, which Bellingshausen did not use.)

Bellingshausen surely possessed a systematic nomenclature for wind speeds, but the translator was unable to find a contemporary codification. Russian lacked the words 'air' and 'breeze' in this context, the second of which entered the language in about the 1840s. But otherwise Bellingshausen's categories from 'calm' to 'violent storm' corresponded closely to the future Beaufort Scale, drawn up in the 1830s. By placing his words alongside modern force numbers we get: 'calm' (0), 'very light wind' (1), 'light wind' (2), 'moderate wind' (4), 'fresh wind' (5), 'strong wind' (6), 'high wind' (*krepkii veter*) (7), 'gale' (8), 'strong/great/violent gale' (*sil'naya burya* etc.) (9), 'storm' (10), and 'violent storm' (11). There are also traces of the earlier custom, adapted by Beaufort, of identifying

a wind strength solely by the appropriate set of sails, leaving the word 'wind' to be understood.

The hardest weather word to translate was *mrachnost'* and its cognates. The primary meaning is loss of visibility, as in 'gloom' or 'overcast'. But these authors often seem to be referring to the state of the atmosphere, not just overhead, but immediately around the ships – a veritable inspissation. Partly for that reason, and partly because of the etymological connection, *mrachnost'* has been rendered as 'murk', a term still used by meteorologists.

Some of the terms for ice presented difficulties, starting with the simple plural *l'dy*, 'ices', which can denote any assorted types of floating ice, including floes, bergs or entire ice fields, according to the frame of reference. Next, Bellingshausen could not use the word *toros* for an ice hummock, because it only came into Russian from Saami in the late nineteenth century (Fasmer, 1987, 4: 86). He used *bugor* instead, which nowadays means a 'mound' or 'hillock' on land. But since the contemporary English term was 'hummocks', that is how *bugry* is translated here.

The Russian phrase *sploshnoi lëd* was another challenge. The literal meaning is 'continuous ice', but there are overtones of *plotnyi*, meaning 'compact; dense'. Today, the Arctic and Antarctic Research Institute in St Petersburg translates *sploshnoi dreifuyushchii lëd* as 'compact floating ice' and reserves 'continuous' for its definition of an ice floe (<http://www.aari.ru/gdsidb/glossary/p1.htm#4-2-1>). 'Compact ice' occurred about as often as 'continuous ice' in early nineteenth-century English usage, though both were rare. The bottom line, for mariners, was that 'the flat floating ice' 'in one continuous plain' was 'far more to be dreaded' than separate icebergs (Crantz, 1820, 1: 29). But once that point has been made, and illustrated (Figure 5), the translator cannot intrude further on the reader's imagination. Therefore *sploshnoi lëd* has remained 'continuous ice'.

Another concern was *materik*, a word which went on being used both for 'main' or 'mainland' and for 'geographical continent' after other European languages began to differentiate between the two in certain contexts. There is no need for misunderstanding, however. Bellingshausen made it clear, both in his very few applications of *materik* and its cognate adjective *materoi* to ice, and in his theoretical discussion of the south polar glaciation (Chapter 4), that the gigantic ice formations which he referred to as 'main' did not, for him, amount to or carry any implications for the existence of an extensive body or bodies of land. Although British and American writers were referring to

'continents of ice' in similar contexts at the time, too many commentators on Bellingshausen have jumped from 'continent of ice' to 'icy continent' over the years. To adopt such sweeping language, thus begging the discovery question, would have been unhistorical. Instead, appropriate English expressions of the day were deployed. The phrases 'main ice' and 'ice main' occurred in literature available to Bellingshausen and they are also faithful to his ideas and personality. That said, the lexical connection, not to say confusion, between 'main', 'mainland' and 'continent' was undeniably strong in both languages, and remains so.

5

First Season: December 1819 to September 1820

An immense extent of ocean seems to occupy the whole Antarctic part of the globe. ... In vain has the enterprising Cook attempted to discover regions towards the pole: his progress was constantly interrupted by tremendous mountains and fields of ice. Beyond the 50th degree no land and no habitation is to be found.

ENCYCLOPÆDIA BRITANNICA (1797)

Introduction

This chapter and the next present Bellingshausen's official reports from the Russian Antarctic Expedition. They have been labelled B1 etc. for ease of cross-reference, and the other translated texts have been treated similarly. (In order to reserve L1 for Chapter 9, Count Lieven's letter has been labelled V1 here.) For the locations of translated documents, see the Bibliography. In the originals, dates and places of origin were entered in the margin or at the end. In the translations they are internal headers, usually opposite the word 'Report'. Ivan Rezanov, *Vostok's* clerk,¹ was probably responsible for the filing numbers on some reports, such as 'No. 225' on B1. They are shown here immediately after the date. Other filing numbers and dates of reception were sometimes added at the Ministry of Marine. When they occur they are shown in italics as the first of the internal headers, wherever they were placed. Lastly, Rezanov sometimes added his own name at the end.

The filing numbers reflect the fact that these are only some of the many papers that passed through *Vostok's* great cabin, as with other warships of the day. Reports were sometimes written in haste, and there is little

evidence that the commander read over and corrected what the clerk had made of his drafts or dictation. When it came to latitudes and longitudes, however, he often had the clerk leave a space and entered them later himself. Despite that, minor slips occurred in all the main reports, especially with the longitude sign, whether East or West of Greenwich. That human touch is more evident in Chapter 6. In the present chapter Bellingshausen (and Rezanov) made only one slip in B7 and another in B8.

It bears repeating at this point that the only thing added to the texts without comment has been some of the punctuation. Apart from indications of the modern values of sums of money, explained in the Preface, any interpolations from the author/translator have been placed in square brackets in the usual way. Any curved brackets or emphases come from the originals, except for ship names in italics. All dates inside documents are shown as they were written and are therefore Old Style. Notes to documents appear as footnotes; any notes to the author's commentary, throughout this part, remain as chapter notes.

Although he did not always feel obliged to say so, Bellingshausen's miles were 'Italian' or nautical miles. The traditional Russian mile of seven versts is too long for the values given, and no other mile unit had official status for the Imperial Navy.

The midpoint of the expedition fell on 24 July 1820 while Bellingshausen was exploring islands in the northern part of the Tuamotu Archipelago, several of which his expedition were the first Europeans to visit. The author has included the preliminary report on that section of the voyage (B8), with its appended table of tropical discoveries (Table 5.1), in this chapter. Chapter 6 takes up the story in November 1820 with the preliminary report on the second Antarctic season (B9), and concludes with Bellingshausen's final report on the expedition as a whole, comprising a narrative (B10) and another table of discoveries, Table 6.1.

The series begins with a report sent from Portsmouth via London (on internal evidence) on 28 August and received in St Petersburg on 30 September 1819 (both O.S.). By assuming that the Minister was already familiar with the problem of the missing naturalist (singular – see Chapter 10) it implies that an earlier report, which has not survived, was sent from Copenhagen.

B1: First report

No. 2660

30 September

To the Admiral and Minister of Marine, the noble Marquis Ivan Ivanovich de Traversay, from the commander of the First Squadron of sloops.

REPORT

28 August 1819, No. 225

The first squadron, entrusted to me, was supplied with all necessary items at London and Portsmouth, and we overhauled some faulty gunports¹ on the sloop *Vostok* and the pumps on *Mirnyi*. A fresh headwind from W prevented the squadron entrusted to me from weighing anchor from 15 [25] to 28th August.² Although the wind remains unfavourable the propitious weather today, 28 August, permits us to weigh anchor.

The route the squadron is to take, as Your Excellency knows, lies towards the island of Tenerife. The Ambassador Extraordinary from the court of HIS IMPERIAL MAJESTY, residing in London, did try to recruit a naturalist through Mr Banks.³ However none could be found at this time. Time does not permit of longer delay, if we are not to postpone carrying out the exploration that has been allotted to this squadron.

The expenses of overhauling the sloops and providing the crew with fresh meat, greenstuffs and beer, and, through Consul-General State Councillor Dubachevskii, for obtaining instruments, chronometers, voyages, various maps and further absolutely essential items, come to 1593 pounds sterling (£1,144,000), which I have not paid.

The crew of the sloops are in good spirits. There are none sick.

The which I have the honour to report to Your Excellency.

Junior Captain Bellingshausen
Clerk 13th grade Rezanov

B2: Second report

To the Admiral and Minister of Marine, the noble Marquis Ivan Ivanovich de Traversay, from the commander of the First Squadron of sloops.

REPORT

18 September 1819

After departing from England on the 29th of August⁴ last the two sloops of the first squadron, *Vostok* and *Mirnyi*, reached S. Cruz on the island of Tenerife on the 14th.

There we took on water and a supply of wine for the voyage, and remain at readiness to weigh anchor. HIS IMPERIAL MAJESTY'S officers and crew are in good spirits. There have been none sick.

The which I have the honour to report to Your Excellency.

Junior Captain Bellingshausen

¹ An under-informative reference to extensive modifications which Bellingshausen did not choose to explain to his superiors until the voyage was completed – see B10 and K1.

² A clerical error. The squadron was not ready to depart until 25 August (O.S.). There is some confusion in *Two Seasons* about the date of sailing from Portsmouth, probably due to misediting. This report seems to have been entrusted to the departing pilot. With the entry for 29 August 1819 in *Two Seasons* (1: 58), it suggests that the squadron finally put to sea on the afternoon of (civil) 28 August 1819 (O.S.).

³ Mistranscribed as 'Ganks' in the *Dokumenty* (Samarov, 1952, 1: 140).

⁴ Perhaps a nautical date for the second half of the 28th. See B1 and B3.

B3: Third report*No. 317**4 February*

To the Admiral and Minister of Marine, the noble Marquis de Traversay, from the commander of the sloops of the First Squadron.

REPORT

8 November 1819, Rio Janeiro, No. 315

I have already had the honour to report from Tenerife that with the sloops *Vostok* and *Mirnyi* entrusted to me I departed from England on 28 August.¹ The passage to Tenerife took 17 days. We spent five days there and both sloops were stored with wine, water and fresh provisions.

We ran with the trade winds to latitude 6° North. From that latitude to 2° North latitude we struggled for 10 days with calms, squalls and torrential downpours. We crossed the Equator in longitude 22°11'41", after which we ran with the southern² trade winds to latitude South 20°. Cap Frio was sighted on November 2nd and we dropped anchor at Rio Janeiro on that same day, the 2nd.

And I have very great pleasure to report to Your Excellency that on this passage the men endured the heat and unremitting humidity at the Equator and remained in good health. And now I shall make all possible haste, after completing repairs to the caulking and ?likewise? overhauling our guns, to direct myself towards the objective which has been designated for me,³ since by this time of year we should already be in high latitudes.

The which I have the honour to report to Your Excellency.

Junior Captain Bellingshausen
Clerk 13th grade Rezanov

B4: Fourth report*Copy**31 March 1820*

To the Admiralty College,⁴ from the commander of the sloops of the First Squadron.

REPORT

22 November 1819, Rio Janeiro

I completed the overhaul of the sloops *Vostok* and *Mirnyi* entrusted to me, the armaments and the caulking, and took on fresh provisions, tobacco and firewood

¹ The inconsistency between B2 and B3 was removed in the *Dokumenty* (Samarov, 1952, 1: 141, 143). The two reports were penned by different hands and the inconsistency may be a case of nautical calendar in B2, civil in B3.

² South of the Equator but south-easterlies, which Bellingshausen did not need to explain to a fellow officer.

³ The vague language reflects Bellingshausen's concern that the mails from South America to Europe were not secure – see B9.

⁴ In the eighteenth century the College had resembled the Board of Admiralty at the head of Britain's Royal Navy. In 1803, however, it was subsumed within the Ministry of Marine and lost much of its independence.

for the men. Also groats, to the account of the College, which are supplied by the boatload in Brazil by Messrs Freese, Blankenhagen, Kutcher and Company, namely 185 sacks weighing 6 Portuguese arrobas each, in all one thousand, one hundred and ten arrobas for one million, two hundred and fifty thousand, nine hundred and seventy réis. I did not pay for this consignment because that sum was not released to me.¹

As of this date I weighed anchor and set out from Rio Janeiro road towards the objective which has been designated for me. The crew of the sloops are in good spirits. There are none sick.

The which I have the honour to report to the Admiralty College. As for the bill for the groats (above), I humbly solicit the attention of the College towards giving orders for it to be paid.

Personally signed by { Junior Captain Bellingshausen
Clerk 13th grade Rezanov

B5: Covering letter

To the Lieutenant General, HIS IMPERIAL MAJESTY'S Ambassador Extraordinary and Plenipotentiary in London, the noble Adjutant General Count Christopher Andreyevich Lieven, from the commander of the First Squadron.

REPORT

8 April 1820, Port Jackson, No. 87

The sloops entrusted to me have made a welcome landfall at Port Jackson on 30 March 1820 after a passage of 130 days. As throughout the voyage so here too I have no one dead or sick.²

The which I have the honour to report to Your Excellency, and humbly request that the papers enclosed with this report be forwarded to the Minister of Marine.

Junior Captain Bellingshausen

The next document, B6, was a personal letter to the Minister, in Bellingshausen's own hand, enclosed with the next report, B7. Unlike other documents from the expedition, B6 underwent several deletions and amendments by other hands; for example the word 'giants' was removed. This being the copy received at the Ministry, the revisions were probably made when an excerpt was prepared for publication (Bellingshausen, 1821b).² The translation renders the original letter and ignores the later amendments.

¹ The quantity was 16,304kg. The price was about 4½ old sterling pence per kilo, giving a total of £300 {£216,320}, equivalent, perhaps, to a third of the squadron's petty cash.

² That is not what he told de Traversay (below) on the same date as this report. In reality a seaman on *Mirnyi* had died in February 1820 (Appendix 2). Perhaps Bellingshausen was reluctant to let Count Lieven know too much of the Navy's business.

B6: Personal letter*No. 707**10 April**9 April 1821¹*

Your Excellency!

8 April 1820, Port Jackson

Gracious Lord,

Your Excellency's steadfast favour towards me and the good will you have shown to the expedition have moved me to address to you the first fruits of the labours we have undertaken. I dare to hope that Your Excellency will accept this offering with the same good spirit as that in which it has been sincerely dedicated to you.

As you will be kind enough to learn from my dispatch, our sloops were unremittingly among ice floes. The people underwent great hardships both from the violence of the winds which predominate in those seas, but even more so from the thick murk and the wet, thick snow which falls so often and in such quantity in those seas. Hoar frost and true frost accompanied us for most of our passage; also ice hills, of which some rose more than 400ft [122m] above sea level and some were up to 13 miles [24km] in circumference. Such giants were our constant foes, against which we had to protect ourselves with the greatest possible caution and the strictest vigilance. The smallest slip could have exposed us all to destruction. The great height above sea level is amazing, when one recalls that seven such parts are underwater.² The formation of such enormous masses astounds the mind.³ Your Excellency will readily comprehend from such matters how cold it is at the South Pole.

I met with no signs of land at high latitudes. I saw many birds, but they were all oceanic and although of several species do not indicate the proximity of land. Some visit the polar circle, others never leave it, others live beyond and outside it. The latter almost always accompanied us. They have no need of land, it seems, since they rest and sleep on the water and feed, from our observation, on dead whales, shrimps, molluscs and other marine creatures and plants. Added to which in our experience they can live a very long time without food. Even when wounded with buckshot they survived for 8 days without food or drink.

The group of islands that were called Sandwich Land, and which have been discovered afresh by ourselves, appear to me no other than a range of underwater mountains, the peaks of which rise out of the water. Their bearing lines up with

¹ Probably a nautical-over-civil date of reception.

² William Scoresby's account of the varying flotation ratios for salt- and freshwater ice in salt or fresh water was published several times in 1818 (Scoresby, 1818: 269–71). Like many others in their day, however, Bellingshausen and Lazarev (L1) relied on the simpler finding established by Robert Hooke, that the ratio between the weights of equal volumes of 'ice' and 'water' was about 7:8, which implied that seven eighths of any iceberg were underwater (Hooke, 1726: 134).

³ In the extract published in 1821 (Bellingshausen, 1821b; Bulkeley, 2011b) this sentence was omitted and 'enormous masses' was transferred to the previous sentence.

Clerke Rocks for a junction with George,¹ and thence via Wallis [Willis's] and Aurora Islands, discovered by the Spanish in 1794, on to the Falkland Islands, which are directly connected with America.

I cannot however suppose that they may be an extension of a southern main land, since, probing beyond Thule, their most southerly island, and as far as latitude 60°27', with the weather clear, horizon well-defined, I could see further south by up to 40 miles [74km]. That amounts to an additional sweep of more than 100 miles [185km] south of the Thule Islands. But not a sign of land could be discerned. Indeed even the sea in those parts had an oceanic colour, which is quite distinct from its appearance in the vicinity of islands.

As for maintaining the health of the men for the duration of such an extended and arduous voyage, I am profoundly obliged to Your Excellency for your gracious concern that we should be provided with abundant supplies.²

I am obliged to spend more time than I would like at Port Jackson, by reason of unloading both sloops with a view to repairing their bows.

Together with my report to Your Excellency I submit maps of the Sandwich Islands, George, and the voyage.³

Although I am quite sure that Your Excellency will obtain the royal favour for Captain Lieutenant Zavodovskii and also Lieutenant Lazarev, I nevertheless humbly beseech you not to deprive these deserving and zealous servants of His Imperial Majesty of encouragement from above and royal favour.

Entrusting all of us to your entire protection I have the honour to remain, with a sincere, devoted, and profound dedication,

Your Excellency's and gracious Lord's most humble servant,
Fadai Bellingshausen⁴

B7: Fifth report

706

10 April

9 April 1821

To the noble Admiral and Minister of Marine, Ivan Ivanovich Marquis de Traversay, from the commander of the First Squadron of Sloops, Junior Captain Bellingshausen.

¹ In the reports Bellingshausen consistently referred to South Georgia with the masculine personal name; in *Two Seasons* his usage varied between 'George' and 'Georgia'. (The island was not included in his *Atlas* (1831).) Samarov (1952) rendered everything in the reports as 'Georgia'.

Bellingshausen kept the misnomer for Willis's Island in *Two Seasons* and so have modern editors. In the track charts however (Belov, 1963: Sheet 1), it was named correctly.

² Bellingshausen had already experienced a wretchedly mismanaged commissariat on his first circumnavigation, under Krusenstern (Löwenstern, 2003, *passim*).

³ Two were listed in Anon. (1958).

⁴ Because of its historical interest the signature has been transcribed rather than translated.

REPORT

8 April 1820, Port Jackson

With the sloops of the First Squadron entrusted to me, *Vostok* and *Mirnyi*, I was at full readiness for sea by 21st November 1819 at the port of Rio Janeiro. On the 22nd at 6 o'clock in the morning both sloops weighed anchor. Passing out of the bay of Rio Janeiro I set course for George Island. To reach that goal promptly one should keep in by the American coast. But all the navigators have already charted that sea. And directly to the south of Rio Janeiro they searched for Grande Island – the French navigator Mr Lapérouse in 1785, and the English mariners Captain Vancouver in 1795 and Captain Colnett in 1793.¹ Accordingly I set course due south, with a view to cutting through the expanse of sea between those mariners; also to take some part, as Russians, in settling moot questions [such as] whether Grande Island exists. I had no way to search apart from cutting through along the meridian to avoid taking up a lot of time.²

On 4th December, having reached latitude South 41°10' longitude W 41°52', I met great flocks of birds belonging to the breed of petrels, as well as clumps of seaweed. Although sailors regard these as signs of the vicinity of land, we did not find anything.³

On 15th December we sighted Wallis [Willis's] Island, which lies on the western side of George, the northern side of which had been surveyed by Captain Cook. In order to complete the survey of George Island, therefore, I passed Wallis and George Islands on the southern side and made a survey from that side, which I linked up with Captain Cook's survey at the eastern extremity of George Island.

George Island consists of sharp-peaked, rocky mountains covered in snow, and the deep valleys which separate them are filled with ice right down to the sea. On its southern side the island has six bays of which some appear suited to serve as anchorages. We had very bad, gloomy weather for a survey, with snow, which often compelled us to suspend our measurements of the coast despite being within 1¼ miles [2.3km] of the coast in some places. Nor could we make out a single growing thing with the glass.

A boat under the English flag came out to us from Maria Bay on the southern side. There were two vessels in the bay belonging to an English whaling company. They slaughter sea elephants there and render the oil. By the accounts of those Englishmen there were three more elephant sealers on the north side of the island. They take the seal flesh and use penguin skins as fuel to heat it. The harbour the boat came out from was called Maria Bay, after the name of the ship

¹ This oceanic Grande Island, which was dismissed as 'unknown to modern mariners' by Purdy (1822: 14), should not be confused with the modern Isla Grande or main island of Tierra del Fuego.

² Bellingshausen's map of the voyage shows that he sailed due south from Rio to the latitude of the River Plate, overcompensated for the latter's current with a dog-leg west, continued slightly east of south to about 52° S, and finally turned south-east to reach South Georgia (*Atlas*: Sheet 1).

³ In *Two Seasons* the sighting of seaweed, and its potential significance, were transferred to the entry for 8 December 1819 (O.S.) (*TS*, 1: 121).

on which they came there.¹ They have been hunting there for four consecutive years, coming every year in spring and returning to England with their catch in the autumn. By reason of the very bad weather and high wind I entered not a single one of the bays, being at risk of getting caught in them. And I held time precious for more important matters. The thermometer at that island showed 3 degrees [3.75°C].

After midday on the 17th I joined up with Captain Cook's survey at the eastern end. I departed George Island, making use of a very high NW wind to run down to Sandwich Land. The gloom rapidly concealed George Island from our sight. At midday on the 18th, lying in latitude South 56°13' longitude 31°46' E [W],² we sighted the first ice island, the height of which was up to 200 foot [61m] above sea-level with a circumference of up to 2 miles [3.7km].

Until 22nd December we sailed on past several ice islands. But on that date at 10 o'clock in the morning we sighted a previously unknown island, having latitude S 56°41'30" longitude W 28°3'30" and a circumference of 3¼ miles [6km].³ During the night of 22nd to 23rd we sighted land ahead of us from which we turned back until daybreak. At daybreak the land was shown to be a hitherto unknown island, latitude S 56°44'10" longitude W 27°8', circumference 12¾ miles [23.63km].⁴ It consists of a single mountain with a sharp peak, covered in snow and unremittingly surrounded by clouds. At 10 o'clock in the morning on the same day we saw evidence of land through the murk to the north, and at 4 o'clock after midday, approaching it, we saw it was an island, lying in latitude S 56°17'30" longitude W 27°25'45", with a fiery crater from which a great quantity of smoke was venting.⁵ The island is 7¾ miles [14.36km] in circumference. I spent the night off the island in order to reconnoitre it further, since as evening fell we could see the great number of birds that covered it.

After closing on the morning of the 24th I dispatched Captain Lieutenant Zavodovskii to survey it, and to ascertain whether there might be an anchorage. At midday the jolly-boat returned and Mr Zavodovskii reported that from the shore to halfway up the mountain the island was filled with two species of penguins sitting on their eggs, which did not give way to our explorers. Among the

¹ The sealer *Mary Ann*, master and part-owner James Todrig, returned to London a few months later. The sealer with her was *Indispensable*, master J. Brown. Those on the north coast were *Arab*, *Echo* and *Recovery* (Headland, 1989: 112; Jones, 1992a: 364).

² The first longitude sign error. Some, including this one, were copied into Bellingshausen's final report (B10); others were corrected there.

³ Leskov Island, named for Lieutenant Arkadii Sergeevich Leskov of *Vostok*.

⁴ Vysokoi ('High') Island, originally named for Lieutenant Konstantin Petrovich Torson of *Vostok*, but renamed after Torson was found guilty of complicity in the Decembrist succession plot of 1825 and exiled to Siberia.

⁵ Zavodovski Island. In December 1819 Bellingshausen appears to have set about naming geographical features after selected quarterdeck officers of the squadron in reverse order of seniority, starting with Cape Paryadin on South Georgia after *Vostok's* master. But some of the more senior officers, such as Lieutenants Ignat'ev and Obernibesov, were never honoured in that way. (Mount Ignat'ev on the Antarctic Peninsula was named recently and after someone else.)

penguins they had seen a few Port Egmont hens.¹ The shore consists entirely of rock rising directly out of the sea to a height of 20 to 30 feet [6 to 9.14m]. Inland from the sea the island is covered in fine ash, sand, and small pebbles, right up to the crater of the mountain, which takes up the greater part of the island. I think it fitting to name those three islands, discovered at the outset by myself, after one who concerned himself with commissioning this expedition and supplying it with everything useful in great abundance.² After surveying that island, and with a very good horizon, I saw no further land to the north, and therefore set a course for Sandwich Land.

At daybreak on the 27th we sighted the two islets that are called Candlemas on Mr Cook's chart, which lie at latitude S 57°10'45" and longitude W 26°41'. On the 29th we sighted the island which Cook named Saunders, which has a circumference of 17 miles [31.50km]. There is a fiery, smoking mountain on it. And the following day in the morning we passed the land named Cape Montagu by Captain Cook, which is also an inaccessible, high and rocky island; it is 28¼ miles [52.35km] in circumference. On the 31st we sighted land, the western cape of which was named Cape Bristol by Captain Cook. But on that day and the following, 1st January, we were unable to pass around its E side on account of the murk and the thick snow, and we were also sailing among ice floes at the time. But on the 2nd we were able to pass around it, and it was shown to be an island with a circumference of 19 miles [35.21km]. On the same day we sailed on to the south. Towards evening we sighted the land that was named Thule by Captain Cook. On the following day, as we passed it, we made out that that land comprises two islands and a third small island.³

Both the land discovered by us, and that which Cook named Sandwich Land, are islands. They all contain high mountains whose summits are covered with snow, and their slopes down to the sea with ice, and several contain fiery volcanoes. On all those islands nature, thoroughly chilled by the fierce cold, produces nothing that grows. Only penguins live on some of them.

We met ice islands very frequently while sailing off those islands. As we passed Bristol Island we sighted an ice field to the east, across which were scattered a multitude of ice islands of varying sizes and shapes. I sailed on to S along that field and through small ice and scattered [ice] islands (during which I could not avoid some collisions with ice), with the aim of discovering whether there was a continuation of those [Sandwich] islands, and to get south as far as possible and then set a course to the east.

On the 4th, however, reaching latitude S 60°39', I still saw continuous ice to the east. And there, not only in that quarter but also to S and to SW, I met an ice field with a multitude of ice islands in it. Viewed from the crosstrees the field was unbroken to the visible horizon – with the weather clear, horizon well-defined. Confronted by such circumstances, and being surrounded by ice islands the

¹ The great skua, so named by Cook after Port Egmont in the Malvinas/Falkland Islands.

² This sentence was omitted from the Soviet edition (Samarov, 1952, 1: 145). On Soviet historiography of the expedition, see Ovlashchenko (2013).

³ The smaller, eastern member of the group was later named Bellingshausen Island.

whole time, I was unable to continue the passage either to S or to E. In order to get out of such a dangerous situation I set course to the west. Then, in order to pass around the extensive field, which seemed to me to have begun near Bristol, I set course along the western side of Thule and Bristol Islands.¹

Passing between Bristol and Montagu Islands I set course east. But, while still sailing among ice floes, I tried to keep bearing somewhat to S. But the further south I went, the more ice islands I met. Between the 8th and the morning of the 9th, in murky weather, we entered ice fields and small ice from which we could only emerge with difficulty by taking a course to the north, and by repeatedly bearing up and then luffing again, in order to pass the floes. While doing so we could not avoid collisions, which cost us some of the copper at the bows. And on the sloop *Mirnyi* the underwater part of her stem was badly damaged in similar collisions, but fortunately the leak held steady.

Continuing our passage within the ice fields until the 11th, when ice became less frequent, I began making south again. In a heavy overcast I sailed on to S, meeting ice floes, but less often than before. On the 16th, having reached latitude S 69°25', longitude 2°10' W, I met continuous ice at its fringes, with one [piece] jumbled on top of another [Map 4; Figure 5]. Further in to the south, ice hills were visible at various places within it.

From that point I was resolved to sail in sight of the ice, in order to get further S. But a contrary wind from E prevented me from fulfilling my intention. After tacking a short way east from 19th to 20th, I turned S again. But that time also I met continuous ice at latitude S 69°20', longitude W 0°50'. The wind remained in the east. In view of the tenacity of the east wind I eased into a slightly lower latitude, in hopes of getting a west wind the sooner, which dominates the middle latitudes.

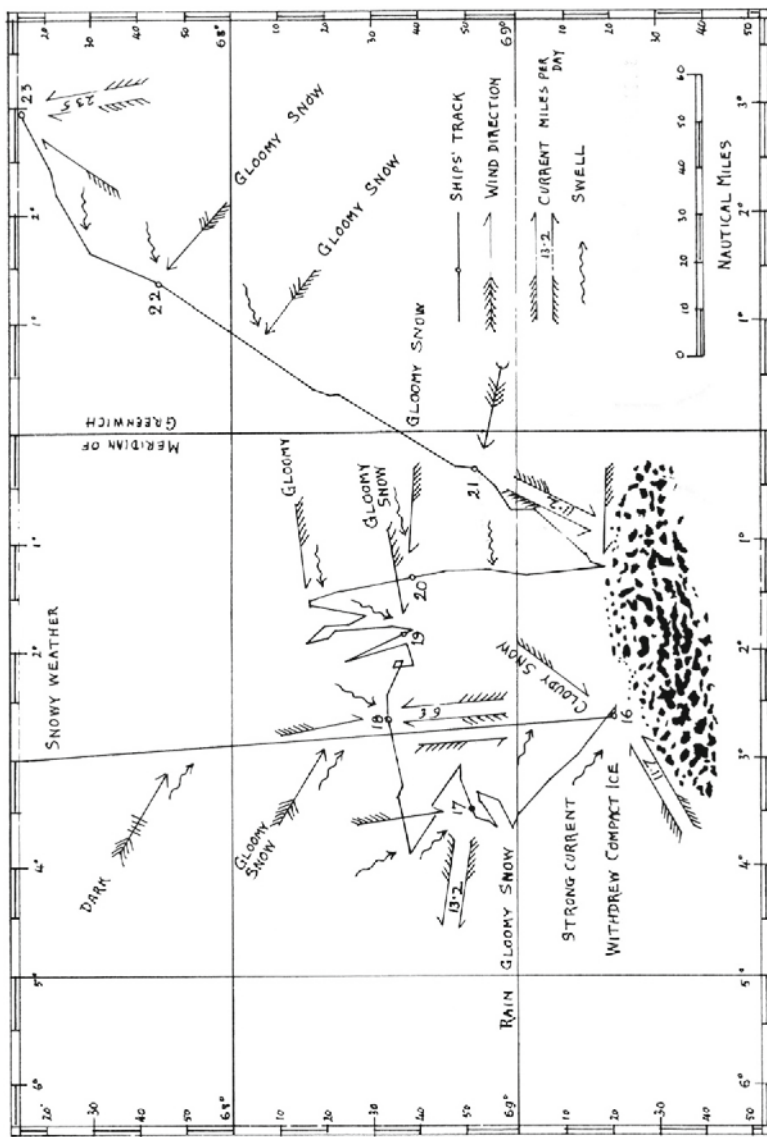
On 1 February, lying in latitude S 64°30' longitude E 16°15', and having gained 17° to E, I turned S once more in an east wind, and eventually, between the 5th and 6th, I reached latitude S 69°7'30", longitude E 16°15' [Map 5]. There, beyond ice fields comprising small ice and [ice] islands, a main of ice was sighted, the edges of which had broken away perpendicularly, and which stretched as far as we could see, rising to the south like land. The flat ice islands that are located close to this main are evidently nothing but detached fragments of this main, since they have edges and upper surfaces which resemble the main.²

From the 7th I moved S again, but that time I met ice floes sooner. Moreover the further one proceeded south, the more the winds turned easterly. For that reason, in order to increase our longitude I again moved N in an east wind, in order to pick up westerly winds and then once more make a probe to S.

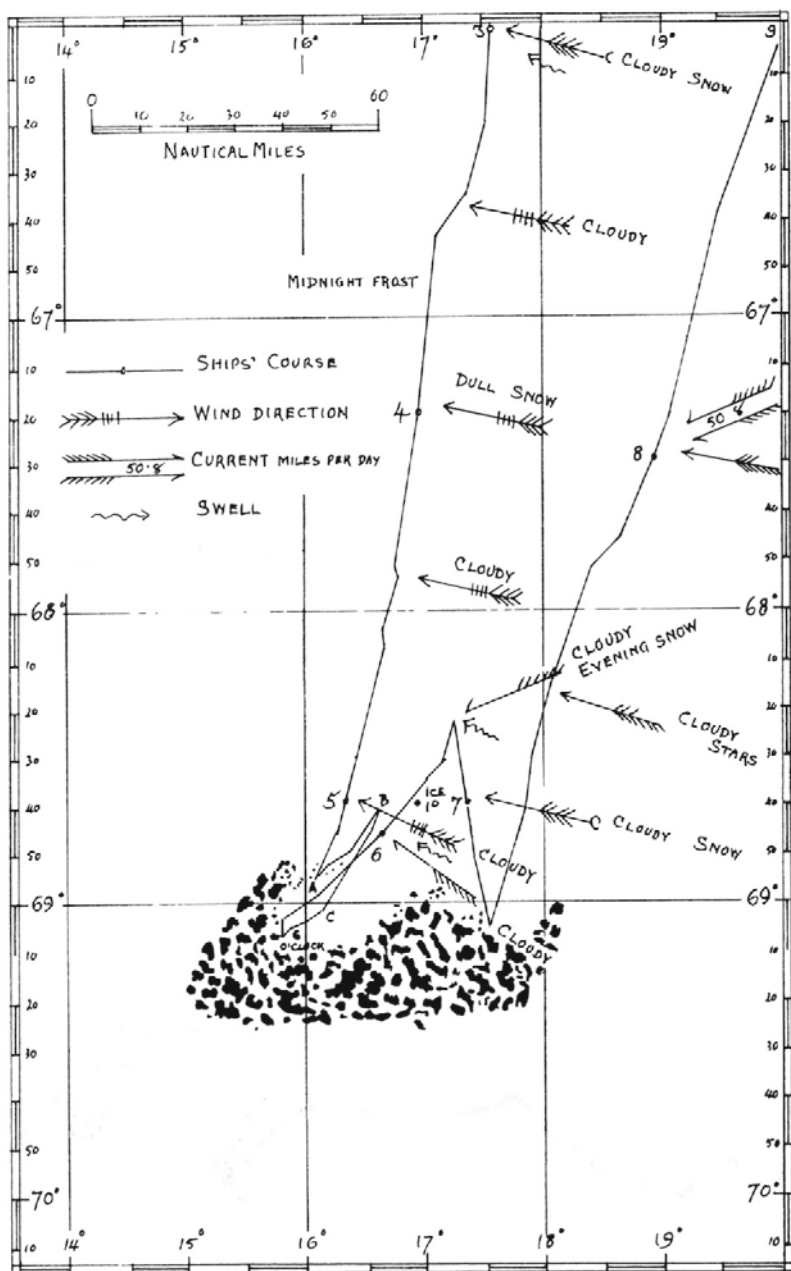
On the 14th, lying in latitude 66°54', longitude 41°33', I sighted several ice islands but had seen no continuous ice. There a heavy swell from NW in very calm weather obliged me to retreat somewhat north. But on the 18th a gale

¹ Sailing northwards.

² In *Two Seasons* (1: 188–9) this event is said to have occurred on the afternoon of (civil) 5 February (O.S.), but without the coordinates. The ice was first sighted before midday, so that the dates given here may be a nautical version of the whole event. As noted by Debenham (Bellingshausen, 1945, 1: 128), this was the expedition's first fleeting encounter with what would nowadays be considered part of the Antarctic mainland.



Map 4 Bellingshausen's second southing, 15–23 January 1820 (O.S.) (Jones, 1982, p. 90). The 1962 ice front, added by Jones, has been omitted



Map 5 Bellingshausen's third southing, 3-9 February 1820 (O.S.) (Jones, 1982, p. 96). The 1962 ice front, added by Jones, has been omitted

suddenly got up from E which carried us even further north. That ruined my plan, which had been to reach the latitude at which Captain Cook met the ice fields,¹ survey its position, and then run down the parallel eastwards, bearing south wherever possible.

The high wind continued until the 21st, but from that date the wind allowed us to resume our passage eastwards, and I continued it along a parallel between 62° and 63° South latitude until 27th February, with high winds as well as an almost uninterrupted murk with snow and frost for most of the time. And on the way I met ice islands of various sizes every day. From the 27th to 1st March it pushed us somewhat north with a SE wind. But from that date to the 4th I passed eastwards between the ice islands in high south and south-west winds, with snow and almost continual murk and frost as familiar companions.

On the 4th, in latitude S 60°30', longitude E 119°00',² I met an increasing number of ice islands, between which the sea was filled with numerous pieces of ice, so that it was constantly necessary, now to bear up, now to luff, in order to pass them. It was a passage with the season drawing on and the nights growing longer, during which sailing was extremely dangerous and could even be disastrous. The thick murk and almost unremitting snow often prevented us, even in the middle of the day, from making out objects further than 50 sazhens [91m] away. Furthermore the equinoctial season was approaching, during which there are gales for most of the time and it would be impossible to avoid disaster while remaining in the ice fields – in which I had held a course for about two weeks on end, and seen the number of ice islands constantly increase, with a large amount of floating ice appearing between them.

Moreover our passage had taken 104 days, during which the men had endured great hardship both from the constant high winds and from the dark, foul weather. With snow falling very often the larger part of the sails and rigging were iced up at that time. The result was that even steering the ship itself became not just heavy, but extremely laborious.

All those considerations, but mainly the crowded ice floes that we were meeting and the lengthening nights, constrained me to forsake the higher latitudes and make for lower ones. But in order for the next passage to be of service to seafarers, or for hydrographic observations, I determined to survey a great expanse of the ocean across 50 degrees of longitude and 10 degrees of latitude, bounded by the tracks of Captains Cook and Furneaux and hitherto unvisited by anyone. For that purpose on 5th March I instructed Lieutenant Lazarev to pass south of Captain Furneaux's track by 2½°, and myself proceeded to the north of Captain Cook's track by the same number of degrees. I had decided by this means to sweep for Company Island, discovered by the Spanish, which appears on Arrowsmith's map to the south of Vandiemen.

On 9th March I endured such a strong gale that it was impossible to set even a single sail, and I found myself then in an extremely bad situation among the ice fields. On the 10th I had storm course-sail [wind]³ and made between the

¹ On 17 January 1773.

² The longitude differs greatly from that given in the final report (B10), which was 85°08'. In both cases Bellingshausen appears to have entered the figures himself. The second value, not this one, was adopted in *Two Seasons*.

³ Perhaps about 34–40 knots, or Force 8.

ice islands. From that date to the 14th I had high winds, and on the 14th there came a storm, which rendered a passage within ice fields a pretty unpleasant one. On the 16th we suffered another gale, but fortunately it did not last long. From the 21st to the 22nd, running down the parallel of Company Island and beyond it to the east, I saw nothing. Likewise also Lieutenant Lazarev, passing near the same place, did not sight it. I conclude, therefore, that its latitude was not taken accurately or it simply does not exist. On 30th March I reached Port Jackson.

I had no one seriously ill during the passage or when I reached harbour.¹ That could not have been so, had we not been so well and so abundantly supplied both with clothing and with all such necessities as are conducive to health. While in high latitudes the sloop *Mirnyi* lost one seaman who contracted nervous fever [typhoid].²

I met with no signs anywhere of a great southern land, even though I held most of my course beyond the polar circle or near it, as much as the winds allowed. But if it does exist, it must lie far inside the ice fields and be covered by them, and there is no way to detect it.³ In high latitudes the barometer never rose above 29.35 [in] the whole time. And the thermometer remained at or below the freezing point most of the time, sometimes falling to 4° of frost [-5°C].⁴

I was unable to visit the Auckland⁵ Islands, both because the season was growing late and because of the gales I had endured for 17 days after the equinox. Moreover the excessively long passage, such as none of the famous navigators had made before in those waters, checked my boldness in a matter that might have extended the passage and placed burdensome pressures on the crew.

For the whole of our passage, in continual fogs, murk and snow, and among the ice fields, the sloop *Mirnyi* always remained in company. Such a feat, in which ships were not separated during such a long-drawn-out voyage under such weather conditions, has never been seen before. I therefore consider it my duty to alert Your Excellency to such unfailing vigilance on the part of Lieutenant Lazarev, with a view to soliciting the attention of the MONARCH towards such a zealous tour of duty.

I am also obliged to report to Your Excellency that during such a lengthy passage in such rough seas, where the winds are unremittingly violent, the spars, sails and rigging have remained intact, which testifies to the vigilance and skill of the officers under my command.

On his arrival with the sloop *Mirnyi* at Port Jackson on April 7th, Lieutenant Lazarev reported that everything was intact on her, and he also spoke most highly of his officers.

¹ In view of the sentence after next, this must have been meant to apply only to *Vostok*.

² Fëdor Istomin, on 21 February 1820 – see Appendix 2.

³ This passage reflected, too closely for coincidence, the thoughts of Bellingshausen's illustrious predecessor: 'I had now made the circuit of the Southern Ocean in a high latitude, and traversed it in such a manner as to leave not the least room for the possibility of there being a continent, unless near the Pole, and out of the reach of navigation' (Cook, 1777, 2: 239).

⁴ The whole of this paragraph was omitted from the Soviet edition (Samarov, 1952, 1: 148). See Figure 7.

⁵ Mistranscribed and annotated as 'Falkland' at Samarov (1952: 148, 421).

Шлюпъ Мирный, находяся еще въ большихъ широтахъ, лишился одного мачт-роза, заболѣвшаго нервною горячкою.

Признаковъ большой Южной земли нигдѣ я не встрѣчалъ, хотя большую часть плаванія имѣлъ за полярнымъ кругомъ и близь онаго, какъ шокмо вѣтры позволяли; но если она и существуетъ, то должна быть далеко во льдахъ и покрыта ими; и опознать оную нѣтъ возможности. Барометръ въ большихъ широтахъ не подымался во все время выше 29, 35; а термометръ по большей части сползалъ на замерзаніи и ниже онаго, доходя иногда до 4° холода.

Въ Алкандскіе острова я не могъ идти какъ по изснавшему позднему

Figure 7 'I met with no signs anywhere of a great southern land ...' Bellingshausen's negative finding in B7 echoed Cook's earlier views. It was published by the Imperial Russian Navy but omitted by the Soviet Navy (Bellingshausen, 1823: 217; Samarov, 1952: 148)

Throughout such an extended and extremely hard passage in ice fields, fog and snow, Captain Lieutenant Zavodovskii shared the work with me, and in all circumstances he was the perfect aide and endured great difficulties. Without his help I would not have been able to endure such labours in so harsh and damp a climate. For that reason I humbly request Your Excellency to solicit the attention of the MONARCH towards Captain Lieutenant Zavodovskii.¹

Junior Captain Bellingshausen

B8: Sixth report

No. 1592

received 22 June 1821

To the Admiral and Minister of Marine, the noble Ivan Ivanovich, Marquis de Traversay, from the commander of sloops of the First Squadron, Junior Captain Bellingshausen.

¹ Bellingshausen added this paragraph in his own hand before signing the report.

REPORT

21 October 1820, Port Jackson road

Having made ready for sea at Port Jackson with the First Squadron entrusted to me, I weighed anchor on 8 May 1820 and set course for the north side of the island of New Zealand. From that time until the 23rd I had uninterrupted adverse NE winds with storms, which carried us into higher latitudes S. With no hope of finding favourable winds at that time of year, I decided on the 23rd to pass into Captain Cook's Strait, which divides New Zealand. On the 24th I sighted Mount Egmont, on the 28th we entered Queen Charlotte Sound. Our stay there was all the more pleasant for us, because we succeeded in gaining the affection and friendship of the inhabitants. As they parted from us they requested us most heartily to come back to them again.

I hauled the rigging taut and filled with water, and on 4th June both sloops weighed anchor. In the channel we suffered violent storms until the 9th, on which day we passed out of the Strait. I laid a course past Oparo Island [*Rapa*],¹ which I tried to approach along a previously unused course. At daybreak on the morning of the 29th we sighted Oparo Island, but were unable to close it because of a calm. The inhabitants of that island came out to us. After coming on board, they tried to sell us a fermented dough wrapped in leaves, taro root, and also shellfish. They use the first instead of bread and prepare it in advance. They are very tall, solidly built, and agile. Theft appears to be held in high regard by the inhabitants. On the following day, 30 June, I passed on around the island. The inhabitants came out again, but their main purpose was to steal. They focused their pilfering and interest on iron objects in particular. Many of the various iron goods were given to the head chief and others. With the calm continuing I did not take the sloops any closer than 6 Italian miles [11km].

So as not to lose time to no purpose, I set course slightly to the east of the Society Islands [Tonga]. Until 5th July nothing was encountered. At daybreak on that day we caught sight of a low-lying island. Closing to within a distance of ½ a mile [900m], I sent an officer onto it, who reported that it was a coral island which had a lagoon in the middle. There were bushes and trees in a few places. Its location was determined as latitude S 19°13'50" longitude W [E] 218°43'14". I took it to be [Prince William] Henry Island [Nengonengo], discovered by Mr Wallis.² From the following, July 6th, until the 19th discovery was made of 15 more islands, the longitudes, latitudes and sizes of which will be shown below in the table appended.³

There are signs of inhabitants on almost all of them, but only such as have coconut groves are settled. The rest are visited by hunters mainly from Anna Island [Anaa] (discovered by Mr Cook and called Chain [Island]). On all the

¹ Modern names of islands are shown in italics when they correspond to Barratt's identifications (1990: 95; 1992: Table A:1), although most were first identified by Samarov (1952: 421–3). Modern names from other sources, and cases of mistaken identity, are shown in plain text.

² In *Two Seasons* (1: 347) Bellingshausen revised the identification to Cumberland Island (*Manuhangi*), discovered by Wallis.

³ Table 5.1, below.

settled islands the inhabitants ran along the shore armed with pikes and short weapons. They were of medium height, dark coloured and lean, with their hair tied in bunches. The men wore a waistband, but the women were wrapped in matting down to the knees, and they too were armed.¹

When we did approach the shore,² the whole community walked into the sea up to their knees, gesturing with their spears, to prevent us from disembarking. However much we tried to gain favour with them, by throwing presents, medals and other things, which they picked up, still they would not let us disembark. Even when I gave the order for a musket to be fired over their heads, the women all threw themselves into the bushes but some of the men, though startled, remained in place. A second shot produced a new spectacle – they all entered the water and at every shot they poured water over their bodies. That shows that hitherto the inhabitants have not seen a single European and that the effect of European weapons is unfamiliar to them. They had seen the fire coming out of the guns and evidently thought that, by pouring water over themselves, they had found a way of protecting themselves against the fire and burns to their bodies. Even when a ball was fired over their heads from the sloop, they all fell down, but soon afterwards took heart and started to taunt us that we could not do them any harm. At the sight of so much stubbornness, born of ignorance, I postponed their better acquaintance with Europeans.

The discovery of the last two islands in that tally belongs to the glorious navigator Captain Cook.³ From there I set course for Otaiti Island [Tahiti], in order to tie in all the islands with Otaiti Island, re-check the chronometer, refresh the people, and fill the hold with water.

On 20th July we approached Matea [*Makatea*] Island. We saw four boys on it who were holding a little mat on a pole and waving. I sent a boat in to the shore. The boys threw some coconuts into the jolly-boat, and just when the jolly-boat began to return they threw themselves in too. We took them on board, and they explained in mime that they were from Anna Island, and there had been many of them, but they had all been eaten. By running away into the scrub they had escaped the cannibals.

¹ The waistband was a breechclout (*maro*) made of a long strip of bark cloth (*tapa*) and worn by both men and women. The distinctive female garment was a short skirt (*pareu*) of the same material. The term ‘waistband’ reflects a similarly vague Russian word.

² This passage describes an attempted landing at Amanu Island on 8 July 1820 (O.S.). The Russians approached in boats, and their hostile reception was dramatically illustrated by Mikhailov (Petrova, 2012: 50–1).

³ Samarov had ‘leading’ (*glavnomu* – 1952: 170) but ‘glorious’ (*slavnomu*) is confirmed in B10. The expedition sighted Toau and Kaukura, discovered by Cook in April 1774, shortly before visiting Makatea. Bellingshausen’s remark is confusing because according to both his tables (Tables 5.1 and 6.1), the Russians discovered a previously unknown island, Niau, between sighting Toau and Kaukura. In which case the ‘last two’ islands before Makatea were *not* both discovered by Cook.

22nd July Having arrived at Cape Venus I received a letter from the king,¹ in which he informed me that it would please him greatly to see our ships in his Matavai Harbour, and to that end he was sending a pilot in the same canoe. (The letter was written in English by the king himself.) Both sloops immediately entered the bay and came to anchor. The sloops were quickly surrounded and filled with crowds of people of both sexes with fruits and edible supplies. The extraordinary integrity and friendliness of the Tahitians soon charmed us all and made our stay there very pleasant. We left the 4 boys we had brought on Otaiti.

27 Having made ready, both sloops weighed anchor. I set course to N with the intention of passing first between Deans and Krusenstern Islands [Rangiroa and *Tikehau*], which were surveyed by Lieutenant Kotzebue,² in order thus to tie those islands in more closely with Cape Venus and with my discoveries, and so make a fundamental determination of all the islands that have been surveyed.

30 July I passed between Krusenstern and Deans Islands at a distance of one and ½ miles Italian [2.78km] and had very fine weather for fixing their position. After rounding [them] I sighted another island to N [*Matahiva*], which I reached that same evening. That island too is low, with a lagoon inside like all those islands; no sign of inhabitants. From that island I set course N.

3rd August We sighted a small wooded island full of frigate birds and cormorants [*Vostok*].³ I proceeded on the parallel of an island discovered by Roggeveen,⁴ but on that parallel it does not exist (Tienhoven).

7th We discovered another island [*Rakahanga*],⁵ filled with coconut trees, in the shade of which a village has been built on the W side of the island. When we drew near a crowd of people gathered around the village. Soon they approached in their canoes and, keeping well clear of the sloops, were completely unwilling to come aboard. The darkness of night soon concealed the island and people moved away. The next morning at daybreak we tried to get closer to the shore. Once more the inhabitants came out on 30 canoes and this time they decided to take hold of ropes lowered from the stern of the sloop. We gave them various presents. Some held green coconut fronds, but were unwilling to come aboard. But when the sloop was near the shore and her people were busy changing tack, stones flew onto the sloop from all sides. A musket shot failed to curb their hostility. So I ordered someone⁶ to fire pellets into the backside of one of the ringleaders. That stopped the outbreak of fighting, and they carried the wounded man to the shore. I had no hope of making friends with such a people, which holds a peaceful palm frond in one hand and a stone ready in the other.

10th We continued past the Island of Beautiful People [de Gente Hermosa / Manihiki], discovered by Queirós, and suggested by Mr Burney to have

¹ Pōmare II, about 1774–1821.

² In 1817.

³ Vostok is now one of the Line Islands in Kiribati.

⁴ In 1722.

⁵ In the northern Cook Islands.

⁶ Midshipman Demidov (*TS*, 2: 60).

latitude and longitude but we saw nothing.¹ As the season was approaching for our voyage to the South, I decided to pass between the Friendly Islands and the Navigation Islands [Tonga and Samoa].²

11th I passed Danger Island [Pukapuka], so named by Mr Wallis.³

16 We passed around Vavau Island [Vava'u].

19 We discovered three more islands and one coral shoal; two of them small, with coconut groves [*Tuvana-i-Tholo*, *Tuvana-i-Ra*], and one with inhabitants, surrounded by corals and well cultivated [*Ono-i-Lau*].⁴ The inhabitants are very friendly and genteel. They are tall, keep their hair carefully dressed, and wear a waistband as throughout the Friendly Islands. They bartered with weapons, taro and yam roots.⁵

4 September We sighted Lord Howe Island.

9th We dropped anchor in Port Jackson. Here we were made much of by the Governor, Major General Macquarie, who presented me with a formal document on our arrival, by which he prescribed that the garrison should treat Russian officers with the same honours that they paid to English sea and land officers. He instructed the Royal Admiralty to offer all possible assistance, such as watering and storing with firewood. Other ships only get such facilities after agreeing to pay high prices, but they took nothing from us for all those absolutely necessary items, on top of which the Admiralty provided a timber for the step of the bowsprit on the sloop *Vostok*, which had to be replaced because it was rotten.⁶

On the coronation day of HIS IMPERIAL MAJESTY [15 September, O.S.] a salute was fired on both sloops as we broke out the prayer flag, and by order of the Governor a salute was also fired from the fortress in honour of the day. Furthermore in their separate capacities Port Captain Piper and Major Druitt⁷ each paid sedulous attention to the sloops of HIS IMPERIAL MAJESTY.⁸

¹ Pedro Fernandes de Queirós was navigator on the expedition commanded by Álvaro de Mendaña de Neira in 1606. James Burney sailed with Cook in the 1770s and then wrote a history of European exploration of the Pacific. Confusingly, the entry seems to imply, with its empty spaces, that Bellingshausen both did and did not have Burney's position for Manihiki with him (Burney, 1806, 2: 326). Perhaps he had it and hoped to enter his own figures instead, but then sailed south-west to Burney's longitude, which was 5° too far West, and so missed the island, which is only 35km south of Rakahanga. The sentence was omitted from the recapitulation in B10 and Manihiki is not on Bellingshausen's final list (Table 6.1).

² This paragraph was omitted by Samarov (1952, 1: 171).

³ The name was given by John Byron rather than Samuel Wallis.

⁴ The fleeing *Bounty* mutineers had secretly visited Ono-i-Lau in 1791, but the Russians were effectively the first Europeans to discover it. They spent three days there (*TS*, 2: 67–81) and Bellingshausen's two lists, prepared in 1820 and 1821 (Tables 5.1, 6.1), became the first European records of its name.

⁵ Samarov omitted the plants (1952, 1: 171).

⁶ To Bellingshausen's chagrin British craftsmen were also needed to make the repairs, which included replacing the bowsprit (*TS*, 2: 91).

⁷ Captain John Piper, RN (ret'd), was the colony's Naval Officer; Major George Druitt was its Acting Chief Engineer.

⁸ This paragraph, and all except the first sentence of the previous one, were omitted from the Soviet edition (Samarov, 1952, 1: 171).

Captain Lieutenant Zavodovskii and the commander of the sloop *Mirnyi*, Lieutenant Lazarev, continue to contribute to the service of HIS IMPERIAL MAJESTY by their zeal and diligence, contributing to and facilitating the voyage.

All the officers on both sloops, *Vostok* and *Mirnyi*, have contributed to a successful and fortunate voyage, showing their zeal and attention to duty, and looking after every detail. Mr Simonov the astronomer, and the artist Mr Mikhailov, each in his own field vying with the foreigners who made this voyage in the past, are outdoing their predecessors in zeal and skill.

Next, the sloops and personnel of His Imperial Majesty remain in good order and there are no men sick. In the course of the recent voyage we lost one man, a smith, who was sheathing the mainmast cap with copper when he fell onto an iron belaying pin at the knight beside the mast, and passed away after suffering for three days.¹

All which I have the honour to report to Your Excellency.
Junior Captain Bellingshausen

A Table of Longitudes and Latitudes, the precursor of one submitted with B10 at the end of the voyage (Table 6.1), was appended to B8. Translated here as Table 5.1, it listed only discoveries and observations from the expedition's recent work in the South Pacific. Perhaps because amendments to Cook's observations were better left to Simonov, as the expedition's astronomer, it contained no measurements for Queen Charlotte Sound or Tahiti. The blank line for the Danger Islands is puzzling, since a position was later given in *Two Seasons*. The entry was omitted in the final table (Table 6.1). So were Late Island and the last three items. This is, therefore, the only evidence that the expedition sighted Late and Ball's Pyramid. For the modern names of islands, priorities, and other commentary, see Chapter 6.

The overall longitude sign, East, was confined to the headers. The island between 9 and 10 could not be measured properly, due to sailing conditions, and its designation 'A' perhaps stands for 'annähernd' or 'approximate'. The value '½' for the lay or trend of islands means half a compass point, or 5°37'30". The circumferences of islands have been left in nautical miles without conversions. Apart from the title and the key, everything else in the table follows the original document.

¹ On the date of Gubin's fall, see Appendix 2.

Table 5.1 'Longitudes and latitudes of various islands'

Table of the longitudes and latitudes of various islands				
No.	Names of islands		Latitudes South	Longitudes East of Greenwich
	Oparo	Centre	27°37'40"	215°41'42"
1	Henry	Centre	19°13'50"	218°43'14"
2		N <	18°01'30"	218°59'48"
		Centre	18°12'10"	219°04'33"
3		S <	18°22'50"	219°12'28"
		W <	17°52'50"	219°09'31"
		Centre	17°49'20"	219°17'46"
		NE <	17°42'55"	219°23'13"
4		Centre	15°51'05"	219°08'04"
5		N <	15°42'15"	217°52'18"
		Centre	15°47'20"	217°49'08"
		S <	15°52'35"	217°45'32"
6		N <	15°55'45"	217°41'12"
		Centre	16°05'35"	217°37'42"
7		SW <	16°13'35"	217°30'27"
		Centre	17°42'40"	217°12'00"
8		NW <	16°18'45"	216°43'45"
		Centre	16°21'45"	216°50'41"
9		East. side	16°23'35"	216°58'21"
		W edge	16°27'35"	215°59'07"
		Centre	16°36'10"	216°14'27"
10	A	N <	16°36'40"	216°31'12"
			16°46'26"	215°44'10"
		SE <	16°31'25"	215°48'12"
		Centre	16°28'35"	215°42'27"
11		W edge	16°26'15"	215°36'22"
		NE <	16°47'45"	215°11'17"
		Centre	16°50'05"	215°07'07"
12		SW <	16°52'30"	215°02'02"
		East. side	16°46'10"	214°54'22"
		Centre	16°47'20"	214°46'22"
13		NW <	16°41'50"	214°40'37"
		SE edge	16°29'45"	214°38'02"
		Centre	16°20'40"	214°23'57"
		N <	16°04'50"	214°21'01"
14		E edge	16°00'40"	214°07'46"
		Centre	15°55'40"	213°59'36"
		W edge	15°53'35"	213°49'16"

Lay	Length	Width	Circumference	
E and W	6	3½	16	inhabited
N and S	3¾	1¾	8	uninhabited
NNW½W and SSE½E	24	6½	60	inhabited
NEbE and SWbW	17	7	42	inhabited
NEbN and SWbS	4½	3½	15½	inhabited
NNE½E and SSW½W	11½	3	26	inhabited
NbE½E and SbW½W	21	7	51	unin.
N½W and S½E	7	2½	17	inhabited
WNW and ESE	15½	5½	34	inhabited
WNW½W and ESE½E	32	5½	68	inhabited
NWbW and SEbE	12½	6½	30	
ENE and WSW	11	3½	25	inhabited
WNW½W and ESE½E	15	5½	38	inhabited
NWbN and SEbS	32	9½	83	inhabited
WNW and ESE	19	6	46	

(continued)

Table 5.1 Continued

No.	Names of islands		Latitudes South	Longitudes East of Greenwich
15		Centre	16°11'18"	213°38'04"
16		East. side	15°50'20"	213°28'01"
		Centre	15°46'10"	213°16'41"
		W edge	15°41'20"	213°05'36"
	Matea	W side	15°51'10"	211°39'29"
		Centre	15°52'35"	211°41'27"
	Krusenstern's	Centre	15°00'20"	211°44'27"
		E edge	15°01'10"	211°51'33"
		N <	14°55'15"	211°44'42"
		lagoon entrance	15°02'50"	211°36'52"
17		Centre	14°56'20"	211°14'47"
18		Centre	10°05'50"	207°37'15"
19		Centre	10°02'25"	198°51'49"
	Danger			
	Vavau	N cape	18°38'00"	186°00'35"
		E edge	18°43'05"	185°52'15"
		Centre	18°43'10"	185°59'00"
	Late	Centre	18°55'50"	185°21'00"
20		Centre	21°01'35"	181°15'40"
21		Centre	21°02'55"	181°09'30"
22	ONO	Centre	20°38'55"	181°16'00"
		Centre of high mountain	20°39'05"	181°15'05"
	Coral bank	Centre	20°45'00"	181°06'15"
	Ball's Pyramid	Centre	31°43'20"	159°19'49"
	Lord Howe	W <	31°2'05"	159°07'22"
		Centre	31°33'25"	159°08'54"

* of latitude (understood)

Key

b by (in compass points)

< tip or point

Lay	Length	Width	Circumference	
Circular	5½	5½	17½	uninhabited
WNW½W and ESE½E	23½	9½	54	inhabited
NWbW½W SEbE½E	4½	2	12	uninhabited
WSW and ENE	16	9½	42	uninhabited
WbN and EbS	5½	2	14	uninhabited
NWbW and SEbE	⅝	⅜	2⅛	uninhabited
NbE and SbW	2¼	¾	8	many people
NW and SE	11	4½ and 5½	34	inhabited
Ellipsoid	2¾	1¼	6½	
NWbW and SEbE	1	½	2¼	uninhabited
NEbE and SWbW	¾	½	2½	uninhabited
NEbN and SWbS	6½	3¾	15	inhabited
along the parallel*	4	2	10	uninhabited
NbE and SbW	4¼	1½	9½	uninhabited uninhabited

Junior Captain Bellingshausen

V1: Covering letter

No. 1614

received 22 June 1821

Noble Minister and Marquis Ivan Ivanovich! 19 (31) May 1821, London

I have received three reports, dated 21st October 1820, from Junior Captain Bellingshausen, Commander of the 1st Squadron of sloops, with which he forwards a package addressed to Your Excellency. Together with that I respectfully transmit to you, Gracious Lord, a package received from him in the same fashion and addressed to the Admiralty College.

With sincere regards and deepest devotion I remain
Your Excellency's humble servant,
Count Lieven

6

Second Season: November 1820 to August 1821

*It is impossible to put into words the joy which broke out
on every face at the cry of Land! Land!*

BELLINGSHAUSEN (1831)

Bellingshausen sent his last interim report (B9) by a fast packet boat from Rio, and it seems to have caught up with his previous one from Port Jackson (B8) at London. They arrived simultaneously at St Petersburg, where the Emperor had allowed his exhausted and recently widowed Minister of Marine, the indispensable 67-year-old Marquis de Traversay, to transfer his office permanently to his country villa. It was situated at Romanshchina near Luga, a small town standing in marshy country about 130km from the Admiralty and its Ministry. There ensued a flurry of couriers along the Smolensk road (T1), as the Minister prepared a report on the voyage, which might end at any moment. That document has also survived (de Traversay, 1821), but it is not translated here because it was largely based on Bellingshausen's interim reports (B7, B8, B9), with a few details, such as the names of recent discoveries, added from the final report (B10),¹ which the Minister received only a day or two before completing his summary on 9 August 1821.²

Not surprisingly, after what Bellingshausen and his clerk had been through by then, the report on the second Antarctic phase (B9) contained longitude sign errors. Most were put right in the final report (B10). That document, which has never been published before, amended many of the longitudes, named, and gave more precise positions for Peter I Island and the Alexander I Coast, and generally described the ice exploration of 1821 in greater detail. It also repeated Bellingshausen's claim to have discovered the Elephant and Clarence Islands group. The group lies to the north-east of the South Shetlands,

and had been seen and Clarence Island visited by Smith and Bransfield in 1820, but Bellingshausen did not know that at the time.

B9: Seventh report

No. 1591

22 June 1821

To the Admiral and Minister of Marine, the noble Ivan Ivanovich, Marquis de Traversay, from the Commander of the sloops of the First Squadron.

REPORT

March 5th, 1821, Rio Janeiro

After completing the preparation of the two sloops of the First Squadron, *Vostok* and *Mimyi*, at Port Jackson, the First Squadron weighed anchor on 31st October 1820 in order to make its second venture into the Southern Ice Ocean. To that end we took a route due south to begin with. On the way, on November 17th we sighted Macquarie Island, after surveying which I determined its location more precisely. We refilled our casks with water, and spent three days off the island under sail. From there we headed south again and met the first ice fields on November 28th at latitude 62°20' S, longitude 164° E. Entering them, we continued the voyage in the Ice Ocean, for the most part among ice fields. We continued it in adverse weather, such as murk, fog, and snow, of which there is no shortage in those waters. Several times our approach towards the Pole was obstructed by heavy ice.

However on 11 January 1821,¹ while tracing the limits of continuous ice, I encountered an island in latitude 69°, longitude 90°30' E [W].² It was completely covered in snow and ice and surrounded by several miles of continuous ice, and it was impossible to reach it.³

We met nothing until 17 January. But on that day in latitude 69°, longitude 73° E [W], in beautiful clear weather, we sighted a high cape trending north from a coast that was likewise covered in snow and ringed with continuous ice out to 40 miles [74km], which barred any further reconnaissance of it.⁴

I surveyed the newly discovered land called New Shetlandia from the south side, and found that it consists of several islands, like Zandwich⁵ Land which was discovered by Mr Cook.

On 27, 28 and 29th January we were engaged in surveying a group of islands which had not been seen by anyone before, so that I consider them to be another new discovery. Their longitude is 55° E [W], latitude 61°10', in number seven islands.⁶

¹ Perhaps a nautical rendering of the afternoon of ship's date 10 January 1821 (actually 9 January (O.S.)). It was amended to 10 January, the civil ship's date, in the final report (B10) and in *Two Seasons*.

² Samarov (1952) amended the longitude sign errors in this report without comment.

³ Peter I Island.

⁴ Alexander I Coast.

⁵ B9 and B10, in which this spelling accidentally reflected Bellingshausen's German accent, seem to have been dictated to someone other than Rezanov.

⁶ Probably O'Brien, Eadie, Aspland, Gibbs, Elephant, Cornwallis and Clarence.

Throughout this passage the crew of the sloops *Vostok* and *Mirnyi* have been in much better health than last time. But the sloop *Vostok* has taken some damage at the bows from collisions with the ice, which is the more significant because it was inflicted below the waterline. We reached Rio Janeiro road on 27 February.

I am not sending a chart of our passage because of the risk of it falling into the hands of rebellious corsairs, who plunder smaller vessels indiscriminately.¹

I am not enlarging on the details of the voyage because I hope to return to Kronstadt before this report.

Further to which I feel obliged by my responsibilities, especially in view of the confidence reposed in me through selection to command an expedition of such importance, to recommend to Your Excellency Captain Lieutenant Zavodovskii, who has steadfastly collaborated in the tasks that faced us during the voyage, and likewise Lieutenant Lazarev, who has earned the high distinction that, throughout two passages at the South Pole, and in constant adverse weather such as murk, thick snow, and the numerous gales that suddenly overtook us amidst crowded ice islands, he never parted company, the like of which has never been seen in the history of voyages, whether foreign or our own. I therefore recommend these talented naval officers to Your Excellency, and count myself fortunate to be able to present you with an opportunity to offer encouragement to such excellent officers. The rest of the officers have likewise, each in his post, carried out their work with exceptional care and application, as the intact condition of the spars testifies, both those in use and those in store which I hope to carry back with me to Kronstadt.

The which I have the honour to report to Your Excellency.
Junior Captain Bellingshausen

T1: Memorandum

27 June

To His Exc. K.M. Kudryavtsov

Romanshchina, 23 June 1821

The Minister requests Your Excellency to collect and transmit the following to Romanshchina by the first available courier:

1. All reports from Captain Billensgauzen's fleet since their departure from Kronstadt harbour to the present;
2. Copies of the notes based on those reports that have been sent to His Imp. Majesty from time to time;
3. The charts appended to those reports that were passed to the Admiralty Department.

These papers are required by His Excellency in order to assemble some short extracts about Mr Bellingsgauzen's voyage from Kronstadt to the South Pole and back to Kronstadt.

¹ For cooperation between insurgent Spanish colonists and pirates, see Gareis (2000).

Bellingshausen repeated large parts of the interim reports in his final report (B10), which may have been penned by someone other than Rezanov. Small changes of wording in those sections, whether made by Bellingshausen or the clerk, may have been unintentional. There are also significant additions and clarifications, and several amendments to longitudes. The author has tried to replicate repeated wordings exactly, especially in key passages, so that any variations are authentic. Since readers are just as likely to consult this book as to read it through, most footnotes have been repeated.

B10: Final (eighth) report

To the Minister for the Navy, Admiral Ivan Ivanovich the Marquis de Traversay
From the Commander of the sloops of the First Squadron Senior Captain
Bellingshausen.¹

REPORT

24 July 1821

[Outward bound]

On 20th July 1819 at Copenhagen, after preparing and loading everything necessary, I set sail. On 30th July of the same I arrived at Portsmouth road.² Having observed during the passage the inconvenience of the boarded gunports that were provided, I decided it would be better to convert them to hanging ones, and thereby preserve the health of the men, who would always be kept dry.³ I provided myself with the instruments and various requirements in London, but there too, just as at Copenhagen, I was unable to track down a naturalist.

On 28th August the First Squadron set out for Tenerife, where we arrived in good order on 14th September and took on a supply of wine. After remaining 5 days we set out for Rio Janeiro where we arrived on 2nd November. After taking on water, firewood, rum and fresh provisions, overhauling the rigging, and caulking the sloops, on the 22nd of the same I set out for the south, setting

¹ Bellingshausen was promoted senior captain on 10 June 1821, soon after the reception and part publication of his first report from Port Jackson (B7).

² Probably a nautical date for the evening of 29 July (O.S.).

³ Apparently the gunports were originally protected from the sea only with the type of covers known as half-ports. Even if there were both hinged lower, and lashed upper half-ports, the usual arrangement, they would have been less than waterproof. Bellingshausen had them replaced with more effective port-lids, hinged door-like covers mounted above the gunports on the outside of the ship and fitted with raising tackles. Whether they incorporated glass 'illuminators' to admit some light when they were closed, as best practice demanded, and whether the Russians received any help from Portsmouth dockyard, is not known. Nor is it known whether *Mirnyi's* gunports were also upgraded, as one might expect. Bellingshausen's throwaway remark in B1 suggests not.

a bearing to George Island. I took a route between the routes of Captain[s] Lapérouse, Vancouver and Colnett, who had searched for Grande Island, so that by means of the route selected I might also be able to survey the place in question for my own part.

[First season]

On 4th December upon reaching latitude South 41°10' longitude 41°52' we met a quantity of sea birds flying in flocks, as well as a few clumps of seaweed.¹ However no reliable signs of land appeared.

On 15th of the same December we sighted Wallis [Willis's] Island which lies on the western side of George Island, the northern sides of which had been surveyed by Captain Cook. In order to complete the survey of George Island, I went around by the southern side. I made the survey and connected my track to Captain Cook's track at the eastern extremity of George Island. The which consists of sharp-peaked rocky mountains, covered in snow, and between the mountains deep valleys filled with ice right down to the sea. On the southern side six bays were visible. We had bad weather for the survey, with snow, which often obliged me to stop surveying the shore. There is not a growing thing of any sort upon that shore. Whalers of various nations conduct their hunt on the island, extracting the oil of sea elephants.

After midday on the 17th I departed George Island,² and making use of a very fresh NW wind I ran down to Zandwich Land. En route, lying in latitude South 56°13' longitude 31°46' E [W], we sighted the first ice island, with a height above sea level of about 200 foot [61m] and a circumference of up to two miles [3.7km].

Until 22nd December we sailed on past small ice islands and floating ice. But on that date at 10 o'clock in the morning we sighted an island with a circumference of 3¼ miles [6km]. It consists of a rocky, sharp-peaked ridge and lies at latitude S 56°41'30" longitude 28°11'24".³ During the night of 22nd to 23rd we sighted land ahead from which we turned back. At daybreak the land was revealed as an island, the summit of which was hidden in clouds, with a circumference of 12¾ miles [23.63km], covered in ice and snow.⁴ Its latitude is S 56°44'10" longitude 27°16'20". At 10 o'clock in the morning of the same day, in the murk, we sighted thick smoke to the north, like a cloud. I laid a course to that bearing and at 4 o'clock after midday, having closed it, we sighted an island with a circumference of 7¾ miles [14.36km] and

¹ In *Two Seasons* the sighting of seaweed, and its potential significance, were transferred to the entry for 8 December 1819 (O.S.) (*TS*, 1: 121).

² Simonov, using the civil calendar in his journal (S1), gave the same date for this afternoon event. That suggests that Bellingshausen generally used the civil calendar in his reports. Another example, 'the night of the 22nd to 23rd', follows in the next entry.

³ Leskov Island, named for Lieutenant Arkadii Sergeevich Leskov of *Vostok*.

⁴ Vysokoi ('High') Island, originally named for Lieutenant Konstantin Petrovich Torson of *Vostok*, but renamed after Torson was found guilty of complicity in the Decembrist succession plot of 1825 and exiled to Siberia.

a volcano.¹ Continuous thick smoke was venting from its crater. The whole island, from the margin halfway up its height, was covered with penguins.

On the morning of the 24th I sent Captain Lieutenant Zavodovskii to investigate whether there might be an anchorage. At midday the jolly-boat returned and Mr Zavodovskii reported that the island was covered from sea level to halfway up the mountain with two species of penguins sitting on their eggs. Among the penguins they had seen other sea birds called Port Egmont hens by Mr Cook. The shore consists of rock rising 20 to 30ft [6 to 9.14m] directly from the sea. Inland it is covered in fine ash, sand, and small pebbles. I think it fitting to name these three islands, discovered at the outset by myself, after one who concerned himself with commissioning this expedition and supplying it with everything useful in great abundance. For that reason I named them the Marquis de Traversay Islands. While surveying that last island we had very fine weather, horizon well-defined, and could see a long way. But nothing could be seen any further to the north. I set a course to Sandwich Land.

At daybreak on the 27th we sighted the two islands that were called Candlemas by Captain Cook, which lie in latitude S 57°10'45" longitude W 26°50'. On the 29th we sighted Saunders Island. It is 17 miles [31.50km] in circumference and there is a smoking mountain on it. And the following day we passed the land named Cape Montagu by Captain Cook, which is also an inaccessible rocky island, circumference 28¼ miles [52.35km]. On the 31st we sighted land, the western cape of which was called Bristol by Captain Cook. But on that day and the following, 1st January 1820, we tacked through darkness, thick snow and foul weather among ice floes and ice islands, which we were more likely to collide with than avoid, but we judged the tacks by ear, the noise of the breakers around the ice floes being an accurate gauge of their proximity.

On the 2nd the weather improved and we rounded Montagu [Bristol] on the eastern side; it is 19 miles [35.21km] in circumference. On the same day we sailed on to the south among ice floes. Towards evening we sighted the land named Thule by Captain Cook. On the following day we continued the passage in scattered showers among frequent ice floes which had continuous ice to the east. As we passed that shore, we made out that it comprises two islands and a third small island.²

Both the land discovered by us, and that which Cook named Sandwich Land, are islands. They all contain high mountains whose summits are covered with snow, and their slopes and gullies are filled with ice down to the sea, and several

¹ Zavodovski Island. Its coordinates, given in B7, may have been omitted by mistake.

In December 1819 Bellingshausen appears to have set about naming geographical features after selected quarterdeck officers of the squadron in reverse order of rank, starting with Cape Paryadin on South Georgia, after *Vostok's* master. However some senior officers, such as Lieutenants Ignat'ev and Obernibesov, were never honoured in that way. (Mount Ignat'ev on the Antarctic Peninsula was named recently and after someone else.)

² The smaller, eastern member of the group was later named Bellingshausen Island.

contain smoking volcanoes. On all those islands nature is thoroughly chilled and produces nothing that grows. Penguins live on some of them.

We met ice islands very frequently while sailing off those islands. But as we passed Bristol Island we sighted an ice field to the east, across which were scattered a multitude of ice islands of varying size and shape. I sailed on south along that field and through belts of small ice and scattered [ice] islands, during which it was impossible to avoid some collisions with ice, with the aim of discovering whether there was a continuation of those [Sandwich] islands, and to get south as far as possible and then set a course to the east.

On the 4th, however, reaching latitude S 60°39', I still saw continuous ice to the east. And there, not only in that quarter but also to S and SW, I met an ice field across which were scattered a great many ice islands in various shapes. Viewed from the crosstrees the field was unbroken to the visible horizon – weather clear, horizon well-defined. Confronted by such circumstances, and being surrounded by ice floes the whole time, I was unable to continue the passage to south nor to east. In order to move out of so dangerous a situation I set course to the west. Then in order to pass around the extensive field, which seemed to me to have begun near Bristol Island, I took a course along the western side of Thule and Bristol Islands.¹

Passing between Bristol and Montagu I set course east, continued the passage within the ice floes and tried constantly to keep towards the south. But the further south I went, the more ice islands I met. Between the 8th and the morning of the 9th, in murky weather, we entered ice fields and small ice. It was impossible to turn directly back [west], because the wind was very high. So we set ourselves a course among the fields and small ice that trended north, in order to come out of the ice.² There we took a few light blows from the small ice, by which some of the copper was stripped from the bows. The sloop *Mirnyi* smashed her stem, but fortunately no leak appeared.

Continuing the passage until the 11th, when the [ice] islands became less frequent, I began to make to the south. In a heavy overcast and fogs I held on south, meeting ice floes only seldom. On the 16th, having reached latitude S 69°25' longitude 2°5' W, I met continuous ice at its fringes, with one [piece] being flung against another, and further off a few [ice] islands scattered in various positions [Map 4; Figure 5].

From that point I was resolved to sail east in sight of the ice, in order to take any opportunity to get further south. But a contrary wind from E prevented me from fulfilling my intention. After tacking a short way east from the 19th to 20th, I once more set course S. But that time also I met continuous ice, at latitude S 69°20' longitude W 0°46'. The contrary wind continued blowing from the east. In view of the tenacity of the east wind I eased into a slightly lower latitude, in hopes of getting a west wind the sooner, such as dominates the middle latitudes.

On 1st February, lying in latitude S 64°30' longitude 16°00', and having gained 17° east, I once again moved south in an east wind, and eventually, between the 5th and 6th, I reached latitude S 69°7' longitude E 16°26'. There beyond small continuous ice and [ice] islands main ice could be seen, the edges of which were

¹ Sailing northwards.

² The wording suggests that he consulted Zavodovskii and Lazarev.

perpendicular and which, extending south to the limits of our sight, rose up into hills like land [Map 5]. The flat, high [ice] islands near the main clearly show that they are fragments of the main since they have edges and upper surfaces which resemble the main.¹

From the 7th I moved south again but that time I met ice floes sooner. Moreover the further one proceeded south, the more the winds turned easterly. For that reason, in order to increase our longitude I again moved north in an east wind in order to pick up westerly winds and then once more make a drive to the south.

On the 14th, lying in latitude 66°54' longitude E 40°57' and in sight of a few ice islands, I could see no continuous ice. There a heavy swell from NW in very calm weather obliged me to retreat somewhat north. But on the 18th a gale suddenly got up from the E which carried us even further north. That ruined my plan, which had been to reach the latitude at which Captain Cook met the ice fields,² survey their position, and then run down the parallel eastwards, bearing south wherever possible.

The high wind continued until the 21st, but from that date the wind allowed us to resume the passage eastwards, and I continued it along a parallel between 62 and 63° South latitude until 27 February, with high winds as well as an almost uninterrupted murk with snow and frost for most of the time. On the way, I met ice islands of various sizes every day. From the 27th to 1st March it pushed us somewhat north with a SE wind. But from that date to the 4th I sailed eastwards between the ice islands in high south and south-west winds, with snow, constant murk and frosts as familiar companions.

On the 4th in latitude 60°30' longitude E 85°8' I met with an increasing number of ice islands, between which the sea was filled with numerous pieces of ice, so that it was constantly necessary now to bear up, now to luff, in order to pass them. It was a passage with the season drawing on and the nights growing longer, when sailing was extremely dangerous and could even be disastrous. The thick murk and almost unremitting snow often prevented us, even in the middle of the day, from making out objects further than 50 sazhens [91m] away. Furthermore the equinoctial season was approaching, during which there are gales for much of the time and it would be impossible to avoid disaster while remaining among the ice fields. Within which I had held a course for about two weeks on end, watching the ice islands constantly increase, with a large amount of floating ice appearing between them.

Moreover our passage had taken 104 days, during which the men had endured great hardship, both from the constant high winds and from the dark, foul weather. With snow falling very often the larger part of the sails and rigging were

¹ In *Two Seasons* (1: 188–9) the coordinates were omitted and the event was dated to the afternoon of (civil) 5 February (O.S.). The ice was first sighted before midday, so that the dates given here may be a nautical rendering of a single day. As noted by Debenham (Bellingshausen, 1945, 1: 128), this was the expedition's first fleeting encounter with what would nowadays be considered part of the Antarctic mainland.

² On 17 January 1773.

iced up at that time. The result was that even steering the ship itself became not just heavy, but extremely laborious.

All those considerations, but mainly the crowded ice floes that we were meeting and the lengthening nights, constrained me to forsake the higher latitudes and make for lower ones. But in order for the next passage to be of service to seafarers, or for hydrographic observations, I determined to survey a great expanse of the ocean across 50° of longitude and 10° of latitude, bounded by the tracks of Captains Cook and Furneaux, and hitherto unvisited by anyone. For that purpose on 5th March I instructed Lieutenant Lazarev to pass south of Captain Furneaux's track by 2½°, and myself laid a course to the north of Captain Cook by the same number of degrees. I had decided by this means to sweep for Company Island, discovered by the Spanish, which appears on Arrowsmith's map to the south of Vandiemèn.

On 9th March I endured such a strong gale that it was impossible to set a sail, and I found myself then in an extremely bad situation among the ice fields. On the 10th I had storm course-sail [wind]¹ and made between the ice islands. From that date to the 14th I had strong winds. On the 14th it became a storm, which rendered a passage among ice fields a pretty unpleasant one. On the 16th we suffered a great gale, but fortunately it did not last long. From the 21st to 22nd, running down the parallel of Company Island and beyond it to the east, I saw nothing. Likewise Lieutenant Lazarev, passing near the same place, did not sight it. I conclude, therefore, that the latitude of that island was not taken accurately, or that the island simply does not exist. On 30th March I reached Port Jackson.

I had no one seriously ill during the voyage or on reaching Port Jackson.² That could not have been so, had we not been so well and so abundantly supplied both with clothing and with all such necessities as are conducive to health. While in high latitudes the sloop *Mirnyi* lost one seaman who contracted nervous fever [typhoid].³ The passage lasted 130 days.

I met with no signs anywhere of a great southern land, although I held most of my course beyond the polar circle or near it, as much as the winds allowed. But if it does exist, it must lie far inside the ice fields and be covered by them. For that reason there is no way to detect it.⁴ During this time the barometer never rose higher than 29.35 [in], which betokened the finest weather. The thermometer stood at freezing and below.

I was unable to visit the Auckland Islands, both because the season was growing late and because of the gales I had endured for 17 days after the equinox, which clearly weakened not just the health of the men, but equally the sloop herself. Moreover the excessively long passage, such as none of the famous navigators had

¹ Perhaps about 34–40 knots, or Force 8.

² In view of the sentence after next, this must have been meant to apply only to *Vostok*.

³ Fëdor Istomin, on 21 February 1820 – see Appendix 2.

⁴ This passage reflected, too closely for coincidence, the thoughts of Bellingshausen's illustrious predecessor: 'I had now made the circuit of the Southern Ocean in a high latitude, and traversed it in such a manner as to leave not the least room for the possibility of there being a continent, unless near the Pole, and out of the reach of navigation' (Cook, 1777, 2: 239). See also Figure 7.

made before in those waters, checked my boldness in a matter that might have extended the passage and placed burdensome pressures on the crew.

[Pacific voyage]

On arrival at Port Jackson an overhaul was set in hand, to restore the rigging, complete the caulking,¹ repair the copper at the bows that had been torn off by ice, and strengthen the bowsprit step together with the knees which had been split in the storm.² They hauled the sloop *Mirnyi* ashore at high water in order to patch³ or repair her stem, shattered by blows from the ice. The head of the English colony, the Governor, Major General Macquarie, gave us every possible assistance, both with timber for repairing *Mirnyi* and by letting us cut wood, and he gave orders to provide us with as much coal as we wanted – free of charge.

On the 8th of May both sloops were at full readiness. We weighed anchor and set course for the north side of New Zealand. From that time to the 23rd I had uninterrupted adverse NE winds with storms, which carried our sloops into higher southern latitudes. With no hope of finding favourable winds at that time of year, I decided on the 23rd to pass into Captain Cook's Strait, which divides New Zealand. On the 24th I sighted Mount Egmont; on the 28th we entered Queen Charlotte's Sound. Our stay there was all the more pleasant for us, because we succeeded in gaining the affection and friendship of the inhabitants. As they parted from us they requested us most heartily to come back to them again.

I hauled the rigging taut and filled with water there, and on 4th June both sloops weighed anchor. In the channel we suffered violent storms until the 9th, on which date we passed out of the Strait. We laid a course past Oparo Island [*Rapa*],⁴ which I tried to approach along a previously unused course. At daybreak on the morning of the 29th we sighted Oparo Island (discovered by Captain Vancouver) but were unable to close it because of a calm. The inhabitants of that island came out to us on their outrigger canoes. After coming on board, they tried to sell us a fermented dough wrapped in leaves, taro root, and also shellfish. The inhabitants prepare the former for keeping and use it instead of bread. The inhabitants are very tall, solidly built, and agile. Theft appears to be held in high regard among them. The calm continued and we could not close the island. On the following day, 30 June, the inhabitants came out again. On both days they received hatchets, knives, mirrors etc. from us as gifts, also various textiles and medals. Their main interest lay in stealing iron. Due to the calm we could not get closer to it than 6 miles [11km].

So as not to lose time to no purpose, I set course slightly to the east of the Society Islands [Tonga]. Until 5th July nothing was encountered. At daybreak on that day we caught sight of a low-lying island. Closing to a distance of ½ mile [900m], I sent an officer, who reported that it was a coral island which had

¹ The phrase suggests that the work had not been finished properly at Rio.

² The bowsprit step reinforced the shallow mortice joint in the foremast which received the foot of the bowsprit. Knees were strong, curved pieces of timber or metal used as brackets in many parts of the ship.

³ Literally 'to stop up', as with a leak.

⁴ Barratt's identifications of islands are once more followed and shown as in Chapter 5.

a lagoon in the middle. There were bushes and trees in a few places. Its location was determined as latitude S 19°13'50" longitude W 141°16'46". I took it to be [Prince William] Henry Island [Nengonengo], discovered by Mr Wallis.¹ From the following day, July 6th, until the 19th, discovery was made of 16 more islands,² the longitudes, latitudes and sizes of which are shown in the table appended at the end of this report [Table 6.1].

There are signs of inhabitants on almost all of them, but they appear to settle only on those which have coconut trees. The rest are visited by hunters from other neighbouring islands. On the settled islands the inhabitants ran along the shore armed with pikes and short weapons. They were of medium height, dark coloured and lean, with their hair tied in bunches. The men wore a waistband, but the women wore the waistband and matting down to the knees, and they too were armed with spears.³

When we did approach the shore,⁴ the whole community walked into the water up to their knees, gesturing with their spears, to prevent us from disembarking. However much we tried to gain favour with them, by throwing various artefacts, presents and medals, which they picked up, still they would not let us disembark. Even when I gave the order for a musket to be fired over their heads, the women all threw themselves into the bushes but some of the men, though startled, [remained] in place. A second shot produced a new spectacle they all entered the water and at every shot they poured water over their bodies. They saw the fire coming out of the guns and thought they had found a way to protect themselves against the fire by plunging in the water. That shows that hitherto the inhabitants of those islands have not seen a single European and that the effect of European weapons is unfamiliar to them. Even when a ball was fired over their heads from the sloop, they all fell down, but soon afterwards took heart and started to taunt us that we could not do them any harm. At the sight of so much stubbornness, born of ignorance, I postponed their better acquaintance with Europeans.

The last two islands in that tally belong to the glorious navigator Captain Cook.⁵ All those islands have a lagoon in the middle. Their shores are overgrown in places with trees and bushes. Several have coconut trees. From there I set course for Taiti Island [Tahiti], in order to tie in all the islands with Otaiti Island,

¹ In *Two Seasons* (1: 347) Bellingshausen revised the identification to Cumberland Island (*Manuhangi*), discovered by Wallis.

² One more than in B8.

³ The waistband was a breechclout (*maro*) made of a long strip of bark cloth (*tapa*) and worn by both men and women. The distinctive female garment was a short skirt (*pareu*) of the same material. The term 'waistband' reflects a similarly vague Russian word.

⁴ This passage describes an attempted landing at Amanu Island on 8 July 1820 (O.S.). The Russians approached in boats, and their hostile reception was dramatically illustrated by Mikhailov (Petrova, 2012: 50–1).

⁵ The expedition sighted Toau and Kaukura, discovered by Cook in April 1774, shortly before visiting Makatea. Bellingshausen's remark is confusing because according to both his tables (Tables 5.1 and 6.1), the Russians discovered a previously unknown island, Niau, between sighting Toau and Kaukura. In which case the 'last two' islands before Makatea were *not* both discovered by Cook.

which is well determined, re-check the chronometer, refresh the people, and fill the hold with water.

On 20th July we approached Matea [*Makatea*] Island and saw, on its western shore, four people who were holding a little mat on a long pole and waving to us. I gave the order to heave to, and sent a boat in to the shore. Four boys who met the skiff threw some coconuts into it. The officers saw no one else when they went further inland, but just when they started to return the boys threw themselves into the skiffs, a pair in each.¹ When they brought them to the ship they told us, in mime, that [people] had eaten all their comrades, but they had hidden themselves in the scrub.

22nd July Having arrived at Cape Venus I received a letter in English from King Pōmare, written by himself, with the following contents: 'It will be a great pleasure for me to see you and your ships in Matavai Harbour. For that purpose I have sent pilots in the same canoe.' Both sloops immediately entered the bay and came to anchor. Both sloops were quickly filled with crowds of people of both sexes with fruit, hens and vegetables. The extraordinary integrity and friendliness of the Tahitians soon charmed us all and made our stay there very pleasant. I left the 4 boys we had brought on Otaiti Island. The islanders all adopted the Christian religion in 1815.

27th Both sloops were already at full readiness for sea and weighed anchor that evening. We set course north with the intention of passing next between Deans and Krusenstern Islands [*Rangiroa* and *Tikehau*], which were surveyed by Lieutenant Kotzebue,² in order thus to tie those islands in more closely with Cape Venus on Otaiti and with my discoveries, and so make a fundamental determination of all the islands surveyed to date.

30th July I passed through the strait between Krusenstern and Deans Islands at a distance of one and ½ miles Italian [2.78km] and had very fine weather for fixing their position. After rounding Krusenstern Island completely I set course west and shortly sighted yet another small island which had not been sighted before. We completed its survey that evening. That island too is coral, overgrown with forest and with a lagoon in the middle. No inhabitants. I named it Lazarev Island [*Matahiva*] for the commander of the sloop *Mirnyi*, the companion of the sloop *Vostok*. From that island I set course N.

August 3rd We sighted a small island [*Vostok*],³ covered in forest and full of frigate birds and cormorants, which I have named VOSTOK ISLAND after the sloop on which I am making this voyage. From the 5th to 6th we ran down close to the parallel of 10° south latitude where Roggeveen discovered Tienhoven Island,⁴ but we sighted nothing.

7th We discovered another island with a lagoon [*Rakahanga*],⁵ the shores of which were overgrown with coconut trees, and in the shade of which, close to its western cape, there is a village. As we drew near, people ran along the shore,

¹ Bellingshausen omitted to mention that Lazarev had also sent a boat. The event became slightly clearer in *Two Seasons* (1: 390–1).

² In 1817.

³ Vostok is now one of the Line Islands in Kiribati.

⁴ In 1722.

⁵ In the northern Cook Islands.

trying not to fall behind the sloops. All were armed with spears. Soon about 20 skilfully made outrigger canoes surrounded us. They had [...] in their hands,¹ but some had picked up branches, which were a sign of peace. All the same, however, not one of the inhabitants was willing to come aboard the sloop or even take hold of the rope which we sent down to them. Night fell swiftly and the inhabitants went back to the island.

I held near the island until the following day and from the morning I tried to keep in closer to the shore. Once more the inhabitants came out on 30 canoes and this time they were prepared to take hold of the ends of the ropes let down from the stern. I gave them various presents and they took them eagerly, but were not pleased with the iron hatchets. However when we showed them how a hatchet was used, and augers, they were really pleased. Apparently iron was unknown to them. In their proportions the inhabitants of that island are between a medium and tall height, their cheekbones protrude, their colour is close to that of Otaitians. The hair on their heads falls to their shoulders, but some of them dress it in the Peruvian manner.² At the neck and in their ears they wear [objects] skilfully crafted from sea shells. Around the body they wear a waistband, as all the islanders usually do. On the face, skilfully crafted masks which they lower and keep at the neck when not required.³ When the sloop *Vostok* approached the shore and her people were busy changing tack, stones flew onto the sloop from their canoes. I gave the order for a blank shot to be discharged from a musket, but the gunfire only emboldened them. After that I gave the order to wound the next offender in the backside with pellets. That put a stop to things. Some left, but the remainder drew slightly closer again. After that I had no hope of making friends with such a people, which takes a peaceful branch in one hand, but a coral rock in the other. The island lies in latitude S 10°2'25" longitude 198°51'49" E, with a circumference of six miles [11km].

I maintained a course to W until the 11th, when it became necessary to consider returning to New Holland [Australia], so as to have the time to make fresh preparations for the South Pole. I had decided to replace the bowsprit step, which was in a very poor state, at that point. To that end I set course 1° and 1½° East⁴ of the track of the French navigator Mr Lapérouse, leaving the Navigation Islands [Samoa] and Fiji downwind. On that same day, the 11th, I passed Danger Island [Pukapuka], discovered and so named by Mr Wallis.⁵

On the 16th I rounded Vavau Island [Vava'u] on its northern side. On the 19th we discovered three more islands and one coral shoal; two of them small with coconut groves [*Tuvana-i-Tholo*, *Tuvana-i-Ra*], and one rather hillier and inhabited [*Ono-i-Lau*].⁶ It is also surrounded by corals and well cultivated. Its

¹ A word such as 'rocks' or 'spears' was omitted at a line-break.

² Probably a reference to braiding; Lazarev had visited Peru in 1816.

³ Visors for protection against sun or rain.

⁴ Although written in the singular this may have been a mini-separation, the more so since *Mirnyi* reached Port Jackson a day behind *Vostok*.

⁵ The name was given by John Byron, rather than Samuel Wallis.

⁶ The fleeing *Bounty* mutineers had secretly visited Ono-i-Lau in 1791, but the Russians were effectively the first Europeans to discover it. They spent three days there (*TS*, 2: 67–81) and Bellingshausen's two lists of discoveries, prepared in 1820 and 1821 (Tables 5.1, 6.1), became the first European records of its name.

inhabitants are very friendly and genteel. They are tall and well-proportioned, keep their hair carefully dressed, and wear a waistband as throughout the islands. They bartered with well-crafted weapons, taro and yam roots, and cloth; they are quite skilful. The king of that island visited the sloop *Vostok*.

On September 4th we ran past Lord Howe Island and on the 9th we dropped anchor in Port Jackson. On our arrival at Port Jackson the Governor, Major General Macquarie, presented a document in which he stated that he had ordered the garrison to treat Russian officers with the same honours that they paid to English sea and land officers. He instructed the Royal Admiralty to offer all possible assistance, whatever was required — anything I needed and could not have managed for myself without the assistance of artificers from the port.

On the coronation day of HIS IMPERIAL MAJESTY [15 September (O.S.)], a salute was fired on both sloops as we broke out the prayer flag, and simultaneously the same number of guns were fired by the fortress. And the Governor sent to inform us that it was done in honour of the day. Furthermore in their separate capacities Port Captain Piper and Major Druitt¹ each paid sedulous attention to the sloops of HIS IMPERIAL MAJESTY.

On our arrival at Port Jackson we once again made ready for a passage in the Southern Ocean. The bowsprit step on *Vostok* was replaced because it was completely rotten.² Apart from the carronades required for signalling we struck the rest of the guns down into the hold, shortened all the yards, and reduced the sails.

[*Second season*]

On 31st October 1820, with both sloops of the First Squadron, *Vostok* and *Mirnyi*, at full readiness for sea, we weighed anchor in order to make a second venture into the Southern Ice Ocean. To that end we took a route due south to begin with. On the way, on 17th November, we sighted Macquarie Island, after surveying which I determined its position more accurately. We filled with fresh water and stood off the island for three days. On the night of the 17th at 9 o'clock in the evening, lying under sail off Macquarie Island, we felt a shock produced by an earthquake. Macquarie Island is 17 miles long [31.50km] at latitude S 54°39' longitude 158°41'. Nothing at all grows on it apart from grasses. Because it is low-lying its shores provide a welcome resting place for sea elephants, which are there in great numbers, also penguins. As for land birds, there are small parrots and a species of hen.³

From there we headed south again, and met the first ice fields on November 28th in latitude 62°20' S longitude 164° E. After entering them we continued the passage in the Ice Ocean among ice floes, holding always to the south.

On 30th November we reached a field of ice at latitude 65°10' longitude 170° E. Keeping close to its edge we sailed east, which diverted us north. From 3rd to 4th December we had violent gales with snow, such that we could not see further than 50 sazhen [91m].

¹ Captain John Piper, RN (ret'd), was the colony's Naval Officer; Major George Druitt was its Acting Chief Engineer.

² To Bellingshausen's chagrin British craftsmen were needed to make the repairs, which included replacing the bowsprit (*TS*, 2: 91).

³ *Two Seasons* mentions the great skua, or 'Port Egmont hen'; the only parrot on the island was the Macquarie Island parakeet, now extinct.

7th December The weather and the ice fields allowed me to set course SSE again.

10th In latitude 66° longitude 171° W the fields of ice prevented me from holding on due south. I continued the passage among the ice floes and ice fields, making somewhat to the south in fine weather. Those ice floes were of various forms in small fields, and lay side by side. We scanned them from the crosstrees for an opening through which it might be possible to sail. All the floes were flat like those on the Neva when the river breaks up; there were very few [ice] islands.

On the 14th at latitude 67°20' longitude E [W] 161° it was no longer possible to make any further progress either south or east. Therefore I was obliged to look for a route north and work my way through it, in order to emerge from that labyrinth of ice. On the 16th, lying at latitude 65°45' longitude 150°30' W, I felt sure that I had already passed out of the ice fields. But instead of that, while we were sailing east at night continuous ice moved up to us, and we barely managed to tack. Thick snow and fog impeded the lookouts. Steering by ear and making north we passed several ice islands, but that evening we met an impassable field of broken ice. On the 18th the fog cleared slightly. At that point we found ourselves surrounded by 32 ice islands.

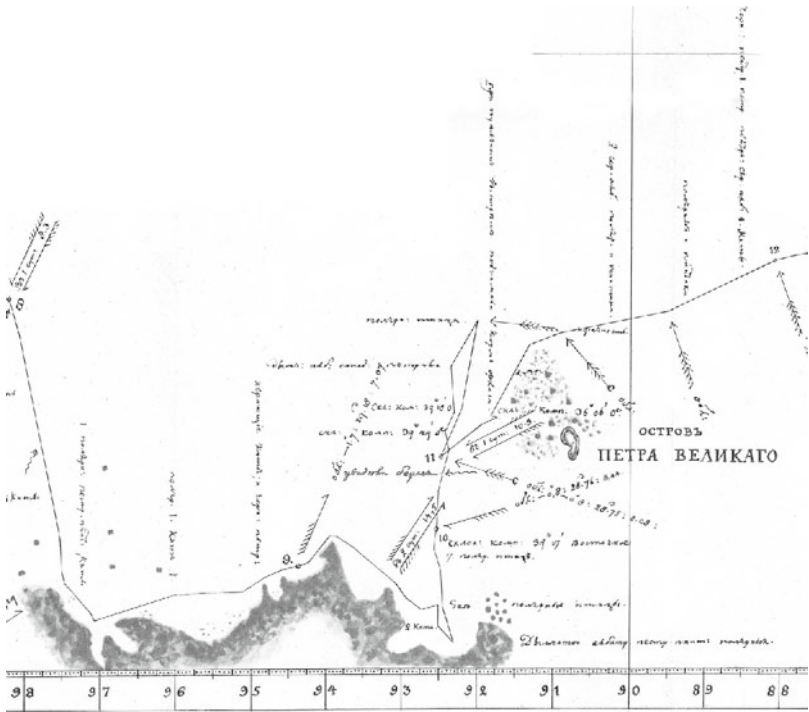
I set course east, thinking to continue our route through the [ice] islands, but we soon met a totally continuous field filled with islands, which were also scattered along the entire horizon in countless numbers. I therefore worked my way NW through the islands until evening, and after that I set course east again. And sailed with a continuous field to the south and numerous large [ice] islands to the north until the evening of the 19th, at which point foul weather with very thick snow obliged [me] to look for a clear space. For that purpose, holding on by the wind to NNW, I worked through by ear under all sail.

On the 21st we lay clear of the ice at latitude 61°10' longitude 154°25'. Then I set course east, so as to change the longitude somewhat and then attempt to make south in a new place. On the 25th I began to make somewhat south again, and from the 28th I passed more ice islands every day. At 4 o'clock in the morning on the night of the 28th to 29th, at latitude 64°40' longitude 126°40', we met continuous ice, after which I headed east again until 30th December when I again changed course to south, passing ice islands. From 31st December at 4 o'clock in the morning in latitude 66°55' longitude about 120° I met continuous ice formed from finely broken up ice, within which a few large [ice] islands were scattered about. The easterly that was blowing at that point would not let me sail further east, and so I turned back north.

On the 3rd lying in latitude 63°20' longitude 118°5' the wind changed. I set course east, so as once more to change the longitude somewhat, and then make yet another fresh attempt to move steadily south. On the 8th January, lying in latitude 68°10' longitude 95°25' and with little ice in sight, I set course due S, but yet again met continuous ice in latitude 69°50', the longitude was 97°10'. With the wind tending to hold us near the ice, we passed along it, the which was made up of small ice floes, jumbled one on top of another, with large ice islands at places within the field.

On the 9th, passing along continuous ice I once more reached latitude 69°51' in longitude 92°15',¹ where the ice fields trended NE. The wind turned

¹ The expedition's furthest south, amended to 69°53' in *Two Seasons*.



Map 6 Peter I Island — track of HIMS *Vostok*, 8–12 January 1821 (O.S.) (Belov, 1963, Sheet 13). The island is the kidney-shaped blob to the left of ‘ПЕТРА’; the rest is ice

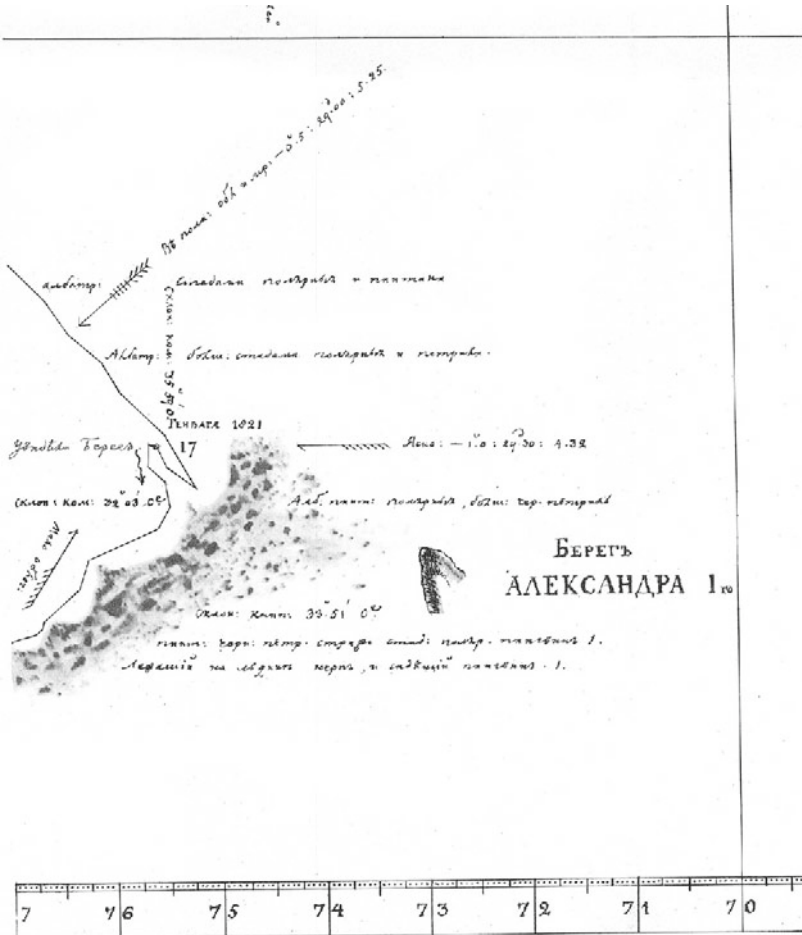
easterly and we moved north. On the 10th we were delighted by the sight of land [Map 6], but with the wind against us we were unable to close it until the following day, and then as luck would have it no nearer than 15 miles [27.80km] because of the ice floes. The island is high, with a crest bearing $SbE\frac{1}{2}^\circ$,¹ and has a circumference of $24\frac{1}{2}$ miles [45.40km]. I named it Peter the Great Island,² after the founder of the Russian Navy. From 13 January the wind once more allowed us to head south. On the 16th lying in latitude $69^\circ 19' 42'' S$,³ where we once again met ice fields resembling the previous ones, we sailed along them wherever the wind allowed. On the 17th we once again sighted some high land 40 [74km]

¹ The expression appears to combine a compass point with the mathematical arc-degree notation. It can be read either as ‘south by east by half a degree east’ ($144^\circ 30'$), or as ‘south by east plus half a degree’ ($145^\circ 30'$).

² As soon as this proposed name reached the Minister of Marine he modified it to ‘Peter I Island’, which became official (de Traversay, 1821, ll. 21–21o).

³ Someone, presumably Bellingshausen, tried to delete the ‘42’’ in this measurement but did not then enter a correction.

or 50 [93km] miles off, surrounded by ice which prevented us from approaching [Map 7]. At that distance it was impossible to survey its extent, because it disappeared to the south. To the north it ends in a steep outlier and is very high. It lies in latitude $68^{\circ}51'50''$ longitude $73^{\circ}3'46''$ W. I made so bold as to honour it with the name of HIS IMPERIAL MAJESTY as the ALEXANDER THE FIRST Coast. After midday the wind strengthened from NE. Both sloops made NW by the wind under reefed courses. I was confident there was no ice in that direction.



Map 7 The Alexander I Coast — track of HIMS Vostok, 16–17 January 1821 (O.S.) (Belov, 1963, Sheet 14). The land is the sharp promontory to the left of 'АЛЕКСАНДРА'; the rest is ice

During my stay at Port Jackson I had received information from Brazil, from [our] Minister Extraordinary and Plenipotentiary, the noble Major General Baron Thuyle de Seraskirchen, that the English merchant brig *Elizabeth*¹ had been carried by bad weather to some land at 62° latitude, longitude 57°, which they had named New Shetlandia. To resolve the question of whether this New Shetlandia was a southern mainland, I decided, being not far away from it, to survey that land from the southern side. At midday on the 24th I lay at the western end of New Shetlandia and passed around it on the southern side. On the 26th I finished the survey, finding that it consists of several islands of different sizes, all snow-covered, where several whaling boats were already occupied in the business of extracting the oil from sea elephants. They were also killing seals. All the boats were on the north side of the islands.²

From there I set a course bearing along the line of the islands, in the hope that something more might still be discovered in that area. On the 27th we saw more islands ahead. On the 29th we completed a survey of them. They all resemble the Shetlands, being covered in ice and snow. They too belong to the discoveries of the First Squadron of sloops, seven islands, large and small.³ On the 30th I continued the passage east with a S wind to longitude 52°10' W latitude 60°45'.

The sloop *Vostok* had been weakened by collisions at the bows and from the high winds and gales she had undergone at various times, and was making so much water that recently her knees had started to break in high winds.⁴ That compelled me not to remain in high latitudes late in the season, as I had done the previous year. I laid a course to Brazil, for Rio Janeiro, because I had better hopes of finding knees to strengthen the sloop there, than at Good Hope.

[Homeward bound]

28 February We arrived safely at Rio Janeiro. The passage had lasted 120 days. The crew were in very good condition, with no one ill. At Rio Janeiro I got my hands on eighteen knees from the Admiralty, which were set in place by my craftsmen in order to strengthen the sloop, the upper part of which had been greatly weakened. But owing to the insecure situation at Rio Janeiro I was unable to wait for the account. I therefore notified the Rio Janeiro Admiralty that the money owing could be obtained from the Vice Consul, but I could wait no

¹ The boat in question was the *Williams*, but such a mistake in a contemporary source may settle the question, which was moot for some time, of whether the William Smith of the *Williams* and the William Smith of the *Lady Elizabeth* were one and the same person (Best and Shaughnessy, 1979: 4).

² Bellingshausen revised this statement in *Two Seasons*, where he described having met at least one sealing captain, Nathaniel Palmer, south of Livingston Island (*TS*, 2: 263–4).

³ Probably O'Brien, Eadie, Aspland, Gibbs, Elephant, Cornwallis and Clarence.

⁴ The hull was increasingly 'dead in the water' instead of being driven through it by the wind. This would cause huge internal strains at the knees, which were pivotal points for all loads because they joined the deck beams, in particular, to vertical elements of the frame. Once some knees went, the strain on the others would increase. The ship was slowly coming apart.

longer, and that the Vice Consul would indent for whatever the reckoning came to with the Admiralty College.

By 8th April both sloops were ready to weigh anchor. But with the transfer to Lisbon of His Majesty the King of Portugal in progress we received a message from our envoy, Major General Baron Thuyle, who was also obliged to head for Lisbon, on the route of our proposed passage, [asking] whether, at the cost of a very small loss of time for a great saving in costs to the government for hiring ships to transfer the envoy and his staff, that might be done by giving the envoy a passage on *Vostok* and billeting his suite on both sloops. The Counselor to the Legation, Collegiate Counselor Borodavitsyn, and at [his] request the Danish chargé d'affaires Mr Dal Borgo Di Primo Dolinda,¹ were billeted on the sloop *Mirnyi*.

On 23rd April we departed Rio Janeiro, from which place I had the honour to dispatch to Your Excellency, by an English packet-boat, and addressed to the present ambassador at London, a report on the voyage of the sloops in the Southern Ice Ocean. On 18th June we arrived at Lisbon in perfect safety, having taken 56 days for the passage. But the King, who set off ten days before us, arrived three days after us.

Having filled with water at Lisbon both sloops of the First Squadron weighed anchor on 28th June. We arrived safely at Kronstadt road on the 24th of this month. The voyage lasted two years and 21 days.

During the voyage of the sloop *Vostok* there were no deaths from illness, except for Seaman First Class Matvei Gubin. He was fitting some copper to the mainmast on 11th May 1820 at Port Jackson when he fell from the catharpins² onto a belaying pin and received a deep wound with severe bleeding, from which he died 4 6 days later.³ And on 31st August of the same year⁴ Filimon Bykov fell into the water while furling a jib on the bowsprit on a dark night, with the ship making good speed in a high swell. It was impossible to save him with the means at our disposal.

Throughout the whole voyage, in an extremely hard passage among the ice fields, in fog or in thick snow, Captain Lieutenant Zavodovskii shared my work with me and in all circumstances he was my perfect aide, proving conscientious at his work, and zealous too, for the two years of our voyage about the terrestrial globe.

¹ A transcription from the original. Either Bellingshausen or his clerk mistook the chargé's first name for yet another surname, perhaps because it was entered last on a passport. Olinto Maria Emilio de Gaspero d'Andrea dal Borgo di Primo was Italian by birth, and married Louise Schimmelmann, the adopted daughter of the Danish Minister of Finance, in 1812. But at least *Vostok* got his name roughly right. In 1831 the two surnames were metathesized in *Two Seasons* (2: 311, 313), probably by its ever-clumsy editors.

² *Svis sarven* is translated 'catharpin' by Alexandrov (1897), although taken separately each word applies to more widely distributed elements of rigging.

³ The two numerals for the interval between fall and death were superimposed, with the 6 appearing to correct the 4. Bellingshausen seems to have wanted to improve on his previous account, in B8, by adding dates. But the result is confusing, because Gubin's accident happened at Port Jackson, the squadron sailed on 8 May, and Gubin died on 14 May 1820 (O.S.) (Appendix 2).

⁴ Bellingshausen corrected this date to 30 August, the Emperor's name day, in *Two Seasons*.

Throughout the voyage the sloop *Mirnoi*¹ always remained in company, regardless of fog, darkness, snow and ice floes. Such a feat is without precedent in the history of the Navy, and I attribute it wholly to the tireless vigilance and skill of Lieutenant Lazarev. Both these extremely talented officers, Captain Lieutenant Zavodovskii and Lieutenant Lazarev, are ready to fill the post of captain.

The safe return of both sloops, *Vostok* and *Mirnoi*, to Kronstadt today, and the intact condition of all the spare spars, serves as testimony that all the officers of both sloops have fulfilled the service of His Imperial Majesty with exceptional skill and expedition.

The same holds for every one of my subordinates, both officers and other ranks. Besides fulfilling their duty well, they behaved in an exemplary manner in foreign parts and were praised everywhere.

Each in his own field, Messrs Simonov, the astronomer, and Mikhailov, the artist, have endeavoured to surpass their predecessors.

In reporting all which to Your Excellency I trust that the commission given to me has been executed with such success as might be gained in such an arduous and dangerous voyage, and one so fortunate. And furthermore I hope that Your Excellency will alert the attention of the MONARCH to the work that has been carried out by my subordinates, both the officers and the men.

Senior Captain Bellingshausen

Bellingshausen appended a second, comprehensive table of his discoveries and measurements of remote islands, headed simply 'Islands' in the first cell, to his final report (B10). It is translated as Table 6.1 below. Although it was not dated separately it was evidently completed before the report, because he signed it as a Junior Captain. Where they overlap, the two tables act as useful checks on each other. The second table, which is in a less legible hand, frequently omits the conventional signs for units and includes what seem to be clerical errors, for example in the lay of island 13 or the first latitude for island 16. Its obvious merit, however, is that unlike Table 5.1 it covers the Antarctic portions of the voyage.

The alphabetical labels were in roman script in the original. The three Marquis de Traversay islands were: (A) Leskov, (B) Vysokoi, and (E) Zavodovski. Because the second column is largely empty the modern names for other islands have been added there in square brackets – for details, see the Key. Any cell containing only such material was blank in the original.

Table 6.1 generally confines the longitude sign, East or West, to its headers, but some occur in measurements to indicate a change of

¹ Bellingshausen wrote the last six paragraphs himself, and '*Mirnoi*' was not his only indulgence in free spelling. (Rezanov also used '*Mirnoi*' sometimes.) Hence, too, the lack of orthographic courtesy to the Emperor in the next paragraph.

hemisphere. The value '½' for the lay or trend of islands means half a compass point, or 5°37'30". The island between 9 and 10 could not be measured properly, due to sailing conditions, and its designation 'A' perhaps stands for 'annähernd' or 'approximate'. The circumferences of islands have been left in nautical miles without conversions. Apart from the external title, the key, and modern names inside square brackets, everything else in the table follows the original document.

Assessment

Many documents connected with the commissioning and decommissioning of the expedition have survived. Because the editors interfered so much with *Two Seasons*, however, Bellingshausen's reports are the only intact official record of the voyage itself. Their historical value is considerable, but as we have seen they have to be read carefully, with an awareness of the circumstances in which they were created.

No one is infallible, and the question of what, if anything, could gainsay the commander's account of his own expedition falls under two headings: the voyage itself and his opinions about its achievements and historical context. As to the voyage, the first source of any queries must be the occasional inconsistencies or over-elaborate explanations in his reports. Like any naval commander on an independent mission he was acutely aware that senior men were looking over his shoulder in such matters as delays, ship repairs and other expenses. Next, there were subtle but important differences between the reports and *Two Seasons*. Where the change was verbally slight but factually significant, it may have been introduced by one of the editors, not by Bellingshausen himself. However, apart from obvious mistakes there is no sure way to detect such changes. Where the change was explained at some length, for example over whether, contrary to B6 and B7, some of the birds seen in February 1820 had been from land-dwelling species after all (*TS*, 1: 193–200), we can be more confident that it was made by Bellingshausen, presumably on the basis of some of the journals handed in to him.³ Fortunately there are almost no examples of the third possibility, namely outright factual contradiction between Bellingshausen's account and those of others. The one important case will be discussed in Chapters 9 and 12.

Turning to Table 6.1, given that Bellingshausen was justly proud of having explored the South Sandwich Islands, and included measurements of other previously discovered islands, such as Rapa and Macquarie, in the table, it is noteworthy that he omitted measurements of the members of the South Sandwich group first seen by

Table 6.1 'Islands'

Islands			Latitude South	Longitude from Greenwich
Islands of				
A	Marquis	Centre	56°41'25"	28°11'24" W
B	de	Centre	56°44'10"	27°16'20"
E	Traversay*	Centre	56°17'30"	27°33'52"
Dangerous				
	Oparo [<i>Rapa</i>]	Centre	27°37'40"	215°41'42" E
1	Henry [<i>Manuhangi</i>]	Centre	19°13'50"	218°43'14" E
2	[<i>Hao</i>]	N <	18°1'30"	218°59'48"
		Centre	18°12'10"	219°4'33"
		S <	18°22'50"	219°12'28"
3	[<i>Amanu</i>]	W <	17°52'50"	219°9'31"
		Centre	17°49'30"	219°17'46"
		NE <	17°42'55"	219°23'13"
4	[<i>Angatau</i>]*	Centre	15°51'05"	219°8'04"
5	[<i>Takume</i>]	N <	15°42'15"	217 52 18
		Centre	15°47'20"	217°49'8"
		S <	15°52'35"	217°45'32"
Islands			Latitude South	Longitude from Greenwich E
6	[<i>Raroia</i>]	N <	15°55'45"	217°41'12" E
		Centre	16 05 35	217 37 42
		SW <	16°13'35"	217 30 27
7	[<i>Nihiru</i>]*	Centre	17 42 40	217°12'00"
8	[<i>Taenga</i>] ⁺	NW <	16 18 15	216 43 45
		Centre	16 21 45	216 50 41
		E side	16 23 35	216 58 21
9	[<i>Makemo</i>] ⁺	W edge	16 27 35	215 59 07
		Centre	16 36 10	216 14 27
		N <	16 36 40	216 31 12
A	[<i>Tepoto</i>]*		16°46'26"	215 44 10
10	[<i>Katiu</i>]*	SE <	16 31 25	215°48'12"
		Centre	16 28 35	215 42 27
		W edge	16 26 15	215°36'22"
11	[<i>Tahanea</i>] ⁺	NE <	16°47'45"	215 11 17
		Centre	16 50 05	215 07 07
		SW <	16 52 30	215°2'02"
12	[<i>Faaite</i>] ⁺	E side	16 46 10	214°54'22"
		Centre	16 47 20	214 46 22
		NW <	16°41'50"	214 40 37
13	[<i>Fakarava</i>]*	SE edge	16°29'45"	214 38 02
		Centre	16 20 40	214 23 57
		N <	16 4 50	214 21 01
14	[<i>Toau</i>]	E edge	16°00'40"	214°7'46"
		Centre	15 55 40	213 59 36
		W edge	15°53'35"	213 49 16
15	[<i>Niau</i>]*	Centre	16 11 18	213 38 04
16	[<i>Kaukura</i>]	E side	16 50 20	213 28 01
		Centre	15 46 10	213 16 41
		W edge	15 41 20	213 5 36
	Matea	W side	15 51 10	211 39 29
	[<i>Makatea</i>]	Centre	15 52 35	211 41 27
	Krusenstern's	Centre	15°00'20"	211 44 27
	[<i>Tikehau</i>]	E edge	15 01 10	211 51 33
		N <	14 55 15	211°44'42"
		entry to lagoon	15°2'50	211 36 52

Lay	Length	Width	Circumference	
Sandwich Land				
NW½W and SE½E	1⅛	¾	3¼	uninhabited
EbN and WbS	4½	3	12¾	
WbN and EbS	2¾	2	7¾	
Archipelago				
E and W	6	3½	16	inhabited
N and S	3¾	1¾	8	uninhab.
NNW½W and SSE½E	24	6½	60	inhabited
NEbE and SWbW	17	7	42	inhabited
NEbN and SWbS	4½	3½	4	inhabited
NNE½E and SSW½W	11½	3	26	
Lay	Length	Width	Circumference	
NbE½E and SbW½W	21	7	51	
N½W and S½E	7	2½	17	
WNW and ESE	15½	5½	34	
WNW½W and ESE½E	32			
NWbW and SEbE	12½	6½	30	inhabited
ENE and WSW	11	3½	25	inhabited
WNW½W and ESE½E	15	5½	38	
NWbN and SWbS	32	9½	83	inhabited
WNW and ESE	19	6	46	
Circular	5½	5½	17½	uninhab.
WNW½W and ESE½E	23½	9½	54	inhabited
NWbW½W and SEbE½E	4½	2	12	uninhabit.
WSW and ENE	16	9½	42	uninhabited

(continued)

Table 6.1 Continued

Islands			Latitude South	Longitude from Greenwich
17	Lazarev's [Matahiva]*	Centre	14°56'20"	211 14 47
18	[Vostok]*	Centre	10°5'50"	207 37 15
19	[Rakahanga]*	Centre	10°2'25"	198°51'49"
20	[Tuvana-i-Tholo]*	Centre	21° 1 35	181 15 40
21	[Tuvana-i-Ra]*	Centre	21°2'55"	181 9 30
22	ONO [-i-Lau]*	Centre	20°38'55"	181°16'00"
		Centre of high mountain	20 39 05	181°15'05"
In the Southern				
A	Macquarie	Centre	54°38'40"	158°40'54"
	PETER THE GREAT*	Centre	68°57'15"	90°41'5" W
B	ALEXANDER I coast*	Nth cape, pyramidal	68° 51 50	73°3'46" W
Of New				
A	[Smith's]	E side	62°53'00"	62°28'24"
		Centre	62 56 30	62 45 54
		S <	63°05'30"	62 58 14
B	[Snow]	Centre	62°46'20"	61°37'33"
C	[Livingston]	SW side	62 38 30	61 33 23
		S <	62 46 50	60 36 53
		E <	62 31 15	60 3' 51"
Islands			Latitude South	Longitude from Greenwich W
D	[Deception]	Centre	62°58'30"	60 55 33
E	[Greenwich]	Centre	62 31 40	59 55 26
F	[Roberts]	Centre	62°24'25"	59°46'01"
G	[Nelson]	Centre	62°27'20"	59°34'21"
H	[King George]	SW <	62°13'10"	58 16 01
		S <	62°15'40"	58 44 51
		SE <	62 01 10	57 46 11
		N <	61 53 20	57 53 01
K	[Penguin]	Centre	62 6 50	58°16'21"
L	[Bridgeman's]	Centre	62 4 50	56°55'11"
M	[Ridley's]	Centre	61 49 00	58 7 21
N	[O'Brien]*	Centre	61 30 20	56°1'28"
O	[reef ?]	Centre	61 38 40	55 51 58
P	[Aspland]*	Centre	61 26 15	55 56 28
R	[Eadie]*	Centre	61 26 45	56 00 38
S	[Gibbs]*	Centre	61°26'40"	55°31'48
t	[Elephant]*	W <	61°8'15"	55°45'27"
		Centre	61 8 10	55 18 47
		NE <	61°4'40"	54 53 47
v	[Cornwallis]*	Centre	61°4'10"	54 43 47
y	[Clarence]*	NE <	61 8 20	54 17 17
		Centre	61 13 20	54 22 37
		SW side	61 15 50	54°31'27"

Key

b, by (in compass points); <, tip or point; *, first discovery by Europeans; +, recent or unpublished discovery as of 1821; [*Italic*], modern place-name from Barratt; [Roman], modern placename from another source.

Lay	Length	Width	Circumference	
WbN and EbS	5½	2	14	uninhab.
NWbW and SEbE	5⁄8	3⁄8	2⅛	uninhab.
NbE and SbW	2¼	¾	6	many people.
NWbW and SEbE	1	½	2¼	uninhab.
NEbE and SWbW	¾	½	2½	uninhab.
NEbN and SWbS	6½	3¾	15	inhabited

Ice Ocean

N½E S½W	17	4	35½	uninhab.
SbE½E and NbW½W	9½	4	24½	uninhab.
				uninhab.

Shetlandia

NEbN and SWbS	19½	7	45	uninhab.
NE and SW	8¼	5	23	uninhab.
E and W	44			uninhab.

Lay	Length	Width	Circumference	
NWbN and SEbS	8½	4½	21	U
NbW½W SbE½E	10	3¾	21½	N
NNW½W SSE½E	9½	4	21½	I
NWbN SEbS	9	8	31	N
ENE and WSW	43½			H A B I
NbE and SbW	1¾	¾	4½	T
ENE and WSW	1¼	¾	3¼	E
NW SE	1½	¾	3½	D
E and W	1¾	1	3½	
NWbW½W and SEbE½E	3½	1½	7	
WbN and EbS	1	½	2¼	
EbN WbS	5¼	2¾	12	
EbN and WbS	25	9	61	uninhabited
NbW and SbE	1¼	¾	3	uninhab.
NEbN and SWbS	10½	5¼	27	uninhabited

Cook. He explained in *Two Seasons* that weather conditions had been very poor, and there gave Cook's coordinates for Montagu Island and his own coordinates for an islet off Bristol Island, rather than Bristol itself. Although Bellingshausen had done his best in trying circumstances, and although the Russian coordinates for other islands, such as Saunders and Thule, were satisfactory, he seems to have found his overall measurements for this, the southern and main part of the group, too imprecise to be included. Many measurements in Table 6.1 were revised in *Two Seasons* (Barratt, 1992: 24), but confusingly, some may have been mistranscribed from the final manuscript, for example by replacing a '1' with a '4'.

Bellingshausen's application of the name 'Dangerous Archipelago' was slightly idiosyncratic. British and French navigators had restricted it to islands close to Tahiti, especially the northern Tuamotus. But earlier Spanish explorers had applied the epithet more broadly, and there was also Danger Island [Pukapuka] in the Cooks. Bellingshausen's 'Henry' for Manuhangi, under item 1, was a misidentification which he corrected in *Two Seasons*. The entry for Tepoto (aka Rayevskii) had to be included as a new discovery, but as suggested above the label may reflect the fact that it could not be measured properly. It is interesting that Bellingshausen did not include his Russian names either for the Dangerous Archipelago or for the South Shetlands in this list. Nor did he use them in an unpublished chart of most of the former,⁴ or the section of his track chart which shows the latter (Belov, 1963: Sheet 14). He first deployed them in *Two Seasons*, including the *Atlas* (Sheets 1, 62).

Bellingshausen's evaluation of his own achievements will be discussed in Chapter 12. Few of his contemporaries could have avoided the double standards by which he rebuked the islanders for wielding both rocks and palm-fronds while doing exactly the same thing himself with cannon and trinkets. After all he was not a moral philosopher, or a historian, or a scientist or even a geographer. He was a thoroughly decent, if perhaps rather pedestrian, naval commander concerned for his career and jealous of his reputation. But in general his claims were quite modest when compared with the long tradition of boasting by other European explorers. Complete objectivity and fairness to others would be too much to expect, however, especially while the stressful and, let it not be forgotten, imperial quest was still in progress.

7

The Able Seaman

The Russian Navy does not receive the able seaman, but makes him of the peasant when sent to complete the number required.

NAUTICAL MAGAZINE (1838)

Introduction

Chapters 7, 8 and 9 present accounts by three more eye-witnesses, in chronological order of their composition. In the late 1930s Yakov Tarnopol'skii discovered the manuscript diary of Able Seaman Yegor Kisilëv (K1) in a pile of old books at the monastery town of Suzdal. He published extracts from it several years before the Soviet Union began claiming absolute Russian priority in Antarctica (Kiselev, 1941). Its appearance and contents also support its authenticity. K1 is now held by the Russian State Library in Moscow, and with the aid of Soviet transcriptions it is almost completely legible. It may have been written down by more than one person. Although the handwriting is similar throughout, certain characters, such as 'v', differ widely in different entries. And a sort of primitive punctuation, consisting largely of enormous commas, is present in a few entries but not throughout.

'Kisilëv' is a rare form of the name 'Kiselëv'. The first people to examine the diary doubtless authenticated it by finding the sailor in *Vostok's* crew list, where the clerk had used the standard spelling 'Kiselev', omitting the 'yod' sign as usual in Russian (Appendix 1).¹ Soviet editors did the same. But the diarist himself used 'Kisilev', as some people still do today, and the present author has chosen to follow the sailor rather than the clerk.

As the epigraph to this chapter reminds us, almost all seamen in the Imperial Navy were taken from the national conscript levies, which drafted a proportion of young men of the servile class for a life-changing 25 years, leaving the rest to work the land and satisfy the wants of their masters in other ways. Special naval levies sometimes targeted younger men from the Baltic or Volga provinces, with a preference for shorter specimens. Three such musters in 1805, 1806 and 1808 raised 24,489 men (Hartley, 2008: 44–7). The levy varied between three and eight per 500 ‘souls’ in different years, but in 1812–13 it fell like Armageddon on the provinces of Livland and Estland at the rate of ten per 500 (Mikaberidze, 2009: 47). Many seamen in Bellingshausen’s squadron would have left their villages in those sorrowful times. Those selected from naval barracks for the expedition had to be fit, no older than 35, and to possess some other skill besides their seamanship (A. Lazarev, 1950: 25).

The author has not seen a stores list for Bellingshausen’s First Squadron, but the basic diet and other provisions were the same as for Vasil’ev’s Second. The stores list for the latter gives the gross quantities of various foodstuffs and the period for which each should suffice 169 people, so that a daily ration can be calculated (A. Lazarev, 1950: 359–60). The pattern of daily consumption differed slightly between the Imperial and the Royal Navies, making it easier to compare their weekly rations (Table 7.1). Apparently, British seamen fared better than their Russian counterparts in respect of meat, oatmeal and spirits, but much the same for fats and legumes, and the Russians made up for any shortfall with ship’s biscuit. But the figures are slightly misleading. The British figures show the official seagoing ration, but would have been lower in reality, thanks to a routine deduction known as ‘the purser’s eighth’. On the other side the Russian figures were calculated from quantities allocated for periods of between four months and three years, which would usually have included substantial periods in port, when both navies arranged for their crews to receive fresh bread, meat and vegetables. A given quantity of a preserved foodstuff, such as dried peas, might therefore have been consumed in, say, five months although it was officially supposed to last for six, thus increasing the seagoing ration for the Russians. Their alcohol ration may also have been larger in practice because the officers bought separate supplies of wine and spirits, leaving most if not all of the official issue for other ranks.

Bellingshausen increased the meat ration in July 1819 (*TS*, 1: 49) in order to raise the men’s morale and build up their muscles in the early part of the voyage. He did not say how long he kept this up, so the official

Table 7.1 Seagoing naval rations per man / week, about 1810–20

	Imperial Russian Navy	Royal Navy
	<i>By weight – kilograms</i>	
Salt beef / pork	1.477 *	2.724
Ship's biscuit	4.245	3.178
Butter	0.565	0.170
Cheese	n.a.	0.340
	<i>By volume – litres</i>	
Peas	about 1.377 (1kg)	1.141
Oatmeal	0.943	1.700
	(or 0.433 buckwheat)	
Spirits	0.795	0.994

* Bellingshausen's figure for the official ration. The amount provided for the Second Squadron was about 50gm less. At the beginning of the voyage Bellingshausen raised the meat ration temporarily to 2.252kg.

Sources: IRN – Stores list for the Second Squadron, 1819 (A. Lazarev, 1950: 359–60); RN – 'Sustaining the empire', National Maritime Museum website, 2011.

ration has been used for Table 7.1. As for kasha, it is not clear whether buckwheat and oatmeal were eaten together or in different weeks. The comparison can be made either way. No ration could be calculated for sauerkraut because the Second Squadron stores list gave a quantity, 3468 litres, but not a duration. It also mentioned unspecified amounts of vinegar and barley malt. Lastly on Table 7.1, the Royal Navy spirit ration was halved in 1823.

The most striking omission from the Second Squadron's main stores list is sugar, which often replaced some of the oatmeal in the Royal Navy. It was still an expensive luxury in Russia, but a small amount, 196.6kg, was specified in another list of goods provided for the two squadrons together, over and above the daily ration (A. Lazarev, 1950: 358–9). The supplementary list included tea, tobacco, spruce essence, lemon essence, mustard, molasses, beef tea, and soap. Bellingshausen's narrative implies that sugar was only issued on special occasions such as Christmas or the Emperor's birthday, but tea was served more often. He left most of the beef tea behind, because it had not been cured properly, but purchased more at London and Rio (*TS*, 1: 11).²

The men were each provided with a mattress, pillow, baize blanket, and four sheets for their hammocks. The clothing allowance included four uniforms, two pairs of cloth and six of linen trousers, four pairs of dimity trousers and four short dimity jackets, a greatcoat, one fur and two cloth caps, a naval 'round hat', three pairs of boots (one cloth-lined),

four pairs of shoes, eight pairs of woollen stockings, eleven linen and seven flannel shirts (*TS*, 1: 11–12). Bellingshausen's version of the clothing list is sometimes more generous than the official allowances in the supplementary list (above). That suggests he may have negotiated a better deal for both squadrons. The supplementary list alone was costed at 138,134 roubles {£8,956,800, if silver} for 298 hands, and was to be financed jointly by the Admiralty and the Ministry of Finance. That may mean that seamen were not required to pay for such items themselves. The author could not discover what happened when stores of an extra like tobacco were exhausted. Distributed to other ranks only, the 393kg of leaf tobacco for the two expeditions came to less than the weight of 1.5 modern cigarettes a day for each man.

Following the examples set by Cook and Krusenstern, Bellingshausen aimed to protect the health of his crews with sauerkraut and other anti-scorbutics, and by purchasing fresh fruit and vegetables when in harbour. He tried to keep the men dry by fitting port-lids to the maindeck gunports at Portsmouth, and he also had them wash their clothes and air their overcrowded (and now stuffy) quarters as regularly as possible. On the psychological side, he resisted the naval requirement to carry two chaplains, one for each ship. When constrained to accept at least one, a certain Hieromonach (Father) Dionisii, he assigned him to *Mirnyi* (Shvede, 1949: 21).

Kisilëv was listed 33rd out of 71 on the non-alphabetical crew list and as Seaman, First Class, he was paid 13 roubles and 11 kopecks a year {£790}. At six shillings a day James Cook was paid at 73 times the rate of his seamen, whereas Bellingshausen was paid at 183 times the rate of his.³ For more comparisons, by the early years of the nineteenth century the Royal Navy spent £7 a year on each seaman, but only £1 17s 0d of that {£1330} was paid in wages (Morriss, 2004: 93). At the end of the century the pay of Russian able seamen is said to have risen to £2 a year {£960} (Jane, 1899: 473).⁴

As with other navies in this period, Russian seamen could be flogged for serious offences against discipline. According to Bellingshausen, however, no floggings took place on *Vostok* (G[erschau], 1892: 383). That is impressive, although it tells us nothing about the punishments book on Bellingshausen's other ships, or on *Mirnyi*. A few years later Admiral Aleksei Greig ordered the practice to be discontinued in the Black Sea Fleet.

Apart from his uncommon achievement of literacy we know nothing about Kisilëv as an individual, because he kept his diary impersonal. There is one small clue in its pages to his possible role on *Vostok* – the

surprising lack of stains. Whatever the weather, topmen needed bare hands to cope with the jammed blocks, iron-hard knots and frenzied sails that were their daily metier. Inevitably their hands acquired generous amounts of grease, tar and blood. The diary has one tarry fingerprint on the title folio, but only a few small spots elsewhere, most of which seem to be ink although one or two may be blood. That suggests that, while he may still have been required to haul on ropes or heave the capstan with his shipmates, Kisilëv had an ancillary skill which meant that he seldom went aloft. The possibilities include sailmaking or carpentry, but cleanest of all would have been a role connected with his literacy, such as helping with the daily routine of checking and issuing stores. That literacy, doubtless hard won, may even mean that he was one of the rare volunteers before the mast in the Imperial Navy, although the authenticity of such beings has been queried (Hartley, 2008: 46). Next, if the location of his diary at Suzdal is any sort of clue, which it may not be, it should not surprise us. Although Suzdal lies far inland, in Vladimir Province, many Russian seamen have hailed from thereabouts, including such natives of Vladimir as Mikhail Lazarev and his two brothers. And lastly on the man himself, the very survival of the diary may mean that Kisilëv disobeyed the standing order that all journals were to be handed in at the end of the voyage. Alternatively one of his officers may have glanced at it and told him not to bother.

The diary is neither a nautical nor a literary journal. It is largely confined to what Kisilëv saw as the highlights of the voyage, rather than the workings of the ship. After a shaky start (Kiselev, 1941), it was brilliantly transcribed by Aleksandr Ignat'evich Andreyev (Kiselev, 1949). All subsequent commentators are in debt to that text, and the author would like to stress that his few departures from Andreyev have been noted merely to support the translation, which was made afresh from the manuscript rather than any published version. All such departures are compared in the footnotes to 'Andreyev', in other words to Kiselev (1949), usually without a detailed citation or discussion. Whenever a different reading of a date was in question it was checked against orthographic examples elsewhere in the diary, if possible, and against Bellingshausen's date for the same event – two essential procedures. All dates are of course Old Style.

Kisilëv's diary was a notable (and rare) achievement, given the circumstances in which he must have written it. He also recorded information about the expedition which is not in any other source. However, with its poor handwriting, demotic Russian and frequent idiosyncrasies of style and spelling, the diary presents huge challenges for both transcription and translation. For example, whereas even today Russians sometimes

include the word 'year' or 'years' after the year number in a date, Kisilëv often included the words 'month' and either 'day' or 'date' (literally 'number') as well, when writing out a full date as a section heading. That phraseology has not been reproduced. He also repeated some of the month headings when entries for a single month were interrupted by a break in his short pages. Those repetitions, dropped in Russian editions, have been retained, but they only have a spacing line above them when they do reflect a change of month. Kisilëv's idiosyncratic spellings of proper names have been glossed over, except where the whole name was rearranged, as in 'Anzhaner' for Rio de Janeiro. However the author/translator has echoed some of the original diction in the hope of at least suggesting its flavour. A final translation issue was the choice between 'we' and 'they' for some of the pronounless plurals. Because of the social and political chasm between forecabin and quarterdeck it would have been unwise, indeed high-handed, merely to assume that Kisilëv always identified himself with what the officers were getting up to. Another translator, however, might have settled for 'we' throughout. On the positive side, almost everything has been translated, with a few doubtful renderings shown between question marks.

The text is largely devoid of punctuation, which has therefore been added, including italics for the names of ships. Anything inside square brackets, such as a modern place name or a metric conversion, is a clarification which goes beyond the text. The most important example occurs in the third entry, where a dash has been added between the pair of dates in order to specify, as Kisilëv clearly wished to do, that the entry applies to a period of several days.

K1: Diary of Yegor Kisilëv

**The notebook
belongs to Seaman 1st class Yegor Kisilëv who took part in a
long voyage on the sloop *Vostok* under the command of Captain
(2nd rank) Bellingshausen in the years 1819 1820 1821**

June 24th 1819

The sovereign was pleased to visit Kronstadt road to inspect the six ships to be sent out upon long voyages and there a salute was fired and we manned the yards and shouted hurrah for His Majesty.¹

¹ The two vessels which did not belong to the First or Second Squadrons were the frigate HIMS *Hektor* and HIM Brig *Olimp*, bound for England, France and Prussia with Foreign Minister Count Kapodistrias and his staff.

July 3rd

Set sail and as we began to pass Commercial Harbour there the naval commander of Kronstadt was pleased to speed us on our way and they shouted hurrah three times and we replied the same.

12[-]20th¹ Reached Copenhagen and there we stayed for one week.

July 1819

20th² Set out from Copenhagen for England.

29th Arrived in England at the town of Portsmouth and there we stayed one month and the work [on the ship] proceeded. We closed up the sides of the sloop.³ And there we met up with the sloop[s] *Kamchatka* and *Kutuzov*.

August

29th⁴ Set off on voyage from England.

14th⁵ Reached a Spanish island called Santa Cruz [Tenerife], Holy Cross in Russian. There is a very high mountain which can be seen from 150 versts out to sea. We stayed there five days and dressed with flags for the coronation [anniversary] of HIS IMPERIAL MAJESTY.

September

19th Set off on voyage to Abrazil.⁶

25th, 26th and 27th Work proceeded on the sloop to alter her topmasts and courses while under way. Still making for the Equator.

October

1st Right on the Feast of the Blessed Virgin came some terribly heavy rain.

14th They dropped a measure to 300 sazhen [549m] to find out how cold and there were 22 degrees of frost. Still making for the Equator.

16th They dropped a plate into the water to study its clarity. The plate was visible down to 14 sazhen [25.6m]. Still making for the Equator.

October 1819

17th We caught a flying fish 7 vershoks [31cm] long, like a sea-eel. They were flying about in great flocks hard by the Equator.

¹ Andreyev reads only '20th'.

² Andreyev reads '27th', which would imply a spectacularly fast passage to Portsmouth.

³ By fitting port-lids – see B10.

⁴ Perhaps a nautical date for the second half of the 28th.

⁵ Andreyev inserted the 'September' omitted by Kisilëv.

⁶ The name was used by seamen for centuries.

19th Reached the Equator this morning at 8 o'clock and a salute was fired to pay respects to Neptune, ruler of the seas. The solar equinox stands right over a man's head there, and one ocean parts from the other, and that is why it is called the solstice.¹

24th We caught 12 fish with sort of golden scales and the gentlemen and crew made a meal of them.

November 1819

2nd Reached the town of Anzhaner [Rio de Janeiro] on the island of Abrazil in Portuguese America and the Portuguese king himself lives there with his royal suite. And the inhabitants of the town and the island are almost all negroes and negresses; very few whites. There are very cheap drinks and various types of cloth. Masses of fruit grow there, much grain sugar and coffee. A good anchorage.

22nd Set off on voyage to the island of Saint Yegor [South Georgia].

December

2nd Found a dead whale and a mighty whale it was. There they killed a bird on it, an albatross.

December 1819

15th Reached the island Saint Yegor which was found by the navigator Cook. It stretches 170 miles in length [315km]. Very high mountains, on the mountains snow and ice. At that island there are hunters; they hunt whales and other creatures for English merchantmen.

28th² We found three new islands never visited by other mariners before, except for our two ships. And one island [Zavodovski] the land is on fire and smoke pours and moves like clouds. And there at that island three officers and four sailors rowed in to take a look around the island. There are masses of various birds, especially a penguin with yellow crests. It walks like a man, calls like a grebe, the wings are small and it does not fly. And masses of Savoy hens.³ A reward was given for those islands [to] who saw them first, five thalers,⁴ and they were written in the journal.

January 1820

1st Set off on voyage to Sandwich Land, which Cook discovered.

6th Arrived at Sandwich Land and there we spent three weeks surveying, and they appeared in fact to be islands. And at those islands there are masses of ice floes, the which are amazing hills of ice up to 30 sazhen [55m] above the water. And those are truly dangerous places. There are frequent terrible storms there and terrible cold and frequent snow-squalls.

¹ The renderings 'equinox' and 'solstice' give the modern senses of the words. But Kisilëv perhaps meant something more like 'equality' and 'standstill'.

² Andreyev reads '26th'.

³ Kisilëv may have conflated the expressions 'Port Egmont hen', meaning the great skua, and 'Savoy duck', which was applied to several species, including crested cormorants and crested grebes.

⁴ About 18 months' pay.

16th Foul weather, storm. There misfortune befell the sloop *Mirnyi*: she struck her forestem against an ice floe in foggy weather.

18th Caught up to 70 penguin birds by hand on an ice island and the gentlemen and crew made a meal of them as a stew.

26th Broke off ice for fresh water, and there we filled 30 barrels ...¹ and water excellent.

February 1820

5th Reached an ice field, where there are very high ice hills near the Pole itself.² There were seven degrees of frost, but when winter comes then it goes down to 70 and 80 degrees in the months of June and July and August. And there is a terrible darkness, three months without light, and those are the most dangerous months, so great are the storms and frequent the snow-squalls.

18th and 19th Had rough weather, strong gales, snow and rain, and there all our sails were triced up, and there our helm was damaged. And we parted from the sloop *Mirnyi*. The ship sprang a leak, and the water made up to 9 or 10 inches an hour. The motion was so great, the midships netting tore loose.

March 1820

5th There were three ...³ pillars in the heavens. From 10 o'clock until 3 o'clock in the morning there stood like rays and magnificent pillars. And after those pillars some rough weather got up. There it split the main course and the main staysail and the mizzen staysail, and damaged the bowsprit step. The ship sprang a leak, and the water made up to 10 inches an hour.

30th We reached the newly discovered Holland [Australia] and the town Port Jackson. The town dwellers are Englishmen who live on that island.⁴ Masses of savages live in the woods like animals, they have no sort of dwellings, they eat cones from the trees and fish.⁵ There is a king too, he has an emblem on his chest that was bestowed by the English king. And there our captain bestowed on him a hussar's uniform and a bronze medal, but a white blanket and a pair of women's earrings for his wife.⁶

May 8th

Set off on voyage from New Holland.

11th Seaman first class Matvei Gubin died from illness and was lowered into the water.

¹ Two words could not be deciphered.

² Like many people, Kisilëv thought of 'the Pole' as a vast icy region, not as a geographical point.

³ One word could not be deciphered; Andreyev offers *svetlye*, 'luminous'.

⁴ Andreyev has 'islands', but the text is rather unclear.

⁵ This would be striking if it referred to the edible cone or 'nut' of *araucaria bidwillii*, which was hardly known to Europeans yet. The location and time of year, however, combine to make that unlikely.

⁶ Complete with blanket and earrings, she features prominently in Mikhailov's 'View of Sydney Town' (*Atlas*: Sheet 21).

19th Had rough weather and a lot of motion. And there it happened at eight o'clock in the evening there came such a wave that the ship almost capsized, and it ran through the ship and almost swamped her. And there it carried away the midships netting on the right side, five pigs and some of the men's sheepskin coats. And the water was knee-deep on the lower deck [maindeck], and up to 60 inches in the hold. There the entire company was terrified and did not know what to do, and there was great darkness.

May 1820

28th¹ We reached the newly discovered Zealand. There the savages ate ten of Cook's men.² After that 42 years have passed since he came and stayed there for two months. There are very high mountains, thick forests, and masses of savages live there. And they paint their faces, arms and legs. They are very surly people and wear clothing made from grass and headdresses made from the feathers of various birds. They paint themselves with red paint, pierce their ears with bone pins or pass them through their nostrils. And they live mostly on fish. And the anchorage is very bad. And there we stayed 9 days. They visited us three times. And there they bestowed a bronze medal on one of them, an elder.

June 1820

4th Set off on voyage from Zealand.

29th Came to Oparo Island [*Rapa*]. On that island are masses of savages and they are a very thievish people who will steal a nail if you don't watch them. There 22 boats came out to us. They wear no clothing at all, swim like fish in the water and eat bread grown in the soil.³ A very fit people altogether.

July 5th

Came to Oberland [Cumberland – *Manuhangi*] Island.⁴ The island is low-lying, the scrub grows low with bushes, spreading inland. There are masses of savages. The island is insignificant; there are no anchorages.

July 1820

6th Came to Harp [*Hao*] Island. They went onto that island and brought back various plants and decorated rocks and coral – a growing rock, it grows like grass. Another small island, no savages.

8th Came to Henry Island [*Amanu*],⁵ and there were masses of savages. As we began to approach they set fire to the scrub in several places and [began] shouting at the tops of their voices and making gestures for us to go away.

¹ Andreyev reads '26th'.

² From Furneaux's *Adventure* after they had separated from Cook.

³ Made from taro root.

⁴ The accurate identification is mysterious, given that Bellingshausen himself identified this island, at first, as Prince William Henry's (Nengonengo) (B8, B10), before opting for Cumberland in *Two Seasons*.

⁵ Bellingshausen treated Amanu as a new discovery, naming it Moller Island.

9th Came to an unknown island. The island is small. Just as we began to approach, such a great crowd of the savages ran down to the shore. We put various gifts into the boats and took them inshore. They did not accept our gifts and shouted at the tops of their voices, making gestures and threatening us with their weapons. After that we fired a musket. At that they all fell to their knees and threw themselves into the water. But some others ran off into the scrub and set it alight [across] the whole island.¹

10th Next we passed three islands which had also never been visited before by anyone except for our two ships *Vostok* and *Mirnyi*.²

12th Came to an unknown island, also never visited before except for our two ships.

July 1820

13th Passed an island [*Tepoto?*] and only took its bearings.

14th Came to two unknown islands, except for our ships.

17th Passed Elizabeth [*Toau*] Island.

19th Came to Anna [Anaa, but in fact *Kaukura*] Island and there one boat with two men came out and brought our captain the gift of a string of pearls. Whereupon the captain presented the savages with hussars' uniforms and medals. To one of them they gave the silver medal of His Majesty with a portrait. And they also feted them with drinks and with the Bread and Salt.³

July 1820

20th Came to Mantim [*Makatea*] Island on which we found four of the savages; they had come from Anna Island. There had been ten of them; 6 were eaten on the island, on Mantim. We took [the others] to the king of Otait [Tahiti]. They did not want to remain with us and we left them there.

22nd Reached Otait Island, and it is rich and extensive. The savages are up to 3000 thousand.⁴ And there we remained at anchor 29? days.⁵ And the king

¹ Most of the entry seems to be in a different though similar hand. Bellingshausen placed this incident on the previous day and described it in some detail.

² It is impossible to identify the seven islands noted by Kisilëv between 10 and 16 July (O.S.), both because the expedition sighted 11 islands in that period (Barratt, 1992, Table A:1), and because Kisilëv's sighting dates are not consistent with other accounts.

³ Although Bellingshausen's published description was more detailed it contained none of these 'pre-colonial' formalities.

⁴ Cook estimated their numbers as 204,000 in 1774 and thought his figure 'not much, if at all, too great' (Cook, 1777, 1: 349), though his naturalist, Johann Reinhold Forster, gave a lower estimate. Allowing for sailors' gossip and confusion between the single main island and the whole group, Kisilëv may have been told that it was something like 300,000 and then stumbled, here, by a single zero. (Andreyev revised the text, unnecessarily in the author's opinion, to read 'three thousand'.)

⁵ The text is hard to make out. The ships anchored on the morning of the 22nd and weighed on the morning of the 27th (O.S.), so that the visit fell on just six calendar days.

of that island and his suite came out to us and onto the ship 4 times and brought us presents, cloths and fruits. And we also presented [him] with a sabre with a belt and eight medals, and rum, one ham, 4 sacks of white biscuit, and various mirrors. And the people are very peaceful and fit. There are masses of wild pigs and goats and hens, and far more fruit than we ever saw on other islands. There are prolific trees on which bread grows [breadfruit], and coconuts.

27th¹ We set sail from Otait.

29th Found a small new island [*Tikehau*]. There is some low scrub, and water in the middle of the island. No inhabitants; corals around it; no anchorage.

August

5th Also found a small new island [*Vostok*]. No people; a lot of various birds.

August 1820

8th Found Rozinvil Island [*Rakahanga*]. This island ~~the island~~ was found by the English navigator Captain Maria.² There are masses of savages on the island and they are a very cannibalistic people. Despite that we lost way.³ And up to forty boats came out. But although we invited many onto the ship, only one swam over to the ladder. We started giving him presents, but he knocked [them] out of the boatman's hands, even a bottle of rum from his honour the Navigator. Meanwhile the others started pelting the poop with rocks. The hair on their heads is very long and bound with a red ribbon made from grass.

12th Sailed past two small islands [*Pukapuka* and *Vava'u* ?]. There is low scrub with bushes. No people. Also unknown to anyone.

August 1820

20th Found a very rich, large island; they call it Taruna [*Ono-i-Lau*].⁴ There are masses of savages, a very peaceful people. There up to 20 boats came out to us with people and brought us their gifts – sugar cane, wild pigs, shells and a string of pearls. And there our captain honoured seven people with bronze medals on brass chains.

30th Seaman First Class Folimon Bykov fell. He came off the bowsprit at 8 o'clock. Speed was 7 knots. Rescue impossible.

¹ Andreyev reads '24th'.

² The Dutch explorer Jacob le Maire. No source could be found for Kisilëv's 'Rozinvil'.

³ Kisilëv's *zastryali* would normally mean that *Vostok* had taken ground. Putting this together with Bellingshausen's account, however, it seems more likely that she had some difficulty in coming about, so that she was almost 'in irons' for a short time.

⁴ Kisilëv's name for it may have come from the neighbouring Tuvana islands, sighted the previous day, but there is no other evidence that the Russians knew that indigenous name.

September

7th Strong gale. There our forecourse and main course were torn, the forecourse right off her, while we were still making for newly discovered Holland. In the same bad weather a French frigate was wrecked on [New] Holland.¹

9th Arrived back in [New] Holland. And had sailed 121 days in the torrid zone and discovered new islands. 31 islands and of those islands some are good islands.

October

31st Set out from New Holland to the Pole, by the other side of the Pole. We stayed at anchor there in Holland for 53 days. We carried out work on the sloop: overhauled all the spars and bowsprit, made a new bowsprit step, condemned three sections from every sail on all three [mast] assemblies, caulked the ship all over, and replaced the [some?] knees.

November 1820

Had rough weather. The ship sprang a large leak, which made from 7 to 8 inches of water an hour.²

17th Came to Macquarie Island. There is no wood on that island but masses of grass. There are hunters who catch various animals, and there are masses of different birds, especially penguins, and most of them weigh about a pood [16.38kg], but some more.³ And there we struck a sandbank in the night. But the hunters say there are often earthquakes and underwater fire often happens.⁴

November 1820

22nd Had rough weather, a storm, snow and rain, dreadfully cold. Still making for the Pole.

28 Reached the Pole, where there are dreadful ice hills and great floating fields and it carries them near the Pole. Dreadful cold and frequent snow-squalls. And there we chopped ice for fresh water [and] filled thirty barrels with ice. Excellent water for brewing tea or punch.

December

18th Came a great fog. It happened at night, which did not happen very often with such, and we ran into small ice that night and barely got out. But to our good fortune it soon

¹ Kisiļev may have misunderstood some information about the wreck of the French explorer Louis de Freycinet's sloop *Uranie*, which happened at the Malvinas/Falkland Islands on 15 February 1820. News of the event reached Sydney just as *Vostok* returned there, and would have been of great interest to the Russians.

² 8 November 1820 (O.S.).

³ Anything over a pood for a king penguin, the largest species on the island, would have been exceptional. But see the entry for 17 January 1821 (O.S.).

⁴ Bellingshausen explained that they only thought they might have struck, but had in fact felt the shock of an underwater earthquake.

December 1820

cleared and there all the ship's boats were launched.¹ And we came within such ice hills that they thought we would not get out, in which case they thought we could not save ourselves. And there there were 7 degrees of frost.

25th It happened on the feast-day of the birth of Christ itself. We struck with the right cheek onto an ice floe at 12 o'clock in the daytime. Divine service was taking place and we were on our knees, and we struck so hard that no one [was able] to stand. But to our good fortune we struck against the anchor stock and the sheathing.² Upon which they relieved his honour Midshipman Demidov as officer of the watch.

January 1821

6th Had some rough weather. Snow-squalls and a lot of motion. There five of our knees were damaged and the ship sprang a leak, letting in between 9 and 10 inches of water an hour. Still making for newly discovered Shachland [South Shetlands].

10th Sighted a new island [Peter I Island], unvisited by any mariners before except for our two ships. And the island is very large and high. Around it were ice fields and a multitude of various birds, especially great albatrosses. And there a salute was fired and we shouted hurrah three times and drank the health of His Imperial Majesty to celebrate the new island.

January 1821

And a reward of five thalers was given for the island [to] who saw it first, and they were written in the journal.

17th³ Also found a new island [Alexander I Coast]. And there were masses of whales at that island and masses of small ice around it and it was impossible to approach it closely. And there they caught a penguin bird weighing 1 pood 29 pounds [28kg].

24th Reached Shachlandia, which stretches for 300 Italian miles [555km]. There are masses of animals there of various kinds, especially marine fur-seals, and masses of American ships there for the hunt.

¹ One boat, according to Bellingshausen.

² Unlike the anti-teredo copper sheathing below the waterline, the heavy pine sheathing around the upper part of the ship was designed to take some punishment. At sea, the bower anchor was possibly stowed flat forward of the foremast, with its shank protruding slightly outboard and the stock, a crossbar which passes through the top of the shank, rising vertically beside the ship. According to Kisilëv the stock acted as a crude fender in the collision. His account implies (a) that the ice floe was small enough to be partly fended off, and (b) that Demidov had almost managed to avoid it. But 'almost' is not good enough at sea, and Bellingshausen let Demidov know this.

³ Andreyev has '14th'.

February 1821

Sailed past the island of Saint Yegor. And his honour the captain and all the crew celebrated this day, having sailed around the terrestrial globe. And we advanced one day, putting two Thursdays together.¹ And there had been 60 days without night and the sun never set the day round.

4th Some rough weather, and the motion got up, and there we were never away from the pumps. But although we pumped out water day and night we could not pump it all out. And we triced up the sloop[’s courses] with her clue-garnets.

27th² Came back to Portuguese America at the town of Anzhaner.

March 1821

5th The Portuguese king visited the fleet.³ We manned the yards and shouted hurrah, and a salute was fired. There was a dreadful heat of 34 degrees; there had never been such heat anywhere before.

9th Our Russian Minister graced us with his presence. We manned the yards and a salute was fired and we shouted hurrah. And he tipped the boat’s crew 4 thalers.⁴

10th There was an insurrection in Anzhaner between the inhabitants and the military.⁵

14th The Portuguese king departed Anzhaner for the town of Lisbon with five warships.

23rd We set course for the town of Lisbon to transfer the Russian Minister.

May 1821

17th Reached the Equator and again paid respects to the sea king Neptune with twenty-one guns, and drank punch, and bathed the crew in equatorial water.

June

11th A waterspout⁶ passed us; it was no more than one glass [after midday].⁷

13th Came to Lisbon, a very large Portuguese town. Spirits are cheap and so is fruit. Very good anchorage.

¹ Wednesday and Thursday, 2 and 3 February 1821 (O.S.).

² Andreyev reads ‘24th’.

³ On the previous day, according to Bellingshausen.

⁴ About 15 months’ pay.

⁵ The last thing that supporters of Brazilian independence wanted was for the king to return to Portugal without making significant concessions, but he was in no position to do so. Meanwhile courtiers preparing to leave Rio for Lisbon caused a run on the banks. It was a recipe for chaos.

⁶ *tifon* (waterspout), rather than *taifun* (typhoon) as Andreyev has it.

⁷ 12:30 p.m., or ‘one bell of the afternoon watch’. Alternatively, Kisilëv may be saying how close the waterspout came to them – within a half-hour’s sail.

17th The Portuguese king arrived. And there was an illumination for three days for His Royal Majesty. We dressed the ship and a salute was fired, and we manned the yards and shouted hurrah.

June 1821

25th Our Russian Minister graciously came aboard and bestowed a gratuity of five thalers on the crew.¹ [Also] a new uniform for every seaman and ten thalers for each officer. And he thanked the gentlemen and the crew.

27th Set course from Lisbon.

July 11th and 12th

Sailed past England.

16th Reached Copenhagen. There we met up with the sloop *Ural*.²

Assessment

Kisilëv's diary (K1) is a mine of information about the voyage, especially on shipkeeping matters like the rate of leaks and damage to sails, or minor events like gratuities and awards of bounty. His accounts of the damage to the ship on 19 May 1820 (O.S.),⁵ and of Midshipman Demidov's discomfiture in the Christmas Day collision, are valuable additions to other sources. He occasionally fails to get his point across, for example with the earthquake at Macquarie Island, or grows confused, for example with the entry for 'Rozinvil' Island on 8 August 1820 (O.S.). But for most of the time he is clear, sensible and, when checked against other narratives, accurate.

Unfortunately, however, Kisilëv's narrative for December 1819 and January 1820 diverges from the accounts left by Bellingshausen, Lazarev and Simonov. Between his '28 December' and '16 January' he dated events from seven to ten days later than they did. Perhaps he wrote up those entries retrospectively, as diarists with more leisure and comfort than Kisilëv have often done. Only after 26 January (O.S.) does his narrative come back into line with others. For that reason he has nothing to tell us about a date which is prominent in the Bellingshausen literature, 16 January 1820 (O.S.).

¹ Five thalers each — over two years' pay, if this time they were Spanish rather than the usual Prussian variety. The second gratuity was for the petty officers rather than the gentlemen of the officers' mess (*TS*, 2: 323).

² One or two pages describing the last few days have probably been lost.

8

The Astronomer

You don't really believe in your expeditions. You want to write about them, but you never get to the end. Yet you still keep on talking about the Southern Ocean.

PER WÄSTBERG (2010)

Introduction

Ivan Mikhailovich Simonov was the son of a provincial merchant. He entered the University of Kazan in 1808, at the then normal age of 14, on the strength of an aptitude for languages. There Martin Bartels, who also taught Carl Friedrich Gauss (at Brunswick) and Simonov's classmate the mathematician Nikolai Ivanovich Lobachevskii, noticed his talents for mathematics and the physical sciences and guided him towards astronomy. At that time the university had only 40 students, and there were fewer than 1,000 students attending the five universities in the Russian Empire, which had a population of about 45 million (Meyer, 1987: 48).¹ After taking his master's degree in 1812 Simonov became first an assistant lecturer and then in 1816 extraordinary (acting) professor of astronomy at Kazan, succeeding his teacher Joseph von Littrow. In 1817 he went to St Petersburg for further training under Academicians Fëdor Ivanovich Schubert and Vikentii Karlovich Vishnevskii, who recommended him, in 1819, for the post of astronomer with the Bellingshausen expedition (Simonov, 1844; 1955; Berezin, 1855; Baranov, 1904). It was a typical field appointment in the earth sciences, in which younger, unproven researchers have regularly been selected for the discomforts and opportunities of expeditions.

According to the doyen of the European astronomy network, Baron Franz Xaver von Zach, Simonov was a charming and talented young man with an appetite for gossip which rivalled Zach's own (Zach, 1871: 274). Simonov became a corresponding member of the St Petersburg Academy of Sciences in 1829, a few years after meeting Zach, and he was similarly honoured abroad. But as the orientalist Ilya Nikolayevich Berezin pointed out in an obituary, he was not among the foremost astronomers of his day (Berezin, 1855).²

The main task confronting the Bellingshausen expedition was geographical exploration. To that end they were expected to use existing science, primarily astronomy, to improve the empirical, descriptive knowledge of the planet. Like other maritime expeditions they were also instructed or invited to carry out additional, scientifically more rewarding studies, from astronomy to zoology. When the naturalist failed to join at Copenhagen Simonov became the expedition's only professional scientist, and thus, as he himself explained (S2), the only participant with official responsibilities under both headings, geographical exploration and the basic natural sciences. Characteristically he threw himself into fields that were not his own, such as the time when he got badly stung while collecting sea nettles. 'I did warn him', remarked Bellingshausen (*TS*, 1: 84). By contrast, Bellingshausen might have liked to measure gravity and deep-sea temperatures, but was not overly concerned when he could not do so. And although Bellingshausen often measured the magnetic declination, he appears to have seen it more as an important aspect of navigation than as a research topic (*TS*, 1: 38–9). He published only about 100 declinations in *Two Seasons*, piecemeal, leaving a similar number unpublished, to be extracted from him some years later (Bellingshausen, 1840).

There were two options when it came to publishing the results of a maritime expedition's non-geographical scientific investigations. The natural philosophers who sailed with James Cook, including Joseph Banks, Johann and George Forster, Daniel Solander, Anders Sparrman and William Wales, treated their specimens and other data as intellectual property, which they were entitled, and indeed obliged, to handle apart from the main geographical account of the expedition. By contrast, Russian maritime explorers in the early nineteenth century tended to favour a 'portmanteau' approach, bundling their biological, oceanographic, ethnographic and other findings together with the narrative, either within a supplementary *Atlas* volume which also contained geographical material, as in the case of Krusenstern, or under a single title with one or more volumes, as in the case of Otto Kotzebue. But the portmanteau option was by no means

confined to Russian expeditions. It was adopted, for example, by a British polar expedition contemporary with Bellingshausen's, which published 170 pages of tables and scientific discussion as appendices to its report, some of them closely linked to geographical matters like the determination of longitude, but others treating broader scientific subjects, such as magnetism, gravity and tides (Parry, 1821).

It was important to make a clear choice between the two approaches. Instead, those in charge of publishing the findings of the Bellingshausen expedition, if anyone was in charge, chose both, and thus stored up a world of woe for Simonov. There was to be an *Atlas* volume, but Simonov was left to publish his astronomical and physical results, including some that were closely tied to the geographical work of the expedition, elsewhere. His difficulties, and his eventual failure to complete the task, will be discussed in Chapter 12.

One of Simonov's main services to the expedition was more journalistic than scientific. From March 1822 he published a series of excerpts from his journal of the voyage in the new university magazine *Kazanskii Vestnik* (S1); the series ended abruptly in December. He also described the voyage in an address to the University's annual commemoration ceremony in July, which was then published as a booklet (Simonov, 1822). The address was translated into German, for Goethe among others to read, and in a different form, with added data tables, into French (Simonow, 1824; Simonoff, 1823, 1824). Those two versions were then cut, translated, paraphrased, or all three together, into further French, German, English and even Russian versions. Meanwhile Simonov spent almost two years in western Europe, from July 1823 to May 1825, to oversee the purchase and shipment of instruments from Vienna and Paris for a new observatory at Kazan. During that time he attended meetings of the French Academy of Sciences, sat at the feet of the great Louis Arago at the Paris Observatory, and dined out on his tales of the expedition with anyone and everyone he could reach, from William Scoresby and the famous earth scientist Alexander von Humboldt to the polyglot and future Vatican librarian Giuseppe Mezzofanti.

Simonov's 1822 address had abridged the story, and itself went on to be further condensed. Aware of this, he published other short narrative pieces about the expedition, including his Romantic study *Nights* (1854), which is perhaps the only primary source with literary merit. He tried for many years to complete a full narrative to his own satisfaction, but died in January 1855 before doing so. Large parts of that manuscript were published in 1951, and the complete text in 1990. His original journal has not survived (Aristov, 1990b: 45).³

To the author's knowledge the extracts from Simonov's journal which appeared in 1822 have never been republished. The total of six monthly instalments which make up S1, below, are separated by horizontal lines. Simonov's footnotes have been marked with asterisks, as they were in 1822, and inserted after the paragraphs to which they apply. Meanwhile the author's chapter notes and textual footnotes continue as before.

The 'O.S.' in the first line is from the original. Simonov entered events for morning, midday and afternoon under the same date, using the civil calendar. Like many people, however, he usually treated the hours of darkness before bedtime as part of the preceding day even when they extended past midnight. Phrases like 'the third hour' denote the hour *before* three o'clock. Some translators would give Simonov's times of day a brusque twenty-first century makeover, replacing everything with numbers a.m. or p.m. As with Bellingshausen, this translator prefers to invite the reader to step back to Simonov sometimes, rather than the other way around. The italics in the text have been preserved, but some are puzzling. They may have been ironic, or warnings, even boasts, of nautical terminology. But some may simply be misprints.

S1: Journal of I. M. Simonov

The voyage of the sloop *Vostok* in the Southern Ice Ocean.

(From the journal of Ext. Professor Simonov) (*)

11th Dec. 1819 O.S. The weather was fine. On that day we saw our first diving penguins, three of which were no more than two sazhen [3.66m] from our sloop. One of the officers fired his gun at them, but they dived so quickly that the shot only peppered the place where they had been. Soon after that they surfaced again, already some way away from us. That day we passed the latitude of Paris (48°51'). The sun was almost at the Tropic of Capricorn, and on a brilliantly clear, sunny day of high summer, with a warm north wind, it was as cold as autumn in St Petersburg. On Dec. 12, the birthday of our Most August Monarch ALEKSANDR PAVLOVICH, a Monarch blessed by his people, the flag of His Imperial Majesty fluttered at 50 degrees South latitude. After dinner mugs of

* In accordance with His Imperial Majesty's wishes, two expeditions were dispatched on exploration. One heading towards the South and the other towards the North Pole, they sailed from Kronstadt on 3rd July 1819. The first comprised the two sloops *Vostok* and *Mirnyi* and was placed under the command of Captain 2nd rank (now Captain Commander) Bellingshausen and returned on 23rd July 1821. The second likewise comprised two sloops, *Otkrytiye* and *Blagonamerennyi*, under the command of Captain Lieutenant Vasil'ev and has not yet returned. Professor Simonov remained on the sloop *Vostok* throughout the Southern Expedition, in the capacity of Astronomer Observer. The route of the Southern Expedition was via Copenhagen, Portsmouth, and Tenerife to Rio Janeiro, from which they set sail for the Southern Ice Ocean.

wine were issued to the seamen. They drank the health of their August Ruler with a joyful cheer. We too saluted His Imperial Majesty, being filled with love and gratitude towards Him. The occasion continued with both sloops firing a salute.

14 Dec. This morning I saw the first snow. This day many birds of new species appeared. They were a species of petrel, blue above and white below. At that time they shot a magnificent albatross. It was not one of the largest, but nonetheless with its soft white plumage its beauty surpassed that of the swan, which has been so well depicted by Buffon. It was only slightly larger than a goose, but its plumage was so thick that it looked twice the size of one. The wings bent at three joints, and the wingspan was as much as 7 feet [2.10m] across. It was almost all white, with grey only in the upper part of the wings. But we also came across some that were completely white except for their wing-tips. There were also a great many of the black, or rather brown variety.

The whole day was overcast. That night the stars and moon appeared in the twelfth hour, with the latter already far down. I had intended to take its distance from the fixed stars, but that was impossible because the moon repeatedly disappeared behind the clouds and was soon hidden below the horizon.

On 15 December in the morning they woke me with news of land. I went to the quarterdeck and could see nothing. Lieutenant Leskov confirmed, however, that in the fourth hour of the morning he had sighted land that was quickly hidden by fog. Soon afterwards it did indeed appear. Grey, snow-covered rocks gradually emerged from the fog surrounding that abode of eternal winter. We soon found ourselves off George Island and directed our course along the coast which Cook had not visited. The morning was quite clear, though one could not say it was cold. But at about midday the sky filled with cloud and fog. We managed all the same to take the midday altitude of the sun. After midday, though, it became so murky that the tops of the mountains were hidden from view. It was barely possible to take bearings and delineate the shore. No human being, I thought, has set foot on this land since Cook in 1775, and still musing on that I stepped into the wardroom, where they immediately told me that a boat under a flag was making to us from the shore. I thought it was a joke, and when accordingly they invited me onto the quarterdeck to have a look, I replied that they were bound to laugh at me if I did so. But I became persuaded, decided to step out, and my eyes showed me the truth of the assurance I had received. Soon a fairly large boat under the English flag approached us. We lay to. The boat did likewise and four men in a small whale catcher came alongside. Three climbed into the sloop.

At first I refused to believe that there were people on this bleak, snow-covered island. But much to my surprise one of those who came over to us spoke fluent Russian. It seemed amazing to me, but it was no dream. I spoke to him myself, and asked about many things. I learned from him that they were hunters, and had come to that place four months ago from England to take sea elephants. They came out to us from Mariinaya Bukhta (Marie Bay), their usual base. There, amid the gloom of the eternal fogs, these poor people get their living. There are no beautiful groves and forests to hold their gaze, no pleasant bird-song to delight their hearing. Nature is dead. But for all that, the immense crags of the snowy mountains rising to the clouds do not terrify them. Their hunt requires them annually to sail across the boundless deeps of the ocean and spend most

of the year there. They have no luxurious halls to live in, not even a humble peasant's hut. An upturned dinghy shelters them from the constant foul weather of those wild regions. They had two ships in the bay with 45 men on each. The hunter who spoke Russian was called Prusak,¹ and by his account he learned Russian while he was at Petersburg, Riga and Archangel. He said that there were two volcanoes, erupting fire, in Sandwich Land, which they sometimes sailed down to.

Forster writes in his voyage:² "After finding people living on the awful, barren rocky shores of Tierra del Fuego one is almost ready to believe that there is no land on planet earth that could not be inhabited. But the island of New Georgia provides an example that contradicts that suggestion. On Tierra del Fuego the climate is imperceptibly milder and there are some trees, however small, which provide the inhabitants with fuel in cold weather and for cooking food. On New Georgia there are no bushes of any kind, nothing to take the place of timber. One can probably conclude, therefore, that neither the uneducated inhabitants of Tierra del Fuego, nor even Europeans, with all their natural and artificial means, would be able to migrate and settle on that deathly island. In the middle of summer the mercury in the thermometer does not rise more than 10° above freezing point [5.55°C] {during our visit it remained below 5° [2.77°C]}, and although the winters are not so cold, proportionally, as ours, the frost evidently gets down to [-]30° [-34.44°C].³

"Besides the fact that New Georgia is uninhabitable, it has no products that might even tempt European mariners to visit it from time to time. Sea lions and seals are found on the uninhabited coasts of South America, the Falkland Islands and New Year Island⁴ in far greater numbers, and can be taken more easily. Even supposing that our annual whale fishery might, eventually, exhaust the North Atlantic ocean, and that the hunters take themselves off to the southern hemisphere, there would be no need for them to go as far as New Georgia. Thus the Portuguese and the inhabitants of North America have been killing large numbers of whales off the coasts of South America of late, without reaching the Falkland Islands. The day may come, after thousands of years have elapsed, when South or New Georgia finally becomes well-known and useful to the inhabitants of planet earth, but not before the coasts of Patagonia and Tierra del Fuego reach the condition of Sweden or Scotland today."

¹ 'Cockroach'. Prusak claimed not to be Russian, but Bellingshausen thought he was a Russian deserter from the Napoleonic Wars (during which part of the Russian Navy spent some time in British custody).

² Simonov's version of Forster is a close paraphrase, rather than a translation, of (Forster, 1777, 2: 532–4), with elements of a corresponding passage at (Cook, 1792, 5: 224–6). With no certain source, the Russian text has been back-translated.

³ Conversions were made from the Fahrenheit scale used on the Cook expedition. Simonov's interpolated comment has been placed in braces and converted to the same scale, which is how it would (or should) have been made.

⁴ Probably a reference to Año Nuevo Island off the coast of California, rather than the island group in the Bass Strait, which had yet to be explored when Forster was writing.

But hardly have 45 years gone by before voyagers, setting out in the wake of the great navigator to a foggy, cold southern wilderness, have found people in that murky place who have perhaps gone far beyond the limits reached by Cook, while in the meantime Patagonia and Tierra del Fuego have remained in the same state of barbarism as they were when he left them.

The captain ordered grog to be served to our visitors, and then he said it was time for us to start work. They drank up their grog, asked us for some tobacco, and left. For the whole of that day and the following we were busy setting down the south-western coast of New Georgia on the chart. The weather was overcast and murky. The mercury in the barometer [thermometer] remained below 5° [6.25°C]. *Mirnyi* disappeared in the fog a few times.

17 December. Having finished charting this south-western coast of New Georgia, we set course for Sandwich Land. The view of the island as we left it was depressing. The waves beat loudly on a rocky shore that was strewn with a chaos of granite fragments, broken from its mountains. Blocks of ice were piled up in its coves and its slopes were covered in eternal snow. On the crags the whiteness of the snow sometimes gave way to a black surface of earth or rock. The clouds which curled like a wreath around the pointed summits of the mountains made the picture even more striking. Occasional green patches of moss provide the island's only vegetation; otherwise there is not a single tree, not a blade of grass.

Shortly after midday we drew level with the Clerke Rocks. Early next morning the sun shone through the clouds. At 9 I took its altitude; but I could not take a midday one because it was raining. The wind was so *fresh*, that we made 7¾ miles an hour under the fore topsail alone, with all its reefs taken in. We still made 6 miles an hour when they took in that sail as well and replaced it with a fore stunsail¹ in order to wait for *Mirnyi*, which kept falling behind. Meanwhile the wind grew steadily stronger. As *Mirnyi* came up with us she was suddenly laid over. Then, as we examined the surface of the sea in every direction, trying to understand what had caused her behaviour, we caught sight of a massive floating ice floe through thick fog, and we changed course in order not to run into another such giant in a wind like that.

18 December. The wind strengthened even more. We set fore-and-aft sails and made east. The waves rose up like hills. Lifting the sloop, they threw her rapidly along.

19 December. The wind dropped. The day was fairly clear. At midday dense, impenetrable fog spread along the horizon. Great numbers of birds, such as albatrosses, several species of petrels, and storm birds² followed us constantly.

¹ Probably, in those conditions, an error or misprint which should read 'fore staysail'.

² Bellingshausen identified his storm birds as *procellaria pelagica* (TS, 1: 89), but if he ever referred to them as petrels it was only on the 15-sheet track chart (Belov, 1963). Storm birds were also listed separately from his rather mysterious '*pestrushki*', which were possibly sandpipers or tattlers.

Penguins swam round our sloop, continually giving out their wild, piercing calls. That day our men killed an albatross with a wingspan of 10 foot 3 inches [3.12m] that weighed 21 pounds [8.60kg], and a penguin with a weight of 11 and a half pounds [4.70kg].¹

20 Dec. The day was like the previous one, except there was no fog at midday and the sun rarely came out from behind the clouds. Shortly after midday the commander and doctor came over from the sloop *Mirnyi*. They brought skins of what are called king penguins, and their eggs. It is a very beautiful animal. Their back is dark blue, streaked with black, and their breast a shining white, like satin. The head is black, but around the eyes on each side there is a half-circle of beautiful yellow plumage which spreads across the whole neck and then gets lighter towards the breast, blending imperceptibly into the white. It has a stout, black beak, curved towards the end, and a very short tail, the same colour as the back. The feathers are tough and springy. Instead of wings it has flippers. Ordinary penguins, which we had mainly seen so far, differ from the king in having no yellow plumage at all, and their beak is thinner, straight and pointed. Penguin eggs are larger than swan eggs, slightly bluish and tasty. They got all these things on *Mirnyi* from the hunters at New Georgia.

That day our men shot many black albatrosses and penguins. They gave us some of the latter roasted for dinner. At the time I thought them tasty, and had rather more appetite for them than for the roast pork which they also served us. But whenever I tried eating penguins subsequently they always seemed repugnant, because of their extremely strong taste of fish.

At two o'clock after midday we lowered a thermometer to a depth of 300 sazhens [549m]. At the surface the sea was + 45½ deg. Fahrenheit [7.5°C], but at a depth of 300 sazh. + 31¾ deg. Faren. [-0.14°C], therefore 13¾ colder. With it we lowered an empty, strongly stoppered bottle; when we drew it out, the bottle was filled with water but stoppered as before.(*)

* On a previous occasion we lowered a bottle to 200 sazh. [366m], and it was found that it filled with water the same way. But the cork was turned upside down.

After the previous fierce gale a complete calm set in. The weather was still cloudy, but quite pleasant and dry. But the barometer stayed low throughout. In the morning we caught sight of an amazingly large floating block of ice, the size of a massive building. By the eleventh hour it was *abeam* of us. At about midnight a whale came near our sloop and spouted noisily.

21 Decem. In the morning there was another huge block of ice within a verst of us, the top of which was about 250 foot [76.20m] above sea level.** On the slope near sea level stood some penguins facing forward, as if lined up for battle in case we should attack.

** Judging from the known weight of ice, there must be 6 parts of it in the water and a seventh above sea level.²

¹ Conversions are from Russian pounds. For British pounds, the figures are 9.52kg and 5.22kg.

² A ratio unknown to either Hooke (1726) or Scoresby (1818).

22nd December. In the morning we sighted land. It was an island [Leskov], but not one of those that Cook placed near Sandwich Land. At midday it lay abeam of us. The whole day was overcast. The island was now visible through the fog, now concealed by it for a time. I stayed on the quarterdeck until 12 o'clock [midnight]. A gloomy mist spread across the surface of the sea, penguins called, whales swam noisily round the sloop. I retired to my berth, after giving instructions to wake me if the moon and stars came out, so as to calculate our longitude by taking their distances. Less than an hour later they came to wake me. I went up top again. The moon was shining out between the clouds and a few stars twinkled on the horizon, but not the ones required. Most of the sky was covered with clouds, and soon everything was hidden by them.

23 December. This was a lucky day for us. We discovered two more new islands [Vysokoi and Zavodovski], which the captain named the Marquis de Traversay Islands, and succeeded in making the astronomical observations required to fix their position. Having approached one of them after midday, we observed that a mountain on it was throwing out thick smoke, which at first we mistook for cloud. But soon we smelt its odour, resembling burnt gunpowder, from the sloop.

24. In the morning, when the clouds around the mountain dispersed, it was quite plain to see that the smoke was issuing from the mouth of a volcano located, not on the very top of the mountain, but about two thirds up from its foot.

In the ninth hour they lowered a skiff and we set off for the island. Some fast-swimming penguins met us halfway across and escorted us to the very shore. Some of them overtook us, swam ahead to shore and got out. Others came in and dived underwater as if curious about us, then went on shore again. It seemed as if our skiff, swimming towards them, had caught their attention and amazed them. Gulls, ducks, albatrosses and Port Egmont hens flew almost over our heads and often settled on the water no more than two paces from us, so that one of the sailors almost killed a duck with his oar. But it managed to dive down into the sea and escape the blow which was about to strike it. We came to shore and found a small cove, but could only disembark with difficulty because of the fierce surf. Millions of penguins were standing there, and since they had never been disturbed before not only were they unafraid of us, but they also refused to give ground. They cried and defended themselves with their beaks and flippers, which were so feeble and clumsy that they had no effect on us. Clearing a path with kicks and sticks, we managed with some difficulty to pass through their countless ranks¹ and reach the centre of the island, where there were few of them, because they always congregate near the shore. The females sat on eggs laid in hollows, from which they never rose until they were pushed off them. We saw two species of penguins here, the ordinary ones and others which had some orange plumage on their heads, like a golden wreath.² The two races were established in separate flocks and rarely mixed with one another. There were no kings.

¹ Given Simonov's Romantic bent, this may be an unsignalled literary allusion, of the sort regularly deployed in cultured discourse. A similar phrase occurs in Walter Scott's 'Lord of the Isles', first published in 1814.

² Bellingshausen named the second species the Mandarin penguin. It is now called the Macaroni penguin.

Having finally passed through those multitudinous flocks, we wanted to climb the mountain at least as far as the place where a smoke-cloud came out of a chasm. But the steepness of the mountain, and the lava scree which slid away under our feet at every step, stopped us reaching it. We were high enough, though, for the mouth of the volcano to be almost within sight. There were traces of volcanic eruptions everywhere. We collected a few pieces of lava and rock and returned to the sloop.

As we left the island we hove the line in three places. At 40 sazhens [73m] from the island the depth was 20 sazhens [36.6m], at 100 sazhens [183m] 30 [55m]; after that we did not touch bottom with our lead. We got back home with our booty, carrying several live penguins, which entertained us by skipping about. But they shot some Port Egmont hens and roasted those for our dinner. They have a taste like wild duck. But the penguin eggs were no use, because they had been sat on for too long.

27 December. After making a chart of the islands we had just discovered, we sailed on towards Sandwich Land. That day we came within 30 miles [55.59km] of the *Candlemas* Islands. A total calm prevented us from approaching them. In the fourth hour after midday we hove a line with a thermometer. At the surface of the sea it showed 0.5° [0.62°C], but at a depth of 220 sazh. [402m] 1° of frost by Réaumur [-1.25°C].¹

28 Decem. We tacked between a large [ice] island and the *Candlemas* Islands. At 10 o'clock after midday the *Candlemas* Islands were abeam of us.² From observations the first of them lies in the latitude of $57^{\circ}11'25''$ and by the Arnold and Barraud chronometers at longitude $26^{\circ}44'25''$ West of Greenwich; the second which is larger than the first at latitude $57^{\circ}9'10''$ and longitude $26^{\circ}33'43''$, and the third at latitude $57^{\circ}10'10''$ and longitude $26^{\circ}45'55''$.³ At midnight there was 1° of frost by the Réaumur thermometer [-1.25°C].

29th Decem. We tacked towards Sandwich Land from its southern side.⁴ It was within our sight. At 10 o'clock in the morning the wind blew from the west and was so strong that we ran at 6 to 8 miles an hour. In the first and second hour [after midday] we progressed between ice islands which had a strikingly regular shape. At 3 o'clock we sighted Cape Saunders, covered in snow and with its smoking volcano, through the fog. At half past 5 o'clock near the eastern end

¹ The instrument took $4\frac{1}{2}$ minutes to raise and was imperfectly protected from the water through which it passed.

² According to Bellingshausen they started tacking on the 28th and got a bearing on the *Candlemas* Islands to SW at 8 a.m. on the 29th (*TS*, 1: 145).

³ According to Bellingshausen no astronomical observations could be taken on 29 December. His positions for the *Candlemas* Islands, all different from Simonov's, were calculated from bearings taken on the *Traversay* Islands, still in sight (*ibid.*).

⁴ Bellingshausen recorded a direct approach, southwards from the *Candlemas* Islands.

of that island we beheld up to 10 ice islands of various sizes and a quantity of small ice floes which were all orientated towards the east. In the 8th hour we spotted some more land which, owing to the murk, we were unable to examine. Soon after that we came within $1\frac{3}{4}$ lt. miles [nm] of an ice island that was almost 100 sazhen [183m] in cross-section.¹

30th Decem. We came level with Cape Montagu, which just like Saunders is nothing more than a separate island.

1st January 1820. On the first day of this New Year we were in the midst of a quantity of ice floes which surrounded us on all sides. The officer of the watch, standing on the forecastle, was constantly obliged to order the men at the wheel to alter course now to this, now to the other side, so as to avoid an unpleasant encounter with one of the numerous floating ice floes. The weather was little better than before. At midday, however, we had a very good sighting of the sun and determined the latitude, which was $58^{\circ}50'57''$. It was not far short of the latitude of St Petersburg, but the climate was very different. It was midsummer there, but the constant fog and snow and frequent frosts made us long even for a Russian winter.

We spent the 2nd and 3rd charting the South Sandwich Islands (*)

* I call them Islands, rather than Land as Cook called them, because they do not form the coast of any sort of extended land. They consist, rather, of small separate islands.

On the 4th, having gone south to latitude $60^{\circ}30'$ and found nothing new, we turned back, and coming level with Bristol and Montagu Islands and taking definitive bearings from them, we set off east along the parallel of 59° . There we left the Sandwich Islands, which were the last land we saw until New Holland itself.

7th January. After midday Lieuten. Leskov, Mid. Demidov and I left the sloop in the small jolly-boat and went onto two ice floes after penguins, which stood imperturbably on their diamantine islands and calmly awaited us. On one we took 8 of them, on the other more than 20. Nothing could be funnier than that hunt. At first the penguins tried to defend themselves with their beaks, but seeing how much stronger than them we were they tried to run away, lost their balance in the hurry, fell over and tried to escape being captured on all fours. We hunted them, fell over among them, and filled our sacks with game. Not many escaped us by jumping into the ocean from the side of the floe. And we had hardly pushed off from an [ice] island before penguins climbed onto it again. It is most amusing to watch how they position themselves so that the swell helps them throw themselves onto a floe. Some use their claws and beaks very skilfully to get a grip on the ice, others lose hold, fall into the sea and make another attempt at getting onto the slope. After securing a place, though, they are loth to leave it, so it is possible to catch them very quickly by hand. The last floe where we caught penguins was enchanting to look at. On the highest part of it you could see a beautiful grotto, and the snow cover was so smooth that it

¹ Presumably height above sea level.

resembled the finest plaster on its steep walls. In some places the body of the ice itself showed out of the snow, with a very clear, transparent sky-blue colour that added a brilliant shine to the floe.

At this point I cannot but refer to those floating masses of ice, which we met in great numbers and which sometimes even surrounded us on all sides. Apparently they form along coasts, or from the impenetrable domes which cover the surface of the sea like a crust around both poles [Map 3]. Then, either by their own weight or from some other cause such as waves and strong surf, they break off and float away. Their differing forms confirm this idea. Most of them have steep edges, some on all sides, others only on the one which, presumably, was fastened to land or to the ice bastion mentioned above. They cannot, apparently, be formed at sea from falling snow, because in that case they would be flat and could not have steep edges; but we have not seen any like that so far, and in any case as soon as they froze they would be broken up by the swell. We met ice floes of different forms and sizes. Some have a regular shape and a smooth surface; others are irregular. The former, presumably, broke away recently, the latter either turned on their sides as they fell,¹ or turned completely upside down, or have been floating for a long time and washed by the waves. Some were like enormous buildings with flat roofs, some resemble hills with variously shaped caves, grottoes and suchlike. We even came across some that were exactly like bridges, triumphal arches or the ruins of ancient castles.

8th January. Midshipman Demidov and I set off again for a penguin hunt. After midday we saw something black on one of the floes and noticed that it was moving. As we approached it we could clearly observe that it was a seal. We took hold of the floe and fired at the seal. Lieutenant Ignat'ev very successfully put a bullet in its tail, but the sloop *Mirnyi's* jolly-boat had been lowered, and they finished it off and retrieved it. Mid. Demidov and I went to *Mirnyi* and took that seal to *Vostok* to sketch it. It was 9ft 9 inches [2.97m] long.²

We had lately been meeting a large amount of ice, but soon we passed it and, setting course to south, met no more until 15th January.

16th Jan. The weather was overcast but we sighted the sun at midday and from its midday altitude we fixed the latitude as 69°22'. Shortly after midday we caught sight of continuous ice and turned back.

25th January was fairly clear, so that we were able to take distances of the moon from the sun and the midday altitude of the latter.

On 26th February [January] the weather was exceptionally fine, a very rare thing for those parts, I believe. At about 6 after midday we approached an enormous

¹ Unless the relevant entry was omitted, Simonov had not said anything about icebergs *falling* when they were formed. He may have been thinking about the production of icebergs by such glaciers as the Seven 'Icebergs' of Spitzbergen, or about Lomonosov's *léd-padun* in general (Chapter 4).

² *Atlas*: Sheet 20.

ice island in order to knock some ice off it and obtain fresh water. They fired rounds from a carronade on the sloop at it. That ice stack long withstood our cannonade, but in the end it lost its balance under the blows and rocked vigorously. Fragments of ice broke off it and fell loudly into the ocean. While we were firing our guns, four huge whales sported between the ice floe and the sloop. Now they plunged into the marine abyss, now they reappeared on the surface and let off their spouts with a wild noise. The spectacle was superb and the entertainment gave us great pleasure and abundant fresh water. The sailors who collected the ice killed one penguin. Many of the creatures sat on the besieged ice island and seemed not to be surprised when it was rocked by our artillery fire.

11 February. At the setting of the sun, and in the opposite direction to it, a light appeared on the horizon of a similar colour to the Milky Way. Rays fanned out from it in stripes of the same colour as the centre of the phenomenon.

On 12 February around midnight milky, bright stripes emerged between clouds from below the horizon at SWbS [237.5°]. The sky was cloudy that day and the previous one.

On 13 February at 12 midnight Midshipman Demidov, who was on watch, summoned me from my berth to look at a similar phenomenon. But as soon as I came on the quarterdeck numerous clouds swept across the heavenly vault and hid the entire horizon from sight. Soon afterwards they thinned out and between them I could see, emerging from below the horizon on the side where the sun was now below it, a long band, the colour of the Milky Way, extending across the heavenly vault for some 10 degrees.¹ At first it was quite pale, but then little by little it grew clearer and longer, up to 20 degrees of arc, with a breadth of about 2 and a half degrees. The clouds soon hid it.

18th February. Towards midday the wind grew stronger and stronger, and in the sixth hour there was a strong gale. Our *topgallant masts* were lowered in good time, and in those conditions we could only proceed under *fore-and-aft sails*. The wind shrieked and the waves, driven by the force of the wind, now rose up like hills above the surface of the sea, now sank down and disappeared, to give way to new waves. Some of them crashed seething against our sloop, first lifting it high, then throwing it down again. The sea looked as if it was boiling. Often one wave would crash into another and the spray would merge with the air like thick steam. That evening I stood on the lee side and stared in awe at the boiling abyss of the ocean, into which our chainwales were plunging minute by minute. After savouring that awesome picture I crossed to the windward side of the waist, but there I could not even look at the ocean; the cutting wind and spindrift flew straight into my eyes and water often splashed on board. The sloop rolled strongly, but her motion was steady. She calmly climbed the slopes of the waves and then slowly descended them. All the same, pressed by gusts of wind, she sometimes heeled as much as 35°, though her natural heel was no more than 15°. That day the captain gave orders to fall back to lower latitudes.²

¹ Perhaps a lateral (E–W) estimate, or right ascension.

² Simonov appears to have mistaken a temporary change of course for something more significant.

19th February. The storm abated a little, but all the same we were unable to carry anything more than fore-and-aft sails. At midday the sun appeared and we took its midday altitude. The ship was rolling heavily at the time. I had to hold on the whole time, so as not to fall, and the waves repeatedly concealed the horizon from which one has to take solar altitudes, which gave me a lot of trouble and vexation. To make matters worse, towards the end of my observations the wind tore off a seaman's hammock, hung on the rail,¹ which struck me on the head and also grazed the sextant. Luckily however that did not cause it any damage, and I was not hurt in the slightest.

20th February. The wind was far more moderate. We set lower sails and courses, and by evening it was completely calm.

24th February. They signalled from *Mirnyi* that they had seen a bird called Uriel.² It is thought such birds do not go far from land, from which one might infer that there is some nearby. The wind was favourable, and since falling back to lower latitudes we were travelling at 8 or 9 miles an hour.

2nd March. I stayed on the quarterdeck till midnight.³ The night was dark. In the twelfth hour, at which time the cloud-cover had not in the least diminished, it suddenly grew light as if it was dawn, but soon darkness covered the sky again. After a quarter of an hour the same thing happened again. Returning to the quarterdeck from my berth at two o'clock, I saw three shining pillars: one SE½E, one SWbW, and the third SSW by the compass, which had a declination of 48° to W. They were the colour of a comet's tail. Long did I gaze at that aurora. Sometimes it got weaker, and then it would flood out across the sky with the same brightness, like a river flowing in a westerly direction. At half past two a circle like a rainbow appeared in the sky, also with the colour of a comet's tail, spreading from WSW at one end to NNE at the other.⁴ Soon the light spread along the entire horizon and finally it dwindled towards the NE and vanished. At the end of the third hour three pillars appeared again at NE, E and SE, and after that clouds spread across the whole sky.

3rd March. A similar spectacle appeared before us. It opened with a few pillars pointing towards the zenith at various points on the horizon, and then changed, as if it were carried along in the direction of the wind. Then an arc appeared, with one end set down at NEbE½E and the other at SWbW½W (from the true meridian).

¹ When not in use, hammocks were rolled up and tied to rails which ran above the gunwales on both sides of the poop, quarterdeck and foredeck.

² The lesser frigatebird (*fregata ariel*).

³ For about 25 minutes before sunset (at about 18:15), depending on the ship's exact position, it would have been possible for Simonov, in clear weather, to observe a total eclipse of the sun (personal communication from Nick Lomb, Sydney Observatory, 9 March 2011). However, there was a heavy overcast and Simonov may not have come on deck that early.

⁴ Light pillars have often been observed in auroral displays. Halo and arc effects, however, usually require the presence of a concentrated light source like the moon or setting sun.

In the twelfth hour, when I stepped into the wardroom for a minute, they suddenly called me up top, and stepping onto the quarterdeck I saw the entire heavenly vault covered with multicoloured lights. Light ran across the whole expanse of the sky in long, delicate streams. The most noticeable colours were bright pink, pale green and bright violet. No fireworks can compare with that magnificent spectacle. It was so light on the quarterdeck that in the dark, and in those parts autumnal, nights of that season it was possible to read with the aid of the aurora alone. It waxed and waned, and after lasting for about 10 minutes it almost disappeared, leaving behind a few bright pillars scattered at various points on the horizon. At two o'clock the sky clouded over. At 4 o'clock, when the clouds thinned slightly, the aurora appeared again, but it was quite faint and soon disappeared completely.

4th March. Night laid the same spectacle before our eyes, but the aurora was not as strong as the day before. However at two o'clock it was reported to have been astonishing again, and at about 4 o'clock in the morning it ended. That day the commander of the sloop *Mirnyi* came across to us in the evening. The captain asked him to bring the chaplain to stay with us for a time.

5th March. The sloop *Mirnyi* was ordered by the Expedition Commander to part company and sail to Port Jackson along a different parallel in lower latitudes. As we parted *Vostok* saluted her companion with seven guns and *Mirnyi* replied with a salute to us. The chaplain came over to *Vostok* and remained with us. Soon our companion was hidden below the horizon, leaving us alone like orphans on the immensity of the ocean. Until that moment she had never parted from us, had always accompanied us and undergone beside us all the terrors of that raging sea. Until that moment we could see people treading other planks who took a lively interest in us, and with whom we shared our feelings, so to speak. What a joyful gathering it had been, when the officers of *Mirnyi* visited our sloop in calm weather, how sad it was to part from them, and what despondency settled in our hearts. We separated from our friends, and from then on no living being remained before our eyes and no signs of life appeared in the part of the globe where we were wandering. Dark skies and a raging ocean, often threatening us with death, were now the only things before our eyes.

6th March. We were delighted once more with a similar beautiful aurora to the one we saw on 3rd March. It began about midnight in the E. and flooded across the whole heavenly vault with the same multicoloured lights as before, but only a few bright pillars were visible at the same time. Once again the strongest part of the aurora lasted no more than 10 minutes, and at 4 o'clock in the morning it disappeared completely.

7th March. The sky was covered with clouds throughout the entire day. A small aurora was seen after midnight, but not for long, because the clouds only parted slightly for a very short time.

8 March. It was overcast all day. There was a favourable wind right until the evening, but past 8 o'clock after midday it began to strengthen, and

became very strong towards midnight. In the second hour of the morning I felt a shudder go through the sloop. The blow was quite strong, and I thought we had struck an ice floe, but I later learned that it was caused by a wave. The motion got stronger through the course of the night. Everything fell about. The shocks and sounds of things falling and breaking woke me repeatedly.

9th March. Going to the quarterdeck I perceived that the sea had got up strongly, far more even than in the previous storm, which occurred on 1 Mar. The wind whistled as it struck the rigging; it tore water from the surface of the sea and swept it through the air. The whole expanse of the ocean was ridged with foaming waves. The sloop heeled towards its surface and shipped water from time to time. By then we were carrying no sails at all. They told me that not very long before I left my berth the storm had been even more violent. A single gust had torn away the *staysails* and half the *main course* and bent open the iron hooks securing the *water backstays*.¹ A little stronger, and we might have lost the *bowsprit*, after which not even the *foremast* would have been secure. In the morning we came within two sazhen [3.66m] of two fairly large ice floes, and would doubtless have smashed into one of them, had it not been for a wave that rolled under our sloop and surged back from the floe, pushing her away in a new direction.² But it was impossible to get right away from those ice floes, because owing to the violence of the wind we were unable to carry any sails, and without them the sloop was not *answering the helm*. Divine providence alone saved us from the danger that menaced us. From 3rd to 7th March we were surrounded by a countless number of large and small ice floes. Luckily that storm hit us when we had emerged from them. If it had happened back there we should hardly have escaped destruction; at the very least we would have suffered serious damage. That storm was so violent that the sailors themselves told us they had not seen the like even after spending a long time in different oceans.

Towards midday [11th?] the wind began to diminish, and after midnight we could already set *main* and *fore*, fully reefed. The next day [12th?] was actually quite fine. Clouds came up after midday, but that evening the stars shone out in all their majesty. From close to the horizon the moon shed its pale light on the delicate clouds that covered it. No aurora was observed.

17th March. Quite a pleasant day, especially the night. Although clouds passed over continually, that did not prevent me from observing the lunar eclipse.³

18th March. We met some seaweed.

¹ According to Bellingshausen the courses were (rightly) taken off her hours before this; the square sail lost was the main topsail.

² This phenomenon became familiar to polar mariners in vessels of all sizes (Nasht, 2005: 99).

³ A partial eclipse which reached its maximum at about 4 a.m., shortly before moonset, on 18 March 1820 (O.S.) at *Vostok's* position (personal communication from Nick Lomb, Sydney Observatory, 31 May 2011).

19th March. A favourable storm drove us along. With its aid we sometimes reached 10 miles an hour and never less than $6\frac{1}{2}$. Between midday and midnight we made 98 Italian miles [181.61km] ($171\frac{1}{2}$ versts).¹

20th March. We met some more seaweed. The day was calm, but in the evening we got a wind with the aid of which we made $4\frac{1}{2}$ miles an hour.

21st March. I spent the whole day on the quarterdeck in order to take the sun, but during that time the clouds were impenetrable except at midday. I succeeded in finding the latitude from those observations. That day we met some more seaweed.

22nd March. As on the previous day I waited for the sun to appear from behind the clouds in order to determine the position of our sloop from observations. In the morning I managed to take one altitude of the sun and after midday three longitudes. The result of the latter observations was $143^{\circ}31'23''$ East of the Greenwich meridian. The latitude was determined well by the midday observations and was $49^{\circ}44'$ South. We were concerned about determining our location because Company Island, sighted by the Spanish ship *Rafael*, was set down on the charts as near those parts. We could see from Arrowsmith's chart that we had passed right over the spot where the island had been set down. Presumably its location had been incorrectly determined by the Spanish, otherwise we should have seen it. Admittedly we had not taken lunar distances for some time, and could not depend on our chronometers to the degree of accuracy required, especially after such a long passage. But our latitude was true, and we had run down its parallel for a long way without ever finding anything. In the morning however a Port Egmont hen flew past us. After midday we met seaweed, and we had been noticing similar signs of the proximity of land for some time.

24th March. After such a long passage we saw two rocks rising from the depths of the sea. They lie off Vandiemen Island to the south and are called Pedra Blanca and Eichistone [Eddystone] by Mr Flinders; the two together [make up] *Swilly Rock*.² It was a lovely day, with the temperature rising to 10° Réaum. [12.5°C]. Clouds passed occasionally and once or twice it rained. The night was wonderful. The sea was dark until the moon came out, but here and there the swell raised a gleam on it produced by luminescent molluscs, which also happened to our gear occasionally. The dark sea and clouds, merging together and illuminated by the phosphorescent light of the molluscs, offered a striking picture. The stars now shone out in the heavenly vault, now dimmed as they hid behind the clouds. The wind was very favourable, and with its aid the sloop made up to $11\frac{1}{2}$ miles an hour.

25th March. We continued to advance at the same speed as before. There was no roll; our sloop just swayed slowly from time to time. The sun poured its bounteous light and warmth over us. All were aware that we were approaching

¹ Whether one uses the nautical mile or a 'strict' Italian mile of 1837m, Simonov seems to have overestimated the versts by a small amount.

² Not quite all the place names in this entry and the next were used by Flinders, but all, including the linguistic hybrid 'Pedra Blanca', could be found in *Vostok's* library.

the realm of endless summer. That day we passed along the eastern coast of Vandiemien Island, and at midday we were opposite Fleurieu Bay [Oyster Bay].

Having celebrated Easter at sea, off the coast of New South Wales, *Vostok* reached Port Jackson five days after Simonov's last published entry, on the morning of 30 March 1820 (O.S.).⁴

One of several signs that the expedition was prepared in some haste is the fact that the Academy of Sciences never produced the scientific instructions that were requested (*TS*, 1: 37). The Minister of Marine wrote them himself. It is worth seeing what Simonov made of them in practice. Even his selected programme was a formidable one, extending well beyond astronomy. Simonov made some mistranscriptions and left out two words in his quotation from Laplace, here replaced with the original. The original of his translation from Humboldt, which he cited rather vaguely, has also been provided.

S2: Duties of the astronomer

A brief report on the astronomical studies conducted by Extraordinary Professor Simonov during his journey around the world on the sloop *Vostok*.

The objects of my astronomical studies were as follows:

I. Determining the condition and rate of the chronometers.

We had three chronometers on the sloop *Vostok*: Arnold No. 518 and No. 2110 and Barraud No. 922. Their condition and rate were determined at every place we visited by multiple measurements of correspondent [southern] altitudes of the sun. I did not calculate the correction for that luminary's passage across the meridian from tables; instead I worked it out from the formula itself. My reason for doing so was that calculating from formulae is always superior to using tables based on formulae, because tables are often abbreviated for ease of use.

Every day I would make ten measurements in two series so that, in case it was not possible, due to cloud, to take the corresponding [altitudes] after midday with one series, the others might perhaps be used. I only used fewer than ten measurements for a calculation when clouds did not permit them.

The condition and rate of the chronometers were determined by that method during our first visit to Rio Janeiro from [10]3 measurements, taken on 8, 9, 10, 11, 12, 13, 14, 15, 17, 20 and 21 November 1819; at Port Jackson on our first visit from 153 measurements, on March 31st, April 3, 6, 8, 9, 11, 12, 13, 14, 15, 19, 20, 24, 26, 27, 28, May 3 and 5th 1820; in New Zealand (where we spent five days at Queen Charlotte Sound) from 23 measurements, among which mean midday was taken on 30th May and 1st April [June] and mean midnight on 3rd April [June]; at Otaiti (where we also anchored for five days) from 49 measurements on 23, 24, 25, 26 and 27 July; at Port Jackson the second time from 326

measurements on September 29th [9th], 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 23, 24, 27, 28, 29, 30, and October 1st, 2, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 26 and 27, 1820; at Rio Janeiro the second time from 232 measurements taken on March 3rd, 4, 5, 6, 8, 10, 11, 12, 15, 16, 17, 21, 26, 28, 31st, April 1st, 2, 3, 4, 5, 6, 7, 8, 13, 14, 16 and 17 1821.¹

All the other measurements were based on these, because the determination of time is a fundamental subject within practical astronomy.

II. The geographical latitudes of places where we were able to go ashore were determined from the near-midday altitudes of the sun, or sometimes from the fixed stars, often with the Troughton sextant, more often by means of the Dollond reflecting circle with its three alidades. Altitudes were taken for a few minutes before the luminary crossed the meridian and a few minutes afterwards. I reduced the near-midday altitudes to meridian altitude according to the formula of M. Delambre, in which not only the first term but also the second is calculated, however small it is; the third and subsequent terms are never significant. In calculating this value, changes in declination were not overlooked. The astronomical refraction of light was corrected for current atmospheric temperature read off the thermometer and barometer.

The latitude of Rio Janeiro was determined by that method from 223 measurements, Port Jackson from 200, Matu[a]ra Island, New Zealand, from 84; and Cape Venus on the island of Otaïti from 100 measurements.

In the torrid zone it is very often impossible to take near-midday altitudes of the sun, owing to its great altitude. To date, angles greater than 120° cannot be taken with the reflecting instruments that we have, which means that altitudes greater than 60° cannot be taken with artificial horizons. This was something we experienced for the first time at Rio Janeiro and Lisbon.² In that situation one has to resort to the fixed stars, but such stellar measurements are far less accurate than solar ones. No one has more experience of this problem than Mr Humboldt, because it is never possible to use the sun in order to determine latitudes near the equator with such instruments. "Few travellers have had as many opportunities to experience this problem as I have," says Mr Humboldt (*Voyage de Humboldt et Bonpland, quatrième partie. Astronomie.*) "The great altitude reached by the sun, as it crosses the Meridian in the tropics, obliged me to use single stars to determine latitudes for a period of five years. There is nothing so laborious as those nocturnal measurements, after a whole day has been spent on horseback in the hot sunlight of a sultry climate, and when it is hardly possible to make out the weak glimmer of stars reflected in an artificial horizon under a misty sky..." etc.³

¹ Amendments are based on Simonov's final report (Simonov, 1828). Dates are of course Old Style throughout.

² Neither Lisbon nor Tenerife, if that is what Simonov meant, is in the torrid zone.

³ 'Peu de voyageurs ont eu l'occasion d'éprouver ces difficultés aussi fréquemment que moi. La grande hauteur qu'atteint le soleil sous les tropiques, à son passage par le méridien, m'a forcé, pendant cinq ans, à employer les étoiles seules pour la détermination des latitudes. Rien n'est plus pénible que ces observations de nuit, lorsque dans les climats brûlans on a passé la journée à cheval, exposé à l'ardeur du soleil, et que, sous un ciel vaporeux, on a de la peine à distinguer la foible lumière des étoiles que réfléchit l'horizon artificiel' (Humboldt and Oltmanns, 1810, 1: xiv).

Having experienced those problems myself, I searched for the means to overcome them, and in the end I worked out how to make a new reflecting instrument which, being incomparably simpler than existing sextants and circles, has the advantage that angles can be taken to any size required. Furthermore, it will remove the many inaccuracies which so often occur with existing instruments and which need a great deal of work to determine. In the course of my work I will have the honour to present a description of this instrument and a mathematical demonstration of its utility and advantages.

III. Geographical longitudes.

To determine longitude I measured the distances of the moon from the sun and the fixed stars 236 times at Rio Janeiro during the first visit, 242 times during the second. Also some lunar right ascensions with the passage instrument. At Port Jackson, 282 distances the first time and 222 the second. Also two eclipses of satellites of Jupiter, one stellar occultation and some right ascensions of the moon.

I calculated absolute distances first with Borda's formula, then with Delambre's, but in the end I worked out a formula of my own which seems to be simpler than others. I will include that formula in my report, after calculating tables to be used with it which will greatly simplify the calculations without sacrificing accuracy in any way.

Doubtless these two topics, that is to say the determination of geographical latitude and longitude, have already been exhaustively studied by other astronomers and navigators. Nevertheless it is essential to repeat the calculations afresh with various instruments and observers to achieve the accuracy which is essential for geography and for the safety of mariners, the more so since year by year the instruments are steadily improved.

IV. Measurements of the right ascension of fixed stars.

For these measurements I had a 2 foot [61cm] passage instrument, which I mounted on an iron pedestal with a lead plinth on top. With this instrument I took 530 transits of fixed stars. I hardly ever missed an opportunity for such measurements, and often I would remain seated at the passage instrument for 6 or more hours of a night, regardless of the fact that during the day I would often be wearied with measurements of correspondent and near-midday altitudes as well as with lunar distances.

No one had carried out such measurements since M. Lacaille, who determined the positions of southern stars at the Cape of Good Hope more than fifty years earlier. Because I was only on shore for brief periods, I could not observe the whole southern sky or put together a complete catalogue. But at least I did enough so that by comparing my measurements with Lacaille's it is possible to determine the proper motions of the fixed stars whose right ascensions I observed, a very important matter for astronomy.

V. Fluctuation of Mercury in the Barometer in the Tropics.

I undertook the measurement of this phenomenon with great assiduity. Every hour by day and by night I measured the state of the barometer, thermometer and hygrometer. In the first period I began taking these measurements on 2nd July 1820, as we entered the Tropics, and stopped on 1st September as we left them. So by measuring with two barometers during that interval I obtained 2880 measurements. In the second period I measured this phenomenon for most of

the time we were at Rio Janeiro, that is, from 13th March to 16th April 1821. There I obtained 644 measurements with one barometer. In the third period, during our return passage through the Tropics from 25th April to 28th May of the same year, I obtained 792 measurements with one barometer, so that I made a total of 4316 measurements in this field.

This phenomenon, the main causes of which are the same as for the ebb and flow of the tides, is an extremely interesting one, especially since very few such measurements have been taken. The famous modern geometer Laplace had insufficient of such measurements, and remarked in his book *Mécanique Céleste* that: "ce phénomène est digne de l'attention des observateurs." And elsewhere he said: "Nous ignorons jusqu'à quel point les petites oscillations que l'action du soleil et de la lune excite dans l'atmosphère, peuvent modifier les mouvemens produits par les causes diverses qui agitent un fluide aussi mobile; et dans lequel, a raison de cette grande mobilité, une cause très-légère peut être la source de changemens considérables. L'observation peut seule nous instruire à cet égard."¹

I have transcribed those words of Laplace by way of showing the extent to which famous scientists are interested in this subject and how little attention travellers have paid to it.

This field, which is of great interest for the investigators of nature because it may lead, perhaps, to other important discoveries about the laws of creation, has been completely neglected by physicists. Nevertheless it is absolutely essential for accurate determination of the heights to which mountains are raised above the surface of the earth, which can be determined by means of the barometer, especially in the torrid zone.

In concluding this short report I will mention that, since the naturalists appointed to our expedition, whom we were to receive at Copenhagen, did not appear, I tried not to miss the opportunity to provide the University of Kazan with a few natural specimens. In the field of zoology, I collected a few stuffed birds, native to regions from many of which we have no examples, for the Museum. In the field of botany I will have the honour to present a collection comprising 60 specimens of the plants of New Holland, with their seeds, as well as seeds from the Royal Botanic Garden located on the island of Tenerife. In addition I collected some minerals and shells, also clothing and weapons used by the savages, such as: textiles, lances, maces and their fishing-tackle and other tools. Once I have made a detailed description of them, I will have the honour to present all these to the University of Kazan.

Assessment

As published (S1), Simonov's journal was incomplete and had evidently been retouched, but it retains the charm and freshness one would

¹ 'This phenomenon is worthy of the attention of observers.' 'We are ignorant of the degree to which small oscillations, arising from the actions of the sun and moon on the atmosphere, can modify the movements, resulting from various causes, which pervade such a mobile fluid. Because of its great mobility a very slight cause may bring about considerable changes. Only observation can instruct us in this matter' (Laplace, 1799, 2: 296, 298).

expect from its author in such circumstances. As always, he was ready to try something new. A more important consideration is that he could have left out some entries. Simonov went into detail about parts of the voyage elsewhere (Simonov, 1854; 1990), but those were polished, retrospective accounts. The particular value of his journal is that much of it, at least, was put down on the spot. As such it is a uniquely civilian account of the passage from Rio to Port Jackson. His discussion of the mooted polar ice cap is significant. His conjecture that the sealers on South Georgia had 'perhaps gone far *beyond* the limits reached by Cook' (emphasis added) is intriguing, but he did not explain or support it.

Apart from dramatic or colourful details, the journal leaves the impression that for much of the passage between Rio and Port Jackson Simonov did not have enough to do. Sun sights were rarely possible, opportunities for natural history were few, and he was not equipped, theoretically or technically, to make detailed observations of the aurora australis. He took some meteorological measurements (Simonoff, 1823, 1824), but they were not enough to keep him fully occupied. Another impression is that he probably did not have much conversation with Bellingshausen during the passage.

The article describing his scientific studies (S2) speaks for itself. However, Simonov never completed his scientific work for the expedition. The position in which that left the enterprise will be considered in Chapter 12. As for narrative descriptions of the voyage, he went on producing them throughout his life, but died in January 1855 without completing the final version (Simonov, 1990).

9

The Lieutenant

Surely, the quiet obedience, the diligent application, and the occasional arduous duties of the lieutenant, are absolutely necessary.

THOMAS HODGSKIN (1813)

Introduction

Mikhail Petrovich Lazarev was the second son of the governor of Vladimir, Pëtr Gavrilovich Lazarev, himself a former naval officer. Lazarev first saw the sea in February 1800, when he and his brothers Andrei and Aleksei entered the Naval Cadet Corps at around the time of their father's death. In 1803 Lazarev was one of about 30 cadets selected on merit for training as volunteers with the Royal Navy, in which he served for almost five years. He was promoted midshipman in 1805 and lieutenant after returning to Russia in 1808. A few months later he was taken prisoner by the Royal Navy when HIMS *Vsevolod* was seized and burned outside Baltic Port (Paldiski) on 26 August 1808. He was exchanged in 1809.

In 1813, with the tide of war turning against France in the Baltic and elsewhere, the Russian-American Company decided to revive the sea route to its colonies, which had been pioneered between 1803 and 1807 but was then cut for six years. In those days the constraints on the Imperial Navy meant that a mere lieutenant had little hope of taking an independent command out of the Baltic,¹ so that when Lazarev was given the RAC ship *Suvorov* in 1813 it was a real, doubtless well-deserved, 'plum'. During the voyage, which lasted almost three years, he brought to New South Wales the news that Napoleon had abdicated

in April 1814,² discovered a group of atolls in the Pacific, and passed Cape Horn.

On 27 March 1819, about six weeks after the commissioning process for the twin polar expeditions had begun, Lazarev was placed in charge of the extensive modifications to be made to the transport *Ladoga*, future *Mirnyi* (Sokolov and Kushnarev, 1951: 81–3). His qualifications for a leading role in the squadron included his seamanship and command of English, his familiarity with the Royal Navy and with Portsmouth, Rio and Sydney, and his experience along other parts of the route. However his youth, juniority and relative inexperience with hydrographic survey excluded him from consideration for command of the expedition.

To judge from fragmentary evidence, Lazarev took the leading role in commissioning the squadron for the next 12 weeks. When Bellingshausen arrived from Sevastopol he brought with him Captain Lieutenant Zavodovskii, who had served under him for seven years in the Black Sea and was clearly intended to act as his unofficial flag-captain, despite the fact that as a mere junior captain Bellingshausen had no flag to hoist. That created a confused, not to say delicate command situation, which was never mentioned, let alone resolved, in the squadron's orders. Zavodovskii outranked Lazarev, but Lazarev held a more important position in the squadron and was paid a great deal more than Zavodovskii.³ Bellingshausen relied on both men and both performed their different functions well, as their commander repeatedly acknowledged. Meanwhile Bellingshausen was in sole command, as the Minister's orders made perfectly clear. And if Bellingshausen had died during the expedition it would have been Zavodovskii's awkward responsibility, as senior officer in command of the 'senior' ship, to assume that command.

In a sense, therefore, Bellingshausen had two deputies rather than one. But the pay rates tell it like it was. Bellingshausen could, at a pinch, have taken over Zavodovskii's duties; indeed he had to do so for much of the passage from New Zealand to Tahiti, when Zavodovskii was seriously ill (*TS*, 1: 391). But he could not be captain of *Mirnyi* as well as *Vostok*. Because of his vital role, because of the extensive powers and obligations that fell to a ship's captain of any rank, and because the matter of succession never arose, commentators have regarded Lazarev as holding the second position in the squadron. But it remains quite hard to say what that position was. The squadron's orders were given to Bellingshausen, not to Bellingshausen and Lazarev. While in port Bellingshausen doubtless consulted both men about the status of his

ships and options for the expedition. While at sea he can rarely have discussed command decisions with Lazarev, whereas Zavodovskii was always available to act as a sounding board. When conditions allowed, Bellingshausen summoned Lazarev to *Vostok* for both social and expeditionary conversations. But for most of the time, especially during the two Antarctic phases of the voyage, that would have been impossible. Meanwhile the limited signalling system, often in conditions of poor visibility and some urgency, would have carried Bellingshausen's orders and *Mirnyi's* acknowledgements, plus information about ship status, ice, and other sightings, but little more.⁴ In short, despite his leading role Lazarev was not in joint command. Nor did he so regard himself (L1). When *Vostok* saluted *Mirnyi* with seven guns, *Mirnyi* replied with 20.

By the end of 1821 Junior Captain M. P. Lazarev was free to move on and promptly did so, this time taking command of a naval squadron tasked with a supply mission to Alaska for the (increasingly naval) RAC. As chief of staff to Admiral Lodewijk van Heiden, commanding the Russian squadron, Lazarev distinguished himself and his ship, HIMS *Azov* (74), at the Battle of Navarino in 1827, and was promoted rear admiral. In 1832 he was appointed chief of staff of the Black Sea Fleet, in which role he conducted further actions against the Ottoman Navy, oversaw the navy's ongoing hydrographical work in the Black Sea, and played a part in introducing steam power into the service. In 1833 he participated, under Admiral Greig, in a naval bombardment against Circassian positions. Between 1836 and 1840 Lazarev himself commanded five similar naval actions, one of which he described to his life-long friend Captain Lieutenant Aleksei Antipovich Shestakov, IRN (Chernousov, 2011: 111–48; M. Lazarev, 1918c: 114–17). Those events, which formed part of the long-running Russo–Circassian War, were controversial at the time and have remained so (Bell, 1840, 2: 120–1).

Lazarev died at Vienna in 1851, having brought the Black Sea Fleet to a level of capability without which it would have fared worse in the Crimean War of 1852–54 than in fact it did (Chernousov, 2011: 146–58). One part of that legacy had been his support for the early careers of such future leaders of the Navy as Admiral Pavel Stepanovich Nakhimov and Admiral Vladimir Ivanovich Istomin. Between 1837 and 1846 Lazarev also took an interest in the redesign of Empress Catherine II Square in Sevastopol to house a suite of monumental Navy buildings. Statues of himself, Nakhimov and other admirals were later erected in what became Nakhimov Square. In the 1920s, however, their imperialist achievements were disowned by the country's new communist rulers. In 1928 the statues, now briefly in Third International

Square, were destroyed. Less than ten years later the Soviet state began to distance itself from radical, left-wing communism, and to encourage a critical admiration for selected military leaders from the imperial past. One result was a collection of documents pertaining to the life of Lazarev, the first volume of which is now an important source for the Bellingshausen expedition (Samarov, 1952).

Soon after returning to Kronstadt in 1821 Lazarev sent Shestakov a letter describing the Antarctic expedition. It was published in *Morskoi sbornik* in 1918 as the first of a series of 83 such letters. (One or two were not by Lazarev.) They had been handed down in the Shestakov family, then passed to one of Lazarev's descendants and by him to the Naval Archives. The provenance implies, first, that they probably do not comprise every letter from Lazarev to Shestakov, but only those that were considered to be of historical or family interest, and second, that Lazarev himself had had no intention of doing anything further with them. That is also evident from the fact that they were confined to recent events in each other's lives, including a great deal of naval news and gossip, and never looked back at such matters as Lazarev's early childhood or his years in the Cadet Corps and the Royal Navy, with all of which he doubtless felt that Shestakov was sufficiently familiar.

In order to assess whether Lazarev's account of the voyage added anything important to the others, or was in any way inconsistent with them, it is important to have the complete text before us. The more so as this will be the only account of the voyage as seen from *Mirnyi* in this book (see Chapter 10).

Lazarev frequently broke into English, in which both men were fluent, in this correspondence. Lazarev's underlined emphases and all ship names have been placed in italics as usual. Any English words, usually written as plain text in the originals, have been underlined.

L1: Letter to Captain Lieutenant Shestakov, 1821

Kronstadt, 24th September 1821¹

I received your letter, my dear friend Aleksei Antipovich, written on 3rd September, and it was especially pleasing for me to know that you haven't

¹ The year was shown as '1824' in *Morskoi sbornik* (Lazarev, 1918a) instead of the '1821' which Lazarev wrote, according to the document now at the Naval Archives. It is perhaps significant that the text was prepared for publication during the turmoil of 1917. Confusingly, however, Andreyev mentioned that the document which *he* saw in the 1940s was actually undated (Andreyev, 1949: 169–70).

forgotten *us queer fellows* yet. Thank you for your warm greetings. I am delighted that you have given up service at sea and now live quietly, all the more since it is obvious from your letter that you are revelling in your portion of family life. Thanks be to God.

In your letter you ask me for a great deal all at once. I will tell you some of it briefly, so as not to leave you in complete ignorance. You already know that in 1819 His Majesty was pleased to send out two expeditions, one to the North, the other to the South Pole, for discoveries, or better put, to survey such parts of the ocean as had escaped the gaze of previous navigators. The main aim really was to reach the highest ever latitudes both South and North. The southern expedition consisted of two ships, *Vostok* and *Mirnyi*. The expedition leader, F. F. Bellingshausen, commanded the first and I the second. There were also two ships, *Otkrytiye* and *Blagonamerennyi*, in the northern expedition. Its leader, M. I. Vasil'ev, commanded the former and Gleb Shishmarëv the latter.

You should also know that all these ships were newly built. *Vostok* was built on the Okhta to the design used for *Kastor* and *Poluks* with bronze reinforcement, and with the additional difference that she did not have separate gangways [a well], but the upper deck was made continuous (flat Deck). *Otkrytiye* was also built on the Okhta with bronze reinforcement and a continuous frame to the design of the corvette *Mel'pomena*, with some changes to the internal layout and reduction of spars. That ship seemed completely unsuitable for such an undertaking, owing to the cramped, dark quarters she provided for both officers and crew. *Mirnyi* and *Blagonamerennyi* were built at Lodein Field to the design of West Indies ships, 120ft long [36.58m] with iron reinforcement. But when they arrived at Kronstadt they were clad in one-inch [2.54cm] [pine] sheathing with copper nails and finally, like the others, with copper. In the event the last two proved to be the most suitable of them all, both for their strength and for their roominess and stability. Their only deficiency compared with *Vostok* and *Otkrytiye* was their speed. But what was the point in sending ships that would have to keep together the whole time, but [were] incidentally so unequal in speed that one would constantly have to set all her studding sails and so wear out her spars, leaving her companion to set very small sails and wait about?¹ I'll let you work out an answer to that riddle for yourself, because I don't know of one.

On 3rd July 1819 we all left Kronstadt together. We stored with rum at Copenhagen and reached Portsmouth on the 29th of the same. We spent a whole month there to collect instruments, books etc., which took far longer than expected. Our passage to Rio Janeiro, including 5 days that we spent at Tenerife, where we stored with wine, lasted 65 days. We spent 20 days in Brazil, and after refreshing the men and storing with everything requisite for a long and stormy passage we set sail on 23rd November and headed south, leaving *Otkrytiye* and *Blagonamerennyi* still at Rio Janeiro.

On 15th December we sighted the island of *South Georgia* and having surveyed its western side we proceeded to *Sandwich Land*. In that barren land we wandered, or to put it better we blundered about like the spirits of the dead for an entire month. The constant snow, ice fields and fogs were the reason our survey took

¹ This long sentence was divided into two in the 1918 transcription, but the interrogation mark was not repeated at the break, making it hard to follow.

so long. In the end our labours were not in vain. Sandwich Land is made up entirely of small islands. To those which Cook discovered and named as capes, suggesting there might be a continuous coast, we added three more and, without erasing the name *Sandwich*, which can doubtless serve to embellish every map, we called them the *South Sandwich Islands* instead of Land. Directly to the south the ice began to compact, with hummocks, and prevented us from sailing further. We passed around it to NE and eventually turned south again. The constant snow and fog sometimes lasted for two weeks on end. You can get some idea from that of the summer we had, especially if you remind yourself that in southerly snowstorms the thermometer sometimes fell to $4\frac{1}{2}^{\circ}$ of frost [-5.6°C]. That might not seem much to your longshore landsman, but can you imagine what it's like at sea in a violent storm?

On 16th January we reached latitude $69^{\circ}23' \text{S}$,¹ where we met main ice of extraordinary height. It was a fine evening, and looking out from the crosstrees it stretched just as far as our gaze could *reach*, but we had not long to enjoy that amazing spectacle, because the murk quickly came over again and the usual snow set in. That was in longitude $2^{\circ}35' \text{W}$ of Greenwich. From there we held our course east, pushing south at every opportunity, but we always met an ice main before we reached 70° . Cook had set us such a task that we were compelled to run into very great danger in order, so to say, *not to end up with our faces in the mud*. Picture to yourself the situation we found ourselves in many times: running between ice islands in clear weather and hoping for it to continue, with them so crowded together that up to half a thousand of them were in sight at once, and then suddenly the clear day would turn into the murkiest imaginable, the wind would pick up and snow start falling – our horizon would close in to no more than 20 sazhen [36.6m] and what sort of situation were we left in then? The only possible explanation is that luck protected us. Even more so, it must have stayed close by our side throughout and prevented our destruction.

Those ice islands I am talking about stand from 300 to 400 foot [91 to 122m] high and from $1\frac{1}{2}$ miles to 12 [2.7 to 22km] in circumference, plus a few either smaller or larger. For example we saw one which, although not above $1\frac{1}{2}$ miles in circumference, was 468 foot [142.65m] above sea level. Another was remarkable for its length, for we passed along it for 11 miles [20 km], but its height was no more than 120 foot [36.58m]. To which must be added that the part of an ice island above the sea is only $\frac{1}{8}$ – $\frac{7}{8}$ lie underneath. We made sure of that by several experiments, in which we cut the ice up into different shapes and floated them in water.

On 5th March in lat. $58^{\circ}44' \text{S}$ longitude $90^{\circ}35' \text{E}$ we deliberately parted company, so as to divide the space between the tracks of Captains Cook and Furneaux into three parts. After that each of us undertook to search for an island which had been seen by the Spanish in lat. $49^{\circ}30' \text{S}$ long. $143^{\circ}04' \text{E}$. But as you are aware those gentlemen the *Españolos* always got things wrong on their maps, not only with the longitude but sometimes even with a latitude by 40 miles [74km] or more, and so our searches were in vain. After that our course was laid for Port Jackson, where we arrived on 7th April after a passage of 138 days, during which we not only did not lose a single man, but also had no one ill and

¹ Bellingshausen made it $69^{\circ}25' \text{S}$.

furthermore no symptoms of scurvy.¹ So what do you think of our Russian sea-dogs now? Here I found *Vostok*, which had arrived 7 days before us, and to our satisfaction, her men were in the same state of health as ours.

We spent a whole month at Port Jackson, overhauling the sloops and getting on top of the damage received from ice floes. So that you should not think too lightly of the dangers we were subjected to within the ice floes, I shall just say that a piece 6ft 2" [1.88m] long was driven into *Mirnyi's* stem, that is, starting from 7ft 5" [2.26m] below on up to 13ft 7" [4.14m],² and more than a foot thick, so that there were only 4 inches [10cm] of her skin left. That meant I had to unload the sloop almost completely and then, after getting her well down by the stern, put her bows ashore at high water and a full moon.³ The work was no holiday for 45 men, but we repaired her, and three weeks later *Mirnyi* was carrying her topgallant royal yards again and was ready to set her sails. The accident had happened in thick gloom at 6 knots. We caught sight of the floe so close up that it was impossible to avoid it, and luckily we struck head on with the stem. If it had happened a little to the right or left it would undoubtedly have broken through, and of course none of us would have lived to tell the tale. The collision happened at 2 o'clock in the morning and was so violent that many of the people were thrown out of their hammocks. On *Vostok* also they replaced some parts of her wales that had been damaged by ice. And because they had been weakened by the frequent violent gales, they found it necessary to strengthen some of her knees and stanchions, and for the same reason they reduced all her yards and topmasts and reseeded her sails. I was well contented with my own sloop.

From Port Jackson we headed for the tropics, passing through Cook's Strait, which is in New Zealand, where both ships were almost lost in a storm. Between latitudes 15° and 20° S and longitudes 210° and 220° East of Greenwich we discovered 15 previously unknown islands. Some are inhabited, and together they were given the name of the Alexander Archipelago.⁴ We visited Otahiti to check our chronometers, which appeared to be right, which allows us to infer that our discoveries were placed on the map with sufficient accuracy. All Kotzebue's discoveries were displaced 24' East and for that reason the island he called Rurik's Chain has been deleted, because it moved over to the first Palliser Island [Toau?], seen by Cook. After that we discovered five more, which added to the previous ones makes 20 new islands in the tropics. And then we headed for Port Jackson a second time, and arrived there on 10th September.⁵

This time we stayed 50 days. *Vostok* added some more strengthening and replaced the bowsprit step, which had become completely unserviceable. And meanwhile the people were well refreshed and prepared themselves to undertake

¹ In fact, *Mirnyi* had lost a seaman with typhoid on 21 February 1820 – see Appendix 2.

² These are (probably) heights within the total elevation of the hull from the bottom of the keel, known as the sheer-draught.

³ A spring tide. The main repair, at the bows, was extremely urgent because of the need to float the ship off again before the tides lessened. It was completed in three days.

⁴ Perhaps an initial suggestion, but not used anywhere by Bellingshausen.

⁵ Not a nautical date; *Mirnyi* was a day behind *Vostok*.

new labours in a stormy venture to the south. On 1st November we left that beautiful port, not without regrets. It was a place where they had received us like dear friends or relatives. From New Holland we laid our course directly south. We called at *Macquarie* Island in lat. 54°40' S long 158°50' E, which differs by a whole degree further West from where it is shown on previous maps.¹ After filling our empty barrels with water there, we set off further south.

We met the first ice at 62°, which was much further than before. And in the same way as ever we passed eastwards among the ice fields, and at every opportunity we pushed south. But impassable ice fields always barred our approach to the 70° parallel. On 9th January 1821² after an extended bout of gloomy weather it cleared a little at midday, and to our general amazement we sighted land at latitude 68°53'10" S longitude 90°51'30" W. It was an island with a circumference of no more than 25 miles [46km], including the small islet which belongs to it,³ but its elevation above sea level was 3960 foot [1207m]. That discovery in such a high latitude delighted us all immeasurably. We called it *Peter* Island in honour of the great builder of Russia and originator of our navy. The ice, pressed into hummocks, and with many icebergs in it, surrounded the land on all sides for several miles, thus making it inaccessible. However fine weather allowed us to determine the position of the island with great precision – more than 600 lunar distances were taken to determine its longitude. The achievements of our passage were not confined to that one, because six days later⁴ land was discovered that was much higher and more extensive. But in that case the ice did not let us any closer to it than 40 miles [74km], and from the north at that. On all other sides the ice appeared to be unbroken all the way to the Pole. That coast received the name of *Alexander I*, and it probably also consists of one, or possibly several islands. Like *Peter* Island that land is covered in eternal ice and snow from the very summit down to sea level. A few dark-bluish spots on overhanging crags, where snow really cannot stay, are the only visible sign that it is not ice, but a rocky coast. Its highest mountain is to be called *St George the Victorious*.⁵ It was fixed as lat. 68°44'45" S longitude 73°26'45" W. In fixing both pieces of land we were favoured with what you might call extraordinary luck, in that the weather, which in those parts is normally murky with unremitting snow, was clear for those days, and the sky was completely cloudless.

From there we laid a course to *South Shetlandia*, discovered in 1819 by Captain Smith in a merchant brig while sailing from Buenos Aires to Valparaiso, and making so far to the south on account of the extent of the westerlies. But considering that in England and one might say throughout Europe people concluded that the main land in the south had at last been discovered, which they had sought

¹ The island lies between 158.8° and 158.9° E, thus in between Lazarev's longitude and the one he was correcting. But closer to his.

² The true Julian date, rather than the ship's date of 10 January given by Bellingshausen.

³ Probably a reference to the *Tvistein Pillars*, a 49m basalt sea-stack which lies just west of the northern tip of *Peter I* Island, and which was next seen and so named by Nils Larsen in 1929.

⁴ Literally, 'after an interval of five days'.

⁵ Now *Mount Bayonne*.

for so long, and whose existence sedentary philosophers had posited – from their cabinets – as being essential for the balance of the terrestrial globe, so we deemed ourselves bound by our very title of Southern Expedition either to confirm that conclusion or to disprove it completely by passing around that land on the southern side.¹ To that end having arrived in sight of its western termination, which lies in lat. 63°06' S longitude 62°42' W, on 23rd January, we passed along its southern side. South Shetlandia is nothing more than a chain of islands of various sizes and of extraordinary altitude, covered in eternal snow and stretching out from NE to SW for about 300 miles [555km], such that its eastern limit lies in latitude 61°10' S longitude 54° W. There's the South Continent for you, and I deliberately note the latitudes and longitudes, because perhaps you might care to glance at a map out of curiosity.

By that time *Vostok* had been so weakened that further attempts to the south appeared almost impossible. The continuous pumping of water was tremendously exhausting for her people, who had remained healthy until then. Rot had appeared in various places, and on top of that the blows inflicted by ice floes obliged Captain Bellingshausen to conclude his exploration a month sooner than otherwise, and to put his mind to the return journey. And so we took our leave of the stormy Southern Ocean and the ice fields, and set course for the blessed lands of Brazil. We reached Rio Janeiro on 1st March after completing a voyage around the world.

However this time we were not so fortunate with the people, as the first. One of my seamen died of typhoid, and on *Vostok* one man fell, and another went overboard at night and they were unable to rescue him despite their best efforts.² Otherwise all the rest were much healthier than they had been when we left Kronstadt, and had no symptoms of scurvy. That means that on the two sloops over two years we lost only one man to disease – which is good by our standards.

While at Rio Janeiro Capt. Bellingshausen thought it worth adding 18 more knees and stanchions to reinforce *Vostok*. But there was nothing wrong with old *Mirnyi*. On 23rd April we departed Brazil, bearing with us the Russian ambassador and his entire suite for their transfer to Lisbon, which we reached after a favourable 56-day passage. And then after spending 9 days there we set off directly to Russia without calling in anywhere. We dropped anchor in Kronstadt road on 24th July.

So there you have all our adventures in a nutshell, my dear old chum. The Emperor came out to Kronstadt for the sole purpose of visiting our ships and was extremely satisfied with everything. He spent some hours looking over the maps, pictures and sundry rarities, with which you might say both sloops were crammed. And he thanked us greatly and congratulated us for the work we had carried out and for executing our instructions so precisely. Finally some honours were sprinkled, even upon us seafarers. F. F. Bellingshausen was promoted from

¹ British press reports in 1820 usually described New Shetland as, or as perhaps, just a group of islands. But sub-editors will be sub-editors. However often what was claimed to be, and possibly was, an extract from Smith's log might refer to 'islands', the headline was still 'New Continent' – *Literary Gazette*, 14 October 1820: 668.

² For details of the seamen's deaths, see Appendix 2.

senior captain to captain commander, and received the [St] Vladimir, 3rd class, and an *arenda* of 1000 silver r. {£65,680}. I [went] from lieutenant to junior captain. Zavodovskii from captain lieutenant to junior captain. The remaining lieutenants received the [St] Vladimir, 4th class, and the midshipmen the [St] Anne, 3rd class. Everyone without exception, including the lower ranks, is to receive double pay for the rest of the commission at whatever rank they were when we returned to Kronstadt. Which means that I will get another 1440 roub. {£94,580} in addition to my salary.¹ No pain there. Senior ranks are allowed to reckon this commission to have been twice its duration, and lower ranks have had three years' service added towards their discharge.²

You asked me to specify for you which officers served on this commission. Here is the list:

On Vostok

F. F. Bellingshausen left as Junior Captain and returned a Senior
Cap. Lieutenant Ivan Ivanovich Zavodovskii
Lieutenants:
Ivan Fëdorovich Ignat'ev (lost his mind during the commission)
Konstantin Petr. Torson
Arkadii Sergeyevech Leskov
Midshipman:
Dmit. Alekseyevich Demidov

On Mirnyi

Your humble servant
Lieutenants:
Nikolai Vasil'evich Obernibisov
Mikh. Dmitriyevich Annenkov
Midshipmen:
Ivan Antonovich Kupreyanov
Pavel Mikhailovich Novosil'skii

On Otkrytiye

M. N. Vasil'ev
Lieutenants
Aleks. Pavlovich Avinov (fell ill, but recovered)
Pavel Nikolayevich Zelenoi
Roman Platonovich Boil'
Midshipmen
P. Petrovich Stogov
— [Roman] Gall

¹ Double pay for just under six months, so presumably to the end of the year. Few others would have been kept on the ships' books for so long, so their bonus was generous, but not excessive. The exact details are hard to reconcile with those given elsewhere (Chapter 3).

² A reduction of the 25-year conscription term by three years, a substantial reward.

On *Blagonamerennyi*
 Gleb Semënovich Shishmarëv
 Lieutenants
 Ivan Nikolayevich Ignat'ev
 Al. Petrovich Lazarev – (my brother)
 Midshipmen
 N. Dmitriyevich Shishmarëv
 — Gellisem¹

Farewell; may you be healthy as always, and lucky. All your friends send greetings: P. I. Sushchev, G. I. Plater, F. F. Bellingshausen, V. I. Ivanov, my brother Andrei, with whom I am living as housemates until Avinov arrives, but we expect him next year because their expedition was for three years. These days Irinarkh Stepanovich [Tulub'ev] has set off with *Apollon* (just like *Vostok*) to Sitka for commerce protection. Also under his command he has the brig *Ayaks*, with Nikandr Filatov on her. I have received a letter from my brother Aleksei, from Sitka in October last year. He writes that all are healthy. Avinov whistles as always. They were in the Bering Strait just 16' further North than Cook, and on account of the ice fields they were unable to sail any further either east or west. Now they have left P. N. Ignat'ev at Sitka to build a boat, while they set off to spend the winter in the tropics, where doubtless they are passing their time usefully, spending it on surveying places where few people have sailed before. Returning to Sitka when summer begins they will pick up the boat and make a second attempt at Bering and, after spending the whole summer there, they will make the return journey to Russia around the Horn.

You also enquire about my dealings with the [Russian-] American Company. That has all collapsed and they have been left empty-handed with a reprimand from senior management. I am very pleased, because my representations were the cause of Baranov's replacement (he died on his return journey to Russia) and of changes to many of the previous dispositions. Now Matvei Murav'ev is there. I expect you read about the new dispositions in the *Invalid*.²

I've started babbling, brother, so it's time to stop.

Sincerely yours, M. Lazarev

P.S. I am sending you one of the medals that were specially struck for our expedition. Put it in your museum of rarities. We were supposed to hand them out at savage islands to kings, princelings etc.

From about 1826 Lazarev built up an extensive collection of the literature of exploration in Russian and other languages, which his daughter donated to the Naval Library in Sevastopol in 1893. In the 1930s the library suffered much disruption (shortly followed by evacuation) and the irreplaceable 'Admiral's collection' of 1118 volumes was sold off piecemeal to unknown buyers (Gorskaya, 2010). However, when Ukraine and Russia

¹ Karl Karlovich Gillesem.

² The semi-official St Petersburg gazette.

signed their Partition Treaty in 1997 the library was still seen as important enough to be retained by Russia's Black Sea Fleet, with which it now shares an uncertain future.

Lazarev's opinion of the edited version of Bellingshausen's manuscript that was eventually published as *Two Seasons* is therefore worth having, and fortunately it too was preserved in his correspondence with Shestakov. Here is the whole of the relevant paragraph, translated from (M. Lazarev, 1918b) without checking it against the manuscript. The opening details were of course added by Shestakov.

L2: Letter to Captain Lieutenant Shestakov, 1834 (excerpt)

Rec'd 11 February, rep. 28 March
Nikolayev, 26 January 1834

One book is not simply a matter of choice: Two Seasons of Exploration in the Southern Ice Ocean. I have the whole work plus the Atlas, unfortunately. The former is written in a wretched, half-Russian style, full of various idiocies which being what they are do not deserve to be mentioned, and the latter has not been lithographed,¹ which is even worse. The blame lies entirely with Login Ivanovich [Golenishchev-] Kutuzov, who took it on himself to publish it. He gave it out to various people and in the end this thoroughly wretched narrative, of a very interesting voyage which passed through many dangers, has come out. I have no idea how Bellingshausen has taken it, but I can clearly see that the style I used in my report to Bellingshausen after we parted company until I arrived at Port Jackson has been completely changed.² As for who took it on himself to do that, I have no idea.

from your devoted friend,
M. Lazarev

Assessment

Mikhail Lazarev's letter to Shestakov (L1) is a vivid historical source, written by an expressive protagonist with no thought of placing his version of events on permanent record. But it is also an unreliable one (Balkli, 2013). Lazarev's loose statements or factual errors range from the important to the trivial. They imply, not only that he was writing informally, but also that he did not have his journal with him at the time.⁵ It would have been surprising if he had. Like the other

¹ Another of Lazarev's characteristic exaggerations. The 45 coastal profiles and pictorial plates in the *Atlas* were signed by their lithographers. The 19 map plates, less than a third of the whole, carry no signatures and were probably engraved on metal, a lower quality process and the burden of Lazarev's complaint.

² The chronological confusion in Lazarev's report (at *TS*, 1: 275) was probably a result of just such editorial interference.

officers he was required to hand it in to Bellingshausen at the end of the voyage. And he would surely have wanted his contribution to be on record just as much as Bellingshausen would have wanted to read it.

Any discussion of L1 is complicated by the remote but real possibility that the versions of Lazarev's letters provided to researchers at the Naval Archives are transcriptions, whether those which were made and used for publication in 1918, or later replacements (M. Lazarev, 1918a: 52; Balkli, 2013). There is also a mystery about the date of L1, discussed in Footnote 1 above. In presenting the first ever analysis of the general accuracy of the letter, the author has made the only possible assumption, that his photocopy reproduces the original manuscript. If, however, it reproduces an early twentieth-century transcription, it may include ancient clerical errors. As historical evidence, the contents of the document now in the Archives are what matter, not the identity of the person or persons who created it.

The unreliable statements in Lazarev's letter to Shestakov are as follows:

- ◆ that they spent 'an entire month' at the South Sandwich Islands – an exaggeration, since they spent only three weeks at South Georgia and the South Sandwiches together;
- ◆ that no one died on that passage – but the official record states that Fëdor Istomin, one of Lazarev's seamen, died on 21 February 1820 (Moller, 1821), thus confirming Bellingshausen's original report of the loss (B7);
- ◆ that *Mirnyi* was repaired at Port Jackson by only 45 men – there is no direct evidence to the contrary, but the work was extremely urgent, because of the tides, and that makes it hard to believe that Lazarev did not use every hand at his disposal, 44 seamen, eight craftsmen and petty officers, and six able-bodied if unskilled gunners, all on *Mirnyi*, plus two craftsmen lent from *Vostok*, a total of 60 other ranks;
- ◆ that all *Vostok's* spars were shortened and sails remade before leaving for the Pacific, whereas Bellingshausen, confirmed by Kisilëv, recorded that this refit began during the Pacific cruise and was completed during the *second* visit to Port Jackson;
- ◆ that Kotzebue's positions for Cape Venus on Tahiti, and for several Pacific islands – Romantzov (Tikei), Spiridov (Takapoto), Deans, etc. – were in error to the east, whereas modern values confirm the findings of Bellingshausen and later Kotzebue himself (Kotzebue and Eschscholtz, 1830, 1: 217) that the errors were to the *west*;

- ◆ that the Alexander I Coast was discovered six days after Peter I Island, whereas other accounts give the interval as seven days;
- ◆ that *Mirnyi* went from Lisbon to Kronstadt in 1821 without calling in anywhere, whereas one of her midshipmen recorded that, like *Vostok*, she put in at Copenhagen (Novosil'skii, 1853b: 60).⁶

Lazarev's statement that no one died during the first season of Antarctic exploration is contradicted both by Bellingshausen's first report from Port Jackson (B7) and by the report on crew status submitted at the end of the voyage (Moller, 1821). Furthermore the paragraph beginning 'However this time we were not so fortunate' *may* contain a similar inaccuracy, if it is read as dating all three fatalities in the second Antarctic season, when none in fact occurred. That interpretation would take Lazarev's 'this time' and 'first [time]' as referring to the second and first Antarctic seasons within the Bellingshausen voyage, the subject of the letter, on the reasonable grounds that he set up the comparison with his earlier (inaccurate) claim that the first season was free of losses. However, there is another possible interpretation of that paragraph, according to which Lazarev was, rather cryptically, contrasting his own two circumnavigations, using 'this time' for the whole Bellingshausen voyage, during which three men died, and 'first [time]' for his RAC voyage from 1813 to 1816, on which there were no fatalities. The first interpretation, which would add one more inaccuracy to others in the letter, is the more plausible of the two, because Lazarev's inaccurate statement that he still had 45 seamen by April 1820, rather than the actual 44, confirms that he had misremembered the death of Fëdor Istomin, at least. The second interpretation also requires us to read this part of the letter as more clumsily written than Lazarev's usually frank and clear prose. But however intriguing, our reading of this single remark makes little difference. Even if we decide that Lazarev made no mistake at this point, because he was comparing, not two seasons within one voyage, but two separate voyages, that is not enough to redeem his letter as a reliable historical source, one to be trusted in preference to all others when it tells a different story. See Chapter 12.

Some points that may seem odd in the letter were not so in fact. Lazarev omitted some important southings, but the letter was a summary, not a formal report. His discovery date for Peter I Island, 9 January 1820, simply replaced Bellingshausen's 'Julian + 1' ship's date with the true Julian date. It was quite usual for two skilled observers, such as Lazarev and Bellingshausen, to find slightly different coordinates for the

same places, as here. And Lazarev's variant spellings of 'Obernibesov', 'Kupriyanov' and 'Gillesem' were also normal.

As for L2, Lazarev and Bellingshausen doubtless voiced their opinions of *Two Seasons* on other private occasions, but this letter is all that survives. Apart that is from the fact, already mentioned, that when Gauss asked him how to get hold of a copy Bellingshausen took refuge in silence.

10

Other Witnesses

If one of the officers makes any separate observations, and wishes to report them, they should be entered separately at the end of the log-book with his signature.

INSTRUCTIONS FROM THE RUSSIAN ADMIRALTY, 1819

In addition to Bellingshausen's book, *Two Seasons*, and the successive memoirs penned by Simonov, a few other members of the expedition left first-hand records which are not included here.

The surgeon

Dr Nikolai Alekseyevich Galkin probably came from Kazan. The Galkins were an old Russian family with a history of naval service. Thus there was a Galkin Street in Kronstadt, on which Lazarev had a house for some years, and there was even a Gavriila Galkin in the crew of *Vostok*. As a young man, Galkin was employed in a medical capacity by Kazan's *gymnasium*, or high school (Zabotin, 1956: 49). Whether that was before or after he graduated from the Military Medical Academy at St Petersburg, in 1814, is unclear. He went on to serve at the Kronstadt Naval Hospital, and in 1819 he joined the expedition as the surgeon on *Mirnyi* (Modzalevskii, 1948: 716–17). He and *Vostok's* surgeon received the highest salaries in the squadron after Bellingshausen and Lazarev.

In 1822, after the expedition, Galkin registered briefly as a medical practitioner at Kazan. In November 1822 a friend sent his letters describing the Pacific phase of the voyage to the magazine *Syn Otechestva*, which published the first part a month later, and a second the following year (Galkin, 1822; 1823). The series was then discontinued, and a rumoured pamphlet version may never have appeared.¹ The

surviving parts of Galkin's narrative give details of *Mirnyi's* contribution to that phase of the expedition which are not in Lazarev's letter (L1). Some passages were translated into English in the last century (see Preface), and the focus of the present book is on the expedition's work in the Antarctic rather than the Pacific. Therefore no extracts are included here.

Soon after registering as a doctor at Kazan Galkin moved 550km south-west to Penza, a city which had strong links with the Russian Navy (Zhukov and Chesnokov, 2008). Forsaking medicine he became principal of Penza's *gymnasium*. He returned to Kazan in 1826 to take up the headship of its First Gymnasium. In January 1847 Simonov succeeded Lobachevskii as rector of the university, in which capacity one of his duties was to supervise the *gymnasium*, so the two men would have had dealings after that date if not before. Galkin retired to his estate at Spasskii, south of the city, in 1851 and died in December 1859.

The artist

The artist, Pavel Nikolayevich Mikhailov, added dates and informative titles to many of his sketches and paintings of the expedition. A selection, including 35 pictures of people, biological specimens, views and weapons, and ten coastal profiles and iceberg studies, were reproduced in the *Atlas*. More than 150 others from the Bellingshausen voyage are stored at the Russian Museum in St Petersburg and the State Historical Museum in Moscow, and many of them, together with a catalogue raisonné of Mikhailov's works, have recently been published for the first time (Bulkeley, 2011c; 2013; Petrova, 2012).

Mikhailov entered the St Petersburg Academy of Arts through its charity school and graduated in 1806. He fought in the Patriotic War against Napoleon and became an Academician in 1815 at the age of 29. Hardly any of his early work has survived (Suris, 1962). After the expedition he spent three years completing 15 or more large watercolours which he submitted with other work to illustrate Bellingshausen's narrative in 1824. Bellingshausen gave him a glowing testimonial which is preserved at the Russian Museum. In 1826–29 Mikhailov served in the same capacity in an expedition to the North Pacific on HIMS *Moller*, Captain Lieutenant Mikhail Nikolayevich Stanyukovich. His later career was not successful and he died a pauper, from tuberculosis, in 1840.

Mikhailov's pictures were an instant hit with curiosity-seeking visitors to the squadron (Chapter 11). For historical purposes they should be treated with caution. His 'View of Port Jackson' suggests that three

Russian sloops are present, whereas there were never more than two there together in 1820. His pictures of Macquarie Island show a tranquil idyll merely because the slaughter of elephant seals had been suspended due to a lack of barrels in which to store their oil. And he is sometimes shaky on nautical details. But his carefully dated sketches will be an essential source for anyone compiling a definitive chronology of the expedition.

The midshipman

Pavel Mikhailovich Novosil'skii was one of two midshipmen on *Mirnyi*. It is hard to be certain, but he seems to have come from an influential Tver family with naval connections. The Fëdor Mikhailovich who fought in the Crimean War, and became a vice admiral and military governor of Kronstadt, may have been Pavel's longer-lived younger brother. According to his entry in the Russian National Library's online biographical dictionary,² Pavel Novosil'skii began to turn away from the sea after the expedition. In an unusual move, he joined the staff of the Cadet Corps, where he taught astronomy and navigation for about three years, probably as a teaching assistant. He was promoted lieutenant in September 1824, and in 1825 he entered the University of St Petersburg in order to take the civil service examination. He left the Navy that year and joined the Ministry of Education, where he rose to become a member of the National Schools Council by 1838. He was seconded for a time to the estates department of the Russian Orthodox Church, and then joined the Ministry of the Interior where he worked in the Department of Foreign Creeds. He became a censor at the St Petersburg Censorship Committee a few years before he died in 1862.

During the 1850s Novosil'skii published about 15 short popular works on geographical or scientific subjects, ranging from the Franklin rescue expeditions to the internal structure of the earth. Some appeared anonymously, perhaps because of his official position, and several started life in the miscellany magazines of the day. He began his literary career, however, with an account of the Bellingshausen expedition which appeared in two forms at more or less the same time (Novosil'skii, 1853a, 1853b; 1853c).³ A supplement filled in the wider context by describing the voyages of Cook, Smith, Bransfield and others down to the recent discoveries of James Clark Ross (Novosil'skii, 1853d; 1854).

Given that Novosil'skii published his narrative more than 30 years after the expedition, and with Bellingshausen's book in front of him, the question arises as to how far, if at all, it was based on his own journal

of the voyage, especially since no other officers' journals have survived. Such memoirs were often presented as 'the notes of a former ... officer' without expecting to be taken literally. Well, Novosil'skii's career certainly put him in the right place at the right time, Kronstadt and St Petersburg in late 1824, to have retrieved his journal from Bellingshausen, just when he was preparing to leave the Navy and Bellingshausen had finished working on the book. It may therefore have escaped the fate which befell the others, whatever that was. But his published account was much influenced by *Two Seasons*. Thus it had that book's nautical date for the departure from Kronstadt and its odd depth in hold for *Vostok* (Appendix 4). On the other hand some of the navigational positions were slightly different from those in *Two Seasons*, and Novosil'skii added some important information, such as the exact circumstances of *Mirnyi's* ice collision (1853a: 57–8), and other less valuable but colourful details. Luckily for us he let the reader know that the narrative was only based on his journal, not the journal itself. He did this both with the indirect title, and in passages like the collision episode, where he told the reader that 'the part you have just been reading' was from his journal, in other words not the whole text.

The problem with Novosil'skii as a witness is that his memoir had the benefit of hindsight, having appeared after the narratives of Dumont d'Urville, Wilkes and Ross. A passage where he speculated about the potential value of striking south 30° East of the South Sandwich Islands, and then heading west (1853a: 55), strikes the reader as by someone who has read the voyages of Ross and Weddell, although it does not describe an actual track followed by either. In short his account is the least primary of the primary sources.

Novosil'skii was concerned about the lack of recognition for the Bellingshausen expedition and about the continental discovery question in general. In his view, Bellingshausen had not only discovered the furthest southern land before Ross, but had also demonstrated the probable existence of a continent by combining that discovery with a high latitude circumnavigation (1853d: 115). It was a reasonable position, though when Shokal'skii adopted it 75 years later he revised it by concluding that both expeditions, Cook and Bellingshausen, had combined to indicate the existence of a continent (1928).

However, Novosil'skii's claim that Russians had been the *first* people 'to lift a corner of the curtain in which the South lay shrouded' (1855: 24) needs explanation. In the 1820s the British seem to have had a fair, though still confused, idea of Russian achievements (Purdy, 1822: 39). But in the aftermath of his expedition Bellingshausen and some of his

comrades showed little awareness of statements in British reports and maps about the insularity of the South Shetlands (Miers, 1820; Shirratt, 1821), and tended to rely on continent-grabbing headlines for their version of the British side of the story.⁴ In fact a chart of Bransfield's 1820 survey of 'New or South Shetland' was prepared by the Hydrographer to the Royal Navy in 1822. It showed the South Shetlands as a chain of islands running SW–NE alongside a possible mainland to the south-east, made up of 'Trinity Land' and some further coastline containing 'High mountains covered with snow' (Hurd, 1822: 184). A chart showing that information and subsequent discoveries was published commercially three years later (Norie, 1825?; Campbell, 2000: 74–7), with the caption altered to 'High mountain covered with snow'.⁵ In 1853 Novosil'skii described what can only have been that second chart, translating the caption precisely.⁶ He also mentioned the exploration of the region by Bransfield in January and Nathaniel Palmer in November 1820, and referred to both Trinity and Palmer Lands (Novosil'skii, 1853c: 100–1, 115). But despite his impressive knowledge of those events Novosil'skii considered the Russian discoveries of Peter I Island and the Alexander I Coast, in January 1821, to have been the first discoveries of Antarctic land (1853b: 50; 1855: 24). The explanation is that the tip of the Antarctic Peninsula, sighted by Bransfield and Smith in 1820, lies north of the Antarctic Circle. Added to which its status as part of the mainland would not be established until 1936, by the British Graham Land Expedition. With the mainland yet to be delineated, therefore, Novosil'skii's only criterion for 'the Antarctic' was the Circle, south of which the Russian discoveries were indeed the first.

The missing naturalist

The naturalist on such an expedition was responsible for observations of the natural world that did not necessarily require mathematical measurements and calculations. For example, a jellyfish could be weighed and measured, but its structures, metabolism, colour, behaviour and habitat were equally if not more important. The scope of the work included not only animals and plants but also human beings and geological specimens (including ice formations). Two German naturalists, the Bremener medical student Karl Heinrich Mertens from the University of Halle–Wittenberg, and the Leipziger Dr Gustav Kunze from the University of Leipzig, were expected to present themselves at Copenhagen to join the First (Bellingshausen) and Second (Vasil'ev) Squadrons, one each, by 24 June 1819 (*TS*, 1: 13). When the Russians

got there a month later they learned that the naturalists had declined to join the two expeditions after all, because they had not been given enough time to prepare (*TS*, 1: 47).

There has been understandable confusion about this event, caused by a tendency in the correspondence between de Traversay and the Minister of Education, Prince Aleksandr Nikolayevich Golitsyn, some of which survives only in draft, to alternate between references to 'expedition' and 'expeditions'. The problem was that the notion of a dispersed *programme* of exploration had not yet been invented, so that both the overall, two-squadron, Arctic and Antarctic project, and either of the two separate, two-ship squadrons within that project, were variously referred to as '*the* expedition', singular. When the correspondence is analysed and collated with the orders cut for both squadrons (*TS*, 1: 23; A. Lazarev, 1950: 79),⁷ however, it becomes obvious that there were to be two naturalists, two astronomers and two artists, and that only one of each pair was to sail south with Bellingshausen (Simonov, Mertens and Mikhailov) while the others (Tarkhanov, Kunze and Karneyev) went north with Vasil'ev.⁸ Some commentators have interpreted references to the missing naturalists, plural, by Bellingshausen and Simonov (*TS*, 1: 379–80; S2) to mean that both German scientists had been approached to join just the one, Antarctic squadron (Shvede, 1949: 13). But on the interpretation offered here such phrases merely reflect the solidarity that bound the two two-ship squadrons of the overall 'Expedition' together for most of 1819, until they separated at Rio. Bellingshausen, in particular, had been obliged as the senior officer to take responsibility for certain aspects of the whole double-barrelled enterprise, from indenting for their ships' chests to condemning the unsatisfactory cases of bouillon.⁹

Vasil'ev and Bellingshausen were directed to assign the naturalists between themselves. From his obituary, it appears that Mertens was the provisional choice for the Antarctic expedition, perhaps because he was the younger and less robust of the two men and Bellingshausen was going out for two years rather than Vasil'ev's three. Kunze's established interests in microscopic fungi and beetles, both terrestrial rather than aquatic life forms, may also have played a part. Several considerations support the explanation given by the naturalists for their non-appearance. The search for foreign scientists may have been undertaken at the last minute because of the secrecy which initially surrounded the expeditions (Krusenstern, 1877c). The documents show that the decision about the two Germans was taken less than four weeks before they were required to report for duty. The Minister even issued formal

orders about them on 10 July 1819, two weeks after they failed to show (A. Lazarev, 1950: 78–9). Added to which Kunze received his doctorate on 22 June 1819, which makes it unlikely that he ever agreed to present himself at Copenhagen two days later. If the Ministry had only given the two men a more realistic joining date, say mid-July, all might yet have gone well.

Kunze was an Alpinist, which suggests he may have been suited to conditions on shore in the North Pacific with Vasil'ev. Rather more is known about Mertens, because his obituary was later written by colleagues who had served with him under another Russian explorer, Fëdor Petrovich (Friedrich Benjamin) Lütke. Mertens suffered from a delicate constitution but had plenty of spirit. In 1813, at the age of 17, he set off on foot to join a German army in the war against Napoleon. When that came to nothing he did so again in 1815, but his regiment arrived too late for Waterloo. He travelled on to Paris and London and impressed leading scientists with his abilities. In the autumn of 1817 he hiked from Göttingen to Paris (about 700km) for a botanical research project. He then moved from Göttingen to Halle, where his teachers, Kurt Sprengel and Johann Friedrich Meckel, suggested the Bellingshausen expedition to him.¹⁰ This time, however, his long-suffering father put his foot down, and insisted that his 23-year-old son complete his medical studies, which he did the following year. Mertens junior then tried unsuccessfully to join Kotzebue's second expedition in 1823. He remained in Russia, learned the language, and finally succeeded in sailing with Lütke on HIMS *Senyavin*, in company with the *Moller* (above), in 1826. He died at St Petersburg in September 1830 after a second, training voyage in the North Sea with Lütke, from a fever which had broken out among the naval cadets. As the training squadron's surgeon Mertens had remained on board to care for them (Postels, 1836, 3: 339–52).

Two explanations have been offered for the non-attendance of the naturalists at Copenhagen. The first, their own, is that they were not given enough notice, or in other words that the Russian naval bureaucracy mismanaged things. The second is that the two men were cowards (Shvede, 1949: 13). The author is more persuaded by the first than by the second.¹¹

11

Homecoming

*To love one's country, God and Nature urge;
To know it – there lie Duty, Honour and Self-worth.*
Epigraph of the magazine

Otechestvennyye Zapiski (1818–84)

Introduction

In November 1819 Simonov sent a letter from Rio to his patron Mikhail Leont'evich Magnitskii, the draconian reforming rector of the University of Kazan, describing the expedition's progress to date. An extract appeared in the second issue of *Kazanskii Vestnik* in February 1821, making it the first news of the expedition to be published in Russia. Simonov closed by whetting the reader's appetite for more:

We shall be preparing for a very difficult and dangerous voyage among the giant masses of ice which surround the South Pole; preparing to shut ourselves up in wooden planks for four months and float about above the abyss of the ocean. Farewell, Your Excellency; I shall have no opportunity to write to you for four months. Farewell, God willing, until Port Jackson, in the fifth part of the world. (Simonov, 1821a: 139)

By the standards of the day, readers did not have long to wait. A version of Bellingshausen's first report from Sydney was published in *Syn Otechestva* in May 1821, and another excerpt from a letter by Simonov, also from Sydney, followed in July (Bellingsgauzen, 1821a; 1821b; Simonov, 1821b; see also Bulkeley, 2011b). Interest in the region was high, following the discoveries of the South Shetland Islands and Trinity Land by William Smith and Edward Bransfield in 1819 and 1820, and the May report was noticed at varying intervals

elsewhere.¹ Another news article, probably a digest of Bellingshausen's next two reports (B8, B9), appeared in August (Anon., 1821b). It was followed by a further letter from Simonov in September (1821c) and his first article (S2) in October.

Meanwhile the expeditioners had returned to Europe, reaching Lisbon on 29 June 1821, where the event was duly reported.² One of those who greeted them was Captain Sir Henry Duncan, RN, of HMS *Liffey*,³ and he carried the news to Portsmouth about three weeks later. It was published in Britain just before the expedition reached Kronstadt on 5 August 1821.⁴ Ten days later Emperor Alexander and Empress Maria Theodorovna visited the ships. An anonymous news article (O1) describes the enthusiastic welcome given to the expedition.

The original footnotes in O1 were marked with asterisks on short pages. To distinguish them from the present author's footnotes they have been set together at the end of the text and marked with the asterisk, dagger sequence. In view of its alternative spelling (Chapter 2) Bellingshausen's surname has been transliterated, and therefore Zavodovskii's also. Italics and abbreviations follow the original text; capitalization has been modernized as elsewhere. Brackets are from the original, square brackets from the present author. As usual dates inside the text are Old Style.

O1: News report from *Otechestvennyye Zapiski*, July 1821

News from Kronstadt Arrival of Captain Billensgauzen and Lieutenant Lazarev from the South Pole

Ever since the first circumnavigation was undertaken by our compatriots¹ we have encountered them almost annually, as they carry off their triumphs with remarkable speed and success, and with great honour to the Russian flag. But not one of those voyages was so remarkable in respect of navigation, or crowned with such important discoveries, as the expedition which set out for the South Pole in 1819 under the leadership of Captain Billensgauzen, comprising the sloop *Vostok* (Capt. Bil.) and the *Mirnyi*, commanded by Lieutenant Lazarev.

On 24 July last we were delighted by their arrival at Kronstadt road after an absence of two years. From that date until they were warped into harbour (15 Aug.) the ships received a constant stream of curious visitors, who came out expressly from Petersburg and other places. The Emperor also honoured his Argonauts with a visit on the 3rd of this month, and was so kind as to examine attentively the rare specimens brought back from countries never previously visited by Russians, as well as the volume of pictures by Mikhailov, who was

¹ The Krusenstern voyage.

the expedition's artist. After which HIS IMPERIAL MAJESTY declared his gratification both with the officers who had carried out such a glorious voyage, and with the crews who had toiled so stoutly and dutifully to secure the extraordinary success of the enterprise.

Large scale maps, produced by themselves, very accurately displayed the tracks of the two vessels* and of the famous Cook.¹ Although the English navigator approached one degree further towards the Pole than did the Russians, he had the advantage of favourable weather and good fortune, and indeed he turned back whenever he saw great quantities of ice. Our mariners advanced with reckless courage for more than 1000 versts in the midst of icebergs. They constantly confronted the danger of being crushed by those gigantic masses, which often reached as high as 50 sazhen [91m] above the surface of the water, and they avoided inevitable destruction only through the strictest vigilance and unremitting care.

Capt. Billensgauzen's first passage to the South Pole was made in 1819. With the ships entrusted to him he departed Rio Janeiro on 22 November, and on 15 December arrived at *Wallis* [Willis's] and *George* Islands. In view of the fact that the said islands had been described by Cook only from their northern aspect, he completed their description by passing around them from the south.

From that place he passed to Sandwich Land, and on 22 December in 56° South latitude and 28° W longitude he discovered three previously unknown islands. Sailing further along the same bearing to the south, he ascertained that the coast named Cape *Bristol* by Cook is an island with a circumference of 19 miles [35km]² and similarly *Thule* was revealed to be an island as well.

On 4 January 1820 in latitude 60°39' our ships were completely surrounded by ice. Despite that on 16 January they advanced to latitude S 69°25' at longitude 2°10' W, where having encountered continuous ice they were unable to get any further towards the Pole. However they continued their attempts in various directions until 5 March.

The violent gales which rage through those latitudes, especially with the approach of winter,[†] and the deepening cold,[‡] together with the fogs, the snow and the lengthening, dark nights, all threatened disaster if the passage had been further prolonged, the more so because after 104 days of ceaseless toil and damp conditions the crew were exhausted. For that reason Capt. Billensgauzen was obliged to forsake the high latitudes and to make for Port Jackson in New Holland for repairs.

The second passage by the sloops *Vostok* and *Mirnyi* was no less successful and remarkable. Passing through the archipelago of the Pacific Ocean they discovered

¹ This may be an important early reference to the 15-sheet track chart found by Belov, which was determined by a team of experts to have been prepared during the expedition (Belov, 1963: 32). However, at least as published, the track chart contains the wind-arrows mentioned in a footnote here, but not Cook's track. The only published map from the expedition to show (most of) Cook's track is the overall route map in *Two Seasons* (*Atlas*: Sheet 1; see Map 8).

² This relayed Bellingshausen's measurement of Bristol Island without explaining it. A reader thinking of Russian miles might have inferred a circumference four times greater than was meant.

a new chain or group of islands, never hitherto recorded. In high latitudes at 69° they found two islands, of which they named the one after the founder of the Russian Navy – PETER THE GREAT,¹ and the other the ALEXANDER 1ST Coast. Thence they passed along the southern side of *Shetlandia*, which had been supposed to be a mainland by the English, because hitherto mariners had only seen it from the north. And by sailing further on the same course they discovered 3 more islands. – On their homeward voyage from Brazil they conveyed our ambassador to Lisbon.

To cap the success of the expedition, and to the credit of its commanders, it should also be added that, despite the harshness of the climates through which they passed, in which all the animals taken on board with them perished from inanition, despite the constant battle, so to speak, waged by the crew against the elements with ceaseless watch-keeping, they lost only one man from sickness.

It is no easy task to describe the manifold rarities that were collected by our mariners from all the bounteous regions of the natural world that they visited, as much from the harsh tropics as from the Pole. The beautiful cockatoos and multi-coloured parrots have for the most part arrived safely. The rare stuffed birds, animals and reptiles have been kept amazingly intact. Among the specimens some of those from the feathered kingdom, the birds of New Holland, are especially remarkable – those called *Prince Regent* [bowerbirds], and then the *Penguins*, the *Albatrosses* etc. The most curious animal specimens are the *Paradoxes* – a beaver with a duck's bill [platypus], and the Pygmy – a bear [koala]. Besides that there are a great quantity of handicrafts, tools and clothing used by the savages of the southern hemisphere, many of which are delightfully crafted. The *Zealand* heads are amazing. They are so completely preserved that were their eyes but replaced you would mistake them for living. Some have not lost so much as a single hair or tooth, and their skin wonderfully displays all the marks of cicatrization (tatoué) with which they were decorated. Such heads of their defeated enemies are kept by the Zealanders as war trophies.^{§ 2}

Mikhail Petrovich Lazarev has assembled a valuable collection of models of every [type of] boat used by the savages that they saw, to the exact scale and with great accuracy.

Mr Mikhailov's portfolio contains up to 80 sketches of various types. The whole collection is interesting, but we could not fail to point out those which attracted particular attention, whether for the intrinsic interest of the subject or for their meticulous finish. Pictures such as: '1st attendance by our captains to dine with King *Pomare* of Otaiti', in which all the faces are shown as portraits and the slightest details of the setting and of all and everything nearby are visible; 2nd a representation of the voyage, or in other words our ships struggling amidst the ice masses, (many of which had been endowed, at the whim of nature, with fantastic forms such as castles, pyramids, lions, chariots and so on), beneath the glow of the southern aurora, which resembles rockets or summer lightning. 3rd the peaceful shores of an uninhabited island, where flocks of penguins do not move away when a human appears and the sea lions bask on the multi-coloured

¹ Presumably, Bellingshausen and his officers had not yet learned to call it Peter I Island.

² Two of the heads went on display at the Admiralty Museum.

shores, strewn with corals and shells, without a care. 4th 'View of *Port Jackson*', in which the whole abundance of nature is depicted in the foreground, bringing together an innumerable multitude of trees and plants intrinsically suited to the climate. The portraits of many savages are exceptional. It should not pass unnoticed, in the portrait of the Otaitian Princess, that the King has personally inscribed it, in a fair hand, with her name in English – Aimata.

Surely only a burning desire to please the Empress Maria Theodorovna could have made it feasible for Faddei Faddeyevich Billensgauzen to bring home a pot of the beautiful *tulips* of New Holland, with their fresh colours. And as regards the mineral kingdom he has brought back some ores of interest to mineralogists, most of which were a gift to him from the Brazilian princess.^{¶ 1}

In conclusion let us point out that even the ships that accomplished this celebrated voyage are themselves of Russian build. *Vostok* was built on the Okhta, *Mirnyi* at Ladein Field. They were equipped with the finest instruments, both navigational and astronomical.

In recognition of their exemplary achievements the Emperor awarded Captain Billensgauzen, first and foremost, the Order of Vladimir, 3rd Class, and the rank of captain commander; and he promoted Messrs Lieutenant Lazarev and Lieutenant Commander Zavadovskii to captains (2nd rank).

* The winds encountered on the voyage are shown with various little arrows.

† Our summer months are actually winter in that hemisphere.

‡ Even in the summer the cold had gone down to 4½ deg. Réaumur [-5.62°C].

§ In Portugal they offered 600 thalers (£9,240) for such a head.²

¶ 1) Two pieces of *Titanian iron*, 2) *Antimony* with native gold, 3) a few pieces of *chrysoberyl*, 4) some crystals of Brazilian potash, of which one is rare on account of its crystallization, 5) some pieces of local venisa [granite], 6) a piece of granite with large crystals of venisa, 7) a large piece of amethyst, 8) a few similar quartzes, worn smooth by water. He has donated the collection to the St Petersburg Mineralogical Society, to which he previously delivered some boxes of minerals from Mr Merkel in Brazil.³

Assessment

The lavish colour of the article contrasts with Mikhailov's failure to record such an archetypal scene, the one in which the explorer delivers a new world to his gratified sovereign. It also reflects the slightly old-fashioned, eighteenth-century style of an expedition which was just as much about the collection of curiosities as it was about the discovery of new lands.

The article was, in effect, an interview with the expedition's officers, which makes it a neglected primary source. It echoed Bellingshausen's claims to discovery, which – for the Southern Ice Ocean – comprised the Marquis de Traversay Islands and the insularity of the South Sandwich group in 1820, followed by Peter I Island, the Alexander I Coast, the

¹ Princess Leopoldina.

² The conversion assumes that these were Spanish thalers; see Appendix 3.

³ Dr Franz Josef Merkel was an overseas member of the Mineralogical Society.

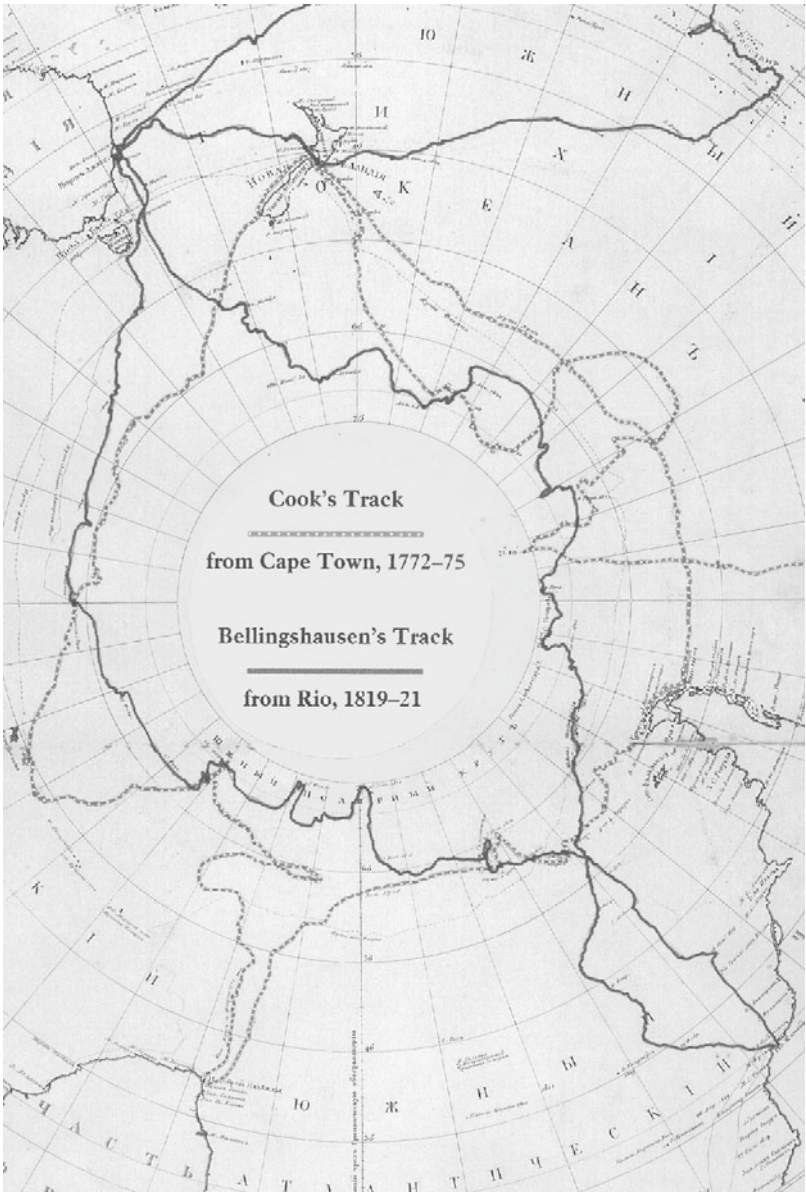
insularity of the South Shetlands, and the Elephant and Clarence group in 1821. The description of the maps displayed to the Emperor shows that Bellingshausen immediately set about comparing his voyage with that of Cook, on which it had been modelled. He continued to do so in *Two Seasons* (*Atlas*: Sheet 1; see Map 8). The journalist was, of course, in no position to query Mikhailov's Romantic makeover of the grim realities of Macquarie Island. The treatment of the Pacific and second Antarctic phases of the voyage as a single passage, passing over the squadron's second visit to Port Jackson in 1820, may seem odd. But nineteenth-century journalism was often capricious in such matters.

Part III

Findings

*It is not sufficient to perform one's duties competently;
everything depends on timing and good fortune.*

CARL VON LINNÉ, 1765 (1925, 1926)



Map 8 Tracks of the Cook (dotted) and Bellingshausen (solid) expeditions. Detail adapted from Sheet 1 of Bellingshausen's *Atlas* volume (1831). (Bellingshausen omitted most of the South Pacific sections of Cook's track.)

12

Achievements

One of the greatest Antarctic expeditions on record, a voyage well worthy of being placed beside that of Cook, the only precursor in those waters.

HUGH ROBERT MILL (1905)

Seamanship and southerliness

All the European voyages of exploration bore the stamp of the conceited, inegalitarian and ruthlessly acquisitive societies and regimes which sent them out. When viewed as feats of human endeavour, however, they have their positive aspects, the Bellingshausen expedition no less than others. Cook's second expedition had taken 1003 days in even more challenging logistic and cultural conditions than Bellingshausen's, which lasted 751. For example, most of Bellingshausen's landfalls after long passages were excellent, apart from a slight wobble when approaching the imperfectly described 'Shetlandia', but that was only possible because he carried better information with him, often derived from Cook, in the form of reliable charts, atlases and voyage narratives. That said, Cook's second expedition is the only available benchmark.

In the matter of ship handling, both expeditions inevitably lost sails. *Resolution* lost a fore-topgallant mast off the coast of New Zealand in October 1773, after 15 months, and her main topgallant mast when approaching Cape Horn from the west in November 1774, after 28. Cook also replaced some of her lighter spars from time to time. Bellingshausen may perhaps have replaced some spars without mentioning the matter, but as far as he was concerned he took all his spare timber home to

Kronstadt in 1821, except for a spare yard he gave to a Dutch frigate at Rio. That was an exceptional feat.

Turning to crew losses, Cook's report that he 'lost but four men' has generally been accepted. We are not to reckon, apparently, the many hands who 'ran' before Cook sailed, or the 13 who died from the *Adventure*. Comparing like with like, Bellingshausen lost only two from *Vostok* in two years (Appendix 2), which was a slight advance over Cook but which, like his navigation, owed much to the experience gained by earlier explorers, above all Cook.

Shokal'skii compared the overall southerliness and ice-endurance of the two expeditions, which used quite similar 'un-iceworthy' ships. Bellingshausen's furthest south of 69°53', on 21 January 1821, fell short of Cook's by 1°17'.¹ Cook crossed 125° of longitude in 75 days south of 60°, and of that, 24° of longitude south of the Antarctic Circle. He spent 80 days in the ice. Bellingshausen crossed 242° of longitude in 122 days south of 60°, and of that, 41° of longitude south of the Circle. He spent 100 days in the ice (Shokal'skii, 1928). An average of the four comparisons finds that Bellingshausen was 163% 'more Antarctic' than Cook (Map 8), as Scott later acknowledged (Scott, 1905, 1: 8). But as we have seen, the second Antarctic circumnavigation in history benefited from several advantages over the first.

Statistics aside, it was not Cook who tacked his ship between ice floes in fog or heavy snow *by ear*, or who played thread-the-needle between the icebergs for days on end with the windstrength between Force 7 and Force 10. That was Bellingshausen. Surely his most impressive feat was his doggedly persistent and skilful ice navigation, during five weeks of which his men were observing the fast of Great Lent. Over and above storm damage, by December 1820 *Vostok* had suffered at least three significant breaches to her hull from ice collisions which left her making up to 10 inches of water per hour. Nor had *Mirnyi* escaped unscathed. Despite which Bellingshausen continued to thrust his way so far into the ice fields, usually in very poor visibility, that he had at least three more narrow escapes before nursing his seriously weakened ship back to Rio in March 1821.

Science

When the non-geographical scientific work of the expedition is compared with that achieved on comparable foreign or Russian voyages, Bellingshausen comes off less well. From Parry's contemporary Arctic expedition, mentioned in Chapter 8, there were 170 pages of appendices

with tables and scientific discussion, some of it geographical, but some treating physical questions like magnetism, gravity and tides (Parry, 1821). In 1815 Otto Kotzebue, whom Bellingshausen had once coached in mathematics (Löwenstern, 2003: 88), sailed to the North Pacific with a single ship and four scientists. He also had a complete set of scientific instructions, prepared by Johann Kaspar Hörner in Zürich, and returned with oceanographic tables – sea and air temperatures, aerometer, specific gravity of seawater – recorded at stations kept on 318 days (Kotzebue, 1821, 1: 221–8). Both Hörner and the expedition's scientists then contributed substantial reports to the final narrative. In contrast, Bellingshausen literally dabbled in seawater a handful of times, and did not organize and present his magnetic declinations until pressed for them by others in 1840. The only tables of data in *Two Seasons* were for statistical information about the colony of New South Wales.

The question of how Bellingshausen came to sail with only one scientist was discussed in Chapter 10. It can be recast by asking how Kotzebue's sponsor, Count Rumyantsev, was able to put together a better equipped and more effective private scientific expedition in 1815 than his Emperor could send out four years later. The Russian Empire commanded far greater financial resources than the wealthy Rumyantsev and Kotzebue families. But perhaps the Kotzebue voyage should be seen as, in effect, a German expedition under Russian auspices, as many land expeditions also were in those days.² In which case the scientific disparity between the Kotzebue and Bellingshausen expeditions may simply have reflected that between the German Confederation and the Russian Empire, which has been touched on elsewhere.

Turning to the list of tasks provided in S2 (Chapter 8), Simonov published a preliminary study of the latitudes and longitudes of the anchorages at which he had set up temporary observatories, interspersed with excerpts from his travelogue, soon after returning to Russia (Simonoff, 1823, 1824). In 1825 he published another preliminary study, this time of atmospheric temperature in the southern hemisphere (Simonov, 1825; Simonoff, 1826). In 1828 the Ministry of Education brought out his definitive report on the anchorage positions (Simonov, 1828). More than 40 per cent of that monograph, 70 pages out of 155, was given over to the tedious and fairly pointless labour of chronometer coddling. To some extent Simonov appears to have been going through the motions, having spent more effort on checking the time *for* the expedition's inadequate chronometers than on using them to find longitudes for the expedition. As he put it himself, 'I had no need to resort to their assistance' (Simonov, 1828: 14). That left 51 pages for latitudes, and

34 for longitudes that were calculated by lunar distances with an occasional nod to the chronometers. Although the work comprehensively determined the coordinates of Simonov's temporary observatories at Rio, Port Jackson, Queen Charlotte Sound, and Tahiti, it included no data from the expedition's two seasons of Antarctic exploration, the main parts and purpose of the voyage. And as Zach pointed out, three of Simonov's four datum points had already been measured quite thoroughly (Littrow, 1823: 559–61). But there, apart from Bellingshausen's declinations, published by Gauss in 1840, the published scientific output of the expedition, as opposed to voyage narratives, suddenly came to an end.

Taking Simonov's last sub-heading next, the biological and anthropological collections, a respectable amount of material was brought back to Russia. Botanical and zoological specimens were deposited with appropriate institutions, and were studied by a few scientists, including Friedrich Fischer, the director of the Imperial Botanic Gardens, Eduard Eichenwald and probably, before his death in 1824, the zoologist Aleksandr Fëdorovich Sevast'yanov (Barratt, 1988: 128–38). But although the expedition's biological specimens therefore contributed to knowledge, no monograph about them appeared in the nineteenth century. And with the social sciences lagging behind the natural sciences throughout Europe, even less was learned and disseminated about the expedition's anthropological specimens.

A larger mystery surrounds Simonov's measurements of the southern stars – his primary task apart from assisting the expedition – and his months of work on tropical meteorology. Despite an early endorsement from Humboldt (Humboldt and Bonpland, 1825, 10: 380), and despite his preliminary meteorological paper (above), Simonov never published or discussed his full set of 4316 meteorological observations. With no explanation from the man himself, it can only be pointed out that the preliminary study had not indicated any clear results and meteorology was not his field. Perhaps he consulted his former classmate, the distinguished meteorologist Adolf Yakovlevich Kupfer, and was discouraged in some way. But that is speculation. As for the southern stars, by 1829 Simonov had been forestalled not once but twice in the competition to succeed Lacaille (Fallows, 1824; Rumker, 1829). In a more flourishing scientific community such a disappointment would not have been a barrier to publication, but Russian science was not flourishing in the 1830s. So perhaps either Simonov or the Ministry decided that his necessarily brief and interrupted stellar surveys no longer merited publication. Considerations of cost, or the reception

given to the first volume in 1828, may also have weighed against continuing the series.

Although he went on writing about the expedition, and about himself, for the rest of his life, Simonov never explained what had cut short the publication of its scientific results. Sometimes, when reading his work, one feels that his failure to complete his narrative of the voyage, which was not officially his business, was unconsciously intended to divert attention from his failure to complete the scientific work, which was. If so, it has certainly succeeded with some commentators.

And next, it bears repeating that Simonov received no help or encouragement to write up and publish his results from the expedition. Given the scarcity of qualified scientists in the Russian Empire at the time, that is hardly surprising. And soon after he returned from his rewarding but also disruptive sabbatical in Austria, France, Savoy and Italy, Emperor Alexander died. Simonov's priority became the creation of the Kazan Observatory, which it took him over ten years of bureaucratic struggle to achieve, only for the building to be destroyed by the Great Fire of Kazan in 1842 (Simonoff, 1842; Simonov, 1844).

But lastly, we have to consider some characteristics of the man himself. It would not be right to compare him with foreign luminaries like Humboldt or Arago, with all their institutional and national advantages. But even by Russian standards Simonov was not very productive. Excluding translations and other reprints Simonov's notoriously silent classmate Lobachevskii published only about 20 works during his life, some of them very substantial; his other famous classmate Kupfer published about 90. Simonov's own tally was about 30, often quite short publications, including several non-scientific memoirs.

Part of Simonov's problem may have been that he was too easily led, or at least distracted. The importance of the patron–client relationship in European culture was very evident in Russia during and after the Napoleonic Wars. Simonov spent his life dancing attendance on powerful men, from Magnitskii onwards. A man of his humble origins had no choice in such matters, to be sure. But he does also seem to have welcomed novelty too eagerly for the good of his work. He once wasted many hours of a precious research trip to western Europe on visiting botanic gardens, for example, merely because he had picked up a botanist as a travelling companion (Simonov, 1844). So when Humboldt led a mineralogical and magnetic expedition to St Petersburg and on to Kazan and Astrakhan (Simonov's home town) in 1829, Simonov needed no invitation. He joined in enthusiastically and remained committed to magnetic studies (Humboldt, 2009: 173–4, 208–10). If there was still a

chance, before that point, that his neglected astronomical and meteorological data from the Bellingshausen expedition would eventually see the light of day, there was very little afterwards.

To sum up, the scientific work of the expedition was insufficiently prepared, staffed, equipped, financed, supported or published. It was certainly a scientific enterprise, but it was also, by the standards of its day, an under-scientific one. The inadequate publication of its results, in particular, was highlighted by Belov 50 years ago (1963: 8).

Antarctic discoveries

(i) South Georgia, December 1819

Bellingshausen made the first running survey of the south-west coast of South Georgia and his map (*Atlas*: Sheet 5) remained the best available for more than a century (Bellingshausen, 1945: 89). He named several features on that coast. It has been contended that in doing so he renamed an offshore island from Cook's 'Pickersgill' to 'Annenkov', for one of *Mirnyi's* lieutenants (Headland, 1992b: 18). A comparison of the maps drawn by the two explorers, however, shows that Bellingshausen found and depicted Pickersgill Island just where Cook did, about a third of the way along the south-west coast running NW from Green Islands at the south-eastern tip. Cook had looked hard along that coast from both ends, but did not cruise or survey it. His map shows nothing halfway along it, and that is where Bellingshausen found and named Annenkov Island, distinct from Pickersgill Island which he did not rename.

(ii) The Marquis de Traversay Islands, January 1820

The Marquis de Traversay Islands lie between South Georgia and the main South Sandwich group, and contain an active volcano which is visible from afar in good conditions, which rarely occur. The sealers who visited the South Sandwich Islands before Bellingshausen (S1) may, therefore, have known of the existence of the Traversay group. It is equally possible that they had not seen them, and there is no record of how many times they sailed through the area, under what conditions, or along what course. Furthermore the 'two volcanoes' mentioned by the sealers can be found in the portion of the South Sandwich Islands discovered by Cook, not including Zavodovski Island. So the Bellingshausen expedition should be credited with discovering the Marquis de Traversay Islands.

(iii) The insularity of the South Sandwich Islands, January 1820

Cook had already surmised that his 'South Sandwich' discovery might be a group of islands, and had placed that alternative *first*, before the other, mainland option.³ So Bellingshausen and his comrades overplayed the insularity issue. Their real achievement lay in carrying out the first survey of the group (*Atlas*: Sheet 6). In doing so they did not disprove Cook's assertion that he had discovered a mainland, because as they could read for themselves he made no such assertion. Instead, by approaching the area from the east, whereas Cook had done so from the west, they competently confirmed Cook's first hypothesis, that it was a group of islands. Furthermore, since the South Georgia sealers would already have combed the group thoroughly in their search for beaches, Prusak and his shipmates probably told Bellingshausen that 'Sandwich Land' consisted of islands, before ever he went to see them for himself.

(iv) The Antarctic Continent, January–February 1820

As explained in Chapter 4 the treatment of this question depends on the definition of 'continent'. Some readers may consider that a continent must be a single large and continuous piece of land (whether or not completely surrounded by water), so that no islands are ever parts of a continent, however close to it they lie. Others, including the author, reserve that narrow definition for 'the mainland of a continent', and define 'continent' as 'One of the earth's major constituent land-masses [which] ... includes ... neighbouring islands' (Monkhouse, 2009: 83). Readers who treat 'continent' as synonymous with 'mainland' will find a discussion of Bellingshausen's achievements in mainland discovery in the next two subsections.

Under the broader definition, Columbus contributed to the European discovery of America on his first voyage, despite having visited only islands. Likewise the sighting of Smith's Island in the South Shetlands on 19 February 1819, by William Smith and his shipmates on the *Williams*, is a good candidate for the first unequivocal discovery of Antarctica, as others have suggested before this (Nordenskjöld and Andersson, 1905: 70). However, the author would not himself accept Smith's claim to priority, if for nothing else then because, as far as one can tell, Smith was not surprised.

If that was in fact his reaction, it probably owed very little to grandiose fairy tales about *Terra Australis*, and much to a persistent rumour that seamen like themselves had already seen and reported land in the same area more than 200 years earlier. The point was raised immediately

in Britain (Miers, 1820: 570–3). It has since been investigated several times by Antarctic historians (Balch 1902: 40–53; Berguño, 1991), but it remains far from certain whether Dutch or perhaps Spanish seamen saw land at 64° S, around the year 1599, and if so whether they saw the South Shetland Islands or the Antarctic Peninsula itself.

It is certain either way, because of Smith's achievement, that the Russian expeditioners were not the first people to see parts of the *regional continent* of Antarctica. The question of whether and when they or others first saw its *mainland* remains to be discussed.

(v) The mainland of Antarctica, January 1820

In the documents translated here, Bellingshausen reported that he found no signs of a mainland in 1820 (B6, B7, B10). He was evidently applying a strict 'rock and dirt' criterion for geographical discovery (Bulkeley, 2011b). However, many commentators, including the author, now accept that the 'mainland' of Antarctica includes its major fringing glaciological structures – ice barriers, ice sheets and ice tongues. By that 'major ice feature' criterion, if the Bellingshausen expedition saw such a phenomenon on 16(28) January 1820 (Map 5; Figure 6), then they were the first (identifiable) people now known to have seen the 'main' of Antarctica, whether they credited themselves with the achievement or not.

As explained in Chapter 7, Kisilëv's diary is no help to us at this point. Nor are Mikhailov's sketches, because none are dated between 9(21) January and 1(13) March 1820 (Petrova, 2012). So there are five surviving first-hand accounts of what the expedition saw that day, one each from Lazarev, Simonov and Novosil'skii and two from Bellingshausen, one in the reports and another, slightly different account in his book. In his reports (B7, B10) Bellingshausen described the scene on 16(28) January as a large field of continuous ice with 'ice hills' (icebergs) visible 'further to the south' inside it. And since he had already described seeing the same thing on 4(16) January, he must have known what he wanted to say 12 days later. In *Two Seasons*, however, there was no reference to far-off icebergs. Instead he described the field as strewn with ice hummocks (*bugrami*) (TS, 1: 72).⁴ Editorial interference with Bellingshausen's language cannot be ruled out.⁵ Crucially, Bellingshausen never claimed that they sighted main ice that day. Nor did Simonov. All that the astronomer could offer for 16(28) January, just nine days after mentioning the *possibility* of encountering an 'impenetrable dome' of ice, was a laconic repetition of 'continuous ice'. His under-impressed entry for that day runs counter to the proposition that the expedition sighted

main ice in January 1820. Indeed Simonov later expressly contrasted the period from 15(27) December 1819 to 4(16) January 1820, which had been spent 'near land', with the period from 15(27) January to 14(26) February, which according to his records had been spent 'on the open sea' (Simonov, 1825: 114–15). Novosil'skii, thirdly, is a less significant witness, because he was evidently following *Two Seasons* quite closely. But he appears to have been dissatisfied with the 'hummocks' (*bugrami*) in the latter, replacing it with 'hills' or 'hillocks' (*prigorokami*) in his own version (Novosil'skii, 1853a: 59). And that amendment corroborates the 'ice hills in an ice field' of Bellingshausen's original reports. So between them Bellingshausen, Simonov and Novosil'skii left a broadly consistent account of 16(28) January. The expedition had been turned back by a large field of continuous ice, within which, according to two of the three men, there were scattered ice hills or hummocks. That version of the day rules out the massive and virtually immobile cliffs and plateaus of main ice, probably about 200m or 300m from floating or grounded base to upper surface and too vast to be penetrated by icebergs or tossed around into hummocks. But see the next subsection for what they saw almost three weeks later.

Mikhail Lazarev, on the other hand, probably writing without access to his journal or other records (Chapter 9), informed his friend Shestakov that the expedition *had* 'met main ice of extraordinary height' on 16(28) January (L1). It was an isolated remark, not made for the record, and with none of the context of distinct successive probes that Bellingshausen provided. There is no way to prove that Lazarev had accidentally merged the two most significant events of the first season, the furthest south achieved that year, which fell on 16(28) January, and the encounter with main ice, which happened 20 days later. But in view of the other slips of memory in the letter, the hypothesis that he 'made a simple human mistake' (Tammiksaar, forthcoming) is extremely persuasive.⁶

The two statements, one from Bellingshausen, confirmed by Simonov and Novosil'skii, and the other from Lazarev, are not compatible. The choice between them depends on their evidential qualities. Lazarev's statement is quite clear and it comes from a well-qualified witness whose honesty we have no reason to question. If taken in isolation, as it often has been, nothing casts doubt on it. But if we take the occasional unreliability of the letter into consideration (Chapter 9), the balance of evidence comes down firmly on the side of Bellingshausen's narrative: continuous ice on 16(28) January, main ice, in short a momentary sighting of Antarctica, almost three weeks later (Balkli, 2013).

The account presented here also runs counter to an interpretation of the texts proposed by the distinguished polar historian, Mikhail Belov, according to which references to ‘continuous ice’ by Bellingshausen and Simonov, and ice fields shown in dark blue on the track chart, represented encounters, not with shifting ice fields, but with the (then) permanent icy littoral of the Antarctic mainland (1963: 40–3). Since Bellingshausen deployed the adjective ‘continuous’ for sightings of ice (as opposed to reflective remarks) about 33 times in *Two Seasons*, 16 in his reports, and once on the track chart, and those descriptions represented about 12 encounters with the phenomenon, Belov’s hypothesis would indeed credit the Russian expedition, not only with the first sighting, but also with a substantial survey of the mainland. However the author was not persuaded by it, for the following reasons. First, Bellingshausen applied ‘continuous’ to several different ice conditions, including the firm or solid variety (*tvërdyi*) emphasized by Belov, but also to aggregations of small ice, or of large pieces of ice or floes, and on one occasion in late December 1820 to a cluster of icebergs. Next, most of those ice fields, except of course the last, had been penetrated by icebergs, which does not (or did not use to) happen with major land-like ice features. Third, a continuous body of ice could move, at times, quite fast (B10). Fourth, despite carefully discussing his terminology, Bellingshausen never said that ‘continuous ice’ meant the same as ‘main ice’, and never applied the two phrases to the same situation. On the contrary, fifth, Bellingshausen explained that continuous ice tended to coalesce from pieces of floating ice, and could vary considerably in extent and location over time (*TS*, 1: 200; 2: 210–12, 237). Sixth, Belov did not apply his criterion consistently, because continuous ice was first sighted on 2 and 3 January 1820 (O.S.), while the expedition was still at the South Sandwich Islands, and again on 8 January north of 60° S (*TS*, 1: 154–65), well before the putative discovery of the mainland on 16 January. And lastly, Belov did not treat equal cases equally. That is, he did not explain why Cook’s encounter with an ice field, on 30 January 1774, should *not* be considered a sighting of the Antarctic mainland, whereas Bellingshausen’s similar sightings of 16 January and 5 February 1820 (O.S.) *were* to be counted as such. To clarify Belov’s oversight we need to see the passage from Cook in full:

On the 30th, at four o’clock in the morning, we perceived the clouds, over the horizon to the south, to be of an unusual snow-white brightness, which we knew denounced our approach to field-ice. Soon after, it was seen from the top-mast-head; and at eight o’clock, we were close to its edge. It extended east

and west, far beyond the reach of our sight. In the situation we were in, just the southern half of our horizon was illuminated, by the rays of light reflected from the ice, to a considerable height. Ninety-seven ice hills were distinctly seen within the field, besides those on the outside; many of them very large, and looking like a ridge of mountains, rising one above another till they were lost in the clouds. The outer or northern edge of this immense field, was composed of loose or broken ice close packed together, so that it was not possible for any thing to enter it. This was about a mile broad, within which, was solid ice in one continued compact body. It was rather low and flat (except the hills), but seemed to increase in height, as you traced it to the south; in which direction it extended beyond our sight. (Cook, 1777, 1: 267)

There are striking verbal similarities between Bellingshausen's descriptions of 16(28) January and 5(17) February 1820 and this passage by Cook, including the fringe of broken ice, icebergs within the field, and in the second case a flattish, solid body of ice, rising away to the south. But Belov never discussed the resemblances.

However tedious, it must here be repeated that the author does not himself believe that Cook discovered Antarctica. He wonders, however, why Belov did not reach that conclusion, given the importance he assigned to continuous ice, and Cook's report of it above. All the more so, perhaps, when the most recent available translation, after duly rendering Cook's 'continuous' as *sploshnoi*, had proceeded with rather less justification to elevate his modest 'edge' into a 'barrier' (*bar'er*) and then to fix that 'continued, compact' field as 'stationary' (*stayannyi*) (Kuk, 1948: 208).

(vi) The mainland of Antarctica, February 1820

Bellingshausen, supported by Novosil'skii, reported sighting main ice on 5(17) February 1820 (B6, B7, B10; *TS*, 1: 188–9; Novosil'skii, 1853a: 60). Neither Simonov nor Lazarev nor Mikhailov recorded anything about the ice on that day. But Bellingshausen's account is both authoritative and quite different from his repetitive descriptions of the continuous ice fields, scattered with icebergs, that he encountered in January 1820 and January 1821 (B7, B10). There is no reason to doubt that in February 1820 Bellingshausen and his comrades saw one of the major fringing ice features of Antarctica (Map 5; Figure 6). By the 'main ice' criterion that has been accepted here, therefore, they saw the mainland of the continent further south than, 18 days after, and independently from Bransfield and Smith. It was a major achievement. Added to which the account of the expedition that Bellingshausen published in 1831 was more substantial than the handful of early published accounts of the Bransfield voyage.

(vii) Pacific islands, July–August 1820

The expedition made several discoveries in the Pacific, during its second phase of exploration, which fall outside the scope of this book. Krusenstern (1824: Sheet 1) accepted Bellingshausen's Russian names for his discoveries in this area, but not the collective designation 'Islands of the Russians'. For Bellingshausen's own usage, see B8 and B10. This phase of the expedition has not yet been fully studied and described as a voyage of exploration in its own right, rather than separate encounters with sundry island communities.

(vii) Peter I Island and Alexander I Coast, January 1821

Bellingshausen was evidently relieved by these discoveries of solid rock, and Novosil'skii and others rightly hailed them as the furthest southern lands to be discovered before the expedition of James Clark Ross. Together they made up another fine achievement, although nowadays few would agree with earlier claims that they were the first discovery of the Antarctic continent (Rabinovich, 1908: 16; Vvedenskii, 1941: 119).

Several commentators, including the author (Bulkeley, 2011a), have chosen to mention that what Bellingshausen named the Alexander I Coast in 1821 was shown to be an island more than 100 years later.⁷ But just like Cook with 'Sandwich Land', the Russians apparently had reservations from the outset about claiming a mainland discovery with the word 'Coast' (which can also be translated 'Land'). In Lazarev's opinion what had been designated a coast probably amounted to 'one, or possibly several islands' (L1). Peter I and Alexander I were immediately announced in Russia as a pair of islands – see O1 in Chapter 11. They continued to be so treated by various authorities (Krusenstern, 1824: Sheet 1; Dumont d'Urville, 1842, 2: 11; Rosser and Imray, 1870: 197) and in the foreign press.⁸

(viii) The insularity of the South Shetland Islands and the existence of the Elephant and Clarence Islands group, February 1821

Bellingshausen can have heard few details about the recent discovery and exploration of the South Shetland Islands before he reached the area, and doubtless he had a normal appetite for fame. Nevertheless his initial overvaluation of his achievements at the South Shetlands is hard to excuse. In his final report (B10) he claimed that his expedition had been the first 'to resolve the question of whether this New Shetlandia was a southern mainland', adding that the British and American sealers

had all been 'on the north side of the islands'. Parts of the north-west coast of the island chain can be seen from the Bransfield Strait, on its south-east side, which separates the islands from the Antarctic Peninsula, and the sealers also used channels between the islands for anchorages. But in *Two Seasons* Bellingshausen revised his account, explaining, more honestly perhaps, that he had met at least one sealer, skippered by the American Nathaniel Palmer, *inside* the Strait (*TS*, 2: 262–4).

Early British publications mentioned the work of the Russian expedition in the area, but in two important respects Bellingshausen did not reciprocate. When *Two Seasons* was published in 1831 it featured his Russian names for the islands, although several maps with some or all of their British names had appeared by then (Miers, 1820; Hurd, 1822; Purdy, 1822; Norie, 1825?; Vandermaelen, 1827). As for the Elephant and Clarence group, Bellingshausen could also have learned from Purdy, which was a standard work of reference, that they had been discovered in time to be reported in 1822, so that he had probably been preceded in those waters (Purdy, 1822: 38–9). The Bransfield expedition had in fact taken possession of the group by landing on Clarence's Island, as they named it, on 4 February 1820, a year before the Russians reached the archipelago. Bellingshausen appeared to maintain his claim in *Two Seasons*, however (2: 272–6), though in fairness to him it should be explained that the exact date of the British discovery, although rather vaguely published in November 1821, would not have been easy to ascertain.⁹

To end this section, so many people have been exercised about a single aspect of the Bellingshausen expedition that the author feels obliged to summarize his reasons for concluding that Bellingshausen was not the first commander to see the Antarctic mainland, even if we accept that he could have done so by seeing one of its major peripheral ice features. First, it was argued in Chapter 4 that Bellingshausen and his comrades had a clear enough ice vocabulary to tell and state the difference between a continuous ice field containing icebergs, and the massive cliffs of 'main ice', which was expected to resemble an ordinary mainland apart from its material. For continuous ice, which could be penetrated by icebergs but only to a limited extent by small wooden ships, there were books available, some of them in Russian (Lomonosov, 1952; Phipps, 1774; Scoresby, 1818); next, the vocabulary was small and easy to master; and third, Bellingshausen shows every sign of using it consistently. For main ice, a theory of polar ice caps had

been developing for 150 years and was represented in one of the latest maps of the southern hemisphere (Map 3). Meanwhile a parallel, vaguer theory about land-like ice masses, also known as 'main ice', had evolved in the whale fishery and had recently been made available to scientists and explorers (Phipps, 1774; Scoresby, 1818; J. Ross, 1819).

Next, the extensive and fluctuating ice fields around Antarctica are not so obviously part of the continent as its (hitherto) more solid and permanent ice barriers, sheets and tongues, which have been named as geographical features. Cook saw the ice fields, but historians do not believe he got close enough to see one of the major ice features. For that reason he is not thought to have discovered Antarctica. Those who, unlike the author, discount the tradition of early discovery (above), have therefore been anxious to determine whether or not the Russian expedition sighted a major ice feature on 16(28) January 1820, two days before Bransfield and Smith sighted what is now called Mount Bransfield on the Antarctic Peninsula.

That question comes down to a choice between Bellingshausen's statements, supported by others, that as in early January so too on 16(28) January 1820 what they saw were 'ice hills in an ice field', or alternatively, Lazarev's reference to 'main ice of extraordinary height' in a private letter written 20 months after the event, one in which Lazarev misstated several other, less important matters. Because it was retrospective, unsupported by other witnesses, and associated with demonstrable errors, Lazarev's description of 16(28) January 1820 stands open to reasonable doubt. The author has therefore accepted that the account left by Bellingshausen, with corroboration from Simonov and Novosil'skii, is the more convincing alternative, and has concluded that the Russians did not see main ice until mid-February 1820, when they became the second expedition, after Bransfield, now known to have seen the mainland.

The first expeditions to the Antarctic resemble the first manned flights to the moon in the twentieth century. At that stage in their exploration of an alien world, neither argonauts nor astronauts were equipped to leave their fragile vessels for more than the briefest of sorties. A (doubtless chaotic) ice field 28km wide was enough to prevent Bellingshausen from landing on Peter I Island, for example. But, just as within the Apollo programme, those who came later, pushing south to forge the heroic age of Antarctic exploration in the late nineteenth and early twentieth centuries, repeatedly acknowledged their debts to predecessors in the age of sail (Chapter 14). Not least among those predecessors

stood the commander who surveyed more of the Antarctic zone in two seasons than Cook achieved in three, and who discovered the first lands beyond the Circle.

The Russian Antarctic expedition of 1819–21 was secretly planned and hastily prepared, disregarding Krusenstern's advice that it be postponed for a year (Krusenstern, 1877b; 1877c). In the event it was well stored, skilfully led, bravely conducted, and geographically effective. The extent of its penetration of high southern latitudes, the sighting of a massive ice feature in February 1820, and the aforementioned discovery, on 21 and 28 January 1821, of the first lands south of the Antarctic Circle, were major contributions to geographical knowledge. As Mill (1905) and Shokal'skii (1928) both adjudged, the second full-scale, extended expedition in Antarctic history was entirely comparable to the first. In the long interval between Cook's expedition and the American, British and French expeditions of 1837–43, only John Biscoe's hugely daring venture, made with a pair of cockleshell boats in 1830–32, ranks beside it.

On the scientific side, however, the Russian expedition was at best adequately equipped, and it was understaffed and poorly published. The motives behind such a precipitous and incomplete enterprise remain obscure, and the Bellingshausen expedition cannot be conclusively evaluated until it has been better understood. But there is always hope, if only because, as George Santayana once mooted but did not himself say, the past is always changing.

13

Future Research

Only some of the past can be directly perceived. The rest has to be discovered, put together, divined.

WILHELM VON HUMBOLDT (1822)

The findings presented in this book are based on a careful study of Bellingshausen's reports from the expedition, published here as a complete set of complete texts for the first time, and of several other important sources, including of course the commander's published narrative. But a comprehensive examination of *all* known and relevant documents, let alone any that, doubtless, remain to be discovered, would have taken several months' work in Kazan, Moscow and St Petersburg, and should, ideally, have included a careful scrutiny of the physical *originals* of *Vostok's* construction plans, Bellingshausen's track charts, and Lazarev's letter to Shestakov (L1). Such a project was quite beyond the financial and other resources of the author. It can therefore be stated with more than the conventional modesty that this book is far from being the last word on its subject. Before closing, the author would like to highlight some of the key areas in which more could be done to increase our understanding of the Bellingshausen expedition.

Republication

The simplest useful project would be to republish some of the other important texts, apart from *Two Seasons*, in scholarly Russian editions. The great archival historian Vyacheslav Aristov made a start on this task more than 20 years ago, but his contribution has long been out of print (Simonov, 1990). Several of the original nineteenth-century works are now available on the internet, but in most cases such items

remain in their challenging old-style orthography and are unsupported by critical commentary. Even without such commentary, a complete and accurate edition of Simonov's *Nights* or Novosil'skii's *South Pole* would make attractive reading for the general public. A complete and scholarly *Russian* edition of all Bellingshausen's expedition reports is also overdue.

A book of the voyage

The next two projects proposed are interdependent and of equal importance. A full-length narrative of the expedition, from its conception and commissioning to its return to Russia and the publication of its results, has yet to appear. We may not have revelations like those set down by Löwenstern on the Krusenstern voyage (2003), or the almost watch-by-watch sail plans (or winds?) recorded by Aleksei Lazarev on the *Blagonameremnyi* (1950). But real headway could be made by collating the information from all surviving sources, week by week, and then distilling it into a readable text. Until that is done the expedition will never be fully appreciated, and when it is done, surprising new insights may emerge.

The 'wretched narrative'

The creation of such a database, a sort of composite journal, would enable historians to tackle the other great question concerning the expedition, namely what if anything can be done to improve our access to what Mikhail Lazarev called the 'wretched narrative', *Two Seasons* itself. A luxurious facsimile of the first edition has recently appeared, but without much scholarly input (Bellingsgauzen, 2011). From the standpoint of historical research, we may never recover Bellingshausen's original manuscript, but we are not entirely helpless. The unsightly misspellings of names could legitimately be removed and some basic restoration could be attempted, for example where the surviving text gives information about both ships but not in the same detail, although Bellingshausen had almost certainly treated them alike. The first edition's rendering of the Auckland as the Falkland Islands (on the other side of the world), in Bellingshausen's orders to Lazarev on their departure from Rio, should be corrected. And the geographical coordinates for the important southing of 5 February 1820 (O.S.), which were unaccountably dropped in the first edition (*TS*, 1: 188–9) despite being reported in April 1820 (B7), should be added in appropriate form.

The greatest single task would be to use such a database to overhaul the marginal dates in the first edition. They are far more useful to the reader in the margin than when inserted bodily into the text, as they have been in modern editions. But even if Bellingshausen provided them himself, which is by no means certain, they are incomplete, they vary in their placing with respect to the succession of days in the text, and a very few may not be accurate. It will be a daunting task to overhaul them, but an essential one. As valuable as Bellingshausen's reports may be they can never replace *Two Seasons*. A new scholarly edition, more than 50 years after the last one, is therefore urgently needed.

Mikhailov's art

Mikhailov served on two expeditions, the second of which took place in 1826–29, and left more than 350 original drawings and paintings from them, which have been preserved by the Russian Museum and the State Historical Museum. Until recently they were difficult for most scholars to access (Bulkeley, 2011c). Then, a few months before this book was completed, the Russian Museum published 209 of them in parallel Russian and English editions of an album sourced from both museums (Petrova, 2012). The work includes a catalogue raisonné giving dates of composition where known, museum inventory numbers and other information. Future historians of the Bellingshausen expedition will need to collate at least the 145 images reproduced from that voyage, if not also the other, still unpublished sketches, with the information from textual sources.

As for the 1831 *Atlas* volume, it is so rare that its lithographs are now hard to see as they were published. (The recent facsimile edition (above) includes the *Atlas*, but is priced beyond the reach of most libraries, let alone individuals.) The plates have been reproduced with varying clarity in many books about the expedition, but an affordable, digitally created edition of the *Atlas* would also be welcome.

Simonov's science

After reading everything he wrote about them, it is hard to accept that so many of Simonov's thousands of astronomical and physical observations from the expedition have been irretrievably lost. They could have been destroyed in the Great Fire of Kazan or thrown out by Simonov himself in later life, or have met some other end in the often turbulent years between 1821 and 1949. But their loss detracts so markedly from

the scientific standing of the expedition that it would surely be worthwhile for an archival historian to conduct a new search in the archives of the University of Kazan, of the Imperial Ministry of Education, and elsewhere. There is almost no chance that they will be found, but stranger things have occurred in similar situations.

Bellingshausen's manuscript

The supreme reward for historians would be to find either Bellingshausen's shipboard journal, or the ten notebooks containing the original manuscript of *Two Seasons*. Such a discovery is not totally impossible. Bellingshausen still had the journal (at least) in 1840, and his widow may have inherited it in 1852. After her husband's death she returned to Velikiye Luki to live with or near her daughter Elise, Baroness Gerschau (Russwurm, 1870: 22). A renewed search should begin, therefore, at the Pskov archives, followed by those of Tallinn, where most of the extended family lived before the Bolshevik revolution. No disappearance is complete until a competent, thorough search has also been completed. To repeat, the story of the Bellingshausen expedition is far from over.

14

Afterwords

*Our mariners advanced with reckless courage for more than
1000 versts in the midst of icebergs.*

OTEHESTVENNYYE ZAPISKI (1821 (O1))

Let the final words in these pages come from great Antarctic explorers of the heroic age.

Frank Wild

For much of our journey about the northern limits of the pack I was compelled for the sake of economy to shut off steam and proceed under sail only, which gave me some idea of the difficulties which Bellingshausen and Biscoe had to contend with, and enabled me to appreciate their reticence to push deeply into the ice. To both of these predecessors I must pay a tribute of the highest praise for their determined and persevering work about this segment [off Dronning Maud Land]. In the whole of my experience as a seaman I have never encountered a part of the world where weather and sea conditions generally are so uncomfortable. Periods of gale, with heavy swell and grinding floe, when the outlook is obscured by driving wind and blinding snow squalls, alternate with periods of calm, when fog settles in a dense pall of fine mist which forms heavy rime on all spars and running gear, and freezing solid interferes greatly with their working. It takes days for the huge rollers to subside, and the floes grind and groan incessantly. I had always the feeling that I could raise steam at short notice, but these early explorers were dependent entirely on winds, which blow either too hard or not hard enough, and never seem to strike the happy medium.

from Shackleton's Last Voyage (Wild, 1923: 130)

Robert Falcon Scott

After the return of Cook no important expedition was sent to the Southern Seas until 1819, when Bellingshausen sailed from Kronstadt with two well-equipped vessels. The object of this voyage was to emulate the achievement of Cook in circumnavigating the globe in a high southern latitude, and well was this mission fulfilled. With wonderful pertinacity the intrepid Bellingshausen again and again steered his ships to the south, and he succeeded no fewer than six times in crossing the Antarctic Circle. Although he did not reach such a high latitude as his predecessor, on the whole his course lay to the southward, and he still further narrowed the limits of the southern land which had been so greatly reduced by Cook. Further, Bellingshausen was the first definitely to discover land within the Antarctic Circle.

from The voyage of the 'Discovery' (Scott, 1905, 1: 7-8)

Roald Amundsen

We must always remember with gratitude and admiration the first sailors who steered their vessels through storms and mists, and increased our knowledge of the lands of ice in the South. People of the present day, who are so well supplied with information about the most distant parts of the earth, and have all our modern means of communication at their command, find it difficult to understand the intrepid courage that is implied by the voyages of these men.

They shaped their course toward the dark unknown, constantly exposed to being engulfed and destroyed by the vague, mysterious dangers that lay in wait for them somewhere in that dim vastness.

The beginnings were small, but by degrees much was won. ... Our gratitude to these first discoverers should be profound.

from The South Pole (Amundsen, 1912, 1: 3-4)

Appendix 1 – Crew Lists of HIMS *Vostok* and *Mirnyi*

The crew lists were translated from (CL) but without the pay rates. Five names added from *Two Seasons* or the post-voyage report on crew status (Moller, 1821) are marked with asterisks. The lists do not give patronymics and do not identify any cooks. The statement that Nikita Il'in was of 'officer rank' (*TS*, 1: 9) may simply mean that he was a gentleman but not yet a commissioned officer. The crew status report confirms the presence of a third, unidentified servant on *Vostok* and so corroborates Bellingshausen's tally of 189 people without the chaplain (*TS*, 1: 7–9), in short 190 people.

Crew of HIMS *Vostok*

Commanding officer:	Junior Captain Bellingshausen
Captain Lieutenant:	Ivan Zavodovskii
Lieutenants:	Ivan Ignat'ev; Konstantin Torson; Arkadii Leskov
Midshipman:	Dmitrii Demidov
Astronomer:	Ivan Simonov*
Artist:	Pavel Mikhailov*
Clerk:	Ivan Rezanov
<i>Gardemarine</i> :	Roman Adams*
Navigator:	Yakov Paryadin
Warrant officers:	Andrei Sherkunov; Pëtr Kryukov
Master's mate:	Fëdor Vasil'ev
Staff surgeon:	Yakov Berkh
Surgeon's mate:	Ivan Stepanov
Quartermasters:	Sandash Aneyev; Aleksei Aldygin; Martyn Stepanov; Aleksei Stepanov
Butcher:	Grigorii Diyakov
Drummer:	Leontii Churkin
Seamen, 1st Class:	Semën Trofimov (helmsman); Gubei Abdulov; Stepan Sazanov; Pëtr Maksimov; Kondratii Petrov; Olav Rangoil'; Paul Yakobson; Leon Dubovskii; Semën

Gulyayev; Grigorii Anan'in; Grigorii Yelsukov; Stepan Filipov; Sidor Lukin; Matvei Khandukov; Kondratii Borisov; Yeremei Andreyev; Danil Kornev; Sidor Vasil'ev; Danil Lemantov; Fëdor Yefimov; Khrestian Lenbekin; Yefim Gladkii; Martyn Lyubin; Gavril Galkin; Yusip Yugupov; Gabit Nemyasov; Prokofii Kasitkin; Ivan Krivov; Matvei Lezov; Mafusail' Mai-Izbai; Nikifor Agloblin; Nikita Alunin; Yegor Kiselëv; Ivan Saltykov; Ivan Sholokhov; Demid Antonov; Abrasim Skukka; Fëdor Kudryakin; Ivan Yarengin; Zakhar Popov; Filimon Bykov; Vasilii Kuznetsov; Aleksei Konovalov; Semën Gur'yanov; Ivan Paklin; Ivan Grebennikov; Yakov Bizanov; Mikhail Tochilov; Matvei Popov; Yelizar Maksimov; Pëtr Ivanov; Grigorii Vasil'ev; Mikhail Takhshikov; Pëtr Palitsyn; Denis Yuzhakov; Vasilii Sobolev; Semën Khmel'nikov; Matvei Rozhin; Savast'yan Chigasov; Danil Stepanov; Varfolomei Kopylov; Spiridon Yefremov; Terentii Ivanov; Larion Nechayev; Fëdor Razgulyayev; Vasilii Andreyev; Kiril Sapozhnikov; Aleksandr Bereshkov; Aleksei Shilovskii; Afanasii Kirilov; Matvei Gubin (blacksmith)

Ship's carpenter,	
2nd Class:	Vasilii Krasnopevov
Farrier, 2nd Class:	Pëtr Kurlygin
Carpenter, 2nd Class:	Pëtr Matveyev
Caulker, 2nd Class:	Rodion Averkiyev
Sailmaker, 2nd Class:	Danil Migalkin
Cooper, 3rd Class:	Gavril Danilov
Gunnery warrant	
officers:	Ilya Petukhov; Ivan Kornil'ev
Bombardier:	Leontii Markelov
Gunners, 1st Class:	Zakhar Krasnitsyn; Yan Yatsylevich; Yakub Belevich; Yegor Vasil'ev; Vasilii Kapkin; Feklist Alekseyev; Semën Gusarov; Semën

Yatsynovskii; Nikita Lebedev; Gleb Plysov;
Ivan Barabanov
Servants: Mikhail – ('Misha')*, Khariton Gyupov*, and
one other

Crew of HIMS *Mirnyi*

Commanding officer: Lieutenant Lazarev
Lieutenants: Nikolai Obernibesov; Mikhail Annenkov
Midshipmen: Ivan Kupriyanov; Pavel Novosil'skii
Medical surgeon: Nikolai Galkin
Navigator's mate: Nikita Il'in
Boatswain: Ivan Losanov
Quartermasters: Vasilii Alekseyev; Nazyr Rakhmatulov
Drummer: Ivan Novinskii
Seamen, First Class: Abashir Yakshin; Platon Semënov; Arsentii
Filipov; Spiridon Rodionov; Nazyr Apsalimov;
Yegor Bernikov; Gabidunila Mamlineyev;
Grigorii Tlokov; Pavel Mokhov; Pëtr Yershev;
Fëdor Pavlov; Ivan Kirilov; Matvei Murzin;
Simon Taus; Ivan Antonov; Demid Ulyshev;
Vasilii Sidorov; Batarsha Badeyev; Lavrentii
Chupranov; Yegor Barsunov; Yakov Kirilov;
Osip Koltanov; Markel Yestigneyev; Adam
Kuk; Nikolai Volkov; Grigorii Petunin; Ivan
Leond'ev; Anisim Gavrilov; Larion Filipov;
Tomas Bunganin; Danil Anokhin; Fëdor
Bartyukov; Ivan Koz'minskii; Frol Shavyrin;
Arkhip Palmin; Zakhar Ivanov; Vasilii
Kurchavii; Philip Pashkov; Fëdor Istomin;
Demid Chirkov; Dmitrii Gorev; Ilya Zagainov;
Ivan Kozyrev; seaman Stepanov; Vasilii
Semënov
Senior steward: Andrei Davydov
Surgeon's mate: Vasilii Ponomarev
Blacksmith: Vasilii Gerasimov
Master's mate: Vasilii Trifanov
Master's mate: Yakov Kharlov
Senior gunnery
warrant officer: Dmitrii Stepanov

Gunners, 1st Class: Pëtr Afanas'ev; Mikhail Rezvii; Vasilii Stepanov; Vasilii Kuklin; Yefim Vorob'ev; Ivan Sarapov

Carpenters: Fëdor Petrov (2nd Class); Pëtr Fëdorov (3rd Class)

Caulker, 2nd Class: Andrei Yermolayev

Sailmaker, 2nd Class: Aleksandr Temnikov

Cooper, 3rd Class: Potap Sorokin

Chaplain: Hieromonach Dionisii

Appendix 2 – Four Deaths

On 9 August 1821, in his villa at Romanshchina, the Marquis de Traversay finished writing a summary of Bellingshausen's reports for the Emperor. As he did so, he noted that three men had died: '1 from disease, 1 fell, and another drowned during a storm' (de Traversay, 1821, l. 22). Each of the three, and one more, deserves notice in this book.

Fëdor Istomin – 21 February 1820

Seaman First Class Istomin died from typhoid fever, a disease which is spread in human faeces. In those days it was a common infection ashore but less virulent at sea, where human excreta went overboard. In Bellingshausen's opinion, surgeon Galkin's efforts were defeated as much by the harsh climate of the Southern Ocean as by the disease itself.

The particulars of the expedition's first fatality appear in the official tally of personnel as of its return to Kronstadt (Moller, 1821). Bellingshausen also mentioned this death several times (B7, B10; *TS*, 1: 218). As shown in Chapter 9, the version given by Mikhail Lazarev (L1) was surprisingly inaccurate. Much later, Pavel Novosil'skii also claimed that, as of March 1820, everyone in the expedition was in the best of health (1853a: 62). Perhaps he meant, everyone still with the expedition.

Vostok's latitude was approximately 66°34'32" S, headed north, and *Mirnyi's* station was behind her. This hitherto unknown seaman thus turns out to have been the first person to die and be buried (at sea) in the Antarctic. And Hieromonach Dionisii was the first priest to conduct a funeral service there.

Matvei Gubin – Sunday, 14 May, to Tuesday, 23 May 1820

Seaman First Class Gubin was *Vostok's* blacksmith. (For the misspelling of his surname, see Chapter 1: n. 7.) The date of his death was recorded in *Two Seasons* and in Moller (1821), but the date of his fall is unclear. In different places Bellingshausen said that Gubin died three, six, or nine days after falling. The third version, published in *Two Seasons*, has been followed here.

Gubin fell about 14m from the top of the first section of the mainmast and landed on a belaying pin fixed at the main-knight, just behind the mast (B8; B10; *TS*, 1: 294; Moller, 1821, l. 4). Belaying pins were short metal or wooden rods fixed vertically into horizontal racks in different places on a ship, where they were used to make fast or 'belay' the running ropes. The knight was a structure abaft the mainmast in which massive posts, holding the sheaves used for large lifting tackles, were linked and braced with such belaying pin racks (Luchininov, 1973b: 6, 14). Gubin was wounded severely in the buttocks and died from the resulting haemorrhage.

When he fell, Gubin had been fitting some copper sheeting at the top of the first section of the mainmast, so as to prevent wear from the *stropy*. In both Russian and English nautical diction the commonest object to be called a 'strop' was one of the rope or iron bands used to bind and secure the countless blocks (pulley assemblies) that were needed to guide ropes and reduce hauling loads. But Bellingshausen identified these *stropy* by their location rather than by their function, as he would have done for blocks. So it is safe to infer, with Debenham (Bellingshausen, 1945, 1: 193), that he was referring to a well-known source of friction, the assembly by which the mainyard (or any other lower yard) was suspended, in front of the top of a mast section, from the frame which supported the next section (in this case the main topmast), a structure known as the trestle-trees. In larger warships of this date the centre of each wooden yard was bound with one or more iron collars, trusses or hoops (*bugeli, beifuty*) incorporating metal eyes to which short chains, known as slings, could be attached below the trestle-trees. According to Luchininov, however, who had seen her plans, *Vostok* used a simpler form of construction, in which the slings were passed directly around the yard (1973b: 9). And slings, as well as strops, were called *stropy* in Russian (Reehorst, 1849: 178).

The crew status report explains that Gubin was working 'under the maintop', and that is confirmed by Bellingshausen's statement that he fell from the catharpins (B10). Catharpins were short straps used to brace in the footings of the topmast rigging, known as the futtock-shrouds, which were passed outside the maintop (or trestle-trees) and then secured to the top of the mainmast just below it. Once that structure, supporting the topmast, was in place, access to the aft-side, in particular, of the top of the mainmast would have been extremely awkward. Although friction between mainmast and mainyard was confined to the front and sides of the mast, Gubin was perhaps trying to fasten the copper collar at the back. That would explain why he fell onto the main-knight, which stood behind the mast.

There were two new hospitals in Sydney, and the squadron was due to call there again after a few months. Bellingshausen was minded to leave Gubin behind, but *Vostok's* surgeon, Yakov Berkh, assured him that the patient would recover at sea. Three days after sailing, however, Gubin died.

Filimon Bykov – Monday, 11 September 1820

Fair wind; the Emperor's name day. They held a service of thanksgiving and fired a salute. Then:

The weather allowed Captain Lazarev and the rest of the officers to spend the whole day with me on *Vostok*. We shared heartfelt reminiscences of our dear fatherland, our families and friends, bridging the immeasurable distance that separated us from them. Our session was just breaking up when we were suddenly surprised by the unfamiliar cry of 'Man overboard!' from the forecabin. (TS, 2: 84–5)

Bellingshausen went on to explain that one of his prime seamen, Filimon Bykov, had fallen from the bowsprit after taking in one of the jibs. He lowered the jolly-boat with Lieutenant Annenkov, but they were travelling too fast, the light was going and the swell was too high for rescue to be possible. There were of course no searchlights or day-glo lifejackets in those days. (The version of the seaman's name in *Two Seasons*, 'Philip Blokov', was another contribution from its first editors which can safely be ignored. The 'Bykov' in the crew list is confirmed in B10 and Kl.)

Reading between the lines, the officers had been enjoying a well-earned day off and had certainly been drinking, because it would have been unthinkable for Bellingshausen not to entertain his comrades with the normal hospitality. Next, there was no commissioned officer on deck when Bykov fell. (For all we know, Bellingshausen may have been an officer short by that point – see below.) Lastly, just like men in other European navies Russian seamen had a daily ration of alcohol, usually spirits (Chapter 7). The crew probably received an issue on this occasion, and perhaps more than usual, and it was also normal for alcohol to serve as currency for gambling, bets etc. So Bykov may or may not have been drunk and he may or may not have been distracted or showing off in some way, but accidents often happen around alcohol. A Russian proverb reminds us that a drunkard can believe the sea is only knee-deep.

The circumstances explain why de Traversay fabricated a storm out of a day which had been fine enough for Lazarev to take a boat over

to *Vostok* and remain there for several hours. It was a polite fiction by which he avoided telling the Emperor, who was unlikely to read Bellingshausen's full reports, that a seaman had lost his life not only on the Emperor's name day but also, at least in part, as a result of the celebration that marked the occasion.

**Lieutenant Ivan Fëdorovich Ignat'ev
(ex-Vostok) – January 1822**

Lieutenant Ignat'ev died a few months after the expedition returned to Kronstadt, perhaps as a result of a psychological disorder which, according to Lazarev (L1), began during the voyage. The year of his death was confirmed by Kotukhov (1955: 27). The month, and a link between his mental illness and his death, were found on a generally reliable internet source (www.shiphistory.navy.ru), which adds that his condition presented late in the voyage. At some point in 1820 his servant, Khariton Gyupov, was transferred to work under Rezanov and then, in November, signed on as a seaman (Moller, 1821). Whether Gyupov's transfer had any connection with Ignat'ev's illness, it is now impossible to tell. Ignat'ev was still fit for duty, at some level, in December 1820 (TS, 2: 194, 201).

Mental illness, sometimes fatal, was not unknown among sea officers under normal conditions of service. So Ignat'ev's illness and subsequent demise may or may not have been caused or aggravated by physical and mental stress endured for long periods in polar conditions. But if it was, it was probably not the first such case in the history of polar exploration and it would certainly not be the last.

Appendix 3 – Measurements and Money

Weights and measures

When speaking for himself the author has used the metric system. When conveying measurements recorded by the protagonists he has usually provided metric conversions. The Imperial Navy and its ship-builders measured length in feet and inches, which were the same in Russia as in Britain, and used a six-foot naval sazhen, or fathom, instead of the seven-foot civil sazhen. At sea, their mile was the nautical mile, a British unit intended to equate to the average length of one minute of latitude, but which they sometimes called the Italian mile. A vessel's speed was expressed in knots. Their thermometers used the Réaumur scale, which converts to Celsius at (roughly) 1:1.25. Note that for general purposes a verst approximates to a kilometre.

<i>Unit</i>	<i>Equivalent/s</i>
1 (Portuguese) arroba	14.688kg
1 (Russian) artillery pound	115 zolotniks / 490gm
1 Italian mile	1 nautical mile (nm)
1 knot	1nm per hour / 1.85km/h
1 nautical (Admiralty) mile	1.15 statute miles / 6080ft / 1853.184m
1 pipe (Baltic)	5 vedros / 61.5 litres
1 pipe (British)	126 gallons / 573 litres
1 pood	16.38kg
1 (Russian) pound	0.41kg
1 sazhen	1 fathom / 6ft / 1.829m
1 ton (long)	2240lb / 1016kg
1 tonne	1000kg
1 vedro	12.3 litres
1 vershok	4.445cm
1 verst	1.067km
1 zolotnik	4.2658gm

Money

There are few online calculators with which to find the modern equivalent of a historic sum in roubles, for the good reason that the Russian currency has been reformed or reissued more often than the pound sterling or the United States dollar. There is also the consideration that, in the early modern period, the economy or perhaps better the economies of the Russian Empire were even less monetarized than those of western Europe or North America. The Russian Money website, however, provides a table of approximate values of the rouble from 1534 to the present day, expressed as multiples of the 2009 rouble, and based on past prices of consumer goods such as bread, beer, horses, etc. (<http://www.russian-money.ru/>). For this book, each historic sum in silver roubles could therefore be multiplied into its rough equivalent in 2009 roubles, using the nearest data point in that table. The resulting amount was then converted to sterling at the rate provided for the mid-point of 2009 (2 July) by the Free Currency Rates converter (<http://www.freecurrencyrates.com/exchange-rate-history/>). Lastly, the sterling amount was adjusted to its 2013 value with the historic inflation calculator on the This is Money website (<http://www.thisismoney.co.uk/>). However awkward, the method was judged to yield more meaningful results than the alternative, which would have been to convert roubles to pounds sterling at contemporary exchange rates, and then use a sterling inflation calculator, constructed in terms of the British economy over the last 230 years, to find notional modern equivalents.

The Russian Money website gives little attention to the matter of assignats, or paper roubles, merely stating that the domestic exchange rate was 3 assignats to 1 sr in 1812, but 3.5 assignats by 1839. A letter to *The Times* suggests that the second rate was in operation by 1820 at the latest, at least in London (*The Times*, 14 January 1820: 3). But since the amount to be elucidated in Chapter 2 dated from 1806, the higher value for the assignat was used for that calculation.

The Russian Money table shows the historic purchasing power of the rouble. With a view to comparability, the modern value of past amounts in sterling was estimated with a purchasing power calculator on the Measuring Worth website (<http://www.measuringworth.com>). Within that calculator, the average earnings option was selected, as giving amounts broadly similar to those found for historic roubles by the method described above. The figures were then updated to 2013 in the same way.

The value shown for Prussian thalers in Chapter 2 is their equivalent metal price in March 2013, and in Chapter 11 Spanish thalers were

converted to Prussian at the contemporary exchange rate of 150% before making the same calculation. In Chapter 7, bonuses paid in thalers were compared with seamen's pay via the relative metallic values of the Prussian thaler and the Hamburg mark, and then the latter's exchange rate against silver roubles in 1820.

All the resulting equivalents have been expressed as pounds sterling in 2013. They are shown in braces and italics in order to stress that they are at best 'very rough ballpark'. Unreliable similarities, for example between the salaries of Cook and Bellingshausen, and dissimilarities, for example between the price of Bellingshausen's book in roubles in 1831, and in thalers in 1840, are the inevitable result of such disjointed calculations. It is more straightforward to compare relative values between economies. For example, in 1831 Bellingshausen's book cost about 166% of the annual wage paid to a Russian seaman ten years earlier, a wage which had probably changed very little in the intervening decade. By that standard a British seaman was better off, because a comparable work (Heber, 1830) would have cost him a shilling or two less than his annual wage.

Appendix 4 – The Sizes of the Ships

The sources for the dimensions of *Vostok* and *Mirnyi* are *Two Seasons*, Luchininov's accounts of original drawings of *Vostok* and indirect estimates of *Mirnyi* (1973b; 1973a), Veselago's *Register* (1872), Golovnin's description of *Vostok*'s sister-ship *Kamchatka* (1965), and Aleksei Lazarev's description of *Mirnyi*'s sister-ship *Blagonamerennyi* (1950). Dimensions were expressed in feet and inches.

In his introduction Veselago explained that length meant keel length, that is, the length of the upper deck between perpendiculars dropped to the keel, and beam was measured inside any outer sheathing. The two quantities were in general use at the time, and Bellingshausen confirmed that *Vostok*'s beam was measured in that way. Veselago and Bellingshausen also specified that depths were depths in hold. In Table A4.1 the length and beam of both ships and *Mirnyi*'s depth in hold come from *Two Seasons* (TS, 1: 3–5). The estimated depth in hold for *Vostok* is that given for *Kamchatka* by Golovnin, replacing the implausible figure in *Two Seasons* (9ft 7in); the congruity is not certain, however, because *Vostok*'s draught was one foot deeper than *Kamchatka*'s. The figures for *Vostok*'s laden draught come from Luchininov's account of the original sketches; those for *Mirnyi* are estimates, taken from Aleksei Lazarev's description of *Blagonamerennyi*, because Luchininov could find no information about *Mirnyi* after her conversion from a transport whereas Lazarev did have such knowledge of *Blagonamerennyi*.

Mirnyi's origins as a transport are reflected in her laden draught, which was almost as much as *Vostok*'s although she was a smaller ship. The same is true of her (estimated) displacement.

The burthen or tonnage of a ship was an estimate of her carrying capacity, aka Builders Old Measure (BOM). The version used for warships was explained by an authoritative contemporary source as follows (Steel, 1817: 130–1). First find the 'length of keel for tonnage' in feet by subtracting three fifths of the beam from the length of keel (above). Multiply by the beam, and again by half the beam, and divide by 100 (instead of 94 for merchantmen). That gives a tonnage of 588 for *Vostok* and 459 for *Mirnyi*. Bellingshausen gave *Mirnyi*'s tonnage as 530, presumably with a different formula (TS, 1: 4–5), but provided none for *Vostok*. Yet again, his editors – but enough said.

Table A4.1 Overall dimensions of *Vostok* and *Mirnyi* in feet and inches

Length	Beam	Depth in hold	Draught (laden)	
			Fore	Aft
<i>(metric conversions in italics)</i>				
Vostok				
129 10	32 08	17 00*	14 09	15 09
39.57	9.96	5.18	4.50	4.80
Mirnyi				
120 00	30 00	15 00	14 05*	14 01.5*
36.58	9.14	4.57	4.39	4.30

* Estimated – see text.

The displacement of a ship is the volume of water she displaces when afloat in standard conditions. A displacement ton is defined as 35 cubic feet or one cubic metre (actually 0.9911m³) and the weight of that volume of standard seawater, considered to be 2240lb or 1016kg, is referred to as one long ton. The total weight of a ship in various states, such as loaded or unloaded, can therefore be given in long tons, and that is also called her displacement. Because displacement, in this sense, gives the weight of a ship, but the now outmoded figure called tonnage gave a formulaic notion of the weight a ship might *carry*, there is no reliable way to calculate the former from the latter. One crude method is to divide tonnage by three and multiply by five, so that displacement = tonnage × 1.66̇.

In 1949 Bellingshausen's editor, Admiral Shvede, published a table of the dimensions of *Vostok* and *Mirnyi* converted to metric scale. Ignoring the strange depth in hold for *Vostok* in Bellingshausen's text he replaced it with the one from *Kamchatka*, as above. He gave *Vostok*'s 'mean draught' as 4.4m, whereas from Luchininov's reading of the documents it was 4.65m. Golovnin gave *Kamchatka*'s burthen (*gruz*) as 900 tons; Shvede took that for her displacement (*vodoizmeshcheniye*), with good reason, and transferred it to *Vostok*. Turning to *Mirnyi*, he entered Bellingshausen's tonnage of 530 as her displacement, which seems inconsistent with her other dimensions.

Other authorities have given the respective displacements as 985 and 884 tons (Magidovich and Magidovich, 1985: 26). Those figures are close to the results of converting *Vostok*'s BOM tonnage and *Mirnyi*'s non-BOM or Bellingshausen tonnage. Table A4.2 first applies the rough

Table A4.2 Sizes of *Vostok* and *Mirnyi*

	Tonnage (BOM)	Displacement (approx.)
<i>Vostok</i>	588	980
<i>Mirnyi</i> (military)	459	765
(civil)	488	814

conversion to the military BOM tonnages. But *Mirnyi* was a transport. If we calculate her BOM tonnage by the civil rather than the military formula, the result moves closer to Bellingshausen's figure and, as a corollary, her displacement moves closer to the estimate given by Magidovich and Magidovich.

Aleksei Lazarev said little about the size of *Otkrytiye* in his memoirs (1950), but his brother Mikhail Lazarev likened her to the corvette *Mel'pomena* (L1), which leads us to the latter's dimensions in (Veselago, 1872): length – 106ft 8in; beam – 28ft 9½in; depth in hold – 13ft 10in. In the second and third editions of *Two Seasons* (1949; 1960), however, Admiral Shvede gave *Otkrytiye* the same dimensions as *Vostok*. He seems to have missed Mikhail Lazarev's statement as well as Veselago's information that *Otkrytiye* had only 18 guns compared to *Vostok*'s 28, which suggests that they were not the same size. Aleksei Lazarev's editor, Aleksandr Ivanovich Solov'ev, repeated Shvede's assimilation of *Otkrytiye* to *Vostok* (Solov'ev, 1950: 22–3).

In the English-speaking world, Debenham's translation of *Two Seasons* was completed before and therefore without the benefit of Shvede's edition. The contributors halved *Mirnyi*'s tonnage by reading a '5' as a '2'. And by cutting out Bellingshausen's clarifying 'in hold' they mistranslated *glubina* as 'draught' instead of 'depth' (Bellingshausen, 1945, 1: 7). (Two Russian words for 'draught' are *uglubeniye* and *osadka*. Neither occurs in this passage.) Later, Barratt cited Solov'ev's repetition of Shvede's questionable figures for *Otkrytiye* as if they came from Aleksei Lazarev, which was not the case (1988: 89).

Appendix 5 – How Accurate Were They?

By combining different instruments and different methods, and by aggregating successive calculations, observers in Bellingshausen's day could determine the latitude and longitude of a point on land with considerable accuracy. With less time and, often, inferior instruments, positions at sea were measured less precisely. The best way to compare Bellingshausen with his contemporaries is to set out their determinations of places on land alongside the approximate modern coordinates.

Remarks

The coordinates labelled 'Dawes' appear on Lieutenant William Dawes's 'Sketch of Sydney Cove, Port Jackson', dated July 1788, which was first published as a separate sheet in London on 7 July 1789 (Stockdale, 1789: opposite p. 123). They represent a body of work carried out in 1788 at the temporary 'tree stump' observatory on what is now Dawes Point. The respective contributions to this measurement made by Dawes himself, or Lieutenant William Bradley, or Captain John Hunter, are unknown (Morrison and Barko, 2009).

The values arrived at by Karl Rümker for the Parramatta Observatory also drew on work by other people, including Thomas Brisbane. But the bulk of the work had been his own. As noted in Chapter 4, Bellingshausen's error of just 0.8" of latitude compares favourably with Rümker's error of 5", given that Rümker made the most sophisticated, best equipped and lengthiest series of observations in New South Wales in the 1820s.

The entries labelled 'Freycinet' and 'Rümker' were averages compiled by them from results obtained by other observers, sometimes after adapting them. Thus Freycinet reduced Cook's values for Botany Bay in order to include them in his data for Fort Macquarie. As for the locations, Freycinet mentioned Fort Macquarie and Rümker mentioned Government House, and the modern reference points were chosen accordingly. Both sets should perhaps be seen as coming simply from the area east of Sydney Cove, or 'Bennelong Point' in general.

Longitudes are shown from the Greenwich meridian. Both Simonov and Freycinet gave their results according to the Paris meridian. They

Table A5.1 Latitudes and longitudes at Port Jackson, 1770–1828

	Latitude S	Longitude E
<i>Dawes Point</i>		
'Dawes' – 1788	33°52'30"	151°19'30"
Google Maps	33°51'16.8"	151°12'32.5"
<i>Kirribilli Point</i>		
Bellingshausen – April, 1820	33°51'08"	151°16'58"
Simonov – 1820	33°51'33"	151°05'48"
Google Maps	33°51'07.2"	151°13'06.3"
<i>Parramatta Park</i>		
Rümker – 1822–28	33°48'49.8"	151°01'33.7"
Google Maps	33°48'44.8"	150°59'43.2"
<i>Fort Macquarie</i>		
'Freycinet' – 1770–1822	33°51'28.9"	151°15'13"
Google Maps	33°51'24.3"	151°12'54.7"
<i>Old Government House</i>		
'Rümker' – 1806–22	33°51'58"	151°14'17"
Google Maps	33°51'48.4"	151°12'51.6"

Sources: Stockdale (1789); *Two Seasons*; Simonov (1828); Rümker (1829); Freycinet (1826).

Modern reference points: Dawes Point: south pier of Harbour Bridge; Kirribilli Point: Admiralty House; Parramatta Park: observatory instrument pier; Fort Macquarie: Opera House; Old Government House: Conservatorium of Music.

were converted by adding 2°20' E, the Greenwich longitude for the Paris Observatory that was generally accepted at the time. The modern value is slightly larger, and William Dawes used a smaller value, 2°19', when converting a Paris longitude sent to him by La Pérouse's astronomer, Joseph Dagelet, in 1788.

Bellingshausen and Simonov observed from different locations on Kirribilli Point and neither is known exactly. The relationship seems to have been that Simonov worked somewhere near the foreshore, perhaps because the cast-iron stove he used for an instrument base was heavy and the sand with which to fill it was either nearby or fetched by water, whereas Bellingshausen worked further uphill at the site of the expedition's camp. Simonov's latitude should therefore be fractionally greater, but although he used occultations and other astronomical refinements, and worked up his data over several years, his final figures were less accurate than Bellingshausen's. These are incidentally Bellingshausen's own figures, including a longitude obtained from 125 calculations of

solar-lunar distance. He recorded other results obtained by his officers, but his were the most accurate in April. On the second visit, between September and November 1820, Lieutenant Lazarev and Midshipman Kupriyanov both did better, with longitude errors just over 2' W of the true value. Another calculation, made by Bellingshausen together with Lieutenant Zavodovskii and *Vostok's* master, Yakov Paryadin, during the second visit, was out by 3'13" W. Because Bellingshausen was out by similar amounts in April and October, but in opposite directions, it so happens that when averaged they come to a remarkably accurate 151°13'25.5" E. If Bellingshausen had taken that last step he would have beaten Rümker again, with a longitude error of about 19" E compared to Rümker's error of about 1'50" E. But he did not.

Appendix 6 – Ice Vocabulary

The list below does not reflect a formal classification, because several words occurred only occasionally. For example Bellingshausen only referred to *ledyanyye gory*, ice hills, twice in *Two Seasons* and in one passage (repeated three times) in the reports. His applications of ‘main’ to ice were also rare. Other words appeared in print but not in manuscript, or vice versa. For example Bellingshausen used *gustota* in a report to refer to what Scoresby called ‘crowded ice’, but he applied the related adjective *gustoi* in *Two Seasons* only to states of the atmosphere. Words preceded by an asterisk were applied to ice by Simonov but not by Bellingshausen. See also the Translator’s Note.

Nouns

башня	<i>bashnya</i>	tower
бугры	<i>bugry</i>	hummocks
глыба	<i>glyba</i>	block, lump
горы	<i>gory</i>	hills, mountains
гряда	<i>gyrada</i>	belt, strip (of floating ice)
громада	<i>gromada</i>	enormous mass
густота	<i>gustota</i>	density, crowding
исполин	<i>ispolin</i>	giant
кусок	<i>kusok</i>	piece
лёд	<i>lëd</i>	ice
льдина	<i>l'dina</i>	floe
льды	<i>l'dy</i>	ice fields, floes
материк	<i>materik</i>	main
*оплот	<i>oplot</i>	rampart, bastion
остров	<i>ostrov</i>	island
пластинки	<i>plastinki</i>	lamina, platelets
поле	<i>pole</i>	field
преграда	<i>pregrada</i>	obstruction, blockage, jam
пространство	<i>prostranstvo</i>	expanse
*свод	<i>svod</i>	dome (<i>lit. arch, vault</i>)
сосулька	<i>sosul'ka</i>	icicle

Adjectives

гладкий	<i>gladkii</i>	smooth, even, level
достальный	<i>dostal'nyi</i>	remaining, longstanding
ледяной	<i>ledyani</i>	ice, made of ice
матерой	<i>materoi</i>	main
мелький	<i>mel'kii</i>	small
низменный	<i>nizmennyi</i>	low-lying
обледеневший	<i>obledenevshii</i>	iced up
обледенелый	<i>obledenelyi</i>	iced up
плавающий	<i>plavayushchii</i>	floating
разбитый	<i>razbityi</i>	broken
сплошной	<i>sploshnoi</i>	continuous
твёрдый	<i>tvërdyi</i>	solid, compact
толстый	<i>tolsty</i>	thick, heavy
частые	<i>chastye</i>	frequent

Glossary

For units of measurement, see Appendix 3; for ice, Appendix 6.

alidade	sighting bar on an optical instrument
<i>arenda</i>	grant of a lease of state-owned property
artificial horizon	reflecting surface, often of mercury, for angular measurements
assignats	paper currency
to bear up or away	to let a vessel fall off the wind
bearing	an arc of the horizon between any distant object and the N-S meridian, with the angle read from North as the 'top'; often summarized as an intermediate (or finer) point on the compass rose, such as 'NNW'
brig	a two-masted, square-rigged sailing vessel with a large fore-and-aft (gaff) sail on the mainmast
by the wind	towards or against the wind
catharpins	short straps used to brace in the footings of topmast rigging below the trestle-trees
chainwales	thick planks on the outside of a ship, alongside each mast, on which the metal chain-plates, to which much of the standing rigging was fastened, were mounted
clue-garnet	tackle used to haul the main sails (courses) up to their yards and trice them there when not in use
course (sail)	the lowest square sail on any mast, as 'forecourse' etc.
craton	old, stable region of continental crust, with deep lithospheric roots into the mantle
declination	the angle between magnetic north and true north
dimity	hard-wearing cotton fabric, often with stripes or checks
fore-and-aft sails	see staysails
<i>gardemarine</i>	sea-borne private soldier, a rank given to cadets for training purposes

gunport	(i) an embrasure in the side of a ship through which cannon could be fired, usually protected from the elements by covers known as half-ports or port-lids; or (ii) the whole arrangement just described
heave to	use the sails to collect opposing impulses from the wind, so that the ship lies stationary in the water
idler	member of a ship's crew who does not stand watches
in irons	condition of a ship when she has been allowed to come up into the wind and lose her way, and with it steerage
kasha	porage made from buckwheat, barley, oats or other cereal
knee	large L-shaped timber joining vertical to horizontal parts of a ship
(main-)knight	a structure on the upper deck abaft the mainmast comprising heavy posts, in which halyard sheaves were mounted, and belaying pin racks
long voyage	in the Imperial Russian Navy, any voyage beyond the Baltic or Black Sea
to luff	to bring a vessel closer by (into) the wind
maslin	bread or flour comprising a mixture of grains, such as wheat and rye
passage instrument	see transit instrument
quadrant	90° instrument for measuring angular distances
reflecting circle	360° instrument for measuring angular distances
road (roadstead)	ship moorage open to the sea, usually near a harbour
royal	see topgallant royal
sextant	60° instrument for measuring angular distances
sheave	the pulley-wheel in a block or other piece of tackle
sloop-of-war	a three-masted, usually square-rigged naval vessel with a gun or spar deck above a main deck containing the crew spaces, galley etc.
stanchion	pillar or other vertical strut
staysails	sails bent on the fore-and-aft stays, which are part of the standing rigging that supports the masts

strop	a rope or metal band securing an assembly of parts such as a block
tarantass	an unsprung, four-wheeled carriage with a long frame, used by travellers on Russian post roads
topgallant royal	a royal sail could either be set on a fourth, royal mast above the main, top, and topgallant masts, or else at the top of the latter as a 'topgallant royal'
transit instrument	telescope mounted on a horizontal axis so as to rotate in the local N-S meridian against a vertical circular scale; used to determine the time and elevation (culmination) at which a celestial object passes (transits) the local meridian
trestle-trees	framework at the top of a mast section, on which the next section is mounted
wale	strong timber mounted along the ship's side to stiffen the hull
waist	the central part of a ship, between the foredeck and quarterdeck

Notes

For abbreviations in archival references, see Bibliography.

1 Port Jackson, April 1820

1. Much of the timber growing around Sydney Harbour was notoriously hard to work and reluctant to float. The Russians would have needed advice in selecting suitable species, and perhaps even access to the colony's precious reserves of naval timber fetched from New Zealand and Norfolk Island.
2. The date in the margin of *Two Seasons* (1: 250) was overlooked in the English translation, which is not always reliable (Bellingshausen, 1945, 1: 165–6). The correct date was confirmed in Macquarie's journal.
3. *Sydney Gazette*, 11 March 1820: 2. Unattributed shipping information in this chapter comes either from the *Sydney Gazette* or from Cumpston (1963).
4. The sources for these ship movements are fairly consistent. Aleksei Lazarev (1950: 148–9) and Governor Macquarie agree that *Blagonamerennyi* entered Port Jackson on 28 February and anchored in Sydney Cove the same day. Macquarie and the *Sydney Gazette* agree that the *Cockburn* sailed two days later on 1 March. Aleksei Lazarev's date for that, 29 February, may be an example of yet a third calendar, the *astronomical* calendar which, according to Belov (1963: 25), was used on *Blagonamerennyi*, by which anything occurring before midday on 1 March (civil) would be dated to the *previous* astronomical day (see Chapter 4: n. 8). Applying the times of day provided by Lazarev, the *Cockburn* sailed about 30 hours after *Blagonamerennyi* arrived. So the Russians had plenty of time to accept the British offer – if they had only been ready to do so. (Unfortunately Barratt's account of *Blagonamerennyi*'s arrival (1988: 93) is unclear. Most of the passage he attributed to Aleksei Lazarev is as he gave it, but the first five lines, giving the date of arrival as 3 March, could not be found. If substantiated, they would contradict both Macquarie and, bizarrely, Lazarev himself.)
5. *Hobart Town Gazette*, 3 February 1821: 1. *Queen Charlotte* should not be confused with a 60-ton government vessel, HM Brig *Princess Charlotte*, lost with all hands in about October 1820.
6. *Sydney Gazette*, 27 May 1820: 3.
7. The original documents, including *Vostok*'s crew list (Appendix 1), all spell the name this way. 'Gumin' (*TS*, 1: 294) is one of several misspellings in the first edition of *Two Seasons* which were probably not the fault of Bellingshausen. Another example was 'Kond' for the British astronomer John Pond. Some were and some were not corrected in Soviet editions.
8. *The Times* (London), 19 February 1821.
9. *Caledonian Mercury* (Edinburgh), 19 February 1821.
10. Personal communication from Yrjö Kaukiainen, 2 March 2011.
11. The receiving clerk's annotation at the head of the document shows two dates, 10 April and 9 April (O.S.), with the first above the second. They were

- probably the nautical and civil dates for the afternoon of 9 April (O.S.) (see Chapter 4). Belov's date of 19 April (O.S.) was perhaps a misprint (Belov, 1961: 7).
12. The drafting process, and the return of the approved texts to the Ministry of Marine after publication, are documented at: SARN – F-166 O-1 D-660b ll. 250–253o, and F-203 O-1 D-813 ll. 1–4o.

2 The Commander

1. Besides his obituaries, sources for Bellingshausen's life include the version of his service record in Veselago (1892), a short biography written by his son-in-law from first-hand information (G[erschau], 1892), Russwurm (1870), and Paatsi (1980).
2. For a vivid portrayal of Livländers society during Bellingshausen's lifetime, see Kross (1992).
3. Their father, Lorenz von Folckern, died in 1788.
4. The date is suggested by the pattern of attendance at baptisms in the church register. The Bellingshausens switched from patronizing Hoheneichen to Lahhentagge baptisms in June 1778, and Suckni presumably wanted to take his new bride to his new house in July.
5. Luce promptly sold or let Lahhentagge to a Heinrich Ludwig Voigt. The narrative presented in this chapter attempts to confirm early published accounts of the family against parish records and census returns that can now be consulted online at the website of the Estonian National Archives: <http://www.ra.ee/>. The only major discrepancies concern Bellingshausen's grandmother, Gerdrute Sophie, whom Hagemeister unaccountably described as Fabian Ernst's daughter, rather than his mother (1851: 45), and who may have died in January 1778, according to the Geni.com genealogical website. If so, she could not have been party to any such transactions. On the other hand her death could have been a factor in Fabian Ernst's decision to sell the two manors later that year.
6. This sequence of events can be traced in archival documents and is confirmed by an authoritative source (Feldman and Mühlen, 1985: 45, 284). It effectively refutes the myth that Bellingshausen spent an idyllic childhood roaming the broad acres of Hoheneichen (where he never, in fact, lived) and dinghy-sailing off the nearby coast (Fëdorovskii, 2001: 22–5). The author was unable to establish, however, just where Bellingshausen spent the four years between the ages of six and ten, after leaving Lahhentagge and before entering the Cadet Corps. The most likely answer is Arensburg (G[erschau], 1892: 374), but further research is needed.
7. The author interpreted the sterling figure to mean an allowance of 40 sr per month.
8. The 'Billensgauzen' variation occurs in the title written on the track chart of the expedition (Belov, 1963: Sheet 2). But although some sheets were annotated by Bellingshausen, the title cartouche was almost certainly inserted by a clerk.
9. On Russian naval ranks, see the Translator's Note.
10. Emperor Paul's reputation has received something of a makeover in recent years (Valishevskii, 2003).

11. Recent research suggests that Krusenstern was not always quite as influential as he liked to think (Tammiksaar and Kiik, 2012).
12. This document, and Bellingshausen's own account, contradict Shvede (1960: 21).
13. The date of 4 July (O.S.) in *Two Seasons* (TS, 1: 43) conflicts with a report from the commander of Kronstadt, Admiral Fëdor Vasil'evich von Moller, and with other eye-witness statements. Commentators have assumed that Bellingshausen or his editors gave the nautical (p.m.) date instead of the civil one (Chapter 4).
14. The grant remained in effect until 1828, during which time its value rose to about 1500 sr (£106,100): RSHA – F-379 O-3 D-640 ll. 3, 22.
15. Bellingshausen had already prepared a large-scale track chart of the Antarctic portions of the voyage before reaching home (Belov, 1963: 14).
16. The quotations are from Note 130 to Chapter 5. All such notes were added by the editor of the translation, Richard Haugh.
17. *The Morning Post* (London), 20 November 1826; *Nederlandsche Staatscourant* (The Hague), 25 June 1827.
18. Bellingshausen's letter to Krusenstern was written and signed in Russian. The German translation given at (Reich and Roussanova, 2011: 723–4) appears to have been made by Friedrich Struve, director of the Pulkovo Observatory near St Petersburg, the second of three people through whom it was conveyed to Gauss.
19. Belov (1966: 243) inadvertently omitted the first of two observations recorded on 1 February 1820 (O.S.). The correspondence shows that Bellingshausen's journal had survived until at least 1840.
20. Apparently Gauss declined the option (Leibrock, 2007).
21. A copy of the engraving is held at the Naval Museum, St Petersburg, where the date is accepted, from (Bellingshausen, 1949), as 'about 1835'. However the 'XXXV' service badge shows that the image was created by mid-1833 at the latest. Matters are complicated by reproductions of a second, similar engraving, showing an 'XL' service badge, which therefore dates from 1837–38. The Naval Museum was closed in 2011, when the author visited St Petersburg, and no references to an extant example of the second version, reproduced in (Mill, 1905), could be traced. Although the two images are evidently related, the age difference looks to be greater than five years, and there are also stylistic differences.
22. A list of the *arendas* held by vice admirals shows that Bellingshausen's was of average value and the same as that already being paid to his former junior, Mikhail Lazarev: RSHA – F-379 O-3 D-640 ll. 3–7, 9.
23. *Kronstadt'skii Vestnik*, 10 May 1868: 1–3.
24. There is good evidence that a fourth daughter, Maria, was born third of those children that survived into adulthood (Fëdorovskii, 2001: 11). She is said to have died in her twenties, before the draft family tree was compiled from which she may have been accidentally omitted.

3 Southward Ho!

1. Both Bellingshausen (TS, 1: 3) and Veselago (1872: 173) confirm that *Vostok* was built at Stoke's yard.

2. Known for the beauty of his ships, Le Brun had been employed by the Ottoman Empire until the Russians poached him in the early years of the century (Zorlu, 2008: 83–5).
3. Bellingshausen's figures, given here, were two inches shorter in each dimension than those recorded on the plans signed off by Amosov in 1819.
4. The Russian artillery pound was established by Peter the Great as 115 zolotniks, or 490gm, broadly similar to equivalent measures elsewhere in Europe.
5. The stores list for the First Squadron seems not to have survived. The quantities of dried peas (20,557kg), barley and buckwheat meal (7109kg) and biscuit (65,798kg) were calculated by subtracting the amounts allocated to the Second Squadron from the joint totals for the two squadrons, given in a related memorandum (A. Lazarev, 1950: 359–61). The expression 'white and maslin' appeared only in the memorandum; the stores list itemized oat, barley and rye biscuit. With no overall total for salt beef, the issue for 190 people (see Appendix 1) over two years was estimated as 28,320kg from the amount issued to the Second Squadron for 169 people over three. The provision of spirits was estimated in the same way. The butter estimate is for a year's supply for the First Squadron, whereas the Second was stored with butter for 18 months.
6. As published, Aleksei Lazarev recorded that the Second Squadron shipped 6.5 'pins' of rum at Copenhagen (A. Lazarev, 1950: 105). But the pin was not a commercial measure for wine and spirits. If however he wrote (or intended to write) 'pipes', and if those were British pipes (given the Russian Navy's propensity for using British units) rather than the much smaller Baltic ones, then *Blagonamerennyi* would have loaded 3102 of the 3492 litres of rum that the Second Squadron was due to acquire in Denmark, leaving 390 litres (about 86 gallons) for the smaller *Otkrytiye*.
7. *Sydney Gazette and New South Wales Advertiser*, 15 April 1820: 4.
8. Bellingshausen indented for 'up to 10/t [10,000] roubles for both squadrons': Bellingshausen to Minister of Marine, 10 June 1919 (O.S.). SARN – F-166 O-1 D-660b l. 372. The wording is ambiguous, but the amount was small even for one squadron, given that the mess allowances alone, for Bellingshausen's officers, came to about 21,000 sr over two years, and cannot have been deferred completely. Most of the supplies and services obtained at London, Portsmouth and Rio must have been purchased by the respective consulates. (The Bank of England had facilitated similar arrangements for Golovnin's expedition in 1817.) Part of the cash was transferred to *Mimyi* after the squadron left Rio (*TS*, 1: 111).
9. Novosil'skii's remark suggests that the assignats option was incentivized with an exceptional exchange rate of 4 to 1 (Appendix 3).
10. The number is sometimes increased to 25 by including two that were not circumnavigations, Golovnin's first voyage to the Far East and Hagemeister's RAC voyage (Ivashintsev, 1872).
11. The author is indebted in this section to the work of Barratt (1979a; 1979b; 1981; 1983; 1988), Gibson (1976; 2002), Kirwan (1959), Pierce (1976) and Vinkovetsky (2011).
12. By coincidence, Foreign Minister Kapodistrias set off from Kronstadt on board HIMS *Hektor* on 9 July 1819, six days ahead of the two expeditions. He was heading for talks in Britain, France and Prussia, having returned to

- Russia after issuing a revolutionary 'Address to the Greeks' from his ancestral home, Corfu, in April.
13. The reversion to her original name may also reflect another visit to the shipyard for 'de-modification' back into transport mode before her next assignment, a delivery of supplies to Alaska for the RAC, again commanded by Mikhail Lazarev.
 14. For an exposition of some broadly geographical exchanges between the Emperor and his advisers in 1818, which complements the wider political hypothesis suggested here, see Tammiksaar and Kiik (2012).
 15. The voyage commanded by Henry Foster has not been included here because he spent relatively little time in the Southern Ocean.
 16. The hunters did not attack South Georgia immediately after Cook's new information became known in the 1770s, because they were only just moving into the southern hemisphere and large seal populations were available to butcher at easier locations, such as Más Afuera (Alejandro Selkirk) Island or the Malvinas/Falkland Islands (Jones, 1992b: 393; Dickinson, 2007: 61).
 17. According to some sources, American sealers had found the South Shetlands by at least 1812, if not 1800 (Stackpole, 1955: 77–8). That idea has not been supported by recent research (Dickinson, 2007: 70–2). With no details about any sealing beyond South Georgia and the South Sandwiches before 1819, and no evidence for such voyages, however vague, itself predating 1819, Smith has retained the kudos of being the first ship's master to publish, that is, 'discover' the geographical information.
 18. 'Important discovery', *Literary Gazette*, 5 August 1820: 505–6.
 19. Probably Bristol Island and Thule Island.

4 Wanted on Voyage

1. 'List of sea voyages etc', illegible signature, n.d.: SARN – F-166 O-1 D-660a ll. 492–3o. Barratt's view, that the Russians could not avoid some gaps in their knowledge of Spanish voyages (1992: 4), is hard to reconcile with the fact that the 1819 expeditions, if not also Kotzebue before them, carried Spanish narratives with them, almost certainly translated into Russian or French.
2. 'Puteshestviya' [Journeys]: SARN – F-166 O-1 D-660a ll. 347–8. A typical entry was 'The journey by Mr ...', and the spellings of some suggest dictation rather than literate stock-taking. One voyage was attributed to 'Kabert'.
3. Presumably this curious piece of Kronstadt inventory was connected with the service of Barthélemy de Lesseps, the son of the French Consul General at St Petersburg, as a Russian interpreter on the La Pérouse expedition.
4. Golovnin obtained chronometers from the same makers in 1817 but said nothing about their performance (1965: 32). His narrative contains few longitudes overall, and he soon stopped referring to 'longitude by the chronometers'.
5. Bellingshausen's second fix for Kirribilli Point shows a gross northerly error of 2° latitude (*TS*, 2: 92). Perhaps the blunder arose from careless editing, but it was entered twice. It has been reproduced without comment in every subsequent edition.

6. Lazarev reckoned the height of *Vostok's* masthead above sea level as 136ft = 4145cm (*TS*, 1: 223). In that case X (distance to horizon in km) = $\sqrt{(4145/6.752)} = 24.8\text{km}$ or 13.4nm from the mastcap. The formula includes a 'refraction constant' to allow for the bending of light rays, from objects beyond the physical curve of the earth, by the atmosphere. However refraction is not constant, and Bellingshausen sometimes described his range of visibility as up to 40nm.
7. There is general acceptance that Bellingshausen dated the first example in Belov's Table 4 (1963: 26), the departure from Kronstadt, by the nautical calendar. But Belov's other four examples concern morning events on *Vostok*, for which nautical and civil dates would be the same, and illustrate the astronomical calendar used on *Blagonamerennyi* (which Belov also explained), rather than the nautical calendar which may well have been used in *Vostok's* log-books.
8. The Latin version 'insula glacialis' was also applied to Iceland and to what seems to have been an early notion of a north polar ice-cap.
9. People still needed to have the word explained to them in 1818: *Caledonian Mercury*, 7 May 1818.
10. Davis also determined the flotation ratio of ice, from experiment, 131 years before Hooke (1726).
11. Laing served on two whaling voyages under Scoresby's father, with the son on board, in 1806 and 1807, and added information and excerpts from Scoresby (1818) to his journal before it was published.
12. Bellingshausen and his party stayed at the Hungerford Coffee House near Charing Cross, which had its own periodicals library and was much frequented by naval officers. The controversy over John Ross's recent Arctic expedition was in full flow between that officer, Barrow, Sabine and Parry in the summer of 1819 (J. Ross, 1819; Sabine, 1819). It is inconceivable that the Russians would not have had their attention drawn to the latest books on polar exploration.
13. A term for floating blocks of ice, including those large enough to be considered icebergs. The root connotes falling, so that the word may have recognized that an iceberg is often formed by the collapse of an ice-cliff, itself often the coastal terminus of a glacier. At one point Lomonosov used the phrase *léd-padun*, which might mean 'ice fall' or simply 'brash ice'.
14. The phrase was reprinted in later collections (Clarke, 1806, 2: 105).
15. In the 1820s some explorers, such as James Weddell in the Antarctic and William Edward Parry in the Arctic, agreed with John Ross that main ice was separate from land. However they also believed that far from being 'immoveable' its location was highly variable (Weddell, 1825: 117; Parry, 1828: 41).
16. It will be evident to some readers, from this necessarily brief discussion, that the author does not agree that Bellingshausen ever accepted, from Cook's rather cryptic intimations, the idea that icebergs (as opposed to floes) were always formed on land – an interpretation proposed by Belov (1963: 35–7). As explained in the text, Bellingshausen carefully set out his view to the contrary towards the end of *Two Seasons*.
17. Today's continental shelf criterion for a continental island was not part of the original definition.

5 First Season: December 1819 to September 1820

1. Rezanov was a Grade 13 naval clerk or 'commissar', roughly equivalent in rank to a second master. He was not in holy orders, as the erratic English translation of *Two Seasons* surmises (Bellingshausen, 1945, 1: 254; 2: 261). Bellingshausen wrote 'klerk', not 'klerikal'.
2. See Chapter 1, note 12.

6 Second Season: November 1820 to August 1821

1. For example de Traversay gave the discovery date for Peter I Island as 11 January 1821 (O.S.), from B9, but Bellingshausen changed it to 10 January in B10.
2. de Traversay's report looks like a hastily penned autograph, rather than a fair copy prepared by a clerk, and it was returned to him from the Imperial Cabinet on 16 August 1821, the day after the monarch had visited the squadron. The indications are that it was seen at the time as a preliminary account. But there is no evidence of official circulation, such as a reception date, on Bellingshausen's final report (B10).
3. As Debenham was the first to point out, Bellingshausen and his companions may have been misled by Arctic terns, which migrate far out to sea across the Southern Ocean between December and February.
4. SARN – F-166 O-1 D- 660b ll. 350–1o.

7 The Able Seaman

1. SARN – F-166 O-1 D-660a, l. 93.
2. The beef tea happens to provide a rare cross-check between the First Squadron's stores and the Second Squadron's list. The same amount was allocated to each.
3. The ratio between a seaman's wage and Bellingshausen's salary of 2400 sr a year. In the comparison with Cook, a Russian seaman's wage was taken to be the amount received after routine deductions but before any extra ones, if there were any of either, or in short as equivalent to a British seamen's wage, in the 1770s, of 30/- a year.
4. The second figure included an element for 'sea pay', and Jane's estimated amount may not mean that sailors were being paid less, 75 years later, but simply that Bellingshausen's men were paid at the higher rate throughout, whereas Russian seamen usually went to sea for only part of the year. The British figures may also represent a (rarely achieved) full year at sea.
5. Readers studying this event in the English translation of *Two Seasons* should note that the 'heavy rigging' was in reality Bellingshausen's old bugbear, the excessive spars, and 'network', in the entry for 20 May 1820, means the side nettings already referred to on the previous page (Bellingshausen, 1945, 1: 195).

8 The Astronomer

1. The numbers do not include students at technical colleges, like the St Petersburg School of Mines, but nevertheless illuminate the difficulties facing

the scientific work of the expedition. By way of comparison, in 1808 there were perhaps as many as 5000 students at British universities, but since the population of the British Empire was over four times that of the Russian Empire, the supply of academic learning was at much the same level. Both countries drew heavily on German scientific expertise in this period. By 1836, a generation later, university student numbers in Russia had doubled, but the population had also risen by 70% to about 62 million.

2. One of Simonov's early papers was criticized by Schubert for its marked lack of originality (Anon., 1824). And in a lyrical (non-professional) description of the night of Easter 1820, which he spent on board *Vostok* off the coast of New South Wales, Simonov once mistook the planet Jupiter for Mars (Simonov, 1990: 143; personal communication from Allan Kreuter, Powerhouse Museum, Sydney Observatory, 19 November 2010).
3. Simonov's long and lovingly polished narrative has sometimes been miscalled his 'journal' (M. K. Andreyev, 1951: 52). If only it were.
4. Australian members of the Russian Orthodox Church cherish an erroneous tradition that the first liturgy of their faith to be celebrated in New South Wales was the Easter mass of 1820, conducted in Sydney Harbour by the chaplain of the Bellingshausen expedition (Protopopov, 2006: 1–2). In fact the first Russian priest to visit the colony was Father Mikhail Ivanov, chaplain on the Vasil'ev expedition, who arrived on 28 February 1820, six weeks before Bellingshausen, and who doubtless celebrated one of the liturgies of Great Lent shortly after doing so. No Russian ships were at Sydney on Easter night.

9 The Lieutenant

1. One interesting exception was Lieutenant Golovnin, who sailed HMS *Diana* past the blockade of Copenhagen in August 1807 and was then treated as an ally at Portsmouth, despite the fact that Emperor Alexander had just signed the Treaty of Tilsit with Napoleon. Golovnin's voyage turned out to be a one-way trip, like Lieutenant Hagemester's RAC voyage in 1806. Otherwise both captains might have had more to fear from the Royal Navy on the way home than they had on the way out.
2. *Sydney Gazette Extraordinary*, 25 August 1814: 1.
3. Less, however, than Shishmarëv, who held the corresponding position in the Second Squadron but outranked Lazarev.
4. Simple forms of encryption were available. But it is unlikely that the Imperial Navy's codebook was so sophisticated (and complicated) that Bellingshausen could hold private discussions with Lazarev about command decisions, at sea, by signal flags alone.
5. From whatever source the eminent oceanologist Valerii Lukin gained the impression that Lazarev's well-known account of the events of 28 January 1820 comes from his 'watch-keeping journal' (Lukin, 2005: 76), he (Lukin) was seriously misinformed. No such journal has ever been discovered.
6. There is also a trivial problem with the first initials of two people named in the letter. Both look like 'P' but should have been 'I'. The puzzles about the status of the document make it impossible to say whether those were original mistakes, poor handwriting, or later transcription errors.

10 Other Witnesses

1. Shvede listed the pamphlet and Barratt also mentioned but seems not to have found it. It is not listed online at the RNL or RSL and could not be found elsewhere. The matter is harder to resolve because part 84 of *Syn Otechestva*, containing the second instalment, is itself extremely rare and the author has only seen an incomplete copy which lacked the usual announcements of future publications at the end.

The author previously stated that *Syn Otechestva* had received but failed to publish an account by Galkin of the first Antarctic phase (Bulkeley, 2011a). That was incorrect. The series only began with the expedition's departure from Port Jackson, bound for the tropics, in May 1820.

2. The article, by L. A. Shilov, can be viewed at: http://www.nlr.ru/nlr_history/persons/
3. *Panteon* gave Novosil'skii's name in its contents pages and at the end of the second piece, 'Shestoi kontinent', treating the latter as the third of three parts, in November 1853. The pamphlet versions appeared anonymously.
4. 'The New Continent', *Literary Gazette*, 14 October 1820: 668. The whole question was plunged into confusion because the first British reports, originating from Smith, used 'mainland' to refer to what appeared to be the main *island* of the group – a respectable nautical sense – but which might also turn out to be something larger. And the earliest maps were drawn accordingly, showing what soon became known as Livingston Island as a vast, indeterminate mainland with its chain of islets, Desolation, Zed, Ongley, Dee etc., ranged alongside it (Campbell, 2000: 44–5). When Smith and Bransfield carried out a more thorough survey in January and February 1820, Livingston was fixed as an island and a new mainland was conjectured (Campbell, 2000: 63–77), though it would be more than 100 years before it was definitively identified as the Antarctic Peninsula.
5. Campbell (2000) mistakes the date of the Act of Parliament cited on the chart (1822) for that of the chart itself. But it cannot have appeared before 1825 because one of its acknowledged sources was a survey made by James Hoseason in the austral summer of 1824–25.
6. Novosil'skii actually cited the 'Laurie map', and in one sense there was such a map, the one drawn by Captain George Powell (1822) and published by R. H. Laurie. However, Powell's map did not show mainland to the south of the islands, whereas Norie's map did so, complete with the 'high mountain' to which Novosil'skii referred. It is reasonable to conclude that Novosil'skii had seen both maps and got them confused. Norie (1825?) gave no date for the British discovery, though other early published sources did do so (*Literary Gazette*, 24 November 1821: 746–7).
7. The English translation of *Two Seasons* is misleading here. The word rendered as 'ship' should have been 'squadron' (*diviziya*) (Bellingshausen, 1945, 1: 18).
8. de Traversay to Prince Golitsyn, No. 52, 16 May 1819 (O.S.): SARN – F-166 O-1 D-660a ll. 213–213o; Memoranda from Department of Education for the Minister of Marine, 20 May and 22 May 1819 (O.S.): SARN – F-166 O-1 D-660a ll. 237–237o, and ll. 240–1. The third document specifies that not only the two naturalists but also the two astronomers, Tarkhanov and Simonov, had been recruited for 'the expedition'. Since Tarkhanov was

assigned to the Second Squadron under Vasil'ev and Simonov to the First under Bellingshausen, it is evident that officials sometimes treated the double, north and south exploration programme as a single enterprise. The two units were also handled together in some lists of stores and scientific materials, discussed elsewhere.

9. At least one modern commentator has endorsed the language used by officials at the time, declaring that the two expeditions constituted 'a single, major scientific undertaking' (Chernousov, 2011: 215).
10. According to Barratt, Mertens positively 'applied to de Traversay to be included in the Pacific expedition of which news was current' (1979a: 10). Barratt cited the *Allgemeine deutsche Biographie* as his only source for this. But neither entry in the *AdB*, for Kunze or for Mertens, mentions the Vasil'ev or the Bellingshausen expedition (Wunschmann, 1883; Focke, 1885).
11. Shvede could have known that Mertens sailed with Lütke, because Mertens' report on the Carolinas had just been republished in a Soviet edition of Lütke's voyage (Mertens, 1948). But in fairness, he was surely unaware of Mertens' obituary, which gives us the marrow of the man. It was not included in the original atlas volume of biological illustrations (Postels and Ruprecht, 1840), and may never have appeared in Russian. The author found it by chance in a French account of the voyage by the naturalists.

11 Homecoming

1. *Gentleman's Magazine* (London), 91(6), June 1821: 554; *Monthly Magazine and British Register* (London), 52(3), 1 October 1821: 229; *The Times* (London), 10 October 1821. See also Anon. (1821a).
2. *Gazeta universal* (Lisbon), 2 July 1821, no. 49: 1.
3. Mistranslated as *Livia* (Bellingshausen, 1945, 2: 461).
4. *Caledonian Mercury* (Edinburgh), 4 August 1821: 2.

12 Achievements

1. Confusingly, Shokal'skii's article has a misprint of '19th' for 9 January (O.S.) at this important point (p. 190). Compare (*TS*, 2: 238).
2. Several of the Kotzebues lived at Weimar and elsewhere in the German Confederation. The impressive subscription list for Otto's book, which seems to have included half the nobility of Europe from the Dowager Russian Empress on downwards, probably owed more to the murder of his ultra-conservative father, the writer Augustus von Kotzebue, in March 1818, than to any sudden vogue for maritime exploration among the aristocracy.
3. The French translation (Cook, 1792, 5: 239), from which the first Russian translation was made, preserved the order of Cook's thoughts that he had discovered 'either a group of islands, or else a point of the continent' (Cook, 1777, 2: 230). The author has not been able to check the first Russian translation, which Bellingshausen had with him, but it is inconceivable that Golenishchev-Kutuzov could have altered Cook's frank and careful treatment of the matter, which he (Cook) was 'sorry [he] could not determine ... with greater certainty' (Cook, 1777, 2: 226).

4. Chernousov's statement, that the expedition sighted an 'ice wall' in January 1820, is regrettably vague (Chernousov, 2011: 219). Bellingshausen merely says that his passage south was blocked by continuous or near-continuous ice fields, with icebergs or hummocks, on 4, 16 and 21 January (O.S.) (*TS*, 1: 158, 172, 177). One can choose to describe the edge of such a field as a 'wall', but Bellingshausen used neither that word nor the one closest to it in his vocabulary, *pregrada* (Appendix 6), which he did use once or twice for conditions at the South Sandwich Islands in December. A typical floating ice edge might have been some metres high. But if it had been anything like the spectacular ice barriers and ice tongues that occur elsewhere in Antarctica, Bellingshausen would have described it as a new phenomenon, just as he did in fact do about three weeks later.
5. Bellingshausen's editors may have found 'ice hill' too frivolous, because it also meant an artificial tobogganing slope, a popular form of winter recreation. The phrase occurs only twice in *Two Seasons*.
6. By coincidence, Dr Tammiksaar sent the author the first draft of his paper four weeks after the first draft of this book, presenting a more detailed argument for the same conclusion, was sent to colleagues for evaluation.
7. By the British Graham Land Expedition in 1936 (Hattersley-Smith, 2007: 196).
8. *Nederlandsche Staatscourant* (The Hague), 2 August 1824: 2.
9. *Literary Gazette* (London), 24 November 1821: 746–7.

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References to archival documents use the following abbreviations: ENA = Estonian National Archives; SARN = State Archives of the Russian Navy; F = *Fond*; O = *Opis'* (series); D = *Delo* (piece or folder); l = *list* (folio); o = *oborotnoye* (verso), as in 'l. 39o'. For citations of '*Two Seasons*', '*TS*' or '*Atlas*' see (Bellingsgauzen, 1831).

Translated texts in order of appearance

- B1** Bellingshausen to de Traversay, 28 August (10 Sept) 1819: SARN – F-166 O-1 D-660b ll. 68–68o.
- B2** Bellingshausen to de Traversay, 18(30) September 1819: SARN – F-166 O-1 D-660b l. 140.
- B3** Bellingshausen to de Traversay, 8(20) November 1819: SARN – F-166 O-1 D-660b ll. 141–141o.
- B4** Bellingshausen to Admiralty College, 22 November (4 Dec) 1819: SARN – F-166 O-1 D-660b ll. 169, 169o.
- B5** Bellingshausen to Count Lieven, 8(20) April 1820: SARN – F-166 O-1 D-660b l. 254.
- B6** Bellingshausen to de Traversay, 8(20) April 1820: SARN – F-166 O-1 D-660b ll. 246–249o.
- B7** Bellingshausen to de Traversay, 8(20) April 1820: SARN – F-166 O-1 D-660b ll. 239–245o.
- B8** Bellingshausen to de Traversay, 21 October (2 Nov) 1820: SARN – F-166 O-1 D-660b ll. 354–9. (The text is often clearer in the copy made for the Admiralty College: *ibid.*, ll. 367–372.)
- Table 5.1** Bellingshausen to de Traversay, *ibid.*: SARN – F-166 O-1 D-660b ll 360–361o.
- V1** Count Lieven to de Traversay, 19(31) May 1821: SARN – F-166 O-1 D-660b l. 349.
- B9** Bellingshausen to de Traversay, 5(17) March 1821: SARN – F-166 O-1 D-660b ll. 352–353o.
- T1** de Traversay to unknown, 23 June (5 Jul) 1821: SARN – F-166 O-1 D-660b l 364.
- B10** Bellingshausen to de Traversay, 24 July (5 Aug) 1821: SARN – F-203 O-1 D-826 ll 1–15o.
- Table 6.1** Bellingshausen to de Traversay, *ibid.*: SARN – F-203 O-1 D-826 ll 16–18o.
- K1** Kisilëv, Ye. (1819–21) 'Pamyatnik prinadlezhit matrozu 1ⁱ stat'i Yegoru Kisilevu' [The notebook belongs to Seaman 1st class Yegor Kisilëv]: MS 10897.8, F-178, Manuscripts Division, Russian State Library, Moscow.
- S1** Simonov, I. M. (1822) 'Plavaniye shlyupa *Vostoka* v Yuzhnom ledovitom okeane' [The voyage of sloop *Vostok* in the Southern Ice Ocean], *Kazanskii Vestnik* [Kazan Herald], 4(3) 156–65, 4(4) 211–16, 5(5) 38–42, 5(7) 174–81, 6(10) 107–16, 6(12) 226–32.

- S2 Simonov, I. M. (1821) 'Kratkii otchet' [A brief report], *Kazanskii Vestnik* [Kazan Herald], 3(10) 98–107.
- L1 M. Lazarev to Shestakov, 24 September (6 Oct) 1821: SARN – F-315 O-1 D-775 ll. 1–6o.
- L2 M. Lazarev to Shestakov, 26 January (7 Feb) 1834: see (Lazarev, M., 1918b) below.
- O1 Anon., 'Kronshtatskiya Novosti' [News from Kronstadt], *Otechestvennyye Zapiski* [Annals of the Fatherland], July 1821, 7(2) 233–42.
- CL Crew lists of HIMS *Vostok* and HIMS *Mirnyi*, July 1819: SARN – F-166 O-1 D-660a ll 92–97o.

In chronological order, versions of several of the archival documents were first published as follows: for B6, see Bellingsgauzen (1821b) below; B7 (Bellingsgauzen, 1823) ((Bellingsgauzen, 1821a) was a summary rather than a transcription); L1 (Lazarev, 1918a); K1 (Kiselev, 1941 – extracts), (Kiselev, 1949 – near complete); B1, B2, B3, B4, B8, B9 and CL (Samarov, 1952).

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