out of their personal comfort zone, as it will undoubtedly underscore the harm inflicted on Indigenous people and simultaneously be a call for action. In this regard, No Home in a Homeland could benefit from further elaboration on current initiatives focused on addressing the inequities experienced by Indigenous people. For example, although the effects are not clear, the Truth and Reconciliation Commission represents a concerted effort by the federal government of Canada to address its colonial past. As well, when combined with settlement agreements, devolution represents a strong case for self-government at a broader level in the Northwest Territories. That said, Christensen's exploration of policy options for addressing homelessness in the North provides a springboard for further discussions on policy development. Given its strong academic rigour. No Home in a Homeland is suitable for upper-level undergraduate and graduate students in law, Indigenous studies, humanities, and social sciences. The book will also serve as a useful resource for government officials and public policy makers and be of interest to Canadians interested in the history and polices framing a significant social problem in northern Canada. Overall, it is a solid read and well worth the time and effort.

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ISLAND OF THE BLUE FOXES: DISASTER AND TRIUMPH ON THE WORLD'S GREATEST SCIENTIFIC EXPEDITION. By STEPHEN R. BOWN. Boston, Massachusetts: Da Capo Press, 2017. ISBN 978-0-306-82519-4. v + 277 p., 327 p., maps, b&w illus., notes, selected bib., index. Hardbound. US\$28.00.

Bown's book effectively represents a biography of the Dane Vitus Bering—Ivan Ivanovich Bering (1681–1741), as he was known in Russia-whose main claim to fame was two expeditions, the First Kamchatka Expedition (1725-30) and the Great Northern Expedition or Second Kamchatka Expedition (1733-43). The main thrust of the first expedition was to determine whether Asia was joined to America in the area of the present-day Bering Strait. The expedition was originally the brainchild of Tsar Petr I (Peter the Great), and his successor Yekaterina (Catherine) continued to sponsor the expedition after his death on 8 February 1725 (Gregorian calendar). Peter the Great died just two days after Bering had left St. Petersburg on the long and arduous journey to Okhotsk on the Sea of Okhotsk, and ultimately to the village of Ushki near the mouth of the Kamchatka River on the east side of the Kamchatka Peninsula. The trip across the continent as far as Yakutsk was made largely by boat, using the riverand-portage system, and thereafter by using hundreds of

packhorses to haul the provisions and equipment required. On 14 July 1728, Bering put to sea from the mouth of the Kamchatka River in a vessel he had had built there, and which he named Arkhangel Gavriil (Archangel Gabriel). Pushing north along the coast of the Kamchatka Peninsula. Bering discovered St. Lawrence Island and, continuing north along the coast of the Chukchi Peninsula, reached his farthest north latitude of 67°24′ N in the Chukchi Sea. At this point, he decided to head back south. To reach that latitude meant that he had sailed through the Bering Strait, but, remarkably, presumably because of poor visibility, he had not sighted the Alaska coast (the strait is only 82 km wide). On his return trip south, Bering still did not sight the Alaskan coast, although he did discover the Diomede Islands in mid-strait. Thus he could not be sure that he had discovered that Asia was not joined to America, the junction possibly lying farther north than his northernmost latitude. By 28 February 1730, Bering was back in St. Petersburg.

Soon after his return, given the inconclusive result of his first expedition, Bering submitted a proposal for a follow-up expedition (the Great Northern Expedition or Second Kamchatka Expedition) to the Tsarina Anna Ivanovna, and it was readily approved. Like the previous expedition, it was organized by the Navy through the Admiralty College. On 29 April 1733, Bering again set off across the continent, accompanied this time by his wife and two youngest children. As before, a vast quantity of provisions and equipment (including sails and rigging and even anchors for several ships) was transported to Okhotsk by the riverand-portage route as far as Yakutsk and thereafter by packhorses. Bering's wife and family remained in Yakutsk, and Bering himself spent two years there before proceeding to Okhotsk. From there, in 1738, Martyn Petrovich Shpanberg headed south with three vessels and explored the Kuril Islands, and in the following year he reached Honshu, the northernmost of the main islands of Japan, where he was given an amicable welcome and did some trading.

Also at Okhotsk two vessels were built for a voyage east to try to reach America, the *Sv. Petr* (St. Peter), to be commanded by Bering himself, and the *Sv. Pavel* (St. Paul), to be commanded by Aleksei Il'yich Chirikov. The two ships sailed around Cape Lopatka, the southern tip of Kamchatka, to Avachinskaya Guba (Avacha Bay), where the city of Petropavlovsk-Kamchatskiy now stands, and after wintering there, the two ships put to sea again on 4 June 1741. On board *Sv. Petr*, almost as a supercargo, was Georg Wilhelm Steller (1709–46), a keen, young German and the only scientist on board.

Initially the two vessels kept company, but in the early morning of 20 June, they became separated in a storm and darkness; they never made contact with each other again. Land was sighted from *Sv. Petr* on 16 July—Mt. St. Elias (5489 m high) on the Alaska/Yukon border. A boat was sent ashore on Kayak Island for fresh water. Steller, a keen scientist, wanted to accompany it, but Bering initially refused him permission. Only after protracted special

pleading was Steller allowed ashore. He collected as many plants as he could and shot several birds and even found an abandoned Indigenous (probably Tlingit) encampment. But Bering, anxious about the safety of his ship in an insecure anchorage, insisted that Steller return aboard with the watering party so that, to Steller's great disgust, he was on shore for only 10 hours. Bering now headed west and southwest past Kodiak Island. On 29 August some more islands, the Shumagin Islands, were sighted. A watering party again went ashore, and Steller was again allowed on shore. Despite Steller's protests, since he had found freshwater springs and a freshwater lake, the watering party filled their casks in a slightly brackish tidal lagoon, which can scarcely have helped to quench the crew's thirst for the remainder of the voyage. The first case of scurvy had already been reported, and a party of sick men was put ashore on one of the Shumagin Islands as a sort of rest cure; one of them died and was buried on shore, and the islands are named after him.

As Sv. Petr continued westward, the number of scurvy cases steadily increased. On 4 November, by which time 12 men had died of scurvy, land was sighted. It was thought initially to be the east coast of Kamchatka, some distance north of Avachinskaya Guba, but in fact, it was a relatively small island, now named Ostrov Beringa [Bering Island]. A storm blew up, and the ship was driven ashore and seriously damaged. Having managed to get ashore without further loss of life, Bering and his men dug themselves rough shelters in the sand dunes. They found large numbers of sea otters (Enydra lutris) on shore and killed many of them for food; less appealing (although, of necessity also providing a source of food) was a large number of "blue" foxes. This is a colour morph of the Arctic fox, generally occurring on islands—dark brown or dark blue-grey in summer and pale blue-grey in winter. The Bering Island foxes are considered a subspecies (Vulpes lagopus beringensis). To the extreme annoyance of Bering and his men, they invaded the camp to steal food and even fed on the dead bodies that had started to accumulate. Bering, who had been sick for some time, died on 8 December 1741 and was buried nearby—the only person to be buried in a wooden coffin. Steller did his best to keep scurvy at bay. Having collected antiscorbutic plants during his brief visits ashore in Alaska and collecting even more on Bering Island once spring and summer arrived, he saved many lives by persuading his shipmates to eat these plants. Also in summer large numbers of northern fur seals (Callorhinus ursinus) were killed, along with a number of Steller's sea cows (Hydrodamalis giga) all of which helped to restore the health of many of the survivors. Once summer arrived, a small vessel was built using the timbers from the wreck of the Sv. Petr. It put to sea on 13 August 1742 and reached Avachinskaya Guba on 26 August.

Meanwhile Chirikov, in Sv. Pavel, had also reached Alaska. Land was sighted on 15 July 1741—Baker and Noyes Islands, just west of present-day Ketchikan. Next day a boat with 11 men was sent ashore to find a safe anchorage. When they did not return, a further four men in

another boat (the last remaining boat) were sent in search of the first boat. It too did not return. After waiting for two days Chirikov was forced to accept that the 15 men would not be returning. This left him in an extremely difficult situation; he had no other boats and therefore could not send parties ashore for fresh water or for detailed exploration. As *Sv. Pavel* headed west and southwest, roughly parallel to *Sv. Petr*'s course, on 27 July the crew was placed on a short water ration. Fortunately the original supply of water sufficed until *Sv. Pavel* reached Avachinskaya Guba again on 9 October 1741. Out of the original complement of 76 men, a total of 21 had died, mainly of scurvy, and a further 15 had been abandoned in Alaska.

The above summary represents the bare bones of the fascinating story which Bown's very readable narrative covers in generally well researched detail. He has misconstrued one aspect of the story completely, however. On p. 79, he reports that the survey of the Arctic coast of Russia and Siberia, and thereby that of the Northeast Passage, "was tacked on to the Great Northern Expedition's orders almost as an after-thought." In reality this was the main thrust of the Great Northern Expedition. Bown does make some brief mentions of it but has clearly failed to appreciate its full scope. The original plan envisaged seven separate detachments: one was to sail from Arkhangelsk to the mouth of the Ob'; a second from the mouth of the Ob' to that of the Yenisey; a third from the mouth of the Yenisey eastwards around the Taymyr Peninsula; a fourth from the mouth of the Lena west to the mouth of the Khatanga and around the Taymyr Peninsula until it met the detachment coming the other way; a fifth from the mouth of the Lena eastwards to Bering Strait and south to Kamchatka; a sixth from Okhotsk south to the Kuril Islands and Japan; and a seventh from Kamchatka across the North Pacific until it found the American coast. Thus Bering's and Chirikov's trans-Pacific voyages represented only one-seventh of the total design in terms of exploration. In addition there was a substantial number of scientists attached to the expedition.

Amazingly, although it took a decade (1733 to 1743), all the detachments achieved almost all of their objectives. although because of ice, several of them took two or even three attempts over several years to do so. Moreover, the survey of most of the Taymyr Peninsula was achieved by parties traveling by dog sled or reindeer sleigh, since all attempts by sea were prevented by ice. The only part of the Arctic coast not surveyed was the north coast of the Chukchi Peninsula from about 100 km east of the mouth of the Kolyma River to the Bering Strait; to make up for this to some extent, however, an overland route was surveyed from the mouth of the Kolyma to that of the Anadyr'. This remarkable feat was achieved at the cost of significant loss of life. For example, Leytenant Petr Lasinius and 35 of his men, out of a total complement of 44, died during a wintering at the mouth of the Kharaulakh River, just east of the Lena delta, during the winter of 1735–36. Although Bering took no part in any of the Arctic voyages in person, during his sojourn in Yakutsk he was directly responsible for supervising the two detachments that sailed down the Lena from there and east and west from the mouth of that river.

Bown further states (p. 80) that the end result was a "rough chart of the coast." In reality the result was a remarkably detailed map, produced in 1746, and covering the entire Arctic coast of Russia and Siberia (with the exception of the north coast of Chukotka), as well as Kamchatka, the Kuril Islands, and the south coasts of many of the Aleutian Islands and of parts of the Alaskan mainland. A reproduction of this map may be found in Belov (1956). It is worth noting that in the case of North America, the only parts of the Arctic that had been mapped by that date, with any degree of detail at all, were Hudson Bay, Hudson Strait, Foxe Channel, and the southeastern coast of Baffin Island.

Bown's failure to recognize the full scope of the Great Northern Expedition does not detract from the value of his descriptions of Bering's own trans-Pacific voyage, however. This book will appeal to a general readership, but also to students of Arctic history and specialist Arctic historians.

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POLARIS: THE CHIEF SCIENTIST'S RECOLLECTIONS OF THE AMERICAN NORTH POLE EXPEDITION, 1871–73. By EMIL BESSELS. Edited and translated by WILLIAM BARR. Calgary, Alberta: Arctic Institute of North America and University of Calgary Press, 2016. Northern Lights Series No. 19. ISBN: 978-1-55238-875-4. Translated from the German: Die Amerikanische Nordpol-Expedition (Leipzig: Verlag von Wilhelm Engelmann, 1879). xxvii + 608 p., maps, illus., bib., notes, index. Softbound. Cdn and US\$44.95. Also available in PDF and ePub formats.

The true story of the fateful voyage of *Polaris*, commanded by the American explorer Charles Francis Hall in 1871, remains one of the most extraordinary tales in Arctic history. Emil Bessels, an aspiring young German naturalist

and physician, served as chief scientist and medical officer for the expedition. *Polaris: The Chief Scientist's Recollections of the American North Pole Expedition*, edited and translated by William Barr, provides the first English translation of Bessels' original German-language narrative and as such is a welcome addition to Arctic literature and to the history of that expedition.

In the spring of 1871, after a prolonged lobbying effort, Hall persuaded the U.S. Government to fund a polar expedition with the stated objective of reaching the North Pole through Smith Sound. Although President Ulysses S. Grant had sufficient confidence in Hall to grant him command of the expedition, Hall's experience had been limited to traveling by land with a few Inuit companions, journeys that differed significantly from the large-scale naval and scientific expedition contemplated for *Polaris*. The expedition departed New York on 29 June 1871, but by the time Polaris had reached Greenland, relations between Hall and his scientific corps, headed by Bessels, had seriously deteriorated. A heated verbal dispute between Hall and Bessels was only quelled by intervention of Captain H.K. Davenport, commander of the supply steamship U.S.S. Congress accompanying the expedition as far as Qegertarsuaq (Godhavn).

Nevertheless, under favorable ice conditions, Polaris achieved a record high latitude by ship and made for winter quarters in Polaris Bay on the North Greenland coast in September 1871. On 24 October 1871, Hall returned from a sledge journey and almost immediately took ill. He was dead under suspicious circumstances two weeks later, during which time he had been under Bessels' constant care. After Hall's death, Sydney Budington, the sailing master, assumed command. The following spring, unsuccessful attempts were made to the north by boat and by sledge parties. Thereafter, Polaris was directed southward and became nipped in the ice. During a storm, while 19 persons. including George Tyson, assistant navigator, were on the ice, Polaris broke free of its fastenings and disappeared in the storm. Tyson and the crewmembers spent a harrowing six months on an ice floe drifting southward before being rescued. Those remaining on the vessel, including Bessels and Budington, ultimately abandoned Polaris after reaching Port Foulke and were also rescued.

Other than Tyson's account of the expedition and his six months on the ice floe, published in 1874, no other first-hand English language account of the *Polaris* expedition has been available. Thus, Barr's translation of Bessels' account serves to provide additional information regarding the expedition and a point of view previously unavailable. Since the exhumation of Hall's body in 1968 and the discovery that Hall had ingested high levels of arsenic within the last two weeks of his life, Bessels has been the primary suspect in the murder of Hall, so his version of events is particularly relevant.

Bessels' narrative adds context to the expedition in many respects, but on perhaps the most important issue, the circumstances of the death of Hall, it is unfortunately