

which makes for an undue amount of page turning. The book lacks an index, and worse, it lacks a comprehensive list of the items in the family archive, both of which would be a boon to researchers. One glaring conundrum of the “Papers” is whether researchers will ever have access to the family material after now being introduced to it.

The Koch Family Papers, Part 1 will appeal to connoisseurs of Arctic exploration. The book is essential to researchers on the history of polar science and is a valuable compilation and commentary on the new source material in English. When the planned three-part series is complete, it will be the closest thing to a biography of Lauge Koch available in English. Given the low production quality of the volume, its relatively high price, and its appeal to a niche market, the general reader may want to wait until Dawes produces a planned popular book re-examining the deaths of two men on the Second Thule Expedition. A balanced biography of Lauge Koch in English remains to be written.

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Jane A. Gilotti
Department of Geoscience
121 Trowbridge Hall
University of Iowa
Iowa City, Iowa 52242, USA
jane-gilotti@uiowa.edu

EASTERN SÁMI ATLAS. By TERO MUSTONEN and KAISU MUSTONEN. Vaasa, Finland: Snowchange Cooperative, 2011. ISBN 978-952-5944-00-6. 331 p., maps, colour and b&w illus., references. Available from tero.mustonen@snowchange.org. Hardbound. €60 + shipping.

“To be without history,” writes Pauliina Feodoroff, in her moving preface to the *Eastern Sámi Atlas*, “is a state of being where there is no peace of mind” (p. 9). She is of the second generation of Skolt Sámi people who were relocated to the Finnish side of the border with the then Soviet Union at the end of the Second World War, following the Soviet annexation of the region of Petsamo, which had afforded Finland's only direct access to the ice-free Barents Sea. Not until after the collapse of the Soviet Union were the borders opened, so that a now ageing generation could once again see the homelands of their youth, if only through the windows of a tourist bus. For many, including Pauliina's grandmother Anni, it was a distressing experience. The places they remembered so fondly had been wrecked. There would never be any possibility of return.

This extraordinary volume—at once atlas, scrapbook, compendium, and collage—is eloquent testimony to the jarring juxtapositions of hope and despair, to the stirrings of life amidst a fabric of utter ruination, that pervade the entire region of what is conventionally known as the Kola Peninsula, extending east from the present Russo-Finnish borderlands and surrounded to the north by the Barents Sea and to the south by the White Sea. Once populated throughout by Sámi people—Skolt Sámi, Kildin Sámi, Ter Sámi, and Akkala Sámi, who lived by hunting and fishing and from small herds of reindeer—and later by Komi people, who arrived in the 1880s with much larger herds from the Pechora region in the east, it has since been hollowed out by massive militarization, the enforced closure of settlements, large-scale mineral extraction, and urban development. Today, most of the remaining people of Sámi descent, a tiny minority in what was once their homeland, live in soulless concrete blocks in the town of Lovozero, itself dwarfed and marginalized by the sprawling port city of Murmansk with its 300 000 inhabitants, only 80 miles distant, but which the people of Lovozero can no longer reach even by a direct bus service.

This book is the result of a collaboration between a Finnish non-governmental organization, the Snowchange Co-operative, and the Sami Council, and is the result of a three-year project to document the land use of the eastern Sámi people in the face of the imminent possibility that Barrick Gold, the largest gold and platinum mining company in the world, would commence open-pit mining at the heart of the Kola Peninsula, with potentially devastating environmental impacts. The book includes chapters compiled by the editors, Tero and Kaisu Mustonen, on places, lifeways and histories, knowledge, environment, and weather, along with four short pieces by guest authors: Paul Fryer on the Komi, Leif Rantala on the Akkala Sámi, Sergey Zavalko on the demography of the Kola Sámi, and a marvelously insightful letter from Lovozero by anthropologist Yulian Konstantinov. We learn how the Komi, once convinced of their cultural superiority over the Sámi, now find themselves beleaguered since they cannot benefit from the cross-border support that the Sámi receive from well-funded and internationally networked Nordic Sámi organizations. We learn how the handful of Akkala Sámi contrive to keep their identity alive despite the death, in 2003, of the last remaining speaker of their distinctive language. We learn of the appalling gap in life expectancy, of some 20 years, between Sámi of the Kola Peninsula and Russians in general. And we get a glimpse of the discord that still exists between Sámi activists, predominantly well-educated and cosmopolitan, with comfortable homes and jobs, and local people eking out a living in dilapidated villages and tundra camps, with social services crumbling around them. It appears that all the international attention focused on the Sámi as an indigenous minority, which has provided a platform for activists and an excuse for business trips abroad, has brought little tangible benefit to local people. For the latter, ethnicity may not be high on the agenda,

but livelihood is. Forty years ago, working among Skolt Sámi people resettled in Finland, I found exactly the same tensions. At that time, the rhetoric of the “fourth world” was just becoming established, and expensively costumed, well-educated Sámi were beginning to travel the world attending international conferences on indigenous affairs, much to the disgust of Skolt fishermen and reindeer herders who accused them of using local people as mere fodder for their political ambitions. “Public activities have self-isolated themselves into a conference-room life out of touch with reindeer husbandry as an actual practice,” writes Yulian Konstantinov of life among Kola Sámi today (p. 197–198). Little, it seems, has changed.

The chapter on “Eastern Sámi lifeways and histories” is by far the longest in the book. It promises “a linear approach to history,” running all the way from prehistoric times to the present. What we are given, however, is something entirely different. The history reads as a collection of disjointed fragments, in which times and places are jumbled up and folkloristic recollections jostle with often painful personal memories, operational and organizational details, and assorted statistics. These fragments simply will not fit together into anything like a coherent picture. Indeed, to read this chapter is a profoundly disconcerting experience: rather like taking a trip on an old bus along a road pitted with potholes, where every jolt knocks you, without warning, out of whatever groove you might momentarily have been following, and into another. As Pauliina Feodoroff intimates, the traveler on such a rutted and cratered historical path can have no peace of mind, and neither can the reader of this book. It would be easy for the academic scholar, accustomed to travelling *de luxe* on the main roads of history, to decry the absence of any intelligible narrative. But this is not an academic book and makes no claim to be one. It does claim, however, to be true to the voices of the people whose histories and memories are recorded therein, and who have collaborated throughout in its production. And its disconnectedness and incoherence—its apparently random assortment of bits and pieces from here, there, and everywhere—is indeed a precise and honest reflection of the historical experience of the people themselves. If incommensurable fragments are jumbled in the book, it is because this is how they are jumbled in experience, and in memory. But to get to the heart of this experience and these memories—that is, to understand what it must feel and have felt like—you have to read between the lines.

Following the textual components of the book, and making up almost half its volume, is a compilation of maps and photographs, grouped into three sections, on the Skolt Sámi, the Central Kola Sámi, and the Eastern Kola Sámi. The maps comprise the real “atlas” of the book’s title: they show, sometimes in great detail, things like clan and family territories, migration routes, village locations, and place names. There is far more on the Skolt Sámi than on the other groups, simply because the former have been so well documented, both before the war in their former homeland

of Suenjel, which was part of Petsamo, and afterwards, in the resettlement areas of Sevetijärvi and Nellimö on the Finnish side. At the end is a remarkable map of the entire Kola Peninsula. Dating from 1944, and never previously published, it was originally made by the Finnish authorities on the basis of Soviet military sources.

The book ends with a poem, entitled “The Six Times of the Eastern Sapmi.” There is a verse for each time, except for the sixth, which is presumably the time of the reader. In the first, people and animals lived together in one great community, speaking each other’s languages; in the second, Orthodox monks came to convert the people, Pomors came to trade with them, and Karelians to settle; in the third, the Sámi concluded treaties with the almighty Tsar of Russia, guaranteeing their rights to land and water; in the fourth, people came to take away these lands, to divide them between warring countries, and to arrest, torture and execute those with kin left on the other side, suspected of treachery on that account. In the fifth, everything has come right: reindeer graze, salmon run again in the rivers, children cry in joy, villages and camps are repopulated, the land has come to life. However, in the sixth time, the time of the reader, the prophecy of the fifth is not fulfilled. Indeed it seems rather to be one in which all hope of fulfillment is evaporating.

Of course the poem imposes a dramatic structure that is itself a falsification of history. No more was there a harmonious, peaceful beginning than there can be a happy ending. There has never been a time without violence and suffering of almost unimaginable ferocity. Centuries-old stories tell of the indiscriminate slaughter of whole communities, of torched dwellings and animals seized. The 20th century was no better or worse, in this regard, than what had gone before. But it was different in one crucial respect. Whereas in the past, the damage to populations and environments would eventually be repaired, the legacy of damage wrought by the vast military-industrial complex of a global superpower could take millennia to heal, if it ever does. Probably nowhere on earth is there such a concentration of spent nuclear fuel, housed in rusting hulks either in the harbour or on the seabed. Over enormous areas, heavy metal pollution has created a desert where nothing will grow, and discharges into rivers kill fish and render water undrinkable. Mysterious, deadly gases bubble up from lake beds. Leaky pipes intersect the migration routes of reindeer, making herding impossible; mining leaves gaping holes in the earth. The paradox is that alongside this permanently wrecked environment—one of the most polluted and industrially exploited in the world—some of the last remaining pristine wildernesses in northern Europe are drawing in affluent visitors whose poaching of fish and game, under the noses of local people, is promoted at higher levels as “tourism.”

The story of the Eastern Sámi does not have a happy ending. There is no golden dawn around the corner. Just to keep life going is a victory. Yet perhaps, out of the accumulation of small victories, something can be won. The last word, surely, must remain with Pauliina Feodoroff. In

a concluding note, she observes that in the 11 years during which this book was in the making, the situation in Kola has gone from bad to worse. And yet, she declares, “the damage will end. The land is life and the land is the people” (p. 320). This book is a testament to her optimism and to that of her people.

Tim Ingold
Department of Anthropology
School of Social Science
University of Aberdeen
Aberdeen AB24 3QY
Scotland, United Kingdom
tim.ingold@abdn.ac.uk

ARCTIC MISSION: 90 NORTH BY AIRSHIP AND SUBMARINE. By WILLIAM F. ALTHOFF. Annapolis, Maryland: Naval Institute Press, 2011. ISBN 978-1-61251-010-1. xviii + 264 p., maps, b&w illus., appendices, notes, selected bib., index. US\$39.95, £25.00.

Arctic Mission, which is in effect a third, revised edition of the book originally published by the Lighter-Than-Air Institute in 1999, relates in exhaustive detail and beautiful illustrations the story of two historic U.S. Navy Arctic expeditions that took place during the summer of 1958, at the height of the Cold War. One was by the world’s first nuclear-powered submarine, the USS *Nautilus* (SSN-578), and the second by a ZPG-2 non-rigid airship (blimp), 719.

Nautilus’s closely held top-secret mission was to become the very first sea-going vessel of any type to achieve the North Pole. That of the ZPG-2, 719, which was unclassified, was to be the first U.S. military airship to cross the Arctic Circle in order to test the suitability of airships for the support of polar science and the conduct of military missions in Arctic regions. The *Nautilus* mission, called Operation Sunshine, was specially authorized by the President of the United States and under the direction of the Chief of Naval Operations. The ZPG-2 airship’s mission, Polar Project, was sponsored by the Office of Naval Research. Neither was aware of the other, yet both were high-risk efforts in response to two successful Sputnik launches by the Soviet Union. *Nautilus*’s mission took place shortly after the exciting advent of the nuclear submarine. Airship ZPG-2’s mission, as it turns out, rang down the curtain on almost two centuries of development and operational use of the airship and its myriad achievements.

Arctic Mission is written in the form of a detailed report of the state of U.S. Arctic ocean-going platforms and their capabilities at the end of the 1950s. It is thus a historical snapshot of the international situation at the height of the Cold War. It goes without saying that the United States stood to gain favorable publicity worldwide if both Operation Sunshine and the Polar Project came off. By the same token, the risk of international embarrassment was great if either mission failed, or even worse, resulted in loss of life.

Arctic Mission opens with a preface that introduces the U.S. manned Ice Island T-3, adrift in the polar ice pack off northern Alaska and to the west of the Canadian Archipelago. It was to be the ultimate destination for the ZPG-2 Airship. The preface then provides a quick summary of *Nautilus*’s historic transpolar under-ice voyage from the Pacific to the Atlantic via the North Pole. It concludes with a statement of the book’s purpose: to recount “that long-ago expedition for the Office of Naval Research and, as well, pioneer under-ice penetrations by the U.S. Navy” (p. xi).

Under “Platforms,” the author presents a detailed history of manned flight using lighter-than-air balloons, blimps, and dirigibles, beginning in 1783 and culminating in the U.S. Navy’s lighter-than-air program through the first half of the 20th century, which essentially ends with the development and flight-testing of the ZPG series in the early 1950s.

The author devotes the remainder of the chapter to a brief history of the development of the nuclear-powered submarine, of which the USS *Nautilus* was to be the first of many. He additionally discusses the early history of submarine under-ice operations, beginning in 1904 with Simon Lake’s *Protector* off Rhode Island. Early Russian/Soviet Union under-ice operations are then touched on, and a more extensive discussion follows of Sir Hubert Wilkins’ first penetration of the Arctic Ocean by submarine in 1931. German U-Boat operations in Soviet Arctic waters during World War II are also briefly mentioned, as well as the U.S. submarine operations in the Arctic that immediately preceded *Nautilus*’s historic transpolar voyage. The chapter concludes with a brief discussion of the fabrication, assembly, and flight-testing of the first ZPG airship.

The chapters that follow are devoted to the preparations of each platform for its forthcoming Arctic voyage, their respective and frustrating false starts, and the successful execution of each of their final, successful voyages northward and then homeward. The information the book provides on *Nautilus* is already well known and readily available from other sources. The information on Airship ZPG-2, 719, however, is not, and the author thus provides a valuable source of information to future researchers. Of particular interest are the airship’s successful rendezvous with Ice Island T-3, in spite of heavy fog conditions, and the information on general living conditions on ice islands during the 1950s.

Arctic Mission concludes with an Epilogue that basically describes what followed with these platforms and their successors—including the principal personalities involved—upon mission completion and during the decades leading up to the republication of the book in 2011. It also includes a brief section on the effects of climate change in the Arctic. The story of the eventual termination of all U.S. Navy airship/blimp programs, perhaps before the airship had really had a chance to prove itself in polar regions, is a poignant one. One cannot help but feel that it was vastly overshadowed by the extremely successful development and capabilities of the nuclear submarine worldwide.