

### 3

## Extraction Cultures in Svalbard

### *From Mining Coal to Mining Knowledge and Memories<sup>1</sup>*

ZDENKA SOKOLÍČKOVÁ, THOMAS HYLLAND ERIKSEN

#### **Extractive Cultures**

The extraction of raw materials has always been a human activity, and even mining of fossil fuels goes back several thousand years. Coalmining may have started in China as early as 3,500 BCE. At the same time, certain periods are more intense than others. The contemporary world of an overheated modernity, characterized by an acceleration of acceleration (Eriksen, 2016; McNeill & Engelke, 2016), finds itself in the middle of such a period, with “resource booms” and “busts” taking place in all continents. New extraction sites are developed, closed mines are being re-opened, foreign investors compete for leases, millions of people are engaged in artisanal small-scale mining from Congo to Peru (Pijpers & Eriksen, 2018), and the global trade in resources such as coal, copper, and iron ore has grown enormously since the turn of the millennium, not least due to China’s industrial development and its quest for resources (see, e.g., Brautigam, 2009). In the case of Africa, Bryceson et al. (2014: 3–5) even identify the current “era of mineralisation” as one of the continent’s three major mining eras of the twentieth and early twenty-first century, following an era of “apartheid mining in Southern Africa” and of “conflict mineral mining” in diamond-rich countries such as Democratic Republic of Congo, Sierra Leone, and Liberia. As a matter of fact, human extraction and consumption of mineral resources has increased steadily since the European industrial revolution, but never as fast as in the early decades of the present century.

*To extract* means to draw, take, or copy something out – something one has not produced oneself. Originating in late Latin and gaining its current meaning in the sixteenth and seventeenth century, the term “extraction” describes activities performed at that time just as it does those taking place in the twenty-first century in Svalbard. Recently, critical scholarship has widened the definition of extractivism to “an analytical and also political concept that enables the

examination and articulation of deeper underlying logics of exploitation and subjectification that are central to the present conjuncture of capitalist globalization and neoliberalism” (Junka-Aikio & Cortes-Severino, 2017: 177). Yet in academic literature where resource extraction is discussed together with the booming industry of tourism (Blanco, 2011; Ruiz-Frau et al., 2015; Sisneros-Kidd et al., 2019), there is often an undisputed distinction made between extractive and non-extractive practices. Following Büscher and Davidov (2016), Byström (2019), Saville (2019b), Stoddart et al. (2020), and Herva, Varnajot, and Pashkevich (2020), we argue for revisiting the issue, and will critically interrogate ideas that view tourism and science as being non-extractive.

Seen in the context of the current expansion of the extractive sector, questions related to unequal economic growth, the local distribution of benefits, development, global commodity chains, taxation, sustainability, livelihood issues, local resistance, and climate change, among others, are becoming more and more pertinent for an understanding of resource extraction’s multiple effects. After all, the extractive sector (involving both large-scale industrial as well as small-scale artisanal operations) has the allure, capital, and power to trigger changes across societal domains. It attracts large numbers of people, either searching for employment in industrial operations or engaging in artisanal mining; it requires shifts and generates capital; it may contribute to local economic development through spill-over effects; it brings together a variety of stakeholders with different and sometimes opposing interests; it turns over soil and impacts upon global as well as local socio-economic, political, and ecological systems in sometimes very dramatic ways (see Jacka, 2018; Golub, 2019 for overviews). Due to this characteristic of the extractive sector, the kinds of accelerated change it triggers can often be characterized as balancing acts between bringing about positive development by creating jobs, improving infrastructure or providing national income through taxation, and prompting crisis through land acquisitions and privatization, displacement, exploitation, or environmental destruction (see Kirsch, 2006 for the latter).

In this chapter, we ask some key questions about extractivism. Do mining communities have important characteristics in common? What are the patterns of resource extraction in the Arctic? What is special about the situation in Svalbard? And, finally, to what extent can the concept of extractivism usefully be applied to immaterial activities such as tourism and research? We thus discuss the ambivalent nature and nexus of extractive activities and explore whether it can be said to go beyond oil drilling, coal mining, or the extraction of minerals. Two years of ethnographic fieldwork (2019–2021) in Longyearbyen, Svalbard undertaken by Sokolíčková (in prep.) underpin the hypothesis about an ultimately misleading differentiation between extractive and non-extractive industries.

### **The Extractive Boomtown**

Mining communities often have an ephemeral existence, created out of nought and flourishing only for as long as the mine is viable, illustrating the most obvious and significant contrast, between extraction and production. They may quickly become ghost towns when the ore is exhausted, since the locality depended on one resource for its viability. Some former mining towns, notably in Australia and the United States, try to reinvent themselves as tourist attractions, some may shift to other sources of livelihood such as farming or manufacturing, while others are just abandoned. Given the demographic composition of many mining communities, which are often dominated by single men or fragile families, the latter option is often chosen, and remote parts of the American West as well as the interior of Australia are strewn with the dilapidated remnants of old mining settlements.

Mining communities are “boomtowns,” often only patchily connected to surrounding societies. Even in established cities, such as Gladstone, Queensland (Eriksen, 2018), the influx of more than 5,000 temporary fly-in-fly-out (FIFO) workers in the early 2010s, owing to a major infrastructural project, was unsettling and controversial locally, and their lives had few overlaps with those of settled Gladstonites.

Boomtowns are volatile and socially fragile. In a study carried out at the beginning of the shale oil boom in the Marcellus Shale region in the Appalachians, Jacquet (2009) discusses some of the typical problems experienced by earlier boomtowns. Referring, in particular, to studies carried out in the 1970s and early 1980s of energy resource booms in the western United States, Jacquet mentions some typical disadvantages experienced by boomtowns:

Some of these disadvantages include a lack of information, growth volatility, lack of jurisdiction, conflict between long-term residents and new residents, resistance to new government policy or planning strategies, shortage of staff or expertise, and a lack of or lag in sufficient revenue. (Jacquet, 2009: 2)

Ironically, Jacquet remarks, many rural communities have been waiting for growth and prosperity for decades, and when development finally comes, there is too much of it, and it comes too fast – almost like the Australian farmer waiting for rain, only to see his fields flooded and his crops destroyed when it finally arrives in copious amounts.

The most famous article about the boomtown syndrome in the United States is probably Eldean Kohrs’ controversial report from Gillette, Wyoming (Kohrs, 1974). This article by a psychologist vividly describes a society where the pace of change is uneven, making it impossible for services, infrastructure, housing, and routine family life to keep up with the rapid influx of settlers. Kohrs’s article introduced the term “The Gillette Syndrome” in boomtown studies, which has come to refer to social problems ranging from divorce and alcoholism to poor schooling and crime.

A more systematic approach was represented by John Gilmore (1976), who argued that the inadequacy of services and recreational opportunities along with the high cost of living in the boomtown makes it difficult to attract a permanent population, especially in sectors such as education, health, and shop keeping, which are not themselves part of the boom. This general point is relevant for Longyearbyen, about which more later.

Naturally, it is because of their reliance on a limited resource that many mining boomtowns have a short lifespan. Exceptions include iron mining communities such as Karratha in Western Australia or coal towns such as the cluster of mining towns in Silesia (Allen, 2021), which are nevertheless faced with the new challenge of climate concerns and the drive toward renewables. In the Arctic, to which we turn in the next section, there are several mining communities of considerable longevity, which are demographically less volatile and transient than others, the most famous and economically important being Kiruna in Sweden, where iron ore mining has taken place since around 1900<sup>2</sup> (see Malmgren et al., 2023, see Chapter 11). Others are Kirkenes in Norway, with a similar longevity, while Fermont and Schefferville in northern Quebec have operated since the 1950s/1960s.

The philosopher Jean-Paul Sartre (1977 [1960]: 154) spoke poetically about coal as capital “bequeathed to mankind by other living beings,” a gift from plants that had gone extinct many millions of years ago. In principle, this resource is renewable, but one will have to wait at least sixty million years. It is therefore safe to say that humanity is now, in the space of just a few generations, burning off a valuable gift that it has taken the planet a very long time to produce. The extractive logic of one-sided exploitation is starkly and acutely visible in the fragile Arctic biotopes.

### **Extractivism in the Arctic**

An important distinction applies between resources that are slowly but surely being depleted and renewable resources. In the latter case, the relationship is reciprocal, in the former parasitical. In practice, the distinction has not always been useful in the high Arctic, where marine mammals and fish were often the main economic resource before mining. Although fish, seals, and whales reproduce and can be seen as a renewable and thus sustainable resource, they cannot always keep up with harvesting efforts. In the Arctic, whaling booms have in recent history led whale species close to extinction, and worldwide, fish stocks considered sustainable by the Food and Agriculture Organization have decreased from over 90 percent in 1974 to 65 percent in 2017 (FAO, 2018). Unlike the industrial newcomers to the Arctic region, its Indigenous peoples, for example, Inuit groups,

maintained societies based on sustainable harvesting for millennia, but at a cost: Their societies were different from those enabling professional and institutional differentiation. Life expectancy was rather short, and population sizes were on levels the environment could sustain.

The modern era, especially the decades following the “great acceleration” since 1945 (McNeill & Engelke, 2016), has seen the incursion of extractive industries in Inuit heartlands. As early as the 1980s, the biologist and travel writer Barry Lopez warned about the ecological destruction wrought by oil exploration in Alaska. In the early 2020s, the main political controversy in Greenland concerns a mining concession at Kvanefjeld near the southern tip of the island (Figure 2.1). Characteristically, the disagreement over the Kvanefjeld mine reveals a dilemma: Greenlanders wish to be fully independent of their former colonial power Denmark, which continues to support the country to the tune of 3.9 billion Danish kroner a year (a substantial sum, considering that the total population of the island is 55,000), and the mine would contribute to economic self-sufficiency.

The proposed mine, owned by the Australian company Greenland Minerals (a major issue is made of the fact that a Chinese company owns 11 percent of the shares), will not contribute to climate change. On the contrary, the rare earths deposited in the Kvanefjeld mountain are essential ingredients in non-fossil technology, such as batteries. There is also some uranium, which – while controversial because of the radiation risk – may represent a carbon-neutral alternative to fossil fuels. Moreover, as the shrimp factory in the nearby town Narsaq closed in 2010, creating mass unemployment in the small community, the jobs offered by the mine are attractive.

Against this view, detractors argue that the influx of foreign workers would change the community beyond recognition, that the mine would affect the sheep pastures adversely, in addition to the health risks and environmental degradation entailed in the open pit mine. In the 2021 elections, the anti-mining Community of the People party (*Inuit Ataqatigiit*) narrowly won, and this will for the time being put the mining project on hold. A proposed iron mine further north (the Isua mine), whose concession is owned by London Mining, does not seem to have led to similar controversy. Located 150 kilometers north of the capital Nuuk, this mine would not interfere with community life as the area is uninhabited; on the other hand, the potential climate impact of iron mining is considerable, unlike rare earth mining.

The situation in Alaska is different. Since its opening in 1977, the Prudhoe Bay oil field on its north coast is by far the largest and most productive in North America. There are small Indigenous settlements nearby, but the 3,000 workers employed by oil companies and contractors are FIFOs. Like in Greenland and Svalbard, the environment is ecologically fragile and incapable of supporting large

populations by way of production. Mines are social bubbles, in this case (as often elsewhere) furnished with an independent electricity supply and recreational facilities for the workers, ranging from gyms to seriously discounted fast-food outlets, usually inaccessible to outsiders.

Mining in the Russian north, which includes major operations, displays several similarities, notably transience and low biodiversity. Yet, Nikel in the Russian north-west, appropriately named for the mineral so generously deposited in the rock nearby, comes across as a town rather than a camp. Like other Russian mining towns, it has settled residents rather than FIFOs, and families instead of single men. Its population peaked at 22,000 inhabitants in 1989, having since declined following the post-Soviet deregulation of the economy.

It is not obvious that mining in the far north should be qualitatively different from mining elsewhere. In the oilfields of the Ecuadorian Amazon, workers are migrants, and the oil production is independent of, and represents a different societal form to, the surrounding Indigenous communities (which are nevertheless adversely affected by the pollution and disruption caused by the oil company; Guzmán-Gallegos, 2019). In much of Australia, a mineral-rich continent and country that obtains much of its foreign revenue through mining, many mining towns are located in otherwise barren and thinly populated areas. Miners are typically FIFOs or DIDOs (drive-in-drive-out) and live in compounds comparable to those found in Alaska, with rosters similar to those of oil workers on North Sea platforms, typically two weeks on and one week off. If much of Western Australia is a hot desert, originally thinly populated by Aboriginal Australians, then much of the Inuit homeland is similarly a cold desert, ecologically incapable of supporting a substantial human population and with a climate most newcomers consider inhospitable.

The kind of complexity introduced by, and integrated with, mining is rarely fully integrated with pre-existing social life, although it should be noted that local people often find employment with the mining companies or offer auxiliary services, for example, in the domains of hospitality and transport. In the Arctic, the gulf between Indigenous ways of living and the societal formation of which mining forms a part can thus be overcome but only patchily and partially. Also, the transience of mining boomtowns in general, and the lack of other sources of economic activity in the Arctic, suggests abandonment when resources are exhausted.

Although not supporting high population densities, many Arctic societies have become part of the modern, globalized world and its networks of exchange and communication. Svalbard was built on coal from the early twentieth century, and mines were opened not only by Norwegians but also by Swedes, Russians, Americans, English, and Scottish (Kruse, 2013). Mining is currently (2021)

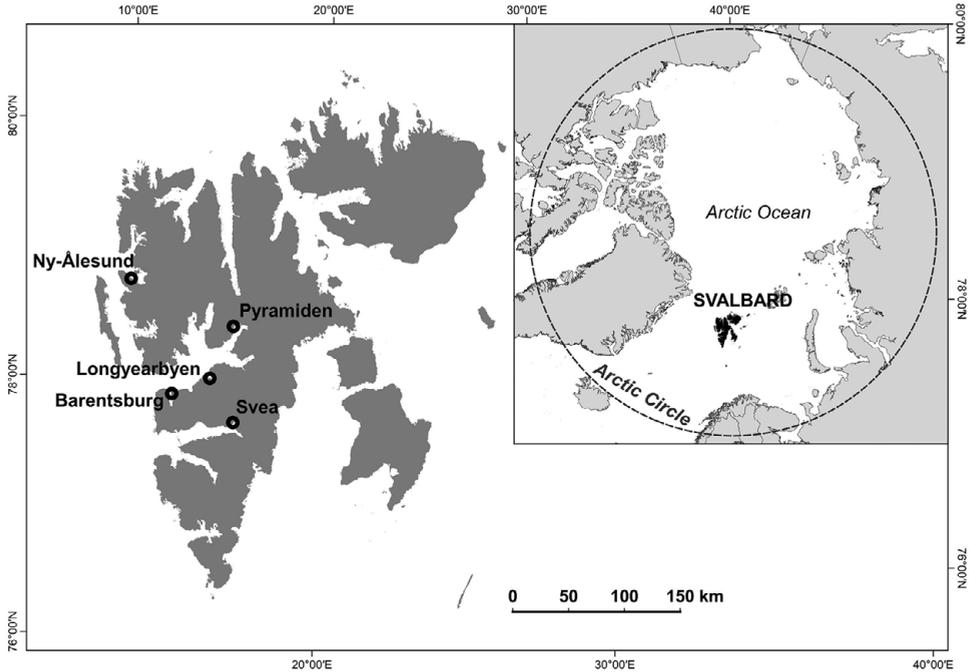


Figure 3.1 Location map of Svalbard. Drawn by Christian Fohringer

coming to an end, at least in the Norwegian-controlled areas, and some of the settlements (such as the Russian mining community Pyramiden and the Norwegian – despite its name – Sveagruva) have been abandoned. Yet, the main town Longyearbyen will probably remain settled after the end of coal extraction, largely owing to its geopolitical significance for Norway and NATO. Tourism is being touted as the new coal, and Norway has also established a small college (*folkehøyskole*) and a large research center in Longyearbyen as well as a research station in the smaller settlement of Ny-Ålesund further north. On the basis of the foregoing discussion of mining towns, the boom-and-bust cycle, and the special characteristics of the Arctic region, we now move to a discussion of the implications of the transition from mining to tourism and research and development (R&D) for Svalbard in general and Longyearbyen in particular, arguing why we see the new industries as kin to coal mining (Figure 3.1).

### Extractive Cultures in Svalbard Softening

Svalbard embodies the essence of extraction culture. In other parts of the world, including the Arctic, extraction cultures have developed alongside or in opposition

to Indigenous lifeways, which often conceptualize the place of humans in nature differently than in “the modern constitution” (Latour, 1993), where there is a crisp and clear boundary separating culture from nature. Svalbard has always been exploited by outsiders (Sörlin et al., 2023, see Chapter 2), taking out resources without giving anything back. As long as the boundaries of the moral universe were those of the human species, this was unproblematic since there was no Indigenous population. Now that the Anthropocene challenges are reshaping intellectual life by decentering humanity even in the human sciences, this practice is becoming increasingly debatable and, in the eyes of many, unacceptable.

During a community dialogue in May 2020, an important figure in local cultural life, a former waitress in the miner’s canteen who came to Svalbard in the early 1970s and has lived through the accelerated development of the archipelago, remembered a meeting of representatives for local and central authorities. It was mentioned that “it is a blessing for the Norwegian government that there is no Indigenous population in Svalbard.” The perceived blessing lies in the unobstructed ability to rule a vast and strategic territory in the High Arctic where nobody is entitled to claim the right to co-decide on how the place will develop.

Since the end of the sixteenth century, when it was first documented by the Dutch explorer Willem Barents, the formerly distant and unwelcoming archipelago has turned into a warming and easily accessible one owing to fast and comfortable modes of transportation. The hard extractive industry of coal mining is a powerful component of the identity of places such as Longyearbyen, founded in 1906 and currently developing fast both as a science and technology hub, and as a tourist destination, while coal mining is being phased out. Having a tradition spread throughout the last 100 years, the settlement with a transient population had major parts of its short history closely linked to extraction of high-quality black coal, appropriate for use in advanced metallurgical industry but also a convenient local energy source<sup>3</sup>. Some 60 million years ago, when the islands, now known for their barren plains, were damp and forested, large deposits of coal began to form (Dallmann, 2015). In the early twentieth century, it was just to start “emptying the bank,” as one of our participants put it.

The point of coal mines in Svalbard was not at times exclusively economic and not always profitable. However, after the Second World War, both the Soviet Union and Norway deliberately invested heavily in the industry, providing them with coal and strengthening their foothold on the territory. Heavily unionized Norwegian coal miners eventually fought for their rights while Norway grew richer thanks to the developing oil industry,<sup>4</sup> and were eventually offered more comfortable housing, better boarding, a wider range of services, and competitive salaries.

In the 1990s, the trend changed in a direction inspired by the new order, in a suddenly unipolar world where Russia was, unlike the Soviet Union, no longer

perceived as a major threat, and globalization accelerated. There were fewer operating mines, leading to a decreasing Russian population, unlike in Longyearbyen, which started to grow fast and became more diverse and international. The standard of living among the Norwegians went up quickly and so did energy and goods consumption, resulting in increasing amounts of waste and pressure on infrastructure. Air travel has become a simple, cheap, and to many, mundane activity, contributing to speeding up the volume of traffic both by plane and by cruise. After the turn of the millennium, information technologies and social media made the virtual image of Svalbard widely accessible and tempting. People settling in Svalbard could enter without a visa and were allowed to live there while staying connected to family, friends, or employers scattered worldwide, and Longyearbyen grew bigger, denser, and more complex. Following a thread to be found already in a governmental White Paper from the 1970s (Justis- og politidepartementet, 1974–1975), tourism was chosen by the Norwegian government as the new economic backbone of Longyearbyen.

As part of the attempt to make Norway more sustainable, and in line with one of the main goals of the Svalbard Treaty granting Norway sovereignty over the archipelago that environmental protection weighs most (Ulfstein, 1995), coal mining slowly decreased as tourism quickly increased. The two were until recently depicted as two “legs to stand on,” in addition to research and education growing steadily (Norwegian Ministry of Justice and Public Security, 2015–2016). Now coal mining has disappeared from the trio (Figure 3.2), and research and education has been split into two separate tools to foster Norwegian national policy for Svalbard (Hovelsrud, Kaltenborn, & Olsen, 2020).

Tourism is thus being discussed as something to “replace” coal mining, together with R&D in the sphere of renewable energy and technological innovations saleable elsewhere in the Arctic. People are aware that mobility (be it for leisure, for work, or both) is not a new phenomenon on the archipelago (Viken, 2020) and has a longer history than mining coal; with a peculiar mixture of bitterness and fatalism, some local residents comment on the touristic nature of anybody’s stay here. What is interesting in the case of Svalbard is the fact that the narrative about the shift from coal mining to tourism and science presents this change as though the ontological premises on which the industries are built were profoundly different. We argue that there is a continuity from mining to tourism and research.

From a certain perspective, tourism and science are sometimes strikingly commensurable, as Revelin (2013) shows in the case of Swedish Lapland. Her findings about the mining boom appearing almost simultaneously with “pioneer tourism” stimulated by romanticized scientific fascination are well applicable to Svalbard. Byström (2019) shows in another case study from northern Sweden how interrelated resource extraction and tourism are, for example, in terms of labor



Figure 3.2 Road ahead? The last Norwegian coal mine (Gruve 7) in Adventdalen, closing in 2023. Photo by Jakub Žárský

market processes, or how the infrastructure built to accommodate mining needs also produces access to “pristine wilderness.” Büscher and Davidov (2016: 161, 166) even speak about “environmental industries,” showing “how the seemingly opposing activities, discourses and political economies of ecological tourism and resource extraction are more intricately entwined than often assumed.”

There is a difference between, on the one hand, heavy machinery and determined miners (mostly men) brutally altering the landscape, the seabed, or the inner guts of the mountains, and, on the other hand, a group of tourists carefully landing with a small boat in a mining cultural heritage site to learn about the past and the present from a well-informed guide. The figure of the scientist contemplating in the tundra while counting reindeer, drilling holes in ice to take samples, or interviewing participants also seems distant from the colonial mining engineer. Yet extractivism could continue to be the red thread here, newly directed toward mining knowledge, experience, and memories in an ecosystem where production for human benefit is on the verge of impossible.

In support of this perspective, Saville (2019b: 574) suggests that “[t]he new industries of tourism and research and education represent the ‘softer’ version of extracting value from Svalbard’s natural resources.” Stoddart et al. (2020: 8)

introduce the terms “attractive development” and “experience economy” related to tourism and claim that “the rapid and dramatic impacts of climate change on the Arctic underlie the emergence of a global Arctic as an object of scientific and political concern [and] subject to global scientific inquiry and political debate.” Graham (2020) shows how ecologically oriented and publicly funded R&D in Canada relies on the carbon extractive industry and represents “a means of creating and sustaining narratives and a shared outlook in favor of greening the fossil fuel sector as a ‘solution’ to climate change (as opposed to transitioning away from fossil fuels).” Graham also mentions that “components of ecological science such as conservation and restoration ecology and climatic and atmospheric science, which have grown in the context of the deepening climate crisis, are now also harnessed into carbon extractive development.” His “fossil knowledge networks” (Graham, 2020) add substance to the argument about extractivist science. Siri Kalvig, board member of the University Center in Svalbard and administrative director of the state-owned Nysnø Klimainvesteringer AS, published a manifesto for a science of extractivism, painted green and using exclamations such as: “Now a new energy landscape is to be conquered!,” “Longyearbyen is conceptualized as a miniature Norway. A simple community consisting of hardworking pioneers of coal mining and knowledgeable researchers,” or “Perhaps there is a sort of kinship among the coal miner in the north and oil worker in the west?” (Kalgvig, 2021). This recent turn in Svalbard’s R&D confirms Stoddart’s (2020: 18) findings about “industrial orders of worth – emphasizing scientific and technical innovation and efficiency – [that] are more strongly associated with oil development.”

As Midgley (2012) shows in a comparison between mining in Svalbard and Nanisivik, Canada, the extractivist paradigm imposed on the Arctic is entangled with what he calls “geopolitical economy,” in the logic of which capital and the state are co-produced simultaneously (Midgley, 2012: 55). Extraction here goes beyond production of “economically valuable commodities but also produces nature, landscapes, states and the like” (Midgley, 2012: 168), as well as – in this case – geopolitical presence (Figure 3.3). Production of scientific knowledge is a further step in the continuum of resource exploitation in the Arctic. In Svalbard, both science and tourism are arenas increasingly controlled by Norwegian authorities. Tighter regulation and a heavier bureaucratic apparatus controlling both tourism and scientific activities is the trend, with clear signals and leadership “from the outside” or “from the south,” as laypeople comment. A place where people often feel that their lives serve some larger aims of an economic and geopolitical nature, which is well beyond their control, has constructed its modern history around extractivism.

As Junka-Aikio and Cortes-Severino (2017: 180) note,



Figure 3.3 Geopolitics: Science brings an international vibe to Svalbard, but it also marks Norwegian presence. Photo by Jakub Žárský

there is nothing natural or self-evident about what kinds of substances, elements, objects, or pieces of knowledge become understood and seen as resources available for extractive operations: the discursive construction of something as a “resource” always entails the employment of a wide set of knowledges, practices and power relations which regulate how the relationship between nature and the society is imagined and enacted at different points in time and space.

It is not just Svalbard’s natural resources that are at stake. There are also other traces of extractivism in the new industries. Tourism extracts in a soft and apparently clean way, compared to the hard and dirty power that engages with the environment following the logic of “let’s take what is out there before somebody else does it,” be it oil, gas, coal, or other minerals. But the driving force of “do it now before it’s too late” is present here, too (Figure 3.4). Overtourism (Saville, 2019a), mass tourism (Andersen, 2022), last-chance tourism (Johnston, Viken & Dawson, 2012) – academics and stakeholders are still arguing whether it is correct to use such terms in the case of Svalbard where tourists, guides, and workers in the hospitality industry have seen the sector grow year by year. Tourism stakeholders in Svalbard take the case of tourism peak in Iceland in the 2010s (Sæþórsdóttir, Hall, & Wendt, 2020), unable to accommodate the interest of international visitors, as a lesson learned. During another community dialogue held in November 2020, this



Figure 3.4 Tourism: Last chance to see a retreating glacier? Photo by Zdenka Sokolíčková

time looking at the issue of use of nature, the question of volume and consumption was brought up. How do we manage tourism in an exclusive and unique destination when the more special the place is, the more people desire to visit it?

While the notion of the extractivist potential of tourism regarding natural resources is known and has been long discussed (Kaltenborn, Østreng, & Hovelsrud, 2020), little attention is paid to exploitation of the so-called human resources. Guides, and cleaning and catering personnel, the vast majority of them non-Norwegian, bear the increasing burden of precarity, not least during the current pandemic. They are necessary for the tourist industry but inappropriate as tools for the state policy where the non-Norwegian population is seen as a security issue (Pedersen, 2017), and they fail to fit into the postcard image of what Svalbard should look like. Without a population that disposes of mechanisms needed to create a sense of community and place attachment strong enough to become politically relevant (Sokolíčková, in press), it is hard to say with what kind of “local added value” tourism could contribute. There are many barriers of communitification in Longyearbyen, and people here lack “a strategic tool in the negotiation of rights and ownership and an instrument in their quests towards certain desired futures” (Jørgensen, 2019: 1). Tourism certainly generates profit, jobs, makes stores, and dining facilities in town economically viable, and pushes for better, faster, and cheaper flight connections. The question does not so much concern what tourism gives back, but to whom, and what the broader consequences are for the ecosystem both locally and globally, and for the community and its cohesion.

The softness of scientific extractivism is even more delicate. While tourism is dependent on a certain volume, science relies on different financial mechanisms and operates in a different mode. Saville (2019b) has shown how blurred the border lines between tourist and researcher identities are, yet the question of “giving back” still leads to another path in the case of science. As the volume of scientific activities – despite the recent increase (Norwegian Ministry of Education and Research, 2018) – is much less comprehensive than the volume of tourism (except during the pandemic), the environmental pressure is minimal. What is more, scientists are typically environmentally conscious people, and care both rationally and emotionally about having the least possible impact in the field. Scientific practices in Svalbard are regulated by the Svalbard Environmental Protection Act, in addition to strict ethical and environmental codes valid for specific research projects. Compared to jobs in the tourist sector, positions offered to researchers are less precarious, even though short-term contracts have become the norm also in this sphere.

One point about the extractivism of science touches on the FIFO character of the scientific enterprise in Svalbard. Scientists fly in, extract measurements and samples, and return to their laboratories on the mainland for analysis and interpretation. Again, in other regions in the Arctic, for example, in Canada or Greenland, local communities are increasingly becoming aware of the extractivism of science, both natural and social, and act in order to protect their resources and knowledge from being exploited with the assumption that “knowing means owing” (Bocking, 2017: 24). Disciplinary spaces (Bocking, 2007) created by scientifically produced systems of knowledge have impacted “the North” throughout the history of scientific endeavors in the region, and they have contributed both to protection and exploitation (Figure 3.5). Svalbard is no exception here. In Australia, Indigenous groups have opposed a tendency among anthropologists to extract their knowledge and cultural worlds without giving anything in return. As a result, contemporary Australian research on Indigenous groups is often coupled with forms of advocacy and commitment to the people whose life-worlds are being extracted for the sake of academic careers. Lacking an Indigenous population, it could likewise be argued that scientists extract data from Svalbard’s environment without giving anything back.

In Svalbard, the call for non-extractive science (inclusive, participatory, transparent, co-productive, humble, and reciprocal in the sense of giving something back) is recently gaining attention, promoting a “public science” contributing more to the “social life of the community” (Bravo, 2006: 237). The discussion about “sustainable tourism” is also very high on the agenda. The key issue concerns returning something to the local region, whether in a social or ecological sense.



Figure 3.5 Ny-Ålesund: A former company town reinvented as a research hub.  
Photo by Jakub Žárský

### Conclusion

In national economic statistics, a distinction is sometimes made between primary, secondary, and tertiary sectors; extraction and agriculture, manufacturing, and services. In the case of Svalbard, the shift has been from extraction and harvesting to the tertiary sector of services as well as the quaternary sector of research and knowledge production. We suggest talking about hard and soft extractive industries, paralleling the contrast between hard (military) and soft (cultural) power. Oil drilling or mining of coal and minerals would then be seen as hard, harvesting practices such as whaling and fishing as ambiguous, and tourism and science as soft extractive businesses. Hardness and softness can also be complementary in practice, such as construction of infrastructure needed for tourism and research,<sup>5</sup> or the visible wear and tear in the tourist landscape. We do not see the distinction between hard and soft extractivism as a binary but rather as a continuum, or as a neoliberal nexus where tourism and extraction are “sequential, planned regimes of commodifying nature” (Davidov, 2012: 81), and where scientific research also bears traces of extractivist kinship.

It remains an open question whether tourism and scientific research will contribute to addressing the issues facing the high Arctic, or whether they will merely inscribe themselves into the long history of extractivism – beginning with hunting, trapping, and whaling from the seventeenth century, via mining in the twentieth century, to the present era with its gaze fixated on consumption, with science and tourism being easily incorporated into this ontological framework. Only time can tell if Svalbard and the Arctic will be able to liberate themselves from the straitjacket of destructive consumerism.

To sum up, the main objective of this chapter has been to discuss and eventually defend the relevance of the term “extractivism” in a broader sense than that which is common, including tourism and science. The concept refers to activities that remove something deemed valuable without allowing it to replenish and without giving anything back. In Svalbard, both extractive and reciprocal activities exist, but the former still predominates. We have also highlighted some of the similarities and differences between Svalbard (Longyearbyen) and other mining communities, emphasizing the ecological fragility and climatic barrenness of the archipelago, which simultaneously renders it vulnerable to the destabilizing effects of extractive activities and makes it technically uninhabitable without a constant supply of food, energy, and other resources. One possible conclusion could be that Svalbard ought to be abandoned by humans for reasons of climate and environmental concerns. Yet this would also mean abandoning a rich and unique history, which would lead to a loss of exactly the kind of cultural memory that needs to be salvaged. In addition, the attachment to and identification with Svalbard in the local community should also not be underestimated. The more attractive alternative would therefore be to empower communities in Svalbard politically, enabling them to decide on a future aiming to honor the continuity with a variegated, colorful, but ultimately obsolete past, for the sake of enabling value co-creation instead of extraction.

### Notes

- 1 The authors are grateful to the other contributors and colleagues, and, in particular, Sverker Sörlin, Albina Pashkevich, Dag Avango, Jundan Jasmine Zhang, Alexandra Meyer, and Frigga Kruse for excellent comments on the drafts. The research of Zdenka Sokolíčková was financed through the project CZ.02.2.69/0.0/0.0/18\_070/0009476 (bo)REALIFE: Overheating in the high Arctic: Qualitative anthropological analysis funded by the Ministry of Education, Youth and Sports of the Czech Republic and University of Hradec Králové.
- 2 It nevertheless deserves mentioning that the whole town of Kiruna is currently being moved because it has literally been undermined by a network of underground tunnels – so even the more stable mining towns have elements of volatility.
- 3 Longyearbyen still depends on the only Norwegian coal power plant but might switch to another source of energy soon. The options that currently seem most likely in the short run are diesel, wooden pellets, and LNG.
- 4 In fact, the first petroleum exploration efforts of Norway were in Svalbard, starting in 1961, but never resulting in commercial discoveries. Apart from Norway, it was also the United States,

France, Belgium, Sweden, and the Soviet Union/Russia who engaged in petroleum exploration in and around Svalbard in the second half of the twentieth century (Senger et al., 2019).

- 5 Here, Svalbard is an exception rather than a typical example – see the story of Svea in Flyen et al. (2023), see Chapter 9.

## References

- Allen, I. K. (2021). *Dirty Coal: Populism as Purification in Poland's Mining Heartland*. Stockholm: KTH Royal Institute of Technology.
- Andersen, T. (2022). Negotiating trade-offs between the environment, sustainability and mass tourism amongst guides on Svalbard. *Polar Record*, 58, E9. doi:[10.1017/S0032247422000080](https://doi.org/10.1017/S0032247422000080)
- Blanco, E. (2011). A social-ecological approach to voluntary environmental initiatives: The case of nature-based tourism. *Policy Sciences*, 44(1), 35–52. <https://doi.org/10.1007/s11077-010-9121-3>
- Bocking, S. (2007). Science and spaces in the northern environment. *Environmental History*, 12, 868–895. <https://doi.org/10.1093/envhis/12.4.867>
- Bocking, S. (2017). Navigating northern environmental history. In S. Bocking and B. Martin, eds., *Ice Blink: Navigating Northern Environmental History*. Calgary: University of Calgary Press, pp. 3–32. <https://doi.org/10.2307/j.ctv6cfrkx.3>
- Brautigam, D. (2009). *The Dragon's Gift: The Real Story of China in Africa*. Oxford: Oxford University Press.
- Bravo, M. B. (2006). Science for the People: Northern field stations and governmentality. *The British Journal of Canadian Studies*, 19(2), 221–245. <https://doi.org/10.3828/bjcs.19.2.8>
- Bryceson, D. F., Fisher, E., Jønsson, J. B., and Mwaipopo, R. (2014). *Mining and Social Transformation in Africa: Mineralising and Democratising Trends in Artisanal Production*. London: Routledge.
- Büscher, B. and Davidov, V. (2016). Environmentally induced displacements in the ecotourism-extraction nexus. *Area*, 48(2), 161–167. <https://doi.org/10.1111/area.12153>
- Byström, J. (2019). *Tourism Development in Resource Peripheries: Conflicting and Unifying Spaces in Northern Sweden*. Umeå: Umeå University.
- Dallmann, W. K. (2015). *Geoscience Atlas of Svalbard*. Tromsø: Norsk Polarinstitut.
- Davidov, V. (2012). From a blind spot to a nexus: Building on existing trends in knowledge production to study the copresence of ecotourism and extraction. *Environment and Society*, 3(1), 78–102. <https://doi.org/10.3167/ares.2012.030106>
- Eriksen, T. H. (2016). *Overheating: An Anthropology of Accelerated Change*. London: Pluto. <https://doi.org/10.2307/j.ctt1cc2mxj>
- Eriksen, T. H. (2018). *Boomtown: Runaway Globalisation on the Queensland Coast*. London: Pluto.
- FAO, Food and Agriculture Organization. (2018). Sustainable Development Goals. Website. [www.fao.org/sustainable-development-goals/indicators/1441/en/](http://www.fao.org/sustainable-development-goals/indicators/1441/en/)
- Flyen, A.-C., Avango, D., Fischer, S., and Winqvist, C. (2023). Remediating mining landscapes. In S. Sörlin, ed., *Resource Extraction and Arctic Communities: The New Extractivist Paradigm*. Cambridge: Cambridge University Press.
- Gilmore, J. S. (1976). Boom towns may hinder energy resource development: Isolated rural communities cannot handle sudden industrialization and growth without help. *Science*, 191, 535–540. <https://doi.org/10.1126/science.191.4227.535>

- Golub, A. (2019). Mining. *Cambridge Encyclopedia of Anthropology*. Online article. [www.anthroencyclopedia.com/entry/mining](http://www.anthroencyclopedia.com/entry/mining)
- Graham, N. (2020). Fossil knowledge networks: Science, ecology, and the “greening” of carbon extractive development. *Studies in Political Economy*, 101(2), 93–113. <https://doi.org/10.1080/07078552.2020.1802831>
- Guzmán-Gallegos, M. (2019). Counting: Health emergencies and the constitution of extractive natures in Northern Loreto, Peru. In A. B. Stensrud and T. H. Eriksen, eds., *Climate, Capitalism and Communities*. London: Pluto, pp. 133–150. <https://doi.org/10.2307/j.ctvjnrw0q.12>
- Herva, V.-P., Varnajot, A., and Pashkevich, A. (2020). Bad Santa: Cultural heritage, mystification of the Arctic, and tourism as an extractive industry. *Polar Journal*, 10(2), 375–396. <https://doi.org/10.1080/2154896X.2020.1783775>
- Hovelsrud, G. K., Kaltenborn, B. P., and Olsen, J. (2020). Svalbard in transition: Adaptation to cross-scale changes in Longyearbyen. *Polar Journal*, 10(2), 420–442. <https://doi.org/10.1080/2154896x.2020.1819016>
- Jacka, J. K. (2018). The anthropology of mining: the social and environmental impacts of resource extraction in the mineral age. *Annual Review of Anthropology*, 47(1), 61–77. <https://doi.org/10.1146/annurev-anthro-102317-050156>
- Jacquet, J. (2009). *Energy Boomtowns and Natural Gas: Implications for Marcellus Shale Local Governments and Rural Communities*. University Park, PA: The Northeast Regional Center for Rural Development.
- Johnston, M., Viken, A., and Dawson, J. (2012). Firsts and lasts in arctic tourism: Last chance tourism and the dialectic of change. In H. Lemelin, J. Dawson, and E.J. Stewart, eds., *Last Chance Tourism*. London: Routledge, pp. 10–24. <https://doi.org/10.4324/9780203828939-9>
- Jørgensen, A. M. (2019). Communitification and emotional capital: Producing, shaping and re-shaping communities before and after mining in Norrbotten and Disko Bay. *Polar Record*, 56(e7), 1–11. <https://doi.org/10.1017/S0032247419000548>
- Junka-Aikio, L. and Cortes-Severino, C. (2017). Cultural studies of extraction. *Cultural Studies*, 31(2–3), 175–184. <https://doi.org/10.1080/09502386.2017.1303397>
- Justis- og politidepartementet. (1974–1975). St. meld. nr. 39: Vedrørende Svalbard. Online publication. [www.stortinget.no/no/Saker-og-publikasjoner/Stortingsforhandlinger/Lesevisning/?p=1974-75&paid=3&wid=c&psid=DIVL814&s=True](http://www.stortinget.no/no/Saker-og-publikasjoner/Stortingsforhandlinger/Lesevisning/?p=1974-75&paid=3&wid=c&psid=DIVL814&s=True)
- Kaltenborn, B. P. and Emmelin, L. (1993). Tourism in the High North: Management challenges and recreation opportunity spectrum planning in Svalbard, Norway. *Environmental Management*, 17(1), 41–50. <https://doi.org/10.1007/BF02393793>
- Kaltenborn, B. P., Østreng, W., and Hovelsrud, G. K. (2020). Change will be the constant: Future environmental policy and governance challenges in Svalbard. *Polar Geography*, 43(1), 25–45. <https://doi.org/10.1080/1088937x.2019.1679269>
- Kalvig, S. (2021). Verdens øyne er rettet mot Svalbard. *E24*, 20 April 2021. Online article. <https://e24.no/det-groenne-skiftet/i/x3083n/verdens-oyne-er-rettet-mot-svalbard>
- Kirsch, S. (2006). *Reverse Anthropology: Indigenous Analysis of Social and Environmental Relations in New Guinea*. Stanford, CA: Stanford University Press.
- Kohrs, E. (1974). Social consequences of boom growth in Wyoming. Online article. [www.sublettewyo.com/Archive/ViewFile/Item/97](http://www.sublettewyo.com/Archive/ViewFile/Item/97)
- Kruse, F. (2013). *Frozen Assets: British Mining, Exploration and Geopolitics on Spitsbergen, 1904–53*. Groningen: Barkhuis.

- Latour, B. (1993). *We Have Never Been Modern*. Cambridge, MA: Harvard University Press.
- Lopez, B. (1987). *Arctic Dreams*. London: Picador.
- Malmgren, J., Avango, D., Persson, C., Nilsson, A. E., and Rodon, T. (2023). Mining towns in transition: Arctic legacies. In S. Sörlin, ed., *Resource Extraction and Arctic Communities: The New Extractivist Paradigm*. Cambridge: Cambridge University Press.
- McNeill, J. R. and Engelke, P. (2016). *The Great Acceleration: An Environmental History of the Anthropocene Since 1945*. Cambridge, MA: Harvard University Press. <https://doi.org/10.4159/9780674970731>
- Midgley, S. J. (2012). *Co-producing Ores, Science and States: High Arctic Mining at Svalbard (Norway) and Nanisivik (Canada)*. Unpublished Master Thesis. Memorial University of Newfoundland.
- Norwegian Ministry of Education and Research. (2018). Strategy for research and higher education in Svalbard. Online publication. [www.regjeringen.no/contentassets/3b322b7aec8942cf8a8bcd09e498547f/strategy-for-research-and-higher-education-in-svalbard.pdf](http://www.regjeringen.no/contentassets/3b322b7aec8942cf8a8bcd09e498547f/strategy-for-research-and-higher-education-in-svalbard.pdf)
- Norwegian Ministry of Justice and Public Security. (2015–2016). Meld. st. 32 (2015–2016): Report to the Storting (White Paper). Online publication. [www.regjeringen.no/en/dokumenter/meld.-st.-32-20152016/id2499962/](http://www.regjeringen.no/en/dokumenter/meld.-st.-32-20152016/id2499962/)
- Næringsdepartementet. (1990–1991). St. meld. nr. 50: Næringsstiltak for Svalbard. Online publication. <https://stortinget.no/nn/Saker-og-publikasjoner/Stortingsforhandlingar/Lesevisning/?p=1990-91&paid=3&wid=d&psid=DIVL1575>
- Pedersen, T. (2017). The politics of presence: The Longyearbyen dilemma. *Arctic Review on Law and Politics*, 8, 95–108. <https://doi.org/10.23865/arctic.v8.682>
- Pijpers, R. J. and Eriksen, T. H., eds. (2018). *Mining Encounters*. London: Pluto. <https://doi.org/10.2307/j.ctv893jxv>
- Revelin, F. (2013). Ecotourism and extraction in Saami lands: Contradictions and continuities. In B. Büscher and V. Davidov, eds., *The Ecotourism/Extraction Nexus: Rural Realities and Political Economies of (un)Comfortable Bedfellows*. London: Routledge, pp. 193–214. <https://doi.org/10.4324/9780203384855-20>
- Ruiz-Frau, A., Kaiser, M. J., Edwards-Jones, G., Klein, C. J., Segan, D., and Possingham, H. P. (2015). Balancing extractive and non-extractive uses in marine conservation plans. *Marine Policy*, 52, 11–18. <https://doi.org/10.1016/j.marpol.2014.10.017>
- Sartre, J.-P. (1977 [1960]). *Critique of Dialectical Reason*. London: Verso.
- Saville, S. (2019a). The Northern-most Overtourism? Online publication. <https://samsaville.files.wordpress.com/2019/12/51fcd-the-northern-most-overtourism-for-website.pdf>
- Saville, S. (2019b). Tourists and researcher identities: Critical considerations of collisions, collaborations and confluences in Svalbard. *Journal of Sustainable Tourism*, 27(4): 573–589. <https://doi.org/10.1080/09669582.2018.1435670>
- Senger, K., Brugmans, P., Grundvåg, S.-A., Jochmann, M., Nøttvedt, A., Olaussen, S., Skotte, A., and Smyrak-Sikora, A. (2019). Petroleum, coal and research drilling onshore Svalbard: A historical perspective. *Norwegian Journal of Geology*, 99(3). <https://dx.doi.org/10.17850/njg99-3-1>
- Sisneros-Kidd, A. M., Monz, C., Hausner, V., Schmidt, J., and Clark, D. (2019). Nature-based tourism, resource dependence, and resilience of Arctic communities: Framing complex issues in a changing environment. *Journal of Sustainable Tourism*, 27(8), 1259–1276. <https://doi.org/10.1080/09669582.2019.1612905>
- Sokolíčková, Z. (in press). The trouble with local community in Longyearbyen, Svalbard. *Polar Record*.

- Sokolíčková, Z. (in prep.). *The Paradox of Svalbard: Climate Change and Globalisation in the Arctic*. London: Pluto.
- Sörlin, S. Dale, B., Keeling, A., and Larsen, J. N. (2023). Patterns of Arctic extractivism: Past and present. In S. Sörlin, ed., *Resource Extraction and Arctic Communities: The New Extractivist Paradigm*. Cambridge: Cambridge University Press.
- Stoddart, M. C., Mattoni, A., and McLevey, J. (2020). Introduction: Contact points between offshore oil and nature-based tourism. In M. C. Stoddart, A. Mattoni, and J. McLevey, eds., *Industrial Development and Eco-Tourisms: Can Oil Extraction and Nature Conservation Co-exist?* Cham: Springer International Publishing, pp. 1–26. [https://doi.org/10.1007/978-3-030-55944-1\\_1](https://doi.org/10.1007/978-3-030-55944-1_1)
- Sæþórsdóttir, A. D., Hall, C. M., and Wendt, M. (2020). From boiling to frozen? The rise and fall of international tourism to Iceland in the era of overtourism. *Environments*, 7 (8), 59. <https://doi.org/10.3390/environments7080059>
- Ulfstein, G. (1995). *The Svalbard Treaty: From Terra Nullius to Norwegian Sovereignty*. Oslo: Scandinavian University Press.
- Viken, A. (2020). Turisme, kunnskapshegemonier og sjølregulering på Svalbard. In A. Viken, R. Benonisen, C. Ekeland, A. Førde, R. Nilsen, T. Nyseth, C. Olufsen, O. Sletvold, and G. E. Svensson, eds., *Turismens paradokser: turisme som utvikling og innvikling*. Stamsund: Orkana akademisk, pp. 301–320.

