



NAADSN Engage Series

China's Arctic Engagement

Following the Polar Silk Road
to Greenland and Russia

Selected Articles from the
Arctic Yearbook

Edited by Justin Barnes, Heather
Exner-Pirot, Lassi Heininen, and
P. Whitney Lackenbauer

CHINA'S ARCTIC ENGAGEMENT

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**Selected Articles from the *Arctic
Yearbook***

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Introduction

Justin Barnes, P. Whitney Lackenbauer, Lassi Heininen, & Heather Exner-Pirot

The rise of China and the shift to multipolarity have dominated international relations discourse over the last twenty years, prompting various regional narratives that seek to frame and understand specific Chinese intentions. China's explosive economic growth has propelled it to look outwards to secure access to raw materials and expand global markets. The country's growing interest in the Arctic – which is a logical extension of its need for resources, shipping routes, and scientific research, as well as a geopolitical and geostrategic consideration – has myriad implications for Arctic states, Indigenous peoples, and local communities.

As an Observer to the Arctic Council, China self-identifies as a “near Arctic” state in its 2018 Arctic Policy. In this policy, China sees itself as a cooperative member of the international community and of the Arctic region in particular. It is interested in exploring potential commercial opportunities related to transportation routes and expanding “into diverse areas of Arctic affairs including the platforms of global governance, regional cooperation, and bilateral and multilateral affairs, and such disciplines as scientific research, ecological environment, climate change, economic development, and cultural exchanges.”

The Arctic states' responses to China's growing Arctic interests and engagement in regional fora are mixed. For example, Beijing's future designs for the region have become a staple of the burgeoning literature on Arctic security and governance over the last decade, with many of these narratives casting suspicion on China. Commentators worry that the Asian power will seek to undermine Arctic state sovereignty and co-opt regional governance mechanisms to facilitate its access to resources and new sea routes that fuel and connect its growing global empire. Although China officially states that it is committed to maintaining peace and stability in the Arctic, and that it prefers international cooperation to competition or conflict (Heininen et al. 2020, 224), some commentators caution that the country's deeper intention

is to influence and manipulate Arctic states, peoples, and other stakeholders as they have done in other parts of the world. On the other hand, some analysts suggest that China is legitimately and understandably seeking access to resources and improving its “capability in scientific research in the Arctic... [for] a deeper understanding and knowledge of the Arctic science” (China’s Arctic Policy 2018). China has clear rights under international law to areas of the Arctic Ocean beyond national jurisdiction and is a much-needed source of foreign investment and technology to advance Arctic development.

China’s grand strategy for expanding its international influence is framed by its Belt and Road Initiative (BRI), the country’s global infrastructure development strategy. The BRI structures China’s approach to economic integration around the world, including the Arctic, and focuses on securing Chinese access to resources and markets. Beijing’s Arctic Policy promotes that “the Silk Road Economic Belt and the 21st-century Maritime Silk Road (Belt and Road Initiative), an important cooperation initiative of China, will bring opportunities for parties concerned to jointly build a ‘Polar Silk Road,’ and facilitate connectivity and sustainable economic and social development of the Arctic.”

The authors in this volume illustrate how China’s approach to the Arctic reflects burgeoning Chinese influence beyond its borders in a global context. Advancing relationships with Russia and Greenland can bolster Chinese energy security and facilitate access to raw materials and emerging transportation routes. Does this portend Chinese cooperation with Arctic states that have sovereign rights to most of these resources and claim jurisdiction over Arctic waters? Will China eventually become a challenger to the Arctic’s regional political norms? What does China’s growing influence in the region mean for the return of great power competition elsewhere in the world?

Both Canada and the United States highlight the strategic significance of the Arctic in terms of state sovereignty, with the US stridently asserting the importance of deterring unwanted influence from outside actors over the last few years. Core American strategic documents describe the “re-emergence of long-term, strategic competition” as the central challenge to American security, describing China and Russia as “revisionist powers” seeking to undermine the international liberal order (Pincus 2020). Canada’s 2017 defence policy, *Strong, Secure, Engaged*, also observes that China and Russia are contributing to an evolving balance of power, stating that “China is a

rising economic power with an increasing ability to project influence globally,” and that “Russia has proven its willingness to test the international security environment.” While the policy does not apply this logic directly to the Arctic, it also sees the region as an increasingly dynamic space “where issues of climate change, international trade, and global security meet” (Lackenbauer 2020). Given the evolving state of great power politics and the emergence of China as an increasingly influential power, it is unsurprising that China’s Arctic interests and ambitions have elicited so much attention, speculation, and debate.

This Volume

This special AY/NAADSN volume is the result of a partnership proposed by the North American and Arctic Defence and Security Network (NAADSN) as part of their mandate to provide timely, relevant, and reliable expert advice on defence and security topics of relevance to the North American Arctic. While the Arctic Yearbook (AY) is a peer-reviewed journal that covers issues across the entire Arctic region, this volume consists of selected peer-reviewed scholarly papers published in the *Arctic Yearbook* between 2012 and 2019 that focus on China’s relationships with Russia and Greenland. It addresses four themes related to China’s increasing interest and involvement in the Arctic that are critical for North American defence scholars and practitioners working to understand the evolving North American security environment in the context of global power realignments:

- (1) Chinese interest in expanding shipping routes and access to markets;
- (2) how China’s efforts to increase access to raw materials are providing an opportunity to extend influence into the Arctic;
- (3) how political and security stability in the region is seen as a key aspect of Chinese success both in the Arctic region and at home; and
- (4) China’s role in filling foreign direct investment gaps in Arctic infrastructure and what this means for Greenland’s independence and Sino-Russian relations.

China’s Arctic Vision

China’s Arctic vision has been coming into focus as the country has risen in prominence around the world. As China’s activities around the world have

been met with increasing suspicion by Western powers, their activities in the Arctic have fallen under increased scrutinization by various commentators. In this volume, Alexeeva and Lasserre (2012) suggest that the aggressive pursuit of control over Arctic resources and shipping lanes may be misplaced. By reviewing China's longstanding scientific, economic, and political interests in the region, Alexeeva and Lasserre (2012) suggest that China has far more to gain by pursuing a cooperative approach that does not threaten its interests elsewhere in the world.

What are the drivers, then, of Chinese interests in the Arctic? Xing and Bertelsen (2013) provide valuable insights into why Beijing has cast its gaze at the Arctic as part of its economic expansion strategy. Observing China's interest in the Arctic through the core interests of the Chinese Communist Party (political stability, territorial integrity, and economic growth), the authors discuss the crucial importance of energy and transportation security for continued political stability and economic growth in China. This discussion highlights why potential energy resources in the Arctic and the Northern Sea Route offer opportunities to diversify access to resources and transportation routes.

In the context of China's Arctic Policy and the country's lack of territorial sovereignty in the region, Soon Lim (2018) considers China's key interests in the Arctic and how its Arctic policy complements its Polar Silk Road vision as an extension of its Belt and Road Initiative. As Beijing seeks to diversify its access to transportation routes and economic corridors, Erokhin, Tianming, and Xiuhua (2018) take a closer look at the aspirations laid out in China's Arctic policy in terms of incorporating Arctic shipping lanes into the BRI network. The authors specifically analyse China's potential collaboration with Nordic countries in the implementation of the announced Arctic Blue Economic Corridor (ABEC). By framing China's Arctic transportation aspirations in the context of its global ambitions, they assess the challenges of and various perspectives on transforming the ABEC into an economic and transportation corridor between China and Europe.

China in Greenland

Greenland is of critical importance to North American defence and security arrangements. China's increasing engagement in the Arctic island country is raising red flags as the United States becomes progressively more attentive to Chinese influence in American spheres of defence and security.

Pertinent to these concerns, Sørensen (2018) argues that China's growing interest and activities in Greenland are tied to Beijing's long-term aim to ensure great power influence in the Arctic. She contextualizes and examines the increasingly confident, proactive, and sophisticated Chinese diplomacy in the region, observing the triangular relationship between Beijing, Nuuk, and Copenhagen.

Andersson, Zeuthen, and Kalvig (2018) contribute to the debate by arguing that Chinese investment decisions in Greenland's mineral sector are driven by different strategic considerations. While these investments in resource extraction projects overseas is consistent with broader economic considerations, *where* China decides to invest is driven by Beijing's foreign policy priorities. Analyzing Chinese policy documents and academic articles, these authors argue that Chinese investment in Greenland's Citronen Fjord zinc extraction project is tied less to China's national resource strategy and more to its interest in securing greater access to the Arctic region.

Greenland has been working towards political and economic independence for decades. Gad, Graugaard, Holgersen, Jacobsen, Lave, and Schriver (2018) discuss how increased attention to the Arctic has reinvigorated efforts to diversify Greenland's economy through potential relations with China. Analyzing media reports, foreign policy statements, and parliamentary debates between 1999 and 2018, the authors investigate various narratives in Greenlandic foreign policy that have been used to frame China's potential role in supporting Greenlandic independence.

Former US President Donald Trump's offer to purchase Greenland from the Kingdom of Denmark highlighted the potential importance of Greenland in rising great power rivalry in the Arctic. Rasmussen (2019) examines how Greenland's self-government and the country's political parties envisage the future of Greenland's security framework in the context of Russia's growing military capabilities and increasing US and Chinese interest. While security is constitutionally beyond the limits of the authority of the self-government in Nuuk, Greenlandic defence and security are crucial aspects in the country's pursuit of independence. Accordingly, Rasmussen explores the logic of Greenland's recent foreign policy aspirations and debates on defence in this strategic context.

Russia and China

The political dynamics between Russia and China take on increasing salience in a world of resurgent great power competition, and the Arctic factors increasingly into this equation. Sørensen (2019) examines growing tensions in the Arctic by observing how the US, Russia, and China assign greater strategic priority to the Arctic through diplomatic means and, in the case of the US and Russia, through military presence. Sørensen argues that so-called “Arctic exceptionalism” is under pressure. Analyzing how Arctic politics and security are becoming increasingly intertwined with global security developments, Sørensen discusses how Chinese Arctic scholars assign importance to strengthening China’s economic and strategic cooperation with Russia in the Arctic.

Beixi (2018) provides a specific example of this economic and strategic cooperation by analyzing China’s investment in Russia’s Yamal Arctic LNG project. He argues that this case highlights Beijing’s interest in Arctic shipping routes and in diversifying its energy supply. Beixi explains that China’s engagement in resource development in Russia is two-fold: to facilitate the distribution of Arctic resources to the Chinese market reliably and economically, and to also foster China’s all-round engagement in regional economic development by bringing permafrost engineering expertise to the global energy market.

Building on their earlier article on China’s interest in developing Arctic shipping routes, Tianming and Erokhin (2019) discuss the realities of implementing China’s Polar Silk Road initiative, specifically regarding the Northern Sea Route along Russia’s coastline. They consider how China may collaborate with Russia to ensure the safe navigation of large-tonnage tankers and icebreakers in a sea route that is currently lacking navigational infrastructure. Their analysis identifies parts of the Northern Sea Route that are suitable for the developing deep-water routes, the current condition of Russia’s shipbuilding industry, and obstacles and opportunities for establishing a secure and stable transportation route along Russia’s Arctic coast.

The year before the release of China’s Arctic strategy, Ufimtseva and Prior (2017) provided an overview of Russian and Chinese collaboration in developing hydrocarbon resources in the Russian Arctic. They discuss the critical role that Chinese investments play in oil and gas projects such as

Yamal LNG, unpacking multi-scale Sino-Russian collaboration and discussing the global, national, and local implications of this partnership.

We hope that the important contributions by leading experts, reproduced in this volume, serve to inform ongoing discussions about China's Arctic interests. As Dean and Lackenbauer (2020) note, many polar narratives about potentially aggressive policies cast suspicion on China and paint gloomy portraits of China's strategic intentions. Constructive and peaceful scenarios also exist of futures featuring mutual gains for the so-called "near-Arctic state" and its Arctic counterparts. Whatever the reader ultimately concludes, the viewpoints in this volume provide insights into China's complex, evolving relationships with Greenland, Russia, and other Arctic states on topics inviting sophisticated analysis and debate.

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世界地势图



Source: Map edited by Researcher Hao Xiaoguang, published September 2013, with the authorization of China's National Administration of Surveying, Mapping and Geoinformation, http://english.whigg.cas.cn/ns/es/201312/t20131211_114311.html

From *Arctic Yearbook 2012*

1

China and the Arctic

Olga Alexeeva and Frédéric Lasserre

Much attention has been paid to China's Arctic ambitions as of late, with many commentators warning of a forthcoming aggressive pursuit of control over Arctic resources and shipping lanes. This article reviews China's longstanding scientific, and growing economic and political, interests in the region and concludes that China has far more to gain by cooperating with Arctic neighbors and buying energy from Arctic EEZ-based projects, than by pursuing an aggressive and confrontational exploration strategy, which could be counterproductive for China's own position regarding disputes in the South China Sea. China has been pursuing cooperative and collaborative relations in the region, and is likely to do so in the future, not least because it is in its strategic and economic interest to do so.

The commercial and strategic implications of climate change and the melting of the sea ice in the Arctic have drawn the attention not only of Arctic states, but also of some other countries that have no territorial access to the region, such as China and Japan.¹ Growing Chinese interest in the Arctic seems to be a rather recent phenomenon that was highlighted by Linda Jakobson in her report for the Stockholm International Peace Research Institute (SIPRI) in 2010 (Jakobson, 2010). Since then, there have been a lot of mass media publications and speculations on that topic, but not that much academic research, resulting in the construction of an image of a potentially threatening China. China is often described as being very interested in both Arctic mineral resources and the opening of Arctic shipping routes, but in this characterization there is a hint of a perceived threat, as commentators are often stressing that China's appetite may lead Beijing into considering the Northwest Passage (NWP) as an international strait, and resources as up for

grabs (Spears, 2009; Lalonde, 2008; Borgerson, 2008: 64).² Thus, the intensified interest of the world community towards the Arctic and towards China's growing presence in this region has raised a lot of questions. What does China's interest in the Arctic denote regarding its long-term goals? What is the scale of China's polar research and collaboration? What is the official position of the Chinese government towards the Arctic? Has Beijing elaborated any strategy related to the main Arctic issues – the exploitation of natural resources and the development of new navigation passages? In fact, China is indeed trying to define an Arctic policy, but does not wish to, nor does it, represent a threat to claims floated by the coastal states.

China's "New" Interest for the Arctic?

The Chinese Arctic and Antarctic Administration (CAA) was founded in 1981 as the Office of the National Antarctic Expedition Committee. The official Chinese research program in the Arctic formally began in 1989 when the Polar Research Institute of China was founded and the CAA adopted its present name. The first Chinese academic works on the Arctic appeared as early as 1988 (Wang X., 1988) and since then the quantity of Chinese publications and research has grown at a very impressive rate. The same year, the Chinese Academy of Sciences began to issue a new quarterly journal, the *Chinese Journal of Polar Research*, in order to broadcast the findings of the Chinese researchers related to the Arctic and Antarctic regions.

Most articles that were published in a dozen different Chinese journals between 1988 and 2008 focused on the Arctic glaciology, climatology, oceanographic science, upper atmospheric physics, as well as on the Arctic biological and environmental studies. A quick survey on China's largest database search engine, Wanfang Data (万方数据),³ retrieved 680 articles that included the word "Arctic" (北极) in their titles and that were published before 2008. Most of these articles (49% of the total number) are related to all kinds of climatologic issues (ex: Gong and Wang, 2003; Wu et al., 2008); others are treating questions of biodiversity (23%), environment (10%), technology (10%), and the linguistics and history of Arctic Indigenous peoples (8%). No major Chinese scientific article ever considered political issues in the Arctic before 2007. However, in the last five years, several publications related to Arctic politics, legal issues and strategic interests have appeared.

In 1992, China started its first scientific five-year research program in the Arctic Ocean, which was realized in cooperation with German universities in Kiel and Bremen. Within ten years, from a country that had no Arctic research whatsoever, China became a country that had established, in 2004, its own research station, Yellow River, in the Arctic (at Ny-Ålesund, on the island of Spitsbergen, Norway) and that conducted four independent Arctic missions (1999, 2003, 2008 and 2010). For these purposes, in 1993, Beijing purchased a Russian-made icebreaker from Ukraine, baptized *Xuelong* [雪龙] – the *Snow Dragon*. The 167-meter-long vessel has an icebreaking capacity of 1.2 meters and is equipped with advanced systems of self-contained navigation and weather observation. There is a data processing center and seven laboratories as well as three operating boats and a helicopter. In 2010, the *Xuelong* helped a Chinese research team build a floating ice station in order to conduct a 15-day research mission in the Arctic Ocean (Zhang, 2010), in the frame of its long-term research interest in the sea ice evolution, in particular in the Beaufort and Chukchi Seas, north of the Bering Strait. But China also boasts three permanent research stations in Antarctica, and from 1985 to 2012, the Chinese Arctic and Antarctic Administration organized 5 Arctic and 28 Antarctic science missions: in China, it is the Antarctic, not the Arctic, that gets the lion's share of polar research budgets. Indeed, the Antarctic is more accessible to China than the Arctic, because, under the terms of the Antarctic Treaty (1959), China does not need any country's permission or specific authorisation to build stations, launch expeditions and do polar research there.⁴ So, in a way, the Antarctic was and still is a test platform for Chinese research activities in the Arctic because of similar environmental conditions.⁵ However, it would be a misjudgement to think that China, as of 1981, thought of the Antarctic with a view to developing Arctic research: nothing in the literature attests to this idea.

In 2011, the Chinese government decided to invest \$300 million US to build a new research icebreaker in order to better support its future projects in the polar areas. The new icebreaker will have a number of facilities that will allow Chinese research teams to study the oceanic environment, integrate data for real-time oceanic monitoring, deploy and retrieve detectors and conduct aerial studies using helicopters (People's Daily Online, 2011). According to Chen Lianzeng, Deputy Director of the State Oceanic Administration that supervises and coordinates China's Arctic and Antarctic

research, the two icebreakers will conduct expeditions in polar regions for more than 200 days annually (*ibid.*).

Although China's interest in the Arctic is often pictured by the mass media as a rather recent phenomenon, China has been doing research in the Arctic for years now and had established all the organizational structure to do so more than fifteen years ago. China certainly is a latecomer to the Arctic compared to the circumpolar states, but Beijing's interest in that region is not recent; it was just never noticed or considered "strategic" before 2010.

China's Official Position Coexists with More Assertive Scholars' Assertions

Until now China has not yet published any official Arctic strategy. On the contrary, the Chinese government has always stipulated that it has no official strategy or any particular agenda in the Arctic region (Spears, 2011). Beijing has adopted a very cautious approach and is vigorously denying having any aggressive ambition and strategic intention toward Arctic shipping or natural resources opportunities. For instance, Qu Tanzhou, Director of the Chinese Arctic and Antarctic Administration, said that "China did not prospect for oil and gas resources in the Arctic area nor has the capability or capacity to mine oil and gas there" (Interfax China, 2012).

The Chinese government explains its growing interest and presence in the Arctic mainly by the necessity of doing research on the climatic changes occurring in the region (Zhang and Ren, 2012). The air stream of the Arctic seems to be a major cause of the occurrence of extreme weather in China. Therefore, the Arctic region in fact concerns China's economic and social development and security directly (Qin and Chen, 2001).

At the same time, Beijing has pointed out that according to the United Nations Convention on the Law of the Sea, all the high sea areas and their resources are the common heritage of mankind, so China has every right to participate in the exploration of the Arctic (Wang Q., 2010). Though not an Arctic country, China is located in the Northern Hemisphere and is directly affected by all the changes and evolutions in this area. Therefore, it is only natural that China should participate in international Arctic dialogues and cooperation (Xu, 2012).

As for the sovereignty issues in the Arctic, the debate on limits to place on coastal states' claims in the Arctic Ocean is reflected in academic articles (Jia, 2010), but it is not specifically Chinese, as German scholars notably reflected on it as well (Witschel, 2010). Chinese officials are avoiding any detailed discussion on this matter, insisting that the respect for sovereignty is a guiding principle of international relations and of China's foreign policy.⁶

However, several Chinese scholars and professionals seem to have a much less cautious point of view on the matter. They suggest that the Chinese government abandon its neutral position and formulate an assertive policy that could help China defend its interests in the Arctic (Jakobson, 2010: 6; Li, 2009; Zhang S., 2010). This rather radical opinion was published not only by leading Chinese academic journals but also on internet sites of government news networks, such as *Xinhua* and *Sina.com*. In order to be published in such journals, all articles have to pass through a multilevel editorial review, so it seems highly unlikely that these opinions could be made public in these media venues without prior authorization from all kinds of commissions and political institutions. The publication of such incautious opinions could be indicative of Beijing's willingness to become a more active player in the Arctic. The growing number of such articles in the print media and on the Chinese news websites might also be an attempt to prepare public opinion for this eventuality.⁷ To what extent, therefore, are these viewpoints reflective of the government's?

One may also reflect on contentious comments by Rear Admiral Yin Zhuo, former president of the Chinese Naval Strategy Institute, that the Arctic belongs to all the people around the world and that no nation has sovereignty over it. "The current scramble for the sovereignty of the Arctic among some nations has encroached on many other nations' interests," he observed, arguing that China should play an indispensable role in Arctic exploration as it shelters one-fifth of the world's population (Yin, 2010: 11).

Whether the military is pushing the government to be more assertive in the Arctic, or whether the government is using the military to fly its own kite, is not clear (Blunden, 2012: 126). Also radical are Li Zhenfu's declarations that China could stake a claim in the Arctic. Indeed, Li does not explicitly explain his rationale for this, but argues that in the face of "out-of-control" Arctic littoral state claims in the Arctic, China should consider "the possibility

of our country's open declaration of sovereignty over the Arctic and Arctic sea routes, as well as territorial claims" (Li Z., 2010). It seems distinctly unlikely, however, that Beijing would push Arctic claims subsequent to a definitive international resolution of Arctic sovereignty issues, and the trend seems towards resolution rather than growing conflicts (Wright, 2011), as attested to by the 2010 treaty between Russia and Norway, and the 2012 fast-developing negotiations between Canada and Denmark on Hans Island (Humphreys, 2012), which is the last land dispute in the Arctic and is over a 1 km² island in the Nares Strait.

It must be noted, though, that not all Chinese scholars that wrote on political aspects of the Arctic defended an assertive position from China. Liu Huirong and Liu Xiu (2010), for instance, hint that Canada's position is legitimate, while Mei Hong and Wang Zengzhen (2010) produce a rather balanced analysis of Canada's claims.

An Active Diplomacy

In parallel with the development of a large-scale research program in the Arctic, China is also developing its bilateral, mostly commercial and economic relations with small Arctic states, in particular with Iceland and Denmark. In April 2012, Prime Minister Wen Jiabao toured Sweden and Iceland in a bid for his country's permanent observer status (*BarentsObserver*, 2012), after Denmark pledged it would support China's position (Reuters, 2011). China is investing in joint energy, minerals exploitation and Arctic navigation projects with these countries and is stimulating the development of bilateral trade, taking advantage of Iceland's bankrupt finances.⁸ China is reportedly interested in the Icelandic government's project to develop a transarctic shipping route (Icelandic Government, 2007), as well as mining in Greenland (International Business Times, 2012). London Mining aims to produce 15 million tons per year of high-grade iron ore pellets by 2015 at its Isua project, with investments from Sinosteel and China Communications Construction Corporation. Greenland Minerals and Energy claims the Kvanefjeld deposit could produce 20% of the global rare earth supply and large amounts of uranium by 2016. Kvanefjeld's potential to influence global prices would make it a project of strategic interest to Chinese companies like Inner Mongolia Baotou Steel Rare Earth, already the world's largest rare earth metals producer (Erickson and Collins, 2012).⁹ China's growing economic presence in Iceland and Denmark has attracted rather extensive media

attention, for instance when Huang Nubo, a wealthy Chinese businessman, revealed his plan to buy a piece of land in Iceland for investment purposes in November 2011.¹⁰ At the same time, China's cooperation activities with major players in the Arctic – Canada, the USA and Russia – are still of rather limited scale, although cooperation with Russia in the energy sector is developing.¹¹

A parallel is sometimes traced between China's position in the Arctic and in the South China Sea. This comparison is misplaced for several reasons.

First, in the South China Sea, Beijing claims sovereignty over vast maritime expanses on the grounds that they are historic waters, although it never specified what the nature of these waters would be: internal or territorial waters? EEZ? The Chinese 1992 Law on the Territorial Sea did not make China's claim clearer. However, China's sovereignty is, according to Beijing, rooted in history in the South China Sea (Lasserre, 1996 and 2005), whereas China only pleads that the Arctic Ocean is the "inherited wealth of mankind" (Wright, 2011b), which can be argued if the sea zone China refers to is the sea beyond the EEZ and extended continental shelves (see UNCLOS art. 136 about the "Area", called the "common heritage of mankind"). China knows very well it cannot argue it has a long tradition of using the Arctic.

Second, in the Arctic, China does not claim any sovereign right over sea expanses. Unless it begins openly questioning UNCLOS, which it ratified in 1994, there is no way China can consider claiming an EEZ nor a continental shelf in the Arctic.

Third, in the South China Sea, Beijing deployed a growing and more and more capable Navy (Lasserre and Le Roy, 2004), whereas it never considered sending warships to the Arctic – if only because it does not have such a capacity.

Fourth, questioning the claims of Russia or Canada over Arctic straits would prove counterproductive for China. In the South China Sea, Beijing claims the Gulf of Tonkin and the Qiongzhou Strait, between Hainan Island and southern China, as part of Chinese internal waters. For China to argue the NWP is an international strait, would be tantamount to reckoning the Qiongzhou Strait also is (Lalonde and Lasserre, 2012).

Conclusion

China seems to be at the forefront of news reports about the Arctic, with most commentators pointing at some potentially hostile strategies being designed by Beijing. However, the realities of China's approach towards the Arctic, its seaways, and its energy resources do not seem well understood under this widely held perception that China could conceal an 'aggressive' Arctic because of reported strategic views regarding shipping and energy production. China certainly is becoming more proactive and confident in the global sphere, including the Arctic, and would certainly assert its new role as a great power, an attitude that translates into its bid for observer status at the Arctic Council.

China has far more to gain by cooperating with Arctic neighbors and buying energy from Arctic EEZ-based projects rather than by pursuing an aggressive and confrontational exploration strategy, which could be counterproductive for China's own position regarding disputes in the South China Sea. Similarly, should China argue that the NWP is an international strait, such a position would weaken China's own assertion that the Qiongzhou Strait, between Hainan and continental China, lies in China's internal waters.

Notes

1. In April, 2009, Japan applied for observer status with the Arctic Council, a high-level circumpolar intergovernmental forum that discusses and addresses Arctic-related issues, and expressed a very keen interest in environmental programs, transportation or passage through the Arctic area, and the development of resources in the Arctic Circle, cf. Weese, B. (2010, September 3). Japan latest non-Arctic country to claim stake in North Pole. Toronto Sun. Retrieved 26 April 2012 from www.torontosun.com/news/canada/2010/09/03/15241971.html.
2. Quoting Borgerson, p. 64: "even China operates one icebreaker, despite its lack of Arctic waters". This oddity, or so we are invited to think, is a hint that China might nurture malevolent intentions. However, many other countries with no Arctic or Antarctic waters deploy one or more icebreakers or ice-capable research ships: Australia, France, Germany, Japan, South Africa, South Korea, Spain, and Sweden. The web abounds with sites displaying the

common-sense-based idea that “China [probably meaning the Chinese government] must be interested in Arctic routes since they will be shorter ways to reach European markets.

3. Wanfang Data is China’s first database, created in the 1950s by the Institute of Scientific & Technological Information of China (ISTIC). It originally served the purpose of digitalizing information about companies and their products. It was later transformed into a vast electronic database of multidisciplinary information, and provides access to many collections of periodicals, theses, and other types of archives. See www.wanfangdata.com.cn (retrieved on 8.9.12).

4. For more information on China’s Antarctic activities and strategies, see Brady, A.-M. (2010), *China’s Rise in Antarctica?*, *Asian Survey*. 50(4), 759-785; Zou, K. (1993). *China’s Antarctic policy and the Antarctic Treaty system*, *Ocean Development & International Law*. 24(3), 237-255.

5. Some mass media publications are even suggesting that China could use its Antarctic bases “to improve satellite communications to military forces that increasingly depend on space-based infrastructure” and that the Antarctic has therefore an important military significance, cf. *Nature* (2012, January 18). *Antarctic Treaty is cold comfort*. Retrieved 9.22.12, from www.nature.com/nature/journal/v481/n7381/full/481237a.html.

6. China’s own extensive claims in the South China Sea are founded on this same concept.

7. For more information, see Alexeeva O., Lasserre F. (2012). *The Snow Dragon: China’s Strategies in the Arctic*. *China perspectives*, 3, 31-38.

8. As Russia did when it considered granting Iceland a €4 billion loan in October 2008, a loan later reduced to \$500 million and finally rejected by Moscow in October 2009 when it became apparent Iceland had struck a deal with Scandinavian countries and the IMF. In January 2012, China pledged to support Iceland’s financial stability and economic growth. *China’s Government Official Portal* (2012, January 17). Retrieved (4.18.12) from, http://english.gov.cn/2012-01/17/content_2046830.htm.

9. China already produces about 90% of rare earth metals.

10. Though this plan never came to be realized, certain journalists have presented it as a Chinese government attempt to “build a strategic stronghold”

in the Arctic, cf. Zhang, Y. Ren, Q. (2012). China defends Arctic research, op.cit.

11. For more information on the state of Sino-Russian energy cooperation, see Perfiliev, N. (2008). Perspektivo I problem rossisko-kitaiskogo neftegazovogo sotrudnichestva – Perspectives of sino-russian oil and gas cooperation. Indeks bezopasnosti – Index of security. 84(1); Jakobson, L., Holtom, P., Knox, D. & Peng, J. (2011). China's Energy and Security Relations With Russia. SIPRI Policy Paper. 29, 1-43.

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2

The Drivers of Chinese Arctic Interests: Political Stability and Energy and Transportation Security

Li Xing and Rasmus Gjedssø Bertelsen

China's interest in the Arctic is not usually discussed thoroughly in its context of the core interests of the Chinese Communist Party: political stability, territorial integrity and economic growth. This article discusses the role of the Arctic in light of the crucial importance of energy and transportation security for continued political stability and economic growth in China. China has a global view of pursuing this security by sourcing energy globally and developing its navy to ensure strategic capabilities to protect sea lanes against state and non-state challenges. Political stability in China is believed by the Communist Party to rest on continued economic growth. China is deeply dependent on energy imports and is expected to become more dependent in the future. For its energy, China is dependent on the Persian Gulf plagued by instability and militarily dominated by the USA. Equally the Chinese economy is dependent on exports, which makes China dependent on secure and preferably short sea lanes to major markets. The strategic competitor, the USA, controls the sea lanes and choke points such as the Strait of Malacca; in the Gulf of Aden, piracy is a threat; while the Suez and Panama Canals are bottlenecks. Arctic energy and the Northern Sea Route offer some opportunities for diversification of sources and supply lines.

China has a population of 1.3 billion people and an economy that has been growing at an average of 10% per year for three decades since the 1980s. In order to maintain the current economic growth rate, China has to make access to adequate energy supplies a national priority, and to a great extent a

national *security* priority. China's energy consumption has grown by leaps and bounds, and by 2006, it could be stated that China was "the world's second largest consumer and third largest producer of primary energy. From 2000 to 2005, China's energy consumption rose by 60 percent, accounting for almost half of the growth in world energy consumption" (Downs, 2006: 1). There is no sign that China's energy consumption will slow down; on the contrary, it is expected to steadily increase. Modeling and scenario building for China, looking all the way to 2100, forecast more than a doubling of China's energy consumption, despite great gains in energy efficiency (Shan et al., 2012; Liu, Chen & Liu, 2011; Rout et al., 2011). What is of particular importance for discussing China and the Arctic is the much-expanded role of oil in the energy mix of China in the future, where China will steadily become more and more dependent on imported oil with consequences for China's energy security. To reach its aim of a "harmonious society" and "the Chinese dream" of President Xi Jinping of doubling the 2010 GDP per capita by 2020 (the 100th anniversary of the Communist Party) and being a fully developed country by 2049 (the centennial of the People's Republic of China) (Kuhn, 2013), China will have to utilize every fuel source available including investments in renewable energy and the expansion of nuclear power. It is expected that China's import of oil and natural gas will increase at a steady rate. In connection with its rising energy import, especially of oil, the issue of energy security becomes very important for China (Xu, 2006; Erickson & Collins, 2007; Leung, 2011; Zhang, 2011, 2012; Cao & Bluth, 2013; Rainwater, 2013).

The objective of this article is to discuss China's nascent Arctic interests and strategy within the context of the core interests¹ of the Chinese leadership and thus provide a framework for understanding its Arctic interests and strategy. In recent years China's possible interests and strategy in the Arctic have received much initial media and policy interest, with Jakobson (2010) as the landmark study and with subsequent academic interest in the West and in China as referenced in this article. We seek to place Chinese Arctic interest and possible strategy in the broader context of the Chinese leadership's core interests.

It is therefore the argument of this article that China's Arctic interests and possible strategy must be seen within the context of China's phenomenal economic and political rise, how the Chinese leadership manages this rise as a "Peaceful Rise", and how the existing dominant Western and other powers

in the international system respond to this rise. China sees itself as a rising power with a legitimate role in the governance of regions around the world, including the Arctic, which leads China to pursue, for instance, a science agenda worthy of a great power (Jakobson, 2010; Lasserre, 2010; Blunden, 2012; Jakobson & Peng, 2012; Jakobson & Lee, 2013). Science is the first step and bridgehead for China into the Arctic to pursue interests defined by the core interests of the Chinese leadership: political stability, territorial integrity and economic growth. Therefore, China's scientific involvement in the Arctic and other Arctic activities should be seen in the context of these core interests (Jakobson & Peng, 2012; Jakobson & Lee, 2013).

China defines itself as a "socialist market economy" (People's Daily, 2007) and is governed by a Communist Party, whose legitimacy is based on economic and nationalist performance. This leadership sees its survival as based on delivering economic growth, which is where the Arctic comes in in a number of ways. Much of Chinese science focuses on climate change, and Arctic climate change is of importance for the Chinese climate and therefore agriculture and food security, which translate into social stability and legitimacy for the Communist Party. Secondly, as pointed out, the phenomenal Chinese growth has made China into a major importer of sea-borne energy and raw materials. The sea lanes of the world are dominated completely by the United States Navy and occasionally troubled by piracy, which both raise important energy and transportation security issues for China – perhaps in strategic competition with the USA, and certainly not allied with them. Diversifying and eventually protecting sources and supply routes of energy and raw materials therefore becomes a strategic objective for China, which brings the Arctic into the picture (Laliberté & Lanteigne, 2008; Pan & Zhou, 2010; Blunden, 2012; Hong, 2012a, 2012b; Jakobson, 2010; Jakobson & Peng, 2012; Jakobson & Lee, 2013; Rainwater, 2013; Xia, 2011).

China's Energy and Raw Material Consumption

The phenomenal growth of China has been fuelled by manufacturing for export and investment in infrastructure, which have made China into a major customer of both energy and raw materials. It is this enormous demand for energy and raw materials that is at the basis of economic growth (legitimizing the political order), which is the context for China's Arctic interests and

possible strategy. This section will introduce the context of energy and maritime security for China.

The world has already been burdened by the high energy consumption of the West, particularly by the United States. Today China's growing appetite for international trade drives its mounting demand for resources to sustain its economic growth and to fuel its countless development projects. China has already become the world's largest importer of a range of commodities, from copper to steel and crude oil. The phenomenal rise of commodities' prices worldwide in recent years is claimed to be attributed to China's growing importation. If taking China's neighbor – India – into consideration, a country with a population of 1 billion, it will add twice as much pressure on the demand for the same resources.

In 2004 China contributed 4.4% of total world GDP, whereas China also consumed 30% of the world's iron ore, 31% of its coal, 27% of its steel and 25% of its aluminum. Between 2000 and 2003, China's share of the increase in global demand for aluminum, steel, nickel, and copper was, respectively, 76%, 95%, 99% and 100%. On a global scale, an increase in the rise of personal car ownership alone could mean an extra billion cars on the road worldwide within the next 10 years. The majority of these will be in China and India. As a Chinese researcher describes the mounting worldwide impact of China's resource consumption:

The economic prosperity of China partnered by its rising energy demands will affect global energy sectors, commodity stock exchange market, energy trading strategies and environmental policies. Availability of fossil fuels, both in the near and long term, will become also increasingly scarce as China absorbs a growing global share of demand.... Although higher prices will stimulate innovation and research on renewable and alternate energy sources, the expansion of global energy supply is still not adequate to compensate China's energy demand growth. The rest of the world will still have to manage and reduce energy demand through conservation. (Zhang Jian as quoted in *Huliq News*, 2008)

China's escalating energy consumption is placing increasing stress on the world's energy prices. Chinese energy demand has more than doubled during the past decade. According to the study of Konan and Jian (2008), China will

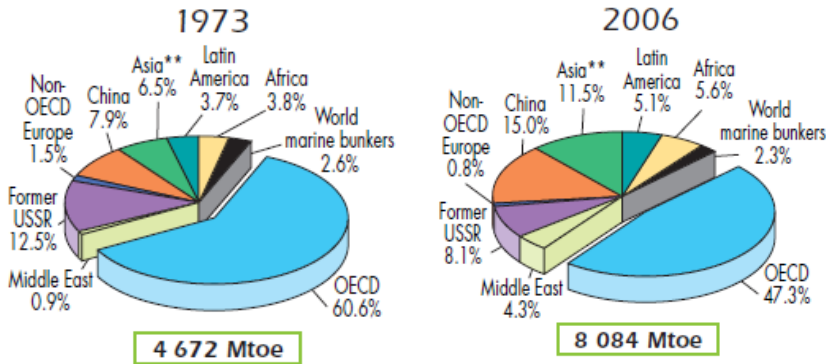
consume about 41% of the global coal and 17% of the global energy supply by 2050. Liu, Chen & Liu (2011) expect that China's primary energy consumption will be 2.5 times its 2007 figure in 2050 with a greatly expanded role for oil but also natural gas, where China is already an importer. Rout et al. (2011) estimate that China will need 4 Gtoe (gigatons of oil equivalent) of primary energy in 2100 of which 1.3 Gtoe will be imported.

Metal prices have increased sharply due to strong demand, particularly from China, which has contributed 50 percent to the increase in world consumption of the main metals (aluminum, copper, and steel) in recent years. Due to its rapid growth and rising share in the world economy, China is expected to retain its critical role in driving commodity market prices (*World Economic Outlook*, September 2006). China is willing to offer above world market prices for purchasing raw materials, which offers comparative advantages to the developing world.

China became a net importer of petroleum in 1993 and since 2003 it has been the second largest oil importer and consumer after the U.S. It is also the world's largest carbon emitter. China's energy profile used to be heavily weighted towards fossil fuel technologies (especially coal in light of China's abundant resources, but increasingly oil) at a time when reductions are urgently needed to stabilize global climate change. According to the Brookings Institution, "[f]rom 2000 to 2005, China's energy consumption rose by 60 percent, accounting for almost half of the growth in world energy consumption" (Downs, 2006: 1). Based on the 2008 statistics from the International Energy Agency, the growth rate of China's energy consumption and its share of the global total final consumption are comparably much higher than the rest of the world.

What are particularly noteworthy are the opportunities and challenges to the international energy regime brought about by the rise of China as an emerging key actor in global energy politics. According to Xu, the international energy regime is:

the institutional arrangement governing the relationship among the international energy powers, including a set of rules and mechanisms of several international organs for energy activities. The current international energy regime displays a balance between the forces and interests of key actors of international

Figure 2-1. Shares of total final consumption 1973 and 2006

Source: International Energy Agency (2008), *Key World Energy Statistics*, 30.

energy activities, and this is the outcome of the long-term competition between energy exporters and importers and different kinds of international energy organizations.... (Xu, 2007: 5)

Forecasts and modeling of China's future energy demand foresee greatly expanded energy consumption in general and a shift from domestic coal resources to imported oil and natural gas, although the energy intensity of the Chinese economy will improve markedly (Shan et al., 2012; Liu, Chen & Liu, 2011; Rout et al., 2011). This growing Chinese dependency on imported oil and gas will have significant effects on Chinese energy security and strategy, including energy investments and naval strategy (Xu, 2006; Erickson & Collins, 2007; Leung, 2011; Zhang, 2011, 2012; Cao & Bluth, 2013; Rainwater, 2013). The international energy regime will be affected, since it "is influenced not only by economic, political, and social factors of resource-rich countries but also by international political factors, particularly change in the international balance of power, adjustment of relationships among countries and changes to international rules" (Xu, 2007: 6).

China's Concern in Energy Security and Maritime Transportation Routes

To understand China's growing interest in outside regions, particularly those that are potentially rich in energy sources like the Arctic region, it is

imperative to understand the importance China attaches to energy security. How will the increasing demand for energy, raw materials, and other natural resources shape Chinese policies towards its international relations especially with resource-rich countries? Can China afford depending on global energy markets, either via exclusive bilateral deals, or direct investment in resource exploration in order to sustain its economic growth? What strategies will China use to secure its share of the global resource market? To find the answers to these questions it is necessary to take an energy security approach to explore the geopolitical, economic, energy, and environmental implications of China's growing energy challenges and to understand the Chinese concern with energy security in attempting to search for new energy sources and supply routes.

Energy Security Concerns

China faces particular challenges concerning energy security. China is one of the most important global buyers of energy and raw materials, and China will be increasingly dependent on foreign energy and raw materials for its continued economic growth. China is not alone in being a major global buyer of energy. For instance, Japan or South Korea comes to mind, if only thinking about major Asian economies. All these three major Northeast Asian economies see by far the majority of their energy imports pass through the Strait of Malacca, which is a choke point (which we return to below). However, a crucial difference between China, Japan and South Korea is that the global sea lanes are dominated by the US Navy, and while Japan and South Korea are close allies of the USA, China is not. China lives under a condition of being completely dependent on the sea transport of its energy and raw material supplies. It exports its manufactured products on sea lanes dominated by what can probably be called its strategic competitor, the USA (Leung, 2011; Zhang, 2011; Blunden, 2012; Cao & Bluth, 2013; Rainwater, 2013).

Energy security has become an essential premise for China to achieve its national goal of a "harmonious society" and the "Chinese dream", which is based on continuous growth. There has for some time been a genuine consensus among Chinese leaders and scholars that energy has become a key strategic issue for China's economic development, social stability, and national security and that the realization of China's core interests² is highly

dependent on its access to sufficient energy resources (Liu, 2006; Zhang, 2006). China's socialist market economy has locked itself in a "tiger-riding dilemma", i.e. any slow-down in economic growth would put the country in a risky situation, which might lead to social unrest and popular resentment. China's government fears that a domestic energy shortage and rising energy cost could undermine the country's economic growth and thus seriously jeopardize job creation. Beijing increasingly stakes its political legitimacy on economic performance and rising standards of living for its people. Consequently, the threat of economic stagnation due to an energy shortage represents a real risk of social instability, which could in turn threaten the continued political authority of the state and the Communist Party. One Chinese scholar of strategic studies clearly explains the reason why energy security has become a core component of China's core interests:

With external trade accounting for almost 50 percent of China's economy, China is now highly interdependent with a globalized market. This shift also includes hard social, political and geopolitical choices that deeply impact matters of national security. The more developed China becomes the greater its dependence grows not only on foreign trade but also on the resources to fuel the economy. With these complex and expanding interests, risks to China's well-being has not lessened but has actually increased, making China's national security at once both stronger and more vulnerable. (Zhang, 2006)

China's sensitivity to the confluence of geopolitics and resource politics is also derived from the fact that historically China has been a continental power, but a weak sea power (Stratfor, 2012). Historically, one of China's key weaknesses is the lack of a strong navy to safeguard its interests and this is perhaps one of the major factors leading to China's massive investment in raising and modernizing its naval capabilities (Li, 2009; Ross, 2009). One element in China's movement towards a blue-water navy capability to operate on the "far seas" is the recent acquisition of an aircraft carrier for training and development purposes. It takes a long time to develop the required battle groups around carriers, but the perspective is also long-term, as are the energy forecasts (Cole, 2006; Nødskov, 2008).

China has territorial disputes in the East China Sea with Japan and in the South China Sea with neighboring countries, and is concerned about the

security of the major maritime transportation routes through which China transports the majority of its foreign trade, as well as its oil imports, upon which it is highly dependent (Xu, 2006; Erickson & Collins, 2007; Leung, 2011; Zhang, 2011, 2012; Cao & Bluth, 2013; Rainwater, 2013). Based on the historical lessons, China has a clear understanding on the linkage between its energy security and international geopolitics, which is spelt out clearly by one scholar:

The history of capitalism and its spread globally have shown that it is often accompanied by cruel competition between nation states. Those countries that lose out are not necessarily economically or technologically underdeveloped or those with a low level of culture. Rather, they are most often those nations who forgo the need to apply their national strength to national defense and therefore do not possess sufficient strategic capability. (Zhang, 2006: 17)

Maritime Transportation Security

As iterated above, China's economic growth depends not only on active participation in international markets and trade, but on access to global energy and raw materials (Xu, 2006; Erickson & Collins, 2007; Leung, 2011; Hong, 2012b; Zhang, 2011, 2012; Blunden, 2012; Cao & Bluth, 2013; Rainwater, 2013). Despite post-Mao leader Deng Xiaoping's advice to "Tao Guang Yang Hui" (hide one's capacities and bide one's time), it is becoming difficult for China to avoid involving itself in the world's most conflict-ridden regions where the United States has historically been the key player and where the world's oil and gas resources and maritime routes are located:

Consequently, China will become heavily dependent upon the Persian Gulf to supply a large share of its future oil needs, and an increasing share of China's oil imports will have to transit vulnerable maritime choke points. The IEA predicts that, as of 2015, 70% of China's oil imports will come from the Middle East, with other significant shares coming by tanker from Africa, by pipeline and rail from Russia, and by pipeline from Central Asia. More than 50% of China's oil will have to transit the Malacca Straits. (Lieberthal and Herberg, 2006: 12)

Today, on the global scale, more than 90% of intercontinental trade is transported by sea, mainly by ocean shipping and its related services, such as freight forwarding and cargo handling. Most of the global merchandise is carried in sea containers. China has an ambitious plan, aiming to become the world's largest shipbuilding nation by 2015, with a capacity of 24 mil. DWT (deadweight tonnage) or 35% of the global capacity (Mackey, 2006). China's coastal line areas are the heart of its economic growth and the frontier of its international trade. Maritime transport has been the lifeline of China's economic development. The nation already boasts the world's fourth largest merchant fleet, contributing 6.8% to global tonnage (UNCTAD, 2005).

Maritime transport, with its close connection with international trade, has become a matter of China's national interest as evidenced by the priority given by the Chinese government to develop its ports, under its 11th Five-Year Development Plan, to support the country's spectacular trade and economic growth. One of the concrete outcomes is the impressive growth of China's port sector, such as the spectacular rise of the Shanghai port. In 2010, Shanghai's port overtook Singapore's as the busiest container port in the world, handling 29.05 mil. TEUs (twenty-foot equivalent units) (*Straits Times*, 2011).

However, Chinese maritime transportation security is not only challenged by strategic rivalry with the USA and the global hegemony of the US Navy; it is also challenged by non-state actors. Piracy in the Gulf of Aden, the South China Sea and the Strait of Malacca are all threats to international shipping through sea lanes connecting China to energy suppliers in the Middle East and consumer markets in Europe. According to the statistics of the Kenya-based Seafarers' Assistance Program, about 40 ships and more than 600 crews were hijacked by Somali pirates off the Somali coast in the first 11 months of 2008. In a recent event, an international anti-piracy force thwarted the attempted takeover of a Chinese cargo ship off the Somali coast by sending in attack helicopters that fired on the pirates and forced them to abandon the ship they had boarded.

In December 2008, the UN Security Council unanimously adopted a resolution for the first time authorizing international land operations against pirates sheltering in Somalia. According to China's official media, the Chinese government decided to send three warships to the waters off Somalia in late December 2008 to protect Chinese vessels and crews from pirate

attacks. The Chinese fleet would join warships from the U.S., Denmark, Italy, Russia, and other countries in patrolling the Gulf of Aden, which leads to the Suez Canal. Currently this is the quickest route from Asia to Europe.

Chinese Energy and Maritime Transportation Security and the Arctic

To recap, China is facing energy and maritime transportation security challenges from state and non-state actors and will be increasingly dependent on oil and natural gas imports to continue its path of growth, which is the basis for the core interests of the Chinese leadership and perceived to be the basis of its political survival. These security challenges and their effect on core interests are the context of China's interests and possible strategy in the Arctic.

The Arctic Region as a Potential Energy Supplier

Recent geological surveys show that as much as a fifth of the world's unexplored but exploitable gas and oil reserves may be in the Arctic (U.S. Geological Survey, 2008). This opens up possibilities to diversify the global energy supply, where the political stability of the Arctic is a noteworthy quality. Climate change is an important driver in these processes, together with technological innovation, since climate change both makes new resources accessible and opens up new transport possibilities, especially between the Norwegian and Russian Arctic and Asian markets.

The Arctic coastal states, or the Arctic five (Russia, Norway, the Kingdom of Denmark, Canada, and the USA), refer to the United Nations Convention on the Law of the Sea (UNCLOS) and its provisions on exclusive economic zones and extended continental shelves to extend sovereignty as far as possible over the Arctic Ocean and its seabed (Hong, 2012a). Equally, Russia and Canada claim the Northern Sea Route and the Northwest Passage as internal waters. The Asian emerging powers are starting to challenge these Arctic legal positions, also referring to UNCLOS, but with the aim of maximizing the international space. Here, voices in these Asian states are seeking to build a discourse around the Arctic as the "common heritage of humanity". It is quite clear that there is a zero-sum game of sovereignty versus international jurisdiction between Arctic coastal states and Asian powers. The Arctic coastal

states are seeking to use preconditions for Arctic Council permanent observership as a tool to guarantee their legal recognition, while the Asian powers are trying to build a discourse strengthening their access to resources, sea lanes and access to decision-making (Jakobson, 2010; Jakobson & Peng, 2012; Jakobson & Lee, 2013; Lasserre, 2010; Wright, 2011a, 2011b, 2012; Alexeeva & Lasserre, 2012a, 2012b; Blunden, 2012; Han & Wang, 2012; Sun & Guo, 2012; Rainwater, 2013; Stokke, 2013).

The geopolitical and geo-economic importance of the Arctic region is emerging rapidly, and the level of the region's strategic importance is mainly due to the existence of rich untapped stocks of natural resources such as fish, minerals and oil and natural gas. These resources are of interest not only to the Arctic states themselves, but also to emerging Asian states, in particular China, which require energy, raw materials and food sources to power economic growth and feed wealthier populations (Jakobson, 2010; Jakobson & Peng, 2012; Jakobson & Lee, 2013; Pan & Zheng, 2013; Rainwater, 2013). As mentioned above, the USGS estimates that the coastal and continental shelves of the Arctic Ocean will hold large deposits of oil, natural gas, and methane hydrate (natural gas) clusters along with large quantities of valuable minerals. By applying a geology-based probabilistic methodology, the USGS specifically estimated

the occurrence of undiscovered oil and gas in 33 geologic provinces thought to be prospective for petroleum. The sum of the mean estimates for each province indicates that 90 billion barrels of oil, 1,669 trillion cubic feet of natural gas, and 44 billion barrels of natural gas liquids may remain to be found in the Arctic, of which approximately 84 percent is expected to occur in offshore areas. (*U.S. Geological Survey Fact Sheet 2008-3049*, 2008)

Global warming and ice melting have given birth to a new 'scramble' for seabeds and resources among the five coastal Arctic states, but also among outside powers as the emerging Asian ones are trying to influence the discourse on Arctic Ocean sovereignty (Jakobson, 2010; Jakobson & Peng, 2012; Jakobson & Lee, 2013; Hong, 2012a, 2012b; Wright, 2011a, 2011b, 2012). In August 2007 Russian scientists sent a submarine to the Arctic Ocean seabed at 90° north to gather data in support of Russia's claim that the North Pole is part of the Russian continental shelf. During the expedition, a

Russian flag was planted on the seabed 4,200m (14,000ft) below the North Pole, which provoked an angry reaction from other Arctic states and prompted global speculation that Russia's aggressive action might trigger a "new Cold War" over the resources in the region. It could be imagined that "had the flag event taken place during the days of the Cold War, it would have been an act of mostly political and military interest" (Iglebaek, 2007: 3). But it was this flag planting in particular that sparked Chinese strategic interest in the Arctic Ocean (Jakobson & Lee, 2013).

The Arctic Region as Alternative Maritime Transportation Routes

China is facing the dilemma that energy from Africa and the Persian Gulf is passing through waters dominated by strategic competitors (the USA and India), threatened by piracy, or chokepointed at the Strait of Malacca. Equally, exports to the European market pass through the same waterways. The diversification of sea lines of communication for energy and trade is therefore of interest to China. Energy supplies from the Norwegian and Russian Arctic via the Northern Sea Route offer a diversification of both energy source and supply route, although they will still pass the Bering Strait and Northern Pacific where continued US naval domination must be expected. Environmental transformations following climate changes are affecting the Arctic region and are opening up new economic opportunities, which could generate economic revenue across the region. For example, global warming, not denying its disastrous effects on other parts of the world, may create many new possibilities in the North and may turn the Arctic Ocean into a new economic frontier. New shipping transportation routes may open in a few years. Writing to the *Financial Times* on January 16, 2008, Professor Robert Wade said that "[o]pening the northern route is attractive for reasons of both distance and security. Shanghai to Rotterdam via the north-east sea route across the top of Russia is almost 1000 miles shorter than via Suez" (Wade, 2008). Wade also noted that China has lately displayed special interest in keeping good relations with Iceland, a tiny island country in the North Atlantic. The strategic location of Iceland is believed to play a key role in future maritime transportation in the region. China is prepared to start shipping containers in the Arctic, and the deep-sea ports of Iceland are seen as potential port bases (Wade, 2008).

Wade's writing is illustrative of the attention attracted to the possibilities of new Arctic shipping routes, especially in the wake of Scott Borgerson's widely-read 2008 *Foreign Affairs* article. And much Asian interest in the Arctic is about possible new shipping routes for destination shipping for energy and raw materials, but also transit shipping for exports (Blunden, 2012; Hong, 2012b). However, important challenges to this kind of shipping must be kept in mind. There is uncertainty over Russian policy, there is a great lack of infrastructure, the navigational season will remain short, the transit times are unpredictable, and – what is usually overlooked – the shallow depth of the Bering Strait and some of the other straits of both the Northern Sea Route and the Northwest Passage exclude very large ships. However, the subtle pressure from Asian powers over the international status of new Arctic shipping routes indicates a long-term interest in developing capacity for those passages (Jakobson, 2010; Jakobson & Peng, 2012; Jakobson & Lee, 2013; Lasserre, 2010; Alexeeva & Lasserre, 2012a, 2012b; Hong, 2012a, 2012b; Stokke, 2013; Wright, 2011a, 2011b, 2012; Carmel, 2013).

China Moving Towards the Arctic

For the reasons articulated above, Arctic energy resources and new Arctic shipping routes are of potential strategic importance to China (Jakobson, 2010; Jakobson & Peng, 2012; Jakobson & Lee, 2013). These new routes, in the view of some China-watchers, could imply “a seismic shift in world trade patterns and the nature and form of commercial shipping” because of significant distance and fuel savings, and the polar routes could particularly bring China many imminent benefits:

China is 4000 nautical miles closer to the European Union and the East coast of North America sailing through the Arctic Ocean, and currently there are no vessel size restrictions and other regulations unlike in the Suez or Panama Canal. There are presently no fees for Arctic routes. (Spears, 2009: 10)

As a late-comer, China has not been a key actor in global and regional initiatives and institutions that facilitate cooperation among resource importers. Beijing's energy diplomacy did not receive much emphasis in the country's overall diplomacy. However, this picture is increasingly becoming outdated. China is deeply aware of the fact that its domestic energy security for sustaining economic growth is linked to international energy security.

Today, China's energy diplomacy has gradually changed the traditional concept and practice of energy security at the global level, and "the objective of greatly expanding the channels for supply of imported energy has become an important task for China's energy strategy" (Xu, 2007: 3).

China's interest in the Arctic is clear from its scientific investments and its diplomatic investments to become a permanent observer in the Arctic Council to gain as much access to information and (future) influence as a non-Arctic rising power can aspire to. However, it must also be kept in mind that China is a power with a very demanding domestic agenda for its leadership and global interests. The Arctic is a peripheral region in these concerns, which is clearly illustrated by the Chinese punishment of Norway for the Nobel committee awarding the Nobel Peace Prize to Liu Xiaobo despite China's close Arctic partnership with Norway previously. A Chinese Arctic strategy is therefore not to be expected for years to come (Dhanapala, 2008; Lasserre, 2010; Alexeeva & Lasserre, 2012a, 2012b; Jakobson, 2010; Jakobson & Peng, 2012; Jakobson & Lee, 2013; Stensdal, 2013; Stokke, 2013; Tang, 2013).

Conclusion

China has experienced phenomenal growth since the open-door policy of Deng Xiaoping in the late 1970s. This growth has made China into an emerging superpower and strategic competitor of the USA. It has also made China into one of the world's major importers of energy (especially oil) and raw materials. China's growth has been based on manufacturing for export, real estate and infrastructure, which has been highly energy and raw material intensive, while energy, raw materials and exports overwhelmingly travel by sea. China describes itself as a socialist market economy and is governed by a Communist Party, which bases its legitimacy on economic and nationalist performance. The interlinked core interests of the national leadership are, therefore, political stability, territorial integrity and economic growth. The international systemic framework for China's development is US hegemony and global naval domination, while China is a rising continental power but a historically weak sea power. This complex raises a number of energy and maritime transportation security issues for China. For energy, China is much dependent on the Persian Gulf, which is unstable and militarily dominated

by the USA. The energy, raw materials and exports that are crucial for the core interests of the Chinese leadership travel on sea lanes that are threatened by piracy or are dominated by strategic competitors such as the USA or India. These energy and maritime transport security challenges are the framework for China's nascent Arctic interests and possible strategy.

China's soaring demand for energy in connection with its export-oriented economy poses a variety of new challenges for its foreign policy: the country will become more and more dependent on the purchase of natural resources abroad for sustaining its economic development. Any crisis inhibiting its access to overseas resource and maritime shipping routes will have a negative impact on China's growth and trade-dependent economy. China will endeavor to protect the strategic areas concerning its national interest. In recent years China's energy diplomacy in the context of the political economy of global energy developments has drawn the attention of the West especially in connection with the sensitive regions, such as the Middle East and Africa. As one Chinese scholar bluntly states, "[t]he determining factor shaping the rise and fall of a country ultimately is not just the size of its total economic volume but also the strategic ability of the country; that is, the ability to use national forces to achieve political goals" (Zhang, 2006: 22).

Perhaps the greatest change to the international system of the 21st century will be the rise of China. As a rising power on a global scale, China sees itself as a legitimate stakeholder and participant in the governance of regions around the world, including the Arctic. China is therefore availing itself of Arctic science commensurate with its global role and pursuing a role in Arctic governance both through permanent observership in the Arctic Council and the diplomatic engagement of smaller Arctic nations. However, China is a global power with global interests, and the Arctic is one of many regions of importance to energy and shipping (Lasserre, 2010; Alexeeva & Lasserre, 2012a, 2012b; Blunden, 2012; Jakobson & Lee, 2013; Stensdal, 2013; Stokke, 2013).

Notes

1. China's core interests are defined by the government as including sustained economic growth, the prevention of Taiwanese independence, China's return to a global power status, and the continuous leadership of the Chinese

Communist Party (CCP). The explicit official expression of China's core interests (the three key components) can be seen from China's former deputy minister of Foreign Affairs, Dai Bingguo, who gave a speech at the China-US Economic and Trade Cooperation Forum in 2009 (Huang Hua, *Gang Magazine*, No. 30.) Available from <http://www.huanghuagang.org/hhg/Magazine/issue30/page112.html>.

2. See endnote 1.

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3

China's Arctic Policy & the Polar Silk Road Vision

Kong Soon Lim

On 26 January 2018, China released its much-anticipated White Paper that sets out its policies and position on the Arctic. China understands the economic opportunities and the territorial challenges in the region as it seeks a greater role in Arctic development. The White Paper outlines China's ambitious plan to develop a Polar Silk Road across the Arctic. It also summarizes China's policy goals and the principles guiding its conduct. As a non-Arctic state with no territorial sovereignty in the region, China's ambition would be dependent on its cooperation and the alignment of its interest with Arctic states. In considering China's Arctic policy, this paper considers three pertinent questions: (1) what are China's key interests in the Arctic, (2) what are the aims and basis of China's Arctic policy as outlined in the White Paper and (3) how does China's Arctic policy complement its Polar Silk Road vision as an extension of its Belt and Road Initiative?

Global warming is accelerating the transition of the Arctic from an ice-covered region to an ice-free ocean at an unprecedented rate. Estimates suggest a nearly ice-free summer Arctic by 2030 as the region continues to warm at approximately twice as fast as the global average (e.g., Wang & Overland, 2012). The thawing ice has overwhelmingly altered and threatened the region's ecosystem while unlocking its economic potential that was previously inaccessible due to the dense ice. Unsurprisingly, this has led to renewed interests in Arctic governance and attracted the attention of external actors, including China. China's engagement in the Arctic flows from the Arctic's geographical location, which provides a range of long-term economic

opportunities and a platform for scientific research – in summary, the Arctic provides China a shorter and reliable shipping route, access to natural resources and insight on climate change (e.g., Chen, 2012: 361).

The admission of China as an observer in the Arctic Council in May 2013 marks the pinnacle of China's Arctic diplomacy. China, together with five other states (India, Italy, Japan, Singapore, and South Korea), was granted observer status during the Arctic Council's Kiruna Ministerial Meeting, in which the admission of these states was a political decision whose time had come. The exclusion of China would only risk further drawbacks and possibly undermine the Arctic Council's credibility and legitimacy, considering China's active involvement in Arctic affairs and its contribution to Arctic research that far exceeds the contribution of Arctic States themselves (Ingimundarson, 2014: 191). The admission of China and the other observer states in the Kiruna Ministerial Meeting was timely to strengthen the Arctic Council's position and to discourage the emergence of other regimes or bilateral relations as alternative avenues for interested parties to express their interest in the Arctic (ibid.: 191-194). Nonetheless, politics and diplomacy in the Arctic are now unpredictable and it is more crowded than before with the presence of China and other new observer states (Lanteigne, 2014: 11).

As an external actor outside the region, China's participation as an observer remains an ideal and perhaps the only pathway that allows China to gain formal access to the Arctic's governance and the decision-making process (Graczyk & Koivurova, 2014: 225). Whilst observers are generally perceived as weak actors in the absence of voting rights in the Arctic Council's decision-making process (Chater, 2016: 173), China's observer status would enable Beijing to assert greater influence in the Arctic Council in setting future agendas on Arctic development.

China recognises the Arctic Council as the key policy forum to address Arctic-related issues. In acceding to the Arctic Council, China had undertaken a 'laborious process' over the past decade in vying for an approved observer status (Amatulli, 2017: 104). China's admission to the Arctic Council was not immediate. Its applications for observer status on three previous occasions, in 2006, 2009 and 2011, were denied before it succeeded in its fourth attempt in 2013, though it was granted *ad hoc* observer status since 2007 whilst its application was being reconsidered. The application for

observer status is assessed against a set of non-exhaustive criteria and it requires a unanimous approval from all Arctic states. Annex 2 to the Arctic Council Rules of Procedure outlines the admission procedure and criteria. Amongst the key criteria imposed are first, the applicant accepts and supports the objective of the Arctic Council; second, the applicant recognises the sovereignty and jurisdiction of Arctic states in the region and third, the applicant accepts the framework of the United Nations Convention on the Law of the Sea (UNCLOS) to govern the Arctic. Despite these criteria, the consideration of the application for observer status during the Kiruna Ministerial Meeting was characterised as ‘old-fashioned intergovernmental deal-making’ (Ingimundarson, 2014: 190).

Salient issues concerning China’s interest in the Arctic have emerged in recent years. The discourses in literature have also attempted to provide a comparative approach to China’s Arctic ambitions alongside the interests of Arctic states (e.g., Lackenbauer et al., 2018; Koivurova et al., 2017). The existing literature has been divided on China’s Arctic ambitions. The idealist views China as a cooperative and collaborative partner because it is in its best interests to behave as such (e.g., Alexeeva & Lasserre, 2012; Liu, 2017). On the contrary, the pragmatist argues that China’s position in the Arctic is merely expressed by ‘unctuous and circumlocutory diplomatic language’ that is inconsistent with its practices (Wright, 2011: 2). Although it is unlikely that the release of the White Paper would alter these views, the long-awaited policy document is a starting point to understand China’s Arctic policy.

The aim of this paper is to examine China’s Arctic policy as outlined in the White Paper and its vision for a Polar Silk Road. This paper proceeds in the following three parts. The first section considers China’s key interests in the Arctic. The second section examines the White Paper to provide a better understanding of the aims and basis of China’s Arctic policy. The third section considers China’s vision of the Polar Silk Road as part of its grand strategy under the Belt and Road Initiative. Whilst the release of the White Paper is much welcome as it has shed light on China’s Arctic policy, the penumbra of doubt remains visible.

China’s Interests in the Arctic

The White Paper describes China as an ‘important stakeholder’ in the Arctic and a ‘near-Arctic State’.¹ China describes itself as ‘one of the continental States that are closest to the Arctic Circle’ (State Council

Information Office of the PRC, 2018) despite the absence of any Chinese territory above the Arctic Circle or an Arctic border. By extension of this self-defined and self-descriptive identity, China views itself as a global power with a stewardship role in Arctic governance. It is also an Arctic stakeholder through its vested interest in the region.

In a press briefing on the release of the White Paper, the Chinese Vice Minister of Foreign Affairs, Kong Xuanyou, emphasised two positions that China will adopt in its role as an Arctic stakeholder – first, China will not be overstepping and second, China will not be absent (Kong, 2018). He emphasised that by ‘not overstepping’ (*bu yuewei* 不越位), China acknowledges it is a non-Arctic State and will not intervene in the affairs between Arctic States and within the region. Thus, the conduct of Chinese entities and individuals in the Arctic will be based on international law and the respective domestic laws of Arctic States (*ibid.*). In ‘not being absent’ (*bu quewei* 不缺位),² China will participate constructively in cross-regional and global issues concerning the Arctic (*ibid.*). The first position reflects China’s assurance on its non-interference in the affairs between Arctic states whilst the second position reflects China’s commitment to promote cooperation in Arctic governance. Based on these positions, it can be inferred that despite the growing Chinese presence in Arctic governance, China will retain its neutral approach to contentious matters between Arctic states, especially in relation to the sovereignty claims and disputes concerning Arctic boundaries.

China’s admission as an observer certainly does not reflect an absolute recognition by the Arctic Council of its ‘stake holding’ or interests in the Arctic. Like other observer states in the Arctic Council, China’s interests can be summarised into two broad aims: firstly, to contribute to the governance of environmental issues that are of global concern and secondly, to benefit from the economic potential of the Arctic region (Chater, 2016: 173-174). Both aims are summarised in the following paragraph of the White Paper:

The natural conditions of the Arctic and their changes have a direct impact on *China’s climate system and ecological environment*, and, in turn, on its economic interests in agriculture, forestry, fishery, marine industry and other sectors. China is closely involved in the trans-regional and global issues in the Arctic, especially in such areas as *climate change, environment, scientific research, utilisation of*

shipping routes, resources exploration and exploitation, security and global governance. These issues are vital to the existence and development of all countries and humanity, and directly affect the interests of non-Arctic States including China. (State Council Information Office of the PRC, 2018)

In analysing the first limb of China's broad interest in the governance of the Arctic environment, China understands the need to respond to climate change in the Arctic. Chinese researchers have emphasised that the effects of climate change in the Arctic correlate with the changes in China's environment and ecology (e.g., Li & Leung, 2013; Ma et al., 2014; Chen et al., 2013). The thinning of the Arctic's sea ice has also contributed to the abrupt climate shift in China due to alternations in atmospheric circulation at high altitudes. For instance, the severe snowstorms that hit central and southern China in 2007 to 2008 are attributed to the warming of the Arctic (Liu et al., 2012). Likewise, the extreme haze pollution in the East China plains in 2013 was due to poor ventilation conditions caused by the loss of Arctic sea ice in the preceding autumn and boreal snowfall in the earlier winter (Zou et al., 2017).

As the largest developing state in the Northern Hemisphere, China has experienced the effects of these climate changes that have in turn affected its industrial and agricultural production (Chinese Government Portal, 2010). Whilst the implications of climate change may have an adverse effect on China's economic growth, such effects may alter the political stability of the Chinese Communist Party that relies on strong economic growth as the foundation of its stability (Jakobson & Lee, 2013: 4). Although the anecdotal suggestion may appear far-fetched, the plausibility of social unrest caused by climate change is further amplified by the vast population and landscape of China.

On the second limb of China's broad interest in harnessing the economic potential of the Arctic region, the Arctic's strategic location boasts an abundance of energy resources and it is likely to be an important transportation route for international trade. As the world's largest energy consumer, China requires a constant supply of energy resources to sustain its economic growth. The Arctic's untapped supply of natural gas and oil would meet China's demand for energy resources and the need to diversify its energy supply (Gavrilov & Kripakova, 2017: 74). China also seeks to reduce its

carbon footprint and address climate change by optimising its energy usage through the reduction of its coal-dominated energy consumption (NDRC, 2017: 10-12). In a joint document released by the Chinese National Development and Reform Commission and the Chinese National Energy Administration, Beijing set out its aim to shift China's energy consumption towards natural gas by 15% by 2030 (NDRC & NEA, 2016: 8). Estimates suggest that China's demand for natural gas will grow by over three percent annually until 2030 (Xinhua, 2017). Beijing has also announced plans to expand the country's pipeline for the supply of crude, refined oil and natural gas to ensure the steady supply of imported energy resources to its inland cities (NDRC & NEA, 2017). Hence, the Arctic's supply of natural gas and oil is crucial in improving China's energy supply.

Additionally, China foresees the economic prospects of the Arctic as the 'golden route' in shipping (Brady, 2017: 63). China favors the opening of the Northern Sea Route that is the shortest shipping route linking East Asia to Europe and North America. The Northern Sea Route would provide China a safe and reliable shipping route, which is crucial in importing the supply of resources and exporting Chinese product. It is estimated that Arctic shipping through the Northern Sea Route would shorten shipping trips between northern Chinese ports and Northern Europe as well as the east coast of America by at least 40% as compared to conventional routes via the Suez Canal or Panama Canal (Chen, 2012: 361). As China's foreign trade currently passes through the saturated and unreliable Straits of Malacca and the Suez Canal, where traffic capacity is at its peak and piracy is rampant, the Northern Sea Route provides China an alternative shipping route and would enhance the economic development of the coastal areas in the northeast region of China (Gavrilov & Kripakova, 2017: 74). Considering the ongoing trade war between China and the United States, the Arctic and the Northern Sea Route would also provide China an assured shipping passage that is not in the control of the United States Navy (*ibid.*).

China's Arctic Policy

China's Arctic interests as described in the above section demonstrate the proliferation of its global interest beyond its geographical borders as it emerges as a global power. China's White Paper on its Arctic policy was published in early 2018 amidst concerns of and debates on China's role as an

observer in the Arctic Council. The release of the White Paper may have come as a surprise to those who were unexpected it (e.g., Jakobson & Lee, 2013: 11),³ but for others the much-anticipated publication that was expected to clarify China's Arctic policy is long due (e.g., Lanteigne, 2016: 2; Sun, 2013: 6).

Nonetheless, the White Paper should not be viewed as a new revelation on China's Arctic policy but rather an affirmation of its existing policies. The contents of the White Paper have been articulated by Chinese officials in recent years. The policy goals and basic principles of its Arctic participation as stated in the White Paper have been raised by Chinese officials on a few previous occasions. Accordingly, the White Paper reflects Beijing's commitment to the Arctic and growing confidence as it attempts to reduce its Arctic's strategy to writing as an official policy document.

All Arctic states and a few observer states have released their respective policy papers on their Arctic strategies. The culmination of China's Arctic policy is relatively recent compared to other Arctic states and it remains a work in progress (Lanteigne, 2016: 2). Beijing is hesitant to outline its policies in writing unless it is necessary, or it is in its best interests to do so. Unlike its Western counterparts, Beijing has only published official and translated White Papers on pressing and key policy issues over the past decade. Hence, the release of the White Paper demonstrates the significance of the Arctic region among its policymakers. The delay in its release can only be sensibly attributed to Beijing's hesitance to outline its Arctic policy officially as it may restrict its ability to adapt to diplomatic and political changes in the rapidly transforming region.

The White Paper begins with an overview of the current Arctic situation before elaborating on China's goals, basic principles, policies, and position on Arctic governance. The foreword of the document states that the intention of the White Paper is:

... to expound its basic positions on Arctic affairs, to elaborate on its policy goals, basic principles and major policies and positions regarding its engagement in Arctic affairs, to guide relevant Chinese government departments and institutions in Arctic-related activities and cooperation, to encourage relevant parties to get better involved in Arctic governance, and to work with the international community to safeguard and promote peace and

stability in, and the sustainable development of, the Arctic. (State Council Information Office of the PRC, 2018)

Based on the foreword, the White Paper is not only intended to dispel the negative perception among the international community of China's Arctic interest, but it is also intended as a guidance document for coordination among governmental agencies and institutions. As China does not have a specialised governmental authority for managing its Arctic affairs, the competency for different issues may fall within several governmental agencies and it would require proper coordination to overcome bureaucracy and to achieve a common goal. It is estimated that there are at least seventeen agencies involved in China's Arctic affairs, demonstrating the broad and complex nature of China's policymaking and execution process (Brady, 2017: 114). For instance, the Ministry of Foreign Affairs manages its diplomatic agenda and foreign policy in the Arctic. Matters of national maritime interests are reviewed by the State Oceanic Administration while the Chinese Arctic and Antarctic Administration organises, coordinates, and manages Chinese polar exploration. The interactions between these governmental agencies and other scientific institutions and research universities are facilitated by the Chinese Academy of Sciences and the Chinese Academy of Social Science (Gavrilov & Kripakova, 2017: 76). Hence, the White Paper would be a reference point for its internal coordination as it encapsulates the common policy that China intends to push forward in its Arctic agenda.

The White Paper elaborates on the history of China's participation in the Arctic with the aim of highlighting and legitimising its interest in the region. China's earliest participation in Arctic affairs is dated back to 1925 when it ratified the Svalbard Treaty (initially referred to as the Spitsbergen Treaty), which confers on it and other contracting states the right to carry out commercial activities and scientific research in the archipelago of Spitsbergen. There were few and insignificant Chinese activities in the Arctic until the late 1990s when China began to focus its Arctic interest on scientific research. Over the past two decades, China has conducted numerous Arctic expeditions using its icebreaker ship and research vessel, the *Xue Long*. It has also built the Arctic Yellow River Station in 2004 as a research base. Chinese commentators have emphasised that China's research objectives focus on climate change in the polar region, which has direct impacts on China's weather that in turn affect China's ecological environment, and agricultural

and economic activities (e.g., Tianbao & Miaomiao, 2017: 24; Guoqiang, 2013: 29).

China's policy goals in the Arctic are four-fold: 'to understand', 'to protect', 'to develop' the Arctic and 'to participate' in the Arctic's governance (State Council Information Office of the PRC, 2018, Jan 26). The White Paper describes that these goals are necessary to 'safeguard the common interests of all' and to 'promote sustainable development' (*ibid.*). These goals are correlated and are integral to each other as China needs a deeper understanding of the Arctic to enable the protection of the Arctic's environment, social and economic development as well as its participation in Arctic governance (Kong, 2018).

In realising China's commitment, the White Paper outlines four basic principles guiding its participation in Arctic affairs: 'respect', 'cooperation', 'win-win result' and 'sustainability' (State Council Information Office of the PRC, 2018). The first two principles of 'respect' and 'cooperation' are reciprocal values that China seeks to push forward while the latter two principles of 'win-win result' and 'sustainability' refer to the nature of the outcome that it intends to achieve through its participation. In acknowledging the values of 'respect' and 'cooperation', China understands that Arctic affairs are multi-faceted and complex, involving multiple stakeholders. The outcome of a 'win-win result' and 'sustainability' can be achieved if stakeholders pursue common aims through coordinated development. Hence, these principles demonstrate a utopian view that neither any stakeholder nor the Arctic environment should suffer loss at the expense of development. The White Paper addresses five key policy areas that are summarised succinctly as follows (*ibid.*):

1. Firstly, concerning China's scientific exploration and understanding of the Arctic, China seeks to promote scientific expeditions and research in the Arctic.
2. Secondly, in relation to the protection of the Arctic's environment, ecosystem and climate change, China reiterates its commitment to tackle global environmental challenges.
3. Thirdly, on the utilisation of Arctic shipping routes and the exploitation of its natural resources, China advocates for the protection and rational use of the abundant Arctic resources through cooperation.

4. Fourthly, on China's participation in Arctic governance, the White Paper emphasises China's commitment to improve and complement the existing Arctic governance regime. China intends to be actively engaged at global and regional levels and promote cooperation in all fields.

5. Lastly, China believes that the promotion of peace and stability in the Arctic is necessary to serve the fundamental interests of all states.

In all of the above policies, the White Paper emphasises China's reliance on the framework of international law treaties and general international law. For instance, in relation to scientific research in the Arctic, China expresses its respect for the exclusive jurisdiction of Arctic states and insists that the freedom of scientific exploration by all states in the high seas of the Arctic must be respected (*ibid.*). Similarly, it maintains that the development of Arctic shipping routes must be in accordance with UNCLOS, general international law and the freedom of navigation (*ibid.*).

The four basic principles and five key policies elucidated in the White Paper are nothing new. The first three basic principles outlined in the White Paper were raised briefly by the Chinese Foreign Minister, Wang Yi, at the Third Arctic Circle Assembly in October 2015. The brief outline was followed by a keynote speech delivered by the Chinese Vice Foreign Minister, Zhang Ming, who presented six specific points that have close resemblance to the current policies presented in the White Paper. The six points summarised from his speech are as follows:

Six Specific Policies on China's Arctic Affairs

- 1) 'further explore and understand the Arctic'
- 2) 'protect and rationally use the Arctic'
- 3) 'respect the inherent rights of Arctic countries and the Indigenous people'
- 4) 'respect the rights of non-Arctic countries and the overall interests of the international community'
- 5) 'build a multi-tiered Arctic cooperation framework for win-win results'

6) ‘uphold the Arctic governance system based on existing international law’. (Chinese Ministry of Foreign Affairs, 2015)

The nearly identical content of the White Paper and the speech delivered by the Chinese minister in 2015 suggests that the White Paper was drafted by the Chinese Ministry of Foreign Affairs.

Whilst the relevant provisions of UNCLOS are not cited in the White Paper, the repeated reference to UNCLOS demonstrates China’s reliance on its rights and freedoms of the high seas of the Arctic Ocean to further its interest in the Arctic.⁴ Despite citing the intention to safeguard ‘common interests’ as one of its goals, the White Paper did not draw any references to the term ‘global commons’. Although the Arctic boundaries are deeply contested among Arctic states, no state has sovereignty over the high seas of the Central Arctic Ocean – the *terra nullius* area. Hence, China’s rights and freedoms in the high seas of the Arctic Ocean are legally justified. As controversially described by Admiral Yin Zhuo of the People’s Liberation Army in 2010, ‘the North Pole and the sea area around the North Pole belong to the ‘commonwealth of the people of the world’ and as China has one-fifth of the world’s population, its role in the Arctic is ‘very much not being absent (*bu ke quewei* 不可缺位)’ (Chinanews, 2010).

The White Paper describes a similar position in a softer tone, drawing a clear distinction between areas of the Arctic that belong to the sovereignty of Arctic states and those that belong to the global commons:

The continental and insular land territories in the Arctic cover an area of about 8 million square kilometers, with sovereignty over them belonging to Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States respectively. The Arctic Ocean covers an area of more than 12 million square kilometers, in which coastal States and other States share maritime rights and interests in accordance with international law. These coastal States have within their jurisdiction internal waters, territorial seas, contiguous zones, exclusive economic zones, and continental shelves in the Arctic Ocean. Certain areas of the Arctic Ocean form part of the high seas and the Area. (State Council Information Office of the PRC, 2018)

Tellingly, the area of high seas or international waters of the Central Arctic Ocean that is of interest to China spans over 2.8 million km², nearly the size of the Mediterranean Sea. Like any other state, China may exercise its non-exhaustive freedoms over this area.⁵

China's reliance on UNCLOS as the basis of Arctic governance is tactical. The reliance on UNCLOS is best described as – and indeed is – ‘the path of least resistance’ considering its near universal adoption (Jarashow et al., 2006: 1587). Likewise, international law provides an efficient mechanism for Arctic governance as it is a common ground for cooperation and multilateralism. Koivurova sums it rightly in describing China's Arctic policy as an approach that ‘banked so heavily on international law’ (Koivurova, 2018). The White Paper cites China's commitment to international agreements such as the UN Charter, rules of the International Maritime Organisation and international agreements on environmental protection including the UN Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement (State Council Information Office of the PRC, 2018). From the perspective of governance, Koivurova elaborates that China relies on the framework of international law because it is merely an outsider state of the Arctic region. By relying on the various international regimes and treaties to which it is a party, China has effectively placed itself in the driver seat, being one of the key players in Arctic governance (2018).

The White Paper must be viewed against the backdrop of Beijing's foreign policy that has evolved over the past few decades. The release of the White Paper is a significant departure from and abandonment of the often-cited Deng Xiaoping maxim of ‘concealing one's capability from its outward display’ (*tao guang yang hui* 韬光养晦). China no longer intends to keep a low-profile diplomacy; slowly but gradually it seeks to challenge existing regimes and norms of international law. The departure should not be viewed with surprise as China has been advocating for greater status in international diplomacy while being mindful of existing rules and norms (Lanteigne, 2014: 5). As China rises to become a global power, it seeks to possess greater influence in international affairs as it shapes its own foreign policy identity, instead of responding or following the footsteps of other great powers (*ibid.*).

Under the administration of Hu Jintao, Beijing propagated the foreign policy concept of ‘peaceful rise’ (*heping jueqi* 和平崛起), which refers to

China's aim to achieve peaceful economic development without destabilising the existing international order (Glaser & Medeiros, 2007: 293-296). The concept does not challenge or replace the structure of the international community, but it seeks to foster equality in China's rise with other great powers without tilting the global balance of power or hegemony (ibid.). Following from the uneasiness provoked by the term 'peaceful rise' outside China, the term was rephrased as 'peaceful development' in Chinese official speeches and documents, despite no changes in the thrust of the concept (ibid.: 301). A new phase of China's foreign policy has been manifested under Xi Jinping to realise the 'Chinese dream' (*zhongguo meng* 中国梦) of a successful and modernised China. Whilst the principle of 'peaceful development' remains as an interest in Beijing's foreign policy, its core national interests are now of equal or greater importance than ever before to realise the 'Chinese dream' (Zhang, 2015: 9). In protecting the 'Chinese dream', Beijing has expressed that its legitimate national interest would not be sacrificed at the expense of maintaining peace (ibid.).

To a large extent, Beijing's stance is no different from the default foreign policy of other states that generally seeks to safeguard their individual national interests before the pursuit of other international matters. However, the reinterpretation of Beijing's 'peaceful development,' in light of realising the 'Chinese dream,' has proven difficult. In reconciling both concepts, the notion of 'peaceful development' in achieving the 'Chinese dream' does not refer to the absence of any conflict (ibid.). Accordingly, if necessary Beijing may choose to adopt a more confident and tough stance to advance its national interests, including in its role in Arctic governance.

As China's actions in the Arctic are now intensely scrutinised by others, the White Paper demonstrates its proactive diplomacy to ease concerns regarding its interest in the Arctic. Overall, the White Paper represents an accumulation of China's policies on its various engagements in the Arctic and its strong emphasis on international law in Arctic governance. China is indeed an enthusiastic participant in the Arctic but its role and presence in the region represent new challenges and opportunities.

The Polar Silk Road Vision

China envisions the Arctic Ocean route as being part of its grand strategy in establishing the Belt and Road Initiative (BRI). The BRI is an ambitious

plan under Xi Jinping to realise the great rejuvenation of China through enhanced connectivity and trade flow between the three major continents of Asia, Europe, and Africa (Xinhua, 2015). The grandiose action plan of the BRI unveiled in 2015 aims to establish the Silk Road Economic Belt and the 21st Century Maritime Silk Road (ibid.). In June 2017, the Chinese National Development and Reform Commission and the State Oceanic Administration jointly issued a document entitled *Vision for Maritime Cooperation under the BRI* that outlines China's vision to synchronise development plans and joint actions for maritime cooperation in propelling the BRI (NDRC & SOA, 2017). The document declares the maritime passageway of the Arctic Ocean as amongst the Chinese 'blue economic passages' that extend China's economic corridor with Central Asia, the Balkans, Russia, Europe and North America (ibid.).

The White Paper is the first official policy document to set out China's vision of the Polar Silk Road in relation to the development of Arctic shipping routes. Despite two brief mentions of the term in the White Paper, Chinese Vice Minister of Foreign Affairs Kong Xuanyou in a press briefing elaborated that the Polar Silk Road is also an alignment with the Russian-led Eurasian Economic Union and potentially other Arctic states (Kong, 2018).⁶ As a non-Arctic state, China understands the challenges in achieving its vision in the absence of cooperation from Arctic states. In this regard, China's admission as an observer in the Arctic Council would enable Beijing to increase its political and economic influence in the region to ensure its interests are equally considered and respected.

China's Arctic diplomacy with individual Arctic states represents the 'species' of the highly focused bilateral relations, in which the Polar Silk Road is the 'genus' with characteristics of the overarching grand strategy of the BRI. The diplomatic jargons used by Chinese officials in describing the principles of the BRI (i.e., 'mutual respect', 'consensus-building', 'common development', 'common prosperity', 'win-win cooperation,' and 'sustainable achievements') are also echoed and encapsulated in the four basic principles of China's Arctic policy as discussed in the above section.

The BRI and the Polar Silk Road vision are the product of globalisation to facilitate global trade and economic integration. The Polar Silk Road would enable China to diversify its maritime routes whilst reducing journey

length and fuel cost. China understands the importance of the opening of Arctic shipping routes to boost its export-driven economy. In lobbying for its Arctic shipping agenda, Chinese state-owned shipping company China Ocean Shipping Company (COSCO) has sent vessels transiting along the Northern Sea Route and expressed interest in increasing its engagement in the region (Staalesen, 2016).

Prior to the release of the White Paper, China's vision of the Polar Silk Road had gained ground in various cooperative endeavours with Arctic states. The Chinese and Russians have embarked jointly on the Yamal Peninsula liquefied natural gas (LNG) project. As Russia is among the world's largest energy exporters and China is the largest energy importer, the gas from the Yamal Peninsula is expected to be exported for Asia. The Arctic plant, which has three production lines with a fourth planned, has a capacity of 16.5 million tonnes of LNG per year (Mazneva, 2017; Foy, 2017). China, through its state-owned China National Petroleum Corporation and the Chinese Silk Road Fund, collectively has close to a 30% stake in the project (*ibid.*). China has also pledged to financially support the second phase of the Russian LNG project in the Gydan Peninsula (Foy, 2017). These projects have led to other projects in the pipeline such as the construction of the seaport of Sabetta and the Kotelny Cape offshore oil terminal, both located on the Yamal Peninsula to facilitate the transportation of the LNG by sea to Asia (Sørensen & Klimenko, 2017: 18). In Murmansk, Chinese state-owned China Oilfield Services Limited, in partnership with Russian state-owned Gazprom, has also embarked on mapping out and drilling the Leningradskoye field, located west of the Yamal Peninsula, to discover the extent of hydrocarbon reserves in the area (Staalesen, 2018). It is estimated that the Leningradskoye field holds over 1.9 trillion cubic meters of natural gas (*ibid.*).

In leveraging on the potential shipping traffic along the North Sea, Finland and Norway have unveiled blueprints for an Arctic Corridor, extending the Finnish and Norwegian railway system to the Arctic and connecting Helsinki and Tallinn via an underground tunnel connecting (Xinhua, 2018). The planned route will link Rovaniemi, a Finnish town located on the Arctic Circle, to Kirkenes in Norway, allowing connectivity from Europe to the ports of the Arctic Ocean and the Northern Sea Route (*ibid.*). It is estimated that the railway extension project would cost 3 billion EUR while the tunnel project would cost close to 15 billion EUR, with potential investment from China (Breum, 2018). The journey along the

Northern Sea Route coupled with the railway will be the shortest route for transporting goods from Asia to Europe and would potentially increase Sino-European economic trade and cooperation.⁷ Finland has also commenced preliminary work to implement the Arctic Connect project that aims to lay nearly 10,500km of optical fibre cable through the Arctic to bridge connectivity between Europe and Asia (Lipponen & Svento, 2016). Once completed, the trans-Arctic cable through Finland will be the new landing area for international data traffic (*ibid.*), strengthening Finland's position as a hub for technology and data operations on the Polar Silk Road.

In the United States, the Alaska Gasline Development Corporation has entered into a joint development agreement with China's leading oil company, China Petrochemical Corporation (Sinopec), the Bank of China and China Investment Cooperation on the Alaska natural gas project (Feng & Saha, 2018). Whilst a definitive agreement has yet to be finalised, the project is estimated to cost 43 billion USD and is expected to receive 75% of its funding from the Bank of China. In exchange for the Chinese financing, Sinopec will retain 75% of the total capacity of the project, which is destined to be exported to China (*ibid.*). China stepped into the project after it was sidelined by American oil companies due to its lack of competitiveness with lower-cost shale projects (*ibid.*).

The above examples demonstrate Beijing's efforts to intensify its relations and investments in Arctic states, reflecting its strategic priority in the region. However, Chinese investment in infrastructure projects along the Polar Silk Road has raised concerns over the future of Arctic security. The interest of Chinese construction companies in expanding the three airports in Greenland has received strong opposition from Danish officials (Matzen & Daly, 2018). Similarly, the Chinese had to pull out and abandon their investment plans for the deep-water port in Lysekil, Sweden, after concerns were raised about the environmental impact and national security risks associated with the project (Suokas, 2018). Chinese investments in Arctic states are also criticised due to the lack of transparency and disclosure, as these investments are generally funded through subsidiaries to hide the identity of the corporate- or state-funded investment project (Rosen & Thuringer, 2017: 53).⁸ The nature of these investments is blurred with misrepresentations, distortions, and differences in value reported to foreign media, arguably with

the intention to avoid competition and to enable China to manoeuvre its investment geopolitically (ibid.).

Concerns have also been raised in relation to China's funding of the BRI projects, in which China has fuelled the indebtedness of developing states through large infrastructure investments before seeking to gain control of strategic assets when debtors failed to pay their Chinese state-owned creditors (Hurley et al., 2018: 19-20).⁹ Whilst there has been no reported incident of defaulting on a Chinese investment in the Arctic region, and the indebtedness of developing states is far from comparison with the economic stability of Arctic states, China's risk-taking approach in investing in mega Arctic projects that were previously deemed unrealistic raises questions on the sustainability and vulnerability of its investments. Although the White Paper may ease concerns about China's interest in the Arctic, China would have to increase its transparency in its Arctic investments to facilitate an open and constructive dialogue with Arctic states.

Concluding Remarks

The White Paper has certainly provided a general overview of China's Arctic policy that guides its Arctic discourse. Looking ahead, China's presence in the Arctic and its ambition of a Polar Silk Road bring new opportunities and challenges for Arctic states, as expressed in the Chinese proverb 'good fortune follows upon challenges, challenges lurk within good fortune' (*huo xi fu zhi suo yi, fu xi huo zhi suo fu*, 禍兮福之所倚 · 福兮禍之所伏).¹⁰

The success of China's Arctic policy as a non-Arctic state would be dependent on its Arctic diplomacy and ability to strengthen cooperation in the region. Yet, much remains uncertain on aspects of China's key interests that are not addressed in the White Paper, particularly on the role of the Arctic in its national security and defence strategy (Brady, 2017: 117). The release of the White Paper may have cleared some misconceptions about China's Arctic interest, but it lacks concrete steps or measures that China intends to implement in its Arctic policy. Considering China's growing investment and presence in the Arctic, it remains a matter of time before China seeks greater influence or a leadership role in the Arctic, beyond its current observer status, to safeguard its economic interests. For now, China has maintained that it respects the political status quo in the Arctic.

Notes

1. The first reference in which China self-identifies as a 'near-Arctic State' was in January 2013, in a speech by Chinese Ambassador Zhao Jun at the 7th Arctic Frontiers Conference, Tromsø, Norway. In his speech the Ambassador emphasised that China's northeast is close to 50 degrees north latitude (Zhao, 2013).
2. The notion of 'not being absent' was previously raised by Admiral Yin Zhuo of the People's Liberation Army in 2010. He noted that China's position in the Arctic is 'very much not being absent' (being present) (*bu ke quewei* 不可缺位) (Chinanews, 2010, March 5). The phrase is often misconstrued and mistranslated as 'indispensable' (e.g., Jakobson & Peng, 2012: 15).
3. Jakobson and Lee opined that the Arctic was 'simply not sufficiently high on the agenda of [Chinese] senior officials' to necessitate the publication of an Arctic strategy (Jakobson & Lee, 2013: 11). The publication of the White Paper has proven the contrary.
4. Article 87(1) of the UNCLOS outlines a list of non-exhaustive freedoms available to all states, comprising, *inter alia*, the freedom of navigation, freedom of overflight, freedom to lay submarine cables and pipelines, freedom to construct artificial islands and other installations, freedom of fishing and freedom of scientific research.
5. China has the freedom to exercise any of its rights in the Arctic High Seas, except the right to conduct commercial fishing as China is party to the Agreement to Prevent Unregulated High Seas Fisheries in the Central Arctic Ocean 2017. Parties to the Agreement are Canada, China, Denmark (in respect of Greenland and the Faroe Islands), the European Union, Iceland, Japan, Korea, Norway, Russia and the United States. The Agreement is scheduled to last for 16 years after which it will be automatically renewed for every five years unless a contracting state objects or a scientific-based fishing quota and rules are established.
6. Beijing initially used the term 'Ice Silk Road' to refer to the framework of cooperation between China and Russia on the development of Arctic shipping routes.
7. Risto Murto, the Deputy Director General of the Networks Department of the Finnish Ministry of Transport and Communications, in commenting on

the Arctic Corridor noted that, ‘When we think of the new corridors to China, we are in the middle between Europa and Asia. Finland is not an island anymore. We look at our geopolitical position in a whole new way’ (Breum, 2018).

8. It is estimated that China has invested over 1.4 trillion USD in the economies of the Arctic Five (plus Finland and Sweden) from 2012 to 2017, in which nearly 89.2 billion USD is invested in infrastructure, cooperative agreements and financing for projects located within the Arctic Circle (Rosen & Thuringer, 2017). There are no official data from Beijing or respective Arctic States to verify these estimates.
9. For instance, when Sri Lanka was unable to service its 8 billion USD loan for the construction of the Hambantota Port, parties entered into a debt-for-equity swap, which provides China a 99-year lease in managing the port. 23 out of 68 states that have received BRI-related financing were reported to have an unsustainable level of debt, in which eight of them are categorised as at high risk of debt distress. Russia is the only Arctic State included in the study and was categorised as at low risk of debt distress (Hurley et. al., 2018).
10. Chinese Ambassador Zhao Jun, in his speech at the 7th Arctic Frontiers Conference, Tromsø, Norway, used a simplified English translation of the above Chinese proverb. He emphasised the saying ‘luck and misfortune come in turn’ in describing the opportunities and challenges that are present in the Arctic (Zhao, 2013).

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4

Arctic Blue Economic Corridor: China's Role in the Development of a New Connectivity Paradigm in the North

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In recent years, the growing exploration of natural resources and development of transport routes have reemerged in the Arctic as scenes for political and economic collaboration between Nordic and non-regional states. Being a non-Arctic country, China nevertheless has played an active role in the elaboration of international regulations and the establishment of governance mechanisms in the Arctic. The country has recently released a White Paper on Arctic Policy and thus prioritized scientific research; underscored the importance of environmental protection, rational utilization, law-based governance, and international cooperation; and committed itself to maintaining a peaceful, secure, and stable Arctic order. Diversified transportation routes and economic corridors are of paramount importance to such global trading nations as China. However, an extension of the economic corridors to the Arctic is viable only in the case of development of satellite trade, production, and research opportunities along the potential transport routes. In this study, the authors discuss the critical points in the implementation of China's paradigm of collaboration and connectivity in the Arctic, as well as focus on the promotion of bilateral win-to-win investment and trade projects with the countries along the potential Arctic Blue Economic Corridor (ABEC). The authors conclude that the ABEC may be efficiently incorporated into China's Belt and Road network but emphasize that specific technological and economic challenges must be considered and met before a sustainable connectivity between the markets of Asia and Europe is established in the Arctic.

International collaboration in the Arctic and the challenges of Arctic connectivity for economic development and trade have been attracting increased attention by many scholars worldwide. One of the most comprehensive comparative studies of the Arctic strategies and policies of different countries has been made by Heininen (2012), who summarized the priorities, priority areas, and objectives of major actors in the Arctic. The involvement of non-Arctic states in Arctic governance and growing roles of China, Japan, the Republic of Korea, and other non-regional actors in Arctic issues have been studied by Ivanov (2016), Coates and Holroyd (2017), Lanteigne (2014), Leifer (2013), Peng and Wegge (2015), Streltsov (2017), and others. Most of the publications include contemporary issues of international cooperation in the Arctic in the formats of the Arctic Council and the Nordic Council. However, it is important to consider the roles of various trans-Arctic interactions between Nordic and non-Arctic countries, particularly, China, to address the specific implementations of China's Belt and Road Initiative (BRI) and China-Nordic diplomatic model for achieving sustainable development in the region.

The themes of China's involvement in Arctic governance and the growing role of the country in Arctic issues have been addressed by both Chinese and international scholars. Lanteigne (2014) studied the evolution of China's Arctic strategies in terms of their distinct paths, institutions, and political and economic dimensions. Joelsen (2016) focused on the study of China's engagement with the Arctic Council, particularly, the strategic goals of China's observer status in that organization, principal interests of the country in the Arctic, and peculiarities of contemporary China's diplomacy with the Arctic countries. Lanteigne (2017), Stokke (2013), and Gavrilov and Kripakova (2017) determined the prerequisites for the formation and future development of China's policy (and other Northeast Asian countries) and provided a description of current opportunities for China to participate in the institutional and rule-making mechanisms of Arctic governance.

Bennett (2014) and Stephenson et al. (2013) paid special attention to the ports linking resources in the North Pacific and wider Arctic region to destinations in Northeast Asia, particularly, the effects of the development of the shipping lanes in the Arctic Ocean on the increase of commercial ties between Asia and Nordic countries. Special attention has been given to the investigation of transport corridors in the Arctic. Meng et al. (2017) focused on navigation conditions and commercial features and reviewed the existing

studies that had examined the necessary conditions and requirements for transarctic shipping routes to be viable. Guy and Lasserre (2016) studied perspectives, challenges, and the regulation of commercial shipping in the Arctic. Jorgensen-Dahl (2010) investigated the perspectives on economic development and shipping in the Arctic along the Northwest, Northeast, and Transpolar Passages. Farre et al. (2014) focused on the perspectives on and challenges of commercial Arctic shipping through the Northeast Passage, including Russia's part of the Northern Sea Route (NSR). Ruksha et al. (2013), Xu et al. (2011), and Verny and Grigentin (2009) studied the perspectives on and challenges of the development and exploration of the NSR for bulk and container shipments between China, Russia, and Europe. Dunlap (2002) studied the possibilities of transit transportation along the NSR by Russian and foreign vessels. Kikkas (2015) and Zalyvsky (2015) discussed the potential of the NSR and other transport corridors in the Arctic and conducted an analysis of major factors affecting the performance of transport and economic projects in the High North. Fisenko (2013, 2014) and Zelentsov (2012) focused on the political, economic, and transport aspects of the development of the NSR in terms of the competition for resources in the Arctic and search for new ways of shipping.

China has recently published its Arctic policy and incorporated the Arctic shipping lanes into the BRI transport network. Contemporary approaches of the country to the development of the region and exploration of its resource and transport potential require thorough study in light of the collaboration with Nordic countries. However, as to the involvement of the Nordic countries in the implementation of the announced Arctic Blue Economic Corridor (ABEC) initiative, there have not been any comprehensive studies of the issue so far. Perspectives on the development and commercial use of transport and trade routes in the Arctic, polar logistics, and the development of infrastructure in the High North are among the hot topics to investigate. This paper attempts to bridge the gap and assesses the challenges of and perspectives on turning the ABEC into an economic and transport corridor between China and Europe. This study discusses the major challenges China faces in exploring new maritime ways in the Arctic and collaborating with Nordic countries and Russia in the development of the ABEC.

China's Arctic Aspirations

In recent decades, international northern cooperation between the Nordic and non-Arctic states has become more institutionalized and dynamic. Various formats are used – from the multilateral international cooperation within the Arctic Council to the cooperation with and between international organizations and forums, in addition to bilateral inter-state relations (Heininen, 2012). Non-Arctic states are keen to strengthen their role in the Arctic. They assert that their participation in international cooperation in that region is as useful as it is warranted and legitimate (Bartenstein, 2015).

One of the most active players in the Arctic region is China. Being a non-Arctic country, China though is closely involved in the trans-regional and global issues in the Arctic, especially in such areas as climate change, environment, scientific research, utilization of shipping routes, resource exploration and exploitation, security, and global governance. The role of the country in the Arctic grows as China explores the possibilities of opening the Arctic passages as alternative routes for its BRI and investigates the social, economic, and political implications of this engagement in the Arctic.

China's engagement with the Arctic has been driven by multiple concerns, particularly, strategic interests and trade interests (Peng & Wegge, 2015). Under the presidency of Xi Jinping, there has been a significant shift in Chinese cross-regional diplomacy towards subregional approaches (Lanteigne, 2014), particularly, a "5+1" dialogue between China and the five Nordic states. The "5+1" dialogues cover various issues including economic cooperation, security concerns, and regional cooperation. China is paying increasing attention to the Arctic. The country pursues economic interests in the oil and gas sector and the exploration of resources in the Arctic territories of Russia and Northern Europe, as well as pays special attention to the development of Arctic shipping (Schulze, 2017).

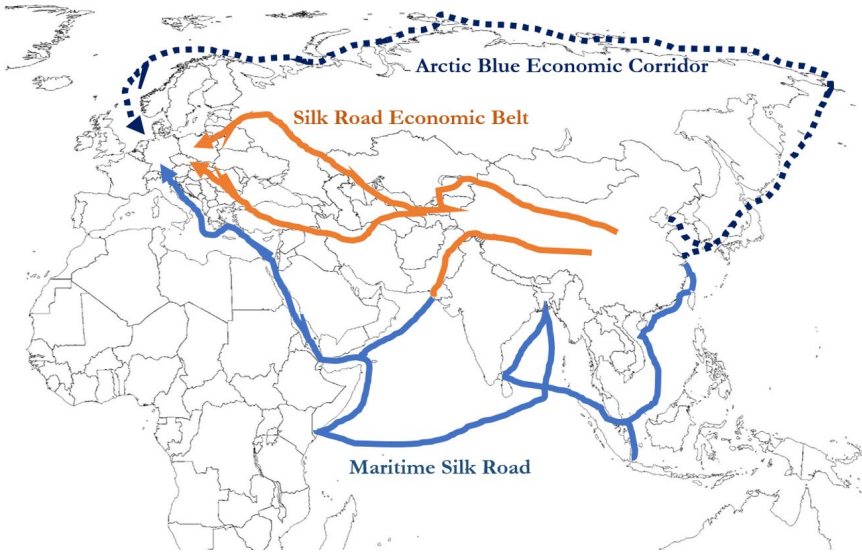
China is also concerned about the effects of climate change and ice melting happening in Arctic waters. By 2050, climate fluctuations may dramatically change the conditions of navigation in the polar waters (Ratnikov, 2016). According to Mokhov and Khon (2015), by 2025, with less than 15% of water area covered by ice during summer, the average duration of the navigation period may increase up to 3-4 months, by 2050 – to 4-5 months, and by 2100 – to 5.5 months. Due to such a radical change

of climate and ice situation, wind and cyclonic regimes may change in the atmosphere along the shipping route, as well as sea waves and iceberg dislocation in the seas of the Arctic Ocean (Khon et al., 2010). Mao et al. (2011), Zhang et al. (2006), and Liu et al. (2016) studied the effects of climate change in the Arctic and discovered the association between the sea ice concentration and ice melting in the Arctic Ocean and weather conditions in the northern parts of China. Kelmelis (2011) and Hong (2012) investigated the impacts of climate change in the Arctic on the exploration of transport routes in the Arctic Ocean, particularly, on China's maritime transport.

However, despite the economic, trade, investment, and research interests in the Arctic and its observer status in the Arctic Council, China was reluctant to officially incorporate the Arctic into the BRI. The Arctic did not play a role in the initial structure of the BRI, which involved creating maritime corridors through the Indian and Pacific Oceans (Erokhin, 2017). The BRI is a development initiative that focuses on the improvement of connectivity and collaboration among the countries of Eurasia through the increase of China's role in global affairs. The pursuit of strategic interests in the Arctic confirms China's multifaceted, multilevel, and multidimensional diplomatic concept of development. With the release of the Vision for Maritime Cooperation under the BRI, China incorporated the Arctic shipping lanes into the BRI transport network. The document considerably altered the initial vision of the BRI's transportation infrastructure across the Eurasian landmass (Silk Road Economic Belt, or SREB) and the Indian Ocean (Maritime Silk Road, or MSR) by adding the Arctic passages (State Council of the People's Republic of China, 2018). Particularly, China outlined its interest in working with Nordic countries and Russia to improve sea transit conditions and survey for new resources. Concrete steps within the new vision of the policy include China's efforts to develop a blue economic passage linking China and Northern Europe via the Arctic Ocean. China has actually formalized its involvement in the development of the Arctic Blue Economic Corridor (ABEC) as one of the three passages within the BRI (Figure 4-1).

The initiative of the extension of the BRI to the Arctic and participation of China in the development of the ABEC mean that China is open to working with both Arctic and non-Arctic countries to build the ABEC through developing the Arctic shipping routes. Within the ABEC initiative,

Figure 4-1. ABEC in the BRI network of corridors



Source: Authors' development

China expects its involvement in the infrastructure construction for the ABEC routes in the Nordic countries and Russia, and conduction of commercial trial voyages in the polar waters, to pave the way for Chinese commercial, exploration, transport, and logistics operations. China also attaches great importance to navigation security along the prospective routes of the ABEC, particularly, in the seas of the Arctic Ocean controlled by Russia. As economic activity in the Arctic region grows, there is a potential for 5+1 dialogue on promoting collaboration between China and Nordic states in the areas of polar transportation, logistics, investments, as well as the development of infrastructure along the Arctic sea routes and connectivity in the region. China is willing to work with all parties in conducting scientific surveys of navigational routes, setting up land-based monitoring stations, carrying out research on climatic and environmental changes in the Arctic, as well as providing navigational forecasting services (Erokhin & Gao, 2018).

The approaches to the development of the ABEC are supposed to be based on three main pillars of China's Arctic policy, which are respect, cooperation, and "win-win" solutions.

China respects the rights of the Arctic countries and Indigenous people as enshrined in international law and supports the peaceful settlement of disputes over territory and maritime rights and interests in line with such treaties as the UN Charter, the United Nations Convention on the Law of the Sea (UNCLOS) and international law (State Council of the People's Republic of China, 2018). The position of China is that the management of Arctic shipping routes should be conducted in accordance with international law and that the freedom of navigation enjoyed by all countries in accordance with the law and their rights to use the Arctic shipping routes should be ensured.

Within the second pillar, China wants to be involved in collaboration for Arctic development. Being committed to the existing framework of international law and rules, China aims at the maintenance of a reasonable and well-organized Arctic governance system and steadily advancing international cooperation in the Arctic. The priorities of such cooperation under the BRI are policy coordination, infrastructure connectivity, unimpeded trade, financial integration, and closer people-to-people ties. In the Arctic, China wants to coordinate development strategies with Nordic countries and encourage joint efforts to build the ABEC linking China, Russia, and Europe via the Arctic Ocean and Russia's NSR (State Council of the People's Republic of China, 2018).

As to the "win-win" type of collaboration in the Arctic, China has the funding, technology, and the market to be of interest to Nordic countries. Chinese enterprises are encouraged to participate in joint investment projects in the Arctic, in the extraction of hydrocarbons and minerals, and in infrastructure development for the ABEC, as well as to conduct commercial trial voyages along the transport corridors in the Arctic Ocean. China wishes to participate in the development of oil, gas, mineral resources and other non-fossil energies, fishing and tourism in the region, and scientific collaboration, jointly with Nordic states, while respecting the tradition and culture of Arctic residents, including Indigenous peoples, and conserving the natural environment (State Council of the People's Republic of China, 2018).

Sea Routes in the Arctic Relevant for the ABEC

Climate change and ice melting open up new opportunities for navigation in the Arctic Ocean through the three major passages which have existed so

far, i.e. the Northwest Passage, Transpolar Passage, and the NSR, a part of the Northeast Passage (Ostreng, 2013).

The Northwest Passage is a network of various possible ways between the 19,000 islands of the Canadian Arctic Archipelago. The legal status of the Northwest Passage has not been formalized by any international agreement. However, because the route passes within the territorial waters of Canada, the sovereign regulations of Canada are applied. The Northwest Passage is relatively deep to accept supertankers and container carriers whose drafts are too big to pass through the Panama Canal. In light of the establishing ABEC, the Northwest Passage cuts both the distance and time for Chinese vessels compared to other transport corridors. Thus, the distance between Shanghai and New York via the Panama Canal is 10,500 nautical miles and only 8,600 nautical miles via the Northwest Passage (a savings of almost 2000 nautical miles and 7 days). However, in terms of its near-term commercialization, the passage is of no interest due to the extreme unpredictability of climate conditions in Canada's Arctic Archipelago. Other factors against the immediate commercialization of the Northwest Passage and building any economic corridor in that part of the Arctic are the underdeveloped infrastructure and route along underpopulated and unexplored territories in terms of mineral resource extraction and any other forms of economic activity (in contrast to the NSR) (Jorgensen-Dahl, 2010). Thus, the passage may be used only for transit between dispatch and destination points.

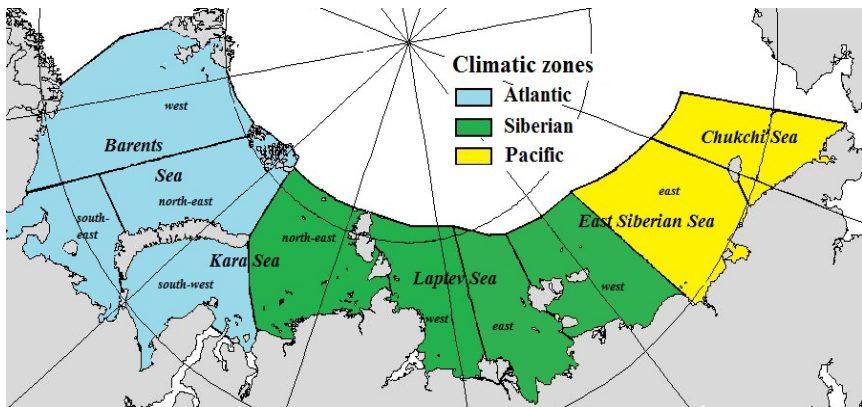
The Transpolar Passage (TP) is the shortest way from Europe to Northeast Asia through the North Pole. Sailing along this route requires passing heavy and perennial sea ice. However, as of Smith and Stephenson (2013), ice conditions may become easier, and optimal transport routes between Asia, Europe, and North America may move to the central parts of the Arctic Ocean. Apart from a substantial stretch of the route, the advantage of the TP for Chinese vessels is that they do not have to enter territorial waters of Russia or Canada. In the near future, commercial shipping along the TP will require not only icebreaker assistance but also the usage of ice-strengthened cargo vessels. Apart from the technical complexity of sailing along the TP, there are certain legal issues to be solved. It is highly likely that any country willing to navigate in the central part of the Arctic Ocean will have to negotiate with Russia and all the Nordic states. Delays are quite possible. It may happen that no vessel can avoid entering the territorial waters

of Russia and all the Nordic states because of heavy and changing ice conditions and other emergencies.

Compared with the Northwest and Transpolar Passages, the NSR has the best potential in terms of the development of commercial shipping, extraction of mineral resources, production, and other kinds of economic activities. In terms of the establishment of the ABEC, the opportunities include transit shipping (cargo transportation between non-Arctic ports of Europe and Asia through the NSR) and special-purpose shipping (activities that start and/or end in the Arctic). The availability of energy (oil, gas, and coal) and mineral (iron, non-ferrous and rare-earth metals, and phosphates) resources has made special-purpose shipping, focused on the transportation of resources from the Arctic to Asia and Europe, the most economically attractive kind of commercial activity along the NSR and, potentially, the ABEC.

As regards the climate conditions for navigation, the NSR may be divided into three climatic zones (ABS, 2016) (Figure 4-2):

Figure 4-2. Climatic zones along the NSR



Source: Authors' development

The Atlantic zone includes the Barents Sea, the western part of the Kara Sea, and part of the Arctic Ocean to the north. There are frequent storms in winter and cloudy weather with frequent fogs and rain in summer. In the Barents Sea, the average temperature is $+7^{\circ}\text{C}$ in summer and -20°C in winter. Wave height is up to 7 m. In the Kara Sea, the average temperature is $+6^{\circ}\text{C}$ in summer and -28°C in winter.

The Siberian zone includes the eastern part of the Kara Sea, the Laptev Sea, and the western part of the East Siberian Sea. Winter temperatures are lower compared to the Atlantic and Pacific zones, while summer ones are usually higher (in the southern coastal part of the zone). In the northern part of the zone (the Arctic Ocean) summer is cold (+1°C in the northern part of the Laptev Sea in summer and down to -34°C in winter).

The Pacific zone includes the eastern part of the East Siberian Sea, the Chukchi Sea. The Pacific Ocean influences the climate of the zone in winter; consequently, air temperature is higher, winds are stronger, and precipitation is heavier compared to the Atlantic and Siberian zones. In the East Siberian Sea, the average temperature is +7°C in summer and down to -33°C in winter. There are frequent storms, air temperature fluctuations, and heavy fogs in summer.

The ABEC, the NSR and Russia

Until recently, the NSR had been used exclusively for internal Russia's transportation, i.e., the provision of Russia's regions of the High North and commercial cargo shipments by Russian oil and gas and mining companies. The Arctic zone of Russia accounts for over 10% of Russia's GDP and 20% of its export revenue (Heininen et al., 2014). With over 200 oil and gas continental and offshore deposits, the Arctic territories of Russia hold most of the Arctic's hydrocarbon reserves. The region is the most prolific producer of Russian gas (95%) and oil (about 70%), primary and placer diamond (99% of total Russian production), platinum-group elements (98%), nickel and cobalt (over 80%), chromium and manganese (90%), copper (60%), antimony, tin, tungsten, and rare metals (from 50 to 90%), and gold (about 40%) (Sergunin & Konyshev, 2016).

With the development of the exploitation of natural resources and construction of new production facilities along the potential ABEC route, Russia is very keen to increase the contribution of Arctic territories to the domestic product. Over the last few years, the total cargo turnover of the NSR (domestic Russia's transportations plus Europe-Asia transits) has increased substantially from 2.0 million tons in 2011 to almost 7.3 million tons in 2016 (Administration of the Northern Sea Route, 2018). The growth has been contributed to by the launch of big projects in infrastructure construction (the Sabetta seaport) and resource extraction projects (the Yamal LNG plant to produce liquefied natural gas) by Russian oil and gas

companies and international consortiums. However, international transit shipments have been decreasing. In 2016, the entire route from Europe to Asia or back was passed through by 19 vessels with 214,500 tons of cargo (compared to 2013, when the transit cargo turnover almost reached 1.2 million tons carried by 73 foreign-flag vessels) (Administration of the Northern Sea Route, 2018). The major cargo was coal (155,000 tons, or 70% of the total transit turnover in 2016).

There are several reasons for such a decrease in transit shipping. On the one hand, during the period of growth of transit shipping in 2011-2013, Russia almost failed to develop the infrastructure of the NSR apart from the continuous construction of new seaports and marine surveys (Bai & Voronenko, 2016). On the other hand, due to the drop in oil prices, the economic conditions of the usage of the NSR have changed dramatically (Erokhin, 2018). Cheaper fuel has erased the cost advantage of a shorter distance compared to the traditional southern routes via the Suez Canal, especially since sailing through ice fields assumes increased fuel consumption. The oil price gap between European and Asian markets has also narrowed, thus decreasing the profitability of the intercontinental transportation of hydrocarbons.

The ABEC and the Nordic Countries

Despite the short-term deterioration of the economic environment, China expects to redirect up to 1% of its foreign trade to the northern routes by 2020 (Erokhin, 2018). China looks forward to developing the ABEC as a link between Chinese and European markets and therefore expects the involvement of the EU countries, particularly, Nordic ones, in the development of this initiative. EU member states combined have the world's largest merchant fleet, and that is why the EU's policies in the Arctic are focused on transportation (Ostreng, 2010). Extending from Europe to Asia, the ABEC could shorten the time taken by cargo vessels to travel between the Pacific and the Atlantic by about one third, which may save energy, reduce emissions, promote trade, and diminish the pressure on main transcontinental navigation channels. In the sphere of Arctic shipping, the EU wants to maintain its competitive lead in developing the technology required for Arctic conditions, i.e. specially designed icebreakers and cargo vessels.

Nordic countries, however, have different interests and expertise to bring to the table in the China-Nordic cooperation (Table 4-1).

Denmark's priorities in the region are formalized by the Kingdom of Denmark Strategy for the Arctic 2011-2020. They include self-sustaining growth and development; development with respect for the Arctic's vulnerable climate, environment, and nature; and close cooperation with international partners (Government of Denmark, Government of the Faroes, & Government of Greenland, 2011). Being one of the leading shipbuilding and shipping states in the world, Denmark devotes much attention to the development of Arctic transport corridors. Many of Denmark's territories, especially Greenland, are favorably located in relation to both the EU and the US. Therefore, the country may consider its involvement in the development of the ABEC and expansion of trade with Asian markets. Greenland is interesting for China for its natural resources and as a hub on the ABEC route (Seaman et al., 2017). Mortensen et al. (2016) and Tetu and Lasserre (2017) report that China plays an important role in mining development and is often considered one of the most important partners for Greenland in mining its abundant natural resources, primarily, rare earth elements, uranium, and zinc. According to Shi and Lanteigne (2018), China's interests in Greenland have not only included emerging mining opportunities, but also the areas of infrastructure planning, tourism, and scientific cooperation.

One of the core priorities of Finland in the region is to achieve the status of an internationally-recognized expert in the Arctic. Though Finland does not have a direct access to the seas of the Arctic Ocean, the country pays much attention to the development of the transport corridor from Europe to Asia and North America through Lappeenranta, the Russian cities of Saint Petersburg and Moscow, Sweden, and Norwegian seaports. According to Schulze (2017), the country seeks a role as a knowledge-based service provider and invests in research and development related to technologies, services and new business models for the Arctic. In light of Finland's participation in the ABEC, major areas may include offshore and maritime industries, shipbuilding and shipping, construction and infrastructure, mining and minerals, the generation and distribution of electricity, energy saving and energy efficiency, and others. Consequently, the economic interests of Finland in the ABEC are focused on shipbuilding (particularly, icebreakers), mining, and the construction of the related industrial, transport and distribution infrastructure (Telegina & Morgunova, 2012).

Table 4-1. Priority areas and expertise of the Nordic countries in the China-Nordic cooperation

Country	Priority areas	Expertise
Denmark	Self-sustaining growth and development	Exploitation of mineral resources
		Exploitation of renewable energy potential
		Knowledge-based growth and development
	Development with respect to climate, environment, and nature	Vigorous and ambitious knowledge building on climate change in the Arctic and its consequences in order to foster global and local adaptation to far-reaching change
		Environment and nature management based on the best possible scientific knowledge and standards for protection
Finland	Construction and infrastructure	Offshore and maritime industries
		Shipbuilding and shipping
		Generation and distribution of electricity
		Energy saving and energy efficiency
	Knowledge	Internationally-recognized expert in the Arctic
		Knowledge-based service provider services and new business models for the Arctic
Iceland	Information society, human resources, and new opportunities	Access to a cost-effective telecommunications system with sufficient carrying capacity for the residents of the Arctic region
		A hub for Nordic and Chinese institutions, companies, and research facilities
	Trade	Free Trade Agreements
	Energy	Development of renewable energy
Norway	Industry	Exploration and exploitation of oil and gas offshore fields
		Fishing
	Business development	Economically, socially and environmentally sustainable business development
		Value creation based on the region's resources
	Infrastructure	Reliable, efficient and environmentally sound transport system
		Secure and efficient power supply
Broad access to good digital infrastructure		

Source: Authors' development.

Similar to Finland, Sweden has no direct access to the Arctic Ocean. Therefore, in the ABEC format, Sweden should establish itself as a supporting country by providing services, scientific research, and public information. Chinese investment in Sweden is partly directed towards production, but technology and innovation stand out as the main driving factors in attracting investment (Seaman et al., 2017). Sweden's priorities in the Arctic include climate, biodiversity, and environmental protection; economic development and the promotion of free trade and industrial development in the Arctic; and human development, health issues, and the influences of climate change and hazardous substances on the population, Indigenous cultures, and industries.

The prospects of Iceland's participation in the ABEC are logically suited to its position as a small state in a sensitive and geographically central setting (Bailes et al., 2014). Iceland is located near the Arctic Circle and relies more than other countries on the fragile resources of the Arctic region (fishing, tourism, and renewable energy). Iceland's Arctic strategy is embedded in the context of the general European approaches to polar activities. Iceland may contribute to the ABEC by promoting trade relations in the Arctic, including in the format of a free trade agreement with China, and developing itself into a hub for Nordic and Chinese institutions, companies, and research facilities. Guschin (2015) expects that commercial shipping offers a broad perspective on the cooperation between Chinese COSCO and Icelandic Nesskip in the segment of container carriage, the implementation of energy saving solutions, and the reduction of CO₂ emissions.

For Norway, the overarching goals in the Arctic are peace, stability, and predictability; integrated, ecosystem-based management; international cooperation and international legal order; and a stronger basis for employment, value creation, and welfare (Norwegian Ministries, 2017). In terms of Norway-China collaboration on the economic development of the Arctic, the major areas are the exploration and exploitation of oil and gas offshore fields, fishing, and tourism. Among the five priorities that have been identified as crucial for Norway in the Arctic (Norwegian Ministries, 2017), at least two (business development and infrastructure) correspond with the ABEC. Particularly, Norway should develop a reliable, efficient, and environmentally sound transport system in the Arctic; ensure that the transport system is able to meet the business sector's international transport needs; ensure a secure and efficient power supply and broad access to good

digital infrastructure; promote economically, socially, and environmentally sustainable business development; and increase value creation based on the region's resources.

Major Challenges of the ABEC

There are many specific technological and economic challenges to be considered and met before the ABEC may become any viable alternative to southern maritime routes used by China. High insurance expenses, low speeds, stringent security regulations, high environmental risks, unpredictable ice, wave, and wind conditions, varying routes, and the lack of qualified and experienced staff to facilitate safe sailing in polar waters are just a few challenges to the intensification of China's shipping and economic activities in the Arctic (Fisenko, 2014). In terms of its economic viability, major downsides to the ABEC project are its unsuitability for containerized cargo shipping (Farre et al., 2014), underdeveloped infrastructure, and seasonality of transportation.

While the NSR may provide a viable alternative for liquid and bulk cargo shipping (e.g., oil, coal, and ore) in the near future, it may be of limited value for container shipping. Container carriers need schedule adherence along with predictable climate conditions and unified operations on cargo loading and discharging at the port terminals (Lasserre, 2014). So far, the MSR has been the more sustainable route for China's container vessels even in light of the long distance and possible delays due to the heavy traffic in the Malacca Strait and Suez Canal. As against the MSR, navigation conditions in the polar waters are far less predictable because of seasonal fluctuations in ice cover and diurnal variations in wind and wave regime. Any change in the weather may either break the delivery schedule (delay, extra operational costs, and risk of penalty payments) or require icebreaker assistance (an increase of freight cost, additional expenses due to icebreaker support). Consequently, despite the bright long-term perspectives of the ABEC development, in the foreseeable future China's cargo container flows will continue moving southward – not only because of easier navigation conditions but also due to the proximity of southern transport corridors to the emerging markets of India, Pakistan, the Middle East, and East Africa (Fisenko, 2013).

The economics of the ABEC requires massive cargo flows by many carriers. Current sporadic shipments with the involvement of only several

dozens of vessels (taking into account the decreasing number of transits since 2014) are economically unviable. In terms of economic benefits, for China, the ABEC project is attractive in case of high oil prices, when saving time by shipping via a shorter route may cause essential savings of fuel and, consequently, money. Only, in this case, the costs associated with sailing by the NSR may be recuperated by shorter distance and time. To take a ship from a logistic chain and forward it through the NSR, Chinese shipping companies need massive investments in the development of the Arctic fleet, the year-round availability of the route, and the possibility to deliver cargo without delays.

One of the keystone ideas of the ABEC, at least in the first instance, is that cargo flow is created by means of the export of hydrocarbons and other natural resources produced in the Arctic. However, sectoral sanctions against Russia forced most of the Western companies to quit the projects in the Arctic, primarily, oil and gas extraction. Being under the Western sanctions, Russia has neither the financial resources nor the technological solutions for the effective exploitation of natural deposits in the Arctic, particularly, in the shelf areas (Gao & Erokhin, 2017). Russia would like China to invest in an exploration of Russia's Arctic shelf. Particularly, Russia expects China to participate in the investigation of shelf areas in the Barents and Pechora Seas (with Rosneft), and to exploit the Shtokman gas field and Prirazlomnoye offshore oilfield (Smirnova et al., 2016). The Russian government provides a favorable treatment regime for Chinese investors, including tax holidays. Nor Nickel is interested in China's involvement in the exploitation of the deposits of rare-earth metals, vanadium, molybdenum, and wolframite in the Kola Peninsula, Taimyr Peninsula, and northern parts of the Republic of Sakha (Yakutia) (Ivanov, 2016).

One of the critical challenges to the commercial viability of the ABEC is the necessity of icebreaker assistance to pass along the NSR. The high cost of assistance provided by Russia nearly evens the distance and time advantages of using the NSR instead of the southern routes of the MSR. Without high-capacity icebreakers, navigation along the maritime routes of the ABEC is unsustainable. Ice is not the only challenge for Chinese cargo vessels to face in the Arctic. Low predictability of weather conditions, heavy storms, extreme temperature, drifting icebergs, and the fields of thin first-year ice may either disrupt deck machinery and navigation equipment or even damage the vessel. Observed climate change and ice melting are not quite simplistic. Many

experts warn that the shrinkage of ice cover in the Arctic Ocean may drive uncontrollable changes in weather and thus make navigation even less predictable than it is today. Major risks are strong winds, extreme waves, the detachment of icebergs, the erosion of the coastline, and the damage of inland port and transport infrastructure (Overeem et al., 2011; Ogorodov et al., 2016). In view of all those problems and challenges, the implementation of the ABEC initiative requires substantial investment in the construction and renovation of the infrastructure for the production and extraction of resources, cargo shipping, icebreaking assistance, and safer navigation and rescue.

Solutions

To ensure stable and on-schedule navigation along the ABEC maritime routes, the construction of modern icebreakers is required. Russia's nuclear-powered fleet is outdated and predominantly not suitable for piloting large-capacity vessels. China needs the construction of nuclear-powered icebreakers able to pilot large-capacity tankers, bulkers, and container carriers through thick ice. The major challenge of the ABEC in terms of the commercialization of polar shipping and decrease of icebreaker assistance costs is how to ensure the maximum available load of the route by cargo vessels during the four-month navigation window.

Most of the territories along the prospective ABEC, primarily, along the Russian part of the NSR, have inadequate infrastructure to support shipping. This includes such infrastructure components as the availability of the ports and port facilities needed for different types of vessels operating in Arctic waters, the accuracy and availability of the information needed for safe navigation, and the availability of search and rescue assets. Berthing facilities need renovation and reconstruction. Seaports need dredging to be able to receive modern large-capacity vessels. In most of the ports, there should be constructed and developed facilities for the reception and utilization of shipboard wastes. It is necessary to develop infrastructure for the berthing, loading, and discharging of vessels at various points of the ABEC throughout the year. Communication systems are generally adequate for the lower parts of the Arctic, but data transmission becomes problematic when the vessels must move to higher areas of the NSR because of the ice situation.

Taking into account the integrated and comprehensive nature of the ABEC initiative, activities in this field have to become increasingly international. The principal areas for collaboration between China and Nordic countries and Russia are:

- Geography (the study of the continental shelf of Nordic countries and Russia that is potentially involved in the ABEC, delineation, and amendment of maritime boundaries).
- Geology (geological surveying of hydrocarbons and mineral resources, evaluation of potential deposits for their exploration).
- Ecology (analysis of climate change and environmental problems with emphasis on the negative environmental effects of resource exploration, shipping, and other kinds of economic activities in the Arctic).
- Economy (economic evaluation of discovered deposits of hydrocarbon, mineral, biological, and other resources of the Arctic; prospective directions of the development of commercial shipping in polar waters).
- Sustainability (elaboration of effective solutions for the convergence of economic benefits from exploring the Arctic with the urgent need for the sustainable development of a fragile Arctic environment, conservation of resources, biodiversity, and food security).
- Security (development of the mechanisms for collaboration between the Nordic countries, Russia, and major non-Arctic actors for the peaceful and secure development of the region).

Specific interests of China in the region include surveying the mineral resource potential of the territories along the future ABEC routes. Mineral resources have not yet been extensively explored and developed. China's long-term goal is to focus on maintaining a high level of exploration activity for oil and gas in Norway to increase the possibility of making commercial discoveries. With regard to minerals in Greenland, China aims to maintain the development of mineral exploration and increase the level of knowledge regarding attractive geological areas in Greenland. Mining is not the only area on which the ABEC may be built. Other areas include energy-intensive

industries based on potentially available hydro and thermal power (Greenland and Iceland), infrastructure and related industries (Finland and Russia), the commercialization of maritime transport routes (Russia), research and development (Sweden and Iceland), tourism (Nordic countries and Russia), and the fishing industry (Iceland and Norway).

Contemporary policies of principal actors in the region should be focused on the following major areas:

- protection of the fragile Arctic environment, reduction of greenhouse gases, preservation of biodiversity, and protection of the Arctic Ocean from pollution;
- establishment of scientific networks, international cooperation, and expansion of research funding with a focus on interdisciplinary polar research on the climatic changes and sociocultural developments in the Arctic;
- provision of access of the local population to education, e.g. through modern communication technologies and distance learning; building up training and study programs and the establishment of Arctic education programs in schools and universities (in non-Arctic countries too);
- exploration and exploitation of oil and gas in the Arctic; mining of mineral resources, in particular, rare earth elements, iron ore, precious metals, and diamonds; and expansion of the required off- and onshore infrastructure in a sustainable and ecologically responsible way;
- expansion of transport routes to link the region to major markets of the world (Europe, Asia, North America); development of new shipping routes and the intensification of maritime traffic in the transport corridors of the Arctic Ocean (the NSR and Northwest and Transpolar Passages);
- development of marine technology and the expansion of the maritime infrastructure (ports, access roads, and container terminals);
- expansion of the technical infrastructure such as energy supply and communication;

- exploration and exploitation of existing and new fishing grounds for marine resources;
- expansion of tourist facilities, accommodation and targeted marketing for Arctic destinations.

The Arctic region is now changing at an unprecedented pace, in ways that fundamentally affect ecosystems, people, biodiversity, and sustainability. Such changes are driven primarily by external factors: climate and environmental change, rapid social and economic developments, and industrialization. Increasingly frequently, business interests (the extraction of mineral resources, cargo shipping, extensive fishing, tourism, etc.) interfere with the sustainable development goals. Arctic social and environmental systems are deeply intertwined with both the environmental systems and economic development of other regions of the world, so rapid changes in this sensitive region are likely to be felt elsewhere. That is why the cooperation for sustainable development must be put at the top of the China-Nordic ABEC agenda.

Conclusion

The initiative of the establishment of an economic corridor in the Arctic is an integral element of the long-term vision of the region by China. Despite the strategic orientation of the BRI to the southern transport corridors, China is rather dependent on the situation in Malacca and Suez (Sun, 2014; Lanteigne, 2013). The ABEC initiative is an attempt to diversify maritime transport routes and ensure long-term, secure trade for China. The resource-rich Arctic offers new possibilities in China's global search for energy and strategic engagement in the region. However, the prospective vision of the ABEC is not only about securing trade routes. The overarching goal is to facilitate connectivity between China and Nordic countries, to ensure the sustainable economic and social development of the Arctic, and to bridge the gap between traditional industries in the Arctic and China's market. Chinese shipping in polar waters in the coming years will form the backbone of the BRI process in the Arctic, which will require collaboration with Nordic countries and Russia on the co-development of transport infrastructure and cargo-generating facilities along the Arctic routes.

For the Nordic countries, Russia, and other stakeholders involved, there are certain geopolitical and commercial advantages to the ABEC initiative, as well as risks. The Nordic countries and Russia look forward to attracting investment for mining and infrastructure projects in the Arctic, increasing exports of hydrocarbons and minerals, and benefitting from services in support of transit navigation along the opening maritime routes. China would like to ensure its presence in the Arctic projects, get access to economic resources and shipping routes in the region, and incorporate the entire region into the BRI network. However, there are many specific technological and economic challenges to be considered and met before the ABEC may become a viable alternative to the MSR. The development of the ABEC requires extensive construction and reconstruction of the infrastructure along the entire route from Russian Chukotka in the east to Iceland and Greenland in the West: deep-water seaports with modern logistics and services, transport hubs, support and rescue points for safe and stable transarctic shipping, and refueling points for transit vessels passing along the route from China to Europe and back.

The success of the ABEC is only possible with the attraction of foreign investments. In such a situation, future development of the ABEC and China's position in the initiative depend on the willingness of Nordic countries and Russia to attract China's investment. The economies along the potential ABEC have a wide range of assets and features that Chinese investors seek, i.e. hydrocarbons and maritime transport in Norway and Russia, shipbuilding in Finland, research and development in Sweden, mining in Denmark (Greenland), renewable energy and rare-earth metals in Iceland, among others. However, the magnitude and certain patterns of China's activities in the region have also raised concerns as Chinese companies have begun to buy what some consider critical infrastructure (Seaman et al., 2017). To overcome challenges of strategic mistrust, China should further engage Nordic countries and other stakeholders to reassure them of its intentions (Liu, 2018). China should not solely rely on its economic largesse to win the support of its potential ABEC partner nations. Over the long term, China will need to highlight the less visible benefits of the ABEC, such as the sharing of development experience and expertise, the promotion of regional cooperation, and the delivery of more global public goods.

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5

China is in the Arctic to Stay as a Great Power: How China's Increasingly Confident, Proactive and Sophisticated Arctic Diplomacy Plays into Kingdom of Denmark Tensions

Camilla T. N. Sørensen

As demonstrated by China's first and long-awaited Arctic Policy White Paper released in January 2018, the Arctic is assigned increasing strategic importance in Beijing. The central priority behind China's intensified diplomatic and economic activities in the region is to establish strong and comprehensive relationships with all the Arctic states and stakeholders and gradually increase China's presence and influence in Arctic multilateral institutions. This is the context in which to analyze recent developments in the Chinese approach to the Kingdom of Denmark constellation and, more specifically, in the Chinese engagement in Greenland. The article contextualizes and examines the increasingly confident, proactive, and sophisticated Chinese diplomacy in the Arctic with a focus on exploring how Greenland fits into this. The main argument is that there is more to China's growing interests and activities in Greenland than ensuring Chinese access to potential Greenlandic resources. Rather, the main driving force is Beijing's long-term aim to ensure great power influence in the Arctic. The article further explores the complex triangular relations between Beijing, Nuuk, and Copenhagen with Washington on the side, underlining how further developments in relations between Nuuk and Copenhagen, on the one hand, will be influenced by "the China factor" but also, on the other hand, will set the parameters for how China's role in Greenland further develops.

China Enters the Kingdom of Denmark

The opening up of the Arctic and the growing presence and involvement of non-Arctic states, as well as the evolving role and ambition of Greenland itself as a foreign policy actor, are challenging and gradually changing the internal dynamics of the Kingdom of Denmark. Nowhere are these complex and interlinked developments more clearly in play than in relation to the question of China's interests and activities in Greenland. There are different, and increasingly conflicting, assessments developing in Greenland and Denmark of the promises and risks associated with large Chinese investments – and a growing Chinese presence – in Greenland. While Greenlandic politicians are keen to attract Chinese investments and companies, especially within the sectors of resource and energy as well as infrastructure, there is growing skepticism in Copenhagen (Sørensen, 2017). This has only come more to the forefront with the intensified Chinese efforts since 2017 to establish a research station and a satellite receiver station in Greenland as well as with the potential involvement of the Chinese state-owned construction company, China Communication Construction Company Ltd., in the construction of airports in Greenland (e.g. Breum, 2018b; Sørensen, 2018). Washington is closely following how China – increasingly assessed in the U.S. as its biggest great power rival – seeks to intensify its presence in Greenland. This was underlined in May 2018, when the Danish Minister of Defence, Claus Hjort Frederiksen, following a meeting with the U.S. Secretary of Defense, Jim Mattis, stressed that Washington would rather not see Chinese involvement in the construction of airports in Greenland, because it could be the first step in establishing a Chinese military presence on the island (e.g. JP, 2018). The U.S. is Denmark's closest strategic ally with longstanding security interests and a military presence in Greenland, e.g. at the Thule Air Base (*Pituffik*) in northwestern Greenland (Olesen, 2017: 70-73).

China's advancement in the Arctic, including in Greenland, will continue in the years to come. In order to counter misunderstandings and overreactions in both Copenhagen and Washington and to promote a more unified Kingdom of Denmark response, a thorough analysis of the development in how China assesses and approaches the Arctic is required. This article therefore sets out to contextualize and examine the increasingly confident, proactive, and sophisticated Chinese diplomacy in the Arctic with a focus on exploring how Greenland fits into this. The main argument is that there is more to China's growing interests and activities in Greenland than

ensuring Chinese access to potential Greenlandic resources. Rather, the main driving force is Beijing's long-term aim to ensure great power influence in the Arctic, where the central Chinese priority is to establish strong and comprehensive relationships with *all* the Arctic states and stakeholders.

This article presents its analysis in three steps. The first section situates China's recently released Arctic Policy White Paper in the wider context of an increasingly assertive and ambitious Chinese great power diplomacy, further discussing how to expect Chinese interests and activities in the Arctic, specifically in Greenland, to evolve. The second section takes a closer look at how "the China factor" plays into ongoing developments and negotiations between Nuuk and Copenhagen. This section further scrutinizes the Danish and Greenlandic assessments of – and reactions to – Chinese diplomacy in the Arctic and specifically to the growing Chinese interests and activities in Greenland. The third and last section puts the parts together and concludes with some reflections on how to approach the complex triangular relations, underlining how further developments in relations between Nuuk and Copenhagen, on the one hand, will be influenced by "the China factor" but also, on the other hand, will set the parameters for how China's role in Greenland further develops.

In terms of theory and analytical approach, the analysis draws on realist foreign policy analysis, or so-called "neoclassical realism" (Rose, 1998). It combines the neorealist emphasis on how the structure of the international system, i.e. the distribution of relative power capabilities among the great powers, sets the overall room of manoeuvre for states' foreign policies, with the classical realist emphasis on the importance of specific domestic circumstances and considerations, e.g. individual state leaders, certain domestic power constellations, and economic priorities and needs. The key point is that states confront different systemic opportunities and constraints depending on their relative power capabilities and geostrategic position, which goes a long way in explaining differences and developments in their foreign policies. However, to further specify *how* and *why* states deal and react as they do within the systemically derived overall rooms of manoeuvre, the "black box" of the state is opened and domestic drivers and constraints are included.

China's Great Power Ambitions Extending to the Arctic

In late January 2018, China released its first and long-awaited *Arctic Policy White Paper* (State Council, 2018). It represents the culmination thus far of the development of increasingly assertive and sophisticated Chinese diplomacy in the region, in line with how China on the international scene appears as a more and more assertive and ambitious great power.

The Development of and Drivers behind an Assertive Chinese Foreign Policy

President Xi Jinping has recently put forward the concept of a “new era” for China as a great power (Xi, 2017). This clearly marks the official end of Deng Xiaoping’s “keeping a low profile” guideline (e.g., Sørensen, 2015). The “new era” is primarily the result of the impressive growth in China’s relative economic and military capabilities since the start of the economic reform process in the late 1970s. China today is quickly narrowing the gap with the U.S., which makes it impossible for Beijing to protect and promote its national interests by conducting a “low profile” and predominantly reactive foreign policy.

However, the development of an assertive Chinese foreign policy is also driven by strong domestic concerns and considerations. China’s increasing dependence on imports of energy and resources to keep a high economic growth has been a main factor causing Beijing to enter into economic agreements and strategic partnerships to an unprecedented degree with countries in Africa, for example. The ongoing restructuring of the Chinese economy, where Chinese-driven innovation and technological development are at the top of the agenda, also drives the expansion of Chinese investments in and acquisition of foreign companies.

Another driver relates to President Xi Jinping himself, who, as an unusually visionary and risk-taking Chinese leader, is more willing than his predecessors to use economic and military tools to demonstrate and secure what Beijing considers legitimate Chinese spheres of interest. With President Xi Jinping, China has begun to present Chinese ideas and solutions on the international stage and to launch new comprehensive foreign policy initiatives. The most ambitious of these is the so-called “Belt and Road Initiative” (BRI), which seeks to position China in the lead of intensified efforts to generate regional and global economic growth and development by

funding and establishing large-scale infrastructure projects. In the BRI-context, infrastructure is defined broadly. It is not only high-speed railways, modern roads, and ports, but also oil and gas pipelines, communication networks and cables, scientific and industrial zones, as well as cultural and financial links and coordination. Beijing's overall aim is to enhance overall connectivity, so people, goods, services, information and ideas move faster and better, especially between China and Europe, and in the process improve and export the Chinese industrial base, designs and standards, e.g. within high-speed railways and telecommunication (e.g., Cai, 2017).

The Arctic is of Growing Strategic Importance to Beijing

The “assertive turn” in Chinese foreign policy is also reflected in the development of China's Arctic diplomacy, and Beijing increasingly presents itself as an Arctic great power. The Arctic Policy White Paper thus starts out by underlining that China, due to its status, size, and proximity to the Arctic, has legitimate interests in the region and therefore should be respected and included as an important stakeholder. Furthermore, it emphasises that the Arctic should not be regarded as a demarcated region. The main Chinese argument is that climate changes in the Arctic have global implications and international impacts, and therefore it is not up to the Arctic states solely to establish the rules and norms for the future development of and access to the region and its resources. Non-Arctic states like China have a role to play and legal rights to engage in Arctic research, navigation, overflight, and a series of economic activities such as resource extraction, fishery, cabling, and piping. Making this argument, it refers specifically to China's legal rights as a signatory to the Spitsbergen Treaty and the United Nations Convention on the Law of the Sea (UNCLOS) (State Council, 2018).

These are new tones. Previous Chinese official speeches and documents on the Arctic have taken a more modest and reluctant stance and underplayed China's ambitions in the region. This has played an important role in reducing concerns among the Arctic states leading up to China's membership in the Arctic Council as an observer state in 2013 (e.g. Brady, 2017: 57). With the Arctic Policy White Paper, it seems that Chinese worries about causing “China threat” fears are no longer so pronounced, which also underlines the growing Chinese confidence and points to how the Arctic has

moved up the Chinese leaders' foreign policy agenda and is assigned increasing strategic importance.

Evolving Chinese Interests and Activities in the Arctic

What does the Arctic Policy White Paper indicate about the further development in Chinese interests and activities in the Arctic and particularly when it comes to Greenland? In the paper, Beijing provides assurances to the Arctic states stressing that China will respect their territorial sovereignty and rights as well as international law and regulations. Similarly, the white paper contains a series of promises of Chinese contributions to the Arctic in several areas, from strengthening scientific research on climate changes and sustainable extraction of resources, to the establishment of regulations and institutions to ensure continued stability and security in the region. Throughout, the paper stresses that China guarantees “win-win” cooperation that will benefit all those involved. Scientific research is highlighted in particular, with a strong emphasis on the fact that China will continue to increase its research collaborations, presence and activities in the Arctic, which entails the establishment of additional Chinese research stations and the launch of new Chinese icebreaking vessels (State Council, 2018).

The Arctic Sea Routes as Part of the “Belt and Road Initiative”

Scientific research has long been the core element of China's Arctic diplomacy, and the Arctic Policy White Paper does not add significantly. However, in one related area, Beijing clearly has increased its priority and activities. This concerns the Arctic sea routes and China's contribution to the development of these, reflecting that Beijing expects the Arctic sea routes to be ready for commercial use sooner than what seems to be the general expectation (Hong, 2018: 7-10). For China, the Arctic sea routes represent an attractive alternative to the longer and strategically vulnerable routes through the Strait of Malacca and the Suez Canal, which the country is dependent on today (Brady, 2017: 62). In June 2017, Beijing officially declared the Arctic sea routes part of the “Belt and Road Initiative” (BRI) and has since then prioritised establishing BRI cooperation with the Arctic states and stakeholders (NDRC/SOA, 2017). This has now been formalised and further elaborated on in the Arctic Policy White Paper under the heading of “Polar Silk Road”.

Intensified Chinese “Polar Silk Road” Activities

As mentioned above, the BRI is President Xi Jinping’s most ambitious initiative and therefore it is given high strategic priority in the whole Chinese system to make progress on the realisation of the BRI with new projects and activities. This is also the case in relation to the Arctic after the Arctic sea routes have become part of the BRI. That is, the BRI will in the years to come continue to make its entry in the Arctic, led by Chinese state-owned companies and banks and accompanied by Chinese high-level diplomatic and scientific delegations. China’s Arctic Policy White Paper has made that clear as it directly encourages Chinese companies to assign priority to the construction of infrastructure linked to the Arctic sea routes and emphasises that China is ready to cooperate with anyone interested in the development of the “Polar Silk Road” (State Council, 2018).

There are several proposals for large-scale Chinese investments and projects in the Arctic. The fact that these are tied to the realisation of the “Polar Silk Road” means that the involved Chinese companies, banks, etc., have better chances of obtaining financing, e.g. from the Chinese state-owned investment fund, the Silk Road Fund, and furthermore can largely count on political support. The Chinese have, in recent years especially, strengthened their dialogue and cooperation with Russia on developing infrastructure related to the Northern Sea Route (NSR), which is central to the large Russian-Chinese natural gas project on the Yamal Peninsula (Sørensen and Klimenko, 2017: 33-35). Furthermore, in relation to Iceland and Finland, China has intensified its dialogue and cooperation within the area of infrastructure, and especially Iceland is trying to promote itself as a logistical hub on the “Polar Silk Road” (Conley, 2018: 8-9). In Finland, preliminary negotiations are currently taking place on the establishment of a 10,500-kilometre cable through the Arctic, which, according to plan, will be able to secure the fastest data connection between Europe and China as early as in 2020 (SCMP, 2017). Finland and Norway have initiated cooperation on the so-called “Arctic Corridor” – a railway line from Rovaniemi in Finland to Kirkenes in Norway – which is positioned as the possible end station of the “Polar Silk Road” (BT, 2018; Tsuruoka, 2017). Sweden is also experiencing growing Chinese interest e.g. in Lysekil on the west coast, north of Gothenburg, where Chinese companies seek to invest in the expansion of the port as well as in the necessary surrounding infrastructure with roads, railroads and bridges (Olsson, 2017).

Change of Chinese Interests and Activities in Greenland?

The increasingly confident, proactive, and sophisticated Chinese Arctic diplomacy and the growing strategic significance assigned by China to the Arctic region constitute an important context for the analysis of developments in China's approach to Greenland (Sørensen, 2018). Central to realising China's ambitions in the Arctic is that China establishes substantial and extensive relations with *all* the Arctic states and stakeholders, including Greenland. The underlying Chinese rationale is that if all Arctic stakeholders are tied to China through "win-win" agreements on scientific research, resource extraction, infrastructure development, etc., China is better positioned to manage unforeseen developments and future attempts to marginalise China in the region. Such reasoning is behind recent developments in the Chinese approach to the Kingdom of Denmark constellation and, more specifically, in the Chinese engagement in Greenland. It has undoubtedly also been central to China's decision to restore the frozen diplomatic relations with Norway in December 2016, six years after the Nobel Peace Prize awarded to the Chinese political activist Liu Xiaobo (Sverdrup-Thygeson, 2016). The strong potential for cooperation between China and Norway on polar issues is stressed in the four-point joint statement normalising diplomatic relations (China-Norway Joint Statement, 2016).

A careful Chinese diplomatic offensive in Greenland has been undergoing in recent years, simultaneous with intensified Chinese efforts to launch various activities on the island, e.g., the establishment of a Chinese research station, a Chinese satellite receiver station, and the construction of airports. The Chinese involvement in the Greenlandic mineral sector has also gained new momentum recently with both the Citronen Fjord zinc project in Northern Greenland and the Kvanefjeld (*Kuannersuit*) Rare Earth Element (REE) uranium project in Southern Greenland moving ahead. Large Chinese state-owned companies are committed to both projects (e.g. Andersson, Zeuthen & Kalvig, 2018). Furthermore, when China in the summer of 2017 carried out its eighth research expedition to the Arctic, the Chinese icebreaker, the "Snow Dragon" (*Xue Long*), sailed through the Northwest Passage (NWP) and anchored outside Nuuk en route (Turnowsky, 2017).

China is still cautious and wary of being dragged into the complex relationship between Greenland and Denmark and therefore continues to seek out support in Copenhagen for Chinese activities in Greenland.

Nevertheless, there are indications that China assigns the establishment of direct relations with the Greenlandic government and Chinese presence in Greenland an increasingly important role and is willing to take more risks to achieve this. This is supported, for example, by the recent agreement – a so-called “Memorandum of Understanding” (MoU) – between the Chinese State Oceanic Administration (SOA), which is part of the Chinese Ministry of Land and Resources, and the Greenlandic Ministry of Education, Culture, Research and Church. The agreement, which became effective in May 2016, aims to increase research networks and exchange between China and Greenland (Petersen, 2016; Sørensen, 2017: 86). In addition, the visit by the then Greenlandic Minister for Independence, Foreign Affairs and Agriculture, Suka K. Frederiksen, to the Chinese Ambassador in Copenhagen in early January 2018 is also noteworthy. According to the subsequent press release from the Chinese Embassy, the Ambassador first stressed that the meeting concerned “local exchanges” and then encouraged the two parties – China and Greenland – to increase their exchanges and cooperation within areas such as culture, tourism and the unspecified “Arctic affairs”, which seems to complicate limiting the meeting to “local exchanges” (Chinese Embassy, 2018; Sørensen, 2018).

In China, as in many other countries, there is uncertainty and confusion in relation to how the Kingdom of Denmark constellation works and how best to approach it (e.g., Zhang, 2018). This is especially because the distribution of responsibilities in various policy areas between Nuuk and Copenhagen is under constant development and negotiation. It is therefore understandable that Chinese diplomats, companies, scholars, etc. have difficulties determining with whom – Nuuk or Copenhagen – to enter into agreements and apply for permission concerning Arctic collaborations and projects. However, even if this creates some frustration on the Chinese side, they will carry on tirelessly and undoubtedly show more willingness to take risks in the future. The message from Beijing is that the Arctic takes high priority.

Recently, several Chinese Arctic scholars have argued for prioritizing Greenland in Chinese Arctic diplomacy as an independent Greenland could come to serve as a foothold for China in the region (e.g., Xiao, 2017). There are so far no indications of such prioritization. That is, there are no indications that Greenland is given an extra strong or special importance in

China's Arctic strategy compared to China's interests and activities in relation to other Arctic states and stakeholders. The point is that Greenland is in the Arctic and Beijing's central priority is to establish strong and comprehensive relationships with *all* the Arctic states and stakeholders. It does not want to leave Greenland out especially because of the uncertainties about the future status of the island. Therefore – rather than because of potential Greenlandic resources – China has intensified its diplomatic and economic activities in relation to Greenland compared to other Arctic states and stakeholders. The core of the matter is that Greenland is different due to the Kingdom of Denmark constellation that even without China is under pressure, and due to the U.S. security interests and military presence in Greenland and the close strategic alliance between Denmark and the U.S.

How “The China Factor” Plays into Ongoing Developments and Negotiations between Nuuk and Copenhagen

The relationship between Denmark and China is comprehensive and wide-ranging, with many high-level visits and dialogues on a broad range of political and strategic issues. Denmark is one of the few European countries and the only Nordic country to have developed a “comprehensive strategic partnership” with China since 2008 (Sørensen & Delman, 2016). However, the Arctic has played a limited role in Danish-China policy. The word “Arctic” is not mentioned in the extensive *China-Denmark Joint Work Programme* signed in May 2017, even though the programme has as its stated objective to chart the course for stronger cooperation between Danish and Chinese authorities towards 2020 and touches on no less than 58 different areas of cooperation and involves 80 authorities (35 Danish and 45 Chinese) (MFA DK, 2017). Various explanations and factors play into this, with the complex relationship between Denmark and Greenland being one of the most important ones.

It is no longer possible, however, for Copenhagen to keep Arctic issues out of Danish-China policy, and the pressure comes from both China and Greenland. Over the next few years, the Arctic will be higher on the Chinese agenda when Danish ministers and diplomats meet with their Chinese counterparts. Similarly, there will be more outreach initiatives and proposals from various Chinese state and non-state actors to both Danish and Greenlandic authorities, e.g. on scientific exchanges, potential “Polar Silk Road” projects, and investments in Greenlandic infrastructure. As mentioned

above, Greenlandic politicians look to China for economic commitment and investments and therefore will likely welcome such a development and will seek to play a more independent role, also reflecting a high level of mistrust in Greenland about whether Copenhagen takes enough care of Greenlandic interests in meetings and negotiations with the Chinese. As the Greenlandic politician and former Premier Aleqa Hammond recently stated:

Greenland has no trouble including Chinese companies in the development of our infrastructure. If it results in high quality, delivery on time and price and perhaps even more Chinese tourists in the future, it is only to be welcome. (Hammond, 2018)

Growing Danish Concerns about China's Interests and Activities in Greenland

Copenhagen has been supportive of Greenland's outreach activities and commercial diplomacy in China and has encouraged China's engagement with Greenland, even to the point of giving reassurances to the Chinese side that it is fine to deal with Greenland directly – that this outreach does not offend Denmark in any way (Sørensen, 2017: 91). This follows from a narrow Danish focus on China as an emerging market that Danish economic and commercial interests could benefit from. The broader foreign and security policy implications of China as a great power have not played a strong role in Danish-China policy (Sørensen, 2016). However, this is gradually changing. China's Arctic ambitions and its growing interests and activities in the region, particularly in Greenland, go a long way in explaining this.

Copenhagen acknowledges the potential benefits for Denmark – and Danish relations with China in general – in supporting China having a role in Arctic multilateral institutions and in engaging China on Arctic issues. Furthermore, the Danish overall position favors inclusiveness regarding the participation of non-Arctic states in the region (MFA DK, 2011: 55). However, there is also a fear in Copenhagen of China getting too much influence and too large a foothold in the Arctic and especially in Greenland. Such growing Danish concerns about the political and security implications of prioritizing and promoting a Chinese role and Chinese investments in Greenland have been clearly reflected in the annual risk assessment reports from the Danish Defence Intelligence Service in recent years. The reports

have increasingly come to stress in more and more direct language how large Chinese investments in Greenland could bring certain dependencies and vulnerabilities. For example, the 2017 report warns:

As a result of close connections between Chinese companies and China's political system, there are certain risks related to large-scale Chinese investments in Greenland due to the effect that these investments would have on an economy of Greenland's size. (FE, 2017: 45)

The recently released report from the Danish Ministry of Defence on the developments in the security situation in the Arctic also specifically mentions how Chinese commercial and strategic interests traditionally are closely linked and China's growing economic engagement in the Arctic is therefore likely to be accompanied by growing political attention and influence (MD DK, 2016: 54).

Consequently, "the China factor" plays into ongoing developments and negotiations between Nuuk and Copenhagen in complex ways. There are different – and increasingly conflicting – expectations, assessments and concerns evolving both internally in Greenland and Denmark and in relations between them regarding Chinese diplomacy in the Arctic and specifically the growing Chinese interests and activities in Greenland (e.g., Sørensen, 2017; Gad et al., 2018). As evident in the lead-up to the most recent election in Greenland in April 2018, there are strong desires and calls from Greenlandic politicians for a more independent Greenlandic foreign policy (e.g., Krog, 2018). Overall, it is not the question about Greenlandic independence or not that divides the different Greenlandic political parties and politicians – they more or less all agree that Greenlandic independence is the end goal. Rather it is questions of how fast and at what price, as well as future international political and security affiliations of an independent Greenland, that take up space (e.g., Gad & Jacobsen, 2017). This clashes with Denmark's emphasis on Copenhagen representing the Kingdom of Denmark as one unitary foreign policy actor (Kristensen & Rahbek-Clemmensen, 2017; KNR, 2016). The result is increasing tension and awkward episodes as Nuuk and Copenhagen struggle. The key point here is that questions related to China's involvement in Greenland have played a central role in such Greenlandic-Danish arm-wrestling in recent years and likely will continue to do so.

One example of how “the China factor” plays into ongoing developments and negotiations between Nuuk and Copenhagen is the process following the suddenly announced decision by the Danish government in December 2016 that it no longer wanted to sell the former Danish naval base at “Grønnedal” in Southern Greenland (e.g., Sørensen, 2017: 92-93). The reason given was that the base – which had not been in use for years and did not figure in the comprehensive analysis from the Danish Ministry of Defence of the future Danish defence tasks and activities in and around Greenland that came out earlier that year – would still be of use in Denmark’s Arctic defense. Such re-assessment was also the official explanation given to the Greenlandic government. However, convincing leaks soon emerged indicating that the main reason why the Danish government no longer wanted to sell “Grønnedal” was that the large Chinese business conglomerate, General Nice Group, already active in relation to the iron mine project at Isua, had shown an interest in buying it. The Greenlandic government was informed by the Danish government that there had been a Chinese offer, but it was not presented as an important factor playing into Copenhagen’s decision. Nuuk got very upset when information reaching them through leaks in the Danish media indicated that it was mainly to prevent a Chinese take-over that the Danish government decided against selling the base. It only further strengthened the Greenlandic mistrust towards Copenhagen and the Greenlandic suspicion that the Danish government does not trust Greenlandic politicians and takes decisions regarding Greenland without involving the Greenlandic government. Aleqa Hammond – the Greenlandic politician and former Premier – specifically points to the Danish government’s handling of “Grønnedal” as a case of Danish efforts to prevent China from getting a foothold in Greenland to stall Greenlandic moves towards independence (Hammond, 2018).

The ongoing case regarding the potential involvement of the Chinese state-owned construction company, China Communication Construction Company Ltd., in the construction and expansion of the airports in Nuuk, Ilulissat and Southern Greenland – the most expensive infrastructure project in Greenland’s history – has given cause to similar Danish and Greenlandic reactions and hence mistrust and tension between the two sides (Hammond, 2018; Breum, 2018a). It seems, however, to be a high priority for the Danish Prime Minister, Lars Løkke Rasmussen, to turn such a development around.

In mid-June 2018, Løkke Rasmussen and the Greenlandic Premier, Kim Kielsen, after a meeting jointly announced:

The current airport project is such size that it – depending on funding and choice of external partners – can have foreign and security policy perspectives. (STM, 2018)

This is a carefully chosen formulation reflecting a new understanding and compromise between the two sides. Kielsen – while stressing that legally the Greenlandic government holds the authority – has acknowledged that there potentially is a role for Copenhagen to play as well. In return, he has received Løkke Rasmussen’s promise that the Danish side is ready to investigate whether Denmark can contribute to the financing of the airport project and more generally the possibilities of establishing a joint Greenland-Denmark development fund (STM, 2018). In mid-September 2018, Løkke Rasmussen, during a visit to Nuuk, presented a more detailed plan for how Denmark will invest 700 million Danish kroner in the airport project and provide credit worth 450 million Danish kroner as well as a state guarantee for another 450 million Danish kroner from the Nordic Investment Bank (Breum, 2018c). The importance of this agreement remains to be seen. It will be put to a tough test as the airport project moves forward. It has already caused the pro-independence party Partii Naleraq to quit Kielsen’s coalition government, arguing that they will not support an agreement that increases Danish influence in Greenland (Breum, 2018c). To complicate matters further, the U.S. Embassy in Copenhagen, a few days after Løkke Rasmussen’s visit to Nuuk, released a statement notifying that the U.S. Department of Defense “intends to analyse and, where appropriate, strategically invest in projects related to the airport infrastructure in Greenland” (e.g., Turnowsky, 2018).

The Changing Greenlandic Room of Manoeuvre and the Danish Balancing Act

As the melting ice in the Arctic increases the geostrategic importance of the region, several non-Arctic states are interested in increasing their role and influence. This, in many ways, increases the Greenlandic room of manoeuvre – there are more opportunities for Nuuk to forge new relationships and pursue its own independent foreign policy, causing growing Greenlandic confidence and ambition. On the other hand, the increasing geostrategic importance of the Arctic causes Copenhagen to pay more attention to the

region and pursue a foreign policy line that gives less room for Nuuk, which then results in Greenlandic frustration and protests directed towards Copenhagen.

Specifically in relation to “the China factor,” the Danish government has to deal with at least four considerations: avoid that China gains political influence in Greenland; not disturb Denmark’s successful relationship with (and economic and commercial interests in) China; avoid offending and pushing Greenland further away; and finally meeting its obligations in relation to the U.S. military presence in Greenland, which benefits Copenhagen in its overall strategic alliance with Washington. It is not easy to balance these considerations, especially when Danish domestic politics interferes and various Danish politicians in opposition openly use growing Chinese interests in Greenland to criticize and put pressure on the government. For example, the foreign policy spokesperson from the influential oppositional party, the Danish People’s Party, Søren Espersen, recently called on the Danish government to stop Chinese involvement in Greenlandic airports now “to avoid the humiliation, when the Americans demand it to be stopped” (Kehlet & From, 2018). It also caused shambles in the Danish Ministry of Foreign Affairs when an English-language article from Reuters titled “Greenland’s courting of China for airport projects worries Denmark” cited an unnamed high-ranking Danish government official stating: “We [the Danish government] are deeply concerned. China has no business in Greenland” (Matzen & Daley, 2018). Quickly responding with a written statement, the Danish Minister of Foreign Affairs, Anders Samuelsen, strongly rejected that this was the position of the Danish government, also giving reassurances – to both Nuuk and Beijing – that Copenhagen would not seek to interfere in any way (e.g., Politiken, 2018).

Conclusion: How to Approach the Complex Triangular Relations?

How the complex triangular relations will further unfold is difficult to predict as both the interests and concerns of Greenland, Denmark and China are changing in these years and so is the scene in which their relations play out – the Arctic. Moreover, the U.S. is adjusting its Arctic strategy, seemingly strengthening its military presence in the region. There are therefore many uncertainties and unknowns. What is certain, however, is that “the Chinese are coming” to the Arctic and to Greenland. It is a growing strategic priority in Beijing to be present and ready to explore and exploit as the region further

opens up. This is not surprising in any way, as also pointed out by Hammond: “Of course, China as a leading global economy and global superpower has an interest in actively placing itself in the Arctic” (Hammond, 2018). It is not realistic – or helpful – if Copenhagen sets out to prevent this. The point is, however, that Greenland and Denmark need to work together to best prepare and establish the necessary legal and institutional frameworks. Greenland – the Kingdom of Denmark – needs to be ready to handle Chinese and other countries’ growing interests and intensified efforts to establish relationships with and set up activities in Greenland. It is not easy to come afterwards – when e.g., Chinese companies have invested and opened a mine or when a Chinese university has set up a research station or a satellite receiver station – and try to impose rules and regulations and enforce limits. It is difficult for the Greenlandic government to set up such legal and institutional frameworks alone – it is simply a question of lack of time, resources, and highly specialised expert knowledge. It is very complex, e.g., to thoroughly understand and foresee the potential challenges and implications – within the technical, legal, foreign and security policy, and military areas – involved when an actor from a foreign country, such as China, sets up a satellite receiver station on one’s territory.

The problem, however, is that the deep mistrust in relations between Nuuk and Copenhagen makes coordination and cooperation difficult. The launch of China’s Arctic Policy White Paper is a good starting point for an intensified dialogue between Denmark and Greenland on a more proactive way of addressing China’s increasing presence and activities in the Arctic (Sørensen, 2018). A way to begin is to focus jointly on identifying where to bid on and actively seek cooperation with China and in this way include Arctic issues and Greenlandic authorities much more actively in Danish-China policy, such as within Arctic research where there is a keen Chinese interest in establishing research cooperation and networks with Danish and Greenlandic scholars. However, a first necessary step is that both Nuuk and Copenhagen acknowledge the need for talking and working together. This also implies that Copenhagen is willing to share information with Greenlandic authorities and to involve them early on in sensitive discussions and decisions, avoiding awkward episodes and damaging processes such as the one related to “Grønnedal” discussed above. Whether Greenland and Denmark manage to do this is vital. That is, the further developments in relations between Nuuk and Copenhagen, on the one hand, will be

influenced by “the China factor” but also, on the other hand, will set the parameters for how China’s role in Greenland further develops.

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6

Chinese Mining in Greenland: Arctic Access or Access to Minerals?

Patrik Andersson, Jesper Willaing Zeuthen & Per Kalvig

This article contributes to the academic debate on China's growing interests in the Arctic and enriches our understanding of the various economic and political factors influencing Chinese investment decisions in the mineral sector. The article studies Chinese interests in two Arctic advanced mineral exploration projects: the Citronen Fjord zinc project in northern Greenland and the Kvanefjeld (Kuannersuit) Rare Earth Element (REE) uranium project in southern Greenland. It analyses China's different policies for REEs and zinc and their different roles in China's foreign policy strategy, the Belt and Road Initiative (BRI), which also includes plans for establishing an "Ice Silk Road". Based on a study of Chinese-language policy documents and academic articles from the mining sector, we argue that Chinese involvement in the two projects is driven by different strategic considerations. Chinese involvement in REE projects overseas is primarily driven by China's interest in the strategic resource itself, whereas decisions of where to engage in zinc projects are to a higher degree determined by China's foreign policy priorities. China has a well-developed and clearly defined national strategy for REEs, a resource it considers "strategic," of which the Kvanefjeld project is likely to be part. Zinc, on the other hand, is not a strategic resource to China, but still essential for its industry. Hence, we argue that the Citronen Fjord project is less tied to national resource strategy; instead, it offers China access to the Arctic region and to zinc as an added bonus. By focusing on the mineral sector, the article explores the extent to which mineral interests drive Chinese foreign policy and to what extent other foreign policy interests influence the Chinese mineral sector overseas.

Chinese Interests in Greenland: Mineral Resources and Power Balance

China's growing interests in the Arctic and emerging Arctic strategy have been the subject of several publications in recent years (e.g., Jacobson & Peng, 2012; Lanteigne, 2014; Brady, 2017; Lackenbauer et al., 2018; Sørensen, 2018). As Anne-Marie Brady (2017: 116) has shown in her book *China as a Polar Great Power*, China's Arctic policies are formally managed within China's maritime supra-bureaucracy. The maritime bureaucracy hosts at least seventeen different government agencies and departments with polar interests. In addition, external actors, including polar scholars, state-owned enterprises and other commercial forces, may also influence China's polar policies. In Greenland, a country many scholars of Chinese-Arctic relations regard as being of strategic importance for China's Arctic activities, mineral resources have been the focus of China's interests (Brady, 2017; Sørensen, 2018). This makes Greenland an interesting and well-suited case for further exploring the extent to which mineral interests drive Chinese foreign policy and to what extent other foreign policy interests influence the Chinese mineral sector overseas.

Chinese state involvement in Greenland's mineral sector has generated political controversy in Denmark and Greenland. In Denmark, apart from concerns that state-supported Chinese companies will seize control over Greenland's vast mineral riches, there are fears that Chinese investments come with hidden political and military agendas. In 2016, the Danish government stepped in to prevent the Hong Kong-based mining company General Nice from taking over the abandoned naval base at Grønndal (Breum, 2016; Matzen, 2017). Recently, a bid by China Communications Construction Company, a Chinese state firm previously blacklisted by the World Bank, to build airports in Greenland prompted the Danish government to secure half of the financing of the airports. The interpretation in Greenland and Denmark was that this was done to keep China out. It resulted in the party Partii Naleraq, strongly in favor of fast Greenlandic independence, leaving the government in protest against accepting support from Denmark (Bennett, 2018). In Nuuk, parts of the political elite regard a vibrant mining sector largely fueled by Chinese capital as one of the few feasible ways of achieving economic self-sufficiency (Gad et al., 2018).¹

While there have been plans for very large Chinese investments in Greenland for a while now, actual investments are so far extremely limited. This suggests that that “speculation and political rhetoric far exceeds actual developments” (Foley, 2017: 100). However, the establishment of the “Ice Silk Road” (冰上丝绸之路) as an official policy and the above-mentioned fact that Chinese state firms have made bids for building airports in Greenland – a country with inadequate and badly connected infrastructure – seem to indicate that Greenland has at least some priority in parts of the Chinese state system.

Since Lieberthal and Oksenberg (1988) first coined the concept of “fragmented authoritarianism,” the view of large parts of the Chinese bureaucracy as being able to select between policy agendas set by competing sectors of the central leadership in Beijing became a common assumption in many studies of Chinese politics (Mertha, 2009). Under current president Xi Jinping, this view has become increasingly challenged, with one of the important elements of fragmented authoritarianism, policy experimentation, also questioned (Stepan & Ahlers, 2016). Recent studies of Chinese state-controlled enterprises, however, reveal that the fragmented authoritarianism approach may still have some relevance in the study of this sector. Based on telephone interviews with Chinese mining companies, Têtu and Lasserre (2017) argue that Chinese companies’ decisions to invest in Greenland are based on a combination of economic and political considerations. Increased Chinese control over capital outflows means that both political support and commercial viability are increasingly required. We aim at exploring the incentives from the Chinese bureaucracy towards the mining sector and how these might be changing as a result of the “Ice Silk Road”.

Chinese companies interested in Greenland are at least partly driven by state interests (Sørensen, 2018; Zeuthen, 2017; Têtu and Lasserre, 2017). Few, however, have studied what the state wants to gain from its involvement. Moreover, with few exceptions (e.g., Brady, 2017; Zeuthen, 2017; Martin 2018), most Western analysis relies exclusively on English-language sources to assess the interests and motivations behind Chinese state investments in Greenland. This article draws extensively on Chinese-language materials intended to inform and instruct Chinese stakeholders involved in mineral exploration projects overseas, some of which have never been analyzed in Western research. In addition, the article draws on data collected in interviews with stakeholders in some of the mining projects. It focuses on two



advanced² mineral exploration projects in Greenland where Chinese companies are involved – the Citronen Fjord zinc project in northern Greenland and the Kvanefjeld Rare Earth Elements (REEs)³ and uranium project in southern Greenland.⁴

The article begins by discussing China's foreign policy interests in Greenland and the Arctic more broadly. It then moves on to present the global supply and demand outlook for zinc and REEs based on data from geological surveys, providing an explanation for China's interests in the two commodities from a macro perspective. It then compares

China's policies on zinc and REEs⁵ based on the official five-year plans for the two commodities, showing how zinc and REEs are differently prioritized and their different roles in China's Belt and Road Initiative (BRI 一带一路),⁶ the larger policy framework of which the "Ice Silk Road" is a part. The next section discusses China's interests in Greenland's mineral resources based on a content analysis of Chinese-language geology journals from the Chinese Academic Journals Database (CAJ), a Chinese full-text database containing more than 66 million articles. It shows how, following a series of diplomatic exchanges between China and Greenland from 2011 to 2013, Chinese geologists began to publish detailed assessments of Greenland's mineral resources. The article then briefly introduces the two mining projects and the Chinese investments in these projects that followed the diplomatic exchanges. Finally, it analyzes and compares the two Chinese companies involved in the projects, their relationship to the Chinese state, and how they operate within Chinese and global policy frameworks, before concluding that Chinese involvement in the two projects is driven by different strategic considerations. We argue that Chinese involvement in REE projects overseas is primarily driven by China's interest in the "strategic" resource itself, whereas decisions

of where to engage in zinc projects are to a higher degree determined by China's foreign policy priorities.

China's Foreign Policy Interests in the Arctic and Greenland

Until 2018, China operated under an unofficial Arctic policy. Moreover, in public statements targeting international audiences, Chinese polar officials tended to deemphasize or avoid discussing China's interests in what they perceived as potentially sensitive areas, such as mineral resources and national security.⁷ As late as 2012, Yang Huigen, Director of the Polar Research Institute of China, denied that China had any interest in Arctic mineral resources (Brady, 2017: 87). This contrasted with China's domestic discourse on Arctic issues, which showed great interest in mineral resources (*ibid.*). A 2015 Chinese-language report from the Shanghai Institutes for International Studies (SIIS), a government-affiliated think tank, stated: "with the rapid development of China's economy, China's demand for resources and energy continues to increase, and its dependence on imported energy sources is also rising. The Arctic region has abundant reserves of energy resources. There is great potential for China and Arctic countries to engage in energy cooperation and achieve joint economic development" (Zhang et al., 2015: 27).

With the publication of China's white paper on the Arctic in January 2018, the gap between China's domestic discourse and the message it transmits to foreign audiences appears to be shrinking. Although the white paper does not address China's military interests in the Arctic, it now makes clear that China intends to explore and exploit Arctic resources, including mineral resources, while stressing that it will be done in accordance with international law. It repeats China's intention to incorporate the Arctic into the BRI by establishing an "Ice Silk Road", a term officially established in May 2017 when Chinese Foreign Minister Wang Yi referred to it in a discussion on China-Russia cooperation in developing the Northern Sea Route (Xinhuanet.com).⁸ In a Chinese-language analysis of the white paper, Yang Jian, Vice President of SIIS, noted that "from an economic perspective, China is a major country of world trade and energy consumption. The development and utilization of Arctic navigation channels and resources may have a huge impact on China's energy strategy and economic development" (Yang, 2018: 4).

Given its geostrategic location between North America and Europe, its proximity to new potential shipping lanes, and its vast potential for mineral resource exploitation, Greenland is expected to play an increasingly important role in China's emerging Arctic strategy. Although Chinese officials are careful to avoid addressing China's foreign policy interests in Greenland, influential Chinese scholars have since 2016 begun to publicly discuss the issue of Greenlandic independence and its implications for the geopolitical balance. As first reported in Western research by Martin (2018), Guo Peiqing, a law professor at Ocean University of China and one of China's most prominent polar researchers, has discussed the topic in one of China's leading international relations journals. Guo and co-author Wang Junjie believe that Greenland is moving towards independence at an accelerating pace. According to them, the international community has a "responsibility" to help an independent Greenland deal with its developmental problems. Mineral resources will play an important role in Greenland's future, especially REEs, which the authors regard as "the most important strategic resource of the 21st century" and "one of Greenland's most important strategic assets" (Guo & Wang, 2017: 64). Other scholars go even further, presenting views that could be regarded as highly controversial. Xiao Yang, Director of the Arctic Research Center at Beijing International Studies University, discusses the role of Greenland in China's foreign policy strategy. Greenland, which is "gradually gaining greater independence," is the key variable in the Arctic's future political and economic landscape. In Xiao's view, Greenland could serve as a "foothold" for China to "fully participate in Arctic affairs" (Xiao, 2017: 110). In a comment to one of the authors at a conference in 2016, Yang Jian expressed it more diplomatically, stating that China is happy with Greenland as a part of Europe, but fears that an independent Greenland might become a *de facto* part of the US.

Zinc and REEs: Global Supply and Demand

Zinc

Zinc is one of the most widely used non-ferrous metals.⁹ Galvanizing, mainly for the automotive sector, accounts for over 50% of total zinc usage worldwide (Statista.com, 2017). Despite a declining demand for zinc in North America and Europe, the global demand for zinc increased by about 31% from 2005 to 2015, driven in particular by China's increasing demand (122%) (Meng, 2017). The forecasts for the zinc markets generally predict a

continued upward trend due to the closure of several major mines and growing global demand.

China has met some of its demand for zinc by increasing domestic production of zinc concentrate (by 76% in the period 2007-2017) (US Geological Survey, 2018). China produced 5.1 million t in 2017, equivalent to 39% of the global production. China has not been able to compensate for the production, resulting in depleted reserves. Hence, the lifetime of the Chinese zinc reserves has dropped from circa 11 to 8 years in the past decade. This is in contrast to the Rest of the World (ROW), where reserve lifetime has grown from 15 to 24 years. For this reason, China has to make alliances with zinc miners outside China to secure its future supply of zinc.

REEs

REEs comprise 17 elements always occurring together, of which 15 provide unique commercial properties that are essential raw materials for the production of emerging energy and communication technologies, such as wind turbines, electric vehicles, computers and smartphones. This has led to swiftly expanding markets for REE products, for which China has achieved a monopolistic role in all segments of the REE value chains. Growing demand outside China for REE raw materials stemming from the above market sectors amplifies concerns over the quasi-monopolistic supply situation, and consequently REEs are considered a Critical Raw Material¹⁰ by the European Union (EU) and the United States (US) (EC, 2018; US DOI, 2018). However, political strategies in the EU and other Western countries aimed for the development of REE supplies outside China have been unsuccessful.

Global REE mine production in 2015 is reported to be about 126,000 t Rare Earth Oxides (REOs) of which about 20,000 t is produced outside China (US Geological Survey, 2016), although the figures are inaccurate due to unregistered and non-reported operations. Over the past three decades, the demand for REOs has increased about 5% annually. The fast-growing global demand for REOs in combination with Chinese taxes and quotas has put a pressure on ROW to develop new REE mines. However, the Chinese dominance of the value chains, and the technically complex process of transforming the REE mineral concentrate into various types of separated commercial REE products, are constraints for new projects. These reasons

make Chinese REE groups obvious partners for potential new REE mining projects in ROW.

Figure 6-1: Production of zinc concentrate in China and ROW from 2007 to 2017, based on data from the US Geological Survey, 2007 to 2017.

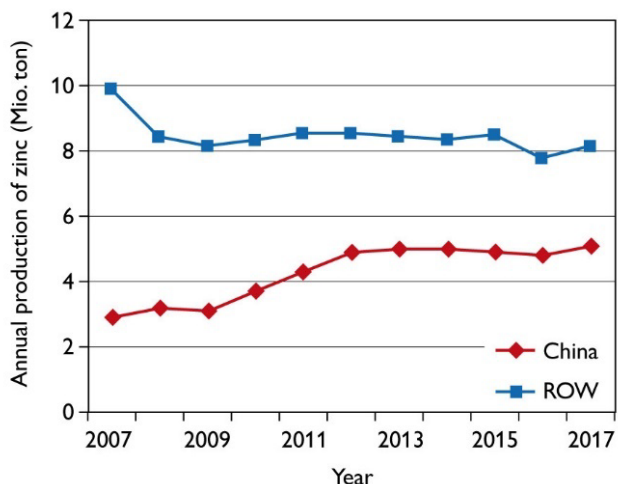
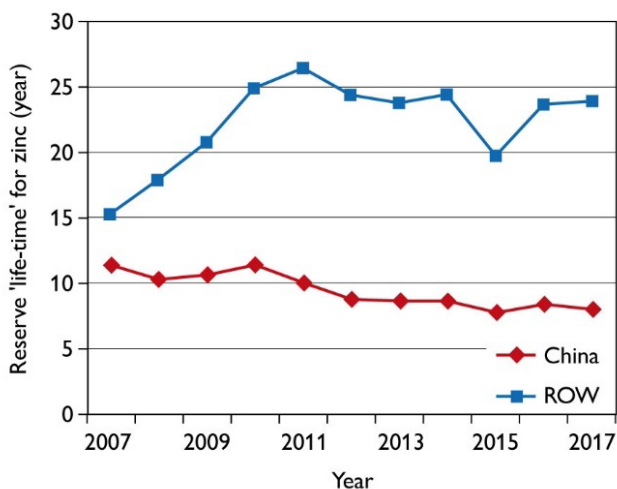


Figure 6-2: Lifetime (years) of zinc reserves in China and ROW from 2007 to 2017, based on data from the US Geological Survey, 2007 to 2017.



China's Five-Year Plans for Zinc and REEs

China has a well-developed and clearly defined national strategy for REEs, a resource it considers “strategic”. Whereas the EU and the US use the term “Critical Raw Materials” to refer to minerals that are crucial for the economy, China’s National Plan for Mineral Resources (2016-2020) uses the term “strategic minerals” (战略性矿产) to refer to minerals that are essential for “protecting national economic security, defense security, and strategic emerging industries” (State Council, 2016: 14). The plan lists REEs as one of 24 “strategic minerals,” whereas zinc is listed as one of 35 “key minerals” (重点矿种) (which also includes REEs). Zinc, in other words, is not a “strategic” resource for China, but still important for its industry.

Despite China’s many years of market reforms, both the zinc and REE sectors are subject to five-year plans issued by the Ministry of Industry and Information Technology (MIIT) and approved by the State Council. While REEs have their own five-year plan at the ministry level, zinc is part of the five-year plan for the non-ferrous sector (MIIT Plan No. 316, 2016; MIIT Plan No. 319, 2016). The five-year plan for non-ferrous metals is 44 pages long while the REE plan is 30 pages long. In the five-year plan for non-ferrous metals, zinc is mentioned 25 times, compared to copper (88 times) and aluminum (127 times). This suggests that zinc is regarded as far easier to regulate or much less in need of regulation than REEs.

Both the REE and the non-ferrous sectors in China are controlled by companies partly or fully owned by different levels of and/or sectors within the state. The goals set for the REE industry are, however, much tighter than in the non-ferrous sector. Most importantly, access to producing (extracting and processing) REEs is regulated through a quota system to which only six selected companies (the “Six Big”) have access (Zeuthen, 2017). Zinc and other non-ferrous metals, on the other hand, are produced according to more loosely defined goals. Both fields are subject to centralization processes aiming to modernize the sector through larger, fewer and more efficient facilities. Given the very different incentives for implementing these policies, however, the REE sector is several steps ahead of the non-ferrous sector in this regard.

Table 6-1: Comparison between the five-year plans for zinc and REEs.

	<i>Zinc</i>	<i>REE</i>
<i>Quota-system</i>	Goals for growth in production in five-year plan No clearly specified upper limit.	Production quotas managed strictly, so only the Six Big have access to declining quotas.
<i>Industrial ambition</i>	<input type="checkbox"/> Five-year plan encourages larger and more advanced enterprises in regional clusters. <input type="checkbox"/> No specific enterprises mentioned.	<input type="checkbox"/> Five-year plan states how the Six Big should consolidate their positions and develop into world leading enterprises. <input type="checkbox"/> Regional clusters with down-stream industry encouraged.
<i>Foreign investment policy</i>	Foreign investments in China allowed.	Foreign investments in China not allowed.
<i>Overseas strategy</i>	Focus on BRI countries	Focus on advanced resource countries.

Both in the non-ferrous and REE sectors, companies are encouraged to engage in overseas activities. In both sectors, an important element of engaging overseas is industrial upgrading opportunities through cooperation with supposedly more advanced global (Western) partners. In the non-ferrous sector, emphasis is on the BRI countries in Asia and Eastern Europe, while the REE sector is encouraged to cooperate with countries with advanced mining industries. The five-year plan for REEs states that “The initiation of a number of REE development projects and the first steps towards handling REE separation in countries with a generally strong resource sector such as the US, Australia, Russia, South Africa, Chile, and Brazil has relieved the pressure on supplies from our country” (MIIT Plan No. 319, 2016: 7).

The MIIT encourages investment overseas with the aims of gaining knowledge and displaying the Chinese REE sector in a world-class context. However, despite the MIIT listing the opportunity to show off world-class technologies as an incentive for overseas engagement, it elsewhere in the five-year plan describes the REE sector as backwards or intermediate with an ambition of becoming world-class. This paradox most likely reflects the great diversity of China’s REE sector. While a large number of smaller producers that used to bypass the export quota system have been closed down as a result of the more strictly implemented production quota system and harsher environmental requirements, some survive and are incorporated into the Six

Big. Some of these facilities are far from world-class. By stating the ambition of becoming world-class, the five-year plan justifies further centralization. The MIIT's support for developing REE separation plants in leading resource countries suggests that it may in fact see China as a global leader within the REE sector that no longer needs to dominate the sector by processing REE in China, but instead by leading international cooperation within the field.

Chinese Assessments of Greenland's Mineral Resources

A search of academic articles in the CAJ reveals that Chinese geologists have since around 2011 begun to show a more active interest in Greenland's mineral resources. We listed articles simultaneously cataloged under the subjects "Greenland" (格陵兰) and "minerals" (矿产).¹¹ The search generated eight relevant articles published between 2011 and 2018 in the journals *Geological Science and Technology Information* (GSTI) (two articles), *Land and Resources Information* (four articles), *Mineral Exploration* (one article), and *Coal Geology of China* (one article). An internal search at the website of GSTI using the keyword "Greenland" generated an additional five articles, resulting in a total of 13 relevant articles. The articles in *Land and Resource Information*, a bulleting published by the Ministry of Natural Resources (then the Ministry of Land and Resources), were explored in Zeuthen (2017). We thus focus on the articles in GSTI, the only journal with "core" status¹² among the collected journals. All seven articles in GSTI were part of the same August 2013 issue¹³. The publication of these articles followed a series of diplomatic exchanges between Greenland and China, which began with a visit to Beijing by Greenland's minister for industry and natural resources in 2011, where he met with China's then-Vice Premier Li Keqiang and representatives from China Development Bank. In April 2012, Xu Shaoshi, then China's Minister of Land and Resources, visited Nuuk, and in July 2013, a large Chinese investor delegation visited Greenland.

The articles, coauthored by geologists from China University of Geosciences and the Chinese Academy of Geological Sciences (a research institution under China Geological Survey), provide detailed assessments of Greenland's mineral resources. The assessments, based almost exclusively on Western studies of Greenland's mineral deposits, are technical in style and seem to be written with Chinese geologists and mining companies as intended readers. Two of the articles provide a general assessment and overview of Greenland's mineral resources. One describes Greenland's

deposits of REEs, iron, gold, platinum-group elements (PGEs), zinc, lead, and nickel, pointing out that global warming is turning Greenland into “a focal point for the global mining industry and a hotspot for investments.” The article highlights that Greenland possesses rich mineral resources that are yet to be exploited, and that “Greenland’s most superior mineral commodities are ones that China urgently needs” (Lu et al., 2013: 55). The authors seem especially interested in Greenland’s REEs, stating that “mineralization conditions for REE in Greenland are unique in the world; REE is one of Greenland’s most advantageous mineral resources” (ibid.: 52).

The second article, titled “Introduction to Greenland’s Important Metallic Minerals and their Distribution,” provides an overview of Greenland’s metallic mineral resources and various geological formations in Greenland. It highlights that, because of global warming and the rapid depletion of global resources, Greenland’s mineral resources have caught the attention of many countries around the world. This article, too, seems to focus primarily on Greenland’s REEs, stating that Greenland has “abundant REE resources; today nine REE deposits have been found, including the world’s second largest in Kvanefjeld” (Li et al., 2013: 22).¹⁴

The Two Projects in Greenland

Citronen Fjord Zinc Project

The Arctic hosts six operating zinc mines, among them the second largest in the world, Red Dog in Alaska, and several major mines that are now abandoned (S&P Database, 2018). Additionally, a number of advanced zinc exploration projects are being developed, e.g. the Citronen Fjord project, which makes the Arctic a potential major zinc-supplying region. The Australian Ironbark Pty Ltd exploration group controls the right to exploit the Citronen deposit up to the year 2046, pending further regulatory approvals (Ironbark, 2015). In January 2017, Ironbark appointed China Nonferrous Metal Industry’s Foreign Engineering and Construction Co (NFC) to develop the project further in compliance with standard codes in Greenland and China, and with the financing requirements of Chinese banks (Ironbark, 2017). The press release states that NFC was chosen due to its technical capabilities and because it can deliver a turnkey fixed-price Engineering, Procurement, and Construction (EPC) solution to develop and commission the project. The Citronen Fjord deposits hold a measured reserve

of 9 million t grading 6.6% zinc and 0.6% lead, in addition to about 21 million t of indicated and inferred resource, and the lifetime is estimated at 14 years. Shipment of the concentrate in the Greenland Sea is a technical challenge and will mainly be possible in August. Ironbark reports that the concentrates are aimed for European smelters (Ironbark, 2013). However, the combination of (i) the geographical position of the Citronen Fjord deposit, carrying the potential for a shortcut to China via the Northeast Passage, (ii) the growing Chinese demand for zinc concentrates, and (iii) the fact that NFC is the appointed turnkey contractor, makes the Chinese market a likely destination for the concentrates.

Kvanefjeld REE Project

Presently, about 31 REE projects outside China have reached an advanced stage of development (Kalvig & Machacek, 2018). Of these, six are situated in the Arctic: one in Alaska, three in Northern Canada, and two in Greenland. The latter two are Kringlerne and Kvanefjeld, both categorized as large tonnage/low grade deposits, although the REE ratio make them suited for the high-price REE market segments. Currently, plans for developing the Kvanefjeld project are more advanced and developing Kvanefjeld will require a larger investment than the Kringlerne project. Both projects have applied for exploitation licenses. The Kringlerne project, also known as the Tanbreez project, is privately owned and thus no information about business partners is available through stock exchange releases. The Kvanefjeld project is owned by Australian-based Greenland Minerals & Energy Ltd (GME). It is a multi-element deposit from which REEs, uranium, zinc and fluor are meant to be extracted. In April 2014, GME announced a Memorandum of Understanding (MoU) with NFC, aiming to develop a new REE supply chain. Under the MoU, separation would be carried out in China by the NFC subsidiary, Guangdong Zhujiang Rare Earths Company (GME, 2014). However, in September 2016 GME A/S announced that Shenghe Resources Holding Co Ltd (Shenghe), a Chinese REE miner, had acquired a 12.5% interest in GME, with the aim to bring REE processing technology and market understanding to the project (GME, 2016).

The Chinese Companies

As a result of the five-year plans discussed above, both the zinc industry and the REE sector have experienced a massive decline in the number of

companies engaged in the industries. The investor in Kvanefjeld, Shenghe, has been particularly capable of navigating the quota system through partnerships with companies partly or fully owned by different of the Six Big with access to quotas. In addition, the company's main activities are placed in Sichuan where the MIIT hopes to further develop already existing extraction and processing clusters. Since the largest investor, the Institute of Multipurpose Utilization of Mineral Resources, a subdivision of China Geological Survey (henceforth the CGS subdivision), owns only 14% of the company, the company requires fewer permissions for operating overseas than companies such as NFC, where a single state entity owns a larger share (Quan, 2017). In addition, permissions required by Australian and US authorities also depend on the degree of state ownership. In the latter half of 2017, Shenghe was the only larger REE producer that had unused REE production quotas (*ibid.*).

While NFC was founded and is controlled by a state-owned enterprise (SOE) directly under the State Council, Shenghe was founded by the CGS subdivision and shares substantial parts of its leadership with that subdivision. Although both companies are state-controlled, they are both (especially Shenghe) skilled at benefiting from different policies and institutions present in the Chinese and global environments wherein they operate. Shenghe is capable of being treated as a private company when needed and a state-owned enterprise with access to production quotas and beneficial credits when that is needed to gain new business opportunities both globally and domestically (*idem.*).

When asked about his interest in Greenland during an interview with one of the authors in February 2017 (when the "Ice Silk Road" was not yet an official policy), the Chairman of Shenghe, who was also the director of the CGS subdivision, explained that he expected the BRI to embrace Greenland. At the same time, he stressed his uncertainty of the project's viability irrespective of these plans. He did, however, believe that a future Arctic Silk Road policy would facilitate the financing of the project (Zeuthen, 2017). Shenghe appears to be aware of beneficial policies of some kind that would make investment in a particular locality especially attractive.

Table 6-2: NFC and Shenghe compared based on messages to Chinese stock exchanges including annual reports.

	NFC	Shenghe
<i>2017 turnover</i>	19 billion CNY. 15% down from 2016	5 billion CNY. 280% up from 2016.
<i>History</i>	Founded as a subsidiary of China Nonferrous Metal Mining (CNMC) in 1983, as a fully state-owned company specialized in overseas operations. Listed on the Shenzhen Stock Exchange in 1997. Through investment in subsidiaries, NFC's domestic activities have also become considerable. CNMC owns 34%.	Fundamentally restructured in 2013 when the Institute of Multipurpose Utilization of Mineral Resources, CGS and a number of largely Sichuan-based public partners and private investors bought Taiyuan Science and Engineering Tiancheng Technology Company Limited, renamed it Shenghe Resources and bought Shenghe Leshan Resources.
<i>Overseas Activities</i>	<ul style="list-style-type: none"> □ In 2017, 58% of turnover from overseas activities. Up from 39% in 2016 (largely due to domestic decline). □ Ongoing investments in 28 projects classified as larger projects in 2017 with a total contract sum of 36 billion CNY. One project in Serbia (174 million CNY). All others in Asia and Africa. □ In 2009, CNMC attempted to buy 51% of Lynas Corp that controlled a REE processing plant in Australia. Australia's Foreign Investment Review Board (FIRB) blocked the transaction. 	<ul style="list-style-type: none"> □ Started engaging in overseas activities in 2016 when it acquired a company planning to build a REE separation plant in Vietnam and took a 12.5% stake in GME. The share in GME made the company the largest non-financial shareholder of GME. □ In 2017, the company led a consortium that bought the last active US REE mine, Mountain Pass, in California (after Molycorp's bankruptcy). □ GME-acquisition approved by FIRB. Mountain Pass acquisition approved by CFIUS, the US Foreign Investment Committee.
<i>Mining commodities</i>	Zinc, lead, copper, bauxite and REE (REE mainly through recently obtained subsidiaries, acquired in collaboration with shifting partners among the Six Big). Also has interest in other minerals, but not part of core business.	Almost exclusively REE. May become the first Chinese limited company to trade uranium through Kvanefield (Quan, 2017). The company itself, however, claims that it will not trade uranium (Zeuthen 2017).

Conclusion

Understanding China's intentions in Greenland is challenging. By analyzing what companies and policy advisors do and say, we may get an impression of why selected actors do as they do, but even under the very authoritarian leadership of Xi Jinping, China's interests in Greenland are still mainly controlled by incentives. Through analysis of Chinese-language policy documents and academic articles from the mining sector, this article has explored the different possible drivers behind Chinese engagement in two

mining projects in Greenland. We suggest that Chinese involvement in REE projects abroad is more likely to be driven by China's interest in the strategic resource itself, whereas decisions of where to engage in zinc projects are more likely to be determined by China's foreign policy priorities.

Greenland has strategic value for China both as a source of important minerals and as a foothold for accessing the Arctic region. As suggested by a growing number of Chinese scholars in Chinese-language publications, Greenland could come to play a key role in China's Arctic strategy. Clearly, parts of the Chinese state are building Arctic knowledge that may be used to facilitate investment in Greenland in the future, investments that could serve to support China's Arctic access.

The mineral sector's goal is to supply the minerals needed by China. At the same time, however, the industry is open towards utilizing incentives that other parts of the Chinese state bureaucracy might provide for geostrategic reasons and is subordinate to directives. The exact combination of mineral need and geostrategic incentive may vary from project to project, but in the case of Greenland, it appears as if the geostrategic element of possible future decisions on mining is considerable.

Notes

1. However, China's involvement in the Kvanefjeld Rare Earth Element (REE) and uranium project in southern Greenland also places it in the middle of the Greenlandic uranium debate – one of the most divisive political issues in Greenland today. See Bjørst (2017).
2. "Advanced projects" are projects for which the ore reserve is defined. Ore reserves are ores that are known to be economically viable.
3. References to Rare Earth Elements (REEs) are to the commodity term comprising the non-specific seventeen elements, such as REE minerals and REE products, although only a few of them are present in the REE products. References to Rare Earth Oxides (REO) are applied for quantification/statistic purposes.
4. The Kvanefjeld project will also produce zinc, although of very low grade.

5. The article focuses on REEs and zinc, since they are the main commodities involved in the two projects.
6. Also known under its literal translation One Belt, One Road.
7. For more on China's security interests in Greenland and the Arctic, see Lulu (2017) and Brady (2017).
8. However, as Brady (2017: 117-118) has demonstrated, both the Arctic and Antarctic have been part of the BRI since Xi Jinping's visit to Hobart, Australia, in 2014.
9. Non-ferrous metals are metals that do not contain any iron. The main non-ferrous metals are aluminum, copper, lead, nickel, tin, titanium and zinc.
10. Critical Raw Materials (CRMs) are raw materials that are considered to be of great importance for the European economy and subject to high supply risk.
11. 23 results were listed. 15 articles did not discuss mining in Greenland or were not relevant for our analysis.
12. Chinese core journals are nationally recognized journals in China, with a much lower acceptance rate than non-core journals. According to Peking University Library, which publishes the list of core journals, more than 100 Chinese journal workers and experts from Chinese top universities and libraries participate in the selection of core journals.
13. The existence of the GSTI articles was first noted in Western research by independent researcher and blogger Miguel Martin, also known under the name Jichang Lulu. See Martin (2018).
14. The remaining five articles in GSTI present research updates on some of Greenland's most significant mineral deposits, including the Kvanefjeld and Citronen Fjord deposits.
15. 1 USD = 6.41 CNY 1 June 2018

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Imagining China on Greenland's Road to Independence

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For decades, Greenlandic politicians have sought independence. Renewed global interest in the Arctic has given new impetus to a strategy of diversifying the existing dependency relations, as a way to move beyond colonial status. This article investigates how Greenlandic foreign policy narratives have cast China in different roles that support this strategy. Some narratives are informed by Orientalist tropes imported from Denmark, while others dismiss the very same tropes. Some embrace Chinese partners as crucial on Greenland's road to independence, while others reject China as imperialist. Mainly, China has been imagined as a potent source of material resources (export revenues, investments, labour). Initially, this narrative was employed to support a business attempt to reinvigorate traditional hunting through new export channels. Later, narratives underscored Greenlandic ambitions as a mining country. Recently, they have backed a Greenlandic search for new solutions to the less-hyped fishing and tourism industries. Besides the promise of material gains, Greenlandic authorities have also imagined China as an occasion for international recognition. However, the sought-for recognition has changed drastically, from the time when Greenland's national team played soccer against Tibet to current attempts to negotiate science, infrastructure and paradiplomacy with Beijing and Copenhagen. The analysis is based on media reports, government foreign policy statements and parliamentary debates from 1999-2018. Theoretically, the analysis draws on a tradition of analyzing international politics and foreign policy as driven by narratives constructing nation state identities in relation to Others, focusing particularly on Orientalist tropes and anti-colonial alternatives.

China Diversifying Greenland's Dependence¹

Since the establishment of Home Rule in 1979, Greenland has worked towards enhancing independent agency in international politics. This has been a central part of an overall strategy to break with the dependency on Denmark, a legacy of Danish colonization. The renewed global interest in the Arctic has given new impetus to efforts to diversify the existing dependency relations as a way to put coloniality behind. Greenland has for decades pursued relations with other Inuit polities across the Circumpolar North, Nordic collaborators, the UN, the USA (Jacobsen & Gad 2018), and the EU (Gad, 2016). The increased interest in the Arctic has benefitted these efforts. Also, as part of this interest, much attention – domestic and international – has been given to the possible role of China in the future of Greenland. Hence, this article is concerned with the ways in which China features in Greenlandic national narratives, foreign policy strategies, and visions for the future. Particularly, we examine the different Greenlandic castings of Chinese actors (the Chinese state, Chinese consumers, Chinese companies, Chinese workers), and how these castings reflect specific ways of placing Greenland on the global scene. We detect Greenlandic discourses about China in official documents, speeches, media statements, and interventions in public debate.² Empirically, our analysis focuses on the narratives about where Greenland is heading, told by official Greenlandic representatives and representatives for interest organizations in both the domestic and the international arenas. In certain instances, Danish and other voices are included to illuminate the contexts, contrasts and connections that shape Greenlandic discourses. We focus on public discourse since this is key in shaping the universe of options available to domestic and international actors.³ Increasingly (and in sharp contrast to Danish narratives of China in Greenland), the Greenlandic casting of China appears to be settling as that of a constructive force in the process of culminating economic and legal independence. Before turning to what the Chinese are specifically imagined to be doing, we briefly introduce the wider configuration of Greenlandic identity narratives in which Chinese actors are given roles, and the theoretical concept of Orientalism, which informs our analysis.⁴

Analyzing Greenlandic Foreign Policy as Self/Other Narratives

Theoretically, the analysis draws on the tradition of analyzing international politics and foreign policy as driven by narratively structured discourses that construct nation state identities in relation to different Others.⁵ Fundamental to this tradition is the notion that if there was no difference, one could not meaningfully talk about identity. On the one hand, any identity needs a radical Other to exist (Derrida, 1988: 52; Connolly, 1991: 64f; Campbell, 1998: ix-x). On the other hand, identity narratives seldom just relate the identity of the self to one other – most often a whole cast of characters is involved (Ricœur, 1988: 248; Hansen, 2006: 40; Gad, 2010: 38, 418).

Postcolonial works have demonstrated that the orientalized Other has been central to constructing an image of superior Western identities. Strategically, binaries have been used to legitimize the exploitative relations between Euro-American imperialist states and their colonies. One classic figure is the passive Orient in need of Western vital intervention to be productive; another is the insertion in the Other of a desire to fulfil the needs of its master (Saïd, 1979). More generally, as a basic mode of Othering, Orientalism constructs identity by describing the Other as a complete contrast to the Self: if Self is light, Other is dark (Baumann, 2004: 19-21; Gad, 2010: 148). In relation to China, Western Orientalism took a specific form, emphasizing Chinese intransigence as China resisted outright territorial colonization. In extension, imageries of a ‘yellow wave’ rolling out of China have recirculated in Western discourses (Sejersen, 2013). In some Orientalist discourses, positive qualities may be assigned to the Other to match negative ones attached to the Self (Baumann, 2004: 19-21). However, core to the imperialist function of Orientalism – even in the versions valuing the other positively – is that as a discourse, it closes itself off to input from the Other (Saïd, 1979; Gad, 2010: 158-160).

An ‘Arctic Orientalism’ (Fienup-Riordan, 1990) was also pivotal to the colonization of the Arctic and its Indigenous populations and it continues to define Inuit as the Eskimo Other in its (post)colonial relations to their colonizing states (Fienup-Riordan, 1990; Wenzel, 1991; Thisted, 2002; Bjørst, 2008; Graugaard, 2009). As part of this, Denmark has, since the beginning of colonization, forwarded essentialized images of Greenland to mirror what Denmark was not (Bjørst, 2008: 9). For example, Greenlanders

have been constructed as uncivilized and primitive, lazy and ineffective, less developed and child-like, unhygienic and amoral (Trondheim, 2002). In other periods, different colonial projects serving different purposes have stereotyped Greenlanders in what appears to be positive contrast to Europeans – as peaceful, forgiving, natural people (Pedersen, 1997). However, also in this laudatory mode, the Orientalist mirroring has less to do with the Greenlanders than with projects to dominate or reform them – or to reform Europeans at home.

Meanwhile, the emergence of a collective *kalaallit* (Greenlandic) identity was seemingly provoked by the encounter with Danish *qallunaat* [white people] (Sonne, 1996: 245). This legacy has prompted contemporary identity discourses in which representations of Greenlanders and Danes appear as antithetical (Trondheim, 2002; cf. Sørensen, 1991). Here, Greenlandic representations depict Danes as primarily power-hungry, dominant, efficient, materialistic, and individualistic (Trondheim, 2002). In this identity landscape, the idea of ‘authenticity’ has gained a foothold. Arguably, early colonial notions of the natural Eskimo hunter, who either lived in harmony with nature or was corrupted by civilization (Pedersen, 1997), reverberate in the current Greenlandic identity discourses. To have an authentic Greenland depends on the presence of people in coastal communities who speak Greenlandic, subsist through hunting, provide *kalaalimerngit* [Greenlandic food], and sell sealskin to *qallunaat* (Gad, 2005: 66ff; 2016: 46).

However, these iconic elements of ‘authenticity’ co-exist with modern elements of Greenlandic everyday life and visions of what Greenland is and should become. The colonial establishment of national institutions in Greenland during the 19th century – most pertinently, a nationally circulated newspaper, local and regional advisory councils, a college educating teachers and catechists to ‘elevate’ the people – produced the idea that Greenland constituted a nation, which was submitted to but separate from the Danish state (Thuesen, 1988; Wilhjelm, 2008). The new Greenlandic elite instituted by these institutions historically supported a number of reforms, which were to ‘modernize’ Greenland (Heinrich, 2012). In effect, 100 HP outboard motors, the internet, Canadian Goose outdoor gear, democracy, and welfare services are all elements that are central to talking about the contemporary and future Greenland. In other words, they are indispensable elements of collective Greenlandic identity. At the same time, they also appear as

signifiers of cultural ‘decline’, as iconic elements of traditional culture have been crowded out by elements of modernity (Gad, 2005: Ch. 3.4).

In sum, much political discourse in Greenland hinges on reconciling a narrative of a decline of tradition with a narrative of modernisation. In the combination of these two narratives, most Greenlandic politicians cast Denmark as the one preventing the resurrection of Greenlandic identity in the form of an independent nation state (Gad, 2005: 46f). As long as the constitutional link to Denmark exists, Denmark stands in the way of Greenlandic independence. The only way to legitimize this link in the eyes of the dominant mainstream of Greenlandic politics is if Denmark can present itself as selflessly assisting Greenland in becoming independent (Gad, 2016: Ch. 7).⁶ When stitching these two basic narratives together – that of Denmark as a threat to Greenlandic authenticity and of Denmark as a model of modernity to emulate – an ever-wider cast of characters has been involved in new narrative twists.

As the following will show, the casting of China has oscillated between links to tradition and to modernity, and between the positive and the negative. At times, Greenlandic narratives of China reproduce a classic Orientalist trope known from Western discourse: the Other selflessly standing ready, desiring to fulfil the needs of the Self. Conversely, the recirculation of Danish fears for various forms of ‘yellow waves’ are also featured.⁷ Sometimes, the contrast to China ends up reproducing ‘Arctic Orientalist’ notions of the lazy, child-like Eskimo unfit for modernity. Even those Greenlandic narratives involving China that go beyond Orientalism point to very different conclusions: towards severing relations in anticolonial solidarity and towards intensifying direct relations, to get to know the Other firsthand.

A Greenlandic Seal Meat Business Venture in China⁸

When the Greenlandic business project, Puisi A/S, was developed in 1995, China surfaced as a lucrative market for what was envisioned to become Greenland’s first seal meat export. With intentions of innovating and producing seal sausage and seal oil capsules for keen Chinese consumers, the initiators of the Puisi project imagined China as a new prosperous asset to the Greenlandic national economy and as a cure to the struggling Greenlandic sealing economies. Inuit seal hunters – considered to constitute Greenland’s

traditional, national profession (Rud, 2006) – had been challenged severely since the global sealskin market collapsed in the nineteen-eighties, in the aftermath of massive anti-sealing campaigns in Western countries (Wenzel, 1996; ICC, 1996). By turning the seal meat, which is usually reserved for subsistence use, into products for the Chinese market, Puisi A/S was believed to provide more favorable outcomes from seal hunting (*Sermitsiaq*, 1999c). Yet, the ambitions of the project extended beyond merely recovering the Greenlandic seal hunting profession. Puisi's business plan was based on expectations of instant and large revenues from its trade with China, predicting a kilo price of 500 DKK and more than 500 million DKK in revenues during the first half-decade of export (Holmsgaard, 1999a; Lichtenberg, 2000; Qvist, 2017: 261). In this sense, Puisi's anticipated profits would – channelled to the public purse through ownership and taxes, but also by reducing the need to subsidize hunting settlements – work to ameliorate the dependency on Danish block transfers and make an example of Greenlandic-steered development.

Puisi's visions were initially welcomed by hunters, politicians, and the general public in Greenland. Greenland's Home Rule Government, too, backed the company with approximately 20 million DKK over the following years. Furthermore, leading Greenlandic politicians Jonathan Motzfeldt (S) and Lars Emil Johansen (S) were pushing the project forward, periodically engaged as board members. While being prime minister, Johansen was a primary initiator of the project, supported by his ministerial secretary H.P. Barlach Christensen. Later, Christensen became the director of the Puisi company. They developed the business vision in collaboration with an American, David Stevens, who claimed to have invented a method to extract the taste of seal from the meat, thus making it more attractive to international consumers (Lichtenberg, 2000). Appointed as a liaison between Greenland and China, Stevens was placed in Beijing. Here, he was to build up Puisi's Chinese daughter company, *Sino-Am-Arctic*, and a factory to process Greenlandic seal oil in Dandong in northeastern China. Meanwhile, Motzfeldt, then head of the *Inatsisartut* (the Greenlandic Parliament), promoted Puisi A/S to potential Greenlandic voters as a good example of autonomous business development – thereby, indicating that the project was independent of Danish involvement. Home Rule officials advocated for the project in southern Greenland, which was to be home to Puisi's Greenlandic

headquarters. They encouraged private investments and urged local hunters to re-build their boats and acquire new equipment to accommodate the new Chinese demand for seal (Lichtenberg, 2000; Sørensen & Ipsen, 2003; Netredaktionen, 2010; Holmsgaard, 1999a: 6). The Puisi project received extended local support in the town of Nanortalik, where the seal meat processing factory was being built (*Sermitsiaq*, 1999c: 9). In a newspaper interview, Mayor Nicolai Ludvigsen (S) flagged a vacuum-packed seal sausage and exclaimed: “I hold Greenland’s future in my hand” (*Sermitsiaq*, 1999b: 11).

While instigating busy and growing seal hunting activity in southern Greenland, Puisi’s business plan was also the object of extended critique from the Greenlandic public and social media (Qvist, 2017: 257-258). Viewing Puisi’s lofty ambitions as disproportionate and risky, the Greenlandic newspaper *Sermitsiaq* described the project as “dangerous gambling” (Holmsgaard, 1999a: 6). As the project developed, several problematics surfaced in the media: Puisi’s liquidity appeared to be dissolving, and the required veterinary, export, and import permissions were missing. For this reason, Puisi’s first and only export was rejected by Chinese authorities in the harbour of Dandong. Shortly after the company’s initial trial production of seal sausages, Puisi A/S crashed in 2000 (Lichtenberg, 2000; Netredaktionen, 2010; Sørensen & Ipsen, 2003). While Puisi’s board was accused of misconduct and the budget was criticized for being highly unrealistic, the Greenlandic confidence in China’s desire for seal trade also turned out to be presumptuous. Economic statistics regarding the Chinese demand for seal sausages were, actually, still unknown. The only indication of consumers’ willingness to buy Puisi’s sausages had been a three-day ‘market study’ in a Chinese mall. Here, a Greenlandic representative had handed out taste samples and questionnaires, and seemingly received positive responses. As it turned out, the overall predictions of a lucrative trade partnership were based on airy imaginations. This was confirmed when a Greenlandic delegation found David Stevens in a rented office space in Beijing, no daughter company, and a non-existing factory in Dandong (Lichtenberg, 2000; Qvist, 2017: 258).

Puisi A/S was initially applauded for being a project that resolved the economic challenges to Inuit seal hunting, while supporting Greenlandic-steered business development. In this sense, Puisi A/S engaged in a new narrative in which the Indigenous hunting culture was reframed from being

'the age-old heritage' to being a considerable contributor to Greenland's national economy and, implicitly, greater national independence. In this postcolonial narrative, China gained a crucial role in Greenland's search for new partnerships that would break with the existing colonial relations and the legacy of dependence on Danish finance. Puisi's director, Barlach Christensen, stressed the extraordinary market advantages in China, stating that "China is no longer like many would remember it from childhood. In Beijing, there are five-six million wealthy people. They are Puisi's target group, and there is lots and lots of money to earn" (Qvist, 2017: 257). In this way, China figured as a constructive economic force in Greenland's independence process. However, China arguably also became an object of Greenlandic national desires, portrayed as a nation easily available and accessible to fulfil Greenland's needs. In this sense, the anticipated relationship also reproduced an Orientalist trope according to which China was simply cast as ready and waiting for Puisi A/S with big capital, cheap labour, and an insatiable market. Noticeably, Puisi A/S expected to pay Chinese factory workers a wage that was far below Chinese average wages (Holmsgaard, 1999b: 7). Furthermore, the figure of 500 DKK per kilo of seal meat was seemingly not shared with Puisi's Chinese branch *Sino-Am-Arctic*: David Stevens apparently expected a price of 15 DKK per kilo (Lichtenberg, 2000). In this light, Puisi's attempt to diversify Greenland's dependency relations also entailed reducing China to a new Orientalized image focused on profitability to suit the needs of this new Greenlandic enterprise.

Puisi A/S may also have compromised Greenland's national self-image and the Greenlandic hunting culture, at large. The future visions of industrializing seal meat for export contrasted with the existing Greenlandic national narratives, which had emphasized the role of seal hunting in subsistence and as an Inuit cultural practice (Graugaard, 2019). These narratives have been central in the defence of Greenland's Indigenous hunting practices and in response to anti-sealing condemnations in Western countries (Jacobsen, 2015: 109; e.g. Lynge, 1992). Metaphorically speaking, Puisi's postcolonial strategy in China also involved removing the "taste" of Greenland. The characteristic taste of seal was practically extracted from seal meat and replaced with the more desirable flavor of "hot'n'sweet." As the manager of the factory in Nanortalik explained to *Sermitsiaq*, "the characteristic taste of seal meat – that we value so much in Greenland but that other countries frown upon – is slowly washed away" (*Sermitsiaq*, 1999c: 14).

Playing Tibet in Anti-Colonial Solidarity⁹

A few years later, Greenland in 2001 played a football match against Tibet. The match was conceived as the brainchild of supporters of the Dalai Lama's Tibetan government-in-exile (Nybrandt & Mikkelsen, 2016), and sponsored by the image-conscious Buddhist CEO of the Danish *Hummel* sport clothes brand (Mortensen, 2007). The Greenlandic soccer association welcomed the match, signalling sympathy and identification with another colonized people who were denied access to official FIFA tournaments. Here, the Chinese government, alongside Denmark, was positioned as an oppressor intruding on a peaceful, Indigenous people. As a consequence, the Chinese government followed up by issuing threats to the Greenlandic shrimp exports. The Home Rule Government cautiously attempted to defuse the problems: While explaining the freedoms of association and assembly to the Chinese government, the Home Rule also highlighted the possible economic consequences of the match to the Greenlandic soccer association.¹⁰ Eventually, the organizers managed to lease a stadium in Copenhagen, and the two teams played accompanied by much flag-waving.

Every now and then, the Tibetan issue resurfaces in Greenlandic politics, implicitly bringing along the negative casting of China. Sara Olsvig (IA), at that time the leader of the opposition, suggested that Greenland should send an official invitation to the Dalai Lama to make clear that Greenland is in favor of human rights (*Inatsisartut*, 2015, EM14, 05:45:12). Vittus Qujaukitsoq, then Minister of Foreign Affairs (S), replied, "It would be interesting if the Dalai Lama from Tibet was invited to Greenland. I think that you in the *Inatsisartut* must assess what is most important: trade, climate or human rights. What do you find most important?" (*Inatsisartut* 2015, EM14, 05:47:57). Both Qujaukitsoq's smug smile when delivering the retort, and the fact that the Dalai Lama has still not been invited, indicate that Greenland's international relations with China is back to business. After the introduction of self-government in 2009, the negative casting of China in anti-colonial solidarity with Tibet has faded to the background and, instead, the role as economic partners has resurfaced. Particularly, hopes have been high that Chinese investments in mining would make full Greenlandic independence possible.

Chinese Mining Investments Underwriting Independence¹¹

The *Self-Government Act* (*Folketinget*, 2009, articles 2 and 7) facilitated that the Government of Greenland gained responsibility for the administration of and revenues from minerals and oil extraction, which had previously fallen under the Danish state. In continuation, the *Large-Scale Projects Act* (*Inatsisartut*, 2012) was meant to kick-start foreign investments in mining. The rationale was that if ever the extractive industries should make a difference for the Greenlandic economy, projects should be of an altogether different scale than hitherto seen (Rosing et al., 2014: 9). Moreover, all parties agreed that Greenland's national economy needed a boost. First, demographic prognoses predicted rising costs of the existing public services (GØR, 2012: 34; Sejersen, 2019). Second, the 2009 *Act on Self-Government* (§9) had 'frozen' the size of the Danish subsidies to Greenland's budget in return for Greenland taking over the right to expected revenues from minerals and oil extraction. The size of the 'block grant' was generally taken to be an immediate sign of the degree of dependence. This was exemplified in the remarks by one of the Greenlandic MPs in the Danish Parliament, Doris Jacobsen (S): "any increase in the block grant means that Greenland's dependence on Denmark increases. And vice versa, any decrease in the block grant is a clear new step on the road to Greenland's independence" (in *Folketinget*, 2012, December 18). Sara Olsvig (IA), then serving as the other Greenlandic MP, explained how the ambition of developing a welfare state added to the financial task ahead: "we need to find new sources of income to our economy, if we want to uphold our welfare system ... they will not fall from the sky. We have to create them ourselves, and raw materials are almost the only option" (in *Folketinget*, 2012, December 18). In this view, obtaining independence from Denmark, without compromising the level of welfare, necessitated inviting foreign mining companies and global capital investments. As summarized by the Government when presenting the 'large scale act': "there is no real alternative to establishing mining and on a large-scale if Greenland is to achieve a self-sustaining economy within a foreseeable number of years" (Naalakkersuisut, 2012).

The (relatively) small companies that are active in the initial part of the 'food chain' in the global mining industry (prospecting, project development) are, for the most part, Canadian or Australian. Meanwhile, both these companies and the Government of Greenland look to China for investment

in and the implementation of large-scale projects (Zeuthen & Raftopolous, 2018). Greenlandic politicians were all up in arms to secure that foreign companies in general did not run away with Greenlandic riches (Schriver, 2013: 64-66). Nevertheless, the idea that mining particularly meant Chinese did not bother the then Greenlandic Prime Minister Kuupik Kleist (IA), who retorted to a question from a journalist, “Are the Chinese worse than other capitalists?... Once, the Europeans colonized the rest of the world. They have ruthlessly exploited everything. Now, the economic center is shifting to the East” (Andersen, 2013).¹² However, the Chinese involvement in Greenlandic mining projects disturbed Danish politicians who began debating the prospects of large-scale mining in Greenland in the Danish media and Parliament in 2012 and 2013.¹³ Ostensibly, the reason for the Danish Parliament to debate the issue was the formality that granting residence permits to foreigners was still under Danish jurisdiction. While the Danish debates partly tended to the Chinese workforce (as we will return to), it was arguably firstly and lastly framed by geopolitical imaginations. In these debates, Danish right-wing politicians repeatedly pointed out China as a threat. They did so by invoking images of three distinct ‘yellow waves’: first, a yellow wave of Chinese influence threatening the link between Greenland and Denmark; second, a yellow wave of Chinese influence overwhelming Greenland as such; and third, a yellow wave of Chinese workers washing away individual Greenlandic workers, gains from collective bargaining, as well as Greenlandic national identity. While the first two threats constructed scarcely resonated in Greenlandic politics, the latter was taken more seriously.

At the grandest scale, Danish politicians issued warnings that China “might be interested in establishing a bastion in the Arctic area” (Frederiksen in Haslund & Burhøi, 2013) and “the consequences [for the global balance of power] of idly watching, while China expands, are ... incalculable and even more ungovernable” (Nørby & Bech, 2013). Hence, Danish politicians presented China as a threat to “the overall security political interests of the ‘Community of the Realm’” (Nørby & Bech, 2013). Constructing China as a threat to the ‘Community of the Realm’, however, did not resonate in Greenland. Here attention is focused more on the inequality of the members of the realm, formally and otherwise, than on valuing the community as such (Gad, 2016: 53). This is particularly the case within the realm of security politics, where Greenland’s role has primarily been that of a pawn in Danish dealings with the US (Rahbek-Clemmensen & Henriksen, 2017), rather than

the preferred role as an agent in its own right. In short, Greenlandic political discourse has trouble identifying with the security interests of the Danish state (cf. Gad, 2016: 76-78).

Second, Danish politicians presented China as a threat to Greenland. One prominent member of Parliament declared to be “worried that Greenland will not reform its economy, but just become dependent on, for example, Chinese money. ... It is a generally acknowledged fact, that those who bring the money, gradually gain more and more political influence” (Frederiksen, 2013). Ironically, in a Greenlandic perspective, this statement comes across as a rather accurate description of the present relation between Greenland and Denmark – the very relation that Greenlanders are set on breaking free from, in various degrees, directions and haste (Gad, 2016: 117). Moreover, Danish politicians sometimes followed up on the threat by casting Denmark as the adult with a separate responsibility for averting the Chinese threat, if the Greenlanders do not themselves take it seriously (cf. Sejersen, 2013): “Greenland will not stand a chance. The judgment of history on us will be stone hard if we – in the critical moment – sit still, hands in lap, when we could have acted and hindered what could become a veritable catastrophe for Greenland” (Dahl, 2013). The effect of this paternalism was to reinforce Greenlanders’ sense of subjugation, and it served mainly to affirm Greenlandic separatism (Gad, 2016: 36-44, 112).

In contrast to the Danish right-wing opposition, the official Danish position presented by the Social Democratic prime minister at the time downplayed the threat: “If you read the newspapers you could get the impression ... that there are already thousands of Chinese in Greenland ... and that the Chinese are free to pull rare earths and uranium up from the Greenlandic underground, which they will then automatically be free to dispose of. Of course, none of those things are correct” (Statsministeriet, 2013). On a more principled note, the prime minister insisted on a hands-off policy: “Basically, we need to respect that the Greenlanders are the masters of their own country” (Thorning-Schmidt in Ritzau, 2013). However, even if the prime minister also rejects a third threat, this threat has more resonance in Greenland: “I have been asked, what consequences it has, if Chinese are pouring out in the streets of Greenland. We should not sit and yell at each other, how it would be terrible if the Chinese take over the Greenlandic society” (Thorning-Schmidt in Ritzau, 2013).

Chinese Workers Undermining Welfare and Nation

The need expressed by the Government of Greenland for a special law on 'large-scale projects' pertains primarily to the workforce needed. General Greenlandic regulations serve to ensure that local workers are employed before employers can import labor from abroad (Carlsen, 2005). However, as explicated in the introduction of the bill in Parliament, a project may be of such magnitude, that – particularly in the establishment phase – Greenland alone cannot possibly supply the workforce necessary (Schriver, 2013: 76); hence, the need for what was interchangeably discussed as 'foreign labour' or just 'Chinese' (cf. Berthelsen, 2012b). These foreign or Chinese workers were pointed out as threats in two distinct ways.

Most immediately, Chinese workers were presented as a threat to Greenlandic workers, as the conditions under which they would work constituted "social dumping" (Berthelsen, 2012b; Silis 2012). The leader of the main Greenlandic trade union, Jess Berthelsen, identified the threat as directed towards the labor market as such: "I strongly warn against the current government, in a reckless moment of enthusiasm, wrecking the Greenlandic labor market and bombing us all the way back to the Stone age" (2012b). As Sejersen (2013) notes, ethnic equality in the labor market was a central part of Greenlandic postcolonial visions. Drawing on memories of past injustices, he called for solidarity: "SIK has for decades been fighting to secure that natives do not get paid less than those called here to work. ... Should we now allow workers from other countries to be paid a lower salary?" (Berthelsen, 2012a). A Danish politician joined in: "I can hardly imagine that a Chinese mining company will hire as much as a single Greenlander, if the mining company can get away with paying a Chinese worker much less" (Nørby, 2012a). However, the Greenlandic Minister for Business Development and Extractive Industries, Ove Karl Berthelsen (IA), argued that Greenlandic wages were not the relevant point of comparison; the workers would remain Chinese: "You have to look at the size of peoples' cost of living. If they get the SIK union minimum wage, they will receive an amount which is maybe 2-3 times more than their compatriots in China" (Dollerup-Scheibel, 2012c: 5). Moreover, the Minister for Finance, Maliina Abelsen (IA), explained that importing Chinese workers – and even paying them less than Greenlandic workers – was a lesser evil justified by a greater good: "It is easy to demand of foreign companies that immigrant labor shall have a high salary, so that we

will not be accused of social dumping. But we risk that the large scale projects will not be established, and then the future of the Greenlandic welfare society looks dark” (Kristensen, 2012: 10; cf. Sejersen, 2013: 12). In this government narrative, Chinese workers do not amount to a yellow wave wiping away Greenlandic workers. Rather, China is back in one of the roles it was casted in in relation to the Puisi project: passively waiting to contribute its – low pay – work to the rise of an independent Greenland.

At a more general level, the Chinese workers were presented as a threat – perhaps more diffuse, but also potentially more severe – to Greenland being *Kalaallit Nunaat*, literally ‘the land of the Greenlanders’. Echoing the bad reputation of the Danish-led modernization drive of the fifties, sixties, and seventies, the employer’s association *Grønlands Arbejdsgiverforening* – adopting a somewhat unexpected rhetoric for an organization often perceived to be dominated by Danes – warned that, “We should not risk ending up as bystanders, merely looking at the development” (Dollerup-Scheibel, 2012a: 23). Their specific aim may have been, rather than local employment, to secure that “the arrangements should make it possible for local companies [*sic*] to be part of the project on equal terms” (Dollerup-Scheibel, 2012b: 16). But the industrialists also worried about the popular legitimacy of basing an independent economy on Chinese workers: “How will ... a massive immigration of foreign labor to a large-scale project influence a local community ...? The time is ripe for having a thorough, popular debate on the many, great ... challenges, this will cause” (Sørensen, 2012). Again, Danish right-wing politicians made sure to amplify the worries by comparing Greenland with Africa, conjuring up “the great economic, social and cultural consequences of thousands of Chinese people [coming] to Greenland to work in the mines. In Africa, we have seen that Chinese workers in the establishment phase of the mines lead to Chinese workers in the operation phase of the mine and in many other positions around society. ... Let us not repeat the mistakes from Africa” (Nørby, 2012b). The Greenlandic Minister for Business Development and Extractive Industries, once again, retorted by insisting that the Chinese would never really be present in Greenlandic society – arguing, in relation to the most prominent mining plans at the time, that “it is a project, that is situated 150 km out in the empty at the edge of the inland ice. I do not count on temporary migrant labor just popping by downtown Nuuk after closing time” (*ibid.*). Nevertheless, others were eagerly

waiting to engage the ‘yellow wave’ that was expected: the press reported about entrepreneurial businessmen ready to facilitate the thousands of temporary migrant workers (Oehlenschäger, 2012) as well as about people in Nuuk (including, in private capacity, the top civil servant in the Government of Greenland) attending Chinese language classes (Qvist, 2013; DR, 2013).

When newspapers finally, in 2017, reported that “Now, the first Chinese have arrived” (*Sermitsiaq*, 2017a), the news clashed severely with the central national narratives of Greenland’s past and future. Chinese workers never came in large numbers as was imagined a decade ago, much less bringing in the billions needed to allow a mining venture to underwrite Greenlandic independence.¹⁴ Rather, groups of Chinese workers were imported to work – on the standard conditions of the Greenlandic labor market – in fish factories. A separate aim of regulating fisheries in Greenland is to secure onshore jobs in towns and settlements along the coast, lest all the catch be produced on industrial trawlers and exported without ever touching shore in Greenland (Becker Jacobsen, 2019). This regulation is intended to secure that as much of the territory of Greenland as possible is inhabited by Greenlanders, engaged in ‘Greenlandic’ trades (Gad, 2005). With this background, importing Chinese workers to do quintessentially Greenlandic jobs came as an embarrassment. The chief human resource officer of Royal Greenland, the publicly-owned fishing enterprise tasked with generating both export revenues and decentralized jobs, explained that the reason for importing foreign workers was that “we cannot get enough stable, local labor from Greenland” (Kruse, 2018a).

In sum, the participants in the debates each employed their Orientalist tropes when casting Chinese actors in stories about mining. Some conjured up yellow waves of intransient Chinese influence and cheap Chinese labor sweeping over Greenland. Others followed the lead of the Puisi business adventure, insisting that the Chinese only desired to fulfil Greenland’s needs on its way to independence, without interfering in the constitution of society. Finally, some saw stereotypes rooted in ‘Arctic Orientalism’ confirmed, portraying Greenlanders as lazy people easily lured away from work by the prospects of a sunny day of sailing in the fjords, or too hungover from modernization to show up (Duran, 2012).

A Para-Diplomatic Bermuda Triangle¹⁵

At the celebration of the introduction of self-government on 21 June 2009, representatives from China stood out, along with diplomatic colleagues from Japan and Korea, as some of the more unusual official guests in Nuuk (Naalakkersuisut, 2010: 33). Their presence was taken as a sign of the renewed global interest in the Arctic, which, sparked by climate changes and their consequences, had become “a magnet for different countries’ spheres of interest” (Naalakkersuisut, 2009: viii). Now, the ‘sphere of interest’ of a great power is – in traditional geopolitical parlance – not necessarily a place in which a minor power wants to find itself. However, for the Greenlandic diplomats who formulated this valuation of the increasing foreign interest, the most important observations were, first, the mere recognition of Greenland as an independent agent worth engaging with, and second, the wider perspective of China as crucial to Greenland’s economic development and as a central way of diversifying dependency on the outside world. The interest in Greenland’s mining potential has cooled down lately due to the lower global market prices and possibly also due to public disputes in Greenland over how to facilitate investments while still securing that Greenland benefits. Government efforts have instead been invested in promoting Greenland’s seal fur, seafood and tourist destinations to Asian economies. Simultaneously, the array of possible connections seems to widen, particularly in spheres with a more or less obvious role for the Chinese state: science, technology and communication. However, the relation between Beijing, Copenhagen, and Nuuk sometimes appears as something close to a diplomatic Bermuda triangle: efforts towards hooking up China with Greenland have tended to cancel out, even if the Danish part appears to be facilitating.

For decades, Greenlandic diplomats and bureaucrats have found the EU accessible as an organization that is used to playing games with formal sovereignty in the first place (Mac Amhlaigh, 2014), and that counts Denmark as a member state. Since the 2004 amendment of the agreement between Denmark and the US concerning the defence of Greenland, the Government of Greenland has been regularly engaged in formal consultations about the use of the Thule Air Base just as other possible fields of cooperation have been discussed (Gad, 2017; Olesen, 2018). In contrast, Chinese officials seem – perhaps with Tibet in the back of their minds, perhaps with

Greenland's resident superpower, the US – to have had more difficulties finding out how and whether to talk to Greenland with or without Danish diplomats acting as chaperones (Sørensen, 2018a). Lately, however, Chinese officials appear more self-confident in the Arctic in general, and in relation to Greenland particularly (Sørensen, 2018b).

One example of this increased Chinese self-confidence concerns the presentation of an ambition to establish a research hub in Greenland in the immediate aftermath of the publication of a comprehensive Chinese Arctic policy document. Following up on a memorandum of understanding on scientific cooperation signed in 2016 with the Government of Greenland, the Polar Research Institute of China announced plans to establish a research station of 2000 m², occupying 15-20 researchers all year round. The hub was to be located either in the Northeastern Greenland National Park or near Nuuk on the west coast (Jacobsen, 2019b). The first place is close to the Danish military base *Station Nord*, the Danish *Villum* Research Station and a proposed zinc mine in which a Chinese company has invested (cf. Jacobsen, 2019a). The latter is near the capital, Nuuk (and, hence, Greenland's own main research institutions), the suggested location for a possible new Danish/Greenlandic international research hub and close to a dormant iron mine project owned by another Chinese company (Jacobsen, 2018). The Government of Greenland has not revealed whether it had been briefed prior to the Chinese presentation that took place during the 2017 Arctic Circle assembly, where the large Danish delegation attentively noted every word in silence. However, with the responsibility over its own science policy, Nuuk holds the cards to negotiate directly with Beijing.

Another recent example concerns the installation of a satellite ground station in Nuuk in cooperation between Beijing Normal University, the Greenland Institute of Natural Resources and *Tele Greenland*. The Greenlandic parties are both public institutions. Nevertheless, they failed to inform the formal authorities in Greenland (Lulu, 2017). Aaja Chemnitz Larsen, who then was chair of the Greenland Parliament's Foreign Affairs and Security Committee, described the failure as "a bit worrying," but warned against getting "scared every time there is a Chinese project" (ibid.).¹⁶

Finally, the recent expansion of China's *One Belt, One Road Initiative* to include a 'Silk Road on Ice' (SCIO, 2018; Anderson et al., 2018) has raised hopes in Greenland that infrastructure and extractive projects might get easier

access to Chinese state investments. Related or not, following meetings with Greenlandic Prime Minister Kim Kielsen in Beijing – during an official visit facilitated by Danish diplomacy – the publicly-owned *Kalaallit Airports* development company shortlisted the state-owned *China Communications Construction Company* for expanding airports in the two major destinations in Greenland: the capital, Nuuk, and Ilulissat with its icefiord (Matzen & Daly, 2018; Jensen, 2018). On the one hand, the SIK union once again warned against the impact of tax exemptions on foreign labor on Greenlandic welfare (*Sermitsiaq*, 2017b). On the other hand, Greenlandic reactions to Danish geopolitical worries were once again dismissive. As explained by a prominent Greenlandic historian, Daniel Thorleifsen, “Here in Greenland this is understood as a conflict between Europeans and Chinese; not something which concerns us. Many think that Denmark just wants to keep Greenland for itself and therefore does not want China inside” (Breum, 2018). This Greenlandic interpretation of Danish intentions was supported when Denmark first tried to sell a small, militarily outdated naval base – but decided to take it off the market, when a Chinese mining company expressed interest in buying it (Brøndum, 2016; Turnowsky, 2016) and again when the Danish Prime Minister Lars Løkke Rasmussen suddenly showed up in Nuuk to sign an agreement offering Danish investments in the contentious airport project, followed by an even more surprising statement of intent from the US Department of Defense contemplating investments in Greenlandic military/civilian dual-use airports (World Politics Review, 2018).

Highly publicized Danish facilitations of Greenlandic-Chinese diplomatic relations are undermined by Danish political rhetoric and by more or less subtle efforts to deflect Chinese inclinations when they appear critical. So in this process towards independence, a demand for more Greenlandic control of external relations is frequently articulated. To escape from this Greenlandic/Danish/Chinese diplomatic Bermuda Triangle, Naalakkersuisut has claimed that Greenland getting in the driver’s seat will “reduce any possible signal confusion considerably” (Naalakkersuisut, 2014: 26). Hence, a recent coalition government programme envisions a Greenlandic representation in Beijing (Siumut et al., 2018: 22).

Nevertheless, right after taking up her position in the new government, the Minister for Foreign Affairs, Vivian Motzfeldt (S), ‘liked’ a Facebook-

campaign supporting a Tibetan political prisoner – but soon deleted the post, possibly to ‘reduce signal confusion’ (Christiansen, 2018). However, even if the politicians manage to avoid their own lapses into postcolonial solidarity, civil society voices might insist on this casting. When the Chinese ambassador to Denmark took part in the opening reception of a Chinese film festival in the *Katuaq* cultural house in Nuuk, the Greenlandic deputy minister for foreign affairs and the head of protocol found themselves busy trying to persuade a protester wearing a Tibetan flag to leave the premises (Ritzau, 2018).

In sum, the Government of Greenland presents direct relations to Beijing as a way of setting Danish Orientalist fears of yellow waves of Chinese influence aside. Dominant Greenlandic narratives insist that if China is selflessly willing to fulfil our desires and support us on our way towards independence, Danish foot-dragging and outright sabotage should not hold us back. However, to Greenlandic politicians, it seems, direct relations will also make it possible for Greenlanders to decide for themselves – without the filter of Danish prejudice – *if* China’s motives are credibly selfless or at least compatible with Greenlandic interests or, if contrary, then still manageable. However, the more relations between Beijing and Nuuk are direct, the more ever-resurfacing anti-colonial narratives identifying Greenland with Tibet will be a challenge to the nascent Greenlandic diplomatic corps.

Conclusion

For a couple of decades, Greenlandic actors have been imagining China and Chinese actors to take up distinct roles in relation to the two basic narratives of Greenlandic identity discourse: the decline of tradition and the resurrection of the Greenlandic nation in the form of a modern welfare state. Most of the Chinese casting in relation to Greenland has, however, been shaped by tropes known from classic Orientalism, ‘Arctic Orientalism,’ or Western prejudice about China of similar imperialist origin. The Puisi business venture of the late 1990s promised – by way of Chinese consumer markets and cheap labour – to be a panacea: putting an end to the decline of hunting as a way of living and as an income-generating trade, while simultaneously securing public revenue; however, at the price of removing the ‘Greenlandic’ taste from the product. Later castings of China have been related more exclusively to a version of the modernization narrative according to which diversifying dependency relations (beyond Copenhagen) is one way

of moving Greenlandic identity beyond coloniality. In this, China is casted to play central roles as recogniser of independent Greenlandic subjectivity and driver of its economy, crucial for the process towards a more autonomous Greenland. Orientalist concerns with yellow waves seem systematically to be side-tracked by equally Orientalist visions of Chinese passively waiting to provide for Greenland's needs in terms of investments, markets, and cheap labour. Increasingly, Greenlandic politicians envision direct relations – diplomatic and commercial – not just as a way to side-track Danish prejudice towards China, but also as a way to independently adjudicate Chinese intensions; to see if any of the Orientalist tropes holds true. Do Chinese labour, capital, and consumers selflessly wait to fulfil Greenlandic desires? Does China equate to a tide that Greenland can only stem with Danish support? Or do 'Chinese relations' involve a lot of things in between, nuances that can only be known, manoeuvred, and exploited firsthand?!

Meanwhile, firsthand experience is starting to pile up, complicating both Orientalist phantasies and visions of unmediated relations. The dreams of cheap labour have taken an unforeseen twist since Chinese workers are now employed to work in fishing factories – rather than with establishing mines – in effect recirculating 'Arctic Orientalist' notions of the lazy, child-like Eskimo unfit for modernity. With direct relations comes the responsibility for prioritizing anti-colonial solidarity – e.g., with Tibet – against one's own ambitions, and for protecting the right to civil society dissent from the official position. Moreover, it seems that the closer Chinese direct investment and physical presence in Greenland appear to be materializing, the more intent Denmark and the U.S. are to give Greenland offers so favourable, that they can hardly be resisted. With three foreign powers willing to chip in, what keeps Greenland from expanding its range of airports is primarily internal disagreement over location and priorities. Actually, conducting diversified dependence might be a lot more challenging than striving for it.

Notes

1. The authors are grateful for comments on earlier versions of this paper from two anonymous reviewers for *Arctic Yearbook*, participants in an *Arctic Politics* WIP-seminar co-convened by the University of Copenhagen and

Aalborg University, as well as on oral presentations of partial analyses at the workshop on 'China-Arctic resources transfers' at Aalborg University, 25-26 January 2018. Axel Erikson assisted in polishing the manuscript.

2. If there is a pattern to what ways Greenlandic politicians prefer to cast China, it seems to be whether his or her party is currently in or out of government, rather than party affiliation as such. However, it happens that all the politicians quoted represent one of the two main contenders, Social Democratic *Siumut* (S) or Socialist *Inuit Ataqatigiit* (IA). Most of the quotes referenced in this chapter are originally in Danish or Greenlandic. The authors are responsible for the translations from Danish to English.
3. Hence, this article does not attempt to gauge what neither 'regular people' nor decision makers *really* think about China. Private opinions – polled or held by key persons – may, of course, matter to political decision making and strategies. However, decisions and strategies need to be legitimized domestically, and the yardsticks applied are those available in discourse (Wæver, 2002; Hansen, 2006). Moreover, public discourses are what is available to outside actors, when they have to judge the conditions for intervention and interaction (unless they have intelligence to supplement).
4. Of course, nothing in this article should be taken to bear witness on what China or Chinese actors actually do, could do or want to do in Greenland. Until recently, only very few Chinese people or projects have materialized in Greenland. Indeed, a recurring media trope is how 'Now, the first Chinese has arrived' (Enkineserinuuk, 2014; Nyvold, 2012; 2017; DR, 2013).
5. For more detailed presentations of (varieties of) the analytical strategy employed and its theoretical bases, cf. Jacobsen (2015); Gad (2005; 2010; 2016).
6. In the spectrum of political parties, marginal voices have separate castings for Denmark. On the one hand, a few insist that Greenland can only progress with Denmark, and a few more suggest that as long as Denmark supports Greenland, Denmark should also be allowed to benefit from the relation. On the other hand, some interpret all Danish intervention as part of a scheme to keep Greenland under control. However, both the mainstream and these marginal voices combine – in each their way – the two basic narratives of decline and modernization.

7. Sejersen (2013) discusses how a Danish 'double orientalism' – involving Greenlandic and Chinese Others – opens a transformative space for Greenlandic representatives to reinterpret Greenlandic identity and its relations to Denmark.
8. This section builds on an analysis, first published in Graugaard (2019).
9. This section is an expanded and updated version of a discussion in Jacobsen & Gad (2018).
10. Full disclosure: One of the authors of this article (Gad) briefly handled the case as head of office in the Government of Greenland Department of Foreign Affairs.
11. This section and the following draw on the analyses in Lave & Holgersen (2014, Chapters 5.1, 5.2 & 6.a) and Schriver (2013, Chapter 5.3).
12. Sejersen (2013) finds, analyzing the interview in total, that the Greenlandic prime minister, by making a mockery of Danish Orientalist prejudices about China, in effect repositions Greenland in a less colonial relation to Denmark. One aspect of this mockery is his tongue-in-cheek racial or cultural identification between Greenlanders and Asians – a tendency which seems to be catching on more seriously with some radical proponents for independence, however, hardly making it to print (cf. Gad, 2018).
13. Foley, in a parallel analysis, concludes that much of the Danish debates should be read as Danish domestic politics (2018: 106-8).
14. Even if projects are still alive (cf., i.e., Jacobsen (2019a) on the zinc project in Citronen Fjord; Bjørst (2016) on the Kuannersuit REE/uranium project in Narsaq) shifting positions from frontrunner to fallback depend on global raw material prices and – less understood – Chinese priorities (Anderson et al., this issue).
15. The discussion part of this section updates and expands on observations and points first made in Jacobsen & Gad (2018); Jacobsen (2019a) and (2019b).
16. Among the Chinese guests attending the official opening, visiting Greenland as part of a tourist group, a China-critical blogger identified senior military officials involved in tech companies that have spun off military projects (Lulu, 2017). On the general expansion of the number of

thoroughly legit Chinese tourists, cf. Bislev et al. in this volume. The printed material, to which we limit our analysis, does not include castings specifically of Chinese tourists.

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8

The Desecuritization of Greenland's Security? How the Greenlandic Self-Government Envisions Post-Independence National Defense and Security Policy

Rasmus Kjærgaard Rasmussen

President Trump's "offer" to purchase Greenland has placed the country at the heart of world affairs and the great power rivalry in the Arctic. Greenland is currently enjoying considerable interest from both the U.S. and China while Russia is increasing its military capabilities in the region. Traditionally, Greenlandic politicians have not been interested in defense and military spending without civilian purpose. And as security policy is constitutionally outside the self-government's authority, the issue has not been high on the agenda. However, as Greenland is actively seeking independence from Denmark, the future of Greenlandic defense has become crucial to understanding its independence aspirations. This article examines how the Greenlandic self-government and the political parties envision the future of Greenland's security framework through close readings of government coalition agreements, political statements, and media texts. Based on the Copenhagen School of securitization studies, the main argument is that Greenlandic defense and foreign policy is characterized by desecuritization – that is, a tendency towards downplaying the security and defense aspects of independence while instead highlighting i.e. economic aspects. The article analyzes this logic in Greenland's recent foreign policy aspirations and in debates on defense. Analytically, desecuritization is linked to two underlying narratives that Greenlandic politicians use to rhetorically downplay security aspects of defense and foreign policy by referring to either economic self-sufficiency or identity politics of the Inuit.

Greenland in the era of increased geopolitical competition

When U.S. President Donald Trump in mid-August 2019 dramatically offered to “purchase” Greenland, as reported by the *Wall Street Journal* (Salama et al., 2019) and confirmed by the President himself on various occasions thereafter, it was the culmination of a renewed and intense U.S. strategic interest in the Arctic country. Greenland has in recent years become an arena for increased geopolitical and economic competition, with China and the U.S. as the most active players. China has been investing strategically in mineral extraction and satellite systems in Greenland (see Brady, 2017) while the U.S. has reopened its diplomatic representation in Nuuk and signed an MOU on mineral exploration (Naalakkersuisut, 2019).

This development underscores that the entire Arctic region is currently experiencing a rapid transformation in its security framework from a path of diplomatic cooperation to intensified economic and military competition between the three global great powers. In this race, Russia is building up military and SAR capabilities in the region (Devyatkin, 2018) while China is furthering its polar ambitions by defining itself as a “near-Arctic state” (Chinese Government, 2018). In response, the U.S. has considerably sharpened the rhetoric towards China and Russia, culminating with U.S. Secretary of State Mike Pompeo’s critique directed at both countries at the Arctic Council’s latest meeting in Finland, in May 2019: “We want cooperation to continue. But we can’t have one side cooperate, and the other side derogate its duties” (US Department of State, 2019). Moreover, the U.S. Department of Defense, in its new Arctic Strategy, states that the entire region is in an “era of strategic competition” (DoD, 2019), a shift from previous statements on the Arctic. There is a growing concern amongst observers and policymakers of an actual militarization (DoD, 2019: 4) and risk of a “new cold war” in the Arctic (Jacobsen & Herrmann, 2017; see also Cohen, Szaszdi & Dolbow, 2008).

Still, one particular development with implications for the balance of the entire Arctic security system stands out: the case of possible Greenlandic independence. Currently, Greenland is part of the Kingdom of Denmark and as such is allied with the U.S. and is a member of NATO. As Greenland actively pushes to become a sovereign (micro) nation-state, however, this raises the question of what will happen to the defense obligations of this vast territory in the case of full economic and political independence from

Denmark. This is a question that has been intensely debated after President Donald Trump's offer to "purchase" Greenland (see e.g. Hansen, 2019; Veirum, 2019). Regardless of the recent spat between Denmark-Greenland and the U.S., most observers and scholars assume that Greenland will stay allied with the U.S. in some form (see Breitenbauch, 2019; Gad, 2019), affirming past consensus on the subject (see Turnowsky, 2018a; Breum, 2018).

However, the diplomatic row also served to make it clear that parts of the political independence movement are mainly focused on the economic preconditions for independence. Thus, former Greenlandic Premier Aleqa Hammond (Nunatta Qitornai) stated shortly after Trump's proposal that the U.S. should instead "begin by paying for the presence at Pituffik-airbase" (Hansen, 2019). And Greenlandic MP Pele Broberg (Partii Naleraq) said that the U.S. offer should be taken seriously as a way of crowding out the current Danish block grant (Veirum, 2019). Greenlandic politicians appear to have a habit of taking security out of defense and security policy, focusing instead on economic considerations.

Analyzing the absence of security and threats in Greenlandic politics

In this article I examine how the Greenlandic self-government and the political parties envision the future of Greenland's security framework through close readings of government coalition agreements as well as media texts with official statements made by Greenland politicians on future defense policy. My main argument is that Greenlandic defense and foreign policy is characterized by *desecuritization*, that is, a propensity towards downplaying the security and defense aspects of Greenlandic independence and instead highlighting economic aspects.

This tendency to downplay security as a mode of governance is underscored by the fact that defense and security issues traditionally have not played a central part in Greenlandic politics. Jacobsen and Gad note that "[w]hen Greenlandic politicians make (rare) demands for military investments in Greenland, arguments mostly relate to services provided for civil purposes (fisheries control, search and rescue, oil spill response, etc.)" (Jacobsen & Gad, 2017: 17). Additionally, the authors observe a lack of

adversarial thinking in Greenlandic foreign policy marked by i.e. “the near-total absence of Russia in Greenlandic foreign policy narratives” (ibid.). Both the focus on the civilian aspects of defense policy and the absence of adversarial thinking emphasize this drift towards desecuritization.

The article begins by briefly introducing the theoretical concept of desecuritization and the framework of the Copenhagen School of securitization theory. This is followed by an analytical section in two parts. In the first part, I unpack the self-government’s complex constitutional-legal relationship with Denmark. Here, I introduce the idea of understanding this as a ‘sovereignty game’ (Gad, 2016) with Denmark, in which Greenland attempts to *desecuritize* policy areas to gain more control over areas that help secure the path towards independence. I substantiate my argument by analyzing how desecuritization has been applied by the self-government to tone down the security implications of Greenlandic independence ambitions in its foreign policy efforts and in the recent controversy over Chinese investments. In the second analytical part, I investigate the narratives underlying the desecuritization moves made by the Greenlandic politicians. This is done by analyzing the 2017 public and parliamentary debate on the future of defense and the ensuing coalition agreement from 2018. Here I identify two main narratives that underpin the rhetoric of desecuritization: the “identity politics narrative of the Inuit” (Jacobsen & Gad, 2017) and “the self-sustaining economy” narrative where independence is *framed* as economic and fiscal independence from Denmark (see Naalakkersuisut, 2012 and Self-Government Commission, 2001). In a concluding section I discuss the strategy of desecuritization and its implications for independence and a potential partnership with the U.S.

Analytical framework: securitization and desecuritization as political and rhetorical strategies

In a frequently quoted definition, the process of *securitization* is described as “when a securitizing actor uses the rhetoric of an existential threat and thereby takes an issue out of what under those conditions is ‘normal politics’” (Buzan et al., 1998: 24-25). Equally, the process of *desecuritization* is defined as the opposite of this dynamic: “a limitation to the use of the security speech act” (Wæver, 1995: 9) whereby an issue is brought back to the realm of normal politics. The purpose of desecuritizing moves is thus “to take security out of security, to move it back to normal politics” (Roe, 2004: 285). The

key to understanding the theory of securitization and desecuritization is thus to view it as a model of politics that explains how threat issues are both created and dismantled in discourse. Nevertheless, most analytical and empirical attention has been given to securitization, while the centrality of desecuritization has been debated (Roe, 2004; Aradau, 2004. See Wæver, 2011 for a discussion).

Desecuritization has traditionally been found in cases where the securitization of a referent object has already been established. According to Buzan and Wæver (2003), desecuritization can follow two strategies where the political community either “downgrades or ceases to treat something as an existential threat to the valued referent object” (489). The history of nuclear weapons is a good example of the first desecuritization strategy where a threat issue is being downgraded. During the Cold War, nuclear arms and their inherent ‘mutual assured destruction’ were deemed an existential threat by both U.S. and Soviet leaders. Accordingly, nuclear armament was the epitome of national security for both superpowers. After the end of the Cold War, however, nuclear weapons ceased to be considered an existential threat by these political communities and were downgraded to the level of other societal risks and handled within the realm of ‘normal politics.’

The latter strategy, where a political community stops treating an issue as an existential threat to the valued referent object, can be found in the 2008 Ilulissat Declaration with its absence of references to Arctic militarization. The Declaration was signed by the five Arctic coastal states and emphasizes the Arctic as a low-tension region where disputes are resolved peacefully, building on “mutual trust and transparency” rather than “a new comprehensive international legal regime” (Ilulissat Declaration, 2008). The clear aim of the Declaration is to avoid militarization and conflict in the Arctic even though militarization and great power rivalry are never mentioned by the text itself.

In terms of methodology, securitization theory is focused empirically on securitizing actors (leaders, governments, bureaucracies) and the rhetoric by which they make *securitizing or desecuritizing moves*. The theory hence suggests that we use discourse analysis “since we are interested in when and how something is established by whom as a threat. The defining criterion of security is textual: a specific rhetorical structure that has to be located in

discourse” (Buzan et al., 1998: 76). This of course is also valid for the rhetorical structure of *desecuritizing* moves. Securitization theory further urges us to read “central texts” in which major instances of securitization take place (ibid.) – these can be official statements by securitizing actors or central political debates.

I find these recommendations compatible with the present article’s analytical preference for narratives and rhetoric found in empirical texts such as speeches by heads of state, media texts, policy documents and interviews with key political actors (see Rasmussen & Merckelsen, 2017 for details on narratological security analysis. See also Greimas, 1971). Moreover, since desecuritization implies rhetorically downgrading or ignoring issues, it is crucial to have analytical sensibility to what is not mentioned directly in the text but alluded to. An example is the aforementioned where the text of the Ilulissat Declaration never mentions militarization – by some considered the chief threat to Arctic security. Another example is the abovementioned statement by Aleqa Hammond, which frames the U.S.-Greenlandic relation in economic terms – thereby downplaying the crucial issue of security policy (alliances, bases, etc.). With securitization theory as the analytical lens, we can see that Hammond is actually trying “to take security out of security.”

Greenland’s limited self-government and foreign policy: Desecuritization as strategy and the controversies with Denmark

The constitutional-legal arrangement between Denmark and Greenland is complex and can be hard to grasp for outsiders. The Kingdom of Denmark, a constitutional monarchy, consists of Denmark, the Faroe Islands and Greenland, forming what is known as the Realm. The Faroe Islands and Greenland are autonomous territories with Home Rule (attained in 1948 and 1979, respectively) by which these two (micro) nations have had authority over their domestic policy. Yet Denmark and the government in Copenhagen control foreign, security, and defense policy for the entire Realm.

Since 2009, Greenland has had self-government, which created a new division of jurisdiction between Nuuk and Copenhagen (Danish Government, 2009). This further extended Greenland’s authority over policy areas to include health services, education, fiscal policy, and, perhaps most importantly, since 2010, authority over its vast mineral resources and concurrent legal control over this area, including mining licenses. The *Self-*

Government Act also stipulates that Greenland can legally take over responsibility for other areas that are currently under Danish authority. This list presently includes 31 policy areas, including police and courts (Danish Government, 2019).

However, responsibility for conducting foreign policy for the whole Realm, according to the Danish constitution, still falls under the authority of the Danish government. This means that Denmark controls Greenland's foreign policy as well as security and defense issues pertinent to it (see Kristensen & Rahbek-Clemmensen, 2017). This part of the constitutional-legal set-up has on several occasions spurred controversy. This is because there is no clear dividing line between what constitutes foreign policy and what constitutes economic or trade policy with international implications – issues which, according to the *Self-Government Act*, would be under Greenlandic authority. Nonetheless, the two countries have had quite different perceptions and interpretations of when economic, trade and investment issues entail foreign policy and/or security aspects. This has been painfully evident in the uranium dispute from 2009 to 2016 (Rasmussen & Merckelsen, 2017; Vestergaard & Thomasen, 2015) and in the recent quarrel over airport financing from 2017 to present (Bislev et al., 2018). Furthermore, Greenland has challenged the framework by striving for more direct bureaucratic and political control over the foreign policy field (see Kleist, 2019).

This constitutional-legal framework has thus resulted in a 'sovereignty game' (Adler-Nissen & Gammeltoft-Hansen, 2008; see also Gad, 2016) between Greenland and Denmark where the ultimate aim for Greenland is independence. Using securitization theory to understand this game makes it clear that independence is the valued *referent object* for Greenland and that Denmark to a certain extent can be seen as a *threat* to this goal.¹ Or as Gad and colleagues note on this perception, "Denmark stands in the way of Greenlandic independence" (Gad et al., 2018: 3). Moreover, we can analyze the recent controversies over what constitutes foreign policy in the constitutional arrangement as a manifestation of this underlying game. In this game, I argue that securitization and desecuritization moves are used as strategies for independence. And by applying the securitization model we can elucidate the narrative through which the Greenlandic government understands independence:

Greenland's securitization narrative

<u>Referent object:</u>	<u>"Existential" threat:</u>
Independence from Denmark	← Danish securitization of economic issues (export, investments)
Own foreign policy	← Danish securitization of foreign policy issues <i>per se</i> .

Seen in isolation, Greenland is clearly making a securitizing move, rendering independence the valued referent object. Seen in relation to the sovereignty game with Denmark, however, the Greenlandic strategy – by the logic of this game – is to *desecuritize* pertinent policy areas to either gain more control or to keep the status quo. In effect Greenland has pushed for more foreign political autonomy to secure its economic interests regarding fishery and foreign investments by delineating these areas from security policy (see Kleist, 2019 and Bianco, 2019).

In the following analytical section, I substantiate the argument that foreign and defense policy issues are being purposefully desecuritized through two examples of this strategy in practice. First, I introduce Nuuk's continuous bureaucratic and diplomatic ambitions to conduct foreign policy. Secondly, I analyze how desecuritization was used by Greenland's government in the recent controversy over airport funding. I conclude this analysis by drawing attention to the outcome of this vis-à-vis Greenland's relationship to the U.S. and China. This can in turn explain the sudden shift in current Greenlandic foreign political outlooks and strategies for obtaining foreign investments – and economic support.

A Room of One's Own: Greenland's diplomatic ambitions and the de-securitization of foreign policy

Control over foreign affairs is a notable point of contention and at the heart of constitutional-legal controversies with Denmark. For Greenland, foreign policy has implications for economic policy with international ramifications such as exports and foreign investments. Additionally, this policy field holds a particularly important symbolic value as proof of the coming independence. As Minister of Finance Vittus Qujaukitsoq said in a recent speech held in Nuuk in May 2019 at the Future Greenland conference, "The ultimate political goal must be that Greenland takes over as much

responsibility within these fields as possible” (Qujaukitsoq, 2019). Further corroborating this is the fact that all coalition agreements² since 2014 have mentioned foreign policy (i.e. international relations and trade policy).

However, within the current constitutional-legal set-up this is not possible and, so far, the self-government's strategy has, for example, been to engage in forms of para-diplomacy with representation in UN's forums of Indigenous people via membership of the Inuit Circumpolar Council (Jacobsen & Gad, 2017). It has also established (quasi)diplomatic representations in Iceland, Denmark, the U.S. (Washington), and the European Union under the existing legal framework (Kleist, 2019). And in the 2018 coalition agreement between Siumut, Partii Naleraq, Attasut and Nunatta Qitornai, there were even plans for representations in Canada and China (Naalakkersuisut, 2018a: 22). Moreover, the self-government has confidently renamed the department responsible for its foreign relations “The Ministry of Foreign Affairs” to its international stakeholders while keeping the less pretentious “Department of Foreign Relations” in its Danish-language communications (Naalakkersuisut, 2019; Kleist, 2019).

It would seem that such displays of symbols associated with a real sovereign state would violate the constitutional red line that stipulates that Greenland's foreign policy falls under Denmark's authority. However, Denmark has had no specific interest in curtailing Greenlandic efforts to secure, i.e. foreign investments and trade and no official Danish criticism has been made of the name change. This follows the overall policy of the Danish Government established in the 2003 Itilleq Agreement which specifies that the Greenlandic Home Rule must be part of decisions involving foreign and security matters (Danish Government, 2003, see also Naalakkersuisut, 2019).³ This probably dampens the Danish urge to securitize international matters with no clear defense or security aspect seen from the Danish perspective.

Additionally, the self-government in practice seems conscious in toning down defense and security policy aspects while emphasizing trade and economic aspects. In the most recent coalition agreement, it is stated that the foreign policy goal of Greenland is to work for “world peace, welfare and prosperity” and “how we as international citizens can participate in the global competition on trade and research” (Naalakkersuisut, 2018a). The

unequivocal rhetoric of international trade and peace is a desecuritization move aimed at securing foreign political autonomy and maneuvering room within the current constitutional set-up.

While Greenlandic aspirations in international matters without clear security implications for the entire Realm have been consciously ignored by the Ministry of Foreign Affairs and the Prime Minister's Office, these actors have in other instances intensely contested Greenlandic authority over domestic policy with security implications and foreign policy ramifications. This has indeed been the case with uranium exports, the Chinese airport investments, and a planned Chinese purchase of the abandoned naval base at Grønndal (Breum, 2016).

So, although the Itilleq accord stipulates that all foreign and defense policy pertinent to Greenland must involve the self-government, the reality is that the Danish government has felt compelled to invoke a rigorous interpretation of the legal-constitutional framework when considerations to allies or international regimes outweighed the internal relations within the Realm. This dynamic is the main reason for the ongoing security controversy between the two countries.

The airport 'game': The loss of the Chinese dream and revival of the U.S. as sponsor

One of the most recent instances of the sovereignty game emerged in late 2017 around the plans to build three new Atlantic airports in Nuuk, Ilulissat, and Qaqortoq (see Danish Government, Naalakkersuisut, 2016). What began as a triumph for Greenlandic-Chinese para-diplomacy ended in an impending security controversy between Denmark and the U.S. The row began when Greenlandic Prime Minister Kim Kielsen ventured on a controversial 'official' diplomatic visit to Beijing in October 2017. Purportedly, Chinese banks during these meetings showed interest in financing the airports on the premise that the building was done by a Chinese company (Hinshaw and Page, 2019: 18). Later, the media reported that China Communications Construction Company (CCCC) had indeed made a bid on airstrip development in Nuuk. According to the *Wall Street Journal*, U.S. officials were alarmed to find out that China was about to get a military foothold so close to the American homeland. Allegedly the Danish government was contacted: "Beijing must not be allowed to militarize this

stretch of the Arctic, Mr. Mattis told his Danish counterpart Claus Frederiksen at a meeting in Washington in May 2018, officials close to the discussion said” (Hinshaw & Page, 2019).

During the summer, the Danish government concocted a plan to crowd out Chinese state investments by offering Nuuk cheap development loans through a Danish state fund while stressing the grave security implications. In a joint statement, the Danish government rhetorically made it clear that it – and the U.S. – considered the airports a matter of foreign and security policy:

I agree with the considerations behind the desire for an improved infrastructure in Greenland. It is on competitiveness, business development and better growth conditions for tourism. The current airport project can have *foreign and security policy perspectives that range beyond Greenland*, and for a number of years it will seize large resources in Greenland's economy.

I am therefore pleased that the chairman of the Greenland Government Kim Kielsen and I have today agreed that we initiate the joint investigation work. At the same time, a joint development fund could strengthen the opportunities for growth and development in Greenland. (Joint statement, quoted in Turnowsky, 2018b, emphasis added)

In theoretical terms, the statement is a move towards securitizing Chinese investment in airports as an ‘existential threat’ to the Kingdom’s alliances. In effect, Kielsen’s arm was twisted by both threatening him with the risk of jeopardizing Danish-U.S. relations *and* offering Greenland funding for the first time since 2009. This strategy was a success and, in the joint statement, Kielsen and the Greenlandic government accepted the Danish securitization move:

I am very pleased with the openness and positive attitude I have met from the Prime Minister’s side in our discussions on this topic. I am glad that the Prime Minister shares my opinion [of] the importance of infrastructure for growth. Our discussions on cooperation on the airport projects are based on the current division of competencies between the Greenlandic and the Danish authorities and the wish for equal cooperation. On that basis,

Naalakkersuisut will take a positive view of the cooperation with the Government on the possibilities that Denmark can contribute with the financing of parts of the airport projects. This contains some exciting perspectives, both for the airport project's realization; but also, for the development in our mutual cooperation." (Joint statement, quoted in Turnowsky, 2018b)

Kielsen's decision to cave to Danish demands was, however, not without political cost as the independence party, Partii Naleraq, left the coalition in protest, resulting in a governmental crisis (Lihn, 2018). There are clear signs that the Danish-U.S. intervention (securitization move) has deterred China from investing further in the projects and the CCCC, which was named as a main bidder for the contract, has now officially pulled its bid. Additionally, a high-ranking Chinese general, Li Quan, in a recent news report, stated that "China has a one-Denmark policy" (Turnowsky, 2019), probably signifying that Beijing respects Danish supremacy over Greenland's foreign policy in a broad sense.

In conclusion, the new game is hence more explicitly about security – rendering economic goals ('China') less important than security ('U.S.'). This is opposed to the narrative structure of the uranium game where Denmark, from the Greenlandic point of view, played the role of the opponent trying to hinder China from being a helper. In Greimas' narrative terms, *the actantial positions* (i.e. roles) have now changed as China in the new game has gone *from* helper *to* opponent while the U.S. has taken over the function of helper in Greenland's narrative (Greimas, 1971). Curiously enough, the U.S. is thus part of both Greenland's and Denmark's stories as a 'helper', albeit sustaining almost opposite foreign political aspirations.

That is, if the U.S. increases its role as more of an economic sponsor for Greenland, it risks entering the role of an *opponent* to Denmark's ambition of staying a "major Arctic power" (Danish Government, 2016: 13) (see figure 8-1 for an overview of actors and aspirations).

I will argue that Greenland's abandonment of its desecuritization of Chinese investments has rearranged the tectonic plates of U.S.-Dano-Greenlandic relations, shaking China's position as a viable investor while bringing the U.S. to the fore as a new sponsor and not just a security provider (see U.S. Government, 2004). The closure of this game underscores the U.S.

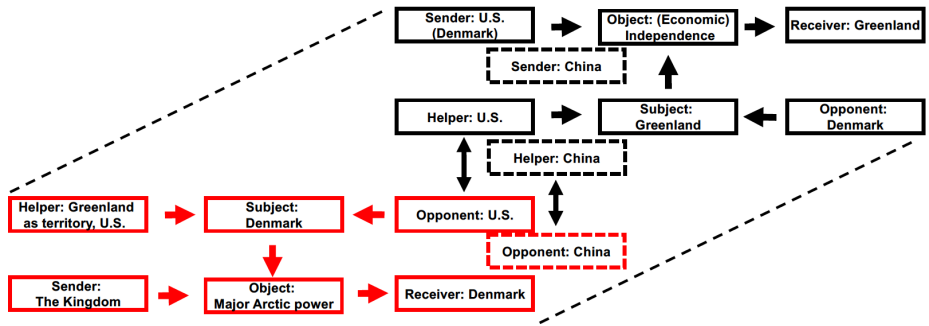


Figure 8-1: The ‘new’ game. Reversing the roles from helper to opponent (based on Rasmussen & Merckelsen, 2017: 96).

strategic interest in Greenland. And it can in turn explain the current shift in Greenlandic foreign political outlook towards North America in its strategies for acquiring foreign investments. The Greenlandic government’s desecuritizations of China and foreign policy have thus had the concrete aim of securing very specific investments while avoiding Danish interference. While these strategic desecuritizations are carried out at the level of the government’s foreign policy bureaucracy, we also find desecuritization moves made by Greenlandic politicians in the political debate – the focus of the second analytical section.

The narrative sources of the desecuritized defense: The self-sustaining economy and the peaceful Inuit

As mentioned in the introduction, Greenlandic politicians have not traditionally highlighted defense investments or that there is an absence of adversarial thinking in Greenlandic foreign policy discourse (Jacobsen & Gad, 2017). Greenlandic politicians’ statements on defense policy are therefore an important place to examine the political elite’s tendency to “take security out of security.” In this final section, I therefore turn to examples from the 2017 political discussions on defense policy in order to investigate the underlying narratives of desecuritization.

Desecuritizations of defense and security made by Greenlandic politicians and parties are mainly framed rhetorically within two discourses, which I

term the “self-sustaining economy” narrative (e.g. Naalakkersuisut, 2018b) and the “Inuit identity politics” narrative (Jacobsen & Gad, 2017). In the following, I will tentatively link these two narratives with desecuritization statements on Greenlandic defense. The most recent installment in the debate on the future of Greenland’s defense began when Minister of Finance Vittus Qujaukitsoq drew the subject into the independence debate in a seminal speech at Ilisimatusarfik, the University of Greenland, in early 2017 (Breum, 2018). From here the issue made its way to the official political agenda as part of the parliamentary debates in June 2017 on the mandate of the Constitutional Commission and the subsequent discussions on what kind of sovereign nation Greenland shall be.

The speech by Qujaukitsoq contained several desecuritizations, building on the “self-sustaining economy” narrative. The core of this narrative is that independence is only possible when Greenland can free itself from the annual \$576m block grant provided by the Danish state (Naalakkersuisut, 2019: 8). The phrase “self-sustaining economy” entered the independence discourse around the year 2000 in documents by the Committee on Self-Rule Government (e.g. Self-Government Commission, 2001) and has since been used extensively by the self-government to frame the economy of independence e.g. in relation to the need for mining revenues and investments (Naalakkersuisut, 2012). As Gad and colleagues note, the size of the block grant has been taken as a sign of dependence by the Greenlandic politicians (Gad et al., 2018: 7). The expenses of Greenlandic defense are currently approximately \$150 million annually (Rasmussen, 2019), and this cost is not part of the block grant but paid by the Danish government via its defense expenditures. This additionally provides Greenlandic self-government and policy elites an incentive for keeping these costs out of independence deliberations.

This economic logic in the narrative was at stake when Qujaukitsoq downgraded Denmark as the ensurer of the territorial defense of Greenland: “The Danish defense today is not the actual defense of Greenland. Should there arise a real threat to our country from hostile powers, it is defended by the United States. It is the reality all know but nobody discusses” (cf. Breum, 2018). Notice how the U.S. entered the Greenlandic security narrative as the ‘true’ helper, pointing to the aforementioned role reversal in the new sovereignty game. However, the real consequence of Qujaukitsoq’s claim of the Kingdom’s ineptitude in the defense of Greenland is that it downgraded

the perceived need for the defense of the island *as such*. This in turn would render an independent Greenland's economic obligations to defense smaller than the status quo – a clear sign of the “self-sustaining economy” narrative's logic. By undermining Denmark's role as security provider, he is thus downplaying the significance of defense in the future autonomy from Denmark.

Qujaukitsoq further linked the desecuritization of defense with the foundation of independence, stating that “Greenland is just one of the world's last colonies, which has not yet become independent. So, what does it mean for the defense of a future Greenland? The short answer is: not so much” (ibid.). This is an apparent desecuritization move of the ‘downgrading’ type, where the threat issue is ignored. And it possibly even represents an attempt to “pre-emptively” desecuritize Greenlandic defense (see Strandsbjerg & Jacobsen, 2017: 25) and the threat from Russia. In this way, his speech also counters the numerous recent Danish securitizations of Russia in policy papers on Arctic security by the Danish Defence Intelligence Service (DDIS, 2016, 2015). The idea Qujaukitsoq promoted is that Denmark has no reason to further securitize the defense of Greenland because any real military threat would be impossible to counter by the Danish Defence anyway.

Similarly, the link between the “self-sustaining economy” narrative and political elites' desecuritizing of defense is also visible in the 2018 coalition agreement between the four parties, Siumut, Atassut, Partii Naleraq and Nunatta Qitornai (Naalakkersuisut, 2018a). Under the heading “Security and defense policy” the coalition agreement stated, “The parties in the coalition acknowledge that our geopolitical position holds great significance for defense policy” and the agreement stipulated the following:

341. The coalition parties stand firm, our country as an independent state must be a member of NATO.

(...)

343. The conditions of the service contracts in the civilian area of Pituffik, Thule Air Base, and most recently around the base supply agreements, the coalition parties will pave the way for Naalakkersuisut to enter into an agreement with the US to ensure that our country gains more from the US military presence.

344. The coalition parties will continue to work to ensure that our country's defense is based on its own people and under our own flag. We must engage our young people and adults who would like to work for and can participate in our country's defense. E.g. in fishing inspection and in the Sirius sledge patrol.

345. The coalition parties will therefore also work to ensure that programs are also initiated aimed at controlling our own borders.

346. The objective of the coalition parties is to ensure that, when inspecting our fishing territory, there are always two ships, which together carry out the necessary inspection. This will then happen in East Greenland and on the West Coast. This requirement will be addressed with the Danish government as soon as possible.”
(The Coalition Agreement of 2018 between Siumut, Atassut, Partii Naleraq, *ibid.*, 38-39)

Economic aspects of defense are emphasized throughout the text. Missing income from the US military presence and the loss of the infamous “service contract” on the Thule Air Base in 2013 to an American contractor are emphasized. This issue has been a source of grave frustration for the self-government. Furthermore, the inclination to focus on fishery inspection, the upholding of sovereignty, and border control while leaving out the cost of the NATO membership (item 341) and military capabilities is consistent with the general desecuritizations examined in this article. Even though the wish to increase the number of naval vessels (item 346) amounts to ‘real’ defense policy, I would deem that this mentioning is aimed at the current arrangement with Denmark. Note also how more civilian investments in fishery inspection are framed as defense policy by rhetorically associating it with border patrol (item 344). In conclusion, the 2018 Coalition Agreement illustrates how the “self-sustaining economy” narrative is active when the political parties and the self-government frame non-defense as part of security and defense policy. The aim of the text seems to be getting as much *symbolic* defense (border patrol and upholding of sovereignty) as possible without having to accept expensive securitizations of i.e. the Russian build-up of air force capabilities.

While the “self-sustaining economy” narrative is thus prevalent both in the agenda-setting and policymaking around defense, the more ideological “identity politics narrative of the Inuit” was active when defense policy was

discussed in parliamentary debate on independence in the summer of 2017. The basis of this narrative, as Jacobsen and Gad note, is an understanding that “we, the Inuit, are peaceful; war and military affairs are not our affairs; at most it is a problem imposed upon us from outside” (Jacobsen & Gad, 2017: 16). Evidence of this can be found in the discussion between MPs Ane Hansen (Inuit Ataqatigiit) and Justus Hansen on the role of Greenlandic defense. Justus Hansen introduced the idea that Greenlandic soldiers should take part in international operations. Allegedly, he was alone in these ambitions for Greenlandic activism. MP Ane Hansen said in reply, “We have always been a peaceful nation, and our role in the world community should be to spread the message of peace. We must not participate in wars” (Turnowsky, 2017). Again, desecuritization is the preferred strategy in matters of defense: the message of peace over international activism. Furthermore, the debate quite revealingly focused on ‘soft’ defense areas such as SAR and border patrol, which were discussed above ‘hard’ military capabilities (*ibid.*).

In the parliamentary debate the narrative of Greenlandic identity politics is clearly employed as an argument. This identity-based narrative on Greenlandic security in turn refers to a larger narrative of the Arctic as a unique area of intercultural and diplomatic cooperation with a special place in international affairs. This foreign policy discourse has been termed ‘Arctic exceptionalism’ as “states that comprise Arctic international society have intentionally negotiated a regional order predicated on a more cooperative framework than they pursue with each other elsewhere, and have endeavored, implicitly, to compartmentalize relations there” (Exner-Pirot & Murray, 2017: 51). This e.g. entails the idea that the Arctic must be a nuclear-free zone and that widened cooperation in environmental matters is necessary. Jacobsen and Strandsbjerg (2017) also connect Arctic exceptionalism to desecuritization as a governance strategy. For the authors this begins with Gorbachev’s famous 1987 Murmansk speech. I would add that, in a Greenlandic context, this strategy can be found in former premier Kuupik Kleist’s 2012 statement that the entire North Pole area, in the spirit of world peace, should be laid out as a “global commons” (Breum, 2019).⁴

Conclusion

Currently outside the self-government's legal jurisdiction, both Greenlandic foreign policy and defense policy play an important symbolic role in the independence debate. The Greenlandic government and political parties have treated foreign and defense policy as a valued referent object that must be desecuritized. I found that this strategy is concurrent with the logic of the sovereignty game with Denmark where Greenland desecuritizes crucial policy areas to either gain control or keep the status quo.

The analysis shows that for the Greenlandic political elite, 'defense' is a referent object only insofar as it is linked to sovereignty and independence. For Greenland, defense is considered a threat to independence because defense is expensive and currently not factored into the financial cost of independence by the self-government. The reason for this strategy is twofold. First, if defense is securitized it is harder for Greenland to move it (back) into the realm of normal politics. Second, when Denmark securitizes defense, it additionally bears the risk of a future cost for Greenland in military expenses. This is probably why the topic of NATO membership in all statements is only mentioned briefly and without any reference to cost.

The Greenlandic elites' drift towards desecuritizing can thus be seen both as strategy in the sovereignty controversy with Denmark and as political-mode thinking based on the self-sustaining economy narrative. Furthermore, the propensity to desecuritize defense can also be seen against the backdrop of a deep-rooted romantic vision of a peaceful High North, which ties in with the narrative of the peace-loving Inuit nation. In this, it is a national obligation to counter militarization and war – and the desecuritization of defense is the perfect response to this call. The resultant political thinking of this clearly has implications for the ongoing considerations in Nuuk regarding the U.S. as an alternative to Denmark as sponsor. Based on the findings in this article I deem it very likely that Greenland will base its strategy for independence on economic rather than geopolitical considerations. Time will show the virtues of this strategy but there is no doubt that the gravity of security and defense in Greenlandic independence will be downplayed rhetorically by the self-government in the coming deliberations.

Notes

1. It can be discussed whether the securitization theory term “existential threat” is applicable for a non-sovereign nation. However, the term is, in this case of an aspiring nation-state, illustrative of the status independence holds as the ‘valued referent object’ for the Greenlandic political elite.
2. Coalition agreements in the Greenlandic parliamentary system equal a program for official government policy.
3. This agreement was amended in 2005 with an administrative accord, which specifies a cooperation between the Ministry of Foreign Affairs in Copenhagen and the Department of Foreign Relations in Nuuk.
4. The Foreign Ministry in Copenhagen was furious, and Kleist was forced to state that his idea did not reflect the official policy of the Kingdom. However, in a recent interview Kleist reiterated the idea, asserting that the North Pole is “an important symbol” (see Breum, 2019).

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9

Intensifying U.S.-China security dilemma dynamics play out in the Arctic: Implications for China's Arctic strategy

Camilla T. N. Sørensen

The U.S., Russia and China are all assigning higher strategic priority to the Arctic and are strengthening their diplomatic and military presence and activities in the region. For the U.S. and Russia, it links up with the growing security tension in the surrounding regions, e.g. the North Atlantic Ocean and the Baltic Sea region. However, the deepening great power competition with China also increasingly drives Washington's diplomatic and military offensives in the region. For China, it is a question about ensuring access to Arctic sea routes and resources, e.g. energy, minerals and fisheries, and making sure that China gets a say in Arctic governance. The so-called "Arctic exceptionalism" – i.e. the Arctic as a low-tension region, where the great powers, despite conflicts in other regions, continue to cooperate and refrain from political and military coercion to get their way – is under pressure. This article analyzes how Arctic politics and security are increasingly intertwined with global security developments that are dominated by intensifying U.S.-China security dilemma dynamics. It further discusses the implications for China's Arctic strategy, pointing to how recent developments make it even more difficult for China, as the only great power without Arctic territory, to ensure its access to and influence in the region. Seen from the perspective of numerous Chinese Arctic scholars, this underlines the growing importance of strengthening China's economic and strategic cooperation with Russia in the region.

Arctic politics and security through a prism of “great power competition”

“[The Arctic] *has become a region for power and competition*”

“*We are entering a new age of strategic engagement in the Arctic*”

The above excerpts from U.S. Secretary of State Pompeo’s speech to the Arctic Council Ministerial Meeting in Finland in early May of 2019 give a clear indication of how the Trump administration increasingly views the Arctic as yet another arena for the great power rivalry that was outlined as the overall frame for U.S. security policies in the National Security Strategy from December, 2017 (White House, 2017). In recent months, the U.S. has strengthened its focus on the Arctic, both diplomatically and militarily. The June 2019 updated Arctic strategy from the U.S. Department of Defense is presented as a strategy for the Arctic region “in an era of strategic competition” (DoD, 2019b: 2). That is, Washington increasingly sees Arctic politics and security through a prism of “great power competition,” and it is China, in particular, that Washington points to as the main great power competitor. The strategy warns about creeping Chinese attempts to use investments and other economic leverage points to gradually increase China’s role and influence in the Arctic, which is threatening regional stability. As stated in the strategy, “*China is attempting to gain a role in the Arctic in ways that may undermine international rules and norms, and there is a risk that its predatory economic behaviour globally may be repeated in the Arctic*” (DoD, 2019b: 6). The annual report on China’s military power from the U.S. Department of Defense to Congress, published in early 2019, also for the first time includes a special section on “China in the Arctic,” which warns that “[c]ivilian research could support a strengthened Chinese military presence in the Arctic Ocean, which could include deploying submarines to the region as a deterrent against nuclear attacks” (DoD, 2019a: 114).

These recent official U.S. statements and documents, combined with the ongoing “securitisation” in Washington of almost all dimensions of the bilateral U.S.-China relationship, from student exchanges and cultural programs to trade and joint business and research projects, decrease the room of manoeuvre for China in the Arctic. The U.S. is concerned about the Russian military build-up in the Arctic, which in itself arguably would have led to an increasing U.S. military presence in the region. However, it is the

growing Chinese presence and interests in the region that have led to the comprehensive upgrading of the U.S. diplomatic approach to the Arctic, which is illustrated by the significant increase of high-level visits to the region in recent months and the reopening of a permanent U.S. diplomatic presence in Greenland, announced in early June 2019 (GoG, 2019).

The rising U.S. worries come against the backdrop the development of a more confident, proactive, and sophisticated Chinese diplomacy in the Arctic over the recent decade. The region has moved up the Chinese leaders' foreign and security policy agenda and is assigned increasing strategic importance. The key here is that, from Beijing's perspective, the Arctic has become more closely linked with its ability to realize China's economic reform agenda and great power ambitions.

This article analyzes how Arctic politics and security are increasingly intertwined with global security developments that are dominated by intensifying U.S.-China security dilemma dynamics. It further discusses the implications for China's Arctic strategy, pointing to how recent developments make it even more difficult for China as the only great power without Arctic territory to ensure its access to and influence in the region.

In terms of theory and analytical approach, the analysis draws on defensive neorealism with its focus on states as the main actors in an anarchic international system (Waltz, 1979). The structure of the international system, i.e. the distribution of relative power capabilities among the great powers, combined with geostrategic conditions, sets the overall room of manoeuvre for states. All states seek to maximize their security by strengthening their relative economic and military power and entering alliances. The security dilemma as coined by John Herz (1951: 3-4) is the central analytical concept. It captures a situation where a state's attempt to increase its own security has the effect of decreasing the security of other states. More specifically, the security dilemma refers to vigorous action-reaction dynamics between two states, where the steps by one state to increase its security, e.g. by building up its military, creates similar responses by another state, setting off another response by the first state, and then again by the second, and so on. This stimulates a "negative spiral" of deteriorating relations with growing security tension, power competition, escalating arms races, and potentially conflict and war (e.g. Jervis, 1976). The ultimate sources of the security dilemma are

anarchy – i.e. the lack of a higher authority in international politics – and states’ uncertainties and fears about each other’s intentions under anarchy.

The key is that such security dilemma dynamics are playing out in the Arctic. They are visible in all bilateral relations among the three great powers, but with the most consequential dynamics being found in relations between the U.S. and China, which strongly link up with the deepening great power competition between the two states. Russia is increasingly positioning itself with Beijing even though Moscow still has strong concerns about the implications of a stronger and more ambitious China. As argued below, this is a result of not only the Western sanctions against Russia since the Russian annexation of Crimea in 2014, but also an awareness among Chinese leaders of the potential for adverse security dilemma dynamics and the need for countering “China threat” perceptions and reassuring Russia and other Arctic states (Hsiung, 2018). It reflects how Beijing continuously seeks to strike a balance between assertiveness and reassurance in its Arctic diplomacy. Thus, there are multifaceted and crosscutting security dilemma dynamics currently at play in the Arctic, where some are linked to the deepening U.S.-China great power competition and others have certain regional origins. The other Arctic states are to different degrees and in different ways caught between the U.S. as a close ally and traditional security guarantor, China as a prospective economic partner, and Russia as an important Arctic neighbor that they need to cooperate with to address the many complex challenges evolving in the region as the ice melts.

The article presents its analysis in three steps. The first section analyzes China’s Arctic strategy, the drivers behind it and how Beijing seeks to implement the strategy (i.e. China’s evolving Arctic diplomacy). Seen from Washington, China’s entrance into the Arctic and the development of a more confident, proactive and sophisticated Chinese diplomacy in the region has begun to threaten regional stability. This activates and further fuels the U.S.-China security dilemma dynamics in an Arctic political and security context. Specifying such dynamics, the second section takes a closer look at the U.S. response and what it prescribes regarding how the Arctic states should deal with China in the Arctic. The third and last section discusses the implications for China’s Arctic strategy, also including analyses and debates on this from Chinese Arctic scholars. Several of these Chinese Arctic scholars underline the growing importance of strengthening China’s economic and strategic

cooperation with Russia in the region as a way for Beijing to respond to what they increasingly assess as a more threatening U.S.²

China has entered the Arctic as a great power

In late January 2018, China released its first and long-awaited Arctic Policy White Paper (State Council, 2018). It represents the culmination thus far of the development of a more confident, proactive, and sophisticated Chinese diplomacy in the region.

The Chinese Arctic strategy – the Arctic is a stronger strategic priority

The Arctic Policy White Paper starts out by underlining that China, due to its status, size and proximity to the Arctic, has legitimate interests in the region and therefore should be respected and included as an important stakeholder. Beijing in the paper assures that China will respect the territorial sovereignty and rights of the Arctic states as well as international law and regulations, e.g. the UN Convention on the Law of the Sea (UNCLOS), but it also emphasises that the Arctic should not be regarded as a demarcated region. The main Chinese argument is that climate changes in the Arctic have global implications and international impacts, and therefore it is not up to the Arctic states to solely establish the rules and norms for the future development of and access to the region and its resources. Non-Arctic states like China have a role to play and legal rights to engage in Arctic research, navigation, overflight and a series of economic activities such as resource extraction, fishing, and laying cables and pipelines. Making this argument, it refers specifically to China's legal rights as a signatory to the Spitsbergen Treaty and the United Nations Convention on the Law of the Sea (UNCLOS) (State Council, 2018).

These are new directions. Previous official Chinese speeches and documents on the Arctic have taken a more modest and reluctant stance and downplayed China's ambitions in the region. This played an important role in reducing the concern among the Arctic states and paving the way for China's access to the Arctic Council as an observer state in 2013. However, among Chinese Arctic scholars, the framing of the Arctic as a "common good" has long been prevalent (Brady, 2017: 33-34; Wright, 2011). The Chinese President Xi Jinping also openly characterized China as a "polar great power" in 2014 and directly linked the country's ambitions in the polar

regions (i.e. the Arctic and Antarctica) with China's goal of becoming a maritime great power (Brady, 2017: 3). In his speech at the 19th Party Congress in October 2017, President Xi Jinping further underlined Beijing's goal to obtain world-class military might by 2050, including a Chinese navy capable of operating globally (Xi, 2017). The release of China's first Arctic White Paper should be seen in light of these developments, underlining how Beijing assigns stronger strategic priority to the Arctic.

The drivers – why is the Arctic a stronger strategic priority for China?

Overall, there are three main drivers. First, China aims to build solid Arctic (polar) research capacity, focusing especially on climate changes in the Arctic, which have direct impacts in Asia and China that are causing extreme weather patterns and negatively affecting China's agriculture and economy. However, setting up Chinese research stations in the Arctic is also essential for the rollout of China's civil-military "BeiDou-2" [北斗-2] satellite navigational system, China's space science program, and more accurate weather forecasting systems. These programs and systems have so-called "dual use" character – i.e. both civilian and military use (Brady, 2017: 60, 107-100).

In recent years, the Chinese research activities in the Arctic – and in the Antarctic – have been further strengthened by launching more expeditions and intensifying efforts to build research networks and research stations. Since 2004, Beijing has had a research station, the Yellow River Station (*Huanghe Zhan*, 黄河站) on Svalbard, has recently opened the Aurora Observatory in Iceland, and has presented plans for opening a Chinese research station and satellite receiver station in Greenland (e.g. Sørensen, 2018).

China, like other non-Arctic states, is taking an active role in the general science diplomacy in the region by using its research activities to legitimize and strengthen its overall growing presence and influence in the region. Furthermore, the research activities help strengthen China's relations with individual Arctic states and stakeholders such as universities, cities, regions, and provinces through focused and concrete research cooperation and networks. This includes the China-Nordic Arctic Research Center (CNARC) established in 2013 and led by the Polar Research Institute of China (PRIC) (Bertelsen, Li & Gregersen, 2016).

Second, China works to ensure access to the energy and mineral resources that the Arctic holds, thereby helping to secure and diversify China's energy supply. This is also a question about ensuring China a frontrunner position with new technologies and knowledge. Together with the deep seabed and outer space, the polar regions are identified in Chinese strategic considerations and plans as the "new strategic frontiers" [*zhanlue xin jiangyu*, 战略新疆域], where the great powers in the coming years will compete (e.g. Xinhua, 2015). These new strategic frontiers are characterized as the most challenging areas to operate in and extract resources from. Therefore, the expectation is that the great power who manages this first – first develops and masters the necessary new technologies and knowledge – stands to gain crucial strategic advantages ensuring it the dominant position in the great power competition in the 21st century.

Beijing's determined aim is to ensure that China gets to be first and be superior in these new strategic frontiers. This links up with the ongoing restructuring of the Chinese economy, where Chinese-driven innovation is at the top of the agenda. The Chinese "Made in China 2025" strategy identifies key sectors or industries such as robotics, space technology, artificial intelligence, the next generation of communication and information technology such as 5G networks, and maritime technology and capabilities in which China, through targeted investments, acquisitions and research and development, wants to take the lead in developing new technologies and knowledge and in setting global standards (e.g. Kania, 2019).

The restructuring of the Chinese economy and the "Made in China 2025" strategy provide the context for the expansion of Chinese investments in and acquisitions of foreign companies especially within robotics and artificial intelligence in recent years. Furthermore, it is also one of the main drivers behind the "Belt and Road Initiative" (BRI) that since June 2017 has also included the Arctic (NDRC/SOA, 2017). Since then, Beijing has prioritised promoting BRI cooperation with the Arctic states and stakeholders. This has been formalised and further elaborated on in the Arctic Policy White Paper under the heading of "Polar Silk Road" (State Council, 2018).

This relates to the third driver, which is China seeking to develop and get access to the Arctic sea routes, which present an attractive alternative to the longer and strategically vulnerable routes in use now. For China, the Arctic

sea routes are approximately 30 percent shorter than travelling through the Strait of Malacca and the Suez Canal, but it is not necessarily quicker or cheaper. The level of ice varies from year to year and the weather conditions in general are very changeable in the region. The general assessment is that there will still be many years before the Arctic sea routes will be commercially viable, but the Chinese, in particular the Chinese state-owned shipping company COSCO, seem to hold a more optimistic assessment. In 2016, COSCO announced plans to launch regular service through the Arctic to Europe by way of the Northeast Passage and is busy testing the Arctic sea routes and designing and building new ships that are better suited. The growing Chinese focus on the Arctic sea routes is underlined in China's Arctic Policy White Paper, which encourages Chinese companies to assign priority to participating in the construction of infrastructure linked with the Arctic sea routes (State Council, 2018). The fact that the "Polar Silk Road" is tied to the realisation of the BRI likely means that the involved Chinese companies have better chances of obtaining financial and political support.

As mentioned above, the Northern Sea Route along Russia's coast has gradually been incorporated into the "Polar Silk Road" and China has been generally strengthening its cooperation with Russia recently, such as constructing ports, railways, and other infrastructure that link up with the large Russian-Chinese natural gas project (LNG) on the Yamal Peninsula. However, the "Polar Silk Road" is not only coming to Russia. In relation to Iceland, and Finland, China has also intensified "Polar Silk Road" efforts. Iceland is especially interested and is trying to promote itself as a logistical hub on the "Polar Silk Road" (Conley, 2018: 8-9). In Finland, preliminary negotiations are currently taking place on the establishment of a 10,500-kilometre cable through the Arctic, which according to plan will be able to secure the fastest data connection between Europe and China as early as 2020 (SCMP, 2017). Finland and Norway have initiated cooperation on the so-called "Arctic Corridor" – a railway line from Rovaniemi in Finland to Kirkenes in Norway – which is positioned as the possible end station of the "Polar Silk Road" (BT, 2018; Tsuruoka, 2017). Sweden is also experiencing growing Chinese interest, for example in Lysekil on the west coast, north of Gothenburg, where Chinese companies seek to invest in the expansion of the port as well as in the necessary surrounding infrastructure with roads, railroads and bridges (Olsson, 2017).

China has direct tangible interests in Arctic energy resources, raw materials, fisheries, and sea routes. However, the point here is that the Arctic also links up with the Chinese leadership's focus on ensuring continued growth, prosperity, and political stability, and further plays into China's broader and long-term geo-economic and geo-strategic ambitions and plans outlined in the "new strategic frontiers," the "Made in China 2025," and the BRI. Therefore, Beijing seeks to ensure that it is Chinese companies and researchers that most effectively seize the new opportunities opening up in the Arctic as the ice melts and take the lead in developing and mastering the necessary new technologies and knowledge for building research stations, satellite receiver stations, offshore platforms, cables and pipelines, and deep-sea ports under polar conditions.

It is also a question about making sure that China gets a say in Arctic governance. In China, the Arctic governance regime is generally seen as preliminary, with opportunities for non-Arctic great powers such as China to shape its further development and the institutionalization of rules and regulations in the region (e.g. Zhang, 2019; Pan, 2019).

Chinese Arctic diplomacy – striking a balance between assertiveness and reassurance

How do Chinese leaders seek to implement the Arctic Policy White Paper and ensure the range of Chinese interests in the region? It is a difficult balance between assertiveness and reassurance. Beijing has, since the early 1990s, been very aware of the security dilemma dynamics resulting from its stronger economic and military power and has invested many resources in reassurance policies (Goldstein, 2005: 118-135; Hsiung, 2018: 9-17). On the other hand, China has an expanding sphere of interests and develops stronger incentives to push for its own positions, now also having more powerful economic, diplomatic, and military instruments to put in play. Furthermore, under the current Chinese president, Xi Jinping, there has been a general development in Chinese foreign and security policy away from Deng Xiaoping's "keeping a low profile" guideline (e.g. Sørensen, 2015). Xi Jinping has promoted a more ambitious, self-confident and proactive line within his overall argument of a "new era" for China as a great power (Xi, 2017). Such a complex mix of ambitious assertiveness and careful reassurance is also reflected in China's Arctic diplomacy.

Beijing has generally been very careful not to provoke mistrust and resistance among the Arctic states, instead promoting “legitimate” Chinese research interests in the region and repeatedly providing assurances to the Arctic states that China respects their territorial sovereignty and rights as well as international law and regulations (e.g. State Council, 2018). Beijing has also taken great efforts to highlight how China is to contribute to the Arctic in a “win-win” manner on a number of areas from handling climate change, managing the sustainable extraction of Arctic resources, to the establishment of regulations and institutions to ensure continued stability and security in the region (e.g. Zhang, 2018). An important Chinese concern is to avoid generating fear of an overly ambitious and assertive China and further fuel the security dilemma dynamics already evolving in the region. The Chinese leaders are keenly aware that China is the only great power that does not have Arctic territory and therefore depends on the Arctic states seeing a benefit in having China involved. Therefore, the key focus behind China’s enhanced diplomatic and economic activities in the region is to establish strong and comprehensive relationships with all the Arctic states and stakeholders and gradually increase China’s presence and influence in Arctic governance institutions. China seeks to propose many benefits to the Arctic states and stakeholders, because if it succeeds in binding China into the region – on multiple levels – through “win-win” agreements on research, resource extraction, infrastructure development, etc., China is better positioned to manage unforeseen developments and future attempts to marginalise China in the Arctic. It simply aims to make sure that the Arctic states and stakeholders have strong interests in keeping China involved in the region. Such efforts focus particularly on the smaller Arctic states that could then work as a counterbalance if the Arctic great powers, the U.S. and Russia, want to push China out (e.g. Hong, 2018).

However, it is getting more difficult for China to strike the balance between assertiveness and reassurance in its Arctic diplomacy – the room of manoeuvre for China is decreasing as Washington increasingly sees China’s diplomatic and economic activities in the region as a threat to regional stability. This activates and further fuels the U.S.-China security dilemma dynamics in the Arctic political and security context. There is a growing debate among Chinese Arctic scholars on how to deal with such a situation, which I will return to below after detailing the U.S. diplomatic and military response and countermeasures.

U.S. response – diplomatic and military offensive

As argued in the introduction, the Trump administration increasingly views the Arctic as yet another arena for great power rivalry and has generally strengthened its focus on the Arctic, both diplomatically and militarily, in recent months. The vigorous action-reaction dynamics following intensifying U.S.-China security dilemma dynamics are increasingly playing out in the Arctic as the U.S. fears growing Chinese assertiveness, is uncertain about the Chinese intentions, does not trust Chinese reassurance efforts, and is taking its own countermeasures. Countering China as a strategic competitor in the Arctic is, therefore, increasingly the focus of the U.S. Arctic strategy.

Whereas the previous U.S. Arctic strategy from 2016 only acknowledged China as one of the dozen Arctic Council observer states, the new strategy from June 2019 includes over 20 direct references to China's activities and growing influence in the Arctic (DoD, 2019b). The U.S. has been rather slow to realize and react to the rising Chinese role in the Arctic. It is reacting now and categorizes China outright as a great power rival and destabilizing force in the Arctic. However, as discussed below, China has now established itself as a *de facto* Arctic stakeholder in many ways, which makes it difficult for the U.S., especially in light of the evolving Sino-Russian economic and strategic cooperation in the region.

The U.S. concern is that China is gradually changing the realities on the ground by slowly binding itself into the region through research cooperation and networks, investments, and other activities (e.g. Pincus, 2019: 11-13). Therefore, Washington has started warning the other Arctic states and stakeholders with reference directly to what Washington sees as a similar Chinese strategic approach in the South China Sea, asking, "Do we want the Arctic Ocean to transform into a new South China Sea, fraught with militarization and competing territorial claims? Do we want the fragile Arctic environment exposed to the same ecological devastation caused by China's fishing fleet in the seas off its coast, or unregulated industrial activity in its own country?" (State Department, 2019b).

The key U.S. argument is that there is not much to be gained from a stronger Chinese presence in the Arctic – there is no "win-win" as Beijing holds – rather there are many risks as highlighted by U.S. Secretary of State Pompeo, when he describes the Chinese behavior in the Arctic: "This is part of a very familiar

pattern. Beijing attempts to develop critical infrastructure using Chinese money, Chinese companies, and Chinese workers – in some cases, to establish a permanent Chinese security presence” (State Department, 2019b).

It is clear that, on the military front, the U.S. is driven by what Washington assesses as a more aggressive Russian posture and a Russian military build-up in the Arctic, referring especially to Russia’s new Arctic units and their efforts to reopen old military bases along the Russian coastline and establish new ones (DoD, 2019b: 4; Pincus, 2019: 19). The U.S. military response outlined in the strategy is to invest more in U.S. Arctic military capabilities and to further develop NORAD with Canada while simultaneously strengthening the U.S. role in European Arctic security cooperation through NATO exercises and direct military cooperation and exercises. This cooperation is with Norway and Denmark as well as non-Arctic states such as the UK, which are important for securing the Greenland-Iceland-UK (GIUK) gap. This includes a strong focus on countering Russian military activities in the region.

The U.S. diplomatic offensive in the Arctic is not driven by Russia, however, but by the growing Chinese presence and their activities in the region that take a different form. That is, Russia stands as a tangible current military threat that is primarily related to the Arctic and the surrounding regions, whereas China stands as a long-term comprehensive challenge both in the Arctic and on a global scale. However, there also seems to be a growing U.S. concern regarding the potential political and security implications of the strengthening economic and strategic cooperation between China and Russia in the Arctic. This has led to discussion in Washington of whether the U.S. should seek to lure Moscow away from Beijing by offering Russia alternatives to Chinese dependence (e.g. Pincus, 2019: 2).

Recent months have seen a significant increase in visits by U.S. high-level civilian and military officials to the Arctic as an effort to counter what is seen as a reinforced Chinese influence-seeking strategy vis-à-vis the smaller Arctic states – as formulated by Professor Rebecca Pincus (2019: 14) from the U.S. Naval War College, the aim should be “to build a common consensus and dialogue on China in the Arctic.” There are also strengthened U.S. efforts to present alternatives to the Chinese offers of investments and economic opportunities to the smaller Arctic states. When U.S. Secretary of State Pompeo visited Iceland in mid-February, he announced the creation of the

U.S.-Iceland Economic Dialogue in order to increase trade and investment between the U.S. and Iceland (State Department, 2019a). Such initiative comes as an American response to the stronger diplomatic and economic presence of China in Iceland. Following his participation in the Arctic Council Ministerial Meeting in Finland in early May, Pompeo was supposed to visit Greenland, only to have the trip cancelled at the last minute. Immediately afterwards, the U.S. announced the reopening of a permanent U.S. diplomatic presence in Greenland and has called for increased U.S. investments in Greenland, in particular in Greenlandic airports. In November 2018, the U.S. Embassy in Copenhagen released a statement notifying that the U.S. Department of Defense “intends to analyse and, where appropriate, strategically invest in projects related to the airport infrastructure in Greenland” (e.g. Turnowsky, 2018). U.S. concerns about Russia’s strengthened military presence in the Arctic and the increasing vulnerability of the U.S. military in the region (e.g. at the Thule Air Base) are also behind this offer. The U.S. needs more flexibility and operational choices in Greenland. However, the U.S. is also driven by concerns that Greenland could be an easy target for Chinese science and commercial diplomacy and that China could gradually gain a foothold on the island (Lanteigne & Shi, 2019).

The U.S. has increased its diplomatic and military focus on Greenland in recent months, and it seems highly unlikely that the different Chinese proposals and initiatives, such as the establishment of a research station and a satellite receiver station in Greenland, are going to materialise. Such a prediction is supported by the U.S. handling of the potential involvement of the Chinese state-owned construction company China Communication Construction Company Ltd. in the construction of airports in Greenland. Here, in May 2018, the then U.S. Secretary of Defense, Jim Mattis, told his Danish counterpart at the time, Claus Hjort Frederiksen, that Denmark needed to stop this in order to avoid Chinese militarization in the Arctic, further warning that it could be the first step in establishing a Chinese military presence on the island (e.g. WSJ, 2019; Sørensen, 2018). Subsequently, the Danish government took a growing interest in the airport project, and in mid-September 2018 then Danish Prime Minister Lars Løkke Rasmussen went to Nuuk and presented a detailed plan for how Denmark would invest 700 million Danish kroner in the airport project and provide credit worth 450 million Danish kroner, as well as a state guarantee for another 450 million Danish kroner from the Nordic Investment Bank. In

return, the Danish government was assured influence on the selection of the construction company. However, in June 2019, before the end of the bidding round, the Chinese state-owned construction company China Communication Construction Company Ltd. announced that it was withdrawing its bid, referring to practical difficulties with obtaining visas and residence and work permits for the company's employees and concerns about unfair treatment should they get the contract (e.g. KNR, 2019; *Sermitsiaq*, 2019). The intriguing point is that visas and residence and work permits to Greenland are processed in Copenhagen.

The U.S. focus on and concern about Greenland also relate to the uncertainties about the island's future and the fact that Denmark and Greenland often have different expectations and assessments regarding the opportunities and challenges that China presents for Greenland (Pincus, 2019: 12-13; Sørensen, 2018). Copenhagen confronts increased U.S. pressure on Denmark's approach and policy towards China and more specifically on Danish control of – and limitation of – what the Chinese are doing in Greenland. This U.S. pressure will only increase further as the U.S.-China security dilemma dynamics intensify.

Implications of intensifying U.S.-China security dilemma dynamics for China's Arctic strategy

As highlighted above, the Arctic has become more closely linked with Beijing's ability to realize China's economic reform agenda and great power ambitions, and, therefore, it is seen as important to ensure room for Chinese presence and activities in the Arctic. However, the way that Arctic politics and security are increasingly intertwined with global security developments that are dominated by intensifying U.S.-China security dilemma dynamics makes it even more difficult for China, as the only great power without Arctic territory, to ensure its access to and influence in the region.

Among Chinese Arctic scholars there is a long-standing fear of an Arctic region dominated by strategic mistrust and competition between the great powers, leading to what is often referred to as a "melon effect" [*tiangua xiaoying*, 甜瓜效应], where sovereignty disputes come to play a stronger role and where the Arctic will be divided as a melon only between the Arctic states, marginalizing and excluding non-Arctic states. Such fear has increased recently with the U.S. launching its "new polar version of the China threat

theory” (Deng, 2019). The debate on how to handle this is ongoing in China (e.g. Zhang, 2019; Deng, 2019; Pan, 2019).

Several Chinese Arctic scholars highlight the importance of Russia and argue that Beijing should prioritise strengthening economic and strategic cooperation and security coordination with Russia in the Arctic in order to counter the U.S. diplomatic and military offensive. There are suggestions from Chinese Arctic scholars along the lines of developing the “Polar Silk Road” with Russia into a platform for alternative Arctic cooperation (e.g. Pan, 2019). The recent U.S. offensive and stronger diplomatic criticism of Sino-Russian Arctic collaboration risk having the opposite effect of pushing the two closer together, maybe even with stronger support from other Arctic states.

Another group of Chinese Arctic scholars is more sceptical, arguing that such a strengthened prioritization of Russia will only further provoke the U.S. and risks pushing the other Arctic states over to the U.S. camp, as most of these have security concerns about Russia relate to Russian military and hybrid activities in the Baltic states and Ukraine. However, in the Arctic, most Arctic states still see benefits of cooperation with Russia, and it is in the Chinese interest to keep it that way. The point here is that a stable Arctic governance system is the best option for China to further develop its presence and activities in the region. China should work to strengthen Arctic governance rules and regulations (and China’s own role in this) and not risk undermining it by focusing on strengthening bilateral relations with Russia as well as other Arctic states (e.g. Zhang, 2018; Zhang, 2019). There are indications that Beijing is following this course and proactively seeks to mitigate the evolving security dilemma dynamics. For example, it has signed on to recent initiatives such as the Polar Code and the Central Arctic fishing moratorium and has not challenged the Arctic Council. Also, the Chinese official response to U.S. Secretary of State Pompeo’s speech at the 2019 Arctic Council Ministerial Meeting kept the focus on presenting China as “a responsible Arctic stakeholder” (Pan, 2019). Spokesman Geng Shuang from the Chinese Foreign Ministry highlighted how Pompeo’s comments “run counter to the general trend of peaceful cooperation in the Arctic,” and that China “has always had an open, positive, win-win attitude towards matters in the Arctic. When it comes to Arctic issues, we continue to be a leader in scientific research, advocate environmental protection, and make reasonable

use of governing conduct according to law and international cooperation” (Yang & Zheng, 2019). That is, even though several Chinese Arctic scholars have raised their concerns about the exclusivity of the current Arctic governance system, the general assessment now is that, despite the restrictions it poses for China, it does provide room for China to promote its presence and activities in the region.

It is likely that the growing U.S. opposition to China’s presence and activities in the Arctic, including the U.S. efforts to mobilize the other Arctic states, has caused Chinese diplomats, businesses and researchers to reassess the situation and return to a more low-profile approach in the region. It would not be a long-term Chinese retrenchment from the Arctic, but rather a tactical restraint. The key is that the strategic importance of the Arctic seen from Beijing diminishes in light of the current overall situation facing China, such as the trade war with the U.S.; rising tensions in the South China Sea, the Taiwan Strait and Hong Kong; and general growing Western criticisms and perceptions of China as an aggressive revisionist state. In the Chinese strategic cost-benefit assessment, there are growing strategic costs of pushing for Chinese activities in the Arctic. It does not serve China’s interests. It hurts China’s international image and plays into the U.S.-led “China threat” campaign, which generally weakens Beijing in securing more important interests. Even though there are clear indications of China assigning stronger strategic priority to the Arctic and the Arctic is increasingly connected with highly prioritized strategic initiatives such as the “Made in China 2025” strategy and the Belt and Road Initiative (BRI), currently the region is still not at the top of the Chinese foreign and security policy agenda. There are signs of such Chinese tactical restraint in Greenland, such as the withdrawal in June 2019 of the state-owned China Communication Construction Company Ltd.’s bid for the construction of airports in Greenland, as mentioned above.

Another scenario in which Beijing is likely to reduce (at least temporarily) the strategic priority of the Arctic is if the security tension in East Asia, including in the South China Sea and in the Taiwan Strait, continues to increase with the U.S. Navy further strengthening its presence in the region. Under such conditions, Beijing will likely direct focus even more to East Asia, where Beijing has so-called “core interests” [*hexin liyi*, 核心利益] at stake.

How the intensifying U.S.-China security dilemma dynamics will influence specific Chinese policies in the Arctic in the years to come is difficult to assess. Many developments are likely to come into play, not least the development in relations between China and the other Arctic states, particularly Russia which increasingly stands as a stepping-stone for Beijing to ensure and promote its presence and activities in the region. China will most likely take a more careful diplomatic approach but will still seek to further strengthen relations with all Arctic states and stakeholders. A key question is also how determined the Trump administration is to counter Chinese diplomatic and especially economic activities in the Arctic, and to present the other Arctic states with attractive and credible alternatives. It requires a long-term U.S. commitment and comprehensive resources. As it stands now, the other Arctic states do not fully share the U.S. analysis of the challenges posed by China's stronger presence and increased activities in the region and are not keen on backing the U.S. "great power competition" strategy in the region.

Intensifying U.S.-China security dilemma dynamics spreading into the Arctic call into the question the continuation of so-called "Arctic exceptionalism" – i.e. the Arctic as a low-tension region where the great powers, despite conflicts in other regions, continue to cooperate and refrain from political and military coercion to get their way. This gives cause for growing concerns that the era of high political stability and strong intergovernmental cooperation in the Arctic is ending. Mitigating the evolving security dilemma dynamics is no easy job. Creative and proactive strategic thinking and action also from the other Arctic states will be in strong demand in the years to come.

Notes

1. *Looking North: Sharpening America's Arctic Focus*. Speech given by U.S. Secretary of State Michael Pompeo in Rovaniemi, Finland, ahead of the 19th Arctic Council Ministerial Meeting, May 6, 2019. Available at: <https://www.state.gov/looking-north-sharpening-americas-arctic-focus/>
2. For the last section, the article draws on meetings held in May 2019 between the author and Chinese Arctic scholars from the Shanghai Institutes for

International Studies and the Ocean University of China, as well as material and data gathered through the author's participation in the "China-Nordic Arctic Research Center" (CNARC) conference held May 8-9, 2019, in Shanghai, and the "Arctic Circle, China Forum" held May 10-11, 2019, also in Shanghai.

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10

Shipping Matters:

The Role of Arctic Shipping in Shaping China's Engagement in Arctic Resource Development

Deng Beixi

China's engagement in Arctic resource development represents an option that guarantees its diversification of its energy supply. It could be influenced by multifaceted factors, such as the changing landscape of Arctic geopolitics, the resource development policies of Arctic states, and certain realistic restrictions affecting economic viability and operational feasibility. This article argues that accessibility – specifically reliable, economical and time-saving maritime connections linking the Arctic resource production sites with the extra-regional market – plays a decisive role in shaping China's interests in the Arctic resource development. China's investment in Russia's Yamal Arctic LNG project is such a case in point. It demonstrates the complementarity and mutual reinforcement between the use of Arctic shipping routes and the development of Arctic resources. The added value of Arctic shipping to China's engagement in Arctic resource development lies in that it not only facilitates the distribution of Arctic resources to the Chinese market in a reliable and economical approach, but also brings China's expertise in permafrost engineering into the global oil/gas market and fosters China's all-round engagement in the Arctic regional economic development.

According to the frequently cited circum-Arctic resource assessment conducted by the U.S. Geological Survey (USGS, 2008), the Arctic region possesses 13% of the world's undiscovered oil, 30% of its undiscovered gas,

and multiples more of gas hydrates. These resources are unevenly distributed and mostly concentrated in the offshore areas in the West Siberian and East Barents Basins, as well as in Alaska (*ibid.*). Technological advances and irreversible Arctic warming have enhanced the accessibility of the region, calling attention to the economic prospects of Arctic resource development. Oil and gas extraction is already underway in Northern Russia and Norway, as world oil prices are recovering from the brutal slump of the past years while energy demands in the European and East Asian markets continue to rise. Operations on the Norwegian Barents continental shelf commenced in 2016 (Norwegian Petroleum Directorate, 2017), and Russia's largest independent gas producer, Novatek, started the Arctic LNG production from the facility's first liquefaction trains situated in the Yamal Peninsula on December 5, 2017. The departure of the first LNG export shipment followed days later. Apart from oil and gas reserves, the Arctic possesses massive quantities of mineral deposits of iron, coal, nickel, zinc, gold, diamonds and rare earth elements (REEs). A number of mining projects remain active across the Arctic territories in Alaska, Baffin Island, Northern Russia, Lapland, Svalbard, as well as many other areas of the Circumpolar North. This indicates the economic viability of extracting resources in some parts of the Arctic and the emerging demands for Arctic resources from the global market.

China is also inspired by the promising outlook of the Arctic energy industry. Its Arctic policy white paper advocates for actions to "participate in the exploitation of oil, gas and mineral resources in the Arctic, through cooperation and on the condition of properly respecting the eco-environment in the Arctic," and to generate technological innovations in the domains of resource development and infrastructure construction (State Council of China, 2018). China reiterates "respect" as the predominant principle with regard to "the sovereign rights of Arctic states over oil, gas and mineral resources subject to their jurisdiction in accordance with international laws" (*ibid.*), and also with respect to the interests and concerns of the residents of the region. However, there exists a prevailing perception that defines China's investment in Arctic resource development as unregulated, unconstrained and driven by unclarified intentions. This perception derives from the publicized incidents of China's previous misconduct in managing investment projects in some underdeveloped regions, the concern over China's access to such strategic resources as REEs and uranium in the Arctic that could lead to its monopoly of the global supply of the key resources, as well as the fear of

an influx of Chinese labor immigrants that might endanger local social stability. It is widely cited that Chinese investment in Arctic littoral states for the past five years has reached 450 billion USD (Rosen & Thuringer, 2017). However, the figure does not make any distinction between the amount of investment that eventually flows into the Arctic administrative districts of each state and the amount that directly targets Arctic-related projects. The current statement tends to over-exaggerate China's ambition and, as a matter of fact, China's engagement in Arctic resource development remains rather modest, pragmatic, and prudent.

This article aims to articulate what factors may influence China's engagement in Arctic resource development, and then explain why the accessibility, connectivity, and reliability of Arctic shipping is considered to play a decisive role by citing the example of China-Russia cooperation on the Yamal LNG project. The article concludes with a comprehensive review of what could be learned from the Yamal cooperation to provide a better understanding of China's interests and preferences in its strategy regarding Arctic resource development.

Factors Influencing China's Engagement in Arctic Resource Development

In its white paper on Arctic policy, China labels its participation in the exploration for and exploitation of oil, gas, minerals, and other non-living resources as an important part of its engagement in Arctic affairs. Factors capable of influencing China's engagement are multifaceted, each having varying degrees of influence. The following are some possible factors that may have effects on China's engagement in Arctic resource development.

The Changing Landscape of Arctic Geopolitics

As the Ukrainian crisis that devolved in 2014 drags on, the tension between the U.S. and Russia has been constantly impacting the stability of the Arctic region, in particular cooperation on the development of oil, gas and mineral deposits. The list of sanctions imposed by the U.S. and its allies against Russia touched upon the economically significant Arctic energy sector as Western countries banned the transfer of state-of-the-art technology and equipment for deep-water drilling, the prospection of oil fields in the Arctic and shale oil extraction. Constraints were also put on investment in and

financing of oil/energy projects (Astaknova et al., 2014). Energy firms based in Western countries, ranging from energy giants (e.g. Exxon Mobil, Shell, Total, etc.) to smaller oil services and engineering groupings, withdrew from operations involved in the development of Russia's Arctic offshore zones (Farchy, 2014). This opened up space for emerging stakeholders (e.g. China, India, Vietnam, etc.) to become engaged in Arctic energy development by providing much-needed financing instruments and technology transfer. In view of these circumstances, it becomes increasingly important for Russia to cooperate with partners that are unaffected by the influence of the U.S. so as to sustain its Arctic development strategy. The changing landscape of Arctic geopolitics, represented by the spill-over effect of extra-regional tensions into the Arctic, has served as a catalyst to accelerate China's Arctic engagement.

Resource Development Policies of Arctic States and their Bilateral Ties with China

The resource development policies of Arctic states are either inclined toward responsible development or driven by protective purposes. While the U.S. and Canada designated parts of their Arctic waters as "off limits to offshore oil and gas leasing" (White House, 2016), Russia and Norway, bordering the mostly ice-free Norwegian Sea, Barents Sea and Kara Sea, have been active in both onshore and offshore energy development activities. China's bilateral ties with North America are stagnant and, in comparison, China's cooperation with Russia and Nordic states in the Arctic affairs is developing rapidly and is prioritized in its Arctic diplomacy.

Russia's resources-oriented strategy corresponds with China's agenda seeking to secure the diversification of energy supply and related maritime transport. The bilateral cooperation commenced in 2013 with China National Petroleum Corporation (CNPC) acquiring a 20% share of the Yamal Arctic LNG project, and further expanded the development of the Northern Sea Route and Russia's Arctic logistics and infrastructure. The two parties consolidated their Arctic collaborative ties in the form of the joint initiative of the Ice (or Polar) Silk Road. Nordic states have been playing an indispensable role in facilitating China's involvement in Arctic affairs. Iceland was the first state to conclude with China a bilateral framework agreement and a memorandum of understanding back in 2012 to strengthen cooperation on marine and polar policy coordination, forecasting and monitoring, technology and research on the Arctic sea routes (State Oceanic

Administration of China, 2012). Arctic cooperation emerges as a distinct highlight in the China-Denmark comprehensive strategic partnership concluded in 2015 and in the China-Finland future-oriented cooperative partnership established in 2017. In December 2016, China and Norway normalized bilateral diplomatic ties after a 6-year freeze, and aimed to hereafter “promote mutually beneficial and win-win cooperation in polar issues” (Xinhua, 2016). China demonstrated its interest in several infrastructure projects in the Nordic Arctic as well, including the Arctic Corridor project that builds a railway to connect landlocked Finland with an outlet to the Arctic Ocean (Cui, 2018), and the submarine communications cable beneath the Northeast Passage linking Nordic Europe, Russia and Northeast Asia. The benign bilateral relations between China and certain Arctic states strengthen their economic complementarity in Arctic development. China’s market potential, robust financing instruments, as well as expertise in infrastructure construction and engineering manufacture, are appealing to its Arctic partners, and such complementarity constitutes the cornerstone of China’s engagement in Arctic development cooperation.

Realistic Restrictions Affecting Economic Viability and Operational Feasibility

The changing landscape of Arctic geopolitics and the benign bilateral relations with certain Arctic partners tend to be favorable to China’s engagement in Arctic resource development at the current stage. However, China still confronts restrictions in terms of economic viability and operational feasibility. Operations in the Arctic generate higher costs than those in lower latitudes, making it more difficult to attain profitability. Profitability is the foremost concern for operators and is meanwhile highly dependent on world commodity prices, which vary greatly.

Developing resources in the Arctic is subject to the limitations of infrastructure as well. Take Russia for example. There is a lack of infrastructure in the underdeveloped regions of East Siberia, the Arctic offshore, and the continental shelf, where new extraction, processing and refinement facilities, and logistic networks need to be constructed. Foreign investors favor resource development projects with pre-installed infrastructures, in which short- and medium-term economic returns tend to be foreseen more easily. The lack of infrastructure in Arctic resource

development projects, including the absence of port infrastructure and land transportation (railway, highway and pipelines) and the insufficient capacity for emergency response and search & rescue, poses uncertainties and risks for Chinese companies that have limited knowledge or field experiences of Arctic operations.

Social Factors and Indigenous Concerns

Social factors could be unpredictable and at certain moments be fundamental in determining the outcome of an investment. Such factors were underestimated by Chinese actors in their early practices regarding the Arctic, but are now given enhanced consideration after a few lessons learnt, for example the one involving the Isua iron ore mine in Greenland. In this incident, the UK-based London Mining, which was backed by Chinese capital, was accorded a 30-year license to operate the Isua iron ore mine in southwest Greenland in October 2013 (McCrae, 2013). Earlier in the year, the Greenlandic self-rule government announced it was lifting the ban on the extraction of uranium ores, and introduced the *Large-Scale Projects Act* with the aim of facilitating the entry of foreign labor. The autonomous government encouraged the flow of China's capital to Greenland so as to procure economic sustainability, paving the way for Greenland's future independence. The Greenlandic community and the Danish media reacted immediately to the license issuance and expressed strong concerns over the social dumping engendered by the potential influx of Chinese labor, which could cause reductions in local welfare and labor standards. This incident inevitably affected potential investors who became more cautious and kept a low profile. The London Mining project was thus indefinitely postponed. Although Chinese firms have been engaged in sporadic acquisitions or joint-venture investments in Greenland afterwards, none of these projects have ever advanced to the production phase.

Even though China's investments in Arctic resource development will always abide by the domestic regulations of relevant states with regard to environmental protection, land use, and labor standards, Chinese actors appear unable to provide the necessary disclosure to satisfy the transparency demands of the Indigenous community or offer an explicit explanation of the intentions underlying their investment at all times. They also have difficulty in navigating through the confusing relations and conflicting interests of central governments, regional administrations, and Indigenous communities

in general, as these parties have varied perspectives towards Arctic resource development within their respective sovereignties or regional/local administrative competences.

Shipping Matters: How Accessibility Shapes China's Preference for Arctic Resource Development

This article argues that accessibility – and specifically reliable, economical and time-saving maritime connections linking Arctic resource production sites with the market outside the Arctic – plays a decisive role in shaping China's interests in Arctic resource development. For Arctic states, resources extracted in the Arctic can be transported southwards to domestic markets by land traffic or via inland waterways. International customers eyeing Arctic resources, however, are largely dependent on reliable and economical maritime transportation. This indicates that China's engagement in Arctic resource development is inseparable from its development of Arctic shipping.

Rapid melting of Arctic sea ice indicates a long-term tendency favorable to the development of Arctic sea routes, which present maritime shortcuts connecting the major economic agglomerations in East Asia, Western Europe and North America. Of the three Arctic waterway routes, the Northern Sea Route (NSR) in Russia features lighter ice conditions than the Northwest Passage (NWP) in Canada and the Transpolar Sea Route across the Arctic Ocean; furthermore, the littoral infrastructure and pilotage & icebreaking services are better established in Russia. In 2017, 10.7 million tons of freight was transported in Northern Sea Route waters, marking a steady increase of 42.6% compared with the previous year (Epanchintsev, 2018). Just-in-time delivery requirements and highly unpredictable viability of ice conditions may render the use of Arctic waterways economically unviable for container shipping. However, the shipment of Arctic resources to world markets could potentially lead to future increases in freight transport throughout the Arctic waterways.

China is a major trading nation and energy consumer. The utilization of sea routes in the North and the development of Arctic resources may have huge impacts on its energy strategy and economic development. China is a latecomer in the utilization of Arctic passages. The RV *Xue Long* (*Snow Dragon*) undertook its first trial, a trans-Arctic transit in 2012, and China

Ocean Shipping (Group) Company's (COSCO) ice-strengthened MV *Yong Sheng* conducted its first commercial voyage via the NSR in 2013. However, China acknowledges the significance of the Arctic sea routes in both economic and strategic terms, and the vision for the future utilization has appeared in several policy documents. The blue economic corridor that connects Europe with China via the Arctic Ocean was recognized as an integral component of China's Belt and Road Initiative for the first time in July 2017 in the *Vision for Maritime Cooperation under the Belt and Road Initiative* published by China's National Development and Reform Commission (NDRC) and State Oceanic Administration (SOA). In January 2018, China's newly published Arctic Policy White Paper proposed that all stakeholders participate in the development of Arctic shipping routes, thereby building the "Polar Silk Road". It also encouraged Chinese companies to be engaged in the construction of infrastructure along the routes and to conduct trial commercial voyages, paving the way for normalized practices.

Fostered by these initiatives, China's utilization of Russia's NSR has expanded considerably. Regularized commercial operations have been established that can be categorized into trans-Arctic cargo transport, and destination transport related to Russia's Arctic energy development, namely the Yamal LNG project. In 2016, COSCO launched the Yong Sheng Plus Program, and a total of five vessels conducted six transits in the same year, marking the first time that a foreign-flagged operator had sent more than three vessels via this route in a single season. Two of the vessels were closely linked to China's engagement in Yamal: the semi-submersible *Xia Zhi Yuan 6* and *Xiang Yun Kou* delivered six air-cooled condensing modules to the port of Sabetta via the NSR. It is expected that a single voyage could save approximately 7,000 nautical miles and 24 days in comparison with traditional sailing via the Suez Canal (COSCO, 2017). In December 2016, COSCO Shipping Specialized Carriers Co. Ltd. was founded, and has Arctic shipping as its core business. Since 2013, 10 vessels from COSCO conducted a total of 14 voyages (see Table 10-1). The normalization of China's Arctic commercial shipping operations indicates that the NSR can be economically viable and navigationally safe. Reliable marine access to Arctic waters reassures China in its interests and political intentions to be engaged in the development of Arctic energy and mineral resources.

The Yamal LNG project is a remarkable paradigm that demonstrates how Arctic sea route utilization and Arctic resource development complement

Table 10-1 – Transits of China Ocean Shipping (Group) Company's (COSCO) vessels via the Northern Sea Route (2013-2017)

VesselName	Departure	Destination	Cargo transported
2013 – China's first commercial transit via the Northern Sea Route			
Yong Sheng	China	Netherland	Rolled Steel
2015 – China's first round transit via the Northern Sea Route			
Yong Sheng	China	Sweden	Rolled Steel
Yong Sheng	Belgium, Germany	China	Ores
2016 – Launch of "Yong Sheng Plus" Program			
Yong Sheng	China	UK	Wind power equipment
Yong Sheng	U.K.	China	General bulk
Xia Zhi Yuan 6	China	Russia(Sabetta)	LNG processing modules
Tian Xi	Finland	China	Paper pulp
Xiang He Kou	Russia(Sabetta)	China	(unloaded)
Xiang Yun Kou	China	Russia(Sabetta)	LNG processing modules
2017 – Operation under the COSCO Shipping Specialized Carriers			
Lian Hua Song	China	Russia, Denmark	Subway shield machines, wind power equipment
Da An	China	Denmark, Germany	Shield machines, wind power equipment
Tian Jian	China	Russia, Denmark	Subway shield machines, wind power equipment
Tian Le	Norway	Japan, China	Yacht, agricultural product
Tian Fu	Finland	China	Paper pulp

Source: Website of COSCO Specialized Carriers Co. Ltd. (www.coscol.com.cn)

each other and reinforce China's engagement in Arctic development. This mega-sized LNG complex, launched in 2013, is located in the Yamal Peninsula above the Arctic Circle. The integrated project encompasses LNG production, liquefaction and shipment. It is designed for an annual production capacity of 16.5 million metric tons of LNG, to be transported via the Northern Sea Route to Asian and European customers (Filimonova & Krivokhizh, 2018). In the near future, expansion of the scale of production will necessitate extensive transportation infrastructure, including the enlargement of the deep-sea port in Sabetta and the construction of railway connections to the southern territories.

China is an important financing agent for the Yamal LNG project and contributes to alleviating the financial difficulties faced by the project since sanctions have been put in place following Russia's annexation of Crimea. Together, China National Petroleum Corporation (CNPC) and Silk Road Foundation (SRF) form the second largest shareholder of the Yamal Project; CNPC concluded an agreement with Novatek acquiring a 20% equity stake and Silk Road Foundation acquired a 9.9% stake in the project. Besides, financing agreements were signed with the Export-Import Bank of China and China Development Bank on 15-year credit line facilities for a total amount equaling approximately 12 billion USD in 2016 (Yamal LNG, 2016). The investment secures reliable LNG imports to China as part of its energy supply diversification strategy. CNPC concluded a binding contract with Novatek securing the supply of 3 million tons of LNG per annum for 20 years (Yamal LNG, 2014). This direct purchase accounts for nearly 20% of the total capacity of the first three production trains from the Yamal project. As the remaining production volumes are expected to be delivered to the Asia-Pacific region via the Northern Sea Route, indirect purchase from China is highly possible, which would further increase the proportion of China's procurement.

The Arctic waterways offer a shortcut for the transport of energy resources, as well as the delivery of equipment and engineering materials needed for project development. China, being a major investor and importer of Russia's Arctic energy production, has its eyes on more ambitious goals of all-round participation in Arctic regional economic development. It aims to be involved both upstream and downstream of energy development, bringing into play its expertise and technology in permafrost and offshore engineering, equipment and infrastructure construction. China is the key supplier of core kits to the Yamal project. China's engineering corporations, i.e. CNPC Offshore Engineering Company, China National Offshore Oil Corporation's (CNOOC) Offshore Oil Engineering Company, and BOMESC Offshore Engineering Company, have been actively engaged in producing the modules for the project. The air-cooled condensing modules were delivered to Sabetta by COSCO's semi-submersibles via the Northern Sea Route and were afterwards assembled on the construction site on a prepared foundation. Compared with conventional methods, the use of prefabricated modules shortened the construction period by 1.5 years, and massive on-site construction was avoided, reducing impacts on the fragile ecosystem (Wang,

2016). The involvement of China's Honghua Group Ltd. is another example. The world's largest manufacturer of drilling rigs showcases its expertise in designing the Arctic land rigs capable of drilling 7,000 meters and withstanding temperatures of minus 60 degrees (Honghua, 2015). The Yamal cooperation represents China's very first export of core kits for LNG production to a foreign country. It signals China's entry into the international high-end oil & gas equipment market, and demonstrates how China's advantages in capital, market size and expertise in permafrost engineering could be integrated into its engagement in Arctic infrastructure and energy development projects.

Associated with Arctic shipping, China's shipbuilding industry has also made advances. Guangzhou Shipyard International Company is committed to the construction of semi-submersibles for the transportation of module structures, ocean platforms and floating decks for the Yamal project. It received orders along with other East Asian counterparts, Daewoo Shipbuilding and Marine Engineering of Korea and Mitsui Engineering and Shipbuilding of Japan, to build LNG carriers with ice-breaking capacity classified as Arc-7 to guarantee the delivery of LNG to world markets in all seasons (GSI, 2016).

From the perspective of Arctic resource development, the Arctic waterways facilitate the distribution of the Arctic resources to China's market in a more reliable and economic approach in comparison with the conventional shipping routes via the Suez Canal and the Malacca Strait that feature occasionally escalating tensions in the South China Sea and Gulf of Aiden, coupled with rampant piracy and relevant escort fees. The significance of the Arctic waterways lies both in its advantages in the savings of delivery time and shipping costs, and also in its added value that enables China to be engaged in Arctic resource development within a wider circumpolar economic perspective.

The Yamal project, however, is not China's first investment in resource development above the Arctic Circle. As early as 2010, Jilin Jien Nickel Industry Co. Ltd. completed the acquisition of Canadian Royalties, which had discovered and delineated considerable mineral deposits (nickel, copper, cobalt, platinum, palladium and gold) in Canada's Nunavik region. The Nunavik nickel project in Northern Québec represented an active attempt of

Chinese capital to invest in Arctic mining assets that were facing financial difficulties. It envisioned the shipment of mineral ores extracted in the Nunavik region to the European and East Asian markets by taking advantage of the Northwest Passage, with long-term goals to establish logistics networks for resource transport in the Canadian Arctic, thereby boosting local employment, infrastructure construction, and the socio-economic development of Canadian Arctic Indigenous communities. The first commercial voyage via the NWP linking the Canadian Arctic with East Asia was a shipment of 23,000 tons of extracted nickel concentrates to the port of Bayuquan in Northeast China in September 2014 (*Nunatsiaq News*, 2014). However, the economic viability of navigation via the NWP turned out to be less attractive than expected. The navigable window of time, strictly limited to the summer seasons, would compromise consumers' demands of timely delivery, and the saving of shipping distance could be easily offset by the lowering of navigation speed in the harsh and unpredictable conditions; in addition, the fee for ice navigator and ice-breaking services would generate extra expenses. The project eventually encountered financial difficulties and cutbacks after 2015 (*China Securities Journal*, 2016). Resource development in the Arctic inevitably implies higher production costs, and stricter environmental and societal criteria, and it is even more easily susceptible to the fluctuations of the global market and commodity prices. When shipping – bringing Arctic resources to the world market – no longer serves as an advantage or even impairs economic viability, any foreign investor, including China, would become more cautious and pragmatic.

Conclusion: What is inspired by the Yamal Cooperation?

China's engagement, or more precisely its intention to be engaged in Arctic resource development, continues to receive wide international attention along with China's growing influence in Arctic affairs. It should be noted, however, that apart from the Yamal LNG project it is difficult to name other concrete projects that have reached the implementation stage. The Yamal cooperation may offer some hints on how such projects could become a reality.

First, complementarity between China and Russia in the Arctic geo-economy lays at the foundation. The vast expanses of Russia's Far North are rich in energy and mineral reserves, but lack sufficient infrastructure, financing instruments and labor forces to sustain development. More than

any other Arctic state, Russia possesses a strong will, motivation and resolve to develop its Arctic resources. Whereas China has a substantial need to diversify its energy imports, it also plans to decrease its excessive dependence on the Strait of Malacca by developing new maritime routes via the Arctic Ocean in order to secure its energy supply. Thus, Russia could be an ideal partner for China in these endeavors.

Second, shipping constitutes the cornerstone of Arctic bilateral cooperation. Melting Arctic sea ice facilitates the long-term utilization of Arctic sea routes. In addition, Arctic littoral states' demands for port infrastructure offer China an opportunity to be engaged in Arctic development by means of direct investment and the export of China's manufactures and engineering techniques that are adaptable to the Arctic environment. Russia, on the one hand, is a leading country that aims to revive the Arctic maritime corridor and make it "competitive, universal and desired for transportation of all types of goods, from raw materials to containers" (Putin, 2017). For China, on the other hand, the utilization of Arctic waterways will greatly enhance its presence and influence in Arctic affairs and expand new domains of cooperation with other Arctic stakeholders, notably Russia. Arctic shipping has been mainstreamed in bilateral cooperation since the very beginning. In December 2015, the Joint Communiqué of the 20th Meeting between Chinese and Russian Prime Ministers iterated that the two parties would "strengthen the cooperation on the development and utilization of the Northern Sea Route and launch research projects on the Arctic shipping" (Ministry of Foreign Affairs of China, 2015). This marks the first time that Arctic shipping appears in a high-level official document and shipping will undoubtedly become the most promising and effective area of bilateral cooperation in the Arctic. Two years later, on the occasion of his state visit to Russia, China's President Xi Jinping, together with Russia's Prime Minister Dmitry Medvedev, proposed that the two parties jointly build the Polar Silk Road to "conduct cooperation in Arctic sea route and implement relevant connectivity projects" (Luo, 2017). Bilateral cooperation on shipping between both states opens the window for China's engagement in a wider spectrum of Russia's Arctic economic development.

Third, policy coordination and strategy docking consolidated bilateral cooperation to a higher level. Policies were coordinated on diverse levels: at the national level, China's Polar Silk Road initiative incorporated into the

broader agenda of the Belt and Road Initiative corresponded to Russia's Trans-Eurasian Development Plan. With regard to regional development plans, China's revitalization of industrial bases in the northeast provinces converged with Russia's East Siberia and Far East development plans. And in the energy sector, China's vision for the diversification of energy supply and Russia's objective of the strategic translocation of resource bases to the North and the East were complementary. Coordinated policies guaranteed that the Arctic would be incorporated into the bilateral cooperation agenda, fostering mutual trust and establishing normalized cooperative regimes and exchange channels. Through these channels both parties can become fully aware of each party's needs. The smooth development of the Yamal LNG project is backed by such coordination and is likely to encourage China to further engage in facilitating improved connectivity and sustainable socio-economic development in the Russian Arctic. Several Chinese companies have expressed interest in investing in port infrastructure (the Arkhangelsk deep-water port) and railway connections (Belkomur) that are closely linked with the logistics of Russia's Arctic resource development.

However, whether the Yamal model could be replicated is very conditional. As known, Russia prioritizes nearly 150 projects for Arctic development worth over 5 trillion rubles, but of which 4 trillion is expected from non-budgetary or private sources (Sputnik, 2017). Some of these projects, for instance the White Sea-Komi-Ural (Belkomur) railway and the Murmansk Integrated Transport Hub, have been proposed for years, but no significant progress has been witnessed so far. The majority of ongoing projects in the whole Arctic region are either in the very preliminary stage of license issuance and fund raising, or dealing with infrastructure construction and mineral extractions in which short and medium profitability is hardly foreseen. The huge gaps between funding and risks of investment returns constitute the greatest concerns for Chinese operators. In addition, in the process of project implementation, some discrepancy begins to emerge with respect to the vision of Arctic development. For instance, Russia's interpretation of Arctic shipping development refers to the rejuvenation of a domestic sea lane along the Northern Sea Route, while China considers its destination traffic related to Russia's Arctic development projects as part of the endeavors of the opening of the high-latitude corridor (the Northeast Passage) linking Northeast Asia with Nordic and Western Europe through Russia's Arctic waters. This is reflected in Russia's adoption of protectionist

measures, notably the recent legislation that entitles the Russian vessels or foreign vessels flagged/registered in Russian departments to exclusive rights for shipment of energy resources along the Northern Sea Route (Staalesen, 2018). China, for its part, is seeking broader cooperation and diversified partners as the notion of the Polar Silk Road is extended from a bilateral initiative to include all stakeholders concerned in its Arctic white paper. Such discrepancies may widen or be overcome by closer policy coordination.

To conclude, the initiative of the Polar Silk Road demonstrates the heightened significance of the Arctic in China's foreign policy. In its engagement in Arctic resource development, China has been seeking ways to translate cooperative intentions into concrete projects. Still, the Yamal cooperation is a pilot project that offers a potential model. It indicates that China's engagement in Arctic resource development does not rest solely on the import of resources, but also attaches importance to fostering China's all-round engagement in Arctic regional economic development. This includes involvement in resource production, infrastructure construction, technology transfer and logistics support, achieving a win-win situation for all partners involved.

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11

China-Russia collaboration in shipping and marine engineering as one of the key factors of secure navigation along the NSR

Gao Tianming & Vasilii Erokhin

Currently, about 80% of globally traded cargo is carried by maritime transport, including increasingly along the routes in the North, which have not been secured previously due to heavy ice conditions and extreme temperatures. In recent decades, however, climate change has been affecting the reduction of ice coverage in the Arctic Ocean and thus providing opportunities for the development of commercial navigation. Many countries are becoming increasingly interested in the exploration of opening maritime routes. With the incorporation of the Polar Silk Road into the Belt and Road Initiative (BRI) network, China has rapidly emerged as the major non-Arctic actor in the region. Contributing to the development of commercial shipping in the North, China aims at the diversification of its trade routes and linking itself with Arctic countries by a network of maritime corridors. The implementation of the Polar Silk Road initiative requires first and foremost the improvement of the navigation safety and passability of Northern routes, primarily through the Northern Sea Route (NSR). The existing network of operable routes along the Russian coastline of the Arctic Ocean allows commercial shipping during summer and autumn only. Due to the prevailing shallow depths, the operation of icebreakers is limited. The extension of the secured navigation window is hindered by the lack of icebreaking and underdeveloped navigational infrastructure in Russia. In this paper, the authors discuss how China may collaborate with Russia to ensure the development of secure navigable routes by determining the areas suitable for the development of deep-water shipping and allowing the operation of large-tonnage tankers and icebreakers. The paper presents an analysis of water areas in the NSR suitable for

the development of deep-water routes and operation of large-tonnage vessels with high categories of ice reinforcements. The authors provide an overview of the current condition of the shipbuilding industry in Russia in relation to the construction of vessels and marine equipment for the Arctic in such segments as icebreaking, transport, port, and dredging fleet. In the conclusion, the existing obstacles and opportunities for China and Russia are summarized in light of the establishment of more secure and stable navigation along the NSR.

During the past fifteen years, there has been a substantial decrease in ice coverage in the Arctic Ocean during the summer-autumn navigation window (by 14-20% of total ice cover, on average). In winter, the ice situation has become lighter (Dumanskaya, 2016). Due to warming, the ice-free water area in the summer has increased. It allows for extending the navigation window and expanding the zones of potential transport routes that have been previously covered by ice.

By 2050, owing to climate change, the character of navigation in the Arctic Ocean will undergo a fundamental change. The temperature increase affects the processes of the formation, growth, and movement of ice. Associated processes have been emerging and influencing the conditions of ice cover in a non-linear manner. Ice melting increases the area of open water, which has a lower solar reflectance coefficient compared to ice. Consequently, absorption of the sun's warmth in the zones of open water increases and the temperature of surface water rises, which results in the cyclical process of ice melting (Parkinson, 2014). Such an effect is observed in both seasonal and long-term perspectives: the warming up of surface layers of seawater causes a delay of ice freezing in autumn and thus shortens the period of ice growth. As a result, next year, sea ice is thinner, spongy, and more exposed to earlier fracture. According to Mokhov and Khon (2015), by 2025, with less than 15% of water area covered by ice during summer, the average duration of the navigation period may increase up to 3-4 months; by 2050 up to 4-5 months; and by 2100 to 5.5 months.

The melting of ice in the Arctic has opened up opportunities for transporting through the Northern passages. Among non-Arctic countries, the one that is concerned the most about the effects of climate change and ice melting on navigation is China. China has formalized its involvement in the

development and exploration of the Arctic by its inclusion of Northern maritime routes into a network of blue maritime passages of the Belt and Road Initiative (BRI) (Zhang, 2018). A fundamental part of the future Polar Silk Road is the Northern Sea Route (NSR), which runs along Russia's Arctic coast and provides easier access for cross-continental shipping in polar waters. By the potential integration of the NSR into the BRI economic and transport corridors, China is attempting to take an active role in the development of the Northern transport routes and is becoming more comfortable with being forthcoming about its interests in Arctic shipping and engineering rather than solely emphasizing science and climate change (Bennett, 2017; Erokhin & Gao, 2018).

The development of stable and secure navigation along the NSR is also one of Russia's core interests in the Arctic (Zysk, 2010). The persistence of risk and uncertainty during sailing along the NSR includes the scarcity of port facilities and navigation aids, the inaccuracy of nautical charts, and isolation (Lasserre, 2018). Among the priorities in the sphere of transportation along the NSR are the construction of new icebreakers and support vessels, the development of coastal infrastructure for sustainable all-year-round cargo shipping, and the establishment of a system for monitoring the safety of navigation and transport flow management in the areas of intense traffic (Østreng, 2010). To ensure secure navigation and meet the requirements of increased economic activity along the NSR, Russia recognizes the need to modernize its Arctic fleet and therefore supports China's growing involvement in shipping along the NSR. In turn, China is willing to assist Russia in the development of the NSR by the modernization of the fleet and provision of advanced marine engineering technologies.

From the Chinese side, there have been many studies related to China's emerging activities in the Arctic. Most of them have addressed the growing interests of China in the Arctic in various bilateral and multilateral formats and thus examined the nature of China's interests and motivations in wanting to maintain its involvement and presence in the region (Li, 2009; Hong, 2018; Zhang, 2018; Gao, 2018). Many scholars like, for example, Sun (2014), Liu (2017), Hong (2018), Xiao (2012), Guo and Guan (2009), Li and Tian (2009), and Wang and Shou (2013) advocated the idea that maritime routes in the Arctic had a strategic importance for China and would generate strong traffic due to a shorter distance and lower transportation costs. However, while discussing China's interests in potential Arctic routes,

no critical analysis of the feasibility or security of navigation along such routes has been considered (Huang et al., 2015), except by Shyu and Ding (2016) and Li et al. (2018), who demonstrated that navigation safety and navigation information were the most important aspects affecting the building of Arctic shipping routes for China.

One branch of studies underlines the need to assess the navigability and feasibility of Arctic shipping and therefore focus on navigation conditions and commercial features, as well as the need to examine the necessary conditions and requirements for trans-Arctic shipping routes to be viable (Xu, 2013; Huang et al., 2015; Meng et al., 2017; Zhang et al., 2013, Tillman et al., 2018). Mao et al. (2011), Zhang et al. (2006), Liu et al. (2016), Kelmelis (2011), and Hong (2012) studied the effects of climate change on the security of navigation in polar waters and China's maritime transport. Chinese publications, however, seldom assess difficulties linked with Arctic shipping, infrastructure development, and engineering, leaving all those technical issues at the mercy of collaboration with Arctic countries. Specifically, since the early 2010s, China has been reportedly interested in collaboration with Russia on all those "technical" issues, but few studies have investigated the possible convergence of Chinese initiatives with Russia's current needs in the NSR, specifically those related to practical issues of infrastructure development, shipping, navigation, and marine technologies.

This study attempts to add to the discussion of the prospective directions of China-Russia collaboration in the spheres of shipbuilding and marine engineering to ensure the development of secure navigable routes in polar waters. In section 1, the authors present the major navigable paths in the Russian sector of the Arctic that may be used for transit shipping and discuss the major threats and risks to secure navigation along the high latitude and littoral routes in the NSR. The authors summarize safety requirements for navigation using the following parameters: (1) type of vessel; (2) ice navigation mode; (3) parts of the NSR; and (4) navigation window. In section 2, the authors discuss how China's vision of bilateral and multilateral cooperation in the Arctic matches Russia's current interests and needs in shipping and engineering. Section 3 includes an overview of the current conditions of Russia's shipbuilding industry in relation to the construction of vessels and marine equipment for the Arctic in such segments as icebreaking, transport, port, and dredging fleet. The authors determine the areas suitable

for the development of deep-water shipping and the operation of large-tonnage tankers and icebreakers. In the conclusion, the existing technological, engineering, and economic obstacles and opportunities for the two countries are summarized in light of the establishment of more secure and stable navigation along the NSR.

Safety of navigation along the NSR

The NSR passes along the northern coast of Russia in the Arctic Ocean (Barents Sea, Kara Sea, East Siberian Sea, Chukchi Sea, and Bering Sea). It connects seaports in the European and far eastern parts of Russia and navigable rivers of Siberia into an integrated transport network. The length of the route varies from 2,700 nautical miles (high latitude paths) to 3,500 nautical miles (littoral paths) depending on the particular route, ice situation, weather conditions, and other factors. In the west, the NSR starts in the Kara Gates, in the north – Cape Zhelaniya in the Kara Sea. The distance between Murmansk and the Kara Gates is 528 nautical miles and between Murmansk and Cape Zhelaniya it is 758 nautical miles. In the east, the NSR is accessed through Dezhnev Strait. The distance between Murmansk and Petropavlovsk-Kamchatsky is 1,037 nautical miles. The lengths of the littoral paths are 4,640km (Kara Sea), 5,590km (Laptev Sea), 1,745km (East Siberian Sea), 1,890 km (Chukchi Sea), and 1,450km (straits along the NSR).

In the context of navigation, the NSR may be divided into three climatic zones: the Atlantic, Siberian, and Pacific. The Atlantic zone includes the Barents Sea, western part of the Kara Sea, and a part of the water area of the Arctic Ocean northward of those seas. There are frequent storms in winter and fog and rainfall in summer. In the Barents Sea, the mean temperature in summer does not exceed 7°C, while in winter it falls down to -20°C. Wave height is 7m. At the coast of the Kara Sea, the mean temperature in summer does not exceed 6°C, and in winter it falls down to -28°C.

The Siberian zone includes the eastern part of the Kara Sea, the Laptev Sea, and the western part of the East Siberian Sea. In winter, the temperature is lower compared to that in other zones, while in summer, it is higher along the coast. In the northern parts of the zone, it is cold even in summer. In the northern part of the Laptev Sea, the mean temperature in July is 1°C, while in winter, it reaches -34°C.

The Pacific zone includes the eastern part of the East Siberian Sea and the Chukchi Sea. In winter, the climate of the zone is affected by the Pacific Ocean, which results in a higher mean temperature, stronger winds, and more precipitation compared to other zones. The average monthly temperature in the East Siberian Sea is $+7^{\circ}\text{C}$ in summer and -33°C in winter. In summer, there are frequent storms and heavy fogs because of the substantial oscillation of air temperature (Erokhin et al., 2018).

The depths vary substantially. Littoral routes pass through the shallow water areas of the Arctic seas. In terms of the water depth, the most insecure areas are the Severnaya Zemlya Archipelago, Novosibirsk Islands, Dmitry Laptev Strait, Vilkitsky Strait, and Shokalsky Strait. Depending on the particular path, the route passes through one or more straits with the lowest depths in the Dmitry Laptev Strait (8-9m), Yugorsky Shar Strait (13m), and Sannikov Strait (13-15m) (Figure 11-1). Seaports along the NSR are predominantly shallow-water with the limiting depths of 1.6m in Amderma, 12.0 m in the seaports in the Gulf of Ob, 8.0m in Dikson, 11.8m in Dudinka, 4.2m in Khatanga, 3.9m in Tiksi, and 9.0m in Pevek.



Figure 11-1. Straits in high latitude and littoral paths of the NSR. *Source:* ABS (2016)

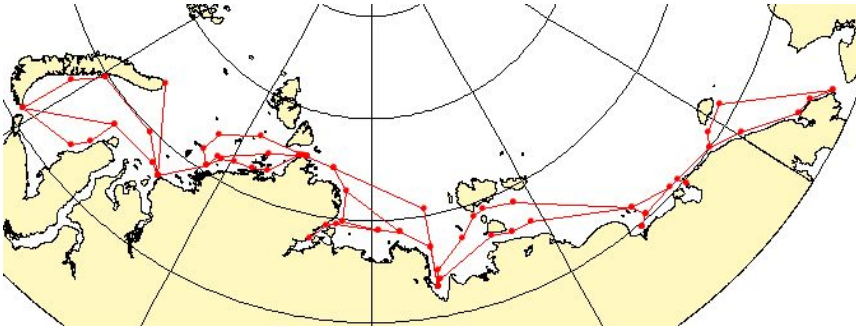


Figure 11-2. The scheme of indicative optimal shipping routes in the NSR. *Source:* Arctic and Antarctic Research Institute (n.d.)

There is no universal optimal way to pass the NSR but rather a scheme of indicative optimal shipping routes (Figure 11-2). For transit vessels, the optimal path usually varies depending on the season (Figure 11-3). In October-May, shore ice spreads along the coastline of the Arctic Ocean and accumulates in the main navigation straits (except the Kara Gates, Long Strait, and Bering Strait). Most commonly, an optimal path passes through coastal flow leads, which are formed alongside shore ice under the influence of atmospheric circulation and under-ice currents.

According to the Arctic and Antarctic Research Institute (n.d.), during the entire period of regular ice monitoring, there have been registered singular events (5-10% frequency) when the optimal path passed from Cape

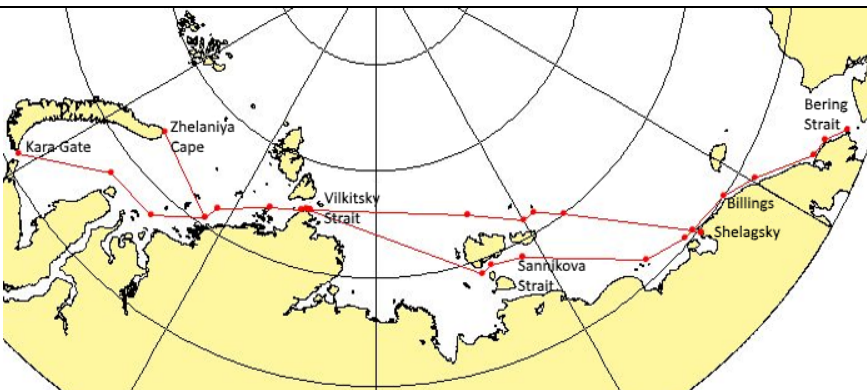


Figure 11-3. The scheme of transit paths in the NSR. *Source:* Arctic and Antarctic Research Institute (n.d.)

Zhelaniya directly to West Coastal Flow in the Severnaya Zemlya Archipelago, then through Vilkitsky Strait to West Novosibirsk Coastal Flow, and then to the north of Wrangel Island. In June-September, during summer navigation, the location of the most optimal path for the entire NSR route is determined by the condition of shore ice (before its fracturing) and the position of ice massifs.

In the most western part of the NSR, in June and July the optimal transit route usually passes through the Kara Gates and Yugorsky Shar Straits, while in September and October it passes around Zhelaniya Cape (55-80% frequency). In August, the usage of the two routes is equally probable. Further to the east, the most optimal route passes through Vilkitsky Strait (95-100% frequency). In the Laptev Sea and in the realm of the Novosibirsk Islands, the location of the optimal route varies seasonally. Prior to the period of intensive ice erosion in the Taymyr Ice Massif, the route passes alongside the southern border of the massif (55-90% frequency), while in August-October it passes through the massif (65-90% frequency). In July, the usage of the two routes is equally probable. In the water area around the Novosibirsk Islands, prior to the fracture of shore ice (June and July), the optimal route passes northward of the islands, while in August-October it passes through the Sannikov Strait (50-85% frequency). In the eastern part of the NSR, transit passage of the East Siberian Sea and the Chukchi Sea most commonly passes along the border of shore ice, while after the shore ice fracture it passes along the coast of the Chukchi Peninsula (65-90% frequency).

Due to the low sea depth in the straits, littoral paths are only accessible for low-tonnage vessels. Large-capacity vessels (up to 15m draw) have to use high latitude routes. The variants of high latitude routes for transit navigation were approved in 2009-2010 with due account of the length of the route segments, limiting depths, passability for the large-capacity vessels, and ice conditions (Figure 11-4).

The A-B-C-D-E route passes from Cape Zhelaniya to Cape Dezhnev. The A-B section limits the part of the route in the Kara Sea, sections B-C and B-D in the Laptev Sea, and the D-E section in the East Siberian Sea. In the Chukchi Sea, the route continues from E point to Dezhnev Strait. The total length of the A-B-C-D-E route is 2,200 nautical miles. The A-B-D-E

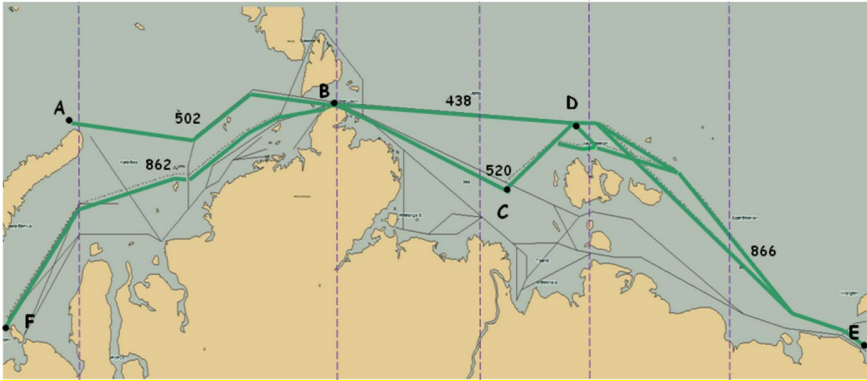


Figure 11-4. High latitude paths in the NSR. *Source:* Afonin et al. (2019)

route is shorter by 100 nautical miles. The B-D section is used in case of the deviation of ice cover front to the north. When the ice situation is easier, navigation is carried out along the conventional route through C point. The F-B-C-D-E route passes from the Kara Gates to Cape Dezhnev. The F-B section limits the part of the route in the Kara Sea, sections B-C and B-D in the Laptev Sea, and the D-E section in the East Siberian Sea. The total length of the route from the Kara Gates to Cape Dezhnev is 2,500 nautical miles.

The NSR is used seasonally during the summer navigation window (typically, July-November) and winter navigation window (the remaining part of the year). During the summer navigation window, the positioning of particular paths is determined by the location of ice massifs, distribution and characteristics of floating ice, and ice-free water areas. In winter and spring, when the coast and the islands are blocked by ice, the positioning of the paths depends on the ice situation and the capacities of icebreaker assistance.

After November, all the seas along the NSR (except the southern part of the Chukchi Sea) are covered by ice. When the ice situation is heavy, the seas are covered by pack ice even in summer. Commonly, ice melting begins in mid-June and ice freezing begins in mid-September (northern parts of the Kara Sea, the Chukchi Sea, and the Laptev Sea). By the end of October, ice sheet thickness typically reaches 25-30cm and by December it reaches 70-90cm. Ice sheet thickness reaches its maximum (140-210cm) by May prior to the opening of the navigation window. In the northern parts of the transit zone, multi-year ice may exceed 3m.

In winter, the water areas along the NSR are affected by the anticyclonic circulation of air masses. In summer, atmosphere circulation is opposite to that in winter, but its influence on climate is not that big. Navigation directly depends on the direction, speed, and continuity of winds and currents. Along the entire NSR, the currents are predominantly cold. There are relatively warm currents in the western parts of the NSR (Barents Sea) and in the far east at the exit from the Chukchi Sea to the Pacific Ocean.

Due to the unstable ice situation and rapid transfer of ice by the currents and winds, navigation along the NSR requires the usage of not only icebreaker assistance but also transport and cargo vessels of Arctic class. Under icebreaker assistance, the average speed of a vessel is 13-14 knots. A nuclear icebreaker forms a channel in the ice appropriate for the passage of a cargo vessel of 75,000 tons deadweight. Two icebreakers are able to lead large-capacity vessels of up to 150,000 tons deadweight (similar to the tankers that are projected to be employed for the transportation of liquefied natural gas from the Yamal LNG site). Water depths along the NSR allow the routing vessels of 12.7m draw through the Sannikov Strait and the routing of vessels of over 18.0m draw northward of the Novosibirsk Islands. The Kara Gates located between Vaygach Island and Novaya Zemlya Island is the hardest for navigation because of the ice exchange with the Kara Sea. There is predominantly first-year pack ice with thickness that reaches 0.12-0.14m by the end of the winter. Ice fields in the Kara Gates are frequently compressed and hummocking, which tremendously aggravates icebreaking. In that region, ice flows periodically drift with high speed, which may disable even nuclear icebreakers (Mayorova et al., 2013).

The most serious obstacles to secure navigation are the: (1) Novozemelsky, (2) North Kara, (3) Severozemelsky, (4) Taimyr, (5) Yansky, (6) Novosibirsk, and (7) Ayonsky ice massifs (see Figure 11-5).

The apparent alleviation of the ice situation in the Arctic should not be categorically associated with the improvement of navigation conditions. Dynamic forces that affect the ice, as well as icebergs detached from an ice shelf, pose severe risks for navigation. Thus, in some of the parts of the Arctic Ocean, deformed first-year ice may reach 5-7m in thickness (Landy et al., 2016), which aggravates or almost blocks the passage of sea vessels,

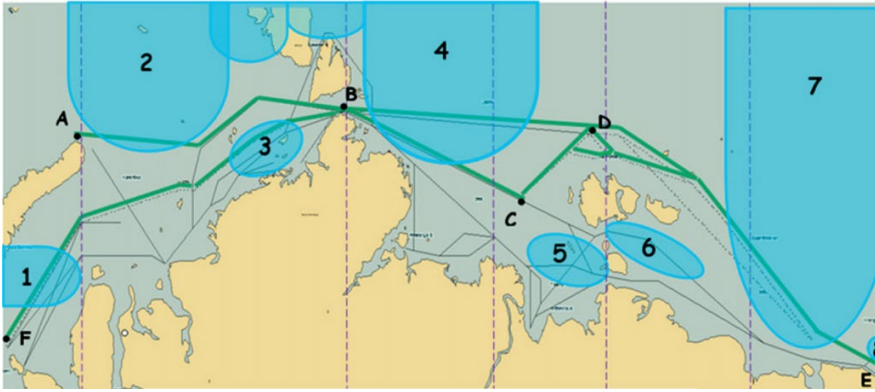


Figure 11-5. Littoral and high latitude paths in the NSR and the location of major ice massifs. Source: Afonin and Tezikov (2017)

specifically in narrow straits where the currents press the ice and in such a way increase its thickness. Drifting ice is another danger to navigation. Because of the decreasing thickness of ice cover and the area of the ice shelf, ice becomes more mobile, drift velocity increases, and the behavior of ice becomes more dynamic and less predictable. Owing to the changes in climate and sea ice regime in the Arctic, wind and cyclonic regimes in the atmosphere, as well as sea disturbance and icebergs' activity in the water area of the Arctic Ocean, will also change. Specifically, wavelength will grow and surface winds will become stronger. The increase in sea disturbance will cause the emergence of coastal erosion.

From the beginning of monitoring in the 1980s to the end of 1997, the annual average reduction of ice cover was $26,000 \pm 3,600 \text{ km}^2$, or 2.1% per decade (compared to the period average). From 1998 to 2006, the tendency changed and the annual average reduction reached $114,800 \pm 8,800 \text{ km}^2$, or increased up to 10% per decade. During 2007-2017, a variability of sea ice in the Arctic was observed while the annual average reduction of ice cover peaked at up to $40,200 \text{ km}^2$ (Shalina & Bobylev, 2017). From 1979-2016, September minimums of ice extent decreased by 87.2 km^2 , or 13.3%, per decade (National Snow and Ice Data Center, 2016). The record minimum in September 2012 was $3.41 \text{ million km}^2$, or only 54% of the average minimum from 1981-2010 (Liu, Q. et al., 2016). Apart from the reduction of ice cover, there has been registered growth of the share of thin and young ice in the overall structure of the ice cover.

Microwave satellite monitoring allows for the assessment of change in the duration of the ice season. This parameter has been changing in various degrees in different parts of the Arctic, but in general, it has decreased in most of the Arctic Ocean. The area where the duration of the ice season decreased at the rate of a minimum five days per decade was 12.4 million km². The area where the duration of the ice season increased at a similar rate was 1.1 million km². On the one hand, the basic parameters of ice cover (coverage of the central part of the Arctic Ocean by ice during the entire year and ice-free water area to the northeast of Scandinavia) persist. On the other hand, substantial transformations have been observed. Specifically, the area of year-round distribution of ice has decreased, parts of the Barents Sea and the Sea of Okhotsk have become free of ice during the entire year, while the ice season in the Russian Arctic has extended. In most of the Arctic seas, the duration of the ice season has been decreasing at a rate of above five days per decade. In the northeastern part of the Barents Sea, the rate of decrease was over 60 days per decade (Parkinson, 2014).

The gradual decrease of ice that undergoes summer melting has determined the change in the percentage ratio of first-year and multi-year ice. Currently, first-year ice dominates in the Arctic with up to 78% of the ice cover. The area of ice older than five years decreased from 16% in the mid-1980s down to 1.2% in 2016-2017. First-year ice is thinner than multi-year ice, which is why it melts faster. In spring, ice melting starts earlier and in autumn, ice freezing starts later than several decades ago. The change in ice dynamics in the Arctic Ocean is also associated with the thinning of ice. Thinner ice is more mobile and more vulnerable due to its destruction under the influence of winds and waves. The speed of ice drift in the Arctic has grown substantially after the 2000s.

According to Friedlander (2018), during the past decade, the rate of the loss of ice in the Arctic has doubled in comparison with the previous 60 years. Ice massifs have been decreasing in both area and height. From 1953 until 2020, the average annual rate of the melting of ice massifs was 18 cm. From 2011 until 2015, the rate increased up to 32 per year. The ice melts irregularly – in Northern Canada, the massifs are decreasing faster than in the Russian Arctic. Because of warming, a displacement of ice fields by open water may happen (Lind et al., 2018). In the eastern sector of the Russian Arctic,

meteorological and ice conditions have deteriorated compared to those in 2013-2017.

In hard ice conditions in littoral areas, the vessels are forced to deviate from the recommended paths in both non-escorted voyages and icebreaker-assisted to shipping. During winter navigation, vessel speed is limited by the speed of the escorting icebreaker. In summer, a vessel can sail independently in ice-free water areas with required speed, but it has to have a certain ice class to pass particular paths (Table 1).

To operate in the Kara Sea during summer and autumn, a vessel must be at least of Arc5 class. Arc4 class vessels are allowed independent navigation under easy and moderate ice conditions. During winter and spring – Arc8. Independent operation of Arc5 and Arc6 class vessels is permitted under easy ice conditions only and Arc7 is permitted under easy and moderate ice conditions.

In the Laptev Sea during summer and autumn – at least Arc6. Arc5 class vessels are allowed independent navigation under moderate ice conditions. During winter and spring – Arc9. Independent operation of Arc6 and Arc7 class vessels is permitted under easy ice conditions only and Arc8 is permitted under easy and moderate ice conditions.

In the East Siberian Sea during summer and autumn you need at least Arc6. Arc4 class vessels are allowed independent navigation under easy ice conditions and Arc 5 class vessels are permitted under moderate ice conditions. During winter and spring you need Arc8. Independent operation of Arc6 and Arc7 class vessels is permitted under easy ice conditions only.

In the Chukchi Sea during summer and autumn you need at least Arc6. Arc4 class vessels are allowed independent navigation under easy or moderate ice conditions. During winter and spring you need Arc8. Independent operation of Arc6 class vessels is permitted under easy ice conditions only and Arc7 class vessels are permitted under easy or moderate ice conditions.

During winter navigation (January-June) and in the period from November 16 until December 31, the operation of conventional non-strengthened vessels along the NSR is not allowed. Non-strengthened oil and gas tankers of over 10,000 tons displacement are permitted to sail in ice-free water areas under icebreaker assistance in the period from July to November 15.

Table 11-1. Safety requirements for vessels in the NSR

Ice class	Operation mode	Kara Sea				Laptev Sea				East Siberian Sea				Chukchi Sea		
		Summer		Winter		Summer		Winter		Summer		Winter		Summer	Winter	
		SW	NE	SW	NE	SW	NE	SW	NE	SW	NE	SW	NE			
N/S	No assistance															
	Icebreaker assistance															
Ice1	No assistance															
	Icebreaker assistance	L												L		
Ice2	No assistance															
	Icebreaker assistance	M/L				L				L				L		
Ice3	No assistance															
	Icebreaker assistance	L														
Arc4	No assistance															
	Icebreaker assistance	H/M/L								M/L				M/L		
Arc5	No assistance															
	Icebreaker assistance	H/M/L		L				L				L				L
Arc6	No assistance															
	Icebreaker assistance	M/L				H/M/L						H/M/L		H/M/L		M/L
Arc7	No assistance															
	Icebreaker assistance	H/M/L		M/L				H/M/L				H/M/L		H/M/L		H/M/L
Arc8	No assistance															
	Icebreaker assistance	H/M/L						M/L				M/L				H/M/L
Arc9	No assistance															
	Icebreaker assistance	H/M/L														

Note: N/S – non-strengthened vessel; SW – southwest; NE – northeast; H – hard ice conditions; M – moderate ice conditions; L – light ice conditions.

Source: Authors' development based on ABS (2016)

The NSR and Polar Silk Road: China's vision of bilateral and multilateral cooperation in Arctic shipping and engineering

So far, the NSR has been first and foremost a transportation route for Russia's domestic shipments. The passage has been used by major Russian companies, namely Gazprom, Lukoil, and Rosneft, among others, for the transportation of extracted oil and gas, as well as machinery and people between their production sites in the Russian Arctic (Erokhin & Gao, 2018).

By the Federal Law of the Russian Federation "About Internal Sea Waters, Territorial Sea, and Contiguous Zone of the Russian Federation" (Government of the Russian Federation, 1998), the NSR is recognized as a historical national transport route of Russia in the Arctic. Russia's recent ambitious plan declared by President Putin is to increase the volume of cargo transported via the NSR up to 80 million tons by 2024. However, due to

technological, economic, and political reasons, Russia is not able to increase the construction of ships and marine equipment to such an extent as to support the growing volume of cargo transportation in the Arctic. Here is an opportunity for China to contribute its technologies and investment and to benefit from collaboration with Russia in this sphere.

In January 2018, China issued its Arctic policy and in such a way articulated the perception of its role in the region. According to Liu (2016), China wants to contribute to shaping Arctic governance and believes that the changing environment and resources of the Arctic have a direct impact on China's climate, environment, agriculture, shipping, and trade, as well as its social and economic development. China's position is that the management of Arctic shipping routes should be conducted in accordance with international law and that the freedom of navigation enjoyed by all countries in accordance with the law and their rights to use the Arctic shipping routes should be ensured. China also wants to coordinate development strategies with Nordic countries and encourage joint efforts to build secure navigable routes in the Arctic (Gao, 2019).

China's prospective vision of its role in the Arctic is not only about opening and securing new trade routes. The overarching goal is to facilitate Asia-Europe connectivity and to bridge the gap between traditional industries in the Arctic and China's market. Within such a vision, China's BRI network was supplemented by its Polar Silk Road branch in an attempt to expand the existing bilateral formats to a multilateral cooperation with all stakeholders concerned. The extension of the BRI to the Arctic means that China wants to work with Arctic and non-Arctic countries to establish the Polar Silk Road through the development of shipping routes. In the format of the Polar Silk Road, China expects its involvement in the navigation of cargo vessels in polar waters, as well as in marine and ice engineering, to pave the way for Chinese commercial, exploration, transport, and logistics operations in the Arctic. China also attaches great importance to navigation security in the prospective maritime routes of the Polar Silk Road, particularly along the NSR in the seas of the Arctic Ocean controlled by Russia.

Despite the fact that shipping was mentioned first among the economic sectors of interest in China's Arctic policy, collaboration with Russia in shipping and engineering in the NSR was not specifically outlined. From the Chinese perspective, it may be seen as a reluctance to view the Polar Silk Road

as an appendix to Russia's plans in the Arctic (Moe & Stokke, 2019). There is, though, a Russian perspective as well since Russia seems rather reluctant to support a possible emergence of China's role in the Arctic (Ananyeva, 2019). In 2015, on the wave of Russia's "turn to the East" after the imposition of Western sanctions against Russia, the Russian officials explicitly linked the NSR to the BRI and proposed the creation of a "Cold Silk Road" or "Ice Silk Road" (Lenta.ru, 2015; RIA News, 2015; Xinhua, 2017). Since 2016-2017, however, Russian rhetoric has been toned down and the terms "Cold Silk Road" and "Ice Silk Road" have been dropped out of speeches while the use of "Polar Silk Road", the term officially recognized by China, has been avoided by Russia in official documents, even those concluded bilaterally with China. During the Belt and Road Summit in April 2019, President Putin announced the plan to connect Arctic shipping through the NSR to the BRI but still did not use the "Polar Silk Road" term (Ehret, 2019).

Russia claims to control the navigation and resources along the NSR and China's Arctic policy actually supports persevering with the existing rules of the Law of the Sea (Górski, 2019). Specifically, China stipulates that (1) the management of the Arctic shipping routes should be conducted in accordance with treaties including the UNCLOS and general international law and that the freedom of navigation enjoyed by all countries in accordance with the law and their rights to use the Arctic shipping routes should be ensured; (2) China hopes to work with all parties to build the Polar Silk Road through developing the Arctic shipping routes; and (3) China respects the sovereign rights of Arctic states over oil, gas and mineral resources in the areas subject to their jurisdiction in accordance with international law, and respects the interests and concerns of residents in the region (State Council of the People's Republic of China, 2018).

Nevertheless, in defiance of the formal compliance of China's approach with Russia's stance on the status of the NSR, continuing expressions of interest in Arctic shipping from Chinese government and major actors, as well as declarations of and statements on various formats of collaboration announced during big forums (the most recent ones made by Russian and Chinese authorities at the International Arctic Forum in Moscow on April 2019 and the Eastern Economic Forum in Vladivostok on September 2019), China's activities in the NSR have remained modest. Since the early 2010s,

when the NSR was actually opened and promoted by Russian authorities for international transit sailings, China has increasingly encouraged its enterprises to participate in the infrastructure construction in the Arctic and declared its interest in commercial trial voyages along the NSR in accordance with the law to pave the way for regular commercial operations (Hong, 2018). In 2015, three years before the articulation of China's Arctic policy, COSCO announced that "the group was actively studying the feasibility of operating regular services on the northern route" (Paris & Chiu, 2015). Since that time, few vessels under the Chinese flag have transited the whole NSR (one in 2015, two in 2016, five in 2017), while the annual number of full NSR transits never exceeded fifteen.

As noted by Moe and Stokke (2019), one of the reasons for China's very modest use of the NSR for transit is the weak development of international transit infrastructure. Aside from state-backed COSCO, most Chinese shipping companies balk at the risks of navigation in polar waters and the high investment costs required for the construction or purchase of ice-strengthened ships (Huang et al., 2015). Cost-sharing mechanisms of collaboration with Russia, the sole operator of the NSR, in shipbuilding, marine engineering, and navigation safety would appear commercially advantageous for Chinese companies to be increasingly involved in more intense shipping in the North. One of the mechanisms was actually established in 2018 with a \$9.5 billion credit line from China, aimed at joint integration processes in the areas of the Eurasian Economic Union and the BRI, with the NSR mentioned as a priority (Moe & Stokke, 2019). Currently, China-Russia collaboration in polar shipping and engineering is still in its embryonic stage, but Russia remains the main area of interest for China's Arctic joint investment (Blaxekjaer et al., 2018).

Towards secure shipping and navigation: Prospective areas for China and Russia to collaborate in the NSR

Russia operates a certain number of vessels that are capable of handling current traffic demands (Drewniak et al., 2018), but not the expected future increase. Most of the vessels, including the icebreakers, were built in Soviet times almost three decades ago. The useful life of the four lead icebreakers expires in 2024, which, first, jeopardizes China's ambitious plans to explore trading routes in the North, and second, poses a threat to secure navigation in the NSR. For China, the lack of icebreaking and shipping capabilities is

somewhat disconcerting given the attention the country pays to the promotion of the Polar Silk Road. Major cargos shipped along the NSR are liquefied natural gas, oil, petroleum products, coal, mineral fertilizers, construction materials, and industrial equipment. Types of cargo vary, which requires the development of a multi-purpose fleet including icebreakers, tankers, and support vessels.

Russia's icebreaking fleet consists of 38 vessels, including nuclear-powered, diesel-electric, and diesel icebreakers. Among the nuclear-powered icebreakers, there are two icebreakers with a double-reactor nuclear power facility (power capacity – 75,000 horsepower, or 55 MWT), two icebreakers with a one-reactor power facility (power capacity – 50,000 horsepower), one nuclear lighter aboard container ship (power capacity – 40,000 horsepower), and five maintenance vessels. In 2015-2016, Russia launched three diesel icebreakers (power capacity – 16 MWT each). Eight icebreakers of different power capacity from 6.8 MWT up to 60 MWT are being constructed, including three nuclear-powered icebreakers: *Arctic*, *Siberia*, and *Ural*. The construction is scheduled to be completed in 2019, 2021, and 2022. One linear diesel-electric icebreaker is under construction too but its launch has been postponed several times due to technical problems.

Both nuclear-powered icebreakers in operation and those under construction may be operated year-round in the western parts of the NSR only, in the Kara Sea and the Barents Sea. In the eastern sections of the NSR, they may be operated during summer navigation. In other seasons, their operation makes no economic sense because of the low speed in difficult ice conditions. That is why, in addition to the three nuclear-powered icebreakers that are under construction, Rosatomflot (a Russian operator of a nuclear-powered fleet) plans to launch two universal nuclear-powered icebreakers (power capacity 60 MW), four LNG-powered icebreakers (power capacity 40 MW), and three nuclear-powered icebreakers of Leader type. There is a necessity in tug vessels of high ice classes and of different sizes and capacities to ensure ice routing in the frozen water areas at the seaports. Mining companies require specialized vessels and marine equipment for the exploration of the continental shelf. By 2035, they will need about 140 units of various equipment, including large-capacity transport vessels, tankers, and oil-and-gas carriers (up to 40 vessels), Aframax and Shuttle tankers (7 vessels), maintenance ships of ice and non-ice class, as well as rescue vessels. Also, there

is a need for new research vessels – up to 90 by 2035, including various types of research vessels for the Russian Academy of Sciences, Ministry of Environment, Federal Service for Hydrometeorology and Environmental Monitoring of Russia, and Federal Agency for Fishery.

The average age of port and support vessels is 27 years, but the fleet is now under modernization, particularly in relation to tugboats. Russia's primary need in this sphere is shallow-draught and low-capacity icebreakers. Currently, to ensure ice-routing in the ports, Russia uses icebreakers produced in Finland in the 1970-1980s. A new port icebreaker is under construction for Rosmorport, a Russian operator of river and seaports. Its launch is scheduled for 2021. "Atomflot", a national operator of nuclear-powered icebreakers, ordered two ice-class tugboats (power capacity 5 MWT), two ice-strengthened tugboats (power capacity 7 MWT), and one port icebreaker (power capacity 12 MWT). "Gazproneft", one of Russia's leading oil and gas companies, is constructing two icebreakers for use at the Arctic terminal of the Novoportovskoye oil deposit.

Russia's mixed river-sea fleet is decreasing, particularly bulk carriers of mixed and middle-water operation. By 2020, the number of river-sea vessels is expected to drop to 623, by 2025 – to 276 vessels constructed before the year of 2000 (only 32% of the current number of vessels). To keep the volume of dry cargo on the current level, by 2022, Russia needs at least 130 new bulk carriers, 60 dry cargo lighters, and 20 push towboats. 28 bulk carriers of mixed river-sea type are now under construction at the Russian shipyards, including ten multipurpose bulk carriers (deadweight – 7500 tons), eight bulkers (deadweight – 8000 tons), and 18 vessels of lower capacity.

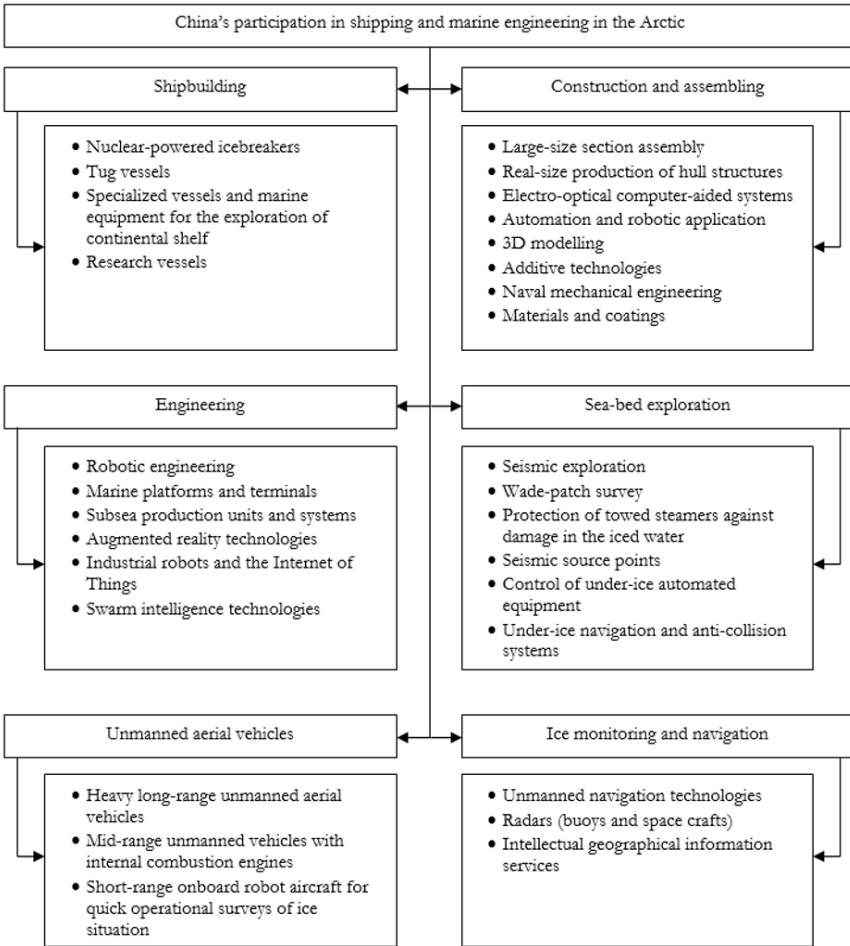
In the sphere of construction and assembly, the major needs are the large-size section assembly of ships and vessels; real-size production of hull structures and elements in a unified system of fits and tolerances; usage of electro-optical computer-aided instrumentation systems; automation in shipbuilding and robotic application; 3D modelling in marine engineering; additive technologies for the assembling of machinery and equipment aboard a ship; naval mechanical engineering (power installations, ship propulsors, active control units); and shipbuilding materials and coatings (highly corrosion-resistant and low-alloy steel, resistant and antifricition materials for use in saltwater).

Fifteen liquefied gas carriers for Yamal LNG are being constructed at DMSE shipyards in the Republic of Korea. Currently, Yamal LNG is served by seven gas tankers, but only one of them sails under the Russian flag. The remaining six are owned by Canadian Teekay, Greek Dynagas, and Japanese Mitsui. Three more LNG carriers will be launched in 2019; five more will be launched in 2020. However, that is not enough. Accelerated expansion of the Yamal LNG project along with the construction of new LNG facilities in the North require more gas tankers. Since January 2019, the Russian government requires that all new vessels operated by Russian companies in the Russian Arctic have to be constructed at Russian shipyards. In 2016, Russia launched a new shipyard near Vladivostok. Novatek, the company that owns and operates Yamal LNG facilities, has already placed an order for the construction of fifteen LNG carriers to be launched in 2022, 2024, and 2025. Sovcomflot, one of the leading shipping companies in Russia, also ordered three product carrier tankers (deadweight 51,000 tons, MR type) for the carriage of petroleum products and gas condensates and two crude oil tankers of Aframax type.

In the sphere of science, technology, and engineering, prospective areas for collaboration between China and Russia include engineering projects of marine vessels and technical equipment (robotic engineering for the exploration of continental shelves, marine platforms and terminals, subsea production units and systems) and digital technologies (augmented reality technologies, 3D modeling, application of industrial robots with the use of the Internet of Things, swarm intelligence technologies for ship underwater surveys) (see Figure 11-6).

Among Russia's seaports on the Arctic Ocean coast, only Dudinka can receive vessels all year round. All ports need dredging to be able to receive modern large-capacity vessels. The dredging fleet operated in the Russian Arctic consists of only six vessels, including five self-propelled and one non-propelled dredger. Their average age is over 40 years. Because of the small number of available vessels and their obsolescence, Russia engages foreign dredgers primarily from the Netherlands and Belgium. The most demanded ones are trailing suction hopper dredgers, cutter-dredgers, and mud scows. Russia tries to localize the construction of dredgers, but it lacks technologies required for the engineering and construction of trailing suction hopper dred-

Figure 11-6. Prospective directions of China’s participation in shipping and marine engineering in the Arctic



Source: Authors’ development

gers. Several shipyards are trying to start production of bucket dredgers, universal dredgers of Watermaster and Amfibex types, as well as various support equipment.

Due to the insufficient exploration of the sea bottom along the NSR and the harsh climate and ice conditions, Russia needs advanced technologies and equipment for seabed exploration. This is one of the most crucial issues today

in the Russian Arctic in terms of the improvement of the navigability of the NSR, prospecting of oil and gas deposits in the continental shelf, as well as the replacement of western companies that left joint exploration projects in the Russian Arctic because of sanctions. Russia is heavily dependent on foreign technologies and equipment for subsea exploration. One of the most problematic areas is seismic exploration. Annually, Russia needs up to 250km of towed streamers. Also, there is a need for 3D wide-patch survey, technologies for the protection of towed streamers against damage in the iced water, and seismic source points to improve the accuracy of streamers' positioning. For Chinese companies, there is another prospective area of collaboration with Russia in subsea exploration in the North, which is the engineering of automated unmanned equipment. Russia needs advanced technologies related to handling and control of under-ice automated equipment, under-ice navigation and anti-collision systems, equipment (multichannel high-capacity telemeters for the recording of geophysical data with high sampling frequency, and geophysical equipment constructed with the use of superconducting quantum interference devices).

The use of unmanned aerial vehicles for various purposes, including ice monitoring, navigation, geophysical and meteorological surveys, and the delivery of cargo to remote areas, is a developing sector in the Arctic. In the last decades, emergency preparedness resources in the Arctic have been significantly strengthened through the addition of available vessels and helicopters. However, the response time may still be long and the capacity limited if major incidents occur (Marchenko et al., 2018). China is one of the leading countries worldwide in terms of unmanned aerial solutions, but Russia lacks such technologies. Specifically, Russia needs the technologies of engineering and construction of heavy long-range unmanned aerial vehicles, which are required for the monitoring of the long-distance, high-latitude routes of the NSR. Also, there is a demand for mid-range unmanned vehicles with internal combustion engines and short-range onboard robot aircraft for quick operational surveys of the ice situation.

Chinese companies may also participate in the (1) development of unmanned navigation technologies, which has started in Russia recently, including computer vision, automatic navigation, technical verification and data recording; (2) replacement of the US and European radar equipment on the Russian market (meteorological buoys, small low-altitude space crafts for

the monitoring of climate, ice conditions, and navigation); and (3) intellectual geographical information services for data analysis and the visualization of navigational charts.

Conclusion

In the Russian sector of the Arctic Ocean, an increase in commercial shipping activities requires substantial investment in the development of infrastructure for cargo shipping, icebreaking assistance, safer navigation and rescue, and the creation of new materials and technologies to construct enforced vessels that can operate in polar waters. For China, an acceleration of collaboration with Russia in the spheres of Arctic shipbuilding and marine engineering to cover the current gap in icebreakers' assistance and navigation and support services is clearly a high priority. Both countries need each other to clear the existing economic, technological, and even climate thresholds in the way of the potential convergence of the NSR and Polar Silk Road initiative and the establishment of secure navigable maritime routes in the North. Meanwhile, China's activities in the NSR need to be well balanced with Russia's interests in the region, current and future technological needs, as well as special regulatory rights under the current international legal regimes, recognizing special conditions of navigation risks.

Unpredictable ice, wave, and wind conditions, varying routes, high environmental risks, and the lack of qualified and experienced staff to facilitate safe sailing in polar waters are just a few security-related challenges to the intensification of commercial shipping in the NSR (Erokhin et al., 2018; Fisenko, 2014). In light of the establishment of more secure and stable navigation along the NSR, the identification of water areas suitable for the development of deep-water shipping and the operation of large-tonnage tankers and icebreakers should be supplemented by the investigation of major technological, engineering, and economic factors affecting China-Russia collaboration. China has both expertise and money to offer to Russia, which is currently nearly fenced off from formerly used Western technologies due to the sanctions. The adoption of Chinese technologies and engineering solutions, however, first requires Russia's openness to accept them and thereby tolerate China's rising presence in the Russian sector of the Arctic, and second, demands substantial changes to the Russian less-than-perfect import-substitution policy, as well as custom, tax, and financial legislation. Ultimately, the intensification of shipping and securitization of the NSR for

international transit largely depend on Russia's willingness to modernize national legislation and create favorable conditions for collaboration with China and other partners in the spheres of maritime engineering, shipbuilding, ice and weather monitoring, and navigation services.

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12

Developing Hydrocarbon Resources in Arctic Russia: The Role of Sino-Russian Collaboration

Anastasia Ufimtseva & Tahnee Prior

A decline in conventional hydrocarbon resources and increasing energy scarcity, along with geopolitical changes, shape today's global energy governance, at times pressuring corporations to seek resources in precarious regions like the Arctic. The Arctic is the presumed home of a vast amount of fossil fuels (Carmack et al., 2012). Ongoing research shows that rapid biophysical change continues to open the region to new extractive opportunities and risks. While drilling off the coast of Alaska is halted for the foreseeable future – due to low global oil prices, disappointing exploration outcomes, and vocal public opposition – the development of hydrocarbon resources off the coast of Norway and Russia continues. Russian corporations are particularly active in the Arctic with large hydrocarbon projects like the Yamal liquefied natural gas (LNG) project acting as testing grounds for both Russian institutions and corporations.

New extractive opportunities in the Arctic are open to actors both in and outside the region, with the role of foreign investors increasing in the Russian Arctic. China, for instance, is gradually turning to the Arctic to support Beijing's political ambitions and to sustain its economic model, dependent on foreign natural resources (Sun, 2014: 40). Concurrently, ongoing economic and political pressures on Russian oil and gas projects have shifted energy cooperation eastward. Sino-Russian collaboration in the exploration of Arctic hydrocarbon resources started expanding in 2013, when the China

National Petroleum Corporation (CNPC) bought a 20 percent stake in the Yamal LNG project.

With such developments in mind, important questions arise across multiple governance scales: globally, in terms of the global geopolitical climate; nationally, in terms of tax incentives in large-scale extractive projects in the Russian Federation; and locally, in terms of environmental governance and human rights. Now, more than ever, represents a crucial time for scholars to better understand how these relations play out on the ground, and how this might impact the environment and inhabitants of the Russian Arctic.

Situating the Yamal LNG Project & its Key Players

The Yamal LNG plant will produce, liquefy, and ship natural gas from the South Tambey field, discovered in 1974. Situated beyond the Arctic Circle in the Yamal Peninsula (Northern Russia), the South Tambey natural gas field contains 1.3 trillion cubic meters of natural gas reserves (Kremlin, 2013). Yamal LNG is currently “the world’s most northerly project of its kind” (Soldatkin & Astakhova, 2016).

The construction of the Yamal LNG plant, which began in 2013, is projected to cost \$27 billion USD and will be completed in three stages; the first part of the liquefaction train will be operational by the end of 2017 and the latter sections will be completed by 2018 and 2019, respectively. As a part of the project, contractors will drill 124 wells and 19 well pads into the South Tambey field. New infrastructure will be developed to support the LNG plant, including a seaport, an airport, roads, bridges, workshops, housing, as well as water treatment and waste management facilities.

Yamal LNG is a joint venture between Novatek, Total, CNPC, and the Silk Road Fund. A majority of the project’s shares (50.1 percent) are owned by *Novatek*, an independent Russian oil and gas corporation. *Novatek* forged international partnerships with foreign oil enterprises to carry out the project: in 2010, French oil and gas corporation *Total* bought 20 per cent of Yamal’s shares; and in 2014, *CNPC* signed a framework agreement with Russian government officials and Novatek’s representatives to acquire 20 percent stake in the project. China’s participation in the project expanded in 2016 when the *Silk Road Fund* acquired 9.9 per cent of shares in Yamal LNG. The *Silk Road Fund* invested \$5 billion USD in Yamal LNG and provided an

additional \$800 million USD for the implementation of the project (Gerden, 2016). Other shareholders invested \$12.6 billion, of which *CNPC* provided \$5 billion USD, *Total* \$3.7 billion USD, and *Novatek* \$3.9 billion USD (Kremlin, 2016a).

Chinese state-owned banks played an active role in the Yamal LNG project, as well. The Chinese Export-Import (EXIM) Bank and the China Development Bank both provided loans for the project on the basis of an agreement signed between Yamal LNG and the banks. Under this agreement, Yamal LNG has access to two 15-year credit lines worth 9.3 billion euros (approximately \$10.4 billion USD) and 9.8 billion RMB (approximately \$1.4 billion USD) (Yamal LNG, 2016). By providing required financing for Yamal LNG, Chinese banks and enterprises opened the door for Russian LNG exports to China's energy market (Filimonova, 2013: 10). Moreover, these loans helped Yamal's executives gain access to financial capital at a time when Russian oil and gas companies were cut off from international capital markets due to Russia's involvement in Ukraine (Soldatkin & Astakhova, 2016).

With this distribution of project commitments in mind, it is particularly interesting to observe under which conditions Sino-Russian partnerships will continue to be forged. And so, Yamal LNG becomes a testing ground for future onshore LNG projects in the Arctic that allow foreign investors to participate.

Brief Analysis & Potential Implications

Sino-Russian collaboration in the development of hydrocarbon resources in the Russian Arctic can be unpacked into sub-categories like a matryoshka, or a nested doll. It is multi-scalar – with global, national, and local implications.

Global

Chinese involvement in the Arctic, to date, is both scientifically- and economically-driven (Sun, 2014: 43). In Norway, the China National Offshore Oil Corporation (CNOOC) partnered with *Petoro*, a Norwegian firm, to jointly explore the offshore Dreki region located between Iceland and Norway (Lanteigne, 2014; Kossa, 2016). In Iceland, the CNOOC partnered with Icelandic energy company Eykon to explore for oil in 2013. Meanwhile,

Finland and China recently jointly declared their commitment to intensify economic and technological cooperation, taking into “full consideration the protection and sustainable use of its natural resources” in the Arctic (President of the Republic of Finland, 2017). Joint ventures with Russian oil and gas corporations provide another opportunity for China to engage in the development and governance of the Arctic. Chinese investment in the Russian hydrocarbon sector, for instance, continues to facilitate a greater role for China as a global and a regional player, allowing it to shape Arctic narratives and realities as they relate to the global environment and politics (Bennett, 2015; Steinberg et al., 2015).

China is party to key legal frameworks and international organizations pertaining to Arctic governance, including the *United Nations Convention on the Law of the Sea* (UNCLOS) and the *International Maritime Organization* (IMO) (to which Russia also adheres). It is also an Observer State at the Arctic Council, an intergovernmental forum where it has greater access to information and a better chance of having its voice heard (SAO, 2011: 50-51), but has limited influence and no voting rights. Developments therefore follow “the rules and regulations set by Arctic countries and international agreements...” and thus, “[f]or new and emerging rules governing international practices, China, along with other non-Arctic countries, is eager to weight its influence, but only through following the already established rules, and solely for the purpose of good Arctic governance” (Sun, 2014: 42).

While China has no official Arctic strategy, its current approach to hydrocarbon development in the Russian Arctic appears to fit within China’s “One Belt, One Road” (OBOR) initiative. The OBOR is designed to reshape global geopolitics through transportation corridors and is motivated by energy demand, security considerations, and market access (Fallon, 2015). Russian support for the initiative grows as its political relations with Western states deteriorate in light of Western-imposed sanctions. Meanwhile, China uses its growing partnership with Russia to circumvent its non-Arctic status. China also benefits from broader geopolitical changes in the region, by partnering with corporations domiciled in Arctic states to develop natural resources in the region. Sino-Russian collaboration thereby reflects a reformative shift in the policies of both actors, thus enabling China’s ambitions in the region.

A bilateral economic relationship with Russia helps secure and diversify China's energy future, too. Bilateral relations between Russia and China are built on the *Treaty for Good Neighborliness, Friendship and Cooperation*, which includes a focus on energy and raw material trade (*Rossiyskaya Gazeta*, 2009). Since this agreement was signed, Chinese FDI into the Russian hydrocarbon sector has increased exponentially. For example, Chinese FDI stock in the Russian oil and gas sector expanded from \$430 million USD in 2008 to \$3.38 billion USD in 2014 (Ministry of Economic Development of the Russian Federation, based on the data from the Eurasian Development Bank, 2016). This exponential growth in Chinese FDI signals growing corporate relations between Russian and Chinese companies in the hydrocarbon sector.

National

Russia's Arctic strategy, released in 2009, identifies its Arctic zone as a core national interest and resource base for oil and gas development (President of the Russian Federation, 2009). The strategy is motivated by Russia's economic dependence on revenue from the oil and gas sector, which has been rising steadily since 2006. Currently, approximately 50 per cent of the federal budget is generated from energy exports (Ministry of Finance of the Russian Federation, 2015). Hydrocarbon resources also account for 68 percent of Russia's total exports (PwC, 2016). Given Russia's dependence on hydrocarbon revenue, it appears that Russia will be unable to sustain its economic development without developing its hydrocarbon resources.

The depletion of oil and gas resources in Western Siberia forces Russian corporations to shift extractive activities northward to the Yamal Peninsula. Their efforts are supported by the Russian government, which assumed a leading role in the Yamal LNG project through a public-private partnership scheme. The government invested public funds to build infrastructure in the Yamal Peninsula to stimulate the development of hydrocarbon resources. Media covering the Yamal project estimate that the government contributed over 47.3 billion RUB (approximately \$843 million USD) and provided 150 billion RUB (approximately \$2.7 billion USD) in loans through the National Welfare Fund of Russia (Soldatkin & Astakhova, 2016). The money was used to construct the seaport and adjacent infrastructure. By investing in the seaport, the government opened the door for subsequent construction of the LNG plant in Yamal. In addition to the generous financial support, Russia effectively subsidized portions of the project by adjusting taxation rates for

extractive companies operating in the Yamal Peninsula. Russian President Vladimir Putin has approved an economic strategy promising zero tax on mineral extraction from fields located in the Yamal Peninsula for a duration of 12 years, or until a specified output is achieved (Gerden, 2016).

Yamal LNG is also the first Arctic LNG project to enlist the help of Chinese state-owned enterprises (SOEs). It is important to remember, however, that significant national incentives for such investment exist as well. Chinese SOEs participate in the construction of the Yamal LNG plant, winning tenders for specific aspects of the project. According to a news report by Klimenko and Sørensen (2017), Chinese corporations will be responsible for the production of around 80 percent of the equipment for the project. For example, CNPC and Magang Group Holding Company took over the construction of steel structures for the plant and delivered complete parts of the project to the Yamal Peninsula. CNPC is completing four engineering packages for Yamal, one of which was recently shipped from Shandong province in China to Yamal (CNPC, 2016). China's Sinotrans Shipping Ltd. gained a contract to build tankers that Russia's Sovcomflot will operate around the Arctic, along with other corporations from Greece, Russia, and South Korea (Gerden, 2016).

Local

The project is situated in a precarious location. First, the area's environment – its shifting climate, endangered flora and fauna, and permafrost melt (Environ, 2014) – is increasingly vulnerable in the face of large-scale projects like Yamal LNG. An environmental study, conducted prior to the implementation of the Yamal LNG project, found that both the local environment, and Indigenous inhabitants, will be adversely affected by infrastructure and off-road vehicle trails developed to explore Yamal's hydrocarbon fields (Walker et al., 2009). A change in salinity level in the Gulf of Ob and heightened greenhouse gas emissions are but two consequences (Ametistova & Knizhnikov, 2016). Moreover, the advanced technology upon which this project relies may fail and potentially degrade local ecosystems (Young, Kim & Kim, 2012: 4).

Hydrocarbon developments have social implications, as well. As an example, resource extraction in resource-rich areas like the Yamal Peninsula presents a simultaneous challenge to the world's largest area of reindeer

herding and traditional land-use practices (Larsen et al., 2014). Some scholars like Gritsenko (2017) point to a potential rise of social tensions between locals and migrant workers as a result.

Another key problem is the lack of access to documents (due to long distances or disclosure) in mandatory participatory processes for non-state actors such as Indigenous peoples. Local authorities and the public (both of which are identified as key actors in Russia's environmental impact assessment process) can request public ecological expertise, which appears to protect the rights of those contesting a project – but at their own cost, which is often prohibitive. Still, the conclusion of this process bears little legal force in determining project implementation (Koivurova et al., 2016: 189). In Russia, the legal system does not provide equal protection to both Indigenous communities and corporations, placing pressure on corporate social responsibility to fill regulatory gaps (НОВИКОВА, n.d.). In the case of Yamal LNG, Novatek strives to consult with Indigenous peoples about the project through stakeholder engagement that meets best practices in the Russian Federation. However, it still falls short of engaging Indigenous communities and accurately assessing the impact of this large-scale development on the local population (Мурашко, 2015).

At the same time, the project may stimulate economic and social development in the region. It is expected that the project will attract investment, create employment, develop infrastructure, and support existing economic activities (Gritsenko, 2017; Filimonova & Krivokhizh, 2014). The project has created direct and indirect economic linkages domestically and internationally. In the Yamal Peninsula, 22,000 people are employed by Yamal LNG directly, with 14,000 people working in Yamal on rotation (Environ, 2014; Kremlin, 2016b).

Since 67 percent of the budget revenue of Yamalo-Nenets is generated from taxes paid by gas enterprises operating in the region, the development of new fields has become essential to sustaining the okrugs' economic development as is (Kharitonova & Vizhina, 2009: 120). Unsurprisingly then, the development of the hydrocarbon sector – primary resources, improved infrastructure, and the attraction of extractive “megaprojects” (ibid.: 121) – is at the center of the Yamalo-Nenets Autonomous Okrug's Strategy (up to 2020) for socioeconomic development.

Conclusion: A Way Forward

The Yamal LNG project is one site where we can trace aspects of new policies in hydrocarbon and financial sectors in Russia. Current policies are influenced by Chinese SOEs forging close ties with Russian corporations to be able to participate in Arctic projects located in Russia. These Russian companies, with minority Chinese investment, are obligated to undergo a national environmental impact assessment and ecological assessment prior to project implementation “for any economic activity that holds potential risks for the environment” (Koivurova et al., 2016: 185-186).¹ However, Russian environmental impact assessment processes have not been updated in 17 years (since 2000), and therefore reflect the practices of that time. The likelihood that future updates will be influenced by the cultural norms and values of the private sector, and multinational corporations, is thus highly plausible (Koivurova et al., 2016: 199) – an interesting prospect when considering Chinese investment and Russian national incentives.

Cooperation on the Yamal Peninsula aside, Russian and Chinese companies are still seeking further mutual ground for energy cooperation in the Arctic. It is plausible that other big Asian players, such as Japan, may be interested in partnering with Russian hydrocarbon companies to develop new hydrocarbon projects (such as Arctic LNG-2) in the region. Further research is still required to trace the policies, goals, and investment commitments of new actors in the region. The investment flows will likely shape the future of extractive projects in the Arctic. They will thus require closer monitoring and oversight to ensure that human modification of the landscape does not harm the local environment and security. Additional research and data can help provide better baselines.

Notes

1. It is important to note, however, that Russia has yet to ratify the *Convention on Environmental Impact Assessment in a Transboundary Context*.

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Concluding Reflections

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China's engagement in the Arctic is multifaceted and growing, as the authors in this collection of *Arctic Yearbook* articles elucidate. Debates about China's level of influence in the region, as well as its intentions for the future, are mixed. Various articles in this volume reinforce how, as the Arctic has become more embedded in global networks, China's keen interest in ensuring access to resources and shipping routes has raised concerns about potential implications for political stability in the region (Sørensen, 2018). Alexeeva and Lasserre (2012), however, suggest that China has far more to gain by pursuing a cooperative approach that does not threaten its interests elsewhere in the world. Li and Bertelsen (2013) point to the core domestic interests of the Chinese Communist Party (political stability, territorial integrity, and economic growth) as reason enough to keep relations cooperative and peaceful in the Arctic, as the region offers opportunities to diversify access to resources and transportation routes that are important for continued political stability and economic growth domestically. This is reflected in China's wider goals around the globe, and the nation's 2018 Arctic policy and Polar Silk Road vision can be seen as extensions of its broader Belt and Road Initiative (Soon Lim, 2018).

These core policy objectives in China are important to consider, but as other authors in this volume note, there might be larger forces at play that are related to the increasingly confident, proactive, and sophisticated nature of China's diplomatic strategies in the region (Sørensen, 2018). Observing China's growing interest in Greenland, Sørensen (2018) argues that while Chinese investment and resource extraction activity in Greenland support domestic needs in China, these activities should be observed in terms of Beijing's long-term aim to ensure an increasing level of influence in the Arctic. Andersson, Zeuthen, and Kalvig (2018) reinforce this point, revealing how China's resource extraction interests in Greenland fit within the state's broader economic goals, as well as its interest in securing greater access to the

Arctic region. On this point, Greenland's progression towards independence is a key political consideration (Gad et al., 2018). The possibility of China influencing domestic politics in Greenland, even if only through seemingly benign investment and economic activity, is important to contemplate as Greenland's self-government and political parties envisage a future security framework (Rasmussen, 2019).

Chinese interest in Greenland is indicative of wider security developments around the world. Arctic politics and security are increasingly intertwined with these developments as Russia, China, and the United States assign greater strategic priority to the region (Sørensen, 2019). Increasing economic and strategic cooperation between China and Russia has the potential to introduce new dynamics to the region (Sørensen, 2019). Authors in this volume also provide pragmatic perspectives on this evolving relationship, including China's desire to secure reliable access to Arctic resources, ensure regional engagement in economic development, and jointly overcome obstacles and establish secure and stable transportation along Russia's Arctic coast (Beixi, 2018; Tianming and Erokhin, 2019; Ufimtseva and Prior, 2017).

Given China's rising power in global geopolitics, the Arctic states watch these activities in the Arctic with an understandably high level of curiosity and scrutiny, prompting various narratives that seek to frame and understand Chinese intentions for the region. For example, studies assessing China's rising interests as a "near-Arctic state" and its future designs for the region have become a staple of the burgeoning literature on Arctic security and governance over the last decade. Many of these Arctic narratives cast suspicion on China, based on concern that the Asian power will seek to undermine the sovereignty of Arctic states and co-opt regional governance mechanisms to facilitate its access to resources and new sea routes that fuel and connect its growing global empire (e.g., Li, 2009; Wright, 2011, 2013, 2018; Brady, 2017). Other narratives highlight that China has more to gain by collaborating and cooperating with Arctic states within existing governance constructs and established international legal norms, than by pursuing an aggressive, revisionist strategy in the region (e.g., Alexeeva and Lasserre, 2012; Jakobson and Lee, 2013; Koivurova et al., 2017; Lackenbauer et al., 2018).

An exceptionally high level of stability marked Arctic geopolitics in the post-Cold War era, reflecting strong cooperation among the eight Arctic states and Indigenous peoples in the region. Environmental and human security issues have risen to the top of the Arctic agenda, with sustainable development being a key collaborative effort among Arctic states, Indigenous peoples, non-government organizations, and non-Arctic states at the Arctic Council. Over time, this high level of stability and control amongst Arctic states has established an implicit, and in some cases explicit, set of rules and norms for international engagement in the Arctic. This has reduced the likelihood of armed conflicts, maintained the peaceful management or resolution of disputes about national borders and state sovereignty in the region, and created a regional security complex built primarily around interdependence on environmental and ocean issues (Exner-Pirot, 2013).

Although the Arctic states may have indicated a preference for managing regional affairs as a “closed club” through the Arctic Council and Arctic coastal state (A-5) meetings, broader international interest has increased the number of stakeholders claiming a stake in circumpolar decision-making over the last fifteen years (e.g., Landriault et al., 2019). China has been a collaborative and supportive player in Arctic affairs thus far, and its 2018 Arctic policy projects the intention of playing a cooperative, active, and constructive role in reaffirming the international rules-based order in the region. Growing Chinese interest and engagement in the Arctic also come at a time when powerful international forces, including globalization and climate change, are making Arctic geopolitics more global than ever (Heininen, 2018).

China has repeatedly stated its desire for peaceful collaboration, and the country’s involvement in Arctic affairs intersects with and challenges contemporary assumptions about the region: that the Arctic is an exceptional “zone of peace” in world politics and, conversely, that the Circumpolar Arctic is experiencing a “race for resources” that could end in conflict (Heininen, 2018). For its part, China’s 2018 Arctic policy identifies unique regional characteristics, but it firmly situates the Arctic in a global context (Heininen et al., 2020).

The “Global Arctic” conceptualizes a region integrated into global systems through the flows and impacts of globalization, particularly through the inclusion of Arctic natural resources into the global economy, and the grand

environmental challenges affecting social and planetary systems (Heininen and Finger, 2019). Viewed from this perspective, China's Polar Silk Road is a natural extension of global forces and interests. Global flows and demands for capital extend into the region, and as Arctic states and regional governments seek to access emerging development opportunities, China is ready and willing to participate. Accordingly, some analysts anticipate that China will invoke a nuanced Arctic regional strategy that is subordinated to its global goals and must be primarily analyzed through a wider, international lens (Dean and Lackenbauer, 2020). "Considering China's growing investment and presence in the Arctic, it remains a matter of time before China seeks greater influence or a leadership role in the Arctic, beyond its current observer status, to safeguard its economic interests," Kong Soon Lim (2018) suggests. "For now, China has maintained that it respects the political status quo in the Arctic." Indeed, China's 2018 white paper affirms that "peace and stability in the Arctic provides a significant guarantee for all" (State Council Information Office, 2018: 10; see also Heininen et al., 2020: 222).

For the Arctic coastal states, positive circumpolar relations are inherently predicated on respect for states' sovereignty and sovereign rights to their territories, exclusive economic zones (EEZs), and extended continental shelves. Recognizing the sovereign rights of Arctic states over their lands, waters, and resources in accordance with international law, China's policy also asserts that international law affords China certain rights within the region as well. Within the Arctic Ocean beyond its national jurisdiction, "China enjoys the freedom or rights of scientific research, navigation, overflight, fishing, laying of submarine cables and pipelines, and resource exploration and exploitation in the high seas, the Area and other relevant sea areas, and certain special areas in the Arctic Ocean, as stipulated in... international law" (State Council Information Office, 2018: 2, 3). Through this lens, international law also provides certain rights and freedoms for non-Arctic states.

Various authors in this volume highlight how China acts as a constructive force in the region. For example, its growing interest in polar scientific research can contribute to enhanced international understanding of Arctic dynamics, particularly in the natural sciences. Climate change and scientific research, after all, are among the key interests and priorities outlined in

China's 2018 Arctic policy (Heininen et al., 2020). Heightened but appropriate Chinese involvement in Arctic governance, with due respect for Arctic states, can also bolster regional stability, so long as China behaves according to established norms (as it has done to date). Furthermore, Arctic states may welcome some forms of Chinese investment capital to advance certain Arctic development projects, as long as Chinese actors respect the rule of law, Arctic state regulations, and the rights of Arctic peoples. In a recent study, Dean and Lackenbauer (2020) conclude:

We find it reasonable to surmise that China can secure access to Arctic shipping routes and resources more efficiently through co-operation with Arctic states such as Canada, the United States, and Russia than it can through brute military force. Just because there are no clear incentives for it to embark on revisionist or aggressive behaviour to acquire territory, resources, or strategic advantage in that region does not mean, however, that we should ignore what it is doing there.

Their last comment about the need for vigilance is salient, particularly in light of accusations that China's hidden strategic plan is to secure a presence under benign pretences, and then enact practices against Arctic states when conditions are favourable. Some commentators worry that Beijing's alleged "bait and switch" or "long con" strategies, designed to achieve this end state (e.g., Munson, 2012; Robinson Jr., 2013), may only be provable in retrospect. Recent hostage diplomacy (Kuo, 2019) also indicates China's willingness to play by international rules only until those rules no longer serve their interests. With cynicism about China's respect for the rule of law or the existing international system, it is difficult to believe that their practices in the Arctic will be completely benign if they perceive that they can secure an advantage by breaking the rules – and that they can get away with it (Dean and Lackenbauer, 2020).

Threat narratives abound. Recent U.S. strategic documents have elevated China, alongside Russia, to the status of a primary threat to Arctic security and prosperity. Global assumptions guide the Department of Defense's *Arctic Strategy* (2019), which subordinates regional interests to a general American imperative to "deter, and if necessary, defeat great power aggression." Given China's avowedly limited Arctic military capabilities, the U.S. has to resort to other variables to frame China as a strategic threat, including how China

is seeking out a role in Arctic governance by expanding its “presence through economic outreach, investments in Arctic states’ strategic sectors, and scientific activities,” despite its lack of territorial claims in the region.

The challenge of discerning China’s “real” intentions is complicated by its status as an authoritarian state that does not share the ethos of openness and transparency that is espoused by liberal democratic states. Given that China is the quintessential “black box,” do we frame deeper Chinese interests based upon Arctic-specific speech acts and activities, or broader contextual considerations? For their part, Li Xing and Rasmus Gjedssø Bertelsen (2013) emphasize the importance of situating China’s Arctic interests and strategy within the context of “the core interests of the Chinese Communist Party: political stability, territorial integrity and economic growth.” Given Beijing’s dedicated efforts to secure energy and mineral resources from diversified global sources, as well as its interest in diversifying maritime supply chains, the Arctic is inextricably tied to its global interest. This manifests at various scales. Authors in this volume provide nuanced insight into economic relations between China and specific Arctic states, revealing how China and Chinese actors are active differently in different parts of the Arctic (see also Stepien et al., 2020). For example, what strategies will China use to secure its share of the global resource market, as Li and Bertelsen ask? How will the implementation of China’s Arctic policy fit within its Polar Silk Road vision (as an extension of its Belt and Road Initiative), as Kong Soon Lim raises?

Core questions also remain about China’s long-term goals in Arctic governance and the regional rules-based order. “Beijing cannot effectively be a unilateral ‘norm-maker’ in the Arctic,” Marc Lanteigne observes (2017). “Instead, China has sought to develop the identity of a regional ‘norm entrepreneur’, engaging the Arctic on many levels to promote the norm of partnerships between Arctic and non-Arctic actors to promote positive sum outcomes.” Touting the idea of a “near-Arctic state” may intimate an attempt to establish legitimacy to propose new norms or regional regimes in an increasingly internationalized Arctic, or it may affirm a simple desire to be recognized as an important second-tier stakeholder in the region. Will China continue to follow the philosophy, outlined by Chinese Vice Minister of Foreign Affairs Kong Xuanyou during a press release for the 2018 White Paper, that it will neither overstep by interfering with Arctic state affairs, nor be absent from the region (Kong, 2018)? Or, over time, will it seek to revise

Arctic governance, rules, and norms to conform with its national interests with respect to the region and the international order more broadly (e.g., Brady, 2017; Sørensen, 2018)?

There are no clear answers to such questions, which invite ongoing academic research and debate. Furthermore, new frameworks continue to emerge that challenge the assumptions upon which analysts base their assessments of Chinese priorities and possible Arctic futures. For example, Dean and Lackenbauer (2020) speculate that “Chinese behaviour in the Arctic might yield more value as an indicator that China is preparing to undertake revisionist action elsewhere in the world than as an indicator of imminent danger to Canada’s Arctic.” They suggest that “China may cite its ostensibly ‘good’ behaviour in the Arctic as a counter-argument to criticisms of revisionist aspirations or actions elsewhere.” They also offer the “diversionary” hypothesis:

While the Arctic continues to represent a strategic space from which to threaten North American security (as the Russians have demonstrated for decades), its value for China in the short to medium term may be to divert Arctic state attention and thus open up space for freedom of manoeuvre elsewhere. In short, rather than framing the Chinese threat as a regional “Arctic” one, we suggest that the primary lens for strategic foresight analysis should remain on China’s grand strategic aspirations. China’s purported aspirations to become a “polar great power” may ultimately play out as a way to demonstrate good international citizenship (behaving as an Arctic exemplar) or as a means of distracting Arctic state attention away from China’s main strategic priorities in Asia and elsewhere. (Dean and Lackenbauer, 2020)

Rather than anticipating Chinese revisionism, Dean and Lackenbauer propose the scenario that China may “play by the rules” and exemplify “Arctic civility” in hopes that its regional behaviour builds “political capital to invest in other regions of the globe that are of greater strategic importance to it.” Like various authors in this volume, they intimate that if Western states fail to situate China’s Arctic interests proportionately, they may miscalculate and create the very conditions for Arctic competition and conflict that are counter to Arctic state interests. Furthermore, by fixating on Arctic dynamics

rather than their place in a global context, the Arctic states may find themselves distracted from larger strategic forces challenging the international order.

Some commentators also suggest that cooperation and agreements to settle disputes in the Arctic Ocean peacefully could provide lessons for elsewhere in the world, including the South China Sea (Antsygina, Heininen, and Komendantova-Amann, 2020). Longer-term global environmental challenges, including climate change, must also be considered. The global response required to mitigate climate change poses questions about how China is going to act alongside other states on this existential issue. China's goal of becoming CO² neutral by 2060 may portend that work on climate change and other environmental issues can open space for cooperation, as Arctic states have demonstrated in regional governance since the end of the Cold War.

In December 2019, Siri Gulliksen Tømmerbakke wrote in *High North News* that “China is the new buzzword in the Arctic,” with some commentators arguing that “it is about time” that analysts took note, and others expressing their fatigue with talking about China's Arctic interests and ambitions. “Everyone talks about China,” she noted. “But is there really anything to fear? Do we pay more attention to China than we should? Or less? There is strife amongst the learned” (Tømmerbakke, 2019).

The diverse perspectives offered in this volume are not indicative of academic “strife,” but of in-depth research rooted in diverse methodologies, ongoing discussion, and even vigorous debate. In offering a roadmap to conceptualize key debates about China's Arctic interests, we hope that the contributions inspire further research about how this self-declared “near Arctic state” situates itself and exercises influence in a region that Canada's defence policy tidily describes as “an important international crossroads where issues of climate change, international trade, and global security meet” (DND, 2017). The Chinese government's 14th Five-Year Plan, released in March 2021, explicitly confirms Beijing's interest in developing the “Polar Silk Road,” and calls for further engagement with the Arctic region. This document reinforces how economic considerations factor heavily in Chinese polar ambitions, alongside expressed interests in scientific research on climate change, shipping routes, and governance (Lanteigne, 2021). With growing

acknowledgment that Beijing's advocacy for "practical cooperation" in the Arctic is inextricably linked to its broader global goals, academics can play an important role in analyzing the forces that shape China's thinking about the region, as well as how other regional stakeholders and rightsholders perceive and shape China's role and behaviour. Further exploration of how dynamics of cooperation and competition interact across national, regional, and international levels will be welcomed as we deepen and widen our understandings of a "Global Arctic" enmeshed within broader international affairs.

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China's Arctic Engagement

Following the Polar Silk Road to Greenland and Russia

Edited by Justin Barnes, Heather Exner-Pirot, Lassi Heininen, and P. Whitney Lackenbauer

The authors in this volume of articles, compiled from the *Arctic Yearbook*, illustrate how China's approach to the Arctic serves a dual purpose that reflects burgeoning Chinese influence beyond its borders in a global context. As China advances its relationships with Russia and Greenland to ensure Chinese energy security, access to raw materials, and emerging transportation routes, commentators continue to debate what this means for Arctic security. Will China eventually become a challenger to the Arctic's regional political norms? What does China's growing influence in the region mean for the return of great power competition elsewhere in the world?

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