The Arctic Academy for Sustainability

Giuseppe Amatulli & Jamie Jenkins

Introduction: The idea behind the Arctic Academy for Sustainability

https://uarcticacademy.wordpress.com/home/

The Arctic Academy for Sustainability: Creating Environmentally and Socially Responsible Sustainable Energy and Resource Development in the Arctic is a multi-year project (2022-2025) funded by the Prince Albert II of Monaco Foundation. Spanning over the European and Canadian Arctic, the Academy has four main university partners: Copenhagen Business School (Denmark), University of Helsinki (Finland), UNBC - University of Northern British Columbia (Canada), and Memorial University of Newfoundland (Canada). Originally, Tyumen State University (Russian Federation) was a partner institution; however, following the Russian invasion of Ukraine in February 2022 and the resulting inability to cooperate with Russian institutions, Memorial University has taken its place to ensure the smooth unfolding of the yearly academies in terms of logistic and administrative support.

The idea of having an Arctic Academy for Sustainability was proposed in 2020 by The UArctic Thematic Network on Arctic Sustainable Resources and Social Responsibility (TN ASRSR). The Network envisioned the Academy as the 'venue' to organise and host four scientific fora (including PhD training) to promote transdisciplinary research dialogue concerning the environmental, economic, and social aspects of sustainability in the Arctic focused on the identification of solutions. A socially responsible green transition, intertwined with sustainable resource management in the Arctic, is imperative for the long-term well-being of Arctic peoples and for reducing the impact resource exploitation has on the Arctic ecosystem, considering that the Arctic is rich in resources both on land and in the seas. More particularly, the lack of adequate engagement processes for addressing the competing interests of stakeholders and rightsholders involved in resource and energy development decisions generates divisions within communities, impacting how people envision the future and their lives in the Arctic. By advancing sustainability research, the Arctic Academy will contribute to advancing knowledge on two critical areas of human decision-making processes in the Arctic: (1) how to ensure adequate rightsholder and stakeholder

involvement in decision-making, and (2) how to develop comprehensive sustainable solutions to effectively address the social implications of the green transition. Eventually, the Academy has the ambition to provide some answers to the overarching issue of how Arctic societies can develop inclusive, evidence-based, culturally appropriate, and socially legitimated processes to be included in decision-making while better managing Arctic natural resources.

The Academy brings together senior researchers, early career scientists and the next generation of researchers from across the Arctic and beyond, with the scope to analyse the review processes and concepts being used in different Arctic countries - such as legal, environmental impact assessments, voluntary corporate codes, and human rights ideals such as free, prior, and informed consent (FPIC) - to enable public engagement and ensure a just and sustainable transition. The inclusion of senior and junior career-stage researchers (including PhD students) is an important feature of the Academy, as this will facilitate the transfer of knowledge while ensuring scientific continuity for a significant period following the project. Moreover, the sustained interaction between scholars and non-academic stakeholders will develop networks that can sustain longerterm empirical research and promote information and knowledge-sharing, resulting in society benefitting beyond the duration of the Academy. The outcomes of the project will serve as a basis for further scientific research and networking activities with non-academic stakeholders, and they will also be a source for new projects focused on energy development, resource use, and social responsibility in the Arctic. Advancing an understanding of the societal processes necessary to achieve a just transition to renewable energy and sustainable resource management in the Arctic aligns with the Prince Albert II of Monaco Foundation's mandate of protecting the environment and promoting sustainable development on a global scale. Focusing on a Polar region, the Arctic Academy for Sustainability is consistent with the Foundation's intent to "limit the effects of climate change and promote renewable energy" in this region of the world. With this project, the Arctic Academy for Sustainability will therefore address critical issues identified by the Foundation.

2022 Arctic Academy - Rovaniemi, Kiruna & Piteå, Finland and Sweden

The first Arctic Academy took place in Finnish and Swedish Lapland from August 29th to September 2nd, 2022. Fourteen researchers from Norway, Finland, Germany, Sweden, Belgium, and India travelled to Rovaniemi, Finland, before departing on a bus to Kiruna and Piteå, Northern Sweden, to promote discussion, facilitate learning and share knowledge on enhancing and securing a just energy transition in the Arctic region, considering the effects of climate change.

Climate change is having profound and far-reaching impacts on our planet and is especially impactful on the vulnerable and fragile Arctic environment. There is an urgent need to decarbonise our energy systems to limit and mitigate the impact of the changing climate. However, such an urgent need should not come at the expense of an environmentally and socially sustainable transition. The responsibility of business, industry, and policymakers in protecting and establishing an environmentally and socially sustainable green transition was the central and linking theme of the 2022 Arctic Academy. This theme was explored in depth during the week through excursions, presentations, lectures, discussions and writing while travelling across the Finnish and Swedish Arctic. The research backgrounds and expertise of the participants were diverse and allowed for cross-disciplinary discussions and problem-solving.



Figure 1: Arktikum/Arctic Centre, University of Lapland, Rovaniemi.

Day one of the Academy, held at the Arctic Centre of the University of Lapland Rovaniemi, began with introductions from participants and instructors proceeded on introductory lectures on the energy transition in the Arctic. The first introductory words were by Dorothee Cambou, Professor Assistant Sustainability Science from the University of Helsinki, who introduced the Academy and the practical details for

the week. Next, Kamrul Hossain, Director of the Northern Institute for Environmental and Minority Law and Research Professor from the University of Lapland, further introduced the themes and details of the Academy. The first academic lecture was from Professor Paul Bowles, University of Northern British Columbia, introducing the energy transition and the related issues in the Arctic context. The final lecture of the morning was from Adam Stepien, University of Lapland, elaborating further on the energy transition in the Arctic and the wider EU context.

The Academy provided the opportunity for participants to present their research and share their knowledge during participant seminars. This was a unique experience to encourage dialogue on topics the participants were deeply interested in. The seminars allowed for feedback and questions to be raised by other participants and instructors. The first round of participant seminars was held after lunch. Each seminar had three or four participants, and a round of discussion followed every presentation. The seminars were loosely organised around a common theme, and the first theme centered around international and EU policy, sustainable development, and the potential ramifications on the Arctic region. The first seminar series explored EU policy, legislation, and new technologies to promote sustainable development in the Arctic region. The next presentation focused on the town of Kiruna, the next stop in the Academy, and the interesting case study of the relationship between the nearby mine and the town. The final presentation travelled overseas to shed insights on sustainable development in the Indian context. After the final presentation, we boarded our bus and began our first journey across the Finnish-Swedish border towards Kiruna. We stopped at a restaurant on the Finnish-Swedish border for dinner, where the discussions and ice-breaking continued. We arrived in the mining town Kiruna later in the evening and spent two nights.

Kiruna mine is the "largest and most modern" underground iron ore mine in the world. The current haulage level is at 1,365 m underground, and recently, Europe's largest deposit of rare earth materials was discovered in the Kiruna area. The permitting and application process to begin mining this deposit is still underway, but production is expected to start later this decade. The mine has been in operation for over a hundred years already, and this new deposit, if extraction begins, will likely see the mine continue for many, many years to come. Interestingly, the town centre of



Figure 1: Kiruna mine visitor centre and museum, Photo by Jamie Jenkins

Kiruna is being moved 3km away from potentially dangerous areas prone to collapse and sinking into the ground due to the mining activities. The new town centre was officially being opened with a small celebration after the closure of the old town centre. The academy was in town for the final day of the old town centre being open, although we were not able to attend the celebration and official opening of the new town centre. The second day of the Academy began, and the morning was reserved for participant seminars before an excursion to the Kiruna mine visitor centre, 540m below ground. The theme for the seminars focused on social sustainability, and local and Indigenous stakeholder engagement in the Arctic context. We explored and discussed socially just stakeholder identification, effective participation, and legislation for protecting stakeholder voices. The first academic lecture of the morning was from Pamela Lesser, University of Lapland, via Zoom, and focused on sustainability in the mining sector - a hot topic of discussion

during the afternoon excursion and the remainder of the Academy. Sustainable mining is an interesting concept that has slowly increased in popularity. Mining is fundamentally unsustainable - extracting minerals from the earth is often highly destructive and takes millennia to replenish and regenerate (if at all). However, there are practices, actions and methods that can be adopted to promote more sustainable mining activities. This would be better described as "responsible mining" to account for the inherent unsustainability of mining activities. This was partly explored in the morning seminar, in which socially responsible mining practices can be identified and adopted to mitigate and limit the impact on surrounding and local communities. One key aspect of socially responsible mining projects is ensuring meaningful stakeholder engagement in the entire timeline of the mining project.

During the excursion to the underground mine, LKAB, the company that owns Kiruna mine, shared with us their vision of transitioning to a "sustainable" mine over the next century. They have an ambitious plan to have their processes and products carbon-free by 2045. This means they are aiming to produce iron using biomass and hydrogen as energy in the production plants and phase out carbon-based mining equipment in favour of electric vehicles and automated equipment. This will require massive additional inputs of electricity. The remainder of the mining tour, and into the evening and next day, included lively discussions on the consequences and implications of "sustainable mining" - is this simply greenwashing, does this promote *more* mining, if it's seen as

"sustainable", thereby potentially damaging more areas, or is this a step in the right direction for the mining and steel industry?

The third day of the Academy continued the exploration of sustainable and responsible mining, and the responsibility of businesses and community relations in mining projects. The social licence to operate in mining projects, and corporate social responsibility were key points in the lectures given by Professor Paul Bowles (UNBC) and Professor Karin Buhmann, (Copenhagen Business School, Copenhagen). The participant seminars focused on Indigenous peoples and communities as stakeholders in the green transition and sustainable development. After the final lecture in Kiruna, we boarded the bus and travelled a few hours south to Piteå. This marked a shift in theme from responsible and sustainable mining to wind power and the role it plays in the green transition and sustainable development.



Figure 2: Markbygden Wind Farm. Photo by Jamie Jenkins

power rapidly is developing. Many countries have implemented ambitious plans to increase the capacity of wind power to aid in decarbonising systems their energy transition away from fossil fuels. Wind power is a reliable, clean, and domestic source of energy. However, it can have significant impacts on land-use practices, local communities surrounding biodiversity and ecosystems, particularly during construction the decommissioning. Identifying and mitigating the social and

environmental impact is crucial to ensuring the sustainable development of wind power. The fourth day and final field trip of the Academy was to the Markbygden wind park in Piteå. The field trip began at the offices of Svevind, operators of the wind park, where Svevind representatives presented information on the wind park, future plans and company activities, before moving to visit part of the wind farm. Markbygden wind park will be the largest in Europe when construction is finalised and all turbines are in operation. It boasts up to 1,101 turbines covering an area of 450 square kilometres and will provide 12TWh of Sweden's energy needs per annum. An impressive technical and engineering feat that aids in achieving Sweden's targets for renewable energy development and decarbonisation. However, the development of Markbygden has caused controversy for the impact on surrounding communities, particularly the impact on reindeer herders in the region.

Discussions during the day were lively and centred on the impact of the Arctic energy transition on local communities, with a focus on the impact of wind energy development on Indigenous communities, with the aim to provide answers to three important questions: how does the transition to renewable energy impact surrounding and Indigenous communities and land-use

practices in the Arctic region? What has been the role of Indigenous communities in the development cycle? Who bears the responsibility of transitioning away from fossil fuels? There is an urgent need to decarbonise and transition away from fossil fuels to mitigate the impact of climate change, but this shouldn't come at the expense of a just and environmentally sustainable transition. These points were well addressed in the final academic lectures of the Academy. Prof. Dorothee Cambou gave a presentation on wind farms and the rights of Indigenous peoples in the Arctic transition. The final lecture was held via Zoom, by Per Sandstrom & Anna Skarin, Swedish University of Agricultural Sciences, and outlined the impact that wind energy is having on reindeer husbandry, an interesting discussion and follow-up on the many discussions had during the day.

The final day of the 2022 Academy was spent reflecting on the topics, discussions, and themes of the week in the Arctic. In the morning, participants formed groups and wrote blog posts discussing the seminar topics. After lunch, each group presented a summary of their blog posts to the main group to gain feedback and continue the reflections and discussions from the previous week. We continued the discussions into the afternoon before a final wrap-up lecture and the official end of the 2022 Arctic Academy. We boarded the bus for the final trip back to Rovaniemi. We stopped for a farewell dinner during the bus journey, where the conversation was friendly, lively, and intense. After a week spent together discussing important and difficult topics, we had formed close bonds, and the goodbyes back in Rovaniemi were tough but definitely not the last.

2023 Arctic Academy - Prince George, British Columbia, Canada

The second Arctic Academy for Sustainability took place in Prince George, British Columbia, from May 22nd to May 26th, 2023. The main goal of the Academy was to provide insights on sustainability challenges in the Canadian context, intertwined with First Nations' rights, resource exploitation and changes affecting Indigenous communities in Canada. The programme was drastically modified a few days before commencing the Academy due to the fire emergencies that dramatically impacted several communities in Northeastern British Columbia, Northwestern Alberta, and the Northwest Territories in the first half of May 2023. Skyrocketing temperatures above +30C, combined with the dry spring season, was a deadly mix and made us all reflect on the impact climate change has on Arctic and sub-Arctic regions. Fort St. John, the city that was supposed to host the second part of the Academy, was put under evacuation alert on Tuesday, May 16th, while Doig River First Nation, who was an important partner for the Academy, issued an evacuation order on Monday, May 15th and community members were evacuated in a few hours, to be sheltered in Dawson Creek. Everyone was asked to act quickly and be flexible to adapt to the uncertainties of the week, a condition that we all have learnt since the COVID-19 pandemic and with which we may learn to live to cope with other emergencies of our time, such as climate change and its unpredictable effects on the ecosystem and everyday life.



Figure 3: Paul Bowles' welcome speech, Senate Chamber. Photo by Giuseppe Amatulli

With a substantially revised programme, the Academy kicked off in the Senate Chamber of the UNBC on Monday, May 22^{nd,} with a welcome and territorial land acknowledgement delivered by UNBC's Chancellor Darlene McIntosh, an Elder with the Lheidli T'enneh Nation. In her opening, she stressed the importance of conducting research on sustainability and Indigenous related issues with an open mind and positive attitude to find answers to the many challenges of the current world. Following the opening,

the morning session focused on Sustainability Research conducted at UNBC. The first presenter was Dr Daniel Sims from the Department of First Nations Studies and Academic Co-Lead for the National Collaborating Centre for Indigenous Health. In his talk, he stressed the importance of considering the impact of development on how we live, pointing out how the colonial erasure and the narrative of forgetting that was promoted for so many years has had disastrous impacts on the ability of Indigenous peoples to live in different ways. The second talk was delivered by Dr Tristan Pearce, Canada Research Chair in Cumulative Impacts of Environmental Change. Drawing on his experience with communities in the Canadian High North, his lecture focused on how sustainability is understood by Indigenous members of small and scattered communities who rely on hunting for subsistence purposes, in addition to ensuring cultural continuity. Challenging the mainstream definition of sustainability, for example, reflecting on how the Inuit of the Canadian High North have been practising subsistence harvesting of polar bears to ensure food security while securing an important source of income purposes and safeguarding cultural continuity. Dr Pearce pointed out important nuances that must be considered when defining sustainability in the Canadian Arctic, also considering its heterogeneity. The last speaker of the morning was Dr Gabrielle Daoust from the Department of Global & International Studies. Drawing on her latest co-authored book, Divided Environments, in which she focused on the links between climate change, water and security in the African context, she offered a thought-provoking approach to the way in which places are imagined based on the resources they hold. Reflecting on water management and exploitation in Africa and drawing interesting parallelism with natural resources management and usage in British Columbia, Dr Doust provided insights on the need to change the paradigm and think about how to use fewer resources while changing the exploitation narrative.



Figure 4: Posters' presentation session at the UNBC. Photo by Giuseppe Amatulli

After lunch, the day continued with 90-minute poster presentation session. Every student attending the Academy (twelve internationals coming Canada, Denmark, from Finland, Iceland, the US and the UK) and six internal **UNBC** students produced explain their posters engaging research. By informally, students received precious feedback on their work while instructors became familiar with the topics and expertise of each participant.

The first day was concluded by a keynote speech by Chief Joe Alphonse, from the Tsilhqot'in National Government, on "Indigenous worldview and Aboriginal Title". Chief Joe was recently awarded a PhD honoris causa in Law by the University of Victoria in recognition of his fights to see the rights of his people recognised. He initiated key litigation that brought a ground-breaking verdict (2014), that recognised Aboriginal title in Canada exists and was never extinguished. Furthermore, the Tsilhqot'in case was instrumental for Canada to fully endorse the UNDRIP at the Federal level in 2016, two years later the Tsilhqot'in verdict was issued. Towards the end of his keynote speech, a student asked what Canada could do to remedy the wrong of the past, and Chief Joe simply replied: 'Leave. We do not need Canada; we do not need any of them to run our Government.' This answer generated an interesting debate among students and instructors in the following days. As highlighted by Prof. Paul Bowles during the final round of reflections on the last day, Chief Alphonse statement moves the discussion on Governance in Canada. It poses important questions about Canada as a Federal state while opening the debate on the need to see Canada as a pluri-national state and how to govern such a state entity, where always more First Nations are acquiring political and economic self-determination.

Day 2 began with a keynote lecture on the green transition and Indigenous Worldviews given by Prof Heather Castleden, President's Impact Chair in Transforming Governance for Planetary Health, University of Victoria, and Principal Investigator of the Research Project 'A SHARED Future - Achieving Strength, Health, and Autonomy through Renewable Energy Development for the Future. The research project studies reconciliation between knowledge systems. Renewable energy was chosen as the platform for exploring reconciliation and moving towards healing the relationships with each other and the world. Prof Castleden pointed out that decolonizing energy policy in Canada is fundamental to achieving a real reconciliation while offering First Nations a way out from the financial and political dependency generated by fossil fuels. The morning continued with the presentation of Prof Marianna Muravyeva (Faculty of Law/Aleksanteri Institute, University of Helsinki) on the topic of 'Personal Security of Indigenous Women in the Russian North: Old Issues, New Challenges'. Focusing on Women's issues in the Russian North, Prof Muravyeva explained the situation that Russian women have been facing since the collapse of

the Soviet Union. In addition, Prof Muravyeva referred to several examples made by Chastity Alphonse the day before, about women in British Columbia. Different in subject, but complementary to the scope of the Academy, was the talk given by Prof Brian Menounos, Canada Research Chair in Glacier Change. Explaining how the cryosphere responds to climate change, Prof Menounos made us think about how receding and melting glaciers can impact life on Earth and its meaning for human beings. He concluded his talk by pointing out that it is necessary to make a shift in the way we live if we want to be more sustainable. His concluding remarks resonated with what Dr Gabrielle Daoust explained when concluding her presentation on water and the need to use fewer resources.

After lunch, we reconvened in the Senate Chambers for the afternoon session. Titled 'Sustainability, the Green Transition and UNDRIP: BC and Beyond', the session was organised as a roundtable discussion among policymakers and practitioners from different First Nations, consulting firms, research institutes, and provincial and federal branches of the Government. Paul Gruner, CEO of Tahltan Development Corporation, joined us online from Yellowknife and was our first speaker. He explained the role and mission of an Indigenous Development Corporation and how it can contribute to the sustainable exploitation of natural resources. Similarly, Allan Stroet, Economic Development Manager of the Lheidli T'enneh Nation, shared his experience. A strong believer that First Nations are entering a golden age of economic development, Allan explained the difference between First Nations and Western companies when it comes to economic development, with a focus on timing and business approaches.

The need for a different approach to working with First Nations was also highlighted by Tara Bogh, Resource Manager, Ministry of Forests, Province of British Columbia. While recognising that there is so much to do, she also explained that the Government has changed perspectives and improved engagement practices in the last decade. Walsham Tenshak, Director of Economic Development and Communications of the District of Kitimat joined us by Zoom. She provided an explanation of the possibilities that Kitimat offers when it comes to business development while also addressing some of the challenges. Ananya Bhattacharya, Project Manager for the Takla First Nation, took the word after, explaining how Takla is implementing article 14 of UNDRIP on the rights that Indigenous peoples have to establish and control their educational systems. Ananya explained that at Takla, there is an on-Reserve school that hosts pupils until grade 9. In the last few years, the Nation has done extensive work to train members to become teachers and stay in Reserve, thus providing jobs and offering a real opportunity to community members to stay and live on Reserve. Other participants in the roundtable discussion were Rob van Adrichem, Director of External Relations, Community Energy Association and Carly Madge, Program Manager Pacific Institute for Climate Solutions. Rob provided a description of the Association and its mission, pointing out that one of the biggest challenges is to change the narrative about sustainability, what is sustainable and how to live more sustainably (i.e. in terms of producing and using energy in a different way). Carly explained the mission of the Institute and her role in conducting communityengaged research. After the end of the roundtable discussion, the conversation continued as we walked downtown through the UNBC connector trail system and Maple Madra Indian Restaurant. The first two days of the Academy were over, and students were ready to get out of the University and experience something different.

On Day 3 of the Academy (Wednesday, May 25th), we visited Canfor, a Canadian company leader in forestry activities and one of the world's largest producers of pulp, lumber, and paper. For many of the students, it was their first time visiting a pulp mill, and everyone was curious to know more about CANFOR, its activities, and strategies when it comes to sustainability and relationships with Indigenous peoples. Once we entered the facility, we were welcomed by Walter Matosevic, Canfor's chief forester, who introduced us to the session and the meeting objectives. Soon after, presentations on CANFOR and its activities started. Lindsay Sahaydak, Director of Environment & Sustainability, gave us a talk on corporate overview and sustainability strategy; Kalin Uhrich, Chief Forester, and Sara Cotter, FMS & Tenure Coordinator, spoke about forest sustainability, while Kerri Simmons, Director of Indigenous Partnerships, told us more about Aboriginal Engagement and the impacts of UNDRIP on CANFOR operation considering the 2019 approval of the BC DRIPA (the United Nations Declaration on the Rights of Indigenous Peoples) Act. Throughout these presentations, an interesting debate arose about CANFOR and its mission, its sustainability objectives, and the renewed commitment to building trust and relationships with First Nations considering the approval of DRIPA in British Columbia.



Figure 5: CANFOR headquarters, Prince George. Photo by Giuseppe Amatulli

The discussion on these issues continued over lunch and while we walked to the forest nursery. We were offered a tour of the JD Little Forest Nursery, guided by Russ Martin, Director of Forest Operations, who explained the importance of the nursery to ensure forestry continuity. From the nursery, we went to the Northwood Pulp Mill, where Robert Thew, Group General Manager Kraft Pulp & Paper, gave us a 45-minute explanation on wood/pulp processing to obtain paper while isolating other products that could be used for several different purposes (such as biodiesel, alcohol, etc.). Towards the end of the explanation, we were offered a tour of the facility, thus having the opportunity to see how paper is manufactured while having a better understanding of how the facility works.

Once the visit to the pulp mill was over, we went to visit the 'Exploration Place': a science museum that hosts taxidermies, small living animals and a section on the history of the city of Prince George.

The museum is in the Lheidli T'enneh Memorial Park, one of Prince George's premier parks, with stunning views of the Fraser River. Students had the opportunity to explore the park after visiting the museum, reflect on the week and engage in meaningful conversations with the instructors. After three days, relationships started to be formed, and everyone was more at ease in engaging in relevant discussions about the week and the upcoming events of the next days.



Figure 7: Drumming and smudging ceremony for the opening of the Doig Day at the UNBC. Photo by Giuseppe Amatulli

On Thursday, we had the honour of hosting delegation of the Doig River First Nation at the UNBC. Due to the fire emergency, we could not travel to Fort St. John and attend Doig Day, as initially planned. was Nevertheless, Shona Nelson (Band Manager of Doig), Garry Oker (previous Chief and current councillor) and Levi Davis (community and staff member) agreed to come to Prince George to offer us cross-cultural training and updates on what Doig has achieved in the last years in

terms of socio-economic development and to ensure cultural continuity. The day started outside with a smudging ceremony, some drumming by Garry and Levi, and a prayer. For many students, it was the first time to live such an experience and many questions were asked to Garry and Levi regarding the practice, its meaning according to the Indigenous worldview and its importance nowadays. The morning continued inside, with Garry and Shona speaking about Doig, the political organisation of the Band, and the work done by the Land Department and by Garry and Levi to ensure cultural continuity while transmitting the culture to future generations. Throughout the day, there was space for Garry to share examples of how he works with language revitalisation, making us sing in Dane-zaa after learning just one word! (Tsu-nayeh - Be kind). Levi shared with us his vision for the future within Doig River, after having travelled and lived in many different places around the world. As Garry remarked during the day, having a vision is the key to ensuring that there is a future for the next generations while using resources appropriately to fulfil the vision the community has.

The last day of the Academy was reserved for the final academic presentations given by Professor Karin Buhmann (CBS, Copenhagen) on 'just and fair energy transitions and best practice for stakeholder engagement: meaningful rights-holder involvement in Arctic communities', Dr Mette Apollo Rasmusen (Roskilde University, Denmark) on 'The challenges of tight relations and decision-making in remote settings in Greenland', and Elena Campbell (Washington University) on Arctic History(ies) and perception of the Arctic in the eighteenth/nineteenth century. The afternoon session was reserved for reflecting on the week's achievement. Students were asked to work in groups, to highlight and share what they had learned throughout the week and how the

lessons from the Academy could help them shape their current PhD research and future research plans. In the concluding thoughts, time as a social construct was highlighted by some of the students, while others pointed out how industry and First Nations have different truths when it comes to meaningful engagement and decision-making and this makes it difficult to implement a real reconciliation within Canada. Drawing on these reflections, the concept of a pluri-national state was mentioned by Prof. Bowles. As argued by Bowles, Canada might fall into this category, especially if a true reconciliation with the Indigenous peoples must be achieved. As a concluding remark of the discussion, Prof. Bowles mentioned the concept of the metabolic rift to explain the current ecological crisis and the rupture between humankind and nature because of the market-driven economy. Such a closing statement is a remark that the discourse about sustainability and the current ecological crisis we are now facing must be addressed by everyone in society, this problem is not limited to Indigenous peoples. However, Indigenous ontology and worldviews can certainly offer a different perspective to look at things and a way out from the current socioeconomic and environmental crises in which we have trapped ourselves.