Interdisciplinary Understanding for a Changing Arctic (DurhamARCTIC)

Final report for Leverhulme Doctoral Studentship Grant DS-2017-070

Review period: 1 October 2018 – 31 December 2023 (Submitted March 2024)

OVERVIEW

The Leverhulme Trust's Interdisciplinary Understanding for a Changing Arctic grant did much more than provide 15 PhD students with the fees, stipend, placement support, and fieldwork resources that enabled them to pursue their research and training. It also enabled the formation of an institutional framework and a series of cohort-building collaborative training activities that has permitted PhD students across a wide range of disciplines – including some not directly supported by Leverhulme – to educate each other in pursuit of a holistic understanding of Arctic problems and potential solutions. Equally important, the programming supported by the grant allowed for the programme's leadership and students to provide a level of community support that went well beyond the usual PhD experience. And finally, as is detailed in the accompanying statement on continuity, it enabled the establishment of the Durham Arctic Research Centre for Training and Interdisciplinary Collaboration (DurhamARCTIC) to carry on Durham University's role as an innovative leader in interdisciplinary research and training in Arctic studies. This is a legacy of the Leverhulme grant that will continue long after the funding has ended.

Over its duration, in addition to funding individual students' progression, the Leverhulme grant (through DurhamARCTIC, the doctoral training centre that was established to administer the grant) sponsored a number of events. A year-by-year summary of highlighted events follows:

- <u>2018-2019</u>: The four students from Cohort 1 as well as three of the six students in the incoming Cohort 2 attended the 2019 Summer School in April 2019, an event held in Durham that was linked with the final conference of the Leverhulme-funded, Durham-based ICE LAW Project. At the combined conference/summer school, ICE LAW researchers, Leverhulme-funded Durham students, other scholars from around the UK, and twenty non-Durham PhD students from around the world recruited via an open call joined together for keynote addresses and panel sessions featuring senior scholars, as well as poster presentations by PhD researchers. The Summer School concluded with a two-day workshop on science communication and outreach for all PhD researchers in attendance. For more on this event, see https://www.durham.ac.uk/research/institutes-and-centres/arctic/doctoral/2019-summer-school-/.
- <u>2019-2020</u>: A number of cohort building activities planned for the 2019-2020 academic year (including a planned four-day Summer School in Norway's Lofoten Islands; a day-trip to the British Museum's Arctic Culture and Climate Exhibit with

follow-up seminars with scholars at Cambridge University and Royal Holloway, University of London; and group attendance at the triennial International Congress of Arctic Social Sciences Meeting in Archangelsk, Russia) had to be cancelled due to the COVID-19 pandemic. Instead, with a sizable number of students now at Durham, attention focused on the student-run seminar series. During 2019-2020, this seminar series featured 11 seminars, led by current students as well as external speakers from Russia, Norway, Sweden, and the United Kingdom. When lock-down restrictions were introduced, this seminar series moved to an online format.

<u>2020-2021</u>: With the continuation of COVID restrictions, activities this year again centred largely on the student-run seminar series. In 2020-2021, the seminar series again featured 11 seminars, which included speakers from Canada, Norway, and the United Kingdom, as well as a number of presentations by Leverhulme-funded students at Durham. Also during this year, 10 of the 15 Leverhulme students (as well as the director) attended the triennial International Congress of Arctic Social Sciences (ICASS, postponed from the previous year, due to COVID), held online in Archangelsk, Russia. At ICASS, in addition to delivering a number of research presentations, Leverhulme-funded students and programme leadership led a roundtable panel on interdisciplinarity in Arctic higher education that highlighted the innovative experiment in interdisciplinary postgraduate training being undertaken with Leverhulme funding. In addition, during this year, DurhamARCTIC joined with the Icelandic Embassy in London to co-sponsor a September 2021 online symposium reflecting on the Arctic Council's 25th anniversary

(<u>https://www.durham.ac.uk/research/institutes-and-centres/arctic/news/arctic-council-at-25/</u>). This event was chaired by Leverhulme-funded PhD student Romain Chuffart.

 <u>2021-2022</u>: During this year, programme leadership took advantage of relaxed COVID restrictions to accelerate cohort training. In addition to continuing the student-led seminar series (which, in 2021-2022, featured a mixture of presentations by Leverhulme-funded Durham students and external speakers from Germany, Sweden, and the United Kingdom), DurhamARCTIC held a Spring School for the 15 Leverhulme-funded students in Durham in April 2022

(https://www.durham.ac.uk/research/institutes-and-centres/arctic/doctoral/2022spring-school/). Prior to the Spring School, each of the 15 students were asked to select a work sample (depending on how far along they were, these were progression papers, sample chapters, or articles being prepared for publication) and send it to one of four distinguished academics from the Nordic region (Bruce Forbes and Timo Koivurova from University of Lapland in Finland, Nina Wormbs from KTH in Sweden, or Ivar Bjorklund from UiT: The Arctic University of Norway). At the Spring School, the visiting academics gave feedback and engaged the students whose papers they were discussing in extended conversations about their research and how they could take it forward during and after their PhD studies. Finally, 2021-2022 saw a series of joint activities that built bridges between DurhamARCTIC and the Exploring Arctic Soundscapes project funded by Durham's Institute for Advanced Studies (https://www.durham.ac.uk/research/institutes-and-centres/advancedstudy/projects/recent-past-projects/exploring-arctic-soundscapes/). Over the course of three months (January-March 2022), the four visiting Exploring Arctic Soundscapes fellows gave over a dozen lectures and seminars, and most of the

Leverhulme-funded students attended at least one of these. This expanded the perspectives of the Leverhulme students (since none was pursuing musical or sonic topics in their theses) while also inspiring them for further research beyond their specific areas of study.

 2022-2023: The central cohort building event during the grant's final year was the Summer 2023 Summer School, a 10-day field-learning experience through northern Norway and adjacent areas of Sweden and Finland (https://www.durham.ac.uk/research/institutes-and-centres/arctic/doctoral/2023summer-school/). The Summer School was led by DurhamARCTIC Director Prof Phil Steinberg and Associate Directors Prof Bob Baxter and Dr Abbie Garrington, as well as one of our Norway-based external advisory board members, Prof Britt Kramvig of UIT: The Arctic University of Norway. The summer school provided students an opportunity to learn and share their observations on topics ranging from landscape ecology to Indigenous empowerment, and featured presentations by students and guest lecturers. The summer school was attended by 8 of the 11 then-enrolled Leverhulme-funded students (three had family responsibilities that they could not rearrange). The four alumni from the Leverhulme-funded programme attended as well to lead seminars on post-PhD life. A film produced during the Summer School, where Leverhulme-funded students reflect on the field learning experience and, more broadly, interdisciplinary doctoral training and the benefits of the Leverhulme programme, can be viewed at https://youtu.be/Maov8YQROdA.

For more information about the various aspects of the PhD training that was offered under the Leverhulme Doctoral Scholarship funding, see the website of the Durham Arctic Research Centre for Training and Interdisciplinary Collaboration (DurhamARCTIC), the centre that was established to carry out the ambitions of the Leverhulme training programme and assure its legacy at Durham University: <u>https://www.durham.ac.uk/arctic</u>.

STUDENTS

Perhaps the greatest measure of the doctoral scheme's success is its students. As of March 2024 (when this report was written), seven of the fifteen students had received their PhDs, one had successfully defended and was just waiting for the degree to be officially conferred, and one had submitted but not yet defended. The other six students all anticipate submitting their theses by August 2024 and receiving their degrees no later than January 2025.

PhD training under the Leverhulme programme contained a number of innovations not typically found in other PhD training programmes. Although degrees were granted through disciplinary academic programmes, students were required to have at least one supervisor from outside their lead discipline. In the end, students received (or are soon to receive) degrees in seven disciplines – Anthropology, Archaeology, Biosciences, Geography, History, Law, and Psychology – with another two disciplines – Earth Sciences and English – providing members of supervisory committees. Additionally, the programme for Leverhulme-funded students included a three-month placement where students could learn about Arctic issues and research beyond the academic instruction they were receiving at Durham. Students

undertook placements at a range of institutions in Canada, Finland, Norway, Sweden, the United Kingdom, and the United States (Alaska), across a broad range of research, advocacy, and public engagement organisations. Student reports on their placements can be found on the DurhamARCTIC website, at <u>https://www.durham.ac.uk/research/institutes-and-centres/arctic/doctoral/placements/</u>.

Details of each student funded by the Leverhulme Doctoral Studentship award follow:

Cohort 1 (entering Autumn 2018)

Giuseppe Amatulli (Degree conferred January 2023)

Thesis title: 'Cumulative effects, anthropogenic changes and modern life paths in Northeastern British Columbia: the case of the Doig and BlueBerry River First Nation'
Primary supervisor: Professor Simone Abram (Anthropology)
Secondary supervisor: Dr Henry Jones (Law)
Placement: Doig River First Nation Land Department (Fort St. John, British Columbia,

Canada)

Since receiving his PhD, Giuseppe has held two post-doctoral positions: first as a researcher on the 'Arctic Silk Road' project at UiT: The Arctic University of Norway, and then as a researcher on the Canadian Social Science and Humanities Research Council-funded 'Rebuilding First Nations Governance' project at Carleton University (Canada), where he is also an instructor in the Department of Indigenous and Canadian Studies. Giuseppe's publications include:

- G. Amatulli, 'Decolonizing production: healing, belonging, and social change in Sápmi: a commentary on Natalia and Matthew Magnani' (*Current Anthropology*, 2022, <u>https://doi.org/10.1086/720639</u>).
- G. Amatulli, 'Cumulative effects of industrial development and Treaty 8 infringements in north-eastern British Columbia: the litigation Yahey v BC (S151727) case comment' (Arctic Review on Law and Politics, 2022, https://doi.org/10.23865/arctic.v13.3802).
- G. Amatulli, 'Climbing the trail to heaven: Traditional funerals and burial practices in Dane-zaa Territory: An ethnographic account from North-eastern British Columbia' (*Mortality*, 2023, <u>https://doi.org/10.1080/13576275.2023.2179392</u>).

Additionally, Giuseppe presently has a book contract to publish his thesis with University of British Columbia Press.

Ilona Kater (Degree conferred July 2022)

Thesis title: *Reindeer ecology in a changing Arctic: Snow, vegetation, and traditional ecological knowledge*

Primary supervisor: Professor Robert Baxter (Biosciences) Secondary supervisor: Professor Simone Abram (Anthropology)

Placement: Umeå University (Umeå, Sweden)

Following her PhD, Ilona held a position as Teaching Associate in the Department of Geography, University of Cambridge. She is currently looking for her next position while continuing as an Institute Associate with Cambridge's Scott Polar Research Institute. Ilona's publications include:

- E. Soininen *et al.*, 'Location of studies and evidence of effects of herbivory on Arctic vegetation: A systematic map' (*Environmental Evidence*, 2021, <u>https://doi.org/10.1186/s13750-021-00240-0</u>).
- I. Kater, 'Natural and Indigenous sciences: Literatures and lessons for more effective collaborations' (*Regional Environmental Change*, 2022, <u>http://dx.doi.org/10.1007/s10113-022-01967-3</u>).
- I. Kater & R. Baxter, 'Abundance and accessibility of forage for reindeer in forests of northern Sweden: Impacts of landscape and winter climate regime (*Ecology and Evolution*, 2022, <u>https://doi.org/10.1002/ece3.8820</u>).

Ilona has also published several popular articles in *The Conversation*.

Jan Mikael Lundmark (Degree conferred July 2022)

Thesis title: Access to land, access to justice - The divergence of legal protection: Cultural protection for Sámi access to land and water under Swedish law in light of the European Convention on Human Rights and Fundamental Freedoms

Primary supervisor: Professor Tom Allen (Law)

Secondary supervisors: Dr Benedict Douglas (Law); Dr Lauren Martin (Geography) Placement: Sámiid Riikkasearvi (The National Union of Swedish Sámi) (Umeå, Sweden)

Since receiving his PhD Mikael has been working as a Drafting Lawyer at the Land and Environment Court in Växjö, Sweden. His publications include:

- J.M. Lundmark, 'The European Court of Human Rights and the protection of Arctic Indigenous peoples' rights' (*Yearbook of Polar Law*, 2018, <u>https://brill.com/view/journals/yplo/9/1/article-p24_3.xml?language=en</u>).
- J.M. Lundmark, 'It is a matter of principle that the Indigenous Sámi people lack legal protection' (*European Human Rights Law Review*, 2020, https://search.informit.org/doi/abs/10.3316/agispt.20200312026865).
- J.M. Lundmark, 'The Girjas Saami case: Indigenous peoples' right to dispose freely of natural resources' (*Routledge Handbook of Polar Law*, 2023, <u>https://www.routledge.com/The-Routledge-Handbook-of-Polar-Law/Tanaka-Johnstone-Ulfbeck/p/book/9780367711702</u>).
- T. Allen & J.M. Lundmark, 'Constitutional jurisprudence on cross-border rights of Indigenous peoples in Norway' (*Nordic Journal of International Law*, 2023, <u>https://brill.com/view/journals/nord/92/2/article-p189_002.xml</u>).

Laura Seddon (Degree conferred July 2022)

Thesis title: *Measurement, knowledge, and representation: A sociological study of Arctic seaice science*

Primary supervisor: Professor Philip Steinberg (Geography)

Secondary supervisor: Professor Chris Stokes (Geography)

Placement: Norwegian Meteorological Institute (Oslo, Norway)

Following receiving her PhD, Laura initially took up the position of Learning and Teaching Administrator with the Department of Earth Sciences at Durham University. She is currently an Evidence Specialist with the UK Marine Management Organisation. Her publications include:

- R. Chuffart, A. Cooper, C. Wood-Donnelly, & L. Seddon, 'Old sea, new ice: Sea ice geoengineering and Indigenous rights in Arctic Ocean governance' (*Polar Journal*, 2023, <u>https://doi.org/10.1080/2154896X.2023.2269688</u>).
- L. Seddon & P. Steinberg, 'Sea ice extent and the sea ice index: Freezing sea ice through measurement and mediation' (*Media Seas of the High North Atlantic*, forthcoming from Routledge).

Cohort 2 (entering Autumn 2019)

Eric Boyd (Degree conferred January 2024)

Thesis title: To resettle a settler mining community: Colonialism, recursive discourse, and spectres in the deformation zone, Kiruna, Sweden
Primary supervisor: Professor Simone Abram (Anthropology)
Secondary supervisor: Professor Gavin Bridge (Geography)
Placement: School of Global Studies, Gothenburg University (Gothenburg, Sweden)

Following receiving his PhD, Eric has been working at the School of Global Studies at the Gothenburg University (Sweden), where he is presently Senior Lecturer. His publications include:

- N. Acosta García *et al.*, 'Disagreeing well in an unparadigmatic field: A response to Bodin' (*Sustainability Science*, 2021, <u>https://doi.org/10.1007/s11625-022-01228-6</u>).
- M. Boyd Gillette & E. Boyd, 'Mining for tourists in China: A digital ethnography of user-generated content from coal mining heritage parks' (*Journal of Heritage Tourism*, 2023, <u>https://doi.org/10.1080/1743873X.2023.2255691</u>).
- M. Lilja *et al.*, 'Power, resistance and social change' (*Journal of Political Power*, 2023, <u>https://doi.org/10.1080/2158379X.2023.2251108</u>).
- E. Boyd, 'Memorialisation and its denial: Slow resistance through derealisation in Kiruna, Sweden' (*Journal of Political Power*, 2023, <u>https://doi.org/10.1080/2158379X.2023.2251110</u>).

Additionally, Eric presently has two book chapters awaiting publication and two articles under review.

Romain Chuffart (Post-viva PhD corrections accepted January 2024; degree to be conferred July 2024)

Thesis title: Indigenous sovereignty, self-determination, and rights: Normative agency through the rights-based approach in multilevel Arctic environmental governance Primary supervisor: Dr Anashri Pillay (Law)

Secondary supervisors: Dr Henry Jones (Law); Professor Philip Steinberg (Geography) Placement: Fridtjof Nansen Institute (Oslo, Norway) From August through December 2023, Romain served as visiting lecturer at the University of Akureyri (Iceland) and from January 2024 through December 2025 he is serving as Nansen Professor in Arctic Studies at the University of Akureyri. Since beginning his PhD studies, Romain has published 10 articles and book chapters (not including book reviews) in leading venues including *Polar Journal, Polar Record, The Yearbook of Polar Law,* and *The Routledge Handbook of Polar Law.* Key publications include:

- R. Chuffart & A. Raspotnik, 'The EU and its Arctic spirit: Solving Arctic climate change from home?' (*European Views*, 2019, <u>https://doi.org/10.1177/1781685819883143</u>).
- A. Shibata & R. Chuffart, 'Sustainability as an integrative principle: The role of international law in Arctic resource development' (*Polar Record*, 2020, <u>https://doi.org/10.1017/S0032247420000340</u>).
- R. Chuffart, S. Hataya, O. Inagaki, & L. Arthur, 'Assessing Japan's Arctic engagement during the ArCS project (2015-2020)' (*Yearbook of Polar Law*, 2020, <u>https://doi.org/10.1163/22116427 012010020</u>).
- R. Chuffart, A. Raspotnik, & A. Stepien, 'Our common Arctic? A more sustainable EU-Arctic nexus in light of the European green deal' (*Polar Journal*, 2021, <u>https://doi.org/10.1080/2154896X.2021.1978757</u>).
- R. Chuffart, A. Raspotnik, L. Brodt, & P. Convey, 'Dealing with insecurities and geopolitics: Science diplomacy at the poles' (*Antarctic Science*, 2022, <u>https://doi.org/10.1017/S095410202200027X</u>).
- R. Chuffart, A. Cooper, C. Wood-Donnelly, & L. Seddon, 'Old sea, new ice: Sea ice geoengineering and Indigenous rights in Arctic Ocean governance' (*Polar Journal*, 2023, <u>https://doi.org/10.1080/2154896X.2023.2269688</u>).
- R. Chuffart & J. Jabour, 'Environmental impact assessment in the polar regions' (*Routledge Handbook of Polar Law*, 2023, <u>https://www.routledge.com/The-Routledge-Handbook-of-Polar-Law/Tanaka-Johnstone-Ulfbeck/p/book/9780367711702</u>).

Additionally, during much of his time as a PhD student Romain served as co-host of The Arctic Institute's 'TAI Bookshelf' podcast.

Christian Drury (Degree conferred January 2024)

Thesis title: *"Semi-professional Polar explorers": Empire, modernity, and temporality in* British Arctic travel narratives, 1875-1940

Primary supervisor: Dr James Koranyi (History)

Secondary supervisor: Dr Abbie Garrington (English)

Placement: National Library of Scotland (Edinburgh, UK)

Christian is presently working for Temporary Staffing Services at Durham University, where he fills a number of support roles for academic departments. He is seeking full-time academic employment. He has had a number of blogposts and reviews published in online venues including Arctic-Relations.info, The Arctic Institute, H-Net Reviews, the National Library of Scotland blog, UiO Nordic: Collecting Norden, and the Network in Canadian History & Environment (NiCHE), as well as the journals *Scandinavian Studies* and *Nordicum Mediterraneum*. A book chapter and journal article – both derived from his thesis work on the relationship between British mountaineers and modernity in Norway – are presently under review.

Greta Ferloni (PhD submitted January 2024; viva scheduled for April 2024 with aim for degree to be conferred July 2024)

Thesis title: Cryomobilities: Vessel mobilities amidst the ice-prone waters of the Bering Strait Primary supervisor: Professor Philip Steinberg (Geography)

Secondary supervisors: Dr Jeremy Schmidt (Geography); Professor Chris Stokes (Geography) Placement: Arctic Research Center, University of Alaska Fairbanks (Fairbanks, Alaska, USA)

Greta is seeking employment as a researcher, either in academia or industry, using the GIS skills that she developed as a PhD student. She is presently applying for positions while preparing for her viva. Her publications include:

- P. Steinberg et al., 'Navigating the structural coherence of sea ice' (Laws of the Sea: • Interdisciplinary Currents, 2023, Routledge, https://www.taylorfrancis.com/books/oa-edit/10.4324/9781003205173/laws-seairus-braverman).
- C. Coutu, G. Ferloni, J. Riquet, & P. Steinberg, 'Mediating Arctic soundscapes' (The Mediated Arctic: Poetics and Politics of Contemporary Arctic Geographies, 2024, Manchester University Press,

https://manchesteruniversitypress.co.uk/9781526174017/the-mediated-arctic/).

Katy Ivison (Degree conferred January 2024)

Thesis title: The impact of climate change and biotic interactions on non-native plants in Norway

Primary supervisor: Dr Wayne Dawson (Biosciences)

Secondary supervisors: Dr Lisa Baldini (Environmental Science, Teesside University); Dr

James Speed (Natural History Museum, NTNU (Norwegian University of Science and Technology))

Placement: Natural History Museum, NTNU (Trondheim, Norway)

Since January 2023, Katy has been a postdoctoral researcher in fire ecology at the University of Birmingham on the NERC-funded 'UK Fire Danger Rating System' project, a position that will run through December 2024. Following that, she intends to continue with a research career in conservation and ecology, whether in academia, government, or another sector. To date, her key publication from her thesis is:

K. Ivison, T. Prestø, J. Speed, & W. Dawson, 'Testing enemy release of non-native plants across time and space under herbarium specimens in Norway' (Journal of *Ecology*, 2023, https://doi.org/10.1111/1365-2745.13998).

Additionally, she has articles based on her thesis under review with the journals *Diversity* and Distributions and Journal of Ecology.

David Jarrett (Thesis submission planned by end of March 2024 with aim for degree to be conferred July 2024 or January 2025)

Thesis title: Monitoring breeding productivity of shorebirds using acoustic recorders and machine learning

Primary supervisor: Professor Stephen Willis (Biosciences)

Secondary supervisors: Dr Sally Street (Anthropology); Dr Aleksi Lehikoinen (Ornithology, LUOMUS (Finnish Museum of Natural History))

Placement: LUOMUS (Finnish Museum of Natural History) (Helsinki, Finland)

David has been working as a freelance consultant on ornithological and conservation issues while completing his thesis. He intends to apply for full-time work in the conservation sector after submission. His publications include:

- D. Jarrett *et al.*, 'Behavioural responses of non-breeding waterbirds to marine traffic in the nearshore environment' (*Bird Study*, 2021, <u>https://doi.org/10.1080/00063657.2022.2113855</u>).
- D. Jarrett, A. Lehikoinen, & S. Willis, 'Monitoring wader breeding productivity' (*Ibis*, 2023, <u>https://doi.org/10.1111/ibi.13298</u>).

Articles based on two further chapters of his thesis – 'Mitigating bias in long-term ecoacoustic monitoring projects' and 'Passive acoustic monitoring can outperform traditional survey approaches in estimating relative densities of breeding waders' – are currently under review.

Cohort 3 (entering Autumn 2020)

Paul Burgum (Thesis submission planned for April or May 2024 with aim for degree to be conferred January 2025)

Thesis title: Investigating resilience in extreme environments using broad theories in psychological science

Primary supervisor: Dr Thuy-vy Nguyen (Psychology) Secondary supervisors: Dr Daniel Smith (Psychology); Dr Sally Street (Anthropology) Placement: British Antarctic Survey (Cambridge, UK)

Throughout his studies, Paul has sought to research, and intervene in, the stresses involved in Polar research and the exclusions that result. These were key themes, in particular, of his placement at the British Antarctic Survey, where he developed a number of programmes for increasing well-being among Polar researchers. Following submission of his thesis, Paul intends to either apply for a fellowship to continue his research on Polar resilience or apply for teaching positions. He also is considering integrating his extensive experience in the charity and voluntary sectors with the insights on psychological resilience developed during his PhD to seek a management position with a charity organisation.

Elizabeth Gillie (Thesis submission planned for March 2024 with aim for degree to be conferred July 2024 or January 2025)

Thesis title: *Biodiversity colonisation of the Arctic under climate change: Impacts on land, sea and people* Primary supervisor: Professor Stephen Willis (Biosciences) Secondary supervisor: Dr Sally Street (Anthropology); Dr Aleksi Lehikoinen (Ornithology, LUOMUS (Finnish Museum of Natural History)) Placement: Marine Institute, Memorial University (St. John's, Newfoundland, Canada)

Beth intends to continue research in conservation and ecology, whether at an academic institution, a government agency (e.g. DEFRA, Natural England, or the Marine Management Organisation), or a non-governmental organisation. She presently has one article – 'Exploring novel North Water Polynya ecosystems under climate change' – under review with *PLoS Climate*, and she has a suite of four further articles based on her thesis that she intends on submitting to leading journals, including *Global Change Biology*, shortly after submitting her thesis.

Sal Kellett (Thesis submission planned for August 2024 with aim for degree to be conferred January 2025)

Thesis title: Investigating the long-term impacts of Norse settlement on the pristine environment of Iceland using archaeobotany and stable isotope analysis
Primary supervisor: Professor Mike Church (Archaeology)
Secondary supervisor: Dr Darren Gröcke (Earth Sciences)
Sal's was unable to complete her planned placement in Iceland due to health and family circumstances

Sal intends to apply the skills in data management and environmental analysis gained during her PhD studies to a position in the conservation sector. She is presently co-author on three papers (all nearing submission) elaborating on some of the techniques that she is using in her PhD thesis. Additionally, she has mapped out a suite of four articles based on her thesis work that she intends on submitting shortly after submitting her thesis.

Danae-Maria Kontou (Thesis submission planned for April or May 2024 with aim for degree to be conferred January 2025)

Thesis title: Arctic cartographic uncertainties Primary supervisor: Professor Philip Steinberg (Geography) Secondary supervisors: Dr Paul Harrison (Geography), Dr Danny McNally (Geography, University of Teesside)

Placement: Nordland Research Institute (Bodø, Norway)

Since the beginning of 2024, Danae has been a Lecturer in Geography at Teesside University, a position that she will be leaving in June 2024 to accept a postdoctoral researcher position at the Institute for Environmental Studies at Vrije Universiteit Amsterdam working on the EU-funded 'Storylines of Future Extremes' (PerfectSTORM) project. Her thesis, which will be the first submitted in the newly approved 'thesis by portfolio' track at Durham, will combine multimedia artistic works with an expository dissertation reflecting on how her artwork reflects the uncertainties that underpin cartographic depictions of the Arctic environment. In addition to a number of publications planned and under review, Danae has published:

• D. Kontou, 'Arctic cartographic uncertainties: A cARTographic atlas in progress...' (*Abstracts of the International Cartographic Association*, 2022, <u>https://doi.org/10.5194/ica-abs-5-6-2022</u>).

Danae also curated and presented a solo art exhibition – 'Uncertain Arctic' – in Athens in November 2022.

Ellie Ward (Thesis submission planned for August 2024 with aim for degree to be conferred January 2025)

Thesis title: Adaptive capacities in Arctic charr (Salvelinus alpinus): The importance of phenotypic and genetic variation

Primary supervisor: Prof Rus Hoelzel (Biosciences) Secondary supervisor: Dr Martyn Lucas (Biosciences); Prof Erin McClymont (Geography) Placement: Akvaplan-NIVA (Tromsø, Norway)

Ellie is presently applying for funding to support independent research on Arctic ecology, with the hope that this will launch her into a postdoc or academic lectureship position. In the meantime, she is planning on submitting a suite of articles for publication at the time of thesis submission.