



**Project on Indeterminate and
Changing Environments:
Law, the Anthropocene and the
World
(The ICE LAW Project)**

Final Report

September 2019



The Leverhulme Trust



Durham
University



1. The grant

In June 2015, Durham University was awarded a Leverhulme Trust grant for £124,925 for an international network entitled, “Project on Indeterminate and Changing Environments: Law, the Anthropocene and the World” (the ICE LAW Project, or ILP), to be directed by Professor Philip Steinberg (Department of Geography, Durham University). The grant extended over a 36-month period, from 4th July 2016, to 3rd July 2019.

The ILP was comprised of five subprojects: Territory; Resources; Mobilities and Migration; Law; and Indigenous and Local Perspectives. The subprojects were led by ten scholars from seven institutions in four countries, bringing together a wealth of specialised knowledge from a range of disciplines including anthropology, geography, law, and politics. In addition to the central objectives of the project, the subprojects were informed by their own, individual objectives (see <https://icelawproject.weebly.com/subprojects.html>).

Workshops, community meetings, and conferences were held in Canada, Finland, the Netherlands, Norway, Russia, Sweden, the United Kingdom, and the United States.

The project’s website is <http://icelawproject.weebly.com>.

2. Objectives

The aim of the ILP was to interrogate how human interactions with the geophysical environment of the world’s frozen regions challenge Western normative principles of state power and legal authority that assume an idealised binary between land and water. Through five specialised subprojects, the ILP sought to investigate the potential for a legal framework that acknowledges the complexities and indeterminate nature of the world’s frozen regions and consider the impact that an ice-sensitive legal system would have on various contexts, ranging from everyday encounters of Arctic residents with ice, to the territorial foundations of modern state.

The ILP was guided by three main objectives:

1. To examine the challenges posed by polar environments to Western political, legal, and regulatory systems in order to improve understanding of historic and potential relationships between the physical nature of the geosphere, constructions of territory, and practices of territorialization.
2. To assist in developing legal and regulatory mechanisms to address the obstacles and opportunities that the physical nature of the polar environment poses to actors there, from indigenous peoples seeking self-determination to corporations seeking secure investment opportunities.
3. To extend findings about the practical and conceptual influence of the polar environment within Western and non-Western legal and social systems to inform understanding and policy-making in other regions of the world where the geophysical categorizations that underpin state authority are similarly upended.

3. Research activity

The ILP combined the activities of its five subprojects with a networking structure to facilitate transfer of insights across the subprojects, culminating in a final, network-wide conference as well as sponsored publications.

3.1 [Territory](#)

3.1.1 Leadership and Focus

The *Territory* subproject (led by Stuart Elden, University of Warwick) examined the extent to which polar conditions challenge Western conceptions of territory that are rooted in particular experiences and institutions of temperate Europe. This connects with a broader research agenda investigating how our understanding of territorial norms and legal systems account for the complexities of geophysics.

3.1.2 Research Activities

Workshop 1: ACCESS EUROPE Research Centre, University of Amsterdam, May 2017.

See <https://icelawproject.weebly.com/may-2017-territory-in-indeterminate-and-changing-environments-amsterdam.html>

Workshop 2: University of Warwick, December 2017. See

<https://icelawproject.weebly.com/december-2017-territory-law-and-the-anthropocene-warwick.html>

Paper presentations and discussions from these workshops significantly informed subsequent publications by subproject leader Stuart Elden. Additionally, through his participation in project-wide activities and publications, Prof Elden transmitted insights from the Territory workshops to the network as a whole. Synergy between subprojects was also facilitated by the inclusion of Law subproject leader Timo Koivurova at the second Territory subproject workshop and project leader Philip Steinberg at both workshops. Additionally, the workshops brought new members into the network who subsequently participated in the ILP's final conference, building a research network and community of inquiry that will outlast the core personnel and duration of the ILP.

3.2 [Resources](#)

3.2.1 Leadership and Focus

Led by Gavin Bridge (Durham University), the *Resources* subproject sought to critically explore how polar geophysical environments shape the political, economic, and cultural practices through which natural resources are acquired and assembled as commercially valuable assets. The subproject examined how institutions and practices of resource development in frozen regions are adapted to the materialities of polar environments, deliberately suspending an initial distinction between 'commercial' and 'traditional' forms of resource making in favour of a transversal perspective focussed on how resource economies incorporate, in different ways, the materialities of polar nature.

3.2.2 Research Activities

Workshop 1: ‘Anticipating Abundance: Economizing the Arctic’, Durham University, May 2017. See <https://icelawproject.weebly.com/may-2017-Isquoanticipating-abundance-economizing-the-arcticsquo-durham.html>

Workshop 2: ‘Economising the Offshore Arctic: Dynamic Marine Policies and Global Production Networks in a Thawing World’, Durham University, April 2019. See <https://icelawproject.weebly.com/april-2019-Isquoeconomising-the-offshore-arctic-dynamic-marine-policies-and-global-production-networks-in-a-thawing-worldrsquo-durham.html>

Paper presentations at the first workshop were used to identify topics for further investigation, as well as key individuals to engage in focused research. The second workshop centred around development of a grant proposal on oil and gas exploration in the Barents Sea, which is currently under preparation for submission for research council funding.

3.3 [Law](#)

3.3.1 Leadership and Focus

The focus of the *Law* subproject, led by Timo Koivurova (University of Lapland), was rooted in a study of challenges arising from the failure of international law to recognize the distinct category of sea ice. Through an investigation of how this gap in jurisprudence is being met through domestic and sub-national legislation, and through speculation as to how these efforts might inform environmentally-sensitive law in other areas in the Arctic and beyond, this subproject aimed to inform a framework for legal systems suited to the geophysical environment of the polar regions.

3.3.2 Research Activities

Workshop 1: University of Lapland, Rovaniemi, April 2017. See <https://icelawproject.weebly.com/april-2017-laws-and-regulations-currently-guiding-human-behaviour-in-icy-environments-rovaniemi.html>

Although sponsoring one workshop on its own, Law subproject leadership subsequently determined that legal perspectives could best inform overall project objectives through continual integration with the other subprojects. To that end, Law subproject leadership attended workshops and meetings held by the Territory and Indigenous & Local Perspectives subprojects, and co-authored with members of the Mobilities & Migrations subproject.

3.4 [Indigenous and Local Perspectives](#)

3.4.1 Leadership and Focus

The *Indigenous and Local Perspectives* subproject (co-led by Jessica Shadian, University of Toronto, and Anna Stammler-Gossmann, University of Lapland) targeted specific areas of

concern to coastal indigenous and local communities across the Arctic for whom the polar environment constitutes a customary space or whose livelihood may be influenced by a changing environment. The interests of coastal communities, including local hunters, indigenous corporations, indigenous governments, and aboriginal-owned commercial enterprises often differ from the priorities of government agencies, intergovernmental international and regional organisations, or the commercial sector. The Indigenous and Local Perspectives subproject sought to identify these interests through a series of community meetings.

3.4.2 Research Activities

Community Meeting 1: Sand Point (Alaska, USA), sponsored in cooperation with the Aleut International Association, with additional funding from the US National Science Foundation, December 2016. See

<https://icelawproject.weebly.com/november-2016-sand-point-talking-circle-on-local-engagement-in-search-and-rescue.html>

Community Meeting 2: University of Lapland (Rovaniemi, Finland), April 2019. See

<https://icelawproject.weebly.com/april-2019-climate-fish-and-fisheries-sector-local-and-indigenous-perspectives-rovaniemi.html>

Community Meeting 3: Bugøynes (Norway), June 2019. See

<https://icelawproject.weebly.com/june-2019-lsquotnorwegian-fjord-living-with-changesrsquo-and-art-workshop-lsquotstories-of-the-searsquo-bugoynes.html>

Community Meeting 4: Churapcha (Republic of Sakha Yakutia, Russia), June 2019. See

<https://icelawproject.weebly.com/june-2019-people-of-the-changing-permafrost-land-churapcha.html>

These community meetings were held to provide baseline data that could then be integrated with conceptual advances from the other subprojects to inform publications and “ground truth” the efficacy of the ILP’s approach against the livelihoods of Arctic residents. The subproject also sought to develop community contacts that ILP members could draw on in future research.

3.5 [Mobilities and Migration](#)

3.5.1 Leadership and Focus

The *Migrations and Mobilities* subproject (co-led by Claudio Aporta (Dalhousie University), Aldo Chircop (Dalhousie University), Kate Coddington (SUNY-Albany) and Stephanie Kane (Indiana University)), explored the diverse interactions produced by the differing types of mobilities encountered in polar environments, from commercial navigation routes and migrant labour flows to migratory animal patterns and seasonal, subsistence movements of local populations. The aim was to understand how these interactions are shaped by geophysical realities that undermine taken-for-granted land-water binaries, such as changing coastlines, shifting rivers, unstable islands, and melting, mobile ice.

3.5.2 Research Activities

Workshop 1: ‘Rethinking Perspectives of Arctic Issues in 2017’, sponsored in cooperation with the Company of Master Mariners of Canada, Dalhousie University, Halifax (Nova Scotia, Canada), April 2017. See <https://icelawproject.weebly.com/april-2017-rethinking-perspectives-on-arctic-issues-in-2017-a-joint-seminar-with-the-master-mariners-of-canada-halifax.html>

Workshop 2: ‘Questioning Territory: Extending Concepts of Territory through Engagement with Experience, Affect, and Embodiment’, SUNY-Albany (New York, USA), March 2019. See <https://icelawproject.weebly.com/march-2019-questioning-territory-extending-the-concepts-of-territory-through-engagement-with-experience-affect-and-embodiment-albany.html>

These two workshops directly informed two of the joint publications resulting from the project (Aporta et al., 2018, and Chircop et al., 2019) and are having a significant influence on one of the two collective publications currently in progress (Steinberg et al.).

3.6 Final Conference, April 2019

The final ICE LAW conference was held at Durham University, in April 2019, in conjunction with the Durham Arctic Research Centre for Training and Interdisciplinary Collaboration (DurhamARCTIC). For more on the final conference, see:

<https://icelawproject.weebly.com/april-2019-ice-law-final-conference-durham.html>

A roundtable/open discussion provided the ILP researchers with a platform to reflect on key findings, achievements, and challenges of undertaking interdisciplinary research under the ILP subprojects, and discuss what the future holds for the project as a whole. Following this, the ILP researchers held a focussed meeting to discuss and reflect on the outcomes and future prospects of the project in more detail. It was concluded that the ILP researchers would undertake two, separate writing projects in the final months of the grant and beyond.

4. Conclusions and achievements

Conclusions and achievements were in two areas, methodological and substantive. Methodologically, the project provided lessons in how to work with diversity. Project participants ranged from practical activists who, although academically trained, saw their work as primarily being in community development, to political theorists who saw the empirical situation primarily as a spur to conceptual thinking. Somewhat in the middle were legal scholars who sought to develop concepts that would have direct practical application. Likewise, expertise varied from those with high levels of Arctic knowledge and research experience to those who knew little about Arctic issues before joining the project. Additionally, network leadership covered four disciplines (politics, geography, law, and anthropology). All this variety, along numerous axes, provided challenges. However network members had been recruited precisely because it was hoped that their variety would beget a creative tension, and this indeed happened, as internal differences provided opportunities for

critical thinking and questioning one's own assumptions. These opportunities bore fruit in the project's publications, but also in informal dialogue across ILP leadership and in interaction with workshop/conference attendees.

Substantively, the ILP's breadth spurred participants to consider the different ways in which materiality is conceived in network members' disciplines. Specifically, members were led to continually confront how an engagement with materiality can simultaneously lead to environment-specific understanding (e.g. understanding how Arctic materiality influences livelihoods or how legal frameworks are or are not appropriate for a cold region) and developing universal understandings of the relationship between environment, regulation, and livelihoods. A key result of the research, then, has been the birth of a network of scholars who will continue to draw on each others' insights, not just in understanding and designing solutions for the polar regions, but in understanding the world.

5. Principal grant holder's evaluation

The ILP was innovative, interdisciplinary, and successful, advancing the research of its members, both collectively and individually, as well as influencing the broader world of Arctic social, cultural, and legal researchers. It engaged with and contributed to current thought in topics ranging from Arctic policy to political theory and, in particular, is likely to have a long-term impact on dialogue between theoretical inquiries into "new materialism" and the more practical, empirical discipline of Arctic studies.

Perhaps the ILP's greatest strength was its flexibility, permitting each subproject leadership team to pursue its agenda, whilst establishing mechanisms for communicating findings among leadership and to ILP members beyond the core personnel. Thus, some subprojects (e.g. Mobilities & Migration) focused on joint writing projects, some (e.g. Resources) focussed on designing collective research projects to extend beyond the ILP timeframe, some (e.g. Law and Territory) used the ILP's resources to expand and challenge individual research agendas, and some (e.g. Individual & Local Perspectives) used its workshops to build new contacts and to "ground truth" conceptual ideas. The final exercises in group writing, which are continuing beyond the duration of the ILP, will spur leadership to further solidify the ILP research perspective, as well as presenting it in the form of scholarly literature, where it hopefully will be picked up by other researchers who have not to date participated in ILP workshops or conferences.

6. Publications and other outputs

6.1 Published:

Aporta, C., Kane, S.C. & Chircop, A. (2018). Shipping Corridors Through the Inuit Homeland. *Limn*, 10. Available at: <https://limn.it/articles/shipping-corridors-through-the-inuit-homeland/>

Bruun, J. & Steinberg, P. (2018). "Placing territory on ice: Militarisation, measurement, and murder in the High Arctic." In: *Territory beyond Terra* (Kimberley Peters, Philip

- Steinberg, & Elaine Stratford, eds.) London: Rowman & Littlefield International, pp. 147-165.
- Chircop, A., Koivurova, T., & Singh, K. (2019). Is there a relationship between UNDRIP and UNCLOS? *Ocean Yearbook*, 33, 90-130
- Elden, S. (2017). Legal terrain—the political materiality of territory. *London Review of International Law*, 5(2), 199-224.
- Elden, S. (2019). “The Instability of Terrain”. In: Andrea Bagnato, Marco Ferrari and Elisa Pasqual (eds.), *A Moving Border - Alpine Cartographies of Climate Change*, New York and Karlsruhe: Columbia Books on Architecture and the City/ZKM, pp. 51-61.
- Kane, S.C. (2018) “Where Sheets of Water Intersect: Infrastructural Logistics and Sensibilities in Winnipeg, Manitoba”. In: *Territory beyond Terra* (Kimberley Peters, Philip Steinberg, & Elaine Stratford, eds.) London: Rowman & Littlefield International, pp. 92-106.
- Shake, K., Frey, K., Martin, D., & Steinberg, P. (2017) “(Un)frozen spaces: Exploring the role of sea ice in the marine socio-legal spaces of the Bering and Beaufort Seas.” *Journal of Borderland Studies* 33(2), 239-253.
- Steinberg, P., Kristoffersen, B., & Shake, K. (2020). “Edges and flows: Exploring legal materialities and biophysical politics at the sea ice edge.” *Blue Legalities* (Irus Braverman & Elizabeth Johnson, eds.). Durham, NC: Duke University Press.
- Steinberg, P. & Kristoffersen, B. (2017) “‘The ice edge is lost...nature moved it’: Mapping ice as state practice in the Canadian and Norwegian North.” *Transactions of the Institute of British Geographers* 42(4), 624-641.
- Steinberg, P. & Coddington, K. (2015) “From Ice Law to ICE LAW: Constructing an interdisciplinary research project on the political-legal challenges of polar environments.” *Arctic Yearbook 2015* (Lassi Heininen, Heather Exner-Pirot, & Joël Plouffe, eds.). Akureyri: Northern Research Forum, pp. 443-449.
- Steinberg, P. & Williams-Reed, E. (2018) “In a world of land and water, where does ice fit in? A report from the ICE LAW Project.” *Current Developments in Arctic Law* 5, 110-116.
- Steinberg, P. & Barrington, C. (2018) “The ICE LAW Project, two years on.” *Current Developments in Arctic Law* 6, 85-87.

6.2 Prospective publications:

- Bridge, G. *et al.* ‘Anticipating Arctic Oil: abundance, potential and the future of a frozen ocean in a warming world’. In: *Cold Water Oil: imagining offshore petroleum cultures*, edited by F. Polack and D. Farquharson. Routledge.
- Bridge, G. (work in progress) ‘Economizing the Arctic: polar orientations’. Target journal: *Environment and Planning E: Nature and Space*.

Coddington, K. *et al.* Methodological reflections of interdisciplinary research.

Kane, S. C. (in prep) "The Outburst Quartet: Geo-cultural Frontiers of Flood Control."

Kane, S. C. Winnipeg's Aspirational Port and the Future of Arctic Shipping (The Geo-Cultural Version). In volume in preparation entitled "*Water and the Humanities: Transforming Currents for Uncertain Futures*," edited by Kim De Wolff, Rina Faletti, and Ignacio López-Calvo. Chapter submitted 11 December.

Stammler-Gossmann, A. *Fish-Fishers-Fisheries*. Forthcoming from Routledge.

Steinberg, P.E., Chircop, A., *et al.* The right to be frozen: nature, navigation, and the argument for regulating the breaking of sea ice.

6.3 Other means of research dissemination:

In 2018, Stephanie Kane produced a podcast "Losing Ground," an interview hosted and edited by Jonah Chester and Clay Catlin about Kane's Themester seminar entitled "Arctic Encounters: Animals, People and Ships" and her involvement in the Ice Law Project.

Link: <https://themester.indiana.edu/newsevents/podcasts/2018/kane.html>

In addition to the podcast, Stephanie Kane produced a blog post based on her conversation with undergraduate Noelle Ibrahim on October 4, 2018. The blog talks about the film *Angry Inuk* that she introduced and carried out a Q&A for, for Themester at IU Cinema. It deals with animal rights issues, related to the general topic of the Arctic, environmentalism and the law.

Link: <http://blogs.iu.edu/aplaceforfilm/2018/10/04/angry-inuk-an-inuit-response-to-willfully-ignorant-environmentalism/>

7. Future research plans in this field

In addition to the forthcoming publications noted in Section 6, some ongoing research plans are as follows:

- Philip Steinberg has been invited to give an opening keynote address at the workshop 'Transdisciplinary Research on the Changing Arctic and Its Global Impacts: Enhancing Capacity for Convergence Science'. The workshop will be hosted by the University of California-Irvine, with support from the National Science Foundation.
- Gavin Bridge is leading an Anglo-Norwegian-Russian team, building directly on the second Resources Subproject workshop, in preparation of a grant proposal to research hydrocarbon extraction in the Barents Sea.
- Anna Stammler-Gossmann is drawing on material gathered at Indigenous and Local Perspectives Subproject meetings to provide materials for a planned Arctic exhibition at the British Museum.