

Impact case study (REF3)

Institution: Royal Holloway, University of London		
Unit of Assessment: 14 Geography and Environmental Studies		
Title of case study: Advancing polar geopolitics in foreign and defence policy, school education and public understanding		
Period when the underpinning research was undertaken: 2009-2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Klaus Dodds	Professor of Geopolitics	1994-date
Period when the claimed impact occurred: 2014-2020		
Is this case study continued from a case study submitted in 2014? N		
<p>1. Summary of the impact</p> <p>The Polar Regions are transforming. Melting of sea ice and power struggles involving China, Russia and the United States are two drivers of change. The scale and pace of change is poorly understood. Dodds' research used interviews, specialist roles and public engagement to reveal geopolitical trends and knowledge gaps in polar governance. The impacts of research are:</p> <ul style="list-style-type: none"> • Enhancing policy planning on the Polar Regions by providing specialist advice on futures and scenarios to Parliament and UK government departments including the Foreign and Commonwealth Office (FCO) and the Ministry of Defence (MOD) • Advising diplomatic professionals and government organizations to better understand the importance of drivers of change; • Greater understanding and representation of the Polar Regions in the heritage sector, education and media. 		
<p>2. Underpinning research</p> <p>The research addresses key knowledge gaps in polar governance: uncertainties over the scale and pace of climate change, strategic intentions of third parties, trade and resource opportunities for the UK, and opportunities for polar science diplomacy. Increasingly, the role and intent of newer polar parties such as China, India and Korea are of ongoing concern to policymakers in the UK and US.</p> <p>Led by Professor Klaus Dodds at RHUL, the research involved academics in Canada (Professor Mark Nuttall (University of Alberta), UK (Dr Richard Powell Cambridge, Dr Duncan Depledge Loughborough), USA (Professor Phil Steinberg Florida State University) and Singapore (Professor Chih Yuan Woon). This research strategy made it possible to better understand the geopolitical dynamics of the polar regions, and the role that the UK as a non-Arctic state could play in shaping commercial, defence, governance, and scientific agendas and priorities.</p> <p>There are three main strands of research. The first focused on the drivers of change affecting the Polar Regions using interviews with policy-makers and civil servants, high level participation in 'closed events', ethnography in the Arctic and professional engagement with UK and international stakeholders. Dodds and his team discovered was that there were not scrambles for territory and resources but there was evidence of concerted investment in knowledge-generation, projection of influence and commercial investment. What was revealed was multiple futures; resource scrambles, ecological collapse, great power conflict, great power rivalries and new settlement/development (R2 and R4).</p> <p>The second strand of research brought together researchers from around the world working on polar geopolitics and Asian polar geopolitics (R1 and R6). The UK's polar community, academic and non-academic, is scattered, and heavily biased towards the natural and environmental</p>		

sciences, so the aim was to integrate the contribution made by social science and humanities, including heritage and education. This multidisciplinary approach revealed gaps in knowledge about indigenous communities and leaderships but also presented opportunities to build networks with newer polar actors. If policymakers and publics in the UK and elsewhere are ill-informed about Arctic geopolitics (including the fact that the Arctic is a homeland to 4,000,000 people), encouraging the next generation of polar social science researchers is integral to improving understanding.

The research integrated academic knowledge into national level decision-making and wider public cultures. It demonstrated that the UK government's Arctic policy framework has been criticised by third parties for failing to take into account Scotland's distinct Arctic interests, and not giving enough recognition to the defence and military imperatives in an era of Russian resurgence. The term 'Ice' was used to investigate how ice has become ever more politicised in an era of ongoing climate change. The research shows how Indigenous and western perspectives on sea ice and permafrost often diverge over how ice is conceptualised as risk, as critical infrastructure, as security challenge, and as a platform for environmental campaigning.

Dodds' research was enabled by participation in parliamentary enquiries, research interviews with policymakers, professional engagement with UK government departments and NATO, high-level invitations to participate in special programs, including Norway and the High North Study Visit in 2012, and participation in public engagement activities.

3. References to the research

R1. Powell R and K Dodds editors (2013) *Polar Geopolitics?* Cheltenham: Edward Elgar, 325pp. QI: Reviewed positively, as a ground-breaking collection of essays, in *Polar Record*, *Journal of Environmental Studies and Sciences*, *Nordicum-Mediterraneum* and *Area*. Available from HEI on Request.

R2. Dodds K and M Nuttall (2016) *The Scramble for the Poles* Cambridge: Polity, 212pp. QI: Reviewed positively in a variety of interdisciplinary journals such as *International Affairs*, *Antarctic Science*, and *Nordicum-Mediterraneum*. And released as an audio book via Audiobooks.com (October 2019). Available from HEI on Request.

R3. Dodds K (2018) *Ice: Nature and Culture* London: Reaktion Publishers, 230pp. QI: This book was reviewed positively in *Times Literary Supplement* as well as a diversity of magazines and journals such as *Arctic*, *Antarctic and Alpine Research*, *Cultural Geographies*, *Outdoor Photography*, *Polar Journal* and *Canadian Meteorological and Oceanic Society Bulletin*. Available from HEI on Request.

R4. Dodds K and M Nuttall (2019) *The Arctic: What Everyone Needs to Know* Oxford: Oxford University Press, 252pp. QI: This was the first major output following the award of Leverhulme Trust Major Research Fellowship on the Arctic awarded to Dodds in 2017. Available from HEI on Request.

R5. Depledge D, K Dodds and C Kennedy-Pipe (2019) 'The UK's Defence Arctic Strategy Negotiating the Slippery Geopolitics of the UK and the Arctic' *RUSI Journal* 164: 28-39. QI: This was an invited (peer-reviewed) paper on the basis of our collective experience as UK parliamentary specialist advisers on Arctic defence, strategy and science/environment matters. Available from HEI on Request.

R6. Woon CY and Dodds K editors (2020) *'Observing' the Arctic: Asia in the Arctic Council and Beyond*. Cheltenham: Edward Elgar. QI: This collection of essays was based on G3 and involved a multi-national group of authors investigating the impact of Asian states on Arctic geopolitics and governance. Funded by the British Academy. Available from HEI on Request.

4. Details of the impact

The research revealed that there was an urgent need to better understand the scale and pace of geopolitical and environmental change in the polar regions. This was true not only within governments, but also in public settings, including the media, the cultural sector, and in schools.

The impact of the research is in three areas: Policy, Public Understanding, and Education. It is built on over a decade of collaboration with policymakers, UK Parliamentarians, professionals, and other academics. Beneficiaries include government agencies, parliamentarians, museum curators and visitors, teachers, and NGOs.

1. Shaping Policy Conversations

Dodds is an acknowledged and in-demand expert in the field of polar geopolitics. His research findings are used by Parliament, specialist bodies, and the UK government. James Gray MP, Chair of the All-Party Parliament Group for the Polar Regions: *“there is no doubt that Parliament’s interest in the polar regions over recent years has never been higher... and this is in large part because of Professor Dodds’ many contributions”*. (E 1, James Gray MP 4th July 2018). He was appointed as Honorary Fellow by British Antarctic Survey in 2019 in recognition of “[text removed for publication]”. (E 7, [text removed for publication] 25th April 2019), and serves as UK representative for the International Arctic Science Committee’s Social and Human Working Group (2019 to 2022). This contributed to the polar social sciences being recognised as pivotal to future UK polar diplomacy and wider science policy planning.

Dodds’ research expertise led to his appointment as specialist adviser to the House of Lords Select Committee (2014 to 2015; House of Lords Hansard 3rd November 2015), and specialist adviser to the House of Commons Environment Audit Committee’s Arctic enquiry in 2019. The House of Lords used his research expertise to inform their understanding of Arctic geopolitics: *“His role was to give expert advice to the committee, help compile questions to witnesses (including ministers), ensure there were no blatant gaps in our work, prevent any errors of fact in our report, and give advice to me as chairman”* (E 2, Lord Teverson, 23rd January 2017). At the House of Commons Dodds research on international relationships with the Arctic states informed a report (HOC, *The Changing Arctic* 2018): “[text removed for publication]” (E 9, [text removed for publication], 29th April 2019)

These roles led Dodds to advise the FCO and MOD on polar matters, including invitations to participate in closed workshops and informal briefings (E1). In March 2020, Dodds was appointed to the DEFRA COVID-19 futures advisory group after earlier briefings to DEFRA on Arctic futures in April 2019. Dodds participated in closed workshops and advised on DEFRA’s post-COVID food security planning, with a particular emphasis on governance and global risk.

Policy Recommendations

Dodds’ public roles and advisory work helped to establish a new network of polar social science expertise dedicated to policy-making. As a member of the House of Lords Select Committee, Dodds recommended that co-ordination and collaboration with Arctic partnerships should be improved. He advised the setting up of a new NERC Arctic Office to achieve this, a policy that was implemented in 2015. A workshop sponsored by the Foreign and Commonwealth Office in 2016 brought together Norwegian, Canadian and UK stakeholders, and used Dodds’ research as the basis of a discussion paper at this [significant event](#). The event influenced subsequent work by the MOD on Arctic futures. Dodds was asked to convene an expert group to write a follow up report. *“Klaus’s support and expertise throughout the study was invaluable. He helped develop the main purpose of the study, provide expertise and coordinate the contributing authors”* (E 6, Paul Norman, DCDC MOD 27th November 2017) This MOD report provided the basis for the Chief of Defence Staff’s Strategy Forum in 2018 and developed a clear set of conclusions about the technological, environmental, resource-led and geopolitical challenges facing the Arctic and how the UK would need to develop a more explicit Arctic strategy with security objectives such as evaluating the strategic intentions of China and Russia in particular.

Dodds’ research also informed the FCO Diplomatic Academy where junior diplomats are required to study his expert briefings on the South Atlantic and Antarctic presented in podcasts. This is one example of how Dodds’ research is used in the UK to enable diplomats to better understand the geopolitical and historical context of lingering conflicts (E 6, [text removed for publication] 24th December 2020).

Briefing Parliament

Dodds advised the Parliamentary Office of Science and Technology’s [parliamentary briefing](#) on Science Diplomacy and participated in the POST annual reception on the same topic in January 2019. *“Our office had not looked at science diplomacy before, and we are grateful for your input*

at the research stage, and your comments on the draft that was sent for external peer review were particularly useful to us when we were making the final editorial changes” (E 8, Dr Grant Hill-Cathorne 11 October 2018) This directly led to knowledge exchange activities including the American Geophysical Union [requesting a blog about how Arctic geopolitics informs policymaking](#). This was the first time the AGU published a piece on polar geopolitics. He also contributes to POST and RUSI polar events and spoke at the House of Commons Antarctic Parliamentarians Conference (2019, c. 200 in attendance).

2. Informing Public Understanding of the Polar Regions

Dodds’ research conducted on the Arctic and Antarctic has contributed to the reformation of UK policy conversations about polar geopolitics (R1, R2, R6). Historically, public discourse on the polar regions have favoured exploration, heritage and science. The underpinning research has informed an explicitly geopolitical hue, showing that scrambles for knowledge, influence and strategic advantage matter.

Working with specialist polar science agencies

Research conducted by Dodds on Antarctic geopolitics and governance informs how the UK’s main public polar stakeholder, BAS, makes sense of its strategic role. In 2015, the website of BAS re-wrote its description of the Antarctic Treaty to [account for geopolitical factors](#). Dodds’ research expertise paved the way to formal recognition that the social sciences have an important role in complementing natural sciences as sources of advice to UK polar policy, in 2019 Dodds became first social scientist to be appointed an Honorary Fellow of BAS in recognition of this impactful work. “[text removed for publication]” (E 5, [text removed for publication] 11th April 2019).

Informing Exhibitions, Museum Curators and Public Audiences

Dodds’ research on polar geopolitics has informed major exhibitions, inspired curators and visitors. He served as expert adviser to the British Library *Lines in the Ice* exhibition (2014), and to the Polar Worlds gallery of the Royal Museums Greenwich (2018). Dodds’ expertise was cited as major factors in their planning and curation; both exhibitions and the accompanying books *Lines in the Ice* (British Library Publishing 2016) used Dodds’ research findings on the contested geopolitics of the Arctic and Antarctic. The British Library’s exhibition received approximately 114,000 visitors– the second highest British Library exhibition attendance figure: “*Using Klaus’s support and expertise the exhibition communicated ideas about the complex history and modern geography of the Arctic to visitors*”. (E 3, Philip Hatfield 31st January 2017). [text removed for publication] of the Polar Worlds gallery at the Royal Museums Greenwich commented: “[text removed for publication]” (E 4, [text removed for publication] 23 November 2018).

In addition to these major exhibitions, Dodds regularly advises galleries, libraries, learned societies and museums about polar geopolitics, including speaking at public events at the National History Museum, the Science Museum, Royal Institution, Dulwich Picture Gallery, RGS, British Library, British Science Association, and National Maritime Museum. Between August 2013 and December 2020, he delivered 18 public lectures, chaired three British Library panel discussion, with average audiences of 250 to 300 people. The British Library staff (including Dr Hatfield and Jon Fawcett, Head of Events) sent emails to Dodds confirming very positive feedback from the audiences.

Working with Media

Regular media writing and public broadcasting has enabled Dodds’ research on polar geopolitics to reach wider audiences. On 4th February 2015, the *Washington Post* (circulation c. 250,000) published a piece ‘What Antarctica teaches me about politics’ and referenced an output of Dodds as recommendation: “*In preparation for this trip. I read Klaus Dodds’s primer “[Antarctica: A Very Short Introduction](#)”*. In January 2019, Dodds appeared on BBC World Service’s ‘The Forum on North Pole’ (aired 29 January, 41 minutes, 1.3 million total listeners for BBC World Service per week). On 21 August 2019 *Financial Times* referenced Dodds three times on a story about Trump and Greenland (*Financial Times*, circulation c. 105,000). Dodds was referenced

four times for a BBC Future piece on 'The rush to claim an undersea mountain range' (BBC Future 23rd July 2020, BBC describes 'BBC Future' as having one million fans on Facebook).

Between 2014 and 2020, Dodds has written a monthly column for the *Geographical Magazine*. As the [text removed for publication] noted "[text removed for publication]" (E 10, [text removed for publication] 13th November 2019). He contributed to multiple podcasts such as Polar Geopolitics (2019), UK Antarctic Heritage Trust (2020) and John Hopkins Podcast on Foreign Affairs (2020). His 2019 invited google talk on geopolitics was watched over 25,000 times.

3. Informing Education on the Polar Regions

Dodds was appointed to the A Level Advisory Content Board (ALCAB) in 2014 to advise on polar geopolitics and the governance of the global commons (which includes the oceans). His research changed the A Level Geography syllabus from 2016 by including developing new teaching materials for the global commons. In response to that change, he produced a briefing note for the Royal Geographical Society-IBG which won a highly Commended award from the Geographical Association in 2016.

The education company AQA, which has about 45% of all entries for A level (approximately 12,000 candidates in 2020) recommends that briefing in their Global Systems and Global Governance [scheme of work](#). Multiple invitations to lectures and publishing in the teaching-led journals, such as *Teaching Geography* (distribution of 2,600 schools/colleges) and *Geography Review* (c. 10,000 subscribers) gives further evidence of beneficiaries. These lectures and papers have specifically targeted teachers worried about developing case studies for this compulsory element of the A Level curriculum. Since 2015, 14 lectures to CPD events organized by the Prince's Teaching Institute and GA-sponsored events have been delivered, with audiences ranging from 20 to 100 teachers. The author was asked to participate in CPD days for the Geographical Association (2014 to 2020, group sizes from 15 to 40).

His *Geopolitics: A Very Short Introduction* (three editions) has sold approximately 35,000 copies and translated into 10 languages. It is read by both university and school students and public readerships around the world.

5. Sources to corroborate the impact

E 1: Testimonial: James Gray MP, Chair of the All-Party Parliament Group for the Polar Regions, 4th July 2018

E 2: Testimonial: Lord Teverson, House of Lords Select Committee on the Arctic chair, 23 January 2017.

E 3: Testimonial: Dr Phil Hatfield, Former Head of the Eccles Centre for American Studies, British Library, 31st January 2017.

E 4: Testimonial: [text removed for publication], Royal Museums Greenwich. 22nd November 2018.

E 5: Testimonial: [text removed for publication], British Antarctic Survey, 11th April 2019.

E 6: Testimonials: Paul Norman, DCDC Futures Team MOD, 27th November 2017; [text removed for publication], FCO, 24th December 2020

E 7: Testimonial: [text removed for publication] Science at British Antarctic Survey, 25th April 2019.

E 8: Testimonial: Dr Grant Hill-Cathorne Director of Parliamentary Office of Science and Technology. 11th October 2018.

E 9: Testimonial: [text removed for publication]. Former Labour MP for Wakefield, 29th April 2019.

E 10: Testimonial: [text removed for publication] *Geographical Magazine*, 28th February 2020.