

*Disturbed Ecologies: Photography, Geopolitics, and the Northern  
Landscape in the Era of Environmental Crisis*

Darcy White, Julia Peck, and Chris Goldie (eds.)

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## **Preface and Acknowledgements**

*Disturbed Ecologies* is the third volume in the “Northern Light” series, following on from *Northern Light: Landscape, Photography and Evocations of the North* (2018), and *Proximity and Distance in Northern Landscape Photography: Contemporary Criticism, Curation and Practice* (2020). These first two books arose from papers and discussions at similarly titled conferences hosted by Sheffield Hallam University in 2016 and 2018. Our 2020 conference was cancelled as a consequence of the pandemic, so *Disturbed Ecologies* has a somewhat different provenance, drawing its material from a wide network of photographers, critics and scholars working in Europe and North America. Each stage of our project has engaged with issues around the critical analysis of northern landscape photography, aiming to challenge and reinterpret established traditions framed from within a Western perspective. This current volume develops earlier themes by focusing more closely on the ecological and geopolitical element within northern landscape photography.

We would like to acknowledge the contributions of all who participated in this publication. Authors have worked through the Covid-19 pandemic, in varying contexts and circumstances, yet all contributors remained engaged with the problematic of representing the North, against a backdrop of fear, uncertainty and geopolitical disparity. The North continues to compel, seduce and dominate in a variety of ways, not least within the photography through which it is represented.

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## **Introduction**

The book is in the form of an edited anthology of essays selected to offer a range of approaches that examine the critical role of visual culture in shaping and interrogating conceptions of ecological crisis, in relation to the northern imaginary. This is a broad field but the focus is largely but not exclusively on landscape photography, a medium particularly sensitive to the politics of place and difference. At its most challenging the visual culture of place is able to represent a complexity and heterogeneity frequently absent or displaced within dominant discourses of environmental catastrophe. Conversely, many images of landscape and place within both fine art practice and commercial and popular forms play a role in supporting a more conventional interpretation of environmental crisis. It is our argument that images of northern places and landscapes have a pivotal function within the geopolitics of visual representation, and through the production of different visual imaginaries. Such images can typically exclude any reference to the everyday consequences of ecological crisis for heterogeneous populations; common strategies involve the inclusion of images of pristine wilderness as well as melancholic representations of man-altered landscapes and environmental damage and of an alternative sublime of eco-catastrophe in which scenes of ecological violence are invested with an awe-inspiring, perverse beauty. The findings of the research detailed in the various chapters suggest that the visual culture of northern places has not remained static in the era of ecological crisis but has played a dynamic role within this broad discursive field. Northern landscape photography can still give visual form to historically settled conceptions of a natural world, but these images are frequently placed within a context of human mastery and thus sanction the latter's purported

achievements; and ubiquitous representations of environmental disaster can also reinforce the notion of its techno-utopian resolution.

Contributions to the book explore this visual field, presenting wide-ranging critical appraisals of landscape photography and its related practices, particularly more recent developments in art and visual culture in relation to the representation of place. All essays consider professional photographic or other visual practice; including fine art, documentary, photojournalism, aerial photography, promotional and touristic material, plus examples of film and television as well as architectural plans and maps. The book questions the validity of such visualisations where they may function as vehicles for the consolidation of the world order around enhanced networks of power, but also considers the potential role of a visual culture of place as part of an emancipatory project in the era of global environmental catastrophe. The geopolitics of visual culture is addressed within a wider discursive field concerning the politics of climate change and ecological crisis. Our aim is to engage with recent debates about the Anthropocene: arguments concerned with identifying the socioeconomic and political causes of environmental crisis, and the profound problem in regarding the latter as the consequence of undifferentiated human activity.

The geopolitical is a complex framework not reducible to a simple definition, but, as Dodds (2019) has recognised, an important dimension is that of global power relations represented and imagined in geographical form, through maps and visual images, for the purposes of strategic calculation and from a Western perspective. Geopolitics, in other words, has a geographically discursive aspect giving shape to inequalities of wealth, power and privilege, determining the forms of their global reach and entanglement. Geopolitics is also, however, the site within which different positionalities might be formed, and in the case of

essays selected for this collection, involve the development of critical visualities and alternative conceptions of northern landscape. A critical geopolitics identifies the complex interplay between economic and political processes of exploitation and dispossession, occurring through a long and ongoing history of imperialism and colonialism. This process has manifold effects in terms of specific locations and regions and the politics of place, particularly in relation to Indigenous peoples, where the landscape has been shaped through the historic and continuing exigencies of capitalist exploitation, with tangible and often catastrophic material effects. But the northern landscape is also an imaginary, the site of contested representations: long-established notions of pristine wilderness, the skewed perspectives of Western Environmentalism, suppressed narratives of Indigenous people and communities, and the recent work of critical photography, art, and commercial practice. The book offers a critical approach to the historical and ongoing process of the northern landscape's imagining.

This introduction aims to orientate the reader – to note briefly some common themes, and to highlight potentially useful links and points of comparison. The association of northern landscape with different conceptions and aspects of the Anthropocene is a theme of several contributions. Chris Goldie draws on Susan Ruddick's argument discussing how notions of environmental crisis contained within Western conceptions of the Anthropocene are characterised by an inability to comprehend "the multifarious nature of duration", which is a consequence of imagining time as linear, and neglecting the multiplicity of durations and tempos that are subordinated to the single timescale of capitalism. Pursuing this temporal theme, Aileen Harvey provides several examples in which photography addresses the devastated landscapes of extraction, where memory of their ruination and the accompanying historic violence, has



been erased. She considers work within which an exploration of multiple and suppressed histories point towards notions of the north as inhabiting a distinct timescale, characterised by the infinite slowness of its geophysical change and supposed pastness and archaism of its indigenous peoples. Harvey considers the scarring and devastation of landscapes given over to extraction through the work of Ryan Moule, whose work also addresses how ruined landscapes erase memory and its accompanying historic violence. Moule achieves this by making “work of exaggerated transience”, wherein the slow degradation of exhibited photographs allows the viewer to perceive how “seeing and destroying” are “entangled”. The dominant timeframes from which such conceptions arise assume a temporal linearity challenged in the work of Marianne Bjørnmyr and Dan Mariner, wherein there is an engagement with “nonlinear models of time, with time's pleats, twists and inversions”. These are also significant themes in the contribution of Julia Peck.

That northern landscapes are the product of ongoing social and historical processes is a theme across a range of contributions focused on popular media forms such as newspapers, magazines and tourist materials. In “Visualizing the Pristine: the role of imagery in local stewardship of landscape”, Flora Bartlett gives an account based on her ethnographic fieldwork in Arjeplog, a large municipality in the North of Sweden and Swedish Sápmi. The study considered the visual culture of the region promoted through the tourist industry, found in local magazines, and circulated through social media. These images were then curated and exhibited in order to promote discussion amongst local people and explore underlying assumptions about landscape. The premise of this approach is that landscape, in the expanded sense employed within visual anthropology, is a process of making the physical environment – something produced rather than

merely observed – a mode of visibility reinforcing and actively producing relations between people and environments.

Bartlett examines how “notions of the pristine” have influenced the aesthetics of landscape imagery and conceptions of environmental stewardship in this rural northern location. The landscape practices of the “Arjeplogare” are premised on localised conceptions of “stewardship” and “care”, rather than the notion of ecology at a global scale. Many with whom she worked viewed nature as too big to be affected by human action, discounting anthropogenic climate change, instead directing their care towards the visual environment, preserving the pristine wilderness through recycling and not littering; protecting place and nature was expressed through caring for the local landscape and avoiding polluting practices visibly effecting it.

This is a form of environmental engagement but at a local scale, photographs being shared online by local people in order to expose visible pollution, “while pollutants such as greenhouse gases are locally imperceptible”. Bartlett recognises in her discussion that this localised point of view misses ecological problems occurring at the global scale, but also argues that “there can... be benefits to scales of care in which the local is given precedence”, where forms of appreciation can attend to the “local and non-human landscape in efforts to keep it visually unpolluted”. This contrasting of the local and the global necessarily “complicates the idea of Sweden as homogenously concerned with environmentalism on the global scale”, while Bartlett’s discussion of the role of visibility in the construction of a “different way of caring for landscape” emphasises the importance of local practices within a nuanced conception of ecological crisis. From a different perspective, the self-perception of Swedes as a

people and nation attuned to matters of sustainability and environmentalism is challenged in the chapter by Darcy White, of which more later.

In her chapter, “The future made present...”, Thale Sørli gives an account of journalism’s use of photographic images in relation to the changing conception of environmental crisis. Sørli analyses reportage in the Norwegian newspaper, *Arbeiderbladet*, from 1945 to 2006. The polar bear, ubiquitous in some climate communication, is rarely seen in *Arbeiderbladet* but other subjects are more systematically covered. Sørli conducts a quantitative visual analysis, focusing on both image and text, and also conducts qualitative analysis to understand the types of messages that the reporting creates. Her analysis finds that climate change is reported on a total of “1023 days accompanied by 1650 photographs” and identifies four main categories of victims – Humans, Nature, Cultural Landscape, and The Planet, with a particular emphasis on human victims of climate change. The quantitative analysis reveals distinct periods of climate communication. Initially, between 1948 and the 1970s, climate change is mainly reported as a positive phenomenon, with benefits for rainfall and hydropower. In the 1970s, there is a gradual realisation that climate change is driven by human activity, but this is understood to have a local and political impact. Towards the end of the 1980s, the global impact of climate change is more apparent in the reporting, and in the 1990s it is understood that the main impact will be experienced in the Global South, although there will be impacts on health, flora, fauna, and ways of life in the Global North. The study reveals that “towards the year 2000, the media coverage of climate change reached a turning point”, demonstrating that, “to a significant extent, the victims and consequences of climate change became increasingly visible”, with the frequency of the depiction of human victims rising significantly in 2004.

Two substantial points emerge from Sørlie's qualitative analysis. The first is the function of testimony. Many of the photographs in *Arbeiderbladet* do not depict specific events, especially in the Global South. However, the newspaper does include images of climate refugees as family portraits, especially after they have settled in Norway, at which point the "portrait becomes a proof of someone escaping climate change to start a new life in Norway". These photographs, Sørlie demonstrates, depict "victims acting as a testimony of climate change". And secondly, these testimonies create models "that serve to make the future present". These kinds of photographs, Sørlie argues, are able to function beyond singular specific incidences of flooding or damage and become "a model for imagination", enabling a connection to the general idea of climate change and as a model for imagining the future.

Several contributions continue the theme of landscape as shaped through social, cultural and political processes. Janna Frenzel argues that contemporary northern landscapes are part of a procedure of place-making, and that places are not "passive or static entities" but "relational configurations". Focusing on process but from a different perspective, Robert Saunders, Irina Souch, and Anne Marit Waade discuss how Nordic television reimagines the landscapes of Europe's near-Arctic, as the latter are transformed in the era of environmental degradation. Liz Wells argues that contemporary photography has provided critical and alternative perceptions of the Arctic, and does not simply "reflect" but can also "re-infect cultural attitudes", and thus "influence social change". Aileen Harvey argues that photography practice can be intentionally disruptive in order to unravel entrenched ways of seeing landscapes. Such disruptive processes are evident in the way photography can aim to overcome or address the entrenched, binary distinction between nature and culture. Goldie argues that northern

landscape can be apprehended from the perspective of the conjuncture: a process composed of uneven elements connected to different histories, temporalities, existences and ways of life, combinations of phenomena with quite dissimilar origins, prior associations, points of application and effectivity, etc; a complexity not reducible to an external logic. From this perspective the northern landscape cannot be specified through geographical description, because ‘place’, location, and their putatively phenomenological characteristics – climate, precipitation, temperature, etc. – only acquire meaning through the process of articulation and structuring. Northern landscape thus understood is discussed in relation to Canada as a settler-colony, its historic and ongoing formation involving the constant articulation and disarticulation of different elements and social forces.

Several contributions examine the geopolitics of the northern landscape in relation to imperialist and colonial projects. Julia Peck explores the geopolitics of imperialism through her analysis of two texts with the same title, *The Last Days of Shishmaref*, a book by Dana Lixenberg and a documentary film by Jan Louter, both made in 2008. Peck analyses the book and film through the lenses of anthropology, geopolitics and from a decolonising perspective. Drawing on Ariella Aïsha Azoulay *Unlearning Imperialism*, she argues that decolonising and anti-imperial discourses express concern for the different cultural ideas of “world”, but that the structures of imperialism contain, limit, and destroy these worlds, whilst simultaneously trying to rescue them for intellectual discourse. The dilemma is that photography and critical interpretations of representation, are intrinsically part of this imperialist discourse. Peck is aware of the risks in conducting this discussion from the perspective of Western academia, but, nonetheless, attempts to engage with the film and book, precisely because both

have been made for Western audiences. Part of this analysis acknowledges the violence of European colonialism (the Eurocene) by drawing upon the scholarship of Jairus Victor Grove and Kathryn Yusoff, both of whom have understood colonial and imperial activities to be “world destroying” and grossly unequal in terms of their impacts. The film and the book argue for the continued existence of an Iñupiat community that is affected by climate change and the broader contexts of US policy, and for funding to support relocation and, of course, both serve to challenge the ongoing global avoidance of acting to mitigate climate change. Peck’s analysis of the film notes an apparent similarity between salvage ethnography and the type of narrative that emerges from *The Last Days of Shishmaref*, particularly in the documentary film. The film produces a strong sense of elegy and mourning. Ursula Heise argues that elegies are important (2016: 23) and often involve narratives of regret for modernisation and colonisation, producing a sense of loss in response to a “narrowing of culture.” Indeed, as noted by Ashlee Cunsolo, many Inuit communities also experience anticipatory grieving, yet this is not represented in the wider media. Mourning is therefore an important cultural activity, and she claims: “Mourning provides the opportunities to learn from deaths, or the potential deaths, of bodies beyond our own, and beyond our species to unite in individual and global action and response” (2017: 172). This “anticipatory grieving” as an awareness of “potential deaths” has echoes of Sørli’s argument about those testimonies “that serve to make the future present”. Here, Peck argues that in the expression of mourning, both for what has been lost so far and in anticipation of further losses, the Iñupiat are expressing their activism, refusing marginalisation, and finding ways of recognising and giving voice to the violence of climate change.

Lixenberg's portraits both connect to the themes explored in the film (cultural continuity, the impact of climate change and worry for the future), but the structure of the book is different and more optimistic, the portraits offering opportunities to reflect on kinship relationships. Both film and book enable representations of the Iñupiat to circulate as part of a global economy, and both are entangled with Indigenous activism, the expression of which occurs *through* these texts, not as depictions *within* them. In highlighting the precarity of Shishmaref and the desire for cultural continuity and self-determination, the Iñupiat are seen as *important* in relation to extinction: Louter and Lixenberg are advocating for appreciation of this specific group of people, their lives, and their culture. Peck emphasises that even while this witnessing occurs within the discursive frame of imperialism it is also part of worldly caring.

A concern for the importance of hearing the voices of Indigenous communities is also considered in other chapters, which are revealing of some of the ways in which photography and related media are being actively utilised for this purpose. Wells explores the contradictions within the geopolitics of the northern landscape in her essay, focusing on historic and contemporary photographic representations of the Arctic, and Svalbard specifically. Wells draws on the example of Finnish photographer, Jorma Puranen, whose work “explores the contribution of art within the geographic imagination, critiques historical anthropology, references colonialism and power relations, draws attention to the marginalisation of indigenous peoples”, and – importantly for this discussion – “offers Sami people opportunities to articulate their own history”. Wells recognises that the geopolitics of the Arctic is complex and multi-layered, that histories have been left unseen except as discarded elements within a landscape, while photography has been crucial in the creation and maintenance of dominant

imaginaries composed of fantasies and historical projection. Historically, the Arctic and its people have been represented from outside, through the Western imaginary – “Arctic paintings, drawings, and photographs have been *of* people, place, and phenomena, not *by* indigenous Arctic dwellers” – but recent exhibitions have included the work of Indigenous artists, recognising their intimate connection to place and allowing for the exploration of the “contemporary experience of place and identity”.

As with the case studies by Bartlett, Peck and Wells already discussed, several chapters recognise the importance of local, insider, accounts of the impacts of “disturbed ecologies” – Indigenous and otherwise – and question the external perspectives and interpretations that, in general, dominate these discourses. In her chapter “On getting “in the way of the world”...”, Darcy White focuses on the risks attached to Eurocentric ways of seeing – arguing that it is profoundly important that the perspectives created by the habits of the Western gaze are confronted through the consideration of wider perspectives. White draws on the work of economic anthropologist Jason Hickel to challenge the reputation of the Nordic region on issues of sustainability, to bring to bear the wider impacts of the region’s industries. Going further, White invites the reader to take seriously Achille Mbembe’s call for “planetary” thinking, and considers the “entanglements” of the coloniser and the colonised in relation the ways in which the environmental and social crises are approached (2021a, 2020). Moreover, following the work of Mark Sealy, White argues that for those of us concerned with the ways in which visual culture is embroiled in these matters it is essential that we understand how the camera is implicated in creating “Eurocentric and violent visual regimes” (2019: 1).



White considers these arguments through an analysis of an example of recent environmental landscape photography – Swedish photographer Helen Schmitz’s *Thinking Like a Mountain*, (2018), undertaken in Sweden and Iceland to explore examples of resource extraction. White examines this work alongside the written and spoken narratives that frame it, to challenge the claim that it seriously engages with environmental catastrophe. White argues that this large-scale, high production value landscape photography inhabits the world of the gallery, and, with its use of the aesthetic language of the sublime (see also Hartle), remains within the ambit of Western art historical discourse. The discussion draws on arguments made by John Roberts to suggest that Schmitz’s work, despite its “violent” subject matter, never-the-less privileges the aesthetic qualities typical of the “pensive, modernist-classicist” mode identified by Roberts as the condition of photography in the current era (2014: 167). White interrogates the “temperate, becalmed state” of *Thinking Like a Mountain* (ibid), and argues for an activist, mobilising of photography capable of decolonising the Western gaze and of addressing these times of planetary “dread” (Mbembe 2021b: S60).

Indeed, several essays in this collection address the phenomenon of extractivism; a concept linking the processes of capital accumulation occurring at a global scale to the political forms of colonialism, imperialism, and territorial dispossession. The concept of extractivism signifies not just the technical procedures of mineral extraction but frames it as a mode of exploitation and dispossession, as well as encompassing imperialism’s repertoire of discursive strategies within the cultural field: extractivism can, thus, be conceived as economic activity in the form of material extraction; a mode of exploitation; domination based on territorial dispossession; and an imaginary.

The intrinsic connection between geopolitics and extraction is addressed by Wells in her references to photographer Tyrone Martinsson's visual and archival research, through which he explores accelerated glacier melt in the Svalbard region, a consequence of global warming, which contributes to rising sea levels, facilitating new shipping routes and thus the prospect of new sites for mineral and fossil fuel extraction, and further economic exploitation by governments and global corporations. These are real threats, Wells argues, to both human and animal survival and a challenge to Arctic Peoples and their vulnerable communities.

Goldie explores the concept of extractivism for its potential value in theorising the inherently complex, multi-layered, contradictory, and unstable phenomena underlying the colonial project. Through examples from photography, film, and television – in the Canadian context – it is argued that the contradictions of colonial territoriality have become more pronounced, revealing the latter's interconnection with extraction, the historic and continual dispossession of Indigenous peoples, climate crisis, and the geopolitics of energy. The discussion considers accounts of these examples through their deployment of terms such as “regimes of extraction” and “energy regimes”, which, it is argued, carry many of the implications of the concept of extractivism. Extractivism specifies the territorial as the sphere within which economic exploitation, colonial dispossession, the erasure of Indigenous histories and ways of existing through strategies ranging from state violence to liberal pluralism, and a pervasive cultural discourse of nation, are all interconnected.

Several contributions explore the connections between landscapes of mineral extraction and nation-building as colonial projects. Goldie argues that extraction of mineral resources is, historically, the heroic ambition as well as the

“dirty secret” of Canada’s quest for a sense of its nationhood, animating imaginary as well as material exploration of its northern periphery, investing northern landscape images with deep significance. For the Canadian settler-state, territory is the point at which the manifold and overlapping contradictions of the colonial project coalesce and become manifest, encompassing the social, economic, political, geopolitical, and cultural spheres. From the late 19<sup>th</sup> century, extraction and the North as frontier were intimately connected, an historic situation paralleled in the notion of a New Frontier discussed by Frenzel in relation to Norway.

Extractivism is central to Frenzel’s chapter, “Data Rush: How ‘Green’ Computing is Opening Up a New Frontier in Arctic Norway”. Frenzel examines the visual components in the architectural plans and corporate promotion materials for the Kolos data centre in northern Scandinavia, exploring how visual representations of nature, energy, and climate play into the imaginary of “green” computing. Such materials function to promote the Kolos data centre – at the time of planning, the largest in the world – by envisioning a building rooted in the surrounding landscape, where its functionality is intertwined with the cooling climatic elements necessary for efficient operation; the visual projection shows it nestling within the fjord as if it were an organic component of the local ecosystem. Frenzel discusses this procedure as one of place-making and argues that “places are not only passive or static entities” but “relational configurations”. This process is understood by the author as explicable through the concept of extractivism, arguing that “data-driven economic operations in general and cryptocurrency ‘mining’ in particular can be understood as a new form of extraction, an analytical category previously reserved for the literal mining of natural resources”. Furthermore, conceiving of data processing as a form of

mining is not metaphorical, and as a material process it is comparable to the extractive procedures central to the long historical trajectory of colonialism and imperialism, wherein extraction from human bodies was as significant as mineral extraction. Other parallels involve the dependence of both mineral extraction and cryptocurrency mining on a broad range of resources and communication infrastructure, bundling together “natural resources, human bodies, and energy”. The necessity of such extensive transformations invest the “Norwegian state’s overarching data centre strategy” with an infrastructural dimension within which the politics of place-making is significant. Locations such as the Arctic needed to be “rendered extractible” prior to the establishment of extractive infrastructure, and whilst such a process involves the combining of various climatic, legal and political frameworks in order to facilitate a project, the role of the imagination is a crucial factor; the promotion of the Kolos data centre as desirable involved imaginary aspects, intrinsically connected to conceptions of the northern landscape, both reinforcing and transforming these representations.

In “Mapping the Anthropocene: Beautiful Destruction and Dark Ecology”, Inge Paneels explores Louis Helbig’s *Beautiful Destruction* (2014) and *Nikel Materiality* (2015) by Tatjana Gorbachewskaja and Katya Larina, analysing the complex material and economic factors at play in landscapes of extraction in the boreal and Arctic north. Paneels develops an analysis that acknowledges a contradiction at the heart of government policy: both the express intent of the countries in these regions to mitigate climate change, whilst continuing to pursue fossil fuel extraction. *Beautiful Destruction* utilises aerial photography, producing “sky-situated knowledge” that addresses the Anthropocene as a “boundary event”.

Paneels, using Donna Haraway's conception of the boundary event, claims that the Anthropocene is not simply a geological transformation but a moment of "unprecedented global change", eradicating the distinction between culture and nature, following which life on earth will be completely altered. Helbig's beautiful photographs, published with sixteen essays reflecting a diversity of opinions, produces in Paneels' argument, a dissensus that makes "visible what the dominant consensus tends to obscure and obliterate".

Paneels' contrasts Helbig's sky-situated knowledge with "a ground level perspective" of Nikel, in Russia, close to the Norwegian border. Gorbachewskaja and Larina's *Nikel Materiality*, is a series of maps, photographs and texts that captures "the material vibrancy of the city; of the slag dust blown across the landscape, embedded in the lungs, buildings and streets of the city" which treats "the city as a living organism". Underpinning their work are Timothy Morton's ideas of "enmeshment and unintended consequences" which emerged in his book *Dark Ecology* (Morton, 2016) and Jane Bennett's agential materiality which emerged in *Vibrant Matter* (2010). This enabled the artists to tell the story of this city, which grew up around a nickel mine, and which has experienced layers of development and neglect from both Russian and Finnish states. Gorbachewskaja and Larina, however, also pay "attention" to "material artefacts" and the "evolution of each material, and how it had been affected by the climate and the internal activity of the city." The maps the duo produced visualise different aspects of the infrastructure, history and materiality of Nikel, which "offers an earthbound perspective of the material fabric of the city", "that dislocates the human from the centre of world". Importantly, analysing the unintended consequences of human activity and the enmeshment of nature and culture, enables new ontological understandings of the Tar Sands and Nikel to emerge.

Taking a contrasting approach to the ‘aerial view’, Harvard and Hyvönen discuss how professional photographers engage with environmental issues, their perception of the role of photography in relation to climate change, and how they conceptualise the north in their work. In order to explore these questions, the authors employ a framework emerging from risk research, which is useful in terms of understanding whether audiences will respond to the images that are shown to them by taking climate-ameliorating action. The twin concepts of presencing and absencing, in this instance, are linked to the ability to take immediate action (presencing), yet the misperception of risk, which can occur if the issues become minimised and disregarded produces absencing. Aerial images can provide context and perspective, the authors argue, but the physical distance from their subject diminishes their “affective visual potential”. The study was based on interviews with a range of photographers working in both photojournalistic and creative visual arts contexts and a series of questions designed to elicit responses to the presencing-absencing framework were put to their subjects, and then analysed. The value of this approach is that it allowed the study to “systematize the views expressed by [a wide range of] the photographers” through an “interpretative framework”. Their analysis demonstrates that photographers are acutely aware of the demands created by the commercial environment, and the need for finding a market for their work. Additionally, photographers were aware that the Arctic offers clear visual opportunities to visualise climate change, but that the physical distance of the Arctic north produces absencing. In contrast, more subtle, reflective responses risk only speaking to elite audiences in specific contexts, but also offer paradoxical opportunities to engage viewers through the absence of specific messages, sparking presencing through curiosity and engagement with broader climate and

environmental debates. Harvard and Hyvönen conclude that their research subjects were able to negotiate and produce “effective visual interventions” that “break through message overload”. Indeed, the question of how to reach audiences beyond the elite, is arguably an issue faced by all art practitioners motivated by the desire to make a difference through their work, and is discussed by several authors (Peck, Wells, White, Hartle and Harvey) – a question of how photography and related practices can be mobilised in relation to environmental and social crises.

Stephanie Hartle analyses the practice of Sheffield-based artist Victoria Lucas, specifically the images, objects and performance work featured in *Platform 20: Heavy Water*, an exhibition at Site Gallery, Sheffield, UK (July-August 2021) – another example of work concerned with the impacts of mineral extraction. Hartle situates Lucas’s transmedial practice as an entanglement of technology with female subjectivity and the materiality of the landscape. This technology-human-materiality-of-landscape analysis of Lucas’s practice is conducted through theories of ontology and posthumanism to argue that “Lucas utilises a range of photographic and visualising technologies and materials to re-imagine the relationship between body and strata”.

Drawing upon the work of Bernd Happauf and Christoph Wulf (2009), Hartle discusses the place of the image, imagination, and the iconic turn in the context of the digital to propose that we need to reconsider how technological shifts have an impact on how images are defined. Happauf and Wulf describe the way developing technologies have pushed the limits of representation and have imparted new types of relationships between images, their producers and their receivers, suggesting that “the productive power of advanced technologies makes images hover on the threshold between the visible and the invisible”. The ability

to bear witness ethically and accurately, Hartle claims, continues to dominate contemporary photographic approaches. In the context of the Anthropocene and the increasingly precarious state of the environmental crisis, there is a seemingly urgent need to probe the mobilising possibilities of photography. Hartle further utilizes critiques of the documentary, large-scale, spectacular practices of photographers such as Louis Helbig and Edward Burtynsky to note how these images naturalise the disasters of the Anthropocene through sublime aesthetics and a lack of political grounding as expressed through “God’s eye view” frequently used in their images. Indeed, the privileging of conventional photographic seeing has proven problematic in terms of asserting a detached and distanced aesthetic, itself posing a gendered dimension to the visualising of the ecological crisis. However, in similarity to many authors in this volume, Hartle turns to critiques of the Anthropocene, as conducted by Joanna Zylińska, T.J. Demos and Karan Barad to note its human-centric bias and its limitations as a force for understanding environmental devastation. Instead, authors such as Donna Haraway, Joanna Zylińska and Karan Barad are utilized as a means of noticing the situated, contingent and permeable frameworks and practices that constitute different modes of being and subjectivity, resulting in a discussion of Lucas’ work as enacting a series of ‘entanglements’.

Hartle argues that through an embodied and haptic approach of transmediality (photography, video, performance, sculpture, immersive installation), Lucas challenges the cultural logic of realism which photography has traditionally asserted. Lucas confronts with a critical reflection the nature of the relationship between human sight and technological sight – and the contingent spaces that exists within these, through the interspersing, rupturing and play between different types of surfaces and screen. Lucas’ work is therefore



positioned as a re-coupling of human agency and bodily experience with nonhuman visualising technologies, or what Zylinska proposes is a “technology of life” (2014: 4)

In “The Experimental Darkroom: case studies in northern landscape through the material ecology of photographs”, Harvey surveys contemporary art practices that interrogate the physical methods of making photographs in order to engage with ecological crisis and the landscapes in which it unfolds. The chapter considers alternative, experimental and revived photographic techniques as expressive methodologies that enable various interactions between process, image and context. These artworks raise questions about photographic materiality and method and engage with the fungibility of photographic artefacts and their entanglement with the world. The questions raised in this discussion are not concerned with addressing the environmental impact of photography, rather they consider how a critical practice might be intentionally disruptive in order to unravel entrenched ways of seeing landscapes – and there are parallels here with White’s chapter. Harvey analyses how the material ecology of a photographic practice might work against received, dominant, and problematic modes of conceiving of the northern landscape.

Several chapters in the anthology reflect upon the notion of the Arctic north, and the more remote areas of the Nordic region, as rich in available resources often prospected by companies originating from outside of the region – see White, Wells, Goldie, Frenzel, and Paneels – while doing so from different perspectives and through different visual imaginaries. Harvey explores this through considering the Arctic as a place for the “violent reorganisation of land and life-forms”, within which “extractivism” is laid bare. This is first explored through the work of Simon Starling, where the pulling of the photographic

process itself into “the visual and interpretative frame” causes the image to reveal “its own conditions of making”. Aster Reem David's makes images that “unfold as a set of experiments” the effect of which is to “elide ways of seeing with ways of altering landscapes; they suggest human effects on them”, and furthermore, they appear to be shaped by geo-processes, but also by selection, framing and photographic processes. The geological, she then argues, is a logic of dispossession. Harvey draws on the ideas of Kathryn Yusoff and the work of Amanda Couch to suggest that “photography is one strand in an expanse of activities – performance, text, video, woven objects – that explore” and question the “colonial mindscape”. She proposes an approach to landscape as entanglement and “inter-species kinship”, citing Sayako Sugawara's *Redwood Magdalene*, “a series of photographs tracing the artist's relationship with a redwood tree”. She cites Jane Bennett to argue that “material things” have “their own lively capacities” and that humans can be understood as “material things, composite things”, their intermingling a means through which “habits of placing matter in hierarchies” can be “disturbed”. This sense of enmeshing informs and animates the practice of Hannah Fletcher. Indeed, all the examples of practice discussed in this chapter “treats the photograph as matter implicated in the world”; they all “re-imagine landscapes in ways that understand humans as continuous with the world, sharing in its processes and events, its precariousness”.

Saunders, Waade and Souch, through their discussion of the Nordic noir serial drama, address many of the aforementioned themes, arguing that this drama is a productive space for storytelling about ecological catastrophe in northern Europe. Employing the concept of the “Anthropocenic imaginary” the chapter considers the ways in which television series such as *Thin Ice*, *Trapped*, and *Twin* (re)imagine the landscapes of the European (near-)Arctic as they

become irrevocably transformed by the ongoing environmental degradation and by neoliberal geopolitical relationships. The chapter explores how, in the three TV series, the ecological crisis of the 'North' maps on to ongoing crises of national identity, local community and family among northern Nordic nations. In doing so, they problematise the use of the (near-)Arctic imagery as a mirror of contemporary national identities, identifying how the visual consumption of a 'pristine' landscape obfuscates past abuses of nature and its (more-than) human inhabitants, producing instead an "Anthropocene sublime". Indeed, the authors demonstrate that "more than just providing aesthetic value, representations of the land" in Nordic Noir TV series "are integral to the storytelling process, with specific northerly landscapes serving as the canvas for events to play out and ideologies to be brought into focus."

*Thin Ice* tackles political relationships between Greenland, Denmark and the US, whilst also considering the economic interests at play in extractivism. *Trapped* conveys the dissolution of a community following the 2008 economic crash against aesthetically spectacular and polluted Icelandic scenery and *Twin* "uses the pristine Arctic coast of northern Norway to frame a family drama which lays bare the contemporary value-extractive relationship between those who live in the North and the bounty of nature, particularly in an era of global tourism". All three series combine themes of social collapse, global capitalism and environmental crisis. The landscape, in each instance, becomes a marker of a new sublime: the Anthropocene sublime, a landscape that is commodified, extracted and socially transformed.

The geopolitics of the north and the northern landscape is not homogenous, as is demonstrated by the scope of essays contained within this volume, offering a range of different perspectives and positionalities, employing

wide-ranging methodologies, approaches, and arguments. The variety of the selected contributions is in accord with the aims of the anthology, which is to facilitate critical debate around the problems, as well as the potential, of northern landscape images in the era of environmental crisis. While contrasting approaches are evident throughout, there are thematic affinities between many essays. Photography's materialities is one such theme, as is extractivism, the frame within which the interconnections and contradictions of the political, economic and cultural dimensions of exploitation and dispossession becomes manifest. That northern landscape images are intrinsically connected to the history and ongoing effects of imperialism and colonialism informs the anthology, as does the challenge of alternative conceptions and practices able to articulate different ways of life, histories, and temporalities otherwise subordinated to the singularity of the Western imaginary.

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## **Flora Mary Bartlett. Visualizing the Pristine: the role of imagery in local stewardship of landscape**

### **Introduction**

In the spring of 2018, high temperatures roared into the sub-Arctic Swedish North after a winter of unusually heavy snowfall. The meltwater travelled from the mountains through the town of Arjeplog, collecting fallen objects formerly buried in the frozen landscape. Thin plastic sticks appeared in the streams, butting against the hydropower dam and the town bridges. Within days, furious inhabitants were posting photographs onto the local Facebook group lamenting the visual assault on the otherwise *ren* or pristine and unspoiled waterways.

In this chapter, using an anthropological perspective that draws on the environmental humanities, I examine how notions of the pristine emerged both in contemporary local aesthetics of landscape imagery and environmental stewardship in Arjeplog, in rural Northern Sweden/ Swedish Sápmi<sup>1</sup>. Beyond simply illustrating existing relationships to landscape, local imagery reinforces a nature-culture divide or a separation of the person and the landscape through the act of photographing and the importance placed on “beauty”. This reinforces a local stewardship that focuses on preserving the visible and pristine landscape rather than the precarious and invisible global commons.

Notions of the pristine, or untouched nature, have abounded throughout the history of Western environmental practice as a legacy of Romantic engagements with nature (Cronon 1995; Guha 2000; Quelvennec 2020; Walton 2021). The idea emerged among 19<sup>th</sup> Century Romantic writers and is intricately

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<sup>1</sup> The nation of the Indigenous Sámi, crossing Norway, Sweden, Finland and Russia.

tied up with the concept of wilderness, as colonizers arrived in North America and perceived a seemingly untouched landscape that they considered void of human history or intervention (Denevan 1992). Notions of the sublime, or the feeling of religious experience in dramatic scenes of nature, became domesticated into acts of looking at “wilderness” for its untouched or pristine beauty (Cronon 1996). The pristine is thus implicitly a visual concept, in which landscapes are viewed and judged on their aesthetics of untouchedness (Clement and Junqueira 2010; Denevan 1992). Continuing into 20th Century Sweden, importance was placed on a nature uncontaminated by specifically human presence (Löfgren 1987). In contemporary thought, the North of Sweden is still considered to be a wild and “almost mythological place outside civilisation” (Nordin 2008: 186).

There are serious critiques of the concept of the pristine, or untouched and wild nature that exists isolated from human existence. The designation of a landscape as pristine has erased Indigenous voices, history, and agency (Cronon 1996; Denevan 1992; Clement and Junqueira 2010; Cruikshank 2005). The idea of a wild or untouched realm, furthermore, places nature on an unreachable pedestal, in which a place is only considered “natural” if it provides “grand vistas”, and this therefore excludes nature closer to home (Cronon 1996: 17).

In this chapter I use the term “pristine” to reflect the idea of *unpolluted* nature rather than unpopulated or pre-human. The word *ren* in Swedish means both pristine but also undiluted, pure, and clean. This word was used to describe the waterways and mountainsides of Arjeplog by participants and reflects the local desire for an unpolluted landscape, *visibly* free from contaminants, or what Williams describes as the “picturesque” landscape (1973: 128). Those with whom I worked in Arjeplog did not engage with environmental discourses on the global scale but instead embraced profoundly local stewardship, invoking Romantic



conceptions of nature that should be kept visually and visibly pristine to allow the continued enjoyment of the inhabited landscape.

Sweden is sometimes portrayed as a homogenously progressive nation in its response to climate change and its public engagement with global environmental issues (see Isenhour 2011) despite its role as a major global emitter. While Sweden as a nation played a large role in the emerging environmental movements of the 1960s and 70s (Larsson Heidenblad 2021; Warde et al. 2018), we must examine regional difference to fully understand the varieties of environmental engagement (c.f. Guha and Martinez-Alier 1997) in the country. This chapter provides an empirical contribution examining local stewardship in the rural Northern community of Arjeplog, complicating the notion of a single national environmentalism that operates on the global scale.

### **Capturing ‘beauty’ in Arjeplog**

[Figure 1. Arjeplog town: Flora Bartlett]

This research is based on 13 months of ethnographic fieldwork (2017-18) in Arjeplog, a large and sparsely populated inland municipality in the North of Sweden and Swedish Sápmi. Defining who is Sámi or not in Arjeplog is both difficult and problematic, given the long history of mixing and of external actors imposing parameters for differentiation and othering (Green 2009). This research does therefore not try to represent a Sámi perspective but one concerning Arjeplog as a community. I worked with “Arjeplogare” in general, those who live and work in this municipality, including those who worked as entrepreneurs, mechanics, pensioners, reindeer herders, and those working for the local municipality itself

across all age groups. The municipality has a small permanent population of 2700, based mostly in the town of Arjeplog, which doubles during the winter car testing season when engineers come from all over the world to test new car models on the vast frozen lakes of the region. This is a key local industry, employing both entrepreneurs and seasonal workers and allowing a much wider net of residents to benefit from the income generated by renting out their homes to the incoming engineers. Arjeplog also has a thriving tourist industry in both summer and winter, especially from Norway. Popular activities among participants include fishing (for trout, Arctic Char, perch and grayling), hiking, snowmobile excursions, and the moose hunt in the autumn.

[Figure 2. The exhibition space: Flora Bartlett]

Using images in the research process was a key methodology for understanding engagements with landscape. I use the term “landscape” drawing on its origins entwined with European landscape painting (Hirsch 1996), which is useful in this analysis as it speaks to visibility and *looking at* the world from a distance (Williams 1973). Its meaning has gone beyond the visual in anthropology, however, to now concern both the physical environment and how it is *produced* in local practice (Hirsch 1996: 2) and by multispecies encounters. Landscape is increasingly studied as cultural and phenomenologically experienced processes (Ingold 2000) in the spatial terrain of the more-than-human (Tsing 2015; Gan et al. 2017), allowing analyses that include both people and pollution in landscape-making.

Photography was woven into the fabric of my research methodology, involving several visual strategies from photo elicitation<sup>2</sup> to more experimental image production (see (Bartlett 2021). I examined ways landscape as process *and* spatial plane connected with photography and visual representation; the tension between landscape as lived and as captured. A key method was the use of the exhibition space, varying in scale, to discuss my own representations of landscape with inhabitants of Arjeplog in an “arena of exchange” (Bourriard 2002) and explore their particular subjectivities, aesthetics, and “ways of seeing” (Berger 2008). I also paid attention to the images taken by participants and those posted on social media, particularly Facebook, as well as the reactions of other locals in the online space. Here I examine images as less an act of art or interplays between index and referent, and more a social process of *photographing* as cultural practice (c.f. Pinney 2003), focussing on the specific practices of taking photographs of landscape, posting them online, and the engagement with images both online and in the research process.

Images in Norrland, the northernmost part of Sweden, can portray life in the stylised extreme. Images in tourist brochures and on municipality-run social media accounts are often highly edited digital photographs showing lifestyles of an aestheticized *being in nature*: handfuls of cloudbberries, lingon berries in a traditional *kåsa* (a wooden cup made from birch), a fire made in a frozen lake, deliberately overexposed reindeers against the snow, *kokkaffe* (boiled coffee) on an open fire, ice swimming, or boiling water being thrown into the air to freeze in styled photo shoots. Local paintings I saw during fieldwork focussed on the wildlife of the region, including lynx, reindeer, wolves, and dramatic landscapes

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<sup>2</sup> Photo elicitation is the act of using photographs in interviews to elicit or spark responses from participants.

such as forests, lakes, or mountains covered in snow and painted in photorealistic style using oil or acrylic.

Apart from a local group of photographers interested in capturing the Northern Lights, the aesthetic among my participants in their own photographs on social media did not mirror this dramatized and touristic imagery. Instead, common themes were views from their home windows or while out fishing or skiing, captured on a smartphone and posted online. Drone photography emerged as an exciting new medium, where shots over the town and nearby mountains were posted on Facebook or Instagram and met with exclamations of how beautiful the new perspectives were. Captions of local images highlighted the beauty of Arjeplog as a home landscape, and viewers' pride and appreciation, or even the honour, to call Arjeplog home. "*Vad lycklig jag blir att få bo här*" (How lucky I am to be able to live here) was one recurring theme in both the captions of the images but also the comments. Images were sometimes posted with the simple caption "Arjeplog" followed by the heart emoji. Replies also featured emojis of hearts or a face with hearts for eyes.

The word 'beauty' is complex within the history of aesthetics and anthropology (Firth 1992). Firth discusses the ways beauty has been used in anthropological engagements with art, writing that a key part of art is its ability to evoke a reaction "often referred to as an aesthetic sensibility" involving a combination of "cognitive and emotive elements" that results in pleasure (ibid:18). Environmental philosophy recognises the "long established connection" between aesthetics and the environment, in part through landscape photographers capturing beauty and the pristine (Stewart and Johnson 2018: 441; see also Brady and Prior 2020). In my photography and in co-curation practice with participants, participants encouraged me to photograph things considered locally "beautiful."

This was also important when participants curated images from my research or selected those they wished to keep.

In the larger exhibition space featuring my images, a pattern emerged in which visitors were moved by the beauty of Arjeplog that they saw in the photographs. One woman, having walked silently around the space, placed her hand on her heart and said, “*Vackra bilder. Jag känner mig... Jag bor här*” (Beautiful Photographs. I feel... I live here). Others commented on how beautifully I had captured their home landscape. Important to note here was that what counted as beautiful did not need to be unpopulated, which was unexpected given the prevalent connections between pristine and wild, uninhabited nature. One of the most popular motifs in the region, among my own images and those of local photographers and inhabitants, was the local church, due less to religious fervour than the building’s status as a local landmark owing to its unique soft pink colour. Beauty therefore included human presence and practice, just within certain parameters, as I examine below.

[Figure 3. Arjeplog Church: Flora Bartlett]

There was other feedback, too, about how I missed the modern, or how I represented stereotypes through showing hunting dogs, fishing, and the moose hunt, important to note here as evidence that “beauty” was not the only thing visitors were looking for. It was, however, one of the trends that ran through both the reception of my own images and the way images taken by Arjeplogare were sometimes posted online.

Beauty has been a key part of Swedish everyday life both in art and design but also the idealized landscape, following “national romantic traditions”

(Murphy 2015). The very idea of beauty is connected to Romantic thought in Swedish life. In order to understand the implications of this on perceptions of landscape and stewardship, we must look at what these images do. Or, following Christopher Pinney (2003:12), what “work” are the images carrying out as cultural practice?

### **The work of beautiful photographs**

When examining images produced by the community in Arjeplog, photographs do not serve as purely a record but are influenced by the artistic traditions of the region. Furthermore, they affect the world in turn through their own materiality and use as social objects. Posting to share an appreciation of the beauty of landscape online through images of scenery reinforces the concept of the landscape as a visual field, to be looked at and photographed. Art and visual imagery can, rather than merely illustrate, actively produce “relations between people and the world” (Bourriaud 2002:42), and beyond illustrating pre-conceived concepts, photographs themselves *do things* beyond the visual as relational objects (Edwards 2005) and as cultural practice (Pinney 2003). Far from being passive representations of existing nature practice in Arjeplog, images performed a role in the local separation between person and visual nature both in how people talked about nature aesthetically as well as directionally: being *in* and looking *at* nature as opposed the two being intrinsically connected.

There was a nature culture dualism or separation that became apparent in how the community talked about their *friluftsliv* or “outdoor recreation”, an important part of Swedish culture more broadly (Löfgren 1987). Participants would say *att gå ut i naturen* or *att vara i naturen* (“going out into the nature”, or “being in the nature”), relegating it to a separate realm distinct from the town or

everyday life. This boundary between realms was remarkably consistent among participants: the *stugor* or summer cabins were in nature, in contrast to the main residences. Leaving the main asphalt roads and entering the small gravel tracks through the forest to the summer cabins was considered as going ‘into’ nature, whether by car or on skis. The Arjeplogare have a couple of popular sayings about roads, including being in *väglös land* (roadless country) and *vi vet var alla stigarna går* (we know where all the paths go). Nature, like the notion of beauty, is therefore not necessarily uninhabited or unknown but is considered separate from a more mundane everyday life of work and routine, and is more tied to leisure.

The images that make up the popular visual culture of the region not only illustrate this ongoing notion of nature as a separate realm but reinforce it. Through presenting nature and landscape as something to be viewed either as a photograph or a photogenic space, nature continues to be visually separated from the culture and humans inhabiting it. The idea or concept of nature becomes a subject to be photographed or framed in terms of its visuality. Recognising that the term “landscape” itself is historically connected to landscape paintings, an appreciation of Arjeplog landscape is likewise portrayed through images that capture its beauty from a distance, focussing on views *of* Arjeplog. This follows what Orvar Löfgren has describes as the “new landscape aesthetics” of the middle class that emerged in Sweden in the late 19th Century, which prioritised sunsets, mountains, big views and panoramas (1987:55) and continued the European trends in which nature was romanticised and entwined with art and landscape painting (Hirsch 1996; Williams 1973).

In Arjeplog, these trends continue today with the physical landscape viewed as almost a ready-made photograph or visual plane to be captured and

shared, intertwining both the desires of the person photographing, but also who they want to show the photographs to. Those that ended up online, as discussed above, often seemed to be an attempt to share in the pride of how beautiful Arjeplog was for those who lived there. Images of the North can sometimes be posted on the internet to serve as “a trophy, a proof of one’s presence, but also a token of social exchange” (Quelvennec 2020: 129). Considering these images on social media, combined with interviews and participant observation of the Arjeplogare’s relationships with landscape, I believe the motivation to be such a “token”. Participants were not collecting landscape photography as trophies or proof as they were not tourists visiting. They sometimes shared the images in local Facebook groups specifically created for residents of Arjeplog or those who had lived there once but now moved away, among adverts for local events and frequent images of dogs loose on the street, calling for the owner to claim them. The images posted in this space provided a means for shared appreciation.

The way the Arjeplogare captured the landscape through photographs, and viewed it from a reserved distanced mediated by the screen, was a way to reinforce this separation between nature and the cultural self or individual experience in the action of taking a photograph. The images posted online expressed pride in “relationships made visible” (Edwards 2005: 33) created by and through the photograph, bringing others into a visual appreciation of beauty and place. As Löfgren reflects about the separation with nature in Sweden, “it is the alienation from the natural world that is a pre-requisite for the new sentimental attachment to it” (1987: 83). One must be separate from nature in order to step back to view it sentimentally.



## **Visualising bad practice**

Beyond reinforcing a separation with nature in this region, in which landscape is perceived as a visual realm, images are also entangled in processes of stewardship. Engagement with environmental protection is highly *visible and visual* in Arjeplog, with images being used to shame bad practice.

The scale of environmental engagement in this community and among participants was very much local. The term “environmentalist” was fraught with contention given historical landscape use and perceived power imbalances between rural and urban communities with outsiders seen to be the ones calling for change on the national and global scale (Bartlett 2020). Many with whom I worked viewed nature as simply too big to be affected by human action, discounting anthropogenic climate change, as I discuss more below. Instead, participants directed their care towards the local landscape, and crucially towards the visible nature: preserving the pristine through recycling, not littering, and taking care not to pollute their home landscape. Residents and those active on the local forums regularly highlighted certain key and visible aspects in environmental pollution that were identified as taboo or not in keeping with how Arjeplogare should behave.

One key pollutant often visually identified on forums and social media was *reflexkäppar* (or *plogpinnar* in *Arjeplogsmål*, the local dialect), red plastic sticks used to mark road boundaries. Once made using birch from the forest, then imported English wood, and now bright red plastic marked with reflective tape, these are used both to mark the public roads for snow clearing in winter and to mark the private ice tracks of the car testing companies. Thousands of these sticks were drilled into the ice each season. Åse, who worked for one of the companies, was adamant that their team ensured all of these sticks were collected at the end of

March. Others argued that when cars hit the sticks they could break apart and end up in the water systems anyway. Residents using Facebook would often post images of these sticks “out of place” in the streams or lakes of Arjeplog, sometimes with angry captions calling out the companies for polluting the landscape. Other offenders identified online and in interviews were dog walkers allowing their dogs to poo on the snowy path winding behind the church. This was deemed offensive given the regular use of the path by runners and older residents living in the nearby apartments, who were at risk of treading in the dog poo as they moved around the town. The municipality itself was sometimes called out for not emptying the dog poo bins in the area, as the overflowing of plastic bags was also seen as unsightly. The municipality was also targeted when the colossal recycling bins dotted throughout town were not emptied. When these overflowed in strong winds, rubbish blew into the surrounding nature and was then covered by snow and buried until the spring melt. A participant once told me, “What is hidden in the winter will always become visible again in the spring”, meaning both dog poo and litter kicked under snow drifts.

[Figure 4. The red sticks of the road boundaries washing downstream into town: Flora Bartlett]

[Figure 5. A carton, decorated with an image of blueberries, emerges from the melting snow surrounding the large recycling containers in town: Flora Bartlett]

There was thus a visual engagement with stewardship as care was rooted in what was seen or should be hidden. This again speaks to the aesthetics of landscape, or how it should look, influenced by the images of the wild nature portrayed in the visual culture of the tourist images and local photographers. They are used to *seeing* landscape as a pristine and unpolluted natural space, and such examples above constitute matter out of place (c.f. Douglas 1984) that interrupts the visuality of landscape.

It is also important to acknowledge that there was aural pollution as well as visual in this community. The ice tracks were not only used for industry but also enjoyment, and one of the central lakes of Arjeplog was home to a company that provided customers with the ice driving experience in which ostentatious sportscars could be driven around Formula 1 style racetracks at high speeds. This creates a lot of audio pollution for those living around the lakes and sparked collective action among the homeowners. This was, again, on the deeply local scale, reflecting a concern for the immediate and pristine environments of the Romantic tradition.

There are many forms of environmentalism and multiple environmental histories (Armiero and Sedrez 2014) operating across different localities and scales. There are different “branches” in the global history of environmentalism, including the “cult of the wilderness” – the most traditional, in which untouched nature is dominant (Guha and Martinez-Alier 1997: xxi). This branch reflects the first wave of environmentalism, emerging in the US in the late 19<sup>th</sup> Century with nature lovers, conservation, and national parks (ibid) and characterised by writers such as Henry David Thoreau, Ralph Waldo Emerson, and John Muir (Cruikshank 2005; Walton 2021). Parallels can also be drawn in Sweden, where the Swedish summer cabins were an antidote to industry and allowed an escape to

“another landscape of recreation, contemplation, and romance” (Guha and Martinez-Alier 1997: xiii, see also Löfgren 1987). In the 1960s and 70s, visible pollutants in nature were a cause for concern as Swedish society became aware of mercury poisoning lakes and fish, the visible presence of hydropower dams, and littering in nature (Larsson Heidenblad 2021). These polluting presences were seen as an assault on the pristine nature inherited from the Romantic point of view but also a hindrance to the acts of enjoying nature for leisure (ibid). Today, in Sweden, *allmännsrätten* (public right of access) highlights that everyone should go out and enjoy nature but should not leave traces. Fires should be extinguished and no litter should be left behind. Popular images of this environmental practice often show people in vast mountainous expanses, picking berries, or small fires of chopped wood with simple equipment and very little visible plastic, as in my own image below.

[Figure 6. Being in the forest: Flora Bartlett]

When Western environmentalism underwent its second wave in the 1960s, with the publication of Rachel Carson’s *Silent Spring*, it took on a more activist approach, beyond the idea of nature as something to conserve (Guha 2000). This was the beginning of the notion of “the environment” as a concept operating at a global scale (Warde et al. 2018) as I discuss more below. This is the kind of environmentalism present among young residents of Stockholm, trying to consume produce ethically in light of the global environment (Isenhour 2011). Environmental engagement in Arjeplog, in contrast, is still conceived as maintaining the dichotomy between human and natural spaces, keeping the latter

free of visual and visible pollutants; it continues to hold Romantic notions of nature as pristine.

In this form of nature appreciation, in which the idea of “wilderness” is often paramount, there are certain problematic aspects both in the past and continuing into the present day. Shrader-Frechette (2002) is critical of the environmentalism in the 20th century that came from wealthy nature-lovers, who were disconnected from the lived reality of those for whom life was a hardship. In the present Romantic notions of wilderness, certain bodies and experiences are excluded in processes that or “erase and appropriate from Indigenous cultures” (Walton 2021:74). This has also been the basis for the critique of the “cult of wilderness” as it can “deny the agency of indigenous communities in shaping the environment” (Armiero and Sedrez 2014: 7). Sápmi landscapes have been described as wild by historical visitors, which Brind and Harold argue would never be described as such by the Sámi living there, for whom the landscape’s value was in their “symbiotic relationship” with it, rather than the “externalised” nature of the European Enlightenment (2018:86).

Participants were aware of the history of the Indigenous Sámi in Arjeplog, and the Arjeplog-based research institute INSARC (The Institute for Arctic Landscape Research) worked on the presence, traces, and practices of Indigenous peoples in the landscape throughout history (see Bergman 2018). Nature in Arjeplog was not considered unhuman or uninhabited, as I have explored above, and thus the notion of “pristine” rather than “wild” feels more fitting in how participants used and discussed nature in imagery. When I asked specifically about climate change in the region, and potential effects of a warming world, I was often pointed in the direction of the reindeer herders. “As the Sámi,” people would say, “they live closer to nature, they can tell you more than we can.” This is

especially interesting given the uncertainty of who was and who was not Sámi in this region, including among participants, but it was usually clarified with specific reference to herding reindeer – a practice only allowed in Sweden by those who are part of a recognised Sameby (Sámi administrative region). When it came to the question of who was closer to nature, however, those who herded reindeer were seen to live more in harmony with the natural world than those who did not. Nature was a separate realm which could be accessed, or *lived close to*, but one could not be *a part of*.

Shaming the bad practices of littering in mountains, lakes, and in the small patches of the natural around town was a way to manage the assault on the pristine. Nature in all forms should be free of visual contaminants, and the act of posting images identifying bad practice were mini acts of environmental stewardship to protect the pristine on the local scale, while also excluding those who had failed in their moral responsibilities to the landscape. The users posted the visual evidence alongside captions of anger and expletives, calling out the invisible offender through the visible traces of their social crimes. The images themselves, once posted, existed on Facebook as a digital archive of environmental failings, side-by-side with images celebrating Arjeplog's beauty and the pride of its inhabitants in a thread of good versus bad practice.

Notions of “beauty” as a motivation for protecting landscape can be limiting, both in terms of which landscapes are worth protecting but also the extent to which such aesthetic judgements can be useful in global crises, or if they instead “obfuscate the systemic nature of environmental degradation” (Stewart and Johnson 2018). Stewart and Johnson give the example of littering in the US, in which a focus on litter in the natural environment led to the same amount of waste (just neatly recycled in the right kind of containers) rather than a direct

challenge to corporate production (ibid). In this example as well as my own research, the focus was on the visible presences of litter as opposed to the global interconnections, to which we now turn.

### **Visible and invisible in the global commons**

[Figure 7. One of the many snowmobiles in Arjeplog, Flora Bartlett]

The ideas of locally visible pollutants such as litter extends to the global scale, whereas seemingly invisible carbon emissions, such as from the many local snowmobiles, are not perceived as a problem for the abstract global climate. There is a scientific consensus that anthropogenic climate change is accelerating due to continued and increasing greenhouse gas emissions. Critics of the term “Anthropocene” have identified the problem with its implied collective responsibility; that all humans are comparably to blame for the current ecological and global crisis (Latour 2018). Those in the Global North are responsible for more emissions while the Global South feels the effects in terms of flooding, drought, disease, and extreme weather. A body of research also points to the impact being felt in Arctic communities more drastically than the rest of the Northern hemisphere (Ford et al. 2007) including for Sámi reindeer herders (see Furberg et al. 2011) as emissions spread around the world in uneven distribution. As Armiero and Sedrez elucidate, “fluxes of energy, materials, people, animals, germs, viruses and toxic substances criss-cross the planet and connect places and cultures. The awareness of these connections has always been at the core of environmentalism, even where there are different perceptions of the scale” (2014:1).

Sweden as a nation has been an early and central player in the 20<sup>th</sup> and 21<sup>st</sup> Century understanding of global environmentalism (Larsson Heidenblad 2021), which emerged in the 1960s and 70s with the realisation of the single, fragile planet (c.f. Heise 2008). Even prior to the UN conference of 1972, held in Stockholm, Sweden was a nation within which many institutions were re-thinking the concept of the environment<sup>3</sup> in an attempt to be at the forefront of modern research, most recently in the development of Earth System Science in the 21<sup>st</sup> Century (Warde et al. 2018). With the nation's history of science, neutrality, and "strong domestic culture of outdoor life and conservation", Sweden recognised its position in playing "a catalytic role" (ibid:136).

In Arjeplog, the scale of environmental engagement was decidedly un-global. Many participants expressed doubt in the predictions or reports of consistently warmer weather or the attribution of cause to human action. Some were waiting for more concrete evidence of increasing mean temperatures, arguing that the local weather had always been variable and difficult to predict year-on-year. While climate change dominates the discussions of the Anthropocene and modern environmentalism, the environment "embraces much more" than just climatic change, for which changes and causes are difficult to perceive for the layperson (ibid:119, see also Callison 2014). Climate in Arjeplog was seen to operate on a global scale of deep time, in which human action was simply too insignificant to cause any noticeable change (Bartlett 2020). While pollution was a visible sign of bad environmental practice, invisible emissions such as greenhouses gasses were perceived as beyond the scope of local responsibility as their effects could not be seen, felt, or heard. While littering was

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<sup>3</sup> Such as the Bolin Centre, the Study of Man's Impact on Climate (SNIC) in 1971, the International Meteorological Institute at Stockholm University, the Academies of Science and Engineering Studies, as well as Bolin being a founder of the IPCC and IGBP (Warde et al 2021).



perceived as bad for the enjoyment of nature and landscape, the emissions from the snowmobiles used to traverse the mountainous environment were seen as a way to be in the nature. If they were identified as elements of bad practice, it was through the sound alone, and often attributed to Norwegian tourists coming over the border or people unaware of proper local practice.

Instead, returning to the visibility of stewardship, some participants made comparisons to communities in the global South, perceiving them to be polluting their lakes and river systems through visible waste such as plastic, shown in images on the news.<sup>4</sup> Imagery thus plays a crucial role in local understandings of relative environmental stewardship and being a good citizen with nature and comparing themselves to others in news reports where visual pollution is highlighted.

We can problematise the notion of wealthy regions in the global North not engaging with the global commons elsewhere. Rich democratic nations have a responsibility to address global climate change in the view of both environmental law and environmental justice, given their disproportionate rate of emissions and the imbalance of effects across the world. Sweden as a nation is still one of the biggest emitters in the world. Within the country, there are vastly different views on climate change amongst people living in urban or rural places and the North or South. Richer nations may have a national programme or policy on climate change, but this is not homogenous within the borders of the country itself. This is also true for other Nordic and European countries and complicates the reception of national policies by rural inhabitants. If such countries are to truly engage with the global problem of climate change (as well as biodiversity loss), a deeper

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<sup>4</sup> Given recent revelations about UK and EU shipping waste abroad, it is likely these images feature waste that has nothing to do with the locals in these places.

understanding is needed of intra-national difference and imbalances within nations, and the reasons behind climate scepticism and rejection of global scales in local contexts (Bartlett 2020).

Environmentalism is a huge project or “field-of-force” today, “in which different individuals and organisations, far removed in space, collaborate and sometimes compete in forging a movement that often transcends national boundaries” (Guha 2000:2). Alongside studying this trans-national process of environmentalism, we must also continue to focus on local scales of environmental care and examine them critically. This will allow us a full picture of the potentially competing but also different engagements with landscape and perceptions of stewardship.

## **Conclusion**

In this chapter I have drawn on the visibility implicit in notions of the pristine and how this manifests in the landscape practices of the small rural community of Arjeplog, both in terms of photographing the landscape and in stewardship and care. I have argued that, beyond illustrating existing perspectives on nature and landscape, the visual culture and aesthetics of the region reinforce an existing nature-culture dichotomy in which person and landscape are separated by the acts of viewing and taking photographs, of *looking at nature*. Imagery plays a crucial role in Arjeplog in locating environmental stewardship on the local rather than global scale, as photographs are used and shared online in processes of shaming bad practice concerning local and visible pollution, while pollutants such as greenhouse gases are locally imperceptible.

Stewart and Johnson argue that if we stay in the “frame” of localised aesthetic response to landscape pollution, “we doom ourselves to a rapidly

approaching environmental dystopia” (2018: 449). However, we must refrain from ignoring different and especially rural perspectives of stewardship that do not share “one vision” (Latour 2018: 14). There can indeed be benefits to scales of care in which the local is given precedence. William Cronon advocated for a new kind of engagement with nature, urging humanity to stop searching for “wild” spaces and instead appreciate the kinds of nature found at home (1995: 19). Stewardship of the pristine in Arjeplog is an example of this localised form of appreciation, in which care is given to the local and non-human landscape in efforts to keep it visually unpolluted.

This empirical example of how notions of the pristine continue into present day forms of stewardship in Arjeplog complicates the idea of Sweden as homogenously concerned with environmentalism on the global scale. Through exploring a rural perspective, in which Romantic concepts are brought into contemporary practice, this chapter has examined a different way of caring for landscape in which visuality and the role of images are key.

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[Figure 1. Map of the Arctic. © [Arctic Portal.org](https://arcticportal.org/)]

[Figure 2. Map of Svalbard. © PublicDomain\_NP\_Tromso]

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[Note to typesetters – please place these two images on the left-hand page  
opposite the first page of the following chapter, by Liz Wells]



## **Liz Wells. Scene and Unseen: (Re-)envisioning the Arctic Imaginary through Photography**

There is no absolute landscape. Landscape is always a screen onto which we project different fantasies and perspective, including historical speculation. Thus landscape can also be likened to a theatre, or a stage (Puranen, 1999: 12).

From tourist marketing to military strategy, fossil fuel and mineral resources exploitation to extreme climate change manifest in glacier melt, photography has been variously implicated in imaging the Arctic as place, historically and now. It has contributed to reinforcing stereotypes of wilderness, documenting military presence, questioning the implications of global warming, and investigating human culture and lifestyles in this extensive region, with about 400,000 residents from over 40 ethnic groups spread across nations from Greenland, Canada, USA (Alaska), Russia, to Nordic nations (Norway, Sweden, Finland). Through critical reflection on themes, methods, and aesthetics, it is argued that contemporary photographic investigations contribute to rendering alternative perceptions and enhancing outsider understanding of phenomena characterising this polar region.

This chapter concerns photography as a means of investigating and communicating responses to the Arctic, historically and now. It critically considers ways in which photographs not only reflect and re-infect cultural attitudes but can also be deployed to influence social change. I open by briefly mapping histories, issues, and international tensions, followed by notes on photography's historical contribution within early explorations. The opening

section sets the scene for a more extended discussion of contemporary re-envisioning, particularly through environmentalist photography. I take the Greenland Sea area that includes the Svalbard archipelago, north-west of Norway, as an example that points to historical shifts and tensions. Specific reference is made to photographic investigations relating to environmental concerns by Tyrone Martinsson (Swedish), Heidi Morstang (Norwegian), Dornith Doherty (American) and Jorma Puranen (Finnish) who, respectively, explore glaciological change, light and atmosphere, botanical security, and the Arctic imaginary.<sup>1</sup>

[Figure 3. 'Buchenbreen', 2011, Tyrone Martinsson. Insert image Herbert Chermside 1873. © Tyrone Martinsson]

### *Image*

How do we 'see' the Arctic if we do not live there?

In 1897, a balloon expedition embarked from Danskøya, an island just off the north-western coast of Spitsbergen, in the Svalbard archipelago (74° – 84° North) and disappeared into the unknown. The bodies of the three men on board, including photographer, Nils Strindberg, were found 33 years later, on an island in the North-East of Svalbard, along with a large format camera and five rolls of exposed film that had survived in the ice and that, once developed, revealed 93 photographs. (Martinsson, 2012; Martinsson, 2019) These had been among the first attempts at aerial photography in the Arctic and testify to the cartographic

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<sup>1</sup> All the photographers are, or have been, based in academic institutions and would view their work as practice-led research.

and geographic interests of the era. A year earlier, Strindberg had used photogrammetry to map the area around Amsterdamøya, just north of Danskøya, thereby creating a visual record of glaciers, waters, and ice as they appeared in (Summer) 1896. Over a century later, these images offered a starting point for Tyrone Martinsson's research through re-photography, a method that is based on locating an original camera position and replicating image framing to demonstrate change through historical time. (Fig. 3) Through digitally combining his recent photographs with archive images Martinsson draws attention to changes, ones that in his view should concern us, since what they demonstrate is glacier melt, evidence of global warming.

### ***Tensions***

The Arctic continues to be represented as a sublime, forbidding but seductive, space of extensive horizons featuring extreme light effects, from the midnight sun of high summer to the northern lights of late winter. Such visual representations contribute to stimulating curiosity on the part of those from elsewhere, manifest historically in naval expeditions, exploration, and, more recently, organised tourism.

Yet the region is considerably more complex historically and geopolitically than is evident in pictures encountered in news stories, tourist brochures, histories, and archives. Most immediately, as indicated in Tyrone Martinsson's visual and archival research, it is a place of environmental change. (Fig. 3) Global warming accelerates glacier melt thereby threatening animal (including human) survival, contributing to sea rise, opening-up new shipping routes in the north and enhancing opportunities for new mineral and fossil fuel

extraction sites that, when utilised industrially and domestically, contribute to further global warming.

Territorial and economic tensions continue to characterise the Arctic. In the lead up to the 2021 American Presidential election, the New York Times informed us that ‘The Trump administration said it would sell drilling leases to oil companies for Alaska’s Arctic refuge’ (New York Times, 2020) in effect taking advantage of ice melt to facilitate fossil fuel mining.<sup>2</sup> On the one hand, indigenous communities, along with climate change activists and some governments, are arguing for awareness of our global footprint and for eliminating extraction industries. On the other hand, governments and global corporations seek to extend economic exploitation of territories, with northern nations competing to expand their influence in the Arctic. This is not simply a matter of minerals and fuel. With glacier melt, new shipping routes are opening-up for longer periods in summer, facilitating transport of goods (and military forces) across Arctic seas. Paradoxically, new economic opportunities arise. For instance, Jack (2021) notes research presented in support of Scottish Independence suggesting that ‘Within 25 years, Scotland will be on the doorstep of a major new global trading passage and a new economic region in the Arctic’.<sup>3</sup>

The Arctic map (Fig. 1) reveals the relative proximity at Lat. 80° N. of the north of Greenland (Denmark), Ellesmere Island (Canada), Franz Josef Land and Severnaya Zemiya (Russia), along with the northmost island of the Svalbard archipelago (Norway). From the point of view of the North Pole the proximity of Russia, Finland and the North-Eastern tip of Norway in the Barents Sea is very

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<sup>2</sup> The decision to grant a license was revoked in February 2021, by Joe Biden, newly confirmed as President of USA. Fossil fuel companies have known for decades of emissions leading to air pollution and ingestion of tiny particles dangerous to human health. (*The Guardian*, 2021).

<sup>3</sup> Godden *et al* (2020), who are Edinburgh-based, envisage that Scapa Flow, a sheltered body of deep water in the Orkney Islands, could be filled with shipping becoming ‘a container port and transit facility to rival Singapore’. (Jack, 2021)

clear. Indeed, when docked at Kirkenes in February 2015 during a tourist voyage from Bergen via the Norwegian coast and the Lofoten Islands, there appeared to me to be a more-or-less equal presence of Russian and Norwegian vessels in harbour.<sup>4</sup> A husky-drawn sled expedition up a (frozen) river took us within 8 miles of the Russian border which (the guide said) is porous; locals cross to purchase products that are cheaper on one side or the other. The map also reminds us that the distance across the Bering Straits in the North Pacific between Alaska and the north-east of Siberia is only about 55 miles, although they are separated timewise by the International Dateline and there is no transport link. Hence, America maintains a military presence in Alaska. During the Second World War, USA bases on the northern border of Canada ran DEW, a ‘distant early warning’ radio network system used “to plot accurately the approach of enemy aircraft over the top of the world”. (New York Times, 1955) That geopolitical tensions in the region are resurgent is suggested in the USA 2018 National Defense Strategy wherein both China and, in the Arctic context, Russia, are viewed as potential economic and security threats. (USA Dept. of Defense, 2018)

The global implications of regional developments in the Arctic can be brought into focus through the example of one area, Svalbard, the archipelago of islands located in the Greenland Sea north-west of the border between Russia and Norway that was one of the first Arctic regions noted in European histories. Svalbard is characterised by wildlife, including white foxes, Svalbard reindeer, polar bears, walruses, seals, whales, puffins, gulls and other bird life, fish including cod, as well as the white nights of summer and northern light displays in

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<sup>4</sup> The author travelled from Bergen to Kirkenes and back on a Hurtigruten voyage in February 2015. The aim was to see the coastal region and to experience the limited winter light conditions (although, as it happened, no memorable northern lights). Hurtigruten (‘the fast route’) was founded in 1893, transporting post, freight, and passengers. Although it no longer carries mail (which goes by air) it still transports parcels and larger items such as white goods to more remote coastal areas and islands off the west of Norway, as well as offering overnight car and passenger ferry services for Norwegians coastal travellers.

late winter. Only one island, Spitsbergen, is permanently populated. It has a relatively benign climate (by Arctic standards) benefitting from currents running on from the Gulf Stream.<sup>5</sup> It hosts the northernmost public airport in the world (with regular flights to Oslo and Tromsø).

[Figure 4. 'The Mine, Pyramiden, Russian ghost town', Tyrone Martinsson, September 2011. Original in colour. © Tyrone Martinsson]

Under the terms of the 1920 Svalbard Treaty, both Russia and Norway have equal rights to natural resources, although Norway holds sovereignty. As a coal region, one of the current debates in Spitsbergen relates to the future of Barentsburg, historically a Russian mining town. As is clear from Martinsson's early autumn document of this gaunt location, with its browns and greys, it is an industrial environment, not a pretty snowscape. (Fig. 4) Culturally and economically, Svalbard is now primarily associated with arts, humanities and scientific research, education, and tourism.<sup>6</sup> Cultural geographer, Sam Saville, notes the commercial benefits of a visitor economy, but suggests that this induces tensions, remarking that by 2016 this sector accounted for 40% of the working population of Spitsbergen, but that the social, lifestyle and environmental impact on community and place of too many short-term visitors has led to proposals to restrict numbers. In addition, tourism as a key business element can be unreliable. For instance, significant economic impact resulted from Covid-19 pandemic restrictions in 2020/21 when Svalbard was in lockdown. There have also been

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<sup>5</sup> The North Atlantic warm current (the gulf stream) runs northwards in the Norwegian Sea, parting round Svalbard; the west coast benefits from the warm, salty West Spitsbergen Current.

<sup>6</sup> Sam Saville, 'Change, Continuity and Value in Svalbard', online talk hosted by SPRI, Cambridge, 9<sup>th</sup> March 2021. She is a teaching associate with SPRI and the Department of Geography, University of Cambridge.

debates about the quality of tour operators and certification schemes. Tourism supports shops and restaurants, provides employment, supports cultural projects, and fosters environmental awareness, but, she suggested, inhabitants are wary of the impact on their local lifestyle and weary of numerous brief incursions of tour passengers when cruise ships dock in the harbour.

In recent years, Spitsbergen has attracted creative arts expeditions and residencies, with artists addressing environmental concerns as well as responding to place and atmosphere.<sup>7</sup> In addition, Svalbard is home to the Global Seed Vault, founded in 2008 in a former coal mine at 78° north. As a deposit facility for seed specimens worldwide, it operates as an oasis of international co-operation within the broader Arctic region so often associated with political tensions between northern nations. Despite the Vault's international status, it is apparently little known locally.<sup>8</sup>

## ***Place***

Many artists and writers have drawn attention to ways in which the Arctic of the imagination bears limited relation to the phenomenologically complex and fluid physical and cultural realities of the region. Cartographically, the latitude of the Arctic circle, at 66° 33' north, signifies one-third of the northern hemisphere (although the spherical shape of the Earth renders this proportion inaccurate). As an extensive land, ice, and water mass, it is not a uniform environment. It is characterised by vegetal variety, glaciological movement, and socio-economic changes. The region is not a 'pristine wilderness' in the sense of being somehow

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<sup>7</sup> For instance, Cape Farewell, based in London, has led 8 Arctic artist and writer expeditions since 2003. They 'use the notion of expedition - Arctic, island, urban and conceptual - to interrogate the scientific, social and economic realities that lead to climate disruption.' <https://capefarewell.com/>. More specifically, Artica Svalbard, an artist and writer's residency programme, is based on Spitsbergen. <http://articasvalbard.no/>.

<sup>8</sup> Heidi Morstang, artist-photographer, and Sam Saville, cultural geographer, pursuing separate research in Spitsbergen, both confirmed this.

unknown or untouched.<sup>9</sup> There is a human population of almost 400,000 residents from about 40 ethnic groups spread across Greenland, Canada, USA (Alaska), Russia, and the Nordic nations (Norway, Sweden, Finland). (Lincoln 2020: 11, 18) It is home to numerous mammals, birds (migratory and resident) and aquatic species along with mosses, spruce trees and some clusters of plant life in the lower reaches. The treeline (the area north of which trees do not grow) is approximately 4° north of the Arctic Circle; above this, the horizon is generally uninterrupted. It has long been a region of curiosity onto which human dreams and speculations are projected. Historically, it has attracted interest from near neighbours, including the Vikings whose travels were wide-ranging, and from further afield. Indeed, the Greek geographer, Pytheas, referenced the frozen island of 'Thule' when he travelled north from the Mediterranean. This suggests that the region has long been known about in Europe's Mediterranean south.<sup>10</sup>

Explorers also attempted to fly over the Arctic, at first, as already noted, by balloon and later, by aeroplane. Flights across the North Pole by plane date from 1926 (Richard Byrd); in 1955 American photographer and explorer, Louise Arner Boyd (1887-1972) became the first woman to fly over the North Pole. (Lydiat 2012) While their objectives may have been to view the Arctic from the air or to 'conquer' the Pole, the notion of Arctic wilderness as an unparalleled space was surely romanticized and reinforced in popular culture through what were greeted as heroic achievements.

## ***Histories***

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<sup>9</sup> The notion of 'pristine wilderness' is problematic; human activities have impacted all aspects of the planet. Nuwer (2016) suggests that nowadays most researchers deploy a notion of 'pristine' that references habitats without *obvious* signs of human activity.

<sup>10</sup> Kolbert (2007: 3) notes that in 300 B.C., Pytheas described Thule as 6 days sail from Britain, so it could have been Iceland, Greenland, or The Faroes, or, indeed, a fiction. Lopez (1986) titles his first chapter 'Artikós', after the Greek name for the region, 'the country of the bear'. He notes that Viking settlements dated from 900 A.D. and Indigenous peoples are known to have been present many millennia before then.



As American writer, Barry Lopez, reminded us (nearly 40 years ago) the region has a deep history in terms of geology, glaciology, population and migration, particularly non-human zoological phenomena.<sup>11</sup> In *Arctic Dreams* (1986) he poetically describes lands open to the elements, where winds may ‘torture’ the ice. There are two seasons: summer (limited darkness) and winter (limited daylight). Most birds migrate south in the winter. He notes that over the millennia, there have been significant climate shifts and survival tensions., commenting that historically animal species have survived at the expense of one another; as one becomes extinct others become dominant. Although not using the term ‘Anthropocene’, which had not yet been coined, like Rachel Carson before him (Carson 1962/2000), Lopez offered an early warning of contemporary environmental issues and associated political tensions that might emerge, proposing a need to consider the fluid and fragile Arctic ecology with attention and discrimination. He also suggests that,

The indigenous rhythm, or rhythms, of arctic life is important to discern for more than merely academic reasons. To understand why a region is different, to show an initial deference toward its mysteries, is to guard against a kind of provincialism that vitiates the imagination, that stifles the capacity to envision what is different (Lopez 1986: 176)

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<sup>11</sup> Lopez (1986) takes what is known – and unknown – of animal life in Palaeolithic eras as a thread within his opening ruminations and acknowledges how little is known of pre-human histories. Perhaps inevitably the historical references date primarily from European accounts of explorations dating from the late Medieval era, but he also draws upon Inuit myth and legend, and on inviting readers to imagine lands as sensed seasonally by migratory birds, fish, and animals.

Similarly, in *The Idea of North*, Peter Davidson suggests that for Scandinavians, “north – or further north, Arctic north – represents a place of extremes that is also a place of wonders, of the ‘fox fires’, the aurora in the winter sky, the habitations of the Sami, of legendary magicians and heroes”. (Davidson 2005: 9) Different myths and fears obtain, reflecting regional differences and distinctions between indigenous groups, as well as between the far north and those for whom notions of ‘northernness’ draw on perspectives from further south.

### *Archives*

History is accumulative; the meaning and significance of archives, including photographic collections, shifts in relation to contemporary contexts and ways of thinking. Visual representation from previous eras continues to have some influence on contemporary attitudes, for instance, on perceptions of indigenous peoples, their knowledge, practices, human and political rights. Yet, particularly in relation to tourism, photographs may still suggest a timeless Arctic sublime that is illusory yet risks distracting from contemporary environmental issues.

[Figure 5. ‘Arctic Highlanders’, George White, Greenland, n.d. © Scott  
Polar Research Institute, University of Cambridge ]

It goes without saying that historically Arctic paintings, drawings, and photographs have been *of* people, place, and phenomena, not *by* indigenous Arctic dwellers. European archives inevitably reflect outsider perceptions, contributing to ‘othering’ or ‘making strange’ those for whom this is the homeland.

[Figure 6. 'A view across a bay towards the Franklin search ships under Captain Belcher's command', Photographer Unconfirmed, c. Summer 1852. Precise date and location unknown. Unwaxed calotype negative. © National Maritime Museum, Greenwich, London ]

Photography, announced in 1839 (by Fox Talbot in Britain and Daguerre in France), soon became implicated in imagining the Arctic. Wamsley and Barr (1998) note that the 1845 Franklin expedition was equipped with a daguerreotype kit, although no images from the expedition were found. We do have pictures from later sailings, for example, on 20<sup>th</sup> April 1852, *The Times* notes that a Calotype (paper negative) apparatus had been ordered for use by Dr William Domville who was due to sail on the *Resolute*, one of the four ships in the Franklin search expedition of 1852. (Fig. 6) The picture documents ice floes near the ships and light snow in the rock gullies. Slight blurring in the foreground suggests a longish exposure from a point of view that must have been tricky to access since the photographer will have had to walk across rocks or row across the water with tripod, camera, and possibly also processing equipment.

[Figure 7. 'Items found in the boat', John Powles Cheyne, 1861, from British Franklin Search Expedition, 1857-59. © Scott Polar Research Institute, Cambridge]

Earlier British Franklin Search Expeditions pre-dated the invention of 'dry-plate' processes that later facilitated exploration photography.<sup>12</sup> During the

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<sup>12</sup> Dry plates, silver-bromide coated glass that did not require processing immediately after exposure, date from 1864, and became commercially available in Britain in 1867. (Newhall 1988: 123)

1857-59 expedition, objects collected from a stranded boat were returned to UK and photographed as stereographs in 1861. (Fig. 7) Stereographs were made specifically for the popular pastime of viewing images through stereo viewers that constructed an illusion of 3-dimensionality thereby heightening pleasures of the imagination.<sup>13</sup>

[Figure 8. 'The sea of ancient ice', Photographer Unknown, 1876, glass lantern slide. Hand coloured. From British Arctic Expedition, 1875-76. © Scott Polar Research Institute, Cambridge]

UK collections include glass slides, some hand-coloured, from the 1875-76 British Arctic Expedition to Greenland; also slides of Greenlander Inuit people dated late 1880s.<sup>14</sup> (Fig. 8) In this example the colouring aims at authenticity; the blue of the sky lightly reflects on the glacier. Inuit artifacts were also collected, becoming abstracted from the Arctic contexts that lent them significance. That lantern slides and stereographs were made suggests that photography was used within presentations intended to generate interest in and (financial) support for expeditions as well as for popular entertainment. The indexicality of photography surely contributed to stimulating cultural curiosity as well as the economic speculations that provoked investment.

Of course, photographic imagery did not operate in isolation. In *Imagining the Arctic*, Huw Lewis-Jones (2017) notes that during the nineteenth century in Britain, stories of Arctic 'heroism' became common in the press, vaudeville and

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<sup>13</sup> Two identical photographs viewed through a binocular instrument induce an appearance of 3-dimensionality as each eye perceives the image content from a slightly different angle. In landscape imagery this was often used to emphasise the picturesque (see Wells 2011: 88-92).

<sup>14</sup> Key collections: The Royal Maritime Museum, Greenwich, London, and the Scott Polar Research Institute (SPRI), Cambridge. Similar examples can be found in maritime and polar museums internationally.

travelling slide shows. Cartoons, performances, paintings, sketches, and written accounts, along with photographs, contributed to constructing geographies of the imagination that have become associated with this polar region, generally romanticised as a land of glaciers, polar bears, and northern lights, and, of course, expeditionary ‘heroes’, contributing to constructing a legacy of stereotypes that, I would suggest, are still to some extent in circulation today.

### ***Sublime***

In eighteenth century aesthetic philosophy, ‘sublime’ related to unknowability, incomprehensibility, fascination, and the frissons of fear and enticement rendered manageable through being held at a distance through visual poetics (or writing, or other modes of representation). These are encounters that are not threatening because they are happening in the imagination, not in actuality, more specifically, not to us as viewers; we are not in an actual physical space of threat or incomprehensibility.

Given the relative inaccessibility of the Arctic region for visiting contemporary photographers, a sense of sublimity may also reflect a return to the heroic. For instance, in 2003/4 Thomas Joshua Cooper journeyed to the North-Most point of Norway (70° 11' 080" N) to photograph out over the Barents Sea. He describes his journey there as the longest walk of his career. In his solo Atlantic circuit exhibition, *The World's Edge*, it is stated that “Carrying equipment, which consists of his large wooden camera and its tripod, all of which weighs sixteen kilograms, he had to walk for thirty-six hours to get to this location, the north-most point of mainland Europe”, and that “Cooper does not have an entourage for such expeditions, relying solely on a small group of guides, sea captains and pilots to get him to the exact geographical point”. (Cooper,

2021/22) That it has become legendary that Cooper made only one exposure at each point around the circumference of the Atlantic Ocean, north to south, east to west, adds to a sense of heroism.<sup>15</sup> As a result, the project emphasises human endeavour and awe at sublime seascapes rather than, for instance, ecocritical engagement.

In promoting winter cruises up the Norwegian coast, the Norwegian company, Hurtigruten, similarly foregrounds sublime environmental phenomena such as the northern lights that, if skies are clear, can be perceived with the human eye as well as captured on camera.<sup>16</sup> From the point of view of Arctic communities, including Svalbard, northern lights contribute to anchoring a winter visitor economy, as do the ‘white nights’ of summer when the tilt of the earth is such that the sun never fully disappears. Hurtigruten offer a late Spring voyage, ‘Island hopping in or around the Arctic’ that includes the Faroe Isles, the north of Iceland, and Spitsbergen (Svalbard). Sailing north includes an “attempt” to land at Jan Mayen, “the world’s northernmost active volcano”, and Spitsbergen is promoted as a “rugged, untouched wilderness” where “we’ll attempt several exciting landings in different parts of the archipelago” and we can look out for “the ‘Lord of the Arctic,’ the regal polar bear”. The rhetoric is echoed visually on their website, including, for example, a tourist photographing the expansive landscape with glaciers in the distance, or an open boat trip whereby you can experience “Beautiful Arctic landscapes, birds, walrus and the great white glacier fronts”. (Hurtigruten, 2021) That the glaciers are melting, that cruise boats risk impacting the fragile ecology of the region, and that the Svalbard archipelago

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<sup>15</sup> 35 photographs were included at the Scottish National Portrait Gallery, Edinburgh; 65 in Los Angeles at Los Angeles Contemporary Museum of Art in 2019/20.

<sup>16</sup> Transitory colour movements in the sky emanate from agitated oxygen or nitrogen atoms; oxygen manifests as greens generally 50 – 150km above the surface of the earth, and nitrogen contribute rosy-pink rays at 150km-500km. Information courtesy Dr John Mason, Applied Physicist, former President of the British Astronomical Society, and a regular Hurtigruten Northern Lights expedition leader. (Mason, 2021)

represents a ‘front’ between Western Europe and Russia is not mentioned. That noted, Hurtigruten *do* commit to sourcing food locally, thereby fostering employment, they still operate as a local ferry and parcel/freight (essential) service and their website policy statement references UN sustainability goals. They are introducing hybrid fuel ships, have removed single use plastics, and state that they aim to educate guests on ecosystems, different cultures and climate change.<sup>17</sup> So tourism is something of a ‘Catch 22’; there are positive benefits economically, although, as noted, employment tends to be seasonal. But there are also negative impacts on local community cohesion and demands on local resources, along with the ecological impact of large ships in a fragile marine and island environment.

### ***Challenge***

Today, Arctic Peoples face real challenges as a result of global climate change. Their communities are vulnerable to warming and unpredictable weather and their lives are being impacted. But these communities have also become advocates to help themselves and make the world aware of the effects of global climate change. They are doing this by applying the same strategies that were used in the distant past to address climate changes over millennia and the more recent past to confront the rapid social change associated with colonialism, so that, amidst this vulnerability, they can continue to live life on their own terms; on the ice, in the cold, with the weather. We can all learn from their strategies and tools. (Lincoln, 2020:223)

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<sup>17</sup> “With the UN Sustainable Development Goals as a framework, we focus on innovation, technology and concrete measures to explore as responsibly as possible.” They produce an annual sustainability report and have a gender equality policy. See [https://www.hurtigruten.co.uk/about-us/csr/?\\_hrgb=3](https://www.hurtigruten.co.uk/about-us/csr/?_hrgb=3)

*Arctic Culture and Climate*, a comprehensive exhibition and publication on Arctic art, culture, and communities, historically and now, opened at the British Museum in 2020. The aim was to ‘people the Arctic’ and to draw attention to the implications of climate change for Arctic cultures and resilience.<sup>18</sup> It included several works by contemporary Arctic artists alongside objects from museum collections around the Arctic perimeter. Two Alaskan native photographers, Brian Adams and Kiliiii Yuyan were included, thereby acknowledging photo-stories authored by those who live there and reflecting their intimate cultural familiarity. Adam’s colour documentary series *I am Innu* (2015/16) and *Disappearing Villages* (2007) depict everyday hunting culture: duck shooting, fishing, cutting and drying whale skin and blubber, seal meat, and salmon for storage. Yuyan’s muted landscape photograph, ‘Wildflowers and grasses grow along fjord edges that descend into Ilulissat’s ice fjord, where the Greenland ice sheet calves off icebergs into the Atlantic’ (2018) reminds us that ice movement is familiar within the region. The exhibition catalogue’s front cover features Yuyan’s ‘Umiaq and North Wind during Spring Whaling’. (Fig. 9) Clear blue seas water and floating clusters of ice are viewed over the creams and browns of the prow of a traditionally crafted, skin-waterproofed wooden kayak, harmoniously central to the picture, set as if ready to embark, at one with its surroundings.

[Figure 9. ‘Umiaq and North Wind during Spring Whaling’, Kiliiii Yuyan from *People of the Whale*, 2018. Original in colour. © Kiliiii Yuyan]

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<sup>18</sup> Amber Lincoln, online discussion hosted by The Photographer’s Gallery, London, 17<sup>th</sup> March 2021.



High above the Arctic Circle on sea ice a mile from shore, an Iñupiaq whaling crew watches from the sea ice for a passing bowhead whale at 2am. The Iñupiat have hunted whales here for millennia, often waiting for fickle sea ice conditions in an era of changing climate. The unpredictability of this coastal Arctic environment means that the Iñupiaq are the carriers of a vast ecological knowledge.

These photographers are among many Arctic artists exploring contemporary experience of place and identity. For example, in *Modern Nomads*, Sami Finnish photographer, Marja Helander, who is based in Helsinki, addresses transcultural experience. One image depicts a woman in Sami traditional clothing in a supermarket; in another a woman slips in a snowy northern landscape wearing light shoes, a white office suit and a red Sami hat. Greenlandic artist, Inuuteq Storch, notes conflicted feelings relating to growing up in an isolated place, one where closeness to nature is never questioned, hence, perhaps, his title *At Home We Belong*, 2019. *Old Films of the New Tale* (6 short videos) includes an introductory note:

My home country is rich in traditional live (sic) as hunting, being close to the nature and using everything around you as a tool as in having sleddogs. At the same time, we live a very normal life compared to the rest of the world with tv, modern clothing and a very normal consumer kind of lifestyle (Storch [www.inuuteqstorch.com](http://www.inuuteqstorch.com)).

That the films are available internationally on vimeo (video channel) points to the complex inter-relation of local and global. On the one hand, this contributes information and stimulates curiosity about the region. On the other

hand, it may operate as a contemporary version of the exoticism associated with early photography; at minimum we wonder what may have been lost in (cultural) translation.

Contemporary indigenous artists increasingly have a voice, offering opportunities for portraits and storytelling that reflect regional cultures and identity. Many non-Arctic photographers likewise aim to extend or challenge ways in which Euro-American-centric attitudes persist in visual culture. They may also question the human-centricity of the Anthro(s)cene.<sup>19</sup> Attention may be drawn to planetary ecologies and the inter-dependence of biological phenomena: botanical, animal (human and non-human), environmental.

### ***Imagination***

[Figure 10. 'Icy Prospects, 40', 2008, from the series, *Icy Prospects*.

Original in colour. (Exhibition print, 160 x 198 cm). © Tyrone Martinsson]

Light and space in the Arctic have also been a focus for many visiting artists and writers. Finnish photographer, Jorma Puranen, has a long-standing interest in Lapland, the area of the Arctic that encompasses the north of Norway, Sweden and Finland and the North-West of Russia. Given many years working with Sami people, ecologies of light, season, place, weather, and climate are integral to his ways of thinking. As I have noted elsewhere, Puranen explores the contribution of art within the geographic imagination, critiques historical anthropology, references colonialism and power relations, draws attention to the marginalisation

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<sup>19</sup> 'Anthropocene', first coined in the 1980s, and acknowledged widely since 2000, references the current geological era of significant, lasting, and adverse human impact on the Earth's systems, environment, processes, and biodiversity.

of indigenous peoples, offers Sami people opportunities to articulate their own history through engaging with ancestral experiences, and considers uses of oral and written language within this. (Wells, 2007; 2011) In terms of aesthetics, he is interested in how light affects us and also in ways in which light has been used expressively within Western art. Typically, earlier series were constructed from re-photographing archive photographs, glass negatives or paintings, sometimes incorporating shadows or reflections that contribute to obscuring the original images, symbolically reminding us of the instability of historical information and the limits of perception.<sup>20</sup> Indeed, photographs are mute; they may convey vision and texture, but do not convey the sounds, smells and tastes that may characterise phenomena.

One imagines always Spitsbergen as a barren and silent frozen world, but that is thoroughly wrong – nothing can be compared with the noise at spring thawing up here. Waves hitting the ice blocks and rocks, glaciers calves with deafening crashes, the mountains crack, ice floes are pressed against each other and trigger sounds like musket volleys, the wind howls and swirls the snow (Léonie D'Aunet, 1854, in Martinsson, 2015a: 111)

In making photographs, Puranen emphasises taking time to experience and reflect on space, sounds and smells, that which cannot be perceived visually but that he nonetheless hopes to convey metaphorically through aesthetic subtleties,

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<sup>20</sup> His project, *Imaginary Homecoming* (1991-97), secured international recognition. He took images of Sami people, made during a French Arctic expedition in 1884 and held in the archives of the *Musée de l'Homme*, Paris, and symbolically 'took them home' through reprinting large-scale on plexi-glass then re-photographing them installed as close as could be determined to their original homeland, in many cases, Finnmark in the north of Norway.

particularly the swathes of blues, creams and deep greys that operate to suggest atmosphere and textures. His extensive series, *Icy Prospects* (2005 – ongoing), articulates his threefold interest in: Arctic geographies and mythologised notions of ‘North’; histories as recounted – or omitted – in archives; the qualities of light and its affects. Several images echo the Claude mirror principle.<sup>21</sup> He photographs reflections on surfaces thereby slightly blurring definition and drawing attention more to the atmosphere of place than to precision of reproduction, to imagination rather than the iconic. Habitation is indicated impressionistically through, for instance, slightly distorted powerlines and telegraph poles. For him, “in *Icy Prospects* the sublime is understood as the extreme and highest yet ambivalent form of human experience, related to an appealing transcendental feeling of beauty”; but unnervingly he also returns us to the sublime, noting “the feeling of danger” and “echoes of ancient expeditions in the Arctic seas”. (Puranen 2006: 9-11) That the publication included some images from earlier series, including *Travellers on Canvas*, 2002, reminds us of his career-long familiarity and engagement with the complexities of Lapland. (See front cover of this publication.) The more we time we spend with his exhibition prints, the more destabilising they become.<sup>22</sup>

## ***Investigation***

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<sup>21</sup> Named after Claude Lorrain, the seventeenth century French landscape painter, the Claude glass, a small mirror was used to view scenes as reflections. Tinted glass enhanced the tonal qualities of vistas, contributing to ‘picturesqueness’.

<sup>22</sup> Exhibition prints are large (up to 2 metres wide), filling viewers’ visual field.

[Figure 11. 'Gullybreen, south coast of Magdalenefjorden', Tyrone Martinsson, Carl Müller & Son, c.1926-1930/Tyrone Martinsson, 2016. © Tyrone Martinsson]

Research methods and aesthetic resolution of images crucially contribute to the import and affects of photographic enquiries. Repeat photography, as used by Tyrone Martinsson to explore glacier melt in the Svalbard region, derives impact from the indexical characteristics of photographs. (Martinsson 2015b: 11).

Archive photographs offer evidence of how phenomena once appeared. One of the principles of rephotography is that later pictures are made from the same position as an earlier one to lend accuracy of reproduction of a specific view. This includes replicating the angle of vision, focal distance, and framing.

Martinsson's focus is on visual representation of the Lapland region of Norway and Sweden, including investigating photography archives as well as researching through his own photography. For instance, he sought out pictures of the hanging glacier at Magdalenefjorden in the north-west of Spitsbergen that date from a voyage by British Arctic explorer, Benjamin Lee Smith in 1873, along with later photographs from 1896 made by Swedish explorer, Nils Strindberg, and a lithograph dated 1865 by Axel Goës, based on a photograph from 1861. The images enabled him to revisit and rephotograph the precise location. As we see, in 2011, the hanging glacier had gone, and the walls of ice evident on the south side of this fjord in northwest Svalbard had all but disappeared.

His approach is documentary; it is literal information rather than metaphoric implications that is core to his findings. Like Puranen, his investigations start from the archives, and focus on the north, but his motivation is

environmentalist; his purpose is to demonstrate change, particularly, the ice melt. Unlike Puranen, his expeditions are undertaken in small teams, primarily because he values a multi-disciplinary approach but also for security; research camps in remote fjord areas must be defended (from bears and other wildlife). Typically, he works with a glaciologist and a digital data expert to maximise comprehension of the implications of glaciological shifts and ensure systematic archiving of visual and geo-locational information.

The aim is to investigate change. In the process he documents an area that few people experience in person. The visual style is literal, no startling light effects. Rather, his eye of detail and his subtle colour prints suggest a varying landscape within which birds and bears are at home, but humans are visitors. When he pictures a person, or a boat, they appear small and isolated given the scale of their surroundings. He does, however, note markers and legacies of human presence; for instance, the cross at Albertøya, apparently placed by visitors from Bremen in 1869, where expeditioners from Nils Strindberg (1896) to Rebecca Solnit (2011) have posed for photographs and to survey or photograph the panoramic landscape of Smeerenburgfjorden. (Martinsson, 2015a: 115) His pictures are exhibited or published alongside the earlier drawings or photographs or presented as digital amalgamations within panoramas demonstrating ‘then’ and ‘now’. The evidence supports glaciological research and, through exhibition and publication, is intended to influence public attitudes. Through returning to re-photograph the same glacier as it recedes over the years, his photographs also testify to the speed with which glacier ice is receding. As he remarks,

Climate scientists and academics, as well as writers on nature and environmentalism keep reminding us that Man has interfered with the

Earth ... In Svalbard the coastlines are literally layered with cultural remains. Its shorelines of cultural heritage are a reminder of our efforts and unique abilities to conquer every corner of the world (Martinsson, 2015b: 13).

This returns us to the fact that ice melt also represents economic opportunities, in effect, a contemporary variation of the search for northern trade routes and mineral resources that can be monetised. Trade, territorial and military tensions inevitably ensue.

### ***Hope***

Perhaps paradoxically, in Svalbard, there also exists an oasis of co-operation, namely, the Global Seed Vault, 78° north at Longyearbyen. Plant diversity is in rapid decline globally. Several species are facing extinction through human-made disasters such as war and the drought or flooding associated with extreme climate change. Numerous countries collect and store food crop seeds, in effect, future-proofing nature.<sup>23</sup> There are over 1400 seed banks located in countries that could experience natural disasters or wars; these vary in scale and purpose; some are primarily concerned with national food security and others operate as scientific research centres, often in partnership with universities or research foundations. The Global Seed Vault, which opened in 2008 and is overseen by the Norwegian Government, is owned by The Crop Trust, based in Bonn, Germany, and is dedicated to ensuring crop diversity. The Vault was constructed deep inside a former mountain coal mine in the permafrost where the ground is continuously

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<sup>23</sup> The category 'seed' encompasses a huge range of germinating phenomena, from tiny seeds imperceptible to the human eye, or little seeds such as sesame or watercress familiar to us as food, to Maldivian Coconut seeds (that weigh about 40 pounds/19 kilos).

frozen. It opens for seed acquisitions a couple of times a year. Deposits duplicate those held in national seed banks. As the largest secure seed storage facility in the world, it acts as a back-up against crises such as the consequences of war for agricultural production, risk of extinction through drought, or contamination leading to seed blight. It operates in line with the aims of the United Nations Global Treaty for Food Security and Sustainable Agriculture that include a mandate to:

Cooperate to promote the development of an efficient and sustainable system of ex situ conservation, giving due attention to the need for adequate documentation, characterization, regeneration and evaluation, and promote the development and transfer of appropriate technologies for this purpose with a view to improving the sustainable use of plant genetic resources for food and agriculture (United Nations 2009)

In effect, it is an international botanical collection, seeds frozen, but available for re-animation. In 2015 Syria was the first nation to recall seeds, as the Syrian seed bank was inaccessible due to war in Aleppo. In 2017, having successfully re-established crops, the International Center for Agricultural Research in the Dry Areas (ICARDA) returned seed samples to the Svalbard Vault. (Nordgen) But as Martinsson's research on glacier recession indicates, Svalbard itself is under threat. (Indeed, melt water flooded the entrance to the Seed Vault in 2017, although no deposits were damaged).



## ***Atmosphere***

Many artists interested in environmental issues have sought access to the region or specifically to the Vault. UK-based Norwegian artist, Heidi Morstang, is interested in visual interpretations of nature. She uses still and moving imagery to explore phenomena, aiming to render complex information in a form that is distinctive, memorable, emotionally charged, and poetically elliptical. For Morstang, that a global agricultural seed reserve was founded symbolises hope for the future. Her series, *The Road North* (2013), consists of still images of the runway from which crates arriving by air are moved to the Vault. Shot within a half-hour, they capture remarkable shifts in visibility and the colours of light reflected on the ice, thereby suggesting fragility, transience, and mutability. In *Prosperous Mountain* (2013), she surveys the snowy mountains of this former coal mining environment and tracks the arrival of a plane that appears alien as it descends through the mist interrupting the calm of the Arctic landscape. She highlights the fluidity of this landscape near Spitsbergen characterised by disused coal mines, temporary runways, the functional architecture of the Vault entrance, lights in the nearby town, snow, slush, and water. We witness deliveries to the Vault; the presence of a truck, workers and camera crews seems intrusive in this vulnerable environment.

[Figure 12, 'Ringhorndalen', Heidi Morstang, Svalbard, Norway, 2019. (Seed sections, on matte heavyweight Hahnemuhle paper, each 12cm x 8cm, 29.5cm x 21cm mounted and framed.) © Heidi Morstang]

[three images labelled left, centre, right]

When filming she learnt that the only flower seeds in the Vault are local, from flora that grow in a secluded valley there, remarkably far north for plants. A terrestrial biologist at The University Centre in Svalbard offered her samples of these Arctic seeds. Morstang later cut the seeds in half then, using an electron microscope for magnification, created a series of extraordinarily evocative inner seed landscapes, with detail imperceptible to the human eye. A sense of fragility is reinforced as the prints are on finely textured paper and seemingly ‘float’ within plain light wood frames. Overall, her investigations remind us that distinctive ecologies characterise places; also, that the Arctic above the treeline is not the unmitigated blank white canvas of popular imagination.

### ***Evidence***

Figs 13 and 14 should be shown as a pair.

[Figure 13. ‘Entry Tunnel, Svalbard Global Seed Vault’, Dornith Doherty  
Spitsbergen Island, Norway, 2010, from *Archiving Eden*, 2017. Original in colour.

© Dornith Doherty]

[Figure 14. ‘Seed Accessions, Svalbard Global Seed Vault’, Dornith  
Doherty, Spitsbergen Island, Norway, 2010, from *Archiving Eden*, 2017. Original  
in colour. © Dornith Doherty]

Research into seedbanks world-wide, primarily herbaria and botanic laboratories in places as far apart as St Petersburg, Brasilia and Perth, West Australia, took Texas-based artist-academic, Dornith Doherty, to the Vault in

Svalbard in 2010. Her exhibitions and publication, *Archiving Eden* (2008-2017), reminds us of the global inter-connectedness of environmental developments, botanical research, and biosecurity. The Svalbard landscape forms the opening set of photographs in the book, including colour photographs from within the Seed Vault. (Figs.13; 14). Vistas encompass sea, a flat glacier, a small plane, cars, telegraph poles and a cluster of buildings including the smooth metallic tunnel entrance. Technological features are particularly highlighted; she documents place and function as manifest in the seed vault surroundings. She notes, “Stepping into a seed vault takes my breath away. Bitterly cold and filled with the sound of forced air rushing through the shelves, I am surrounded by seeds resting in a state of suspended animation, presented for a distant and unknowable future”. (Doherty 2017: 29). The juxtaposition of orderly rows of catalogued seed boxes and the rough surface of the face of the hewn-out vault points to a further tension between the geological rock-scape, formed over millennia, and contemporary human accession and storage cataloguing based on geographic and taxonomic logics. In the publication, these images are followed by documentary photographs from research laboratories worldwide, along with more experimental modes of seed portrait. For instance, X-Rays of seeds, made in collaboration with laboratory technicians, are collaged into grids that suggest surprising character variations within the species. Her approach is less emotive, but, as with Morstang’s work, there is a focus on ecological diversity yet inter-connectedness that operates to remind us of the risks that human activities pose. In common with many environmental photographers, in exploring Svalbard, Doherty, Morstang and Martinsson emphasise the value of interdisciplinary exchange and collaboration.

### ***Contemporary Horizons***

Environmental research is now extensively focussed on the consequences of global warming, manifest in the north particularly through glacier melt to which changes in the movement of warm sea currents are contributing. For environmental photographers, the challenge is to find ways of communicating risks and fostering environmental awareness, and to do so ethically. This is not necessarily straightforward. For example, in 2015, Danish artist, Olafur Eliasson, collaborated with geologist, Minik Rosing, to install *Ice Watch*, which consists of 12 ice blocks from Greenland, in Place du Panthéon, Paris, to coincide with COP21.<sup>24</sup> The appearance of the ice blocks, organised in clock formation, was dramatic, effective in drawing attention to glacier recession; the installation melted over several weeks. Newsworthy though the installation may have been, it also raised questions of environmentalist ethics. The amount of ice involved was minimal relative to the scale of the north, but such a gesture of dislocation is not only an intervention but also an appropriation. Did the end justify the means? This question is core to the ethics of environmental activism. For Eliasson we assume that it did.

From tourist marketing to military strategy, fossil fuel and mineral resource exploitation to extreme climate change manifest in glacier melt, photographs variously contribute to documenting environmental phenomena and change, from reinforcing stereotypes of empty expansive landscapes to tracking military manoeuvres, questioning the implications of global warming, or investigating human culture and lifestyles. Pictures can reveal or indicate aspects

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<sup>24</sup> COP21, 2015: The 21st Conference of world leaders party to the 1992 United Nations Framework Convention on Climate Change (UNFCCC). The aim is to negotiate reduced levels of greenhouse gas emissions to limit global warming. *Ice Watch* was first installed in Copenhagen in 2014, and later in London in 2018.

of the socio-political tensions associated with the Arctic region historically and now. The historical involvement of photography – ‘writing with light’ – is not at all surprising. The clarity of air; mists or fog; winter darkness and the white nights of summer; and dramatic shifts in light and in ways in which sunlight reflects on ice in the region, are picturesque as well as phenomenologically integral to the experience of living there or visiting. But the region is considerably more complex than is sometimes suggested. Visual art offers a means of investigation, of thinking through practice (photographic or otherwise), through imagery that, in suggesting complexities and emotional responses, serve to complement and extend the impact of more empirical models of research and exploration and contribute to rendering a sense of urgency to ecological and political issues.

In terms of environmental issues, arguably artists have an ethical responsibility to engage within contemporary environmentalist debates. One of the paradoxes of environmental investigation is that it involves incursion into regions where ecologies may be fragile. Yet visual ideas, images and evidence offer a necessary contribution to debates through contributing to re-envisioning our future, to influencing our dreams and desires, and through countermanding limited, or ill-informed perspectives on place. Photographs cannot detail more abstract ways whereby economic priorities trump ecological balance and environmental sustainability, but, whilst it is never possible to determine the impact of artistic research, highlighting issues and offering evidence contributes to re-inflecting social attitudes to places, in this instance, the Arctic imaginary.

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## **Janna Frenzel. Data Rush: How ‘Green’ Computing is Opening Up a New Frontier in Arctic Norway**

Bálák/Ballangen<sup>1</sup> is a small town in northern Norway located 225km above the Arctic circle. Once economically dependent on copper mining and fishing, this remote community was slated to host a different kind of economic operation in the near future: an industrial-scale data centre powered with electricity from nearby hydropower plants, proclaimed as one of the largest in the world so far. The proposed data centre “Kolos”, purchased in 2018 by Canadian cryptocurrency corporation Hive Blockchain Technologies Ltd., exemplifies a larger trend in the geopolitical reassessment and infrastructure development in the North. Alongside a resurgence of competition over natural resources and transportation routes newly accessible due to melting ice and permafrost, the information and communication technologies industry hopes to harness the region’s natural cooling and renewable energy production to shift to more sustainable computing practices. Tech giants like Google and Facebook have opened up new data centres in the region in recent years (Harding 2015; Judge 2019). As part of an overarching economic strategy, the Norwegian government is providing significant financial incentives to the data centre industry, particularly in the form of tax breaks on energy consumption (Nærings- og fiskeridepartementet 2018). From its inception, corporate marketing for the Kolos project stressed its uniqueness not only due to its operational capacity and the fact of being 100% renewable powered, but also for its design. Renderings produced by architecture firm HDR envision a building rooted in the surrounding landscape, its functionality intertwined with the climatic elements necessary for efficient

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<sup>1</sup> Bálák (Northern Sámi) or Ballangen (Norwegian) is located in Sápmi, the traditional lands of the Sámi people that stretches across northern Norway, Sweden, Finland, and Russia’s Kola peninsula.

operation, nestling into the fjord as if it were an organic component of the local ecosystem.

This chapter takes the Kolos data centre as an example to address three different dimensions of what I call a ‘data rush’ in northern Scandinavia. First, I investigate whether data-driven economic operations in general and cryptocurrency ‘mining’ in particular can be understood as a new form of extraction, an analytical category previously reserved for the literal mining of natural resources. What makes cryptocurrency mining different from or similar to the mining of raw materials, and in how far can it be understood as bound up in longer histories of extractive colonial frontiers? Second, I analyze how the infrastructural politics of place-making played out in the case of Kolos in reference to the Norwegian state’s overarching data centre strategy. How was Kolos anchored in its designated location, and which infrastructural conditions had been put in place for its smooth functioning? Third and last, I explore what the aesthetics of the Kolos data centre can tell us about the imaginaries that this new infrastructure inhabits through a visual analysis of corporate promotional materials. What promises and desires about the future are embodied by this large-scale infrastructure project? How do these imaginaries reinforce or transform representations of the North?

## **Part I. The Materiality of the Virtual**

Extraction has been identified as one of the key systemic logics and modes of operation that characterizes the history of colonialism and modernity and continues to shape contemporary global capitalism (cf. Gómez-Barris 2017; Mezzadra and Neilson 2019; Szeman 2017a; Yusoff 2018). Extractivism – as both economic logic, material practice and epistemology – transforms raw materials,

bodies, minds and lifeforms into resources to create and capture surplus value and thereby accumulate capital. In an overview of the literature on extraction, Imre Szeman identifies four conceptual axes of extraction: first, extraction as a practice in the literal sense (the wrestling of materials from the Earth in order to transform them into physical inputs for commodity production); second, an expanded understanding of extraction that includes all processes that create value, e.g. mechanisms of financial extraction, speculation and data ‘mining’; third, extractivism as a generalizable principle of capitalism in the 21st century; and fourth, extractivism as a specific exploitative relation to the environment (2017: 443ff.). As the differentiation between Szeman’s first and second axes signals, there is ongoing debate about whether the term extraction adequately captures so-called immaterial or virtual processes in the digital economy, or if it should be limited to the mining of natural resources. Besides applying the category of extraction to data processing in commerce and finance, proponents of a more expansive understanding of extraction have employed it to analyze past and present colonial practices that exploit Native and Afro-descendant knowledges, cultural practices and spirituality as well as practices that extract data for both commercial and surveillance purposes. Macarena Gómez-Barris binds these different understandings together in what she calls the “extractive view”. This term describes an epistemic viewpoint that “facilitates the reorganization of territories, populations, and plant and animal life into extractible data and natural resources for material and immaterial accumulation” (2017: 5) that ultimately “reduce[s] life to capitalist resource conversion” (ibid: xvi). Colonial and capitalist ideology that posits such human and nonhuman resources as “there for the taking” and passively awaiting extraction, conceals the fact that the process of rendering something extractible implicates specific acts of symbolic, physical, and

representational violence (ibid: 5). Extraction is thus intimately connected to ideologically separating nature from society and human from non-human, a process that has enabled the colonial dispossession of lands and the extraction of energy from racialized bodies through enslavement and forced labour (cf. Yusoff 2018; Moore 2015).

The question whether or not the term of extraction applies to processes in the digital economy seems to hinge on the following concerns. Is value creation through data something qualitatively new or an old economic logic executed by different means? Is value creation through data really ‘immaterial’ or ‘virtual’? Where does labour sit in the digital economy? In the following section, I look at cryptocurrency ‘mining’ as a specific case of data-based value creation that is made possible by computing power and ask whether the descriptor ‘mining’ holds any insights about continuities and disruptions in extractive practices beyond its metaphorical function.

### **The continuities of Potosí**

Since the creation of Bitcoin in 2008, cryptocurrencies have been established as an alternative monetary system to the fiat currencies that are issued by states and transferred by banks. Bitcoin, the first cryptocurrency, continues to be the most widely circulated one. As Lana Swartz has pointed out, the origins of cryptocurrencies can be traced back to the cypherpunk and crypto-anarchist subcultures of the 1990s, with Bitcoin entering the stage at a time of financial crisis when levels of distrust in institutions and predominant models of finance were at an all-time high (Swartz 2018). Bitcoin is modelled on the scarcity and labour-intensive process of mining gold: the number of value units (or ‘coins’) that can be created has been pre-determined at around 21 million (Zimmer 2017:

313f.). The creation and spending of new Bitcoins is based on a so-called proof-of-work mechanism built on blockchain technology. Blockchains can be understood as distributed digital ledgers, a form of verification system that replaces authorities like central banks (Rothstein 2014). The proof-of-work is generated by networked computers, with every operation registered and encoded in order to prevent double transactions (Calvão 2019: 124f.). These processes require a large amount of computing power, which is why Bitcoin consumes the largest amount of energy out of all existing cryptocurrencies, currently at an annual rate higher than the entire country of Norway (“Cambridge Bitcoin Electricity Consumption Index” n.d.; “How Green Is Your Currency?” n.d.)<sup>2</sup>.

Various analyses of Bitcoin from a humanities perspective offer accounts of why the term ‘mining’ in reference to cryptocurrencies is not merely metaphorical. Filipe Calvão points to how the valorization of synthetic gemstones and increasingly automated mining technologies are currently blurring the line between machine-led and human-led mining (2019: 124). But the parallels extend much further in colonial history, where the extraction and exploitation of both metals and human bodies were central to the establishment of global empires. While its physical characteristics are concealed through a “cultural imagination of dematerialization” (Starosielski 2015: 6) which prevails around digital communication in general, virtual ‘mining’ is fundamentally material. According to Zac Zimmer, the underlying structure of both literal and digital mining is driven by a mindset of “pure externality” that obscures the impact of mining “behind the glow of the pure universal exchange value form” (2017: 314). Zimmer compares Bitcoin to the colonial production regime of Spanish silver, the first global metal

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<sup>2</sup> As of May 2022, Bitcoin ranks 24<sup>th</sup> at 153.67 TWh/year (for comparison, Malaysia ranks 25<sup>th</sup> at 150 TWh/year; Norway ranks 29<sup>th</sup> at 124.29 TWh/year) on the Cambridge Bitcoin Electricity Consumption Index.

currency, which he describes as the “Potosí constellation”.<sup>3</sup> The Potosí constellation was a convergence of five key components: resource (silver); technology (hydropower-based amalgamation); labour (a violent forced labour system called ‘*mita*’); ecology (silver mining ravaged the surrounding landscape) and global trade (the establishment of value circuits in the nascent global capitalist economy) (ibid: 319). According to Zimmer, the “cryptocurrency constellation” encompasses the same five dimensions as the Potosí constellation: raw computing power and single-purpose hardware as resources; the blockchain as recent technological innovation; the labour of people who build and disassemble computing equipment that quickly becomes obsolete and gets discarded as toxic waste, as well as the labour of people who run and maintain the computing processes that power the blockchain; the use of fossil fuel, geothermal, and hydroelectric energy with their respective ecological consequences; and the creation of a global mining network (ibid: 322f.).

Further stressing the materiality of digital mining, Maurer et al. remind us of its sensory aspects: “the physical presence of the digital labour necessary to mine Bitcoins successfully is truly intimidating: rigs made of dozens of computer towers, often stacked on metal shelving with box fans providing cooling. The room is not only hot but also loud: the processors hum and vibrate, producing a noisy drone that fills the space, a kind of computerized chatter” (Maurer et al. 2013: 272). And like literal mining operations, cryptocurrency mining relies on other sets of material infrastructures in order to become operational: the electrical grid, transportation routes for equipment, and different kinds of communication infrastructure (ibid). Thus, labour, technology, ecological conditions and infrastructures are assembled in order to make value extraction possible.

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<sup>3</sup> Potosí: the location in present-day Bolivia where most Spanish silver was mined.

Following Jason W. Moore's definition of capitalism as a way of organizing nature (Moore 2015), the digital practice of producing Bitcoins can be understood as a new capitalist arrangement that bundles natural resources, human bodies, and energy.

Another similarity between colonial extractive frontiers and Bitcoin mining lies in the upscaling of technological capacities for mining and the resulting concentration of profit over time. The amalgamation method allowed the Spanish crown to centralize and scale up silver production once the surface deposits had been exhausted by artisanal mining (Zimmer 2017: 326). 'Artisanal' Bitcoin mining rigs, often situated in home basements or repurposed storage spaces, are currently losing out to industrial-scale corporate mining operations. In fact, five mining pools carried out around 80 percent of Bitcoin mining in 2017 (Swartz 2017). Contrary to the fact, the peer-to-peer blockchain mechanism was supposed to eradicate the possibilities for such power asymmetries to arise, with de-centralization being a central tenet in the explicit anti-system, anti-capitalism and anti-state rhetoric of Bitcoin enthusiasts including its creator (Caliskan 2020: 541; Maurer et al. 2013: 272). As individual artisanal and industrial-level Bitcoin miners rush to mine virtual gold, applauding a new libertarian space where no central authority regulates their transactions, they are participating in a similar frontier mentality that characterized the European colonization of the Americas and other parts of the world and continues to reverberate in the structures of global corporate mining empires today. Evidently, the scale of human and ecological devastation that are implicated in the two cases are not comparable in scope. But Bitcoin mining's material aspects and in-built extractive properties demonstrate that any ideological proclamations of the advent of a "post-extractive



modernity” (Vondereau 2017) conceal new extractive practices modelled on old ones and their respective geophysical, social and ecological implications.

## **Part II. Making Place for Data Centres**

Extractive operations necessitate preparational work in order to convert a specific environment into a resource and anchor a new industry in a specific local context. Following Alix Johnson, I call these the politics of place-making (Johnson 2019). In the subsequent section, I analyze the trajectory of the Kolos data centre project and the Norwegian government’s national data centre strategy through the theoretical lens of critical infrastructure studies. My analysis illuminates how during Kolos’ planning phase, a specific geographic location was worked upon in order to anchor a new industry there – or, to prepare the processes through which “capital ‘hits the ground’” (Mezzadra and Neilson 2017: 187). As will become evident in the Kolos story, places are not only passive or static entities upon which global infrastructure is installed and meaning is ascribed, but they are relational configurations that in their turn shape (the possibilities of) data infrastructures (Johnson and Hogan 2017).

### **Data rush at a dead end? The short story of Kolos**

The story of the Kolos data centre began with ambitious plans and a lot of public attention. Since then, the project has seen various substantive changes, stalled for many months, and was eventually abandoned. In 2017, US-Norwegian corporation Kolos announced plans to build one of the world’s largest data centres in the small community of Bálák/Ballangen with around 2,500 inhabitants. It promised a data centre that would eventually scale up to 1,000 MW of power supplied by regional hydropower plants (Cho Walsgard 2017; Dawn-Hiscox

2017; Forland, Mikalsen, and Rønning 2018). Job creation figured as a major promotional argument, with the company claiming that “Kolos is a community project. Backed by five mayors in the area, the new Kolos center will directly create 2,000 to 3,000 new jobs and support 10,000 to 15,000 jobs as a result of people moving to the vibrant community of Ballangen.” (Kolos n.d.b.). The local municipality contributed a 600,000 sq m plot of land (roughly as large as 84 soccer fields) estimated at around 9 million Norwegian crowns (equals about 1.05 million USD) to the financing of the project (Forland, Mikalsen, and Rønning 2018). Kolos started raising money from investors and architecture firm HDR created the design for the envisioned building (HDR n.d.a.).

However, not even a year later, it was announced that Kolos had been acquired by a Canadian cryptocurrency corporation, Hive Blockchain Technologies Ltd., for about 9.9 million USD (Smolaks 2018). Hive stated that it was planning to go ahead with the project, hoping to add a Norwegian ‘mining’ site for Bitcoin and Ethereum to its already operational facilities in Sweden and Iceland (HIVE Blockchain Technologies 2018a). Norwegian public news outlet NRK reported that due to the change in the type of data centre that would become operational at the designated site, job creation would total 10-12 positions only (Forland, Mikalsen, and Rønning 2018). In late 2018, the Norwegian parliament passed a bill that effectively banned cryptocurrency operations from benefitting from tax relief for energy consumption, taking effect the following year (Bambrough 2018). In reaction to this legislative change, Hive published a press release saying the company was re-assessing its plans for the Kolos data centre (HIVE Blockchain Technologies 2018b). This announcement was followed by a lengthy period of silence around the project. According to local newspaper Fremover, if Hive did not hold up its end of the deal to invest 200 million

Norwegian crowns in the development by May 2021, the land that had been held vacant in anticipation of the data centre would be returned to the municipality (Hansen 2020).<sup>4</sup>

Even though the legislative change that had led Hive to reconsider its plans was later reversed (O'Dwyer 2020; Thonhaugen and Forfang Hagen 2020), the company eventually decided to sell its Norwegian subsidiary, announcing that due to “the uncertainty around the development of this greenfield project management concluded that it was no longer probable that the Company will be able to meet the development conditions” (HIVE Blockchain Technologies 2021). Executive chairman Frank Holmes gave the reason that the sale would allow the corporation to “focus on more immediate needs like upgrading our current facilities while expanding existing operations in Sweden, Iceland and Canada” (ibid.). The Kolos project was thus abandoned.

### **Infrastructural pipelines that smooth frictions**

In an analysis of data centres in Ireland, Patrick Brodie has put forward the notion of ‘climate extraction’. This concept designates the process of enlisting local business environments, ‘natural’ environments, as well as national, trans and supranational networks of trade, finance, and infrastructure for data centre development (Brodie 2020: 2). Climate extraction is a helpful analytical tool for making sense of how the local setting in Bálák/Ballangen and the Norwegian Arctic in general were rendered extractible, i.e., how various aspects of the local climate, political and legal frameworks were tied together to attract investment and support for the Kolos project. In its 2018 policy document, “Norway as a data

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<sup>4</sup> I would like to thank J. Bogomolov, conservator at Museum Nord/department Ofoten, for providing the two newspaper articles by F. Hansen that I cite in this chapter.

centre nation”, the Norwegian government lays out its plans for a large-scale program of economic development focused on the data centre industry (Nærings- og fiskeridepartementet 2018). The document defines the state’s role as a facilitator of digital innovation and data-driven value creation. Pointing to a need of economic diversification, the government’s stated aim is to put in place favourable conditions for investors: “The government wants Norway to be an attractive nation for data centres and other data-driven business” (ibid: 5). The data centre industry is presented as a branch of economic activity with significant potential and an exponential growth rate. The government defines the following dimensions as key pillars for its development strategy: 1) ensuring an efficient and renewable power supply, 2) offering tax breaks and other financial incentives, 3) expanding digital communication infrastructure and improving its security and robustness, 4) land development, 5) scaling up education, training and research in the field of information and communication technologies (ICT), 6) defining the public sector as a client rather than a developer in the field of ICT, 7) prioritizing the participation in the EU digital market and funding a program called “Invest in Norway” to attract international investors (ibid: 6ff.). These pillars demonstrate that the creation of favourable conditions for the data centre industry works across and ties together all kinds of different environments, ranging from the energy to the educational sector. Reading this through the lens of climate extraction, one could say that the government is setting up different infrastructural ‘pipelines’ to channel all the needed resources for successful data-based economic operations: energy, natural cooling, money and land, expanded broadband and new fibre-optic cables, qualified workers, and a key client for the industry: the state itself. Data centre operators can then plug into these metaphorical pipelines, enabling them to extract the resources they funnel.

However, this process is not as smooth as a policy document may make it seem. As Nicole Starosielski has noted, “[e]ven along well-traveled routes, environments have always generated friction for undersea networks.” (2015: 16). According to Starosielski, environments – here understood in the expansive sense as composed of social, political, legal, cultural, geological and technical settings – are worked upon with what she calls “strategies of insulation” that aim to create stable conditions for functional cable networks. As a type of spatial organization, different actors employ strategies of insulation “to transform potentially turbulent ecologies into friction-free surfaces and turn precarious links into resilient ones [and to] reorganize these spaces in order to enable the continuous flow of electrical and political power.” (ibid: 17). The recent history of infrastructural conditions put in place for the data centre industry in Norway by the state demonstrates the precarity of such strategies of insulation. As already mentioned in the short history of Kolos, the project was halted by a change in legislation that touched upon financial incentives for the data centre industry. In 2018, cryptocurrency operations were excluded from eligibility for electricity subsidies (Bambrough 2018). Parliamentary representative Lars Haltbrekken was quoted as referencing the enormous energy consumption and contribution to greenhouse gas emissions by cryptocurrency mining (particularly Bitcoin) as a reason that motivated the decision (ibid). Other types of data centres, such as those used for cloud computing, continued to profit from the tax reduction for electricity. The decision drew sharp criticism from cryptocurrency corporations (Løken 2018), among them Hive which had acquired Kolos just a few months earlier. Suddenly, the previously established frictionless flow of cheap energy was interrupted; an event of turbulence cut off the strategy of insulation cryptocurrency corporations had counted on for the seamless functioning of their Norway-based operations.

Smooth flow had to be re-established through lobbying – which was eventually successful (Thonhaugen and Forfang Hagen 2020).

### **Speculation, volatility and the anticipatory politics of infrastructure development**

Kolos falls in line with what Julia Velkova has described as “impermanent infrastructures” (2019). Contrary to grand public claims for long-term investment and scalability made at the start of a project, this emphasized “monumentality and spectacularity” (ibid) obscured the fact that like other commercial enterprises, data centres relocate as capital demands. As Hive seems to have found more profitable locations for value extraction through acquisitions of already existing data centres in Canada (HIVE Blockchain Technologies 2020a and 2020b) within a more favourable regulatory context for their operations, Kolos never materialized. The marketability of the Arctic location as a “data centre ready” space (ibid) and the work that had already been done to prepare a remote, peripheral community to become a node in a global network of digital communication did not outweigh regulatory uncertainty and financial gains to be made elsewhere, which casts data centre planning as a speculative and volatile undertaking.

Adding to Akhil Gupta’s category of “suspension”, which posits that open-endedness or incompleteness are not anomalies but fundamental characteristics of infrastructure building (ibid: 69ff.), the case of Kolos demonstrates that a state of suspension can arise even before construction has even begun. Different but also somewhat similar to the suspended aspirations to modernity that Gupta describes for the Indian context, the small rural community in Norway was eagerly awaiting the arrival of *digital* modernity, hoping to be put on the global

map of communication circuits and data-driven value creation. When Hive director Tobias Eibel came to speak at the Bálák/Ballangen municipal assembly in March 2019, local journalist Fritz Hansen reports Eibel received many critical questions, summing up the general stance of the audience in the article's title as "Ballangen does not want to be fooled again by airy data plans" (Hansen 2019, my translation). Hope and disappointment thus become a key part of what I would call the anticipatory politics of infrastructure development, as the municipality tries to grapple with the implications of 1) what it might mean to host one of the world's biggest data centres and potentially seeing the local population double as new streams of revenue are created, 2) what it means to instead become the host of a cryptocurrency operation, and finally, 3) possibly not hosting any data centre at all.

### **Part III. Empty Space and Natural Flows**

In her work about data centres in Iceland, Alix Johnson has analyzed the crucial role that imaginations play in place-making work (Johnson 2019). As Johnson shows, such imaginations draw on long-standing historical narratives – in the case of Iceland, its particular imperial history – but are continuously retold, adapted, and performed by industry players, state representatives and local residents to the effect that they "render the island available to industry as digital data's 'natural' home" (ibid). In this section, I look at architectural plans and promotional material for the Kolos data centre in order to analyze what promises and desires inhabit the representations of the proposed data centre, and how these imaginaries reinforce or transform representations of northern landscapes. The analyzed material consists of the architectural renderings produced by HDR early on in the Kolos

planning process (HDR n.d.)<sup>5</sup> and parts of the promotional project website, [kolos.com](http://kolos.com).

### **A natural fit for the surrounding landscape**

The site that was designated for the construction of the Kolos data centre is a long stretch of land located in the fjord, right between the town of Bálák/ Ballangen and the mountains rising up on the other side. On one end, it borders on the water, with the effect of making the data halls in HDR's rendering appear as an extension of the fjord. The data halls are described as "[o]rganized along a central spine, the building forms are arranged to mimic a glacier's movement as it displaces swaths of land" (HDR n.d.). This is remarkable not only because the design takes its cue from an organic formation that originally carved out the fjord, sharply contrasting with the common warehouse-type design of data centres in suburban industrial zones. The data centre is represented as a natural fit for its designated location, inserting itself seamlessly into the shape of the fjord and the surrounding landscape. Against the backdrop of climate change impact on the region, it functions as a techno-utopian vision that alludes to a future where data operations provide the economic base for life after the disappearance of the ice. What is more, the copper-clad spine of the structure is presented as a nod to the area's copper mining history, casting the data centre as the natural next step in the community's development – the step towards a new kind of modernity despite, or even in harmony with, climate change.

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<sup>5</sup> The relevant images can be viewed under the following URLs:

<https://www.hdrinc.com/ca/portfolio/kolos-data-center>  
<https://architizer.com/projects/kolos-data-center/>



The renderings prominently feature the elements that are key motivational factors for placing data centres in the Arctic: an abundance of water and natural cooling. An icy winter image shows an illuminated terminus of the data centre connected to a waterfront promenade. The page “Why Kolos?” on the project website describes how the data centre will make optimal use of the climatic and geographical conditions: “The cool, stable climate of northern Norway, and the site’s proximity to water, will provide natural cooling for the center's servers. Kolos will intelligently maximize green energy and the unique geographic features of northern Norway to deliver the most efficient data center services” (Kolos n.d.b.).

Besides the atmospheric and climatic elements, the features of the surrounding landscape are also imagined as providing a service to the data centre in terms of security. In contrast to plans and photographs of more conventional, (sub)urban data centres, which often display them as shielded from the public by high fences, gates and security cameras, the renderings of Kolos do not contain any hint of security infrastructure. The comparatively open character of the Kolos design is most evident in the depictions of the copper-clad waterfront building that seems to be designated as a space for people to hang out. The openness of both the building and the waterfront itself contrasts with some of the language employed on the project website regarding security, where Kolos is called a “fortress for data” and both humans and geological formations are enlisted as guards of the data centre: “Kolos will deploy the latest technology in data center security, employing the most innovative engineers and technology experts, who will constantly monitor and manage new cyber-security risks. Additionally, the Kolos site is surrounded by water and hills, providing a natural moat to protect against any physical risks” (Kolos n.d.b.). What these physical risks might be

remains elusive, but a necessity for defence mechanisms is discursively constructed with reference to the “fortress” needing a “moat”. The remoteness of the location, its geological features, and possibly Norway’s reputation as a ‘safe’ country, are implicitly evoked as sufficient to protect Kolos from potential threats or disruptions. This further entrenches the aesthetic representation of the data centre as organic rather than technological, as integrated as a part of the landscape rather than a special zone distinct from its environment.

### **Absences obscure extraction and labour**

While elements of the landscape and geographical location replace conventional security infrastructure, the visual and textual representations of the data centre contain multiple other absences that obscure its material implications. Worded in language of optimization and efficiency, the description and imagery on the project website do not reveal how exactly the data centre will be connected to the grid that will deliver the renewable energy that is otherwise put front and centre in the promotion of Kolos (Kolos n.d.a.). Overland or underground electricity lines, hydropower plants, or back-up power generators are missing from the architectural renderings as well. This obscurement contributes to the impression that the data centre will ‘naturally’ fit into its designated environment, and that renewable energy constitutes a natural flow that can be harnessed without any infrastructural or extractive work that is worth mentioning. It also starkly contrasts with more conventional popular imagery in industry publications that typically show data halls stacked with server racks, cables, lights and cooling fans, thereby representing a high-tech, sanitized environment devoid of life and set apart from its environment. Beside a lack of depictions of computing hardware, the visual representations of Kolos do not contain a trace of the human labour that is

required to maintain the hardware and make sure the data centre functions smoothly. The design of Kolos as a ‘natural’ part of the surrounding landscape and the obscurement of other infrastructures and labour have the effect of naturalizing computing and removing it from the technological realm. This differs from Starosielski’s aforementioned “cultural imagination of dematerialization” (2015: 6) insofar as it hides certain material components that rely on extraction (labour, hardware, infrastructure) while emphasizing others as freely and readily available (water, the cold, landscape features). However, the representations render something else invisible: what the data centre will actually be used for, and who will benefit from its operation. References to heat and noise, two key by-products of any functioning data centre, are absent as well.

### **Vast, empty and undisturbed: the North remains majestic**

The promotional video on the project website’s home page, “Kolos – Powering the Future”<sup>6</sup>, presents the viewer with images of vast imposing landscapes and abundant flows of energy. Here, the viewer can catch glimpses of the infrastructures that are supposed to run Kolos. The clip opens with aerial shots of a fjord with azure blue water, framed by rocky green mountain flanks. With a backing track of classical music that underlines the majestic quality of the portrayed landscape, the video continues to show wind turbines in a snow-patched landscape, a large waterfall, power lines crossing a body of water, rushing water in a stream, a hydro dam, a herd of reindeer running across a plain, boats on the fjord, birds flying above turquoise water, a smiling young woman with long blond hair riding a horse across a field, followed by an aerial shot of the empty, grass-

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<sup>6</sup> The promotional video can be viewed on <https://kolos.com/>, or directly on YouTube at <https://www.youtube.com/watch?v=N46-t9-xNg0> (last accessed July 20, 2022)

covered plot of land where Kolos is slated to be built. At this point, the crescendo and dramatic climax of the musical piece accompanies an image of the Kolos data halls. The camera zooms out, presenting a view from above across the whole town of Bálák/Ballangen, the data centre, the fjord and the surrounding hills. As the music slows down, the video shows seniors enjoying each other's company at a café, two smiling men in full cycling gear on their bicycles and two cars going down a road in the town. Some of the footage included in the video also features prominently on the home page of the project website: a slider with moving images and superimposed text reading "Sustainable Secure & Efficient" functions as the key visual.<sup>7</sup>

The footage resonates with what Ann-Sofie N. Gremaud has described for the Icelandic context: ideas of purity and unspoiled nature and their visual representations have become a driving force in corporate and state-led branding strategies (2014: 79). While Gremaud's analysis refers to the energy and tourism sectors as well as official foreign policy, corporate advertising for Kolos is in line with these branding strategies. Most of the imagery portrays northern Norway as a vast, beautiful and untouched region, with great untapped (read: unextracted) potential. It excludes any hints of disharmony, pollution or ecological disturbance. Interestingly, imagery that is typically found in reports or tourism ads about the Arctic is absent: no ice on the fjord, no deep snow, no northern lights, no references to extreme temperatures – instead, a person "stand-up paddling" on waters above the Arctic circle. Is climate change taken as a non-controversial *fait accompli*, implying that rising average temperatures do not pose a problem since the Arctic is still sufficiently cool for data centres?

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<sup>7</sup> See <https://kolos.com/> (last accessed July 20, 2022)

As Gremaud notes in reference to philosopher Arne Næss, the nation brand increases its value through the strategic use of “shallow ecology”, which upholds an anthropocentric logic by conceiving of natural resources only in terms of profit (ibid: 80). Indeed, the Norwegian government frames the geological and climatic makeup of its territory and the availability of abundant renewable energy as key competitive advantages over other nations in reference to data centre development: “Norway is in an excellent position to develop data-based business activities. We are rich in natural resources and have a stable and cold geological climate. We have a competent workforce, functioning capital markets and political stability” (Nærings- og fiskeridepartementet 2018: 6, my translation). However, the anthropocentric logic implicit in the Kolos material runs deeper. In the video, humans and nature are portrayed as ontologically separate. Humans venture into nature only for entertainment or enjoyment (horseback riding, boating, stand-up paddling) or to make use of natural resources (even though the actual harnessing of energy from water and wind is taken for granted without depicting the human and nonhuman labour involved). This separation builds on the nature-society binary that has underwritten the history of modernity and colonialism/imperialism: Nature is conceptualized as an external object that humans act upon, and matter becomes productive exclusively through human manipulation, the process which is understood as progress (Moore 2015).

As Mickey Vallee has remarked, “[i]mperialism is not a physical matter; it is psychic and aesthetic, immaterial and virtual” (Vallee 2015). Throughout European colonial exploration and conquest, the “North” has either been viewed as a dangerous, hostile environment that needed to be tamed or managed, or as a source of mystical purity and renewal (Cheetham 2018: 59). Reverberating to this day, both conceptions are intimately bound up in the human-nature divide. While

Sherrill Grace reminds us that the designations “North” or “northern” are relative terms that describe a process rather than a fixed condition (Grace 2002), the European colonial imagination has conceived going “North” either as a challenge of conquest and mastery, or as the ultimate test of faith and moral strength in the encounter with the divine (Cheetham 2018: 64f.). At the centre of these imaginations is an extractive view that casts the North as a source of inexhaustible resources, both material and aesthetic, that are awaiting human exploitation (Cheetham 2018: 64). This is reflected in the representations of the landscape surrounding Bálák/Ballangen, which is portrayed as almost devoid of human life but replete with an abundance of natural beauty and energy. The mere availability of these resources casts their exploitation not as an option but as a must – as if it would be a waste to leave this enormous potential in the North untapped. But the representations also imply that extraction of these resources need not harm the landscape and can play out in harmony with it, while the negative impacts on human life and ecosystems along other parts of the supply chain (for instance during hardware production) remain invisible as they happen elsewhere in the world.

The aesthetic strategy of distance (Vallee 2015), embodied in this case by the aerial views that dominate the imagery on the Kolos website, opens up the North yet again for neo-colonialist enterprise, this time through the corporate-led opening of a new frontier for profit-making. However, in contrast to historical imagery that represents the North as wild and in need to be “civilized” through either violent and/or benevolent colonial interventions, the aesthetic devices employed in the Kolos imagery portray the North as mostly empty. This is accomplished largely through the material’s erasure of past and present life in the

region, most importantly the history of the Sámi people<sup>8</sup> as well as the region's mining history. These erasures paint an image of Bálák/Ballangen and the surrounding area as an uninhabited, ahistorical place that is waiting for Kolos' arrival to become productive and embark on the next step in the region's development: datafication, powered by renewable energy. The audience is invited into this "digital future" not through actual hands-on explanations of technological functionalities and use values, but through aesthetic interventions that play out in the "poetic mode" (Larkin 2013: 335): the almost breath-taking, spellbinding visual experience puts harmonious human-nature relations front and centre and portrays the North as undisturbed and unharmed by development projects and the effects of climate change.

#### **Part IV. Conclusion**

The trajectory of the Kolos project sheds light on several dimensions of infrastructure development: how a specific location is prepared for making an infrastructure operational, which implies rendering it extractible in reference to climatic and socio-political conditions and the smoothing of frictions; how infrastructure development is tied up with imaginaries of the future; how planned infrastructural projects are subject to changes in other kinds of infrastructures (changing legal arrangements and the volatility of global financial capitalism); and how infrastructure projects are permeated by temporal and emotional dimensions, in this case particularly by the combination of anticipation and suspension. Given these characteristics, data centres are not any different from other industrial developments, including the ones that enable mineral or biological

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<sup>8</sup> For an account of continuations of colonialism through large-scale renewable energy projects in Norway, see for example Fjellheim & Carl, 2020; Normann, 2020.

extraction. The politics of place-making in the Arctic, here shown for the Norwegian context, are an indicator for the continued need of capital to carve out new extractive spaces for accumulation. The Arctic thus assumes new geopolitical relevance where data-based economic operations are as important as mining projects, oil drilling and newly accessible shipping routes. Even though the use of renewables lowers data centres' carbon footprint significantly, this chapter has pointed to the various ways in which data in general, and cryptocurrencies in particular, are nonetheless fundamentally material. As a reiteration of the colonial gold rush plays out in the digital realm, it points to the fact that the age of extraction has not come to an end, it is only changing form.

If one is to take the visual and textual representations of Kolos at face value, the North will not only remain productive after or with climate change but has inexhaustible potential that can serve capitalist ends while the world is warming at a rapid pace. Given the well-documented environmental impacts of Bitcoin mining in terms of emissions, industrial-scale crypto operations like Kolos rely on the shift to renewable energy to legitimize their enormous power consumption and their existence in general. Kolos supposes that Bitcoin can be mined without disturbing landscapes – and even more, it can blend into an environment as if it was an organic part of it. This casts the North as Bitcoin's "natural home" (Johnson 2019) and data-based extractive capitalism as the direct opposite of mineral mining that leaves behind ravaged landscapes and ecological destruction. But as the controversy that effectively led Hive Blockchain Technologies Ltd. abandon Kolos shows, it is not self-evident that renewable energy should be used for any economic end. Should extremely energy-intensive industries have unlimited access to cheap renewable energy and if yes, on what



grounds? Do data-based economic activities have to serve the common good or merely minimize their carbon footprint?

Interestingly, the Kolos case offers a reading of energy extraction where fossil fuels and renewables appear in an uncannily similar way. The corporate promotional materials draw an image of renewable energy as needing to be harnessed simply because it is “out there”, regardless of the purposes it would be used for. This has a twofold effect: on the one hand, it plays into a techno-utopian imaginary that posits both data and renewable energy as bound- and limitless flows, thereby concealing the materiality of the ‘virtual’ and the extractive labour that is implicated in the creation of computing power. On the other hand, it is inadvertently similar to arguments by the fossil fuel industry and state actors who continue to legitimize the exploitation of fossil fuels as “natural riches” that need to be used simply because they exist, and where activist calls for “leaving them in the ground” fall on deaf ears. This is especially interesting in the case of Norway, where the profits from oil exports and their welfare state-based management have led to unprecedented wealth and living standards. Despite the severity of global warming impacts in the region and even declining interest from industry players, the Norwegian government continues to sell oil drilling permits, including for areas in the Barents Sea (Libell and Taylor 2020; Staalesen 2021). The state thus assumes a two-part role as facilitator for continued fossil fuel extraction and as facilitator of the expanding renewable energy sector, which is supposed to help economic growth by powering data-based business. The extractivist economic model that is rooted in petroculture (cf. Szeman 2017b) is not replaced, and renewable-powered dataculture becomes more add-on than alternative.

As my analysis has shown, mobilizing imaginaries around flows of energy, water and cooling perform a key ideological role in the naturalization of computing. Kolos as a project presupposes a sufficiently cold, stable climate into which a computing operation can blend as a natural part of the landscape. Despite the centrality of natural cooling for the successful operation of a data centre, cooling is not at all problematized as precarious. But as the impact of melting permafrost on the Svalbard seed vault have demonstrated (Carrington 2017), the effects of climate change tend to catch up with human strategies for preservation and disaster-proofing. Is the North really the refuge of coldness that provides stability in times of climate turbulence as Kolos makes it out to be? How long will data centres be able to operate above the Arctic circle without needing to revert to artificial cooling?

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## **Chris Goldie. Northern landscape, process, conjuncture**

“... to think under the conjuncture... quite literally to submit to the problem induced and posed by its case”. Louis Althusser, *Machiavelli and Us* (2010: 18).

It is a given that landscape is a social and cultural process, not simply ‘there’ to be painted or photographed. Decoding or interpreting its surface form and content in order to determine the places, situations, social relations, and histories behind the representation is complex, therefore, and, where there is the intention to reveal its latent reality, problematic. This is a problem discussed by W.J.T. Mitchell when he argues that landscape does not register the material world to which it purportedly refers; rather, “landscape *circulates* as a medium of exchange, a site of visual appropriation, a focus for the formation of identity”, and in one of the early formations of northern European landscape painting - in the Netherlands – a part of a process through which the nation was created from the sea, central to the “formation of a complex of political, social and cultural identities”. Mitchell argues that “Dutch landscape.. is not merely a body of paintings to be interpreted in ‘historical context’ but a body of cultural and economic practices that *make* history in both the real and represented environment” (1994: 2). From this perspective, moreover, there is no easy separation of landscape depiction from its evidently material subject because the latter “is not simply raw material to be represented in paint but is always already a symbolic form in its own right... Before all these secondary representations... landscape is itself a physical and multisensory medium (earth, stone, vegetation, water, sky, sound and silence, light and darkness, etc.) in which cultural meanings and values are encoded,

whether they are *put* there by the physical transformation of a place in landscape gardening and architecture, or *found* in a place formed, as we say, ‘by nature’” (14).

The relationship of northern landscape to its putative location is no exception to the principles outlined by Mitchell. It is acknowledged that the correlation of landscape with a particular territory is an effect of a social, cultural, and geopolitical process. This chapter discusses the northern landscape as formed through the geopolitics of global modernity, the landscape that came into existence in the wake of the conquest of the Americas. This is not landscape as place awaiting discovery through voyages of exploration, rather, it is the outcome of a process Braudel defined as “the metamorphosis of Europe into the monstrous shaper of world history” (1984: 92). This is not to argue that northerness is stable and static during the subsequent period - it is in fact a dynamic weaving together of constantly changing semantic and phenomenological elements - but the underlying principles of their articulation, the conditions of their structuration, only take hold in the era of global modernity.

Northerness existed as an historic element in the geopolitics of old European and Eurasian empires such as Sweden and Russia, but global modernity involves a distinct form of imperial extension not present in these earlier examples: the knotting together of three regions - Africa, Europe and the Americas - in the course of which age-old practices of violent conquest, coercion, and dispossession fused with processes of capital accumulation, and, as Giovanni Arrighi argues, new forms of global empires emerged, endowed with “ever more extensive and complex organisational capabilities” deployed to manage social and political environments across great distances (2010: 15). Capitalist global

hegemony involved not just the capture of territory or space but its transformation into an entity unimaginable in a previous era.

While the consequences of this process are multifarious - encompassing transatlantic slavery and violent dispossession of Indigenous peoples as fundamental to the establishment and development of settler-colonies - in the case of North America's northern periphery, northerness itself became a feature of the dynamics and geopolitics of colonial state-formation. The circumpolar region includes the territory of several Nordic countries as well as the USA and Canada, and the northern landscape is a significant component within these different polities, but the focus of this chapter will be to consider this landscape's historical and contemporary significance in a North American context. As should be clear, this is not to neglect the global and geopolitical, but to highlight an historical conjuncture within which settler-colonialism's inherently and deeply contradictory territorialising practices are exceptionally distinct.

The chapter begins by considering Canada - the peripheral settler-state of the American colonial project - and the dependence of its national imaginary on conceptions of the North. Such conceptions have been fluid and unstable, always involving changing notions of where the North was located and what it signified. The North, northerness, and the northern landscape are discussed in relation to settler-colonialism, a project involving the dispossession Indigenous peoples and distinct conceptions of territory and practices of territoriality. Conceptions of territoriality are at the centre of critiques of settler-nations, a key theme of which is a rejection of what Glen Sean Coulthard and Audra Simpson refer to as the politics of recognition. Refusing the forms of recognition offered by nations such as Canada is to reopen the question of their status as settler-colonies, and to address the historic and continuing process of dispossession of Indigenous

peoples; it is to affirm the status of Indigenous peoples as nations, with their own territorial dispositions. If extended to the cultural sphere, this might also signify a refusal of certain forms of visibility: the landscape image as it is framed within the Western or colonial register, or even of northerness itself. Such is implicit in the documentary *Angry Inuk*, made by Indigenous film-maker Alethea Arnaquq-Baril, described by Julie Burelle as “carving out spaces of Inuit sovereignty” by “articulating visual counter-narratives” (2020: 160).

It can be argued, however, that the contradictions of territoriality and settler-colonialism are also registered in contemporary popular representations of the northern landscape, one example of this being the Canadian television crime drama, *Cardinal*, wherein anxieties around different facets of the colonial project such as national identity, bi-culturality, Canada’s supine relationship to its southern neighbour, and the dispossession of Indigenous people, are framed within sombre northern landscapes. Another example is the film, *Wind River*, in which similar issues regarding Indigeneity, sovereignty, and territory are juxtaposed to the geopolitics of extractive regimes, again, through tropes of the snow-bound.

The visibility of northern landscape depiction can be understood as part of the process of colonial dispossession, but, to follow Fredric Jameson’s argument, phenomena such as artworks while shaped by institutional and ideological constraints do not present “unambiguous political statement[s]” and will be marked by “profound formal contradictions” (Jameson 1991: 38), particularly so in the case of genre works wherein strategies of ideological containment act upon the raw materials of social reality while awakening their utopian potential (Jameson 1981: 287). So examples such as *Cardinal* and *Wind River* do not present “visual counter-narratives” of refusal, but they do encompass

contradictory elements revealing ruptures, displacements, and instabilities in landscape depictions and conceptions of northerness in the contemporary era.

While Jameson's formulation of this possibility arises from his engagement with the work of Ernst Bloch (1995), and is part of his long-term project of reconciling Hegelian Marxism with the insights of its most vocal critics, Althusser in particular, there has also been a revival of interest in the latter's critical ideas, specifically around the continued value of his concept of historical conjuncture, but also a tendency to regard his late writing and posthumous publications as representing a break with the propositions formulated in *For Marx* and *Reading Capital*, specifically with the latter's notion of "structural causality".

Although unbridled criticism of Althusser's philosophy dates from the 1970s (Glucksmann 1972; Thompson 1978; Anderson 1979) Stuart Hall offers a critical yet sympathetic assessment of his work (Hall 1977; 2016). Hall's theory of the conjuncture was formulated through his reading of Gramsci but is also unthinkable without reference to Althusser, specifically, the latter's concept of overdetermination. This concept stipulates that social contradictions can accumulate within particular regions or spheres, operating according to their own "specific modalities" of "action", and that a general social crisis might erupt here, at a social formation's "weakest link" (Althusser 1979: 99-101). Thus, determination or causality within any specific conjuncture is not a direct consequence of the contradictions of capitalism, which do have primacy but in a displaced or absent form. This apparently paradoxical formulation was the basis of attempts by critics to sever the link entirely, between particular spheres of action and a supposedly absent cause (Hirst 1976). More recently, Althusser has himself been recruited to this effort, through the availability of his late and posthumously published writing. Although not stated explicitly, this might be Jane

Bennett's motivation when, in *Vibrant Matter*, she alludes to Althusser's conceptions of the aleatory, and contingency, and the "materialism of the encounter" with its repudiation of mechanistic concept of causality, its assertion that "political events are borne from chance meetings of atoms", and the claim that "an element of chanciness resides at the heart of things" (2010: 18, 91). The value in Bennett's citing of Althusser is that it does draw attention to the problem of causality, and the argument that phenomena cannot be read or interpreted in terms of origins or single causes. In classical humanism, dialectical critique, and 'vulgar Marxism' there is the assumption that texts, artefacts, or "sequences of historical events" can be interpreted or "rewritten in terms of some deeper, underlying, and more fundamental narrative", a "hidden master narrative which is the allegorical key or figural content" of such materials or putative historical events (Jameson 1981: 28). While Bennett's rejection of mechanistic causality has been very productive, yet more recent interventions have reasserted the value of Althusser's original philosophical claim: that historical processes cannot be interpreted as latent with purpose and closure, that they are conjunctures of phenomena, the characteristics of which arise through the circumstances of their articulation; but that within such processes there is an absent cause, albeit always displaced, never present in a pure form (Morfino 2015; Sotiris 2021; Romé 2021).

In these recent discussions there is a renewed emphasis on the multitemporality characteristic of an historical conjuncture, and that the latter specifies the circumstances of an historical process at any given 'moment', that it will always take the form of an uneven, conjoining or weaving together of phenomena of diverse origins, different tempos, histories, and modes of existence in an unstable moment of simultaneity. By emphasising multitemporality and the conjoining of different histories, this indicates that the historicity of a conjuncture

cannot be immediately comprehended through reference to an external logic or origin, and that the task of interpretation does not begin with explicating general or universal principles of development, but with its singularity, and as problems posed in terms of the relationality of its articulated phenomena, through “the uncertain knotting together of their multiplicity” and in terms of “the space of their clashes, alliances, and crossed paths” (Morfino 2015: viii). In his posthumously published book, *Machiavelli and Us* (2010,) Althusser recommends a strategy of “thinking in the conjuncture”, not to think about it, but, rather, “to think under the conjuncture... quite literally to submit to the problem induced and posed by its case” (18).

This conception of the conjuncture is an extremely useful means of approaching the complexity of northern landscape, as an uneven conjoining of contradictory phenomena, but in particular as a process involving the articulation of multiple timescales and histories, these latter being fundamental to its geopolitical character. Geopolitics in the modern era is the historical process of enacting sovereign power and subjecting different ways of life to the timescale of capitalist global hegemony, an aspect of which is its practice of territorial hegemony: the acquisition and transformation of territory and the dispossession of Indigenous peoples, through the interconnected fields of the political, economic and cultural, one outcome of which is the phenomenon of landscape. This process is intrinsically contradictory and never complete, however; it is the practice of producing simultaneity but requires relentless effort and renewal, its articulation of different histories, tempos and modalities in the unity of the present constantly subject to instability and tension. There is always the potential for the simultaneity of these existences to be fractured through the construction of alternative modes of their articulation, for that which was made to be unmade. Northern landscape



images have been a significant feature of Canada's ongoing nation-forming project, giving a cultural form to the colonial settler-state's territoriality, but such a cultural and ideological project is an inherently contradictory process, never able fully to contain the many different elements it conjoins in what are moments of temporary stability.

Critical approaches to northerness as a political and cultural phenomenon and process began in the early 1960s when French-Canadian geographer Louis-Edmond Hamelin formulated the concept of nordicity. Hamelin eschewed merely physical, geographical and climatic definitions in favour of a nordicity index composed of a range of political, cultural and economic factors, none of which was unvarying: places could become more or less northern over time, nordicity could be seasonal, and to an extent it was a matter of perception. Hamelin's influence was immense and can be traced through subsequent developments within Canadian northern studies, which, nevertheless, developed a very wide-ranging multidisciplinary. *The Northern Review* was founded in the mid-1980s as a multidisciplinary journal but with a strong anthropological strand and a commitment to northern scholarship from a northern perspective. In its first issue there is an acknowledgement that two views of the North persisted: that of the Indigenous peoples, for whom it was a homeland; and that of the European coloniser, for whom it was a frontier. The broad remit of the journal was to explore both traditions (Senkpiel and Easton: 13). Located at the University of Quebec, Montreal, and founded in 2003, Le Laboratoire international de recherche sur l'imaginaire du Nord, de l'hiver et de l'Arctique embraces a yet wider range of disciplines and has facilitated a rich output of publications, most recently, *Darkness: the dynamics of darkness in the North* (Jóhannesson et al 2021). This institution has a general concern with North as a complex space of

representation “comprised of various physical, cultural, and semiotic realities and heavily labelled by external discourse” (ibid: 9-10), which makes it difficult to define but allows for it to be grasped through the interconnections of different viewpoints, perceptions and ways through which it is imagined.

The role of northerness in Canada’s colonial project is the theme of Sherrill E. Grace’s *Canada and the Idea of North*, and the issue of territory is crucial to her claim that northerness is a processual and discursive rather than a geographically descriptive formation. Grace persuasively argues that the North is not a place but a process, and that it has been central since the 19<sup>th</sup> century to strategies for creating and sustaining Canada’s national identity. Within the framework of Canada’s historical formation, northerness and issues of territory have been paramount, and yet without any firm consensus being established about the location or the precise character of the North. In her critical account of this history, Grace argues that from the first efforts to employ nordicity in the project of Canadian nationhood in the mid-19<sup>th</sup> century, through to the present, northerness has encompassed contradictory elements ranging from a harsh wilderness within which only the strong can survive and flourish to an Edenic place of “spiritual power”, “beauty”, “abundance” and “natural resources” awaiting exploitation (2002: 17). In all of these efforts the precise location of North is always in contention, however, as are the qualitative characteristics associated with such places.

The approach of this chapter will be, therefore, to explore the northern landscape - of the North American settler-colony imaginary - by submitting to the circumstances of the conjoining or articulation of its phenomena rather than to search for its underlying meaning, cause or origin; not to ignore its discursive specificity in an attempt to collapse it into the reality with which we believe it be

motivated; not to attempt to resolve contradictions or to promote a mythical point at which discourse and reality meet. While it is possible to list and classify the semantic or phenomenological elements of a landscape at a particular moment of its relative stability, this is always a result of “their function in a constant process of repetition and difference” (Neale: 13, 15). With this in mind it is possible to consider this northern landscape as such a conjuncture, a highly contradictory articulation of different elements, the significance of which can only be grasped in their relatedness, not in any fixed meaning. Thus, in what follows we discuss territoriality, or issues around territory, but avoid any suggestion that territory is a definitive location or that it precedes its enunciation in the form of imperialism and colonialism.

It is worth noting that in the earliest phase of England’s engagement with the Americas, in voyages by its fishing fleets to Newfoundland, definitions of northerness were similarly in contention. Writing in the mid-20<sup>th</sup> century about 16<sup>th</sup> century conceptions of northerness, Franklin McCann viewed these in terms of “foggy seas, ice-scoured lands and punishing winters”, incorporating in his discourse familiar northerly tropes borne of a 19<sup>th</sup> century English obsession with northern voyages of discovery, but Mary Fuller’s more recent study cites primary sources indicative of more unstable contemporary perceptions of northerness. So some accounts, rather than emphasising the inhospitable climate saw the region as “verdant and agriculturally promising” with “late-grown grain crop” ripening so fast as to sustain a “plentiful kitchen garden”, comparing it favourably to England. Other observers recognised the harshness of Newfoundland’s climate but defended it through comparison with Muscovy and Sweden, “where the people live well and grow rich”. Other writers argued that the climate of Newfoundland was one of its attractions, “praising its air as wholesome and good” (2008: 125).

In the 1930s the Group of Seven landscape painters played a significant role in promoting a vision of Canada *as* North, particularly in the case of Lawren Harris and his 1935–37 painting, *Winter Comes from the Arctic to the Temperate Zone*. In a move that would be repeated many times, Harris joined together several different parts of Canada and ideas of North, “a temperate zone of boreal forest, barren... ice-surrounded island of the Arctic, and high Arctic mountain of ice and glacier”, the southerly Canadian north and the far north, in order to create a unified vision or allegory for Canada *as* North (Grace: 10-11). A crucial aspect of this ongoing process is the role of winter as a unifying experience, and the notion that winter unites all Canadians in their nordicity (ibid: 133). Others argue, however, that the experience of winter and the conception of North are different in English and French Canada.

From the perspective of the Francophone community, Kannenberg considers that “the most significant difference between perceptions of North in English Canada and Quebec” is “that in Quebec’s historio-cultural imagination essentially the entire area of the province is considered to be North”, whereas for English-Canadians the latter is associated with “the Arctic or with Nunavut, Yukon, and the Northwest Territories” (2011: 137). This, she argues, is an aspect of the phenomenon defined by Louis-Edmond Hamelin as seasonal nordicity: Montreal has severe and protracted winters, and even though on the same latitude as Marseilles, it is the world city where the influence of the Arctic extend the furthest south (138). Kannenberg acknowledges the many efforts to use northerness in order to define Canadian national identity dating from the mid-19<sup>th</sup> century, reaching a pinnacle in the field of visual culture in the 1920s through the landscapes of the Group of Seven, but argues that an *imaginaire du Nord* has much earlier origins, with the founding of Quebec City in 1608 (137), involving

stories of exploration and travel, an emphasis on journeys rather than places. Nordicity has defined the identity and national consciousness of Quebec people and continues to have an impact on the imagination of immigrants to the region too, as in the case of Haitian novelist, Joël Des Rosiers, for whom winter is a joyful and exotic discovery when he writes: “nous donnons un grand bal tropical en plein Nord” (we are holding a tropical ball in the midst of the North) (139; Chartier: 38).

The central example in Kannenberg’s discussion is Montreal’s catastrophic ice-storm in 1998, which also features in Grace’s discussion. As the latter repeatedly affirms, North “is not the physical facts of meteorology, permafrost”, but a “discursive formation, with articulations, representations... processes, transformations”, etc., and photographs of landscape play a significant role in this discursive formation, as was the case in 1998, (30). Grace suggests that “Quebec and Ontario should feel they have some special claim on nordicity” because those elements that have constituted its stable meaning in national discourse - the Laurentian plateau or ‘Shield’, the treeline, permafrost – “dip furthest south in these provinces” (51). Grace argues that this is demonstrated in a series of landscape images from Montreal photographer Benoit Aquin, who was commissioned by *Canadian Geographic* to photograph the aftermath of the storm<sup>1</sup>. While considered by the magazine to be “one of the worst natural disasters in Canadian history”, the images of collapsed powerlines across snowbound landscapes have a sublime quality, reinforced by the title of the photo-essay, *Lethal Beauty*. And in so far as these images express an established conception of nordicity as reaching southwards, they share something of Lawren

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<sup>1</sup>Michela Rosano, Benoit Aquin (photography): ‘The Storm of the Century’, *Canadian Geographic* 4<sup>th</sup> January 2018 [<https://canadiangeographic.ca/articles/the-storm-of-the-century/>]

Harris's romantic vision from the 1930s, captured in *Winter Comes from the Arctic to the Temperate Zone*.

One aspect of this continual emphasis on winter and the winter landscape as central to the Canadian experience is that its politicising aspects are extended into other cultural fields, in, for example, music. R. Murray Schafer, called "for an explicitly Canadian/northern music in *Music in the cold*", while Francois Houle's, response to the 1998 Ice Storm was to recycle media representations and the sounds of "freezing rain" and "brittle ice" in *Au coeur du litige*. Grace argues that these responses are within a discursive formation proclaiming that ice, cold and winter are "what unifies Canada", in the former instance as an explicitly nationalist project, in the case of Houle's work as a potentially critical commentary on the process of national identity (126). The difference between these two responses – one advocating the unity of Canada, the other critically questioning it – hinges on the issue of Quebec, where a sense of separate nationhood persists.

The 1998 ice storm is discussed in Kannenberg's essay to demonstrate the very different attitudes to winter found amongst the English and Francophone communities of Montreal. First she argues that a conception of an urban north is not to be found in English Canadian writing, which overwhelmingly conceives of it as wilderness, and which therefore promotes a conservative and rural-oriented notion of national identity. This is debatable, given that constituting northerness as a nation-building project involved the articulation of many different conceptions of its location and character, and that this is an unstable and ongoing process, but the relationship of these different elements undoubtedly change for different social groups. Kannenberg argues that in Quebec, and Montreal in particular, "seasonal nordicity is a major part of the national consciousness"

(138). The theme of the essay is a comparison of two short stories in which French and English writers have a very different attitude to winter in Montreal. In a story by Monique Proulx, “Montreal in winter is beautiful, despite the danger of the storm. It is portrayed as a ‘glass cathedral’... at the beginning of the story and is once again a liberating, joyful place at the end when” two characters “bond while skating over ice-covered streets”. This is in contrast to the story by Clark Blaise in which winter is portrayed as “dismal”, “ugly, cruel, and demoralizing” (146).

Nordicity has, therefore, the connotations of winter, or “winterity” to use Hamelin’s formulation, but it is clear from the above examples that this, like other elements within its conjoining, is an effect of the process of structuration, a cultural moment within a contradictory and contested political project. Winter is, one can argue, a displacement or an overdetermination, through it the complexities and contradictions of territory, territoriality, sovereignty, and nationhood can be discerned.

In Manina Jones’ discussion of the Canadian crime drama, *Cardinal*, she identifies the series’ exorbitant emphasis on climate – “winter”, “snowbound” landscapes, intense cold – as key to its “symbolic register” (2020: 285), and the means through which nationhood, questions of colonial territoriality, “the dark dimensions of Canada’s colonial past”, are articulated. While these are narrative themes their significance is particularly evident through visual style and the representation of landscape, which has motivated Jones and others to designate this crime genre as Canadian noir. The adoption of the ‘noir’ designation is justified on the grounds that the series exhibits the gritty realism, sombre style, and narrative conventions of 1940s American film noir, while allusions are also made to the conventions of Nordic noir in which aestheticised landscapes contain,

and are momentarily overwhelmed, by acts of savagery. Canadian noir, through a comparable depiction of the natural landscape as the site of brutal disturbance, “indirectly acknowledge[s] disunity and violence at the heart of Canada’s settler-colonial state”, while ultimately disavowing and containing such an interpretation through a reversion to the conventional narrative closures of the crime genre (282). Furthermore, this landscape is encoded as a site of other contradictions within Canada’s culture and politics: its fractured and sometimes violent bi-culturality and anxieties regarding the overbearing cultural and economic influence upon it of the USA. Thus, the drama attempts to address the contradictions at the heart of Canada’s colonial project, but does so to an extent through the generic expectations and familiar tropes of Nordic noir, wherein dark and sombre landscapes symbolise the troubled psychologies of their protagonists as well as wider social crises and problems of national identity.

Jones identifies the symbolic importance of a winter landscape as a product of several filmic effects in the series. Firstly, in the opening credits, both detective protagonists are shown within a copse of trees but as literally part of it, with close-ups of their faces given the texture of bark, and throughout, scenes with these two characters are intercut with “iconic extreme longshots of northern landscapes” (286). There are also numerous examples of images associating the bodies of victims with the northern terrain and a frozen landscape (287).

Of importance in Jones’ argument is that Canadian noir has a special investment in territoriality, which is surely, now, one of the most significant themes of discourses theorising the historic and ongoing social relations of dispossession in settler-states such as Canada. This is manifest in *Cardinal* in “intersecting and sometimes conflicting personalities and jurisdictions” amongst the various law enforcement agencies involved in criminal investigations,



particularly in the policing of the First Nation reserve, but also an underlying aspect of Canada's history as the outcome of French and British imperialisms, and the consequent "bi-cultural conception of nation", which in the narrative is then "fundamentally challenged by the presence of Indigenous people" (284).

The issue of territoriality is not an historic residue but is ongoing. *Cardinal's* addressing of colonial violence and its ongoing effects as an underlying and suppressed aspect of the process of nation-state formation, manifest in the contradictions of nordicity and climate as purportedly unifying themes, is real, but the series is also subject to forms of closure, allowing these to be subsumed within a more conventional narrative. The focus of the criminal investigation moves from the real problem of chronic violence against indigenous women and girls to the activities of a psychopathic serial killer couple. But there are other problems regarding the form in which colonial violence is presented. First, what Jones and others define as "Indigenization", a process whereby "settler colonial cultures authenticate their sense of identity at the same time as they disavow their involvement in the legacy of colonial violence". They achieve this by identifying with the "northern landscape" and imagining themselves as capable of figuratively "becoming indigenous" and thereby naturalising their "claim to national belonging" (287; Goldie: 13).

That this is a real problem is evident if we consider the broader context within which landscape and nordicity have functioned in the construction of Canadian national identity. Grace's most substantial argument is to affirm the processual character of Canadian nordicity and to reject any concept of origins, thereby challenging the dominant forms through which Canadian national identity has been asserted, while also acknowledging that a "discursive practice" functions through subsuming or negating that "which it does not articulate" (Grace: 15). In

1869, R.G. Haliburton of the Canada First Movement delivered a lecture to the Montreal Literary Club entitled “The Men of the North and Their Place in History”, asserting that Canada was a northern country inhabited by northern races. Haliburton defined the latter in terms of contemporary Social Darwinism, a tough race of superior beings in contrast to degenerate and effeminate southern stock, and one capable of flourishing in cold, snow-bound lands (58). In the decade following the Yukon Gold Rush of 1896-98 similar sentiments were expressed. In Robert Service’s 1907 poem, *Songs of the Sourdough*, he envisaged “an imagined territory for determined and desperate men who pit themselves against a demonic, female landscape whose law is to drive mad, drown, or otherwise destroy all but the strongest and fittest”. As the poem expresses it: “This is the Law of the Yukon, that only the Strong shall thrive/ That surely the Weak shall perish, and only the Fit survive” (90-91).

However, ideas of the North as a congenial place of spiritual awakening were promoted during the same era as these Social Darwinist accounts, most notably in Vilhjalmur Stefansson’s *The Friendly Arctic* (1921) in which all of the calumnies committed by “non-northerners” against the North were demolished, questioning the notions of eternal cold, ice, and perpetual darkness, cataloguing instead “the exquisite flowers and abundant wildlife that actually do exist across this not-so-lifeless tundra, filling it with colour and sound” (Grace: 8). The version of northerness presented by Haliburton and Service is no place for weaklings and is the testing ground for (northern) races of men of strong character, it is inhabited by neither women nor natives, except in the form of prostitutes or “duplicitous half-breeds” populating Gold-Rush era Klondike saloons (12), so Stefansson’s argument that one must “learn from the Inuit” (5) appears to be of a different order. Nevertheless, this more benign view of the

Arctic was in the context of the desire to exploit its resources, and Stefansson's vision was approved by Canada's prime-minister, Robert Laird Borden, who expressed the wish in his introduction to the book that "lands as yet undiscovered in these northern regions should be added to Canadian territory". Subsequent visions of the Arctic North were couched in similar language to the USA's sense of westward expansion as manifest destiny, and proclaimed that the "snowy wastes of the Canadian North have many more mineral secrets of that kind to yield" (8-9).

Both these accounts envisage the settlement of northern lands as the destiny of the white race, one conceiving of it as a barren wilderness, the other recognising its existing Indigenous population and couched in the language of a spiritual awakening, but for both the process involves the colonisers becoming northerners, with a profound and organic relationship to the landscape. So the narrative of national birth through *becoming* northern has a long history, from which the experience of colonial violence has already been excised. Jones refers to Terry Goldie's *Fear and Temptation: The Image of the Indigene in Canadian, Australian and New Zealand Literatures*, an account exploring the centrality of indigenisation to the formation and ongoing reproduction of these settler-colonies. Goldie's argument is that the strategy envisaged by those such as Haliburton, of imagining that the nation only really began with the arrival of the white man, is no longer an alternative that can be expressed openly, but that "an attempt to incorporate the Other" through both crude and sophisticated means is now pervasive. Stefansson's early 20<sup>th</sup> century conception of the spiritual nature of the Arctic, and the need to learn from the Inuit, might be an example of this. Goldie identifies four basic dimensions through which the Other is addressed within colonising discourse. On the one hand, as source of sex and violence and as poles

of attraction and repulsion: “temptation by the dusky maiden and fear of the demonic violence of the fiendish warrior” being pervasive from the earliest moment of colonisation (1989: 15). On the other hand, the native as one with nature and as the source of oracular wisdom and mysticism. These latter two forms of conceiving the Other are quite evident in *Cardinal* and indeed in numerous other examples of recent popular film and television. In *Cardinal*, the representation of ritual and indigenous practices in early episodes of the first season is indicative of a desire to be respectful to otherness when it can be imagined in a pure state and encompassing certain mysteries and unfathomable ways of being.

There is, however, an additional form of recognising the Other not identified in the above concept of Indigenisation, which might be defined as ironising indigeneity. This can be found in some TV series with a northern focus, beginning with *Northern Exposure* (1990-95), several seasons of *Fargo* (2014-2020), and the film *Wind River* (2017). The substance of this strategy is to avoid the inherent problems of representing Indigenous people in their purportedly pure form, as sources of wisdom, valuable traditions, and the mystical, by providing characters with the capacity to reflect on the history of their own representation. In both *Northern Exposure* and *Fargo*, this history is presented through the memory of performing Indigeneity in the Hollywood western, thus exposing the inauthenticity of such representations while acknowledging them as real experience for those employed in the film industry. In *Wind River* the father of a murdered girl applies ritual paint to his face while admitting that there is a collective forgetting of how this is done, the implication being that he is improvising the procedure, basing it on what he has seen on film or television. These trivial instances of ironic and knowing reflection are surely not a solution to

the problem of recognising otherness as pure, natural, traditional, etc. Coultard considers that the more theoretically developed critique of traditional practices, in social constructivist theory, as “essentialist”, is misguided, and approvingly cites Hardt and Negri’s claim that those advocating “a politics of difference, fluidity, and hybridity... have been outflanked by strategies of power” (2014: 79). But these instances are, nevertheless, indicative of the exhaustion of a way in which some settler-states and postcolonial nations have dealt with their subject populations, which is to concede to them authenticity.

The problem of being designated as ‘authentic’ is addressed in the documentary film, *Angry Inuk*, made by Inuk film-maker Alethea Arnaquq-Baril. Julie Burelle argues that the film promotes a form of “Inuit visual sovereignty” by articulating “visual counter-narratives” compelling the viewer to reframe Inuit hunting practices through an “Inuit lens” (147). The narrative with which this has to contend is based on a conception of Indigenous people in the Arctic regions as either “absented” and erased from view, or as a ghostly remnant, on the verge of disappearing but sustained by forms of hunting conceived as subsistence practices. While the film offers some views of landscape comprehensible from a Western perspective on the Arctic - still, white, expanses of ice and water as the setting for seal hunting - these give way to a return to the village where the meat is taken into houses for butchering, eating raw or cooked in stew as part of a communal experience. The greatest difficulty this community faces is that the full complexity of their hunting practices is incomprehensible to Western environmentalists and animal rights activists. Thus, the film follows a seasoned hunter navigating the apparently unmarked white terrain and demonstrating his intimate knowledge of this environment, a sequence that could be assimilable within the modes of Indigenisation outlined earlier, but this account is then placed

within the context of the necessary connections of the activity to trade and the global market.

The problem of the Western point of view is that it can only conceive of an Indigenous presence in terms of a folk practice requiring sensitivity and benevolence, not as integrated into the global economy. But as well as a failure of the imagination this is, in the context of settler-nations, bound-up with the politics of territoriality and the related problem settler societies and their state forms have with ‘alterity’. In *Mohawk Interruptus: political life across the borders of settler states*, Audra Simpson discusses the problem in the colonial project of how to “govern” and “make sense of that which is not yours”, of how to achieve “political homogeneity and the ideal correspondence of ‘ethnicity’ and territorial boundaries”, a problem compounded by the tendencies of capitalism to remove “people from places and move them into other zones for productivity, accumulation, and territorial settlement” (2014: 16-17). This begins as “the ‘Indian Problem’ of the existence of continued life (of any form) in the face of an acquisitional and territorial desire.. then moves through time to become, in liberal parlance, the ‘problem’ of difference” (19). Simpson, citing Patrick Wolfe, argues that “the desires and attendant practices of settlers get rerouted, or displaced, in liberal argumentation through the trick of toleration, of ‘recognition’, the performance postconquest of ‘seeing people as they ought to be seen’” (20).

Simpson’s study is of a community located on a reserve in southwestern Quebec, which in the previous four centuries had moved from the Mohawk Valley, now a part of New York State, to what was the northern part of its hunting ground (3). The Mohawk people are renowned for their historic role as the “ironworkers” who built the “infrastructure for skyscrapers [and] bridges” throughout Canada and the USA, particularly in “cities in the northeastern United

States” (2), so mobility is part of Mohawk history and contemporary existence, as is the Mohawk role in the physical construction of 20<sup>th</sup> century America.

But within this context of integration, Simpson’s argument concerns the forms in which the people of the Mohawk nation continue to assert their nationhood and their refusal to be part of the nations of Canada or the USA, or indeed to recognise the sovereign power and territorial claims and practices of these states. There are three dimensions to the Mohawk assertion of their nationhood. First is the reality of existing within, and alongside of, another nation, which claims to itself a monopoly on the use of violence and the exercise of institutional and juridical power; its biopolitical power to both kill and care for its putative citizens, to use a Foucauldian concept. Simpson argues that such a situation creates enormous tension and potential for conflict, but that it also has “implications for the sturdiness of nation-states” (11). Second is that an assertion of nationhood is a rejection of the politics of recognition and the “presumed ‘good’ of multicultural politics”, and is “in stark contrast to the desire to have one’s distinctiveness as a culture, as a people, recognized” (11). Third it requires an approach to Indigeneity distinct from an anthropological interest in its supposedly pure and historic cultural forms, and one in which the “settled” state of the colonial project is critically questioned (11), in which it is understood that “the United States and Canada can only come into political being because of indigenous dispossession” (12).

The discussion so far has focused on Canada, as the settler-state most complicit in enunciating a nordicity of territoriality and colonial dispossession, but northerness as a geopolitical disposition is not enclosed by national boundaries, the Mohawk practice of crossing borders and asserting an alternative sovereignty provides a compelling allegory for this. Fuller argues that Canada

“remains a country without the imaginary coherence of the United States, and this is reflected in the relative absence of forceful, American-style narratives about origin and foundation as well as the continued possibility that one or more parts of the country may separate from it” (123). Allan Sekula, in *Geography Lesson: Canadian Notes*, expresses this dilemma more forcefully, in citing the entry on Canadian architecture from *The Penguin Dictionary of Architecture* (1980), which states that: “History and geography combined to make Canada a colony first of France, then of Britain and, finally, a nation entirely dependent for its continuing existence - unacknowledged as the fact may be - on the armed forces of a benevolent neighboring power. Its architecture manifests these circumstances” (1988: 45). But in *Cardinal*, Jones argues, “repeated images of highly aestheticized, desolate, northern Canadian landscapes” function to signify authenticity, and resistance to “Canada’s absorption into a globalized consumer culture, itself associated with the United States” (281, 282). And this conceptualising of landscapes of nordicity as forms of resistance to the intrusive cultural and political presence of the USA, performs the role of displacing and disfiguring the contradictions of Canada’s own settler-colonialism, which the series initially addresses.

But the difficulties in achieving such a displacement might be found in the very complexity of the nordicity represented in *Cardinal*, which is founded in the highly unstable and processual discursive form indicated by Grace. *Cardinal* was filmed in Sudbury, the largest city in Northern Ontario, in nearby North Bay, a city of 51,500 inhabitants straddling the Ottawa River and the Great Lakes Basin, and in the Atikameksheng Anishnawbek First Nation reserve in Ontario, situated on the shores of Whitefish Lake, 20 kilometres away from Sudbury. As well as being a centre of mineral extraction and, more recently, film production, Sudbury



is also a location of Allan Sekula's aforementioned photo-essay, *Geography Lesson...*, in which photographs of the Bank of Canada in Ottawa are juxtaposed to close-up images of slag, the pervasive signage of Big Nickel Mine, disaffected youths in a Sudbury shopping mall, and conspicuously non-scenic transport infrastructure. These images are to be distinguished from the landscapes of catastrophe favoured by Edward Burtynsky, and, although dating from the 1980s, Sekula's work can now be read as a refusal, *avant la lettre*, to indulge in the melancholy and thrill of an Anthropocene sublime. In his accompanying essay, Sekula suggests that his method might be to approach this financial institution, and the "metropolitan ambitions of the Canadian bourgeoisie", long in thrall to the cultural and economic power of its southern neighbour, from its periphery: "from Sudbury, a place secretly regarded by many respectable and even ecologically sensitive North Americans as the asshole of Canada" (44). Grace discusses the economic historian Harold Innis as having a "theory of national origins" within which Canada emerged contained by boundaries defined by the fur trade (65), while Sekula cites the same writer as conceiving of the "Canadian mode of production" as "an economy grounded in raw resource extraction: fishing, logging, mining, and so on" (46). But this raw material of economic activity is displaced from view through the cultural and ideological work of constructing a national identity, most significantly, for Sekula, as it is for Grace, through the landscapes of Lawren Harris and the Group of Seven (46). Thus, it might be argued, to use a formulation reminiscent of Jameson, Sudbury stands as an irruption of a displaced reality within this powerful but immensely contradictory national project, as the registering of the aporias within its territorialising ambitions. It might seem, therefore, that the principal contradiction of Canadian

national identity lies somewhere within the interconnected fields of the economic, the political, the cultural, and the ideological.

Extraction cannot be understood, therefore, simply in terms of the point at which minerals and fossil fuels are removed from the ground, nor as a form of economic exploitation alone, rather, it is an historic processes encompassing the entire fields of economics, politics, the social, and culture, and points towards the contingencies through which the contradictory elements of nordicity and the northern landscape are conjoined or articulated. This is illustrated in a somewhat oversimplified account from Kenneth Coates (editor-in-chief of *The Northern Review*) and William Morrison who write about the fascination that Canadians have with the “real North”, a place of “tundra wastelands, iceberg-filled waters, huddled musk-oxen, Inuit... , Klondike goldminers, polar bears, artificial villages plunked on the ocean’s edge, massive caribou herds, and Arctic explorers”, contrasting this with what the authors define as the “forgotten North”, a “vast sub-Arctic belt” they consider to be “surely northern by any objective standards, but which is largely ignored by the popularisers” (1992: 1).

This is an oversimplification in the sense that conceptions of nordicity in terms of location have been continuously contested, but they are surely correct in suggesting an ambivalence regarding place and identity. Recently, the authors argue, “Southerners have once again discovered the untapped potential in these vast lands, and have rushed to develop the hydro-electric, mineral and timber resources in the sub-Arctic zones”. Typically the southern image of such places is of “uninhabited wastelands, of rich forests, and mineral-bearing ground’, when in fact they are “neither uninhabited nor abandoned” but the “homelands” of “substantial aboriginal populations”, and these “allegedly inhospitable territories” are where their ancestors had lived for centuries (1-2). In a subsequent essay,

Coates argued that ‘the North of popular culture, of traditional Inuit and Laplanders, of miners and lumber-jacks’, needs to be supplemented with a more complex view of this enormous range of territories, to encompass a “North of universities and industrial complexes, of military structures and modern tourism, of multi-generational non-indigenous families and the linkages of telecommunications technologies” (1994: 23). But it is difficult to avoid the conclusion, considering in particular the TV series *Cardinal*, that this has now happened within popular culture, and to the types of place identified by Coates might be added: shopping malls, police forensic laboratories, casinos, suburbs, portacabins and bus stations. Here, visions of extreme temperature, wilderness topography and an Arctic sublime still hold firm but are juxtaposed, in hybrid fashion, with the urban and suburban everyday. And these aspects of the contemporary north, of wilderness and urban life intimately connected through dense networks of communication and patterns of consumption, are nothing less than the processual form of the dominant extractive regime of the present era.

Such juxtapositions are in fact one of the identifiable features of noir television drama in its Scandinavian and Nordic form. Waade and Hansen acknowledge the deep historic roots of “Nordic melancholy” across a range of cultural practices (2017: 83), that this is transmitted through elements of visual style such as “lighting, setting, climate, and landscapes” (86), but that “many different landscapes and climate conditions are found within the region. For examples the vast, bleak landscapes in Denmark, the Norwegian and Icelandic mountains and the forest landscapes in Sweden and Finland” (87). Some dramas (*Trapped*) have reinvigorated the visual imagery of “Arctic spectacle” and the “Nordic sublime” (254, 256), but the authors also refer to “borealism” in relation to the promotion of a “pan-Nordic identity”, and that the latter project, dating

from the 19<sup>th</sup> century, continues within Nordic crime drama (264-265). Thus one can identify some similarities between the long-running projects of cultural nordicity in both the Nordic region and Canada. The authors identify a tendency towards “an increasing use of ice, snow and rain in vast, remote, natural and distinctive Nordic landscapes” (286), but arguably within the context of crime dramas requiring the inclusion of urban settings, or rural locations within which the signifiers of a modern infrastructure are present.

Jones sees some of Cardinal’s “filmic effects” as “recognizable... signature gestures of Nordic noir”, including aerial long shots of harshly beautiful northern landscapes such as the frozen lake dotted by ice-fishing huts...”. But the second element of these images, landscapes “traversed by a single snowmobile, a power corridor running through a dense snowy forest, or an ice-road created by police to access the island, eerily illuminated by lanterns at night” (286) is reminiscent of Benoit Aquin’s images of broken powerlines during the 1998 ice storm, and the way in which different semantic and phenomenological elements have been articulated in the continual process of Canadian nordicity. Furthermore, in each season of *Cardinal*, landscapes of sublime nordicity have been juxtaposed to location shots of sprawling suburban tract housing, shopping malls, and the type of image of Sudbury’s decaying extraction economy that caused Allan Sekula to designate the city as the degraded Other (the “asshole of Canada”) within the unconscious of the nation’s supine financial bourgeoisie. That these various and contradictory elements can be contained within an overarching discursive frame of nordicity is indicative of the latter’s durability as a project for constructing and maintaining national identity.

The extent to which the extraction economy as a mode of being is both durable *and* fragile is one argument in Devin Griffith’s discussion of the film,

*Wind River*. Griffith defines this film as a “petrodrama”: a form of melodrama which “is both powered by and reflective of the energy regimes that drive modernity” (2018: 611); as intimately connected to the regimes of extraction underlying the economies of settler-colonies; and which, as a popular cultural form or genre, is able to register the ‘complex interplay of cause and effect that characterizes social systems’, a process he defines as “energeneric feedback” (620). Thus, since the 19<sup>th</sup> century, transformations in and consolidation of the form of theatrical, visual, and filmic effects have depended on energy inputs from “extraction-based lighting technologies - the oil lamp, gaslight, and limelight” in order to produce “the multi-tiered visual ecology on which melodrama depended” (613), which is continued in the exorbitant petrofueled energy requirements of contemporary film and television production, particularly when these involve location shooting. Griffiths argues, however, that such cultural products do “not simply reflect and reproduce the energy culture, but rather loops back to evaluate it, considering energy culture as both a thematic content and a problem” (621).

To consider *Wind River* in terms of northern landscape is an illustration of the need to approach a case by submitting to the circumstances of “the uncertain knotting together of” the “multiplicity” of its phenomena, not through the interpretation of received ideas of its origin and evolution. In Susan Ruddick’s discussion of the problems in current conceptions of the Anthropocene, she draws on Vittorio Morfino’s *Plural Temporality* to argue that the general understanding of climate crisis is characterised by an inability to comprehend “the multifarious nature of duration” (2020: 507), which is itself a consequence of imagining time as linear, and neglecting the multiplicity of durations and tempos that are in fact subordinated to the single timescale of capitalism (510). One outcome of this is that the notion of crisis itself loses any purchase on history, becoming an

ahistorical conception of the present as fully identical with itself, a supposed reality from which all contradictions have been erased. And climate crisis in this sense is unable to encompass the multiplicity of histories, existences, modalities, and tempos through which ecological catastrophe has already occurred, or will occur, in a different form to the event prefigured within the Western imaginary (see also: Serafini 2021, below). This has particular relevance for Indigenous peoples in colonial-settler nations because, as Chatterjee argues, to imagine “capital.. as an attribute of time itself” renders any “resistance to it as archaic and backward”, thus “neutralising the plural temporalities by which [modernity] is in reality composed” (Morfino and Thomas: 275).

While in some respects it exhibits the tendencies both Ruddick and Chatterjee critique, *Wind River*'s weaving together of the contradictory elements of extraction, geopolitics, Indigeneity, and conceptions of the Anthropocene is quite unstable. In a similar fashion to *Cardinal*, *Wind River*'s visual effects includes aerial long shots of beautiful snow-bound landscapes crossed by roads and power cables and navigated by snowmobiles, the effect of which is to incorporate this modern infrastructure and machinery into its aesthetic. But if this follows the familiar pattern of embracing modernity rather than banishing it from the landscape, the energy economy upon which these features depend is contextualised through several interlocking themes relating to the past crimes and continuing effectivity of the colonial project, and the geopolitics of energy and extraction regimes in the present. As Griffith argues, the film represents the historic and ongoing dispossession of Indigenous people, but links this to the contemporary geopolitics of petrofuel extraction, through the presence of a group of brutalised security contractors working at the oil site adjacent to the Wind River reservation, with the implication that these workers are also former military

personnel from America's Middle East wars. At the level of landscape depiction, these themes are communicated through the visual ubiquity throughout the film of the various elements of an extractive regime: machinery, lifestyles, modes of travel, all highly integrated into a society dependent on copious and extravagant consumption of energy. But these themes are also communicated through the film's focus on territoriality and sovereignty, both of which relate to the production of landscape.

Devin Griffith's account of *Wind River* argues that it is an example of "energeneric feedback", in which the morbidity and toxicity of a petrofueled society are subjected to critical and historical reflection, through the conception of a sequence of extractive regimes linked to the geopolitics of capitalist modernity. Arguably such an approach can be distinguished from Sekula's conception of extraction, which was more like a refusal to engage with what Frederick Buell defines, in relation to energy regimes, as "the marriage of catastrophe and exuberance". Sekula's project is entirely one of negation. These different positions can be considered in relation to the work of Edward Burtynsky, which has addressed the theme of extraction through his 2009 photographic exhibition, *Burtynsky: Oil*, and, particularly from the perspective of extraction as a mode of social existence, his landscape photograph, "Breezewood" (2008). Recently, Burtynsky has engaged with conceptions of the Anthropocene directly.

Catherine Zuromskis argues that "on its face, Burtynsky's work seems to offer an exposé of the oil industry", but that this is complicated by "the aestheticization of his subjects", and that "his refined handling of detail, depth of field, color, and composition, takes a very real social and environmental problem and makes it lyrical, even beautiful". Zuromskis is ambivalent about this disquieting work, arguing that the "aestheticization" is "critical to understanding"

its distillation of the “affective conditions of late petro-modernity”; the implication within this visual rendering of petro-culture’s gross excesses”, and American culture’s “grotesque, bloated... desire for consumption”, is that this is the only way in which these can be comprehended. Yet, she argues, Burtynsky “envisions the working landscape of petro-postmodernity as something that simply cannot work”, as “paralyzed, impossible” (2014: 292, 303, 306). There are parallels here with Fredric Jameson’s conception of postmodernism, a condition he refuses to approach from an ethical position - as something to be condemned or applauded – but interprets as the “cultural logic of late capitalism”, and a situation from which there is not yet a plausible route of escape. Zuromskis seems to suggest that there might be a comparable dialectical tension within Burtynsky’s photography, but also worries about its tendency to lyricise and aestheticise environmental degradation.

On the 11-12 June 2022, Edward Burtynsky premiered his multimedia project, *In the Wake of Progress*, at the Luminato Festival in Toronto. Co-produced by “Canadian music legend” Bob Ezrin - who formerly worked with Pink Floyd, Andrea Bocelli, Peter Gabriel and other major acts - the project aimed to give “witness to the impact of human industry on the planet”, a “spectacular immersive public art piece” challenging “us to have an important conversation about our legacy and the future implications of sustainable life on Earth”. The “event” combined “video and photographs from throughout Burtynsky’s career” and was “fully choreographed to an original score composed by Phil Strong, with vocals by award-winning Cree Métis artist iskwē and performances by musicians of The Glenn Gould School at The Royal Conservatory of Music”. As the prepublicity concluded: “*In the Wake of Progress* will be a stunning takeover of



[Yonge-Dundas] Square’s surrounding digital screens, enveloping audiences in a 280° array of his famous imagery, including new and never-before-seen work”.<sup>2</sup>

While this excruciating publicity statement from Burtynsky’s website seems to encompass everything his critics regard as fundamental to the problem of his landscape photography, most obviously its tendency to present ecological catastrophe as spectacle, it might be interpreted as projecting one possible if not necessarily desirable combination of elements within contemporary northerness. It employs a long-established strategy through which the immersive properties of a landscape are produced through the supplement of senses other than sight. This is clearly the case in the phenomenological rendering of Arctic landscape in early expedition films and documentary cinema, with the prominence of freezing temperature (Antunes 2016:138), but it is also a key element in *Wind River*. As Griffith describes it: “In *Wind River*, the aesthetics of melodrama are superfueled, especially through its energized sound—the roar of snow mobile engines, the growl of revving pickups—which powerfully augments the emotional burden of the score” (629).

The overwhelming feeling of sensory immersion indicated in Burtynsky’s media project is reminiscent of Adorno’s account of Wagner and the birth of the *gesamtkunstwerk*. It is well known that Adorno considered modernism and mass culture to be the torn fragments of a single entity, the former being symptomatic of a cultural crisis, not its solution, and his understanding of these contradictions as the condition of culture led Adorno to a complex reading of Wagner’s opera. He suggested that Wagner attempted to produce music that “avoided getting caught in the web of commodification”, but was driven by the “growing estrangement of the composer from the audience” to reincorporate the latter into

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<sup>2</sup> <https://www.edwardburtynsky.com/events/2021/6/29/in-the-wake-of-progress>

the work “through calculated ‘effects’”, and “by conceiving of his music ‘in terms of striking a blow’”, a move which silences any member of the audience whose feelings are in disaccord with the music and who is beaten into submission (Huyssen: 36).

However we read Adorno, his emphasis on reification and the invasion of the commodity form into all aspects of life cannot be avoided, and the effect of the process he defines above, associated with Wagner’s *gesamtkunstwerk*, is of the audience itself becoming reified and rendered passive. But it is also arguable that Adorno’s insights into the conflicted nature of the Wagnerian *gesamtkunstwerk* provide a reading of its contradictory character. It is hard to bring such openness to bear on Burtynsky’s multi-media staging of ecological catastrophe, but this particular event/work incorporates a range of elements and dispositions with the capacity to have complicated effects if articulated in a different relationality. We can consider this from the perspective Griffith offers on *Wind River*.

As stated above, Griffith reads *Wind River*’s visual and filmic effects in the historical context of transformations originating in the 19<sup>th</sup> century, wherein “extraction-based lighting technologies” facilitated new visual effects in the theatre, illuminating the stage to a degree not possible before, but also “abstracting” orchestra pit and auditorium from the proscenium, allowing for a seamless combination of visual and sonic effects, creating “a new narrative space of affective engagement”, the music arising “out of nowhere” and creating “a dense aural atmosphere that saturates our experience of television and film” (619). There are parallels here with the Wagnerian *gesamtkunstwerk*, as theorised by Adorno, but in Griffith’s reading, as much as these effects are made possible by the products of successive extractive regimes, they also offer a critical reflection

upon the latter. This is not to embrace Burtynsky's staging of the Anthropocene as a media spectacle but to recognise that it is the articulation of different and contradictory elements within a conjuncture, and that what can be made can be unmade. There are some intriguing elements within this event, including the spectral presence of Glenn Gould<sup>3</sup> and representatives of Indigenous peoples, popular and classical musical segments, and a histrionic effort to stage these elements as a seamless experience of total immersion. Nevertheless, the adaptability of northerness to conceptions of the Anthropocene is evident here, with the potential for a different weaving together of its constitutive elements.

To return to the proposition made at the beginning of the chapter, the northern landscape of global modernity was not a place awaiting discovery, it was the outcome of the process defined by Braudel as "the metamorphosis of Europe into the monstrous shaper of world history" (92), a dynamic weaving together of contradictory elements in the course of conquest, coercion, dispossession, and processes of capital accumulation. The northern landscape is an outcome of the Western imaginary but is also revealing of the ruptures, displacements, and instabilities in this colonial project, particularly where it figures *and* displaces mineral extraction. As the forgoing examples indicate, extraction has been fundamental to Canada's historic and ongoing nation-building project, an articulation of the social, economic, political, and cultural spheres, revealing the fissures in the colonial project's territorial practices, and exposing connections between these and the global politics of ecological catastrophe. These fissures and contradictions have been discussed using concepts such as extractive regimes and

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<sup>3</sup> NB: Glenn Gould's landmark documentary, *The Idea of North*, first aired on CBC Radio on December 28, 1967.

energy regimes, but more recently the concept of extractivism has aimed to capture the complexity of such a conjuncture.

In their critiques of the colonial politics of recognition both Audra Simpson and Glen Coulthard attempt to reopen the question of territory in the context of the sovereign claims of North American settler-colonies, while other theorists have also connected the politics of territory and sovereignty to challenge dominant conceptions of climate emergency. Geoff Mann and Joel Wainwright, in *Climate Leviathan* (2018), draw on the theories of Thomas Hobbes, the appropriation of these ideas in the work of Walter Benjamin and Carl Schmitt, and in Agamben's discussion of the "state of exception", to argue that the declaration of a state of emergency is never simply the recognition of a catastrophic state of affairs, rather it is the suspension of prior legitimate authority and the assertion of a sovereign power outside of law. Whoever has the power to declare the sovereign state of exception determines the form in which the emergency unfolds.

Assuming, as Mann and Wainwright do, that the process of global warming is irreversible, the world will therefore have to adapt to a different climate, but underlying this process of adaptation is a politics of the state of exception. Such a politics, they argue, "assumes a historical and geographical terrain to which it lays claim", and any demand that humanity adapts to a changing climate is always underwritten by the modes of domination and forms of hegemony governing relations between classes and groups (80). There is no crisis of ecology separate from society; prevailing notions of the ecological as a primarily natural process neglect its fundamental social and political character, whether during those purportedly normal historical periods when harmony.

The themes of colonial dispossession, violence, the sovereign exception, and ecological catastrophe are brought together in Paula Serafini's discussion of

extractivism, a “complex” and “multi-layered” phenomenon permeating the economic, social, political, and cultural spheres (Serafini 2021:100). The concept of extractivism was first deployed as a way of identifying - and from a strategic point of view, deconstructing - the logic underlying the distinctive form of capitalism and imperialism in Latin America, but Serafini acknowledges its applicability to other colonial settings. Extractivism is understood in the expansive sense of it pointing towards the articulation of the economic, social political and cultural spheres of settler-states, with a particular emphasis on territory as the locus of this conjoining and the place where “indigenous ontologies and practices” can challenge the underlying logic of the extractivist conjuncture (100)<sup>4</sup>

Extractivism has a geopolitical aspect, in that it focuses upon the iniquities and contradictions of Western climate crisis discourse, as alluded to by Mann and Wainwright. Serafini argues that the emphasis on “emissions” in mainstream notions of ecological crisis only attend to one element within the “production chain” while ignoring “the long-standing destructive and violent processes of extraction that lie behind” these (96). Drawing on Fanon, Foucault, Mbembe, and others, Serafini argues that extractivist violence is historically rooted, originating with “the first encounter between native and settler” (98), but its effects continue, often in the form the “slow violence” discussed by Rob Nixon, unfolding over a long period of time and hidden from view (103).

It has been useful to conclude this discussion with the concept of extractivism, the potential value of which lies in its ambition to theorise inherently complex, multi-layered, contradictory, and unstable phenomena underlying the

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<sup>4</sup> See also - Paula Serafini (2022): “Extractivism and Visual Politics”, a paper given at the symposium convened by Darcy White and Stephanie Hartle: Visual Activism in the 21st Century: Art Protest and Resistance in an Uncertain World, Sheffield Hallam University, September 1<sup>st</sup>

colonial project. The chapter began with the argument that, from the perspective of the conjuncture, an historical process is an uneven composite of elements connected to different histories, temporalities, existences and ways of life, the momentary combination of phenomena with quite dissimilar origins, prior associations, points of application and effectivity, etc; a complex unity not reducible to an external logic. From this perspective the northern landscape cannot be specified through geographical description, because 'place', location, and their putatively phenomenological characteristics - climate, precipitation, temperature, etc. - only acquire meaning through the process of articulation and structuring. Subsequent discussion considered northern landscape in the context of the historical formation and continual reproduction of Canada as a settler-colony, a process involving the constant articulation and disarticulation of different elements and social forces. It was argued that northerness and the northern landscape played an historically significant role in this colonial project, as one means of proclaiming nationhood in the face of countervailing forces, and as a component within the territorialising activities of the Canadian settler-state. It was argued that territory is the point at which the manifold and overlapping contradictions of the colonial project coalesce and become manifest. The concept of territoriality aims to capture the fundamental strategic practices of the colonial state in their multiple and interconnected form - encompassing the social, economic, political, geopolitical, and cultural spheres – while it is suggested that landscape is an intrinsic element in this process. This is evident throughout the discussion, but in the cases of *Cardinal* and *Wind River* the contradictions of colonial territoriality become more pronounced, now revealing the latter's interconnection with extraction, the historic and continual dispossession of Indigenous peoples, climate crisis, and the geopolitics of energy. Some critical

accounts of these aforementioned examples of television and film also deploy terms such as “regimes of extraction” and “energy regimes”, which carry many of the implications of the extractivist concept. These developments in critical thinking about landscape, climate, dispossession, and geopolitics suggest that the expansiveness of the concept of extractivism, as discussed by Serafini, as well as the comparable theorisations of climate catastrophe presented by Mann and Wainwright, can address the current conjuncture in all of its complexity.

Extractivism identifies a framework within which the social, economic, political, geopolitical, ecological, and cultural dimensions of enduring colonial projects are fused. Extractivism specifies the territorial as the sphere within which economic exploitation, colonial dispossession, the erasure of Indigenous histories and ways of existing through strategies ranging from state violence to liberal pluralism, and a pervasive cultural discourse of nation, are all interconnected.

While the discussion of conjuncture within the chapter has been at times abstract, it might, nevertheless, inform the politically strategic and historically analytical dimensions of the concept of extractivism. A fundamental principle of conjuncture is the process of articulation, which can be understood as the forceful wrenching of distinct elements from their previous contexts, historical sequences, and associations into new ones, or to conceive this in another way, that elements can inhabit different contexts at the same time. Such processes are obviously governed by prevailing power relations, and the institutions invested with the capacities to produce entities, but it is an unstable process, always revealing at some level a residue of the ruptures and displacements effected at the moment of their constitution, and requiring constant maintenance and remedial work, and it is open to challenge and the construction of new modes of relationality. Prospects for the latter are various, if limited to when contradictions within a particular

conjuncture threaten to overwhelm it, but one opportune moment can be when the articulation of different material or semantic elements of a given conjuncture begin to reveal previously unknown histories and analogies, as well as anomalies. Such opportunities for a disarticulation of a complex unity within which subordination of dispossessed peoples can be challenged might be conceived to exist within the moment, or conjuncture, of extractivism.

Approached from a different perspective, however, the concept of extractivism allows for one of the dilemmas of conjunctural thinking to be posed. To return to the formulation presented by Althusser in *For Marx*: the concept of overdetermination stipulates that social contradictions can accumulate within spheres operating according to their own “specific modalities” of “action” (99-101). The weaving together of such contradictions is not a consequence of an underlying logic, essence, or destiny, and it is not argued that they simply express a general crisis of capitalism, but the multifariously contradictory nature of a conjuncture leaves open the potential for the articulation of a different relationality. What can be made can be unmade.

Nevertheless, it has to be recognised that the question of determination or causality remains a thorny philosophical problem. The idea that capitalism’s contradictions have primacy - but in a displaced or absent form - has considerable strengths. In Stuart Hall’s estimation it “provides a defining conceptual threshold and boundary-limit *for* Marxism (without which it becomes another thing, another kind of theory – a theory of the absolute autonomy of everything from everything else)” (1977: 59). It remains, nevertheless, open to challenge, and can best be defended by moving the critical argument to other ground, as in Althusser’s recommendation “... to think under the conjuncture” and “to submit to the problem” it induces and poses, which has been the general aim of this chapter.



And the most productive result of this objective has been through first conceiving northern landscape in its colonial context as a territorialising process, linking the social, economic, political and cultural spheres of settler-states to the geopolitical, historically and in the present, and not to focus on capitalism as a purely economic phenomenon, nor to claim that its contradictions are necessarily the dominant ones in any conjuncture. Arguably the concept of extractivism can illuminate this conjuncture, revealing previously unrecognised elements within its complex unity, providing a greater purchase on the concept of the territorial in a colonial setting and casting new light on the climate crisis and ecological catastrophe.

The chapter overall has aimed to show that nordicity and its landscapes are a durable phenomenon in the context of Canada's long history of nation-formation. The examples of *Cardinal* and *Wind River* both inhabit this discursive terrain, to some extent perform acts of closure around its central operating principles, but they also unsettle key elements. We have seen how extraction was one of the heroic elements in Canada's conception of northerness as frontier, but a highly unstable one, as demonstrated in Allan Sekula's landscape images and discussion of Sudbury, which showed the difficulty of managing extraction's effects within the environment in relation to other conceptions of nation. But such a complex operation is not recent and was prefigured in the efforts of the Group of Seven landscape artists in the 1930s, and echoed the ambivalence regarding the Arctic dating from the late 19<sup>th</sup> century. The northern landscape conjuncture has in other words always existed in a condition of instability.

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**Stephanie Hartle. Ecological entanglements: embodied surfaces and screens  
in the work of Victoria Lucas**

**Introduction**

Discussing the place of the image, imagination, and the iconic turn in the context of the digital – alongside a phenomenological concern for the power of images – Bernd Huppau and Christoph Wulf propose that, whilst in the present we are experiencing a “triumph of the image”, we need to consider the possibility that technological shifts have led to a less defined understanding of what an image is (2009: 4). They describe the way developing technologies have pushed the limits of representation and have imparted new types of relationships between images, their producers, and their receivers, suggesting, “the productive power of advanced technologies makes images hover on the threshold between the visible and the invisible” (ibid: 6). The ability to bear witness ethically and accurately continues to dominate contemporary photographic approaches. In the context of the Anthropocene and the increasingly precarious state of the environmental crisis, there is a seemingly urgent need to probe the mobilizing possibilities of photography, and other types of images – to reverse what Terry Smith has previously outlined as a “decline with a scarcely perceptible but relentless acceleration, towards opacity” – in other words, image fatigue and incapacitation (2001:1).

The potential of art to acquire social relevance and further, to unleash critical participation, is haunted by the spectre of the failure of the Left and a nostalgic melancholy in much contemporary art practice declaring itself as political – such art can appear empty or ineffectual. The ability of art, or other types of visual culture, to confront, antagonize and contest dominant ideologies is



necessarily flattened out into a commodity, absorbed, and coopted by institutional powers, governments, and other corporations. This sense of cooptation remains highly applicable in the era of neoliberalism and within contemporary debates over the relationship between art and the environmental crisis. Art's potency can therefore be at risk of becoming blurred by a routineness and ordinariness perpetuated by hegemonic society – the power of art to discuss and call to question, rather than merely represent is at risk of being negated in this system. This chapter, whilst on the one hand accepting some of the failures of art's political potential, also seeks to sketch out some of the ways in which a specific art practice addresses and renegotiates the politics of looking, to offer a critical alternative to dominant discourses around the representation of the environmental crisis and human habitats.

This discussion will examine the practice of artist Victoria Lucas, specifically centred around work presented at *Platform 20: Heavy Water* (Site Gallery, Sheffield, July-August 2021). The political and geographical location of her creative enquiry is the impact of extractive capitalism; an anonymous quarry in the North of England provides the material for her rereading of place and image (Velvick, 2021). Lucas utilises a range of photographic and visualizing technologies and materials to reimagine the relationship between body and strata – the entanglement of humans with the materiality of landscape and technology, ecological awareness and more precisely, with female subjectivity (Site Gallery, 2021). It will be argued that through this practice of incorporating a range of media and subjectivities, Lucas critically engages with the politics of representation and photographic seeing.

In more conventional photographic representations of the Anthropocene, the privileging of realism has proven problematic in terms of asserting a detached

and distanced aesthetic, itself posing a gendered dimension to the visualizing of the ecological crisis. In *Platform 20*, Lucas's work offers simultaneous but different iterations of matter, strata and human experience, through their juxtaposition, challenging both the single view dominance – the male sovereign Cartesian subject, and the dualism of nature and culture. The hybrid objects in Lucas's work thus decentre the human as the controlling male subject and allows for other views. Lucas invites a critical reflection on the nature of the relationship between human sight and technological sight – and the contingent spaces that exists within these, through the interspersing, rupturing and play, between different types of surfaces and screen. Drawing upon the writing of Joanna Zylińska in *Nonhuman Photography* (2017), and the theoretical frameworks of new materialism and posthumanism, this chapter also seeks to examine how Lucas's work can be positioned as an entangled recoupling of human agency and bodily experience with nonhuman visualizing technologies and nature, or what Zylińska proposes is a “technology of life” (2017: 4). For Zylińska this move away from the human-centric tradition of photography is crucial and potentially liberating since, “unseeing ourselves and what we are calling ‘the world’ in this way must be a first step in any kind of concrete and responsible reconfiguration of our here and now” (ibid: 101).

### **Significant surfaces**

*Platform 20* (Sheffield, August 2021) presented projects by five Sheffield-based artists, including an interdisciplinary exhibition at Site Gallery in Sheffield by the collective known as ‘Heavy Water’, with work developed by artists Maud Haya-Baviera, Joanna Whittle and Victoria Lucas as part of their residency for Freelands Artists' Programme (Site Gallery, 2021). Lucas's recent work is

described as confronting “the history and materiality of place from a feminist perspective to remap, embody and entangle the material strata of rural landscapes in the context of the environmental crisis” (Freelands Foundation, 2021). In this exhibition Lucas displays four pieces which explore this interconnection; *Aggregated Form* (2020), *Formations* (2020), *Coalesce* (2021) and *Entanglement* (2021). For Lucas, this confrontation takes place against the background of a northern post-industrial site of extractive capitalism, whereby “reconnecting with the non-human is a gesture of anti-capitalist resistance, and resulting artworks subvert exploitative and violent systems of extraction as a way to reclaim self-willed subjectivity, both human and non-human” (Freelands Foundation, 2021). She translates the experience of a physical site, a long disused quarry in Derbyshire, into the gallery space through an engagement with different technologies, material outputs and installation— photograph, sculpture, performance, video, and sound. In doing so she embarks on an excavation of her own, splicing into the site’s geological history, its violent interactions with man, its materiality, and Lucas’s own female subjectivity.

[Figure 1. Installation view, *Aggregated Form*, Large scale photograph on fabric, plaster cast, 2020]

In Lucas’s practice there is a sense of an altered landscape expressed through different spatial and temporal dimensions, of evolving and entangled ecosystems and futures unknown. There are glimpses of secret pasts and new forms of life, of a retrieval of the ravished strata by the dense spikey moss hummocks of *Polytrichum commune*, and other vegetation. Lucas is especially interested in the role of this particular ‘matriarchal’ moss, its pillowy covering of

the quarried rock is likened to the cushioning provided by “delicate green bandage” (as cited in McKinlay, 2021). In all four works presented by Lucas in *Platform 20*, we observe an extension and exploration of this concept of covering, concealment, surface and wrapping. In the installation piece *Aggregated Form* (fig.1), printed fabric hangs vertically from the ceiling and spills, or ripples, out onto the floor. It is accompanied by a dark quartz-like sculptural object that appears akin to a geological specimen, seemingly weighting down, or anchoring, the fabric’s suspended form. The work, referencing the horizon of the quarry itself, partially ‘cuts up’ the space of the gallery like an architectural structure, but does so softly, the fabric gently folding over itself like a curtain. The hardness implied by the rock is playful and provocative, made from plaster cast, polystyrene and painted paper pulp, there is an implication of the *unnatural* – a commentary on the wider context of quarrying and man’s disturbance of the land. Similarly, in the seven framed photographs that form the piece *Formations* (fig. 2), we see Lucas herself, albeit anonymously hidden. A figure is wrapped in a blanket of synthetic fabric, printed with images of ‘natural’ forms from the quarry. There is ambiguity in the draping and enveloping of this fabric. One can read this as a type of comfort or security blanket, warm and protective. On the other hand, the performativity of body and the materiality of the fabric imply a transformative merging, a reshaping of human and non-human forms. There is an implicit duality at play; in the veiling of the fabric, an unveiling is symbolised. In *Coalesce* (fig. 3), a white oval surface, positioned on the floor at a diagonal angle, is covered by a video projection of shifting images of moss and vegetation in an ongoing movement of surface multiplication. The single channel video work *Entanglement* (figs. 4 and 5) incorporates an audio narrative spoken by Lucas in which she conveys the sensory experience of matter, colour, texture, and thoughts of being

with, and in, the landscape. Lauren Velvick describes an important aspect of Lucas's work; "instead of text or data driven displays conveying factual information about geology, it is from tactile manifestations of softness interrupting and enveloping jagged edges that we can glean Lucas's intentions: "[...] This impulse towards mending and softening – the dressing of wounds – is an inherent part of the process" (Velvick, 2021).

[Figure. 2 Installation view, *Formations I - VII*, Limited Edition  
Photographic Series (1/30), 2020, 420 x 594mm]

Through this methodology, Lucas further probes the notion of a feminist heterotopia which she has already explored in previous works<sup>1</sup>, reconnecting to landscapes where women have previously been excluded or removed (see McKinlay 2021, Perry 2022). Together, her works reconsider the relationship of women, history, and nature. For Lucas, the concept of 'reclamation' is fundamental to her approach, she describes it "as a method of deconstruction and reconstitution and as a transformative process that leads to a revisioning of female subjectivity" (as cited in McKinlay, 2021). The female encounter with nature in her work therefore can be said to attempt to challenge traditional concepts of femininity, the environment and technology. Symbolic and literal concepts of digging, excavation, extraction and cutting – through the deployment of different technologies and labours – come to embody a subjectivity that reclaims the gendered trope of Mother Nature, traditionally seen through an orderly masculine gaze of rationality and distance (see Wells, 1994). The encounter with Lucas's practice draws attention to the inherent mutual subjugation and exploitation in the

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<sup>1</sup> For example, artworks such as *Where Rock and Hard Place Meet* (2018) and *Standpoint* (2020).

conflation of nature and women, and points to the more complex way meanings and identities entangle and intersect.

Feminist geographers have demonstrated how interrelated concepts such as environment, nature and landscape have been assembled around specific “assumptions about gendered identities” which in turn reproduce ideologies of gender difference (Rose, Kinnaird, Morris and Nash, 1997: 146). This understanding necessarily involves repositioning complex terms such as ‘nature’—addressing its identity in opposition to the conceptualisation of the (separate) human world and acknowledging the way in which nature in Western discourse has thus been feminised and/or Othered (ibid: 157). In *Formations*, which more explicitly references Lucas as an autonomous individual, the human body is absorbed with and by the landscape and her identity is obscured and concealed. This also attempts to counter what Velvick identifies as “the difficulty of depicting a woman’s body or face, especially within ‘nature’, without playing into a host of unsought connotations” (2021). Traditional representation of landscape is mediated through a gendered construct of both femininity and nature – it offers up a particular way of looking and seeing, of organising and controlling. In opposition to this, Lucas clearly sets out to rethink the relationship of ecology and the female body. In the accompanying spoken narrative to the video work *Entanglement*, Lucas states:

Heightened senses, the allure of the moss washes over me,  
filling my body with euphoric electricity. I breath [sic] deeply, calmly.  
Something inside it ignited, my own source of feminine power that  
has been laying dormant all of these years. Called up from the depths

of my bones, from the pit of my stomach, from the inside of my veins  
(Haarlem Artspace, 2021).

In the context of the Anthropocene and the environmental emergency, visual representations can reinforce the separation of human from nature since, “the environment is very often conceptualised purely in physical form” (ibid). The lack of recognition of the complexity of human and nonhuman exchanges here is damaging, as it serves to maintain the nature/culture dualism – a patriarchal, Western construct. Feminist theory has provided a framework for unpicking dominant forms of knowledge as related to the environment, ecological and political issues. Françoise d’Eaubonne is identified as being the first to apply the term ‘ecofeminism’ in her 1984 text *Le Feminism ou la Mort*. In its theoretical positionings, ecofeminism can involve quite divergent or incompatible (and culturally specific) approaches to the relationship of feminism and the ecological disaster (ibid: 160). However, Rose et al propose that the connective tissue of these feminist environmental philosophies is “a vision of society beyond militarism, hierarchy and the destruction of ‘nature’” (ibid: 161). Paying closer attention to the specificities of time and place are crucial here since “social ecofeminists understand the connections between women and the environment, not as essential, but as *constructed*, in particular places at particular times in particular ways for particular reasons” (ibid: 164). In Lucas’s approach to practice, we are also reminded of the importance of engagement with place – revisiting, revising and reworking as a process of aggregation over a number of years. In this way, Lucas sets up a visual representation which can work against the immediacy of more popular or conventional modes of visualizing the environmental crisis. Immediacy here is often engendered by the enduring power

of the single image, which conforms to a constructed rhetoric of spectacle in their rendering of more explicitly dystopian or elegiac scenes – often depicted as detached or neutrally observed.

In his critique of the obscuring rhetoric underpinning our experience of the Anthropocene, TJ Demos turns his attention to the role of visual culture and the politics of representation, considering, for example, the way in which photography and other visualizations have mapped out the earth in ways that promote a universalizing global point of view (2017: 20). Referring to such a generic “world perspective” as “an ideal image and an image of idealism”, Demos suggest this is highly problematic precisely since it reduces the world to “an object of contemplation detached from the domain of lived experience” (Ingold 2017: 20-21). Unpicking several types of photographic approaches in the conceptualization of what he prefers to refer to as the Capitalocene, Demos identifies the work of Edward Burtynsky and Louis Helbig, for example, as indicative of a particular visual trope in mainstream media (ibid: 60). Operating within, or close to, the boundaries of more traditional documentary, such practice is typified by large scale images, often with a detached aerial (or god’s-eye) perspective, sharpness of detail and a deadpan aesthetic that re-negotiates the conventions of the sublime in its rendering of “environmental violence” (ibid: 61). In a similar way, Irmgard Emmelhainz has examined how contemporary visualizations of the Anthropocene are impacted by a surge in the ubiquity of “groundless seeing [...] which parallels our increasing exposure to aerial images (for example, through Google Earth). The hegemonic sight convention of visuality is an empowered but unstable, free-falling, and floating bird’s-eye view” (2015:137). For Emmelhainz, this groundlessness is significant because it negates



“any ground on which to found politics, social lives, or a meaningful relationship to the environment” (ibid).

Other commentators have also posited the visualization of the Anthropocene as a kind of alienating anaesthetic, whereby initial feelings of shock (from seemingly critically engaged subject matter), quickly gives way to a normalising ordinariness. Nicholas Mirzoeff writes that the “aesthetics of the Anthropocene emerged as an unintended supplement to imperial aesthetics—it comes to seem natural, right, then beautiful—and thereby anaesthetized the perception of modern industrial pollution” (2014: 220). In this argument, the visual trope of the industrial sublime, whilst entailing some degree of consciousness raising, ultimately causes the viewer to disassociate, to be distanced or neutralized from the actualities of the spectacle – an episode of what Jacques Rancière proposes is the shift from “the intolerable in the image to the intolerable of the image” (2009: 84). In this process, accountability for the ecological catastrophe is further obscured and action is rendered impotent, it does not speak to the complexity of the capitalist systems of oppression that underpin it. In the current visualization of the ecological crisis, Joanna Zylinksa locates this type of contemporary image-making within a historically situated rhetoric of “ruin-porn” or “ruin-lust”, typified by empty, abandoned or deteriorating land/scapes, which she describes as a “(re)presentation of the vanishing of the world as we know it by artists, and the pleasurable and painful wallowing by viewers in the images of decay that show the world as it soon will be” (Zylinksa, 2017: 85). As with Demos, Zylinksa singles out projects by well-known male photographers such as Burtnysky and Andreas Gursky for conforming to such “horrifying yet ultimately digestible images” (ibid: 88).

Certain visual tropes of the dominant representation of the Anthropocene, or what has been referred to as the “eco-eco disaster” (as cited in Zylinska, 2016: 172) serve to reproduce dominant ideologies of gender, class, race, vision and perspective. Rose et al deem this in terms of the “masculine gaze”, for example in the way landscape imagery is often of an “orderly space some distance away”, perpetuating a notion of Western masculinity which aligns itself to “a rational and objective self, and a self which is positioned in relation to a world perceived as separate from them” (1997: 171-172). In contrast, feminist approaches to interrogating landscape acknowledge the interplay of these power structures and offer alternative methods of representation. Lucas contributes to this decentring through what I deem to be a type of disruptive practice – a disruption of both the boundaries of landscape imagery and the depiction of space and place as unbounded. In the representation of landscape, Rose et al characterise this as a “non-dichotomous” or “paradoxical space”, which provides a more constructive method of visualizing nature and the politics of the planetary emergency. They argue, “thinking this way about space means working with the idea of being simultaneously inside and outside, occupying centre and margin” (ibid: 193). In this context, Lucas’s work might further this decentring by foregrounding a more sensory and fluid material/cultural exchange in our understandings of space and place.

**Figure 3. Installation view, *Coalesce*, Video Projection, 2021, 10:00]**

In the transmediality of her practice Lucas’s work reframes the engagement of vision, technology and gender binaries to consider a new way of being or ‘becoming’. In challenging these hierarchies, Lucas uses different

visualizing technologies to ask questions of the viewer, throwing them into a position of uncertainty. Themes of multiplication and altered perspective can be seen in the oval screen of *Coalesce* (2021), it projects shifting and duplicated images of the mosses' surface and texture. The aesthetic of mirroring is purposefully used as a communicative device to help grasp "a sense of abundance and endlessness that serves to counteract the inherent devastation wrought by extraction" (Velvick, 2021). In *Entanglement*, photogrammetry is used to translate the physical space implied by a photograph's data into a three-dimensional digital space— here surfaces are also experimented and recast. The material of the quarry, simultaneously a fragment of many parts and a whole object, is seemingly suspended in space or moving dynamically through the space, through shifting perspectives and surfaces. According to Vilém Flusser, photographic images are "significant surfaces" – surfaces which can open out different temporal and spatial relationships (2000: 8). But, as humans, he suggests, once we turn something into a photographic image it often becomes a barrier to our experience and understanding of the world – more literally a screen, and in doing so images come to replace reality as a kind of "hallucination" (ibid: 9). In Lucas's work the tactic of illusion or hallucination is purposeful – images on screens (as in *Entanglement* and *Coalesce*) appear to glitch, shift form, or quickly move to a different viewpoint. Again, hallucination is harnessed to provoke a digging behind the surface, an unearthing of the entanglement of matter and body. There are flickers or glimpses of different histories, narratives and agencies.

[Figure 4. Installation view, *Entanglement*, Single Channel Artist Video,

2021,09:00]

[Figure 5. Installation view, *Entanglement*, Single Channel Artist Video,

2021,09:00]

The work of Lucas in this respect interrogates the cultural framing of images in a world dominated by screens. In the digital age this is especially significant in terms of their increasing uniformity, manipulation, and distribution. Lucas's engagement with screens – and photographic images – provides a way to consider alternative ways of seeing and experiencing the relationship between natural matter and human activities. I propose Lucas's body of work constitutes a powerful mediation of the place of the image in relation to the viewer, providing degrees of connection and separation with the surface of the image and the politics of looking. Strategies of scale, texture, surface, and screen meet as a way of interrogating the privileging of the noblest of senses. As suggested, this involves a philosophical enquiry into the image and notions of the real – or at the least, a consideration of the way artists can interrupt the legibility of the surface to question what constitutes the real. This logic draws on a position that asserts a mistrust of an image as a replication of a singular reality. Self-reflexive image making also points to the need for the viewer to complete meaning, but through the disruption of legibility it also reminds us that there is always a gap between what we see and know. In each of the four artworks presented at *Platform 20*, Lucas provides a space, a gap, or a stutter, between images and language, loosening the bond between a conventional image and the thing represented. It transforms the image as a mimetic replication by relaxing reality's grip on the image and breaking with the logic of imitation and documentation. What Lucas' work contributes here is to suggest that it is not so much that the spectator requires liberating, but our sense of reality; this is the source of inactivity or

perhaps what David Campany refers to as “safety in numbness”, or the inevitable “indifference and political withdrawal” in the face of ubiquitous images of trauma (2003: 88).

And yet, the medium of photography has always been challenged by and through its relationship to other art forms and disciplines– often resulting in an entanglement of work which may have more complex visual, material and spatial dimensions (Soutter, 2018: 135). In contemporary practice, Lucy Soutter suggests this is an indication of what some critics have called “a ‘post-medium condition’ (see also Baker, 2005 and Krauss, 2000) in which artists move freely among forms as suits their practice” (Soutter, 2018: 135). In this opening-out of the photographic, the perceived boundaries and fixities of discrete art disciplines are broken down – or more accurately, we are reminded that such divisions have always been false anyway – there has always been a dynamic dialogue and exchange. In Lucas’s work the approach of transmediality is important in order to convey something of the physical experience of place, or that, as Soutter describes of any artwork with a physical manifestation, “attention to the material properties of photographs in time and space deepens our relation to them, encouraging us to factor in our bodies and our social and cultural context” (ibid: 136). Soutter refers to comparable approaches to image making in contemporary practice as “an accumulation of surface information” which “offers flickers of experiential insight that news photographs cannot provide” (ibid: 153).

Claiming that ‘scale is one of the most central and neglected issues of photography theory’, Olivier Lugon has attempted to rethink the previously held beliefs regarding the medium’s key characteristic – reproducibility (2015: 145). He suggests that experiments with scale in recent contemporary art practice can more generally be argued also to attempt to negotiate the language of digitized

technologies – compression, enlargement, minimize, zoom, cropping. Lucas's work, therefore, in particular the different spatial forms presented in *Aggregated Form*, can be placed within a wider concern for exploring the direct confrontation of art as object, and the bodily relationships of art and viewer, through shifting perspectives of distance and proximity. Photographic imagery, manipulated and then printed onto the hanging fabric is also presented as having a different kind of physicality and objectness. Again, we may consider the way this aspect of scale raises issues regarding the photograph's status, or the way it functions on the level of information or evidence. For Soutter the wider "crisis in representation" in art practice signals a shift towards the consideration of art's *affect*, how we might experience this in an embodied rather than a singular visual way. She argues, "it involves a suspension of our normal perception, a shift into an alternate mode that allows us, if only momentarily, to reconsider ourselves and our relationship to the world" (ibid: 151).

### **Material intra-actions and entanglements**

Writing about photography in *The Miracle of Analogy*, Kaja Silverman proposes an alternative train of thought, that rather than merely a representation or an index, "photography is an ontological calling card: it helps us see that each of us is a node in a vast constellation of analogies [...] the authorless and untranscendable similarities that structure Being, or what I will be calling 'the world', and that give everything the same ontological weight" (2015: 11).

Similarly, in her book *Nonhuman Photography*, Zylinksa argues that more than simply a representational device, photography actually 'enacts'; it is both life forming and transforming in its inherent ability to arrest and capture time and to "conjure things out of it" (2017: 91). Zylinksa offers up a new spatio-temporal

way of thinking with, and through, photography and other visualizing technologies to challenge visual tropes across a range of cultural practice she terms “after the human”. This term points to a way of thinking on – and visual representations of – the ecological crisis in both the here and now, but also in the abstract (though increasingly urgent) possibility of an extinct, non-human future (ibid: 81. See also Zylinska 2016). As outlined in the previous section, typically these representations are limited to the aesthetic trope of the ecological sublime, of ruin lust, or sci-fi entertainment on mainstream film and television. However, for Zylinska, photography is ontologically a “practice of life” because it “records life, remembers life, or even creates it, bringing forth images, traces and memories of the past while also transforming the latter into a different – clearer, more stable, less perishable – version of itself” (ibid, 84). Photography can therefore function to offer the possibility of more radical visualizations of the environmental crisis than those often perpetuated in popular culture and much art practice.

Zylinska is clear that photography still has an important political and ethical responsibility in the visualization of the Anthropocene– indeed she argues it “is uniquely placed when it comes to exercising what might be termed the geological sensibility and re-imagining the eco-eco disaster” (ibid: 95). She suggests this is partly because of its special relationship to duration, and the passing of time as an “*enforcer of temporary stabilization*” which provides an opportunity to pose “*a different perspective on the problems of extinction, climate change and the depletion of natural resources*” (ibid). Zylinska is aware that the photograph’s temporal arrests – or stabilizations – are only ever temporary and ephemeral; however, in these moments of “incision” such images can, “scale down the ‘deep time’ of nonhuman history to the human measure of duration and

perception, while also reconnecting us to a temporal flow of matter and energy” (ibid).

Zylinska also argues that photography has a powerful mobilizing potential if it is used as a tool to decentre the conception of “after the human”. Essential to her proposition here is that photography is by its nature already fundamentally nonhuman. It exists in a wider “photographic condition” in which the nonhuman technologies or apparatus collaborate to help bring images into an actuality, or as Zylinska states, “*various living and non-living things –such as, say, satellites in the sky or cells in our body – participating in the process of imaging across many levels and scales*”, – it is therefore ultimately a “creative process of life” (ibid: 96). In this context, she advocates for an understanding of photography itself as being “after the human” since it transcends traditional anthropocentric discourses of image-making.

In keeping with this realm of thinking, I place Lucas’s work firmly in this entanglement of the biological and the technological, for the way it makes its own ‘incisions’ in time, but also for its exploration of representation away from a purely human-centric vision of technology, matter, and strata. Sarah Kember proposes that although photographic codes and conventions still endure, photography is “no longer a discrete medium, but rather one that has converged with, or become remediated by, the computer” (2013: 57). Kember draws on the writing of Fred Ritchin in his book *After Photography*, of 2008, to consider the way the digital and networked image “spreads like a virus” through everything – including us; Ritchin insists that we are irrevocably changed culturally, psychologically and physically (ibid). Referring to his assertion as ‘physicalism’ in its foregrounding of the material and “its metaphorical alignment of politics, particles, pixels and people”, Kember suggests that Ritchin’s approach “derives



from a willingness to engage the fields of technoscience (cybernetics, artificial intelligence, particle physics, genetics and so on) that is still unusual in the context of debates on photography” (ibid.). Attempting to take this a step further, specifically in the context of discussions of biopower, Kember advocates for an interrogation of the “biopolitics of life after photography” and the significance of such visualizing technologies’ convergence with biotechnologies – in short, to consider the relationship between “technologies and users and of human and non-human agents” (2013: 58).

For theoretical physicist and feminist theorist Karan Barad, such entanglements are both vital and dynamic, challenging previously held beliefs regarding the nature of material relationships, the processes of their interaction and the boundaries between them. Rejecting the traditional binary separation of material and culture and the dichotomy of human and non-human, Barad extends the work done by previous feminist posthumanist theorists such as Donna Haraway or N. Katherine Hayles to reconsider these complex exchanges. In her book *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*, Barad outlines her thinking on what she terms “agential realism” – an intersectional framework “that provides an understanding of the role of the human *and* nonhuman, material and discursive, and natural and cultural factors in scientific and other social-material practices” (2007: 26). She argues that “to be entangled is not simply to be intertwined with another, as in the joining of separate entities, but to lack an independent, self-contained existence. Existence is not an individual affair” (ibid: ix). As such, technologies and their users, and humans and non-humans do not simply interact as separate entities, nor do individuals “pre-exist their interactions” – but rather – “emerge through and as part of their entangled intra-relating” (ibid.). For Barad, the concept of intra-action

breaks down, or blurs, the supposed differentiation between related divisions such as “between creation and renewal, beginning and returning, continuity and discontinuity, here and there, past and future” (ibid.).

To ‘quarry’ is to dig, to cut, and to extract material in labour intensive and bodily ways. In the practice of Lucas, the analogy of excavation and bodily practice is fastened to her processes in the search to visualize the entanglement of many worlds. However, the now obsolete meaning of the word is also of relevance here. Deriving from the old French words ‘*cuir*’ (skin) and ‘*corée*’ (entrails), a quarry also refers to an animal killed in a hunt, its insides exposed by the hunter (see Merriam-Webster, 2022). In her experiments with different types of technologies and processes that probe various surfaces, textures and screens, Lucas’s practice renegotiates the sentiments of bodily boundaries located by Donna Haraway in ‘A Cyborg Manifesto’. Haraway asks, “why should our bodies end at the skin, or include at best other beings encapsulated by skin?” (1991: 178). Lucas proposes that her work *Entanglement*, “enables the viewer to fluidly shape-shift through the skin of rock, through the water held in the moss, through the air and the earth. Through strata of meaning” (@victoria\_lucas\_gallery, June 29, 2022). In her call for a reimagining, blurring, and transgression of ‘border territories’, Haraway cites three main areas of breakdown of boundaries; between human and animal; between animal-human (organism) and machine, and between physical and non-physical. She proposes that the knowing self is always “partial in all its guises, never finished, whole, simply there and original; it is always constructed and stitched together imperfectly, and therefore able to join with another, to see together without claiming to be another” (Haraway, 1991: 193). The great gift of the cyborg for Haraway is in its ability to breakdown totalising theory, or more specifically, “cyborg imagery can suggest a way out of the maze

of dualisms in which we have explained our bodies and our tools to ourselves” (ibid: 181). In her more recent book *Staying with the Trouble*, Haraway shuns the hierarchically loaded term Anthropocene, advocating for its replacement with the more complex term ‘Chthulucene’, to better encapsulate the way human and nonhuman are entangled in a situation of, “ongoing multispecies stories and practices of becoming-with in times that remain at stake, in precarious times, in which the world is not finished and the sky has not fallen—yet” (2016: 55). For Haraway this is a process of ‘tentacular thinking’, where the analogy of a wide range of human and non-human tentacled entities and networks provides a vision of an inextricably interwoven and connected world(s).

Such transgression of space and border edges leads to the exploration, or inhabitation, of spaces left out, or what might be called the ‘between’ spaces – the points of overlap between human and the environment. Such an approach is indicative of so called ‘imagined’ spaces favoured by feminists and feminist geographers to displace the dualism of culture and nature – a rejection of the notion of absolute space and the staticness of place (see Massey, 2005).

In addition to this, we might begin to grasp how Barad’s understanding of quantum physics in its broader context (its undoing of linear and progressive notions of time) has implications for our understanding of the Anthropocene, as well as our understanding of our relationship to the earth and earth systems. In a talk given at Aarhus University, Denmark, titled ‘Troubling Time/s, Undoing the Future’, she ponders the myriad notions of linear and nonlinear time we might encounter (geological, digital, cultural, memorial) but importantly acknowledges how our preoccupation with the hyper accuracy of linear time is a result of the requirements of the global economy; “the mechanical guts of capitalism including GPS, telecommunications and high speed transfer on internet lines, depend upon

it” or perhaps more precisely “this is the time of capitalism, colonialism and militarism” (Barad, 2016). In Barad’s view, the progressive linearity of modern Western time is an “ideological abstraction” that asserts a “homogeneity of world history” and therefore poses a great risk to the future of the planet. She calls for a different understanding(s) and experiences of temporality and history that, as with indigenous cultures, are not singular but instead as “shaped by places” (ibid). Lucas’s artwork clearly poses relevant questions of temporality, not only more literally in her choice of subject matter (geological strata, layers of history, the lifecycle of mosses and other vegetation), but also in her process of revisiting the site over a number of years, and in her experimental approach to the temporality of the image. Themes of stasis and duration unfold in each of the works presented in *Platform 20* – video work, sound, photographs, hanging fabric, still object, and projected screen give way to varying conceptions of movement and time.

## **Conclusion**

Examining how the contested term ‘Anthropocene’ is “not simply a new geologic epoch; it is an opportunity to embrace a new ontology”, Melinda Benson argues that “in it, we can reconfigure our orientation to the material world” (2019: 252). In the prevailing discourse on the Anthropocene – the centrality of the impact of human behaviour and agency on the environmental crisis – we see the perpetuation of binary divisions which have their origin in the Enlightenment – as Benson explains – “that humans are separate *from* and doing things *to* nature” (ibid.). Such an approach, according to Benson, is not just inaccurate but also wholly limiting in terms of the ability to address the present ecological disorder. This separation of human and non-human is radically reconfigured in new materialist theoretical frameworks – decentring the human as having sole agency

and allowing for a more nuanced and dynamic set of relationships and exchanges. It is through this posthuman lens that I have positioned the work of Victoria Lucas, specifically in terms of her use of different technologies to reframe the relationship of humans, female subjectivity, and nature. In *Entanglement*, Lucas further addresses the importance of the moss colonies to the site, and to her own conception of being:

She populates a wound inflicted on the land by the hands of men - protecting the raw cut of the rock with a film of living matter. Photosynthesis is palpable, the whole space feels alive - electric - and the longer I stay the more I become part of it. My senses heighten, my pupils dilate. I become animal - I am an animal - and she holds me in her wisdom (Haarlem Artspace, 2021).

In *Platform 20* Lucas's provides a more sensory, physical, and tactile experience of the complex dialogue between human and non-human, and there is a more careful balancing of her own physical relationship to the land with an interrogation of the wider entanglement of human and non-human life forms. The imaging of the environment in these four artworks is not a sensationalist spectacle or a cliché image of the Anthropocene, nor is it explicitly about the ecological emergency in isolation. Rather, it seeks to address the intersectional nature of the crisis and its relationship to other organisms and other systems of power and control in a capitalist structure. In Lucas's work we see an attempt to explore the way in which matter, materials and meaning 'intra-act' – how geology, strata, place, body and gender become entangled – not as separate elements interconnecting but – as per Barad –always in an ongoing process of iteration and

reconfiguration. Rethinking our assumptions about the material world involves a challenge to the way we have previously understood and experienced matter ontologically – for example as inert, passive and mechanistic –ripe for mastery and domination, and as such “allowing nature to become property” (Benson, 2019: 257). Instead, the notion of agency is recast to include all types of interactions and their processes, thus negating a range of binary oppositions and fixed positions.

Photography remains central to the discourses that underpin our understanding and experience of the world, including the ecological crisis. Emmelhainz argues that the “Anthropocene era implies not a new image of the world, but the transformation of the world into images” (2015: 135). As we have seen, this is often problematic as there is a tendency to reduce the visualizing of the Anthropocene in one-dimensional terms, a terrible but paralysing beauty. Lucas’s engagement with different visualizing technologies and materiality contributes to the continued interrogation of the role of photographic images in the mediation of our relationship to non-human entities and the conditions of the Anthropocene. The ‘undoing’ of conventional representation in Lucas’s practice is more literally indicated in her choice of titles; *Coalesce*, *Entanglements*, *Aggregations* and *Formations* point to a critical exploration and rejection of the foundations of representation, its notion of separation, delineation, and borders. They also firmly establish the importance of multiplicity and challenge a singular or universalizing vision, thereby resisting the popular visual trope of the detached, objective, and distanced observer – perception is instead embodied and immersive. The language and visual methods used to map out this project points to a hybridity of forms and objects, abstract and emerging rather than fixed or pinned down – in Lucas’s artwork images multiply, hover, dangle, move,

disappear (Velvick, 2021). Here again, matter is in flux, unfixed, dynamic and in a state of ongoing entanglement.

In Lucas's work we see the significance of such iterations in the intra-action of various narratives, materialities, surfaces, textures, spaces, performances and temporalities – a confluence of connective practices which entail a more complex remodelling of space and perspective; there is not a single, fixed coherent view. The exploration of different media, and the juxtaposition of these in the gallery space signal a temporal intra-action in motion, these become inseparable as their agencies emerge, providing a renegotiation of the boundaries of photographic images (Vuorinen, and Najdowski, 2018: 14). Barad promotes the importance of posthumanist performativity as a challenge to the politics of representation. She argues, “unlike representationalism, which positions us above or outside the world we allegedly merely reflect on, a performative account insists on understanding thinking, observing, and theorizing as practices of engagement with, and as part of, the world in which we have our being” (Barad, 2007: 133). Lucas's range of visual methodologies, and her approach to the revisualizing of place pushes up against the boundaries designated by anthropocentrism.

I also set out to consider the ways that Lucas's practice has relevance for Zylinksa's discussions of non-human photography and in particular her proposal that we can redefine photography as a “life-forming power”. This necessarily involves a shift in our ontological thinking on photography, specifically Zylinksa moves away from the idea that photographic works are “complete(d) photographs to be inspected and interpreted” instead suggesting, “through this idea, we are introduced to a different mode of understanding artistic practice, beyond a split between viewer and image, mind and world, and into a dynamic and ongoing movement of intra-actions” (ibid: 97). For Zylinksa this is crucial to the future of

more fruitful visualizations of the Anthropocene, “because it plants in our human minds a radically different set of images and imaging practices” rather than the one-directionality of the traditional embodied human eye (ibid: 101). Again, Lucas’s work makes some steps towards overcoming this limitation through her process of reworking visual material and her own entanglement with nonhuman apparatus and technologies. She demonstrates that there is no uncoupling of technology, nature, and the human body – in the current economic and ecological crisis to believe otherwise is dangerous. Importantly, the viewer is also included in this process, as Velvick notes, they are “implicated as a body in proximity to images [...] enacting various flawed but hopeful possibilities for becoming with the landscape” (Velvick, 2021). In borrowing from Zylinska’s discussion, ‘after the human’ is a provocative and potentially mobilizing concept since “a possibility arises of glimpsing another setup, or rather, of glimpsing it differently” (ibid: 101). Barad also outlines a hopeful consequence of thinking in a similar way. She writes:

What if it is only in the encounter with the inhuman, in its liveliness, in its gifting life and death its conditions of im/possibility, that we can truly confront ‘our’ inhumanity, that is, ‘our’ actions lacking compassion? Perhaps it takes facing the inhuman within ‘us’ before com-passion—suffering together with, participating with, feeling with, being moved by—can be lived (as cited in Kleinman, 2012: 81).

In the encounter with the human and non-human, Lucas provides a space to see and think differently about our connections



across a range of entangled materials and technologies. In this sense, the work presented in *Platform 20* is indeed a notable ‘practice of life’.

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**Jonas Harvard, Mats Hyvönen. Northern landscapes with a story.**

## **The affordances of the aerial view in environmental photography**

### **Introduction**

Visualizing climate change is tricky. Slow and gradual increases in global temperature do not easily translate into images that communicate urgency (Boykoff 2007: 485), project hope for improvement or inspire constructive action (Schoenfeld et al. 1979: 50; Sheppard 2012: 467). Add to this the commercial realities of image use in the digital media landscape. Evidence from the practice of image agencies confirm that cleaner symbolic images which limit specificity, and are thus disconnected from actual contexts, are easier to sell to a broader range of end users (Hansen/Machin 2008: 792).

A series of interrelated developments – commercial pressures, established genre conventions, centuries-old cultural fascination with the North, new realities of climate change, a digital media landscape and emerging technologies for aerial photography – create a complex social and technological backdrop for environmental photography in the present era. A major challenge for photographers contributing to climate reporting in the media is to navigate these factors and provide both an overview of the issues at stake, and a sense of engagement (Gustafson et al. 2020: 122). This chapter explores how prominent environmental photographers address the challenges of representing Northern landscapes in an era where beauty needs to be balanced with urgency, the uncomfortable with the marketable.

A starting point is how to approach the role of the North itself. The most frequent visualization of climate change, studies have shown, consists of an image of a lonely polar bear, wandering on a stretch of ice (Nilsson/Christensen 2019:

68; Breum 2018). It is a strong and by now well-established symbol for environmental concerns, but it has been used so often that in 2019, the British newspaper *The Guardian* issued a policy against using polar bears to illustrate environmental journalism. For photojournalism to contribute meaningfully to the environmental debate, they argued, it had to move beyond clichés and start focusing on consequences for humans (Shields 2019).

Although such anecdotes illustrate a tendency to overuse Northern imagery, there are obvious reasons, however, why images from circumpolar regions occupy a special role in the public imagination. For one, they are vehicles for the perennial interest in the extreme. Few places illustrate rough conditions better than the Northern circumpolar areas. Ever since media audiences followed the drama of the early polar explorers (Cavell 2008: 48), the barren landscapes of the cold and distant North have had a special place in visual culture and geographic imaginations (Potter 2007: 132; Morgan 2016: 5). Over the decades, a steady stream of expedition documentation and animal footage, as well as stunning pictures of aurora borealis and blue shades of ice, have continued to cater to this imagination. In the era of online publishing and image sharing platforms, such images are part of well-established genres with dedicated followers. But the issue of climate change is adding gravitas to the role of the North in visual culture. The circumpolar regions are among those especially affected by rising temperatures, and many consider them the canary in the coal-mine for climate change. Consequently, Northern photography is increasingly concerned with capturing conflicts, problems, or making man-made consequences on fragile ecosystems visible (Bloom 2010: 37; Vik 2016: 56).

Technological developments are also changing how the North is visually portrayed. In the current media culture, audiences have become accustomed to the

‘aerial gaze’. A staple of climate reporting is the use of satellite images of arctic regions, overlaid with historical aerials that document the shrinking masses of ice. The widespread use of digital map services for smartphones has also made media consumers of today well acquainted with this birds-eye view. The emergence of relatively cheap camera-equipped, remotely controlled multicopters, so-called drones, is now facilitating the production of aerial footage. The view from above, which once represented an exclusive and rare perspective, has become an almost obligatory point of view to be included in visual reporting (Corcoran 2017: 95-96). A striking example of how aerials are used in environmental photography is the work of Edward Burtynsky, who uses aerial shots to conjure apocalyptic images of destruction and decay in relation to climate change (Demos 2017). Images with a birds-eye vantage point can indeed provide a different sense of context and scale (Harvard 2020: 91). At the same time there is a risk that the distant subject position leads to distancing when nature is seen remotely, taking the shape of aesthetically graphic patterns.

In the current debate about climate change, visual representations have the potential to inform public dialogue on environmental issues, but can also contribute to engagement and, maybe, encourage action. Traditionally, analyses of debates concerning the environment have focused on written or spoken forms of discourse (O’Neill et al. 2013: 414). Whereas such studies have furthered our knowledge about broader intellectual themes and key ideas in the environmental debate, they are less helpful to our understanding of the specific roles of different media forms (Hansen 2019: 7). Within the broad field of environmental communication, in recent years calls have been made for increased attention to the role of the visual (cp. Chapman et al. 2016: 180; Smith/Joffe 2009: 660).

This study heeds this call for attention to the visual and seeks to explore how environmental photographers see themselves and the role of photography in relation to the climate debate. The empirical basis for the chapter is a set of interviews conducted with prominent practitioners in the field. The chapter sheds light on how practitioners in the field engage with climate issues in general, but in particular investigates how ideas of “the North” are expressed in visual form, and the role of the aerial perspective, in providing context and a bigger picture.

### **Purpose and questions**

The purpose of this chapter is to provide new insights into how professional photographers engage with environmental issues in their work, against a backdrop of the current climate debate in the media, and the changing conditions and contexts for their craft. The following were the guiding research questions:

- How do photographers see the role of photography in relation to climate issues?
- How are conceptualizations of the North expressed visually?
- How do photographers see the particular contributions of the aerial perspective?

### **Theory and background**

Recent research inspired by the paradigm of the Anthropocene has made theoretical advances in the conceptualization of the role of media in the representation of climate change. In an important study, Sörlin and Wormbs (2018) propose the concept of *environing media* as a way to understand the role of different media in re-coding raw perceptions of *nature* into culturally embedded notions of *environment*. An important part of this process is the translation of



natural phenomena into scientific data, and the subsequent visualization of such data (ibid: 115). Satellite imagery together with repeat photography (Callaghan et al. 2018: 494), and historical measurements of environmental phenomena like glaciers provide a culturally anchored record of the passing of time, but also show trajectories of development that have implications for the future. How scientific and popular media collate and present observations in turn has an impact on political decisions and citizen perceptions. Environing media thereby implicitly become media objects that feed into current issues of political weight (Sörlin and Wormbs 2018: 116).

The concept of environing media is helpful in pointing out how media forms have become an integral part of the complex of environmental issues. It can also help identify the distinction between representation and impact. Although mediated scientific discourse usually presents simplified or limited versions of complex scientific arguments, it is still the underlying claim to facticity that gives such media representations their authority. This authority may serve as a foundation for emotional engagement or drive action: we engage because we believe the issues are real.

This tension between science-as-reality and science-as-mediated-political-object has a counterpart in the tension between different properties of photography. On the one hand, photography has, through what Peirce famously labelled *indexicality*, a claim to represent reality. On the other hand, photography also has the potential to engage the senses beyond rational perception by force of its *iconicity*: it speaks through shapes, colours, objects, contrasts and creates meaning beyond mere representation (Lefebvre 2007: 6). And in the same way as the truth-claims of scientific discourse can lead to emotional engagement, because the issues are perceived as real, environmental photography can also have

affective impact, not merely because it addresses emotions through different sensorial paths, but because it is perceived to show reality as it is.

Against this statement about the connection between reality claim and impact, we must also place a critical reminder of the age-old dilemma that photography not only shows reality, but also hides it. If emotional engagement with climate conscious imagery rests upon trust in the implicit (or explicit) fact claims of each particular representation of reality, this authenticity of the photograph itself is deceptive in its unspoken relationship between what is in the frame and what is beyond it (Seppänen/Väliaverronen 2003: 59). This quiet hiding of what is left out – what is outside of the frame does not speak up and demand attention, it is simply not there – gives the photograph an innocent authority which can become problematic when images serve as the basis for citizen engagement or political decisions.

In order to merge these coexisting properties of scientific representation and photography, we turn to a vocabulary that is established in risk research. A key topic in risk research has been how to conceptualize risk subjectivities. When do people perceive risks as real and urgent? And when do they not? This is highly relevant in the area of climate communication, where a key challenge is to present correct but at the same time compelling messages. In risk research, this challenge is formulated as a mechanism of *presencing/absencing* (Bickerstaff/Simmons 2009: 869-870). In this terminology, *presencing* refers to perceiving a risk as real and relevant. If you need to cross a river when flooding occurs, you take notice and adapt your behaviour as the risk is present to you. *Absencing* on the other hand, refers to the tendency to disregard or minimize risks, even though they may be current and significant. People who live next door to a nuclear power plant may rationalize that the risk of an accident is so low that it is insignificant. How

people consume and relate to media content is a strong indicator of the presencing/absencing dynamic. An example of absencing is when people choose to consciously disregard reports about risks near to them, for example by turning off broadcasts or skip articles about the subject.

In principle, the presencing/absencing mechanism can be observed in relation to all media forms, but is particularly relevant for how photography interacts with risk perceptions (Bell 2020). An apt illustration of this mechanism is the contradictory properties of the aerial view. Aerial photographs can provide context and perspective that increases understanding of an issue, leading to presencing. But in aerial landscape photography the physical distance from the object might also decrease the affective visual potential, leading to absencing. Aerial views are particularly potent examples of the supposed innocent authority of the photograph. It is easier to forget what is left out in the aerial view since it can have *so much in it*, showing miles and miles of stretches of land and sea and ice. In fact, the mass of information condensed in the aerial view may also counter presencing in a different way. What Hamilton (2020: 65) calls the “visual aggregation” taking place in aerials may lead to sensory overload and difficulties in decoding the environmental message. From a photography standpoint the ‘presencing’ of environmental risk thus refers to overcoming such distancing through “the capacity for sensing, embodying and enacting emerging futures” (Geoghegan/Leyshon 2012: 243). The potential to contribute to the presencing of environmental risks, constitutes a key affordance of environmental reporting in the age of climate change. Landscape photography, when carried out as environmentally conscious journalism, tells a story which conveys an authentic sense of place and implicitly includes a call-to-action for the audience to act in more environmentally friendly ways.

The eternal distinction between the moving image and still photography also needs to be addressed here. Videography and cinema retain a component of temporal development, whereas still photography delivers fixation of a point in time, showing a “being-that-has been”, a once present moment that is now the past (Sobchack 2004: 8; cp. Bazin 1967: 9-10)

Looking more closely at environmental photography as a vehicle for communicating risk, it is apparent that the genre has navigated these tensions for a long time. Already in the 1960s, more advanced photography and printing technologies, together with the breakthrough of television, contributed to the emergence of environmental concern. Again, in the language of risk subjectivities, visual media contributed to the presencing of environmental risks. These contributions also served to highlight the specific potential of visual forms of communication in the environmental debate (Lyytimäki 2020: 224). Since then, photographs have played an increasingly important role in the definition and popularization of the slow and often abstract processes of climate change.

According to Seppänen and Väliaverronen (2003: 80-82), photography has at least four key functions in the production of meaning concerning abstract environmental problems. Photographs (1) concretize complex scientific problems; (2) construct social relationships between different actors; (3) provide an opportunity for affective involvement; and (4) produce a “reality effect”. It is particularly the combination between the third and fourth functions that can make environmental photography impactful: When affective involvement comes from the sense that a photograph is ‘real’, an accurate representation of reality, that uses parts of that reality to represent the whole, this reinforces the belief in the truth-value of the larger issues represented.

Digital developments have provided additional avenues for these mechanisms to play out, through the immersion of digital imagery in everyday life. That digital media forms are now both produced and consumed as part of daily life gives them an intimate character and strengthens the “reality effect”. As Silverstone (2017: 11) shows, this may on the one hand facilitate the creation of symbolic connections, we feel connected to what is represented in the digital images since they are part of our daily routines and sense-making processes. On the other hand, digital media may also, through their capability of bringing the remote into our intimate sphere, reinforce awareness of the *otherness* of environmental issues and thereby contribute to a sense of disconnect between ourselves and larger environmental concerns.

As a final point, the potential of photographs to serve as tools for effective communication (e.g. for commercial, scientific or pedagogical purposes), involve not just the photographer’s intentions or the spectator’s interpretations, but also the ideological system and the practices of representation in which they are both embedded. These properties of the photograph itself are negotiated through the entire production chain: by photographers, audiences, media platform managers, publishers, who all approach the photograph both from shared ideological conceptions and based on separate individual ideas. It is in this sense that the photograph always exists as part of a set of relations, where there is never a single one meaning but always a set of competing inscriptions. The photograph is, as Seppänen and Väliverrönen (2003: 60) put it, “always tied up in various ways with issues of power, politics and practices of representation.”

To sum up, although photographers – be they photojournalists, conservation photographers, wildlife photographers or visual artists – have different approaches to their objects and their photographs serve different

purposes in different contexts, they are also at the same time bound together by the always present challenge to negotiate the properties of photography itself. Individual photographers may employ many different strategies side by side, and their photographs may fulfil many different functions in various contexts. Rather than being a homogeneous group of professionals working towards one common goal, there are many different ways in which photographers contribute to the continuous sense-making and ever-growing visualization of the circumpolar area and the environmental processes going on there. We now turn to the interviewed photographers, and how they position themselves in relation to these issues.

## **Method**

In order to find relevant photographers for the study, we employed a broad variation of search techniques: We perused conservationist databases, lists of winners of major photography competitions, browsed image databases, searched photographers' websites and also employed a snowball method, whereby some interviewed suggested further names to contact. The photographers we wanted to speak to for this study had to fulfil three criteria: a) engaged in environmental issues, b) having worked with Northern subjects, defined as having produced photography depicting Northern circumpolar areas, c) having employed the aerial perspective. This broad search turned up around 100 names. After a more in-depth analysis circa half of these were removed from the sample, due mostly to having only a cursory connection to some of the three key themes. In some cases, photographers were removed due to being self-identified amateur photographers with image making as a hobby rather than a profession. A smaller sample of ca 30 photographers, both early, mid- and late career, were contacted and based on acceptance 20 interviews were conducted. The interviews were semi structured

and conducted via Zoom video. Each interview, which ranged from 30-45 minutes, was recorded and transcribed. As part of the interview, photographers were asked to describe themselves, and in the below table this self-selected description, combined with labels used on the photographers' web pages resulted in professional descriptions mirroring a broad sample, including both artistic, documentary and journalistic focuses. In the table below, interview subjects are given an anonymity code (M=male, F=Female) and presented with the above-mentioned labels. For practical purposes the interview subjects were divided in two groups based on age: under 50 and 50 or older. These groups roughly, but not completely, correspond to career stage, with the under 50 group mostly being early to mid-career professionals, and the group 50 or older mostly being mid- to late career, based on years in the profession and experience.

**Table 1.** Interviewed photographers, their gender, and self-selected titles

| <b>Early-Mid-career</b> | <b>Self-selected title</b>                   | <b>Mid-Late career</b> | <b>Self-selected title</b>                       |
|-------------------------|--|------------------------|--|
| M1                      | Documentary photographer                     | M8                     | Photojournalist                                  |
| F1                      | Commercial and editorial photographer        | M9                     | Photographer and polar explorer                  |
| M2                      | Visual artist and author                     | M10                    | Environmental photojournalist and filmmaker      |
| M3                      | Wildlife photographer                        | M11                    | Landscape fine art photographer                  |
| M4                      | Fine art photographer and photojournalist    | M12                    | Environmental photographer                       |
| M5                      | Photojournalist and editorial photographer   | M13                    | Nature photographer and artistic photojournalist |
| M6                      | Cinematographer and documentary photographer | M14                    | Editorial and fine art photographer              |
| M7                      | Editorial and commercial photographer        | M15                    | Landscape photographer                           |
| F2                      | Nature and landscape photographer            | M16                    | Wildlife documentary cameraman                   |
|                         |  | M17                    | Wildlife photographer                            |
|                         |  | F3                     | Environmental fine arts photographer             |

Looking at the self-selected titles, the interviewed may seem like a heterogeneous group of photographers. Indeed, many of them resisted labels that defined them as a particular kind of photographer and almost all of them emphasized the versatility of the profession, i.e., that today's photographers need to be able to move easily between different techniques, genres and projects. Within the increasingly diversified field of professional photography however, the informants in this study arguably make up a fairly homogeneous group in terms of their shared interest in environmental issues and having worked in the Northern circumpolar areas.

While the presence of women in the photography industry is increasing, it is still overwhelmingly dominated by men. In the 2020 World Press Photo Contest, for instance, only 20 percent of the entrants identified as female. This gender gap – clearly reflected in the group of photographers interviewed for this study – is true across every type of photography and visible in commissioned projects, representation, professional membership and awards wins.

Any qualitative research interview comes with a built-in set of limitations. The most challenging aspect concerns the process of mutual sense-making; to capture the actual beliefs of the person interviewed and, at the same time, to make sure that the response is given in relation to the intent of the question (Kvale 1996: 145; Roulston 2010: 202). In practice this calibration often takes the shape of a set of clarifying interactions. During the interviews carried out for this study such a need for clarification was mostly pronounced in relation to questions regarding the North, or Northern aspects. In itself, the concept of the North may be relational, even “evasive” (Goldie/White 2017: 7), so that for someone in Mexico all of Canada may be considered “the North”, whereas for a person residing in Canada the concept may have a very concrete meaning suggesting the



Northern territories. For the purpose of the chapter, we chose to clarify that the North meant images from or representing the polar and circumpolar regions.

### **Results: Three dimensions of presencing/ absencing**

The mechanisms of presencing/absencing were central to the photographers' work in several ways. In the following we present three dimensions of how they described navigating the challenge of communicating environmental concerns using images of the North and aerial perspectives. To recap, presencing means creating a sense of current urgency, making a risk known and acknowledged, whereas absencing is the mechanism where a risk, sometimes in spite of or even because of its physical presence or relevance, becomes treated as something remote or not urgent. The first of these dimensions concerns how the photographers approached distance and proximity as visual categories and how they applied the aerial perspective. The second concerns how they framed representations of the North. The third dimension concerns how the photographers related to issues of intensity of expression, whether to strive for striking and clear-cut environmental messages in their images, or seeking more complex messaging.

### **Theme 1: From above or up close – the role of distance and proximity**

A very concrete question that can be posed in relation to aerial imagery concerns the distance from the subject. Aerial images in general place large physical areas or subjects in the frame, which makes each part smaller. There is a continuum in the scale of the physical distance as well as in the visual aggregation that takes place in the image, from aerials taken relatively close to the ground, all the way to photographs taken from above the clouds. From a definition standpoint, satellite images belong to this continuum. Although satellite images in themselves are not

“taken” by a photographer, their visual expression, as well as their presentation to audiences through various media represent a perspective “from above”.

The opposite end of the scale in photography is the extreme closeup, where a small physical area or object is fitted into the frame. In regard to environmental photography the role of distance and proximity played a contested role in the photographers’ work. Although the photographers interviewed for this study had different goals, ideas or wishes regarding the impact of their work on audiences or on society, they all shared a concern about the consequences of climate change. Hence, in a broader sense, they were all aiming to highlight the reality of environmental issues, and thus, in the theoretical language, to contribute to the presencing of environmental risks. Key points in how they saw the roles of visual distance (overview) and visual proximity (close-up) shots in relation to the strive to create such presencing are summarized in the following table.

**Table 2.** Presencing and absencing in relation to visual distance and proximity

|                         | <b>Presencing</b>  | <b>Absencing</b>  |
|-------------------------|--|---|
| <b>Visual Distance</b>  | Aerials create a unique overview of environmental issues in larger context.                              | Aerials, in particular on their own, tend to be abstract and less emotionally engaging.     |
| <b>Visual Proximity</b> | Close-up images of affected people or suffering animals communicate environmental concerns most urgently | Short range images can be less effective in communicating the scale of environmental issues |

When photographers discussed the advantages and drawbacks of using the aerial perspective in the coverage of environmental issues their responses ranged from those who were very positive overall towards the aerial perspective, over those who saw its value as part of a broader range of perspectives, to those who saw clear drawbacks in using the aerial perspective. All the interviewed photographers were using or had at some point used aerial shots of Northern areas.

### **Aerials create unique overview**

Among those who were predominantly positive about the aerial perspective, a particular advantage mentioned was that aerial images had a unique capability of showing the scale of phenomena. The value lay in the potential of these images in communicating the sheer reach of land or sea changes, or how big or vast the issues at stake were. When it came to communicating the size and impact of environmental developments, said one photographer, “obviously aerial photography allows you to do that in a way that being on the ground can’t” (M14). In addition to illustrating scale, aerials also had the effect of showing connections and interconnectedness. As one photographer put it, it was the only visual technique that could capture entire ecosystems on a large scale. In other words, aerials are essential for showing destruction on a landscape scale or, as in this case, on the scale of entire forests: “it’s not about one tree or one tiny patch, it’s about the whole ecosystem. And I think without aerial photography, it’s almost impossible to visually show what an entire ecosystem looks like” (F1). Pulling back gave you a bigger picture, argued the proponents, not only of the situation captured by the photograph, but also of the connections between particular observations and larger consequences. In order to understand what is happening on a larger scale, one must get above, or as one of the interviewees put it: “when you see a polar bear [...] on a piece of ice, you see it from the traditional point of view. People [...] don’t realize in the same way what is happening [as] when you are far away, up above, and you see this tiny piece of ice in the middle of an open sea, and you see an animal left there, and there is no ice around” (M3).

The focus on the potential of aerials to provide context and overview to some extent relied on the informational capabilities of photography, that more factors fitted into the frame so to speak. As Hansen and Machin (2013: 159) remind us, long-distance and high angle views construct an “impersonal relationship” but may also yield a sense of empowerment. Conversely, close-ups may communicate intimacy and familiarity.

A different inroad which also landed in a positive assessment of aerials in environmental photography concerned more universal properties of the aerial perspective. One particular allure was that aerials somehow spoke to the human dream of flying freely (Liulevicius 2020). Some photographers communicated that just seeing things from above, in itself, appealed to them. The perspective from above created new shapes and visuals which made it captivating. This applied to photographs taken from airplanes and drone photos, but also to satellite images. As one photographer put it, “I don't know, seeing things from above is just fascinating to me” (M5). Proponents of the aerial perspective built on this fascination and explained how it could infuse media reports about the climate or the environment with a sense of grandeur or in some cases awe. One of the interviewed, who presented himself as a visual artist rather than a photographer in the traditional sense, told us that he has talked a lot about the power of awe in his public talks and presentations: “I think that’s what’s happening to some extent when you’re looking at an aerial photograph.” Even though an aerial photograph doesn’t necessarily have the same visual impact that one might feel on the ledge of the Grand Canyon or in a hot air balloon, it still forces us to process a lot of information that we wouldn’t have otherwise: “I think, what’s happening when people see drone footage or when they see [satellite images]” is that “[t]heir brain needs a second to compute and understand what it is” (M2).

The role of awe in communication about the environment has been extensively studied and some scholars emphasize it as a key ingredient in raising environmental awareness and inspiring calls to action. The reasoning is that only by connecting on a deeper level with the beauty of greatness, being overwhelmed by the power of nature's wonders, can we fully grasp the risk of loss (McShane 2018: 11-12). Conversely, such an embrace of the sublime is considered problematic within many scholarly approaches. Seppänen and Väliaverronen argue that when photography evokes 'breathtaking landscapes' this is the translating and shaping 'of nature into cultural representation' (64). This resonates with a long cultural history of prescriptive visualization, a call by nationalist or romantic discourse to go out and perceive nature, and in particular Nordic landscapes from a height, overlooking, being embraced by the vastness of the rugged stretches of land and ice (Gunnarsson 1998: 234).

### **Aerials less emotionally engaging**

In contrast to such enthusiasm, other photographers expressed a more restrained attitude, emphasizing that the role of aerials were to "complete" the story by providing an overview. The important thing was to capture the context and to convey an authentic story, not any single shot. One photographer described his work in terms of "photo essays" and that he usually did not rely on one image but rather on a combination of different photographs: "So you can have the aerial photograph and then also a really close detail shot of, say, something on the ground or a portrait of someone in one of the communities. Or a more action photo of someone out harvesting a caribou, or what have you" (M1).

Another photographer pointed out that communicative properties of aerials were completely dependent on the mediating platform. Thus, aerials in themselves were less important. An editor could “completely spin” the message in commissioned photographic material through the framing in the presenting medium (M10). When used in isolation, aerial shots carried clear drawbacks, according to some of the interviewed. An obvious risk was that the urgency of the issues at stake decreased with distance because things were seen from afar.

I think on the one hand you have this incredible sense of scale that you can get from the skies, so you can show people [...] these enormous icebergs that are calving and there are these huge chunks that are coming off. And that is something almost impossible to capture from the ground. Right? On the other hand, I think there's a feeling that it's far away. I know that for myself. [...] We don't have these major effects of climate change, they are much more subtle here. And so, I think climate change feels very far away. So aerial photography...It doesn't help me feel closer to it, and I don't think it helps people in general feel closer. (F2)

One of the photographers described the shortcomings of the aerial view in terms of the inability to establish an emotional connection: “aerial photography is quite cold emotionally, despite things being beautiful, because you're not close enough to your subject to understand it to any intimate level”. From the photographer's point of view, being close to something creates immediacy and intimacy. Without it, it is easy for the audience to get bored since there is nothing that really grabs them. “The more you move back”, he continued, the more “you get detail of a different sort and you become more removed and less engaged with the beating heart of the subject. I think there's one exception. It's not really an aerial photograph, it's any photograph of planet Earth from space” (M9).

A different problematic, which was addressed by some of the interviewed, was that aerials and in particular drone shots had become so common that there was a fatigue setting in (Adams 2019: 658-659). As the novelty factor of the aerial perspective decayed, the value of a photo being exactly an aerial had decreased. Some of the interviewed expressed that they encountered a veritable flood of aerials wherever they turned. One photographer speculated that the market had become saturated with aerials relatively quickly. Once the “output of aerial photographs increased, say 10% to 50 % or 40% of the visual sphere” (M10) people had become tired as an audience, in particular of drone pictures.

A connected aspect was the risk that aerials bypassed the humans involved. Environmental photography needed to connect with humans, it was said. However, when asked which images, in their experience, were the most emotionally engaging, the photographers almost unanimously replied “Anything with animals”, preferably close-ups of animals. However, none of them were describing what they themselves thought were the most interesting or engaging motifs, but rather a current convention within the photography profession and among editors.

## **Theme 2: The role of the North in environmental photography**

When photographers reflected on how Northern visual motives could draw attention to or illustrate environmental issues, their answers reflected an inherent tensions in portrayal of the North. In particular they expressed how they had to find the balance between harnessing the potential of Northern imagery for communicating urgency on the one hand, and the risk of perpetuating stereotypes on the other. To some degree this issue also reflected the role of commercial pressures and the need for photographers to find a market for their work. The role

of the North in environmental photography in relation to the dimensions of  
presencing/absencing is illustrated by the following table:

**Table 3. Presencing and absencing in relation to geographical distance and proximity**

|  | <b>Presencing</b>  | <b>Absencing</b>  |
|--|--|---|
| <b>Geographical distance &amp; proximity</b> | Climate change can be clearly manifested in Northern areas, this makes for visually communicative images | Northern areas and in particular the Arctic are perceived as remote and changes there not as immediately relevant |

### **The North as a potential source of engaging climate visuals**

A key aspect of working with Northern landscapes, and in particular the Arctic, was a shared awareness among the photographers interviewed that it is an area of the earth which is clearly affected by rising temperatures. Thus, photography or films about the Arctic had a relevance grounded in the subject itself. As one of the photographers put it: “[I]n the North, there is very, very dramatic things that are taking place. And you can only see it when you put the one photo over the other and see just a tremendous difference in what’s been happening” (M5). Two mentioned that these physical Northern territories were the “canary in the coalmine” (M11; M12), which made working there particularly important. To many of the interviewed, this also translated into a visual potential. That the North was an area where climate change had clearly discernible consequences, provided an opportunity to capture climate change visually. One photographer recounted working on a project about an indigenous community, where melting glaciers contributed to rapid erosion, which made for a striking illustration of climate issues.



[T]here are people that have homes right on the shoreline. And you can see the erosion and literally pieces of land that are falling into the ocean, and the relocation effort that's underway right now in the Northwest Territories, Yukon and even over in Alaska where a lot of communities are being relocated further inland because literally, the land is falling into the ocean. So, I mean, aspects like that are really powerful, and it shows really very viscerally what is happening. (M1)

The Norths provided a powerful canvas for showing devastating change, as well as beauty. It was seen as a particularly interesting part of the world where retreating snow lines as well as the changing appearances of local communities were visible. An example of this given by one of the photographers;

[A] really good example to cite is [...] near the Bering Straits there's a collection of habitations close to that coastline where they've survived all year round, mostly year-round anyway, on snow and ice, and getting access to the ocean across the ice or in fishing boats to get to where the food is. And now...they just look like dumping grounds for ships and boats and houses. And the same picture taken ten years ago would have looked like a beautiful, idyllic, snowy, romantic place to be and live and exist. (M9)

Another example concerned showing the disappearance of permafrost in some places, which one of the interviewed wanted to portray in an interesting and beautiful way: "Because [...] some of these lakes where the permafrost is being exposed are particularly beautiful, and that's an opportunity [...] to give people a

visual to attach to that they might remember to correspond to an article about how serious that is and why people need to be concerned about it” (M2). Some of the remarks brought to mind the term *toxic sublime*, defined by Peeples (2011: 375) as “the tensions that arise from recognizing the toxicity of a place, object or situation, while simultaneously appreciating its mystery, magnificence and ability to inspire awe.” This combination of toxicity and magnificence is of course not unique to vulnerable sites in the North. Rather, it was the characteristics of northern landscapes and their connections to culturally established connotations of snow, ice and harsh conditions, that provided a canvas where documentation of how climate change was affecting real people in specific places in specific ways could resonate.

### **The North as remote and hard to relate to**

Whereas images from the North could supply clear illustrations of environmental issues, there were also problems. Northern environmental landscape photography carried a number of challenges. Some were reflections of general dilemmas in environmental communication, for example that climate change was usually not rapid and newsworthy but slow and gradual. Others were more specific to the regions in question. A tension which photographers had to work with was the remoteness of the North to most people. Even though the relevance of Northern areas to climate issues on a global scale was clear, both the physical distance to more populated areas and the otherness of harsh and rugged conditions to people living in temperate conditions created a distancing effect. One photographer expressed the challenge in the following way: “I think what’s really hard [...] is making images of the Arctic relatable to everybody else, because when you go further north, it’s so incredibly cold. How do you explain that the Arctic getting a

degree warmer will shift the world's outlook?" (M4). He went on to explain how the mechanisms of climate change were confusing to people, and reporting about the Arctic carried a built-in pedagogical challenge:

It's hard to explain how important that is while showing images of researchers in the Arctic circle in incredibly intense jackets and hats and gear where it's so cold that if they show their bare skin, they might get frostbite, while telling somebody as far as in New York that their sweltering summers are going to get worse because the cold over there is not as cold as it used to be. (M4)

The idealization of icy lands also contributed to the potential remoteness. "The Arctic", said one of the photographers, "is a faraway, remote, wonderful, glamorous place. I'm lucky, I've been to the Arctic for the last thirty years [...], so I have seen the changes. But for most people it's harder for them to actually get this handle" (M16).

The remoteness also implicitly established a distinction between different photographer roles. To some, the North was a place you went to. To others, it was a place where you lived. One photographer expressed frustration with colleagues coming on short trips to his region, often looking for similar types of exotic or striking imagery, and said that the people actually living in Northern regions were often feeling left out of the conversation: "I think that is true all across the Arctic, really. We have people from New York city always coming up, Los Angeles...whatever, a lot of Americans and a lot of people from southern Canada" (M1). Such visiting photographers and their practices risked contributing to photojournalism missing the important points, which was detrimental to the

environmental debate, since the role of photojournalists and photographers was so crucial. What fleeting visitors often missed was the realities and complexities in how climate change impacted local communities.

A lot of it has to do with food security, when indigenous people go hunting and harvesting caribou, for example, that happens earlier in the season. Or migration of animals is changing, the ice roads which serve mines and resource developments are closing earlier, which here means a lot of money. Billions of dollars. So there's an economic aspect of it too. [T]elling those kinds of stories visually really gives people a sense of what is happening behind the scenes, or digging through the policy and the jargon that is a big part of talk about climate change and all these big issues. But showing these real personal stories is really important and interesting. (M1)

Again, a core issue at stake was authenticity. Whereas exotic or stereotypical images could find big audiences quickly, they failed to connect on a deeper level. Thus the potential of such images to truly engage and perhaps drive action and inspire change, was limited. In order to create presencing of environmental issues, visually authentic images of actual people and actual localized dilemmas were needed.

### **Theme 3: Intensity of expression**

Both the potential for aerial photography to shed light on the scale of environmental changes and the role of the North in illustrating the gravity of rapid climate change depended on the photographer creating her or his unique

photographic expression. A broader theme that emerged during the interviews concerned the use of different tonalities and messaging in individual expression. Different photographers approached this issue from different starting points.

The largest difference was between those seeing a need for clear-cut, almost in-your-face types of photographic messages to stand out in the maelstrom of visuals in modern media culture, and those who argued that more subtle and complex approaches were more impactful over time. The different approaches in relation to the concepts of presencing/absencing can be summarized in the following table.

**Table 4.** Presencing and absencing in relation to different types of expressions

|   | <b>Presencing</b>   | <b>Absencing</b>   |
|---|---|--|
| <b>Subtle expression</b>                        | Images with large scope of interpretation awaken curiosity and create a space for the viewer to approach the subject on his/her own terms | Abstract and complex images fail to communicate the urgency of environmental issues and reach only a small number of people      |
| <b>High impact visuals with a clear message</b> | Clear-cut environmental photography can reach and engage a broad audience, especially if it has aesthetic qualities                       | Overly symbolic or persuasive images contribute to numbness or crisis overload, lead people to distance themselves and disengage |

### **Persuasive images have a numbing effect, subtle expression invites the viewer**

According to the interviewed, wanting to find engaging representations of the environment was an important endeavor. However, the general public had become so accustomed to warnings and catastrophic predictions that a certain numbness had to be overcome, which was easier said than done. According to one photographer, it had become more difficult to tell stories about the climate using photography “because today more than ever [...] everyone is bombarded with photographs of all different kinds, on so many different platforms”. These ubiquitous photographs had made people “immune to terrible things happening

around the world, because they are told so often and in such a broad sense and in so many places. It's hard to pick up a newspaper or look online, or listen to the news, without being bombarded visually with things you wouldn't rather be looking at" (M9). According to this observation, if environmental photography perpetuated images of doom and gloom, it would simply lead to absencing, people tuning out and not taking climate risks seriously.

Whereas finding striking images with clear messages was one way to contribute to raising awareness about environmental change, a rather different way was to focus on the subtle, on nuance and complexity. Here it was more of a fine arts approach, which was seen to reach people in a different way. One photographer, who worked a lot with conservation groups and was very supportive of their aims, also saw the danger in that "people are getting lectured so much at the time...told what to think, 'this is bad, this is good. We shouldn't do this, we should do that.' And it's just constant, 24/7, and I think that people kind of numb out a little bit" (M14).

This steady stream of well-meaning statements to raise awareness, this photographer argued, left people no space of their own to process and come to terms with the issues at hand. Gallery exhibitions and more art-like representations of climate issues could provide such a space for people to reflect and come to more grounded understandings:

I think especially in an exhibit kind of format, people can come and view the subject matter in a non-polarized non-confrontational environment. They're not going to be judged, they're not going to be lectured. They come to those images and that subject in their own

way, and then can reflect on that, on what they've seen, and come to their own conclusions. (M14)

This was a marked contrast with the dominating form of climate reporting and some forms of photojournalism. The dilemma was that more subtle approaches only resonated with a narrower demography. While photojournalism was defined by constraints such as the demand for immediacy, "art photography can be more cryptic and more poetic and have people start to think in that space, which is really wonderful" said one photographer. "But then", he added, "you have to ask the question, how many people read *The New Yorker* or how many people go to gallery shows?" Art photography has its advantages, but it has "a much, much smaller audience, it's a wealthier audience, a better educated audience and an older audience, I would suggest" (M10).

Despite such limitations, there was an argument to be made for awakening the inherent curiosity of humans to make them engaged in climate issues, rather than resort to explicit persuasion. One photographer described the approach as allowing the viewer some uncertainty and presenting things that were ambiguous. The photographer described such a situation of interpretative uncertainty, where the viewer even questioned the physical properties of the photograph:

I had a shot from the Arctic...It's not even a shot from the air but it looks...It's shot from the side of the ship, but it's looking on the ice floes below, and it's abstract enough that you don't know the perspective. And there's a...very distinct, very clean crack in one of those ice floes, probably because the ship was pushing through. And a friend of mine who's an art expert and an art advisor for many

institutions, he came to the studio and he went to the frame. And he was almost touching it, thinking it was scratch from the surface of the glass. And then he went like “ha”, and then... You know, that’s that kind of thing that I like. Surprising a bit and not letting you understand very well what you’re looking at. (M11)

He explained how such a mechanism, although it required an openness on the photographer’s part for an uncertain outcome, in that the viewer might draw their own conclusion, still provided an avenue for reaching people. Curiosity was key and when people did not immediately understand what they were looking at, they wanted to know more. As this photographer explained, once you got someone’s attention, “then you have their mind a bit more open to what you want to tell them” (M14). What was suggested here was a bit of a paradox: by not having as a goal to catch people's interest in a particular way, you could get them interested; by not stating your message, they would themselves find a way to your overall message. Presencing would occur in the void of someone explicitly aiming to create just that.

Another photographer addressed the same issue, but presented it as a question of harnessing your subjectivity as a photographer to create a powerful expression, but still not forcing your opinions on someone. The starting point was an interest on behalf of the photographer: “[I]f I’m very interested in, let’s say, the breakup of ice in rivers in the spring, I’m going to show a lot of pictures of that. And you know, if that interests me, maybe it will interest you, and I can get you excited about it or interested in it, or asking questions about it” (M5)



### **Journalistic images with aesthetic qualities**

The intensity of expression was by some framed as a difference between pure photojournalism and fine arts photography. The consensus view among the interviewed was that the ideal was that these dimensions should be combined. Ideally, the journalistic instinct would find an aesthetic expression. Some noted that the previously clear division between fine arts photography and journalism had shifted over the years, and that now a “beautiful bond” was established. Aesthetic qualities in combination with a journalistic message, could draw people “into some image that’s just breath-taking, but that has a real momentum or move behind it”, said one of the interviewed. “I think”, he continued, “a lot of photographers, myself included, have tried to bridge that gap, because it makes [...] everything much more exciting” (M4).

Some of the interviewed revolted against the idea that the relationship between documentary photography and artistic expression was one of opposites. To the contrary, there should be a bit of both in every photograph and, as one interviewee noted, “I don’t believe that you have to sacrifice aesthetics for documentation.” It is rather the other way around, i.e., “aesthetics can help documentation”. If one shows people something that they have not seen before, it will arouse their curiosity which, in turn, will interest them more. But in order to achieve this, you cannot be “lazy with your photography and not attempt any artistry, or making your documentary photo look any good” because “chances are people won’t be as interested. They won’t connect with it” (M5)

Other more explicitly fine-arts oriented environmental photographers went further and expressed open disdain for ‘mere’ photojournalism:

There are photojournalists who just [...] replicate what's in front of them. I saw a photographic contest a few years ago and I was very surprised, there seemed to be no photographic ambition at all, just shoot what is awful and autofocus in the middle, no concept at all about how to create the images, it was just pure reproduction...I was there, I took a picture (M15).

Although phrased as a dismissal of photojournalism in general, this statement was rather a critique of the kind of breaking-news photography that focused exclusively on 'what happened', or of the sort of visual journalism that was the result of lack of time or perhaps a lack of proper resources. It could also signal a critique of photography that lacked aesthetic ambitions.

## **Discussion**

In this concluding section we sum up the empirical results and then discuss the theoretical implications of these results. The results from the interviews were presented in three parts, how the interviewed reflected on the use of aerials, the role of the North in environmental photography and different approaches to the intensity of expression. These themes were discussed in relation to the theoretical categories absencing and presencing.

The views regarding *aerials* were divided between those who saw aerials as a unique opportunity to provide context and a larger perspective, to visualize change on the ecosystem level, and those who saw a risk in using aerials: that photography would become overly abstract, or that the perspective would lead to a distancing effect. For the second category, using aerials was thus not seen as something that helped environmental photography make a difference.

The role of the *North*, of images from circumpolar regions, was also discussed. Here views ranged from those seeing potential in imagery from the North, since the Northern, and in particular the Arctic areas were strongly impacted by climate change and thus ripe sources of communicative images, to those finding a risk that images from the North were seen as something exotic and thus irrelevant to the majority of audiences.

The third theme discussed was how photographers approached the intensity of expression, how explicit the photographers thought that the environmental message should be. Several of the photographers mentioned observations of a message overload regarding the climate in the public debate. The constant barrage of overly dramatic visuals had created a counter-movement among the audience, who reacted by tuning out. A way around this was to present environmental photography with more subtle expression. The viewer should not be overwhelmed with a well-meaning environmental message, rather the ideal was that the viewer would become surprised or slightly unsure about the image at first. This strategy was advocated as a way to open up a dialogue and, through a detour, get people involved. Recent research on how artists work with climate change has picked up on a similar development. Michałowska (2020: 565-566) identifies several different strategies employed by artists when addressing the subject of climate change. One, which resonates with the answers given by photographers in this study, was the exhibition of the beauty of nature and “the melancholy associated with its disappearance”. A further artistic strategy, which also several of the interviewed advocated, was to focus on the presentation of the residents’ experience. One reason for the relatively strong presence of more artistically oriented, perhaps even aestheticizing approaches among those interviewed is likely the selection of photographers who were interviewed in this

study. Since a smaller proportion worked in a journalistic capacity, there was larger support for a more fine-arts oriented approach. This relative shortness of pure photojournalists in the sample itself may also reflect the overall market for environmental photography. Perhaps the number of photojournalists focusing purely on climate issues is so small that the larger share of environmentally focused photographers is found among the activists or artists? Or maybe photojournalists who are engaged in climate issues over time gravitate towards more and more creative approaches?

The theoretical categories of absencing and presencing have provided a way to systematize the views expressed by the photographers and a larger interpretative framework. These categories are well established in risk research (Bickerstaff/Simmons 2009: 869-870), and the paper makes a novel theoretical contribution in applying them to environmental photography. An important aspect of these results is that contributing to presencing, to an increased sense of environmental urgency, was something all those interviewed in the study saw positively. They were themselves very risk aware and all highly engaged in issues about climate change and environmental issues. To them photography needed to take societal responsibility and combat the tendency to absencing, the tendency to see climate change as less relevant or urgent here and now. Their key tool to accomplish this was the use of photography and visual expression. The differences between the answers thus do not reflect distinctions between different goals in terms of environmental engagement. Instead, they showcase the breadth of how environmentally conscious photographers seek to accomplish these goals. Some focus on aerials to provide overview, others on documenting human consequences close up, and many do both. In a similar manner, many see a special place for Northern imagery to raise awareness, others see different motives as

more promising. Some see captivating and persuasive images as the way forward, others look to more artistic avenues to make an impact.

The study has shown the usefulness of these concepts to provide new insight on the role of photography in the environmental debate. The dichotomy of absencing/presencing also introduces the element of risk awareness to classical philosophical debates on visual representation. Already in 1927, Kracauer stated that photography, in particular when applying the aerial view, through its creation of a material representation, created a distance between what was represented, and actual human experience (Kracauer 1993[1927]: 435). As pointed out in the introduction, in the tradition of Peirce, a similar duality was expressed as a relation between indexicality and iconicity. For environmental photography the challenge to combine the indexicality of visual expression – the collation of climate data in visual form – and the iconicity – the connotative and emotional impact of a particular visual representation, are very much part of a historical legacy which practitioners continue to grapple with. On the one hand environmental photography needs to be based on accurate and informative science regarding environmental change and hence harness the indexical power of photography (Messaris/Abraham 2001: 2017). On the other it also needs iconicity, to have a communicative capacity and be able to reach the viewer with the essence of the message.

In reflecting on their work and the role of photography, the photographers interviewed in this study illustrate the breadth of approaches applied by professionals in the field. Their answers also reinforced the extent to which effective visual interventions in the debate on the environment and climate change require a creative ability to break through message overload and to provide a sense of urgency with a silver lining of hope.

Whether photographers, activists or artists (roles or identities that may converge in one and the same person) will succeed in such endeavours is an important question. From a critical perspective, however, we may end by asking if it is in fact possible to contribute to change via photographic expression, without at the same time perpetuating the myth about photography itself as a tool to mirror reality? This is a problem when the ‘reality effect’ in question represents nature by invoking the sublime, as is the case when some photographers discuss their work in terms of ‘awe’, ‘grandeur’, the ‘breath-taking’ and similar conceptions. As Seppänen and Väliverronen argue in their comparable case study, capturing ‘the spectator’s attention by showing *exotic* scenes from nature’ and ‘stunning pictures of natural beauty’ (67) elicits an intensity of feeling but does not produce critical knowledge; in fact, if these insights are applied to environmental photography, it can disable any broader understanding of the causes and consequences of climate change. As responses of other photographers in this study indicate, the emotional impact of working in an affective register can be problematic. All told, the most important contribution of visual expression is perhaps not the claim to show reality as it is, but the power to drive action by engaging ideologies, myths or symbolic worlds through visual expression.

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## **Aileen Harvey. The Experimental Darkroom: case studies in northern landscape through the material ecology of photographs**

### **1. [PJ(6)]a problematic of the north**

The idea was only loosely about the north. The research followed a tangle of threads – wilderness, resource extraction, geology – that belong to the north, but also to other places. The thought was to talk about photographs as *material things* that are (like humans) entangled within the world, to consider how that could affect landscape images. My hypothesis is that there is much to be gained by attending to the materiality of photographs, their lifecycles, and their existence within widening relational meshworks of matter. Across the art practices discussed in this chapter, experimental, homemade, and historical photographic techniques are variously developed as expressive methodologies. That is, the materials and processes affect how the finished photograph is understood, often as strongly as the image content does. This is not simply about treading lightly, improving photographic methods in line with an environmentally responsible ethos.<sup>1</sup> Rather, what is at issue is how intentional disruptions of the usual photographic processes and materials can inflect the work, and how these strategies may be used to unravel entrenched ways of seeing landscapes. Some of these artworks engage with northern locations; others only with ideas and issues relevant to the north.

Yet the term 'north' is capacious and flexible. The north is a site, but only in relation to a field of interest. So even as locale it is non-static and evolving, a socio-historical formation. The north is also a genre: a ragged gathering of perceived attributes, roles, relationships and symbolic values that are vague and

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<sup>1</sup> Although it is often about that too, and the making ethos of artwork can itself be expressive, modelling care, for instance.

variable. I use this sense of the north as a shifting cultural formation to frame a *problematic of the north*: a matrix of interrelated ideas about northern landscapes with damaging consequences.<sup>2</sup> At the heart of this matrix is an imagining of the far north as a remote wilderness that is rich in resources; these and nearby terms such as 'empty' and 'wild' are mutually reinforcing. In concert they effect a set of distances between humans and land that lend themselves to human exceptionalism and to extraction mentalities and economies. This problematic is 'of the north' in a second sense too, since it has dominated ways of seeing *all* landscapes in the global north. In that second sense, it is a harmful matrix that could be, indeed has been, applied to any landscape.

The pressing question becomes: how might photography be practiced to close those perceived distances? The notion of this chapter is that exploring the photograph as a material ecology offers versatile ways to work against the problematic of the north, to undermine its illusions of human separateness and nature as resource. Each case study considers an artwork or body of work in relation to one or more of the problematic ideas. Methods of altering, reviving, or troubling photographic processes are discussed in terms of their capacities to generate ecological thinking and unthinking. Aspects of northernness are transplanted in many cases to other locales and discursive contexts. I bring along thinking companions for reflecting on these artistic strategies: writings on ecological philosophy, feminism, race, care and post-humanism. Jane Bennett's new materialism runs throughout in an acknowledgment of "the vitality of matter and the lively powers of material formations" (2010: vii).

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<sup>2</sup> Of course, this delineation of the north will be partial and evolving, selected for the interests of this discussion.

Within these art practices, methods that unseat expectations of photographic materiality – in its usual substances, processes, aesthetic completeness, clarity, or longevity (to name a few aspects) – shift emphasis from the image and its meaning onto the photographs as physical things, ecologies, systems, or objects both cultural and natural (again, to name a few). These shifts each effect a rebalancing of how the photographs are understood; severally and jointly they move away from the visual and the mimetic,<sup>3</sup> towards a wider sense of what about a photograph signifies, and how.<sup>4</sup> The works discussed eschew photographs as illustrative, explanatory, or as utilitarian records of facts; instead they engage with ecological issues in ways that are poetic, many-stranded or relational. They use allegory and metaphor, invoke sensations; they encourage associations, ambiguities and emergent patterns. Moreover, the shapes and mechanisms of these photographic thoughts are themselves *ecological*: they follow logics of entanglement, indeterminacy and permeability.

## **2 the lifecycle laid bare / extractivism**

Extractivism is embedded in the problematic of the north as the notion that the Arctic is rich in available resources, a convenient warping that maps readily onto other regions, with similar effects. Oil drilling, whether in Alaska or the Niger delta, is a violent reorganisation of land and life-forms; mining for rare metals, to make photographs, likewise. In its engagement with that violence, Simon Starling's *One Ton, II* is an important antecedent of the experimental photo-ecologies that follow. Five sleek, identical black-and-white photographs of a huge, dusty, open mining site are altered irrevocably by the specifying of their

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<sup>3</sup> Importantly, this movement counters landscapes as views, to which humans relate as spectators.

<sup>4</sup> The vexed debate around indexicality, for example, is effaced in works that show the photograph to have been shaped and marked by a range of events, not only the moment of exposure. I discuss this distributed indexicality in Harvey 2020: 63-4.

medium. Here, image, subject, and material form a poetic closed loop, an origin horror-story about photography, mineral extraction and devastation. Starling takes a traditional fine-art photographic process and pulls the process itself into the visual and interpretative frame, through having the image show its own conditions of making. There is a detonation in the inexorable logic of the circle. The materials list that is also a caption proceeds from a seductive more-is-more ("Five handmade platinum/palladium prints") to neocolonialism ("of the Anglo American Platinum Corporation mine at Potgieterus, South Africa"), to stripping minerals from the earth ("produced using as many platinum group metal salts as can be derived from one ton of ore"<sup>5</sup>). This is a claustrophobic space, a no-way-out, where we bounce between extremes: the pristine, sheeny loveliness of the print surfaces; the gigantic, sense-dullingly ugly mine-scape, multiplied, rubbed in, five times: *look at it again*.

[Figure 1. Simon Starling, detail of *One Ton, II*.]

The scene is too vast to take in properly, too empty and unrelieved. Scale does odd things: gigantic machines look like toys; it seems unreal. Besides the excess of the five identical photographs<sup>6</sup>, there is a tedium in repetition that is like moral disconnection, like news fatigue. The image somehow refuses to sink in, a sensation that suggests pictures are not enough, but is also related to the "resistance to becoming spectacle" (Parks 2021: 354) that makes the slow unspooling of environmental catastrophe so difficult to attend to. Further, in their row of Perspex boxes the prints begin to read as objects, and their equivalence

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<sup>5</sup> Caption accompanying *One Ton II*.

<sup>6</sup> Four of them visually superfluous, invoking the myth of continual growth. For Walter Benjamin the multiple loses its "aura", becomes a token of exchange, and the five of them do begin to seem like commodities, investments. (cf. Krauss 1999)

reinforces them as pieces of paper, underlining the limits of images. It is through the action of text, the sudden awareness of material process, that the work rebounds onto itself like a door slamming. At the same time, its flat aesthetic calm carries a sense of shock, as when something known but unsayable is said. As Justin Parks points out, the "expendable spaces" (ibid: 355) of global capitalism are not invisible but merely unseen.<sup>7</sup> The labour and aftermath of resource extraction are not noticed by those whose lifestyle it enables. *One Ton, II* brings into the light an instance of that repressed consciousness; it ruptures the allegiance of power and invisibility. And yet the work remains complicit in, is predicated upon, those toxic systems; it is corrupt. The gaze of Starling's work is unflinchingly reflexive; it chooses to undermine itself.

These photographs point at themselves, and also outwards, to the many hungers and waste streams of analogue photography: rare metals, gelatin, celluloid negatives, toxic chemicals, plasticised papers.<sup>8</sup> It can often seem as if the medium had a blind spot for itself, for its complicity in human exceptionalism and the political violence that remakes spaces. *One Ton, II* places photography in the weave of extraction and pollution. In this, it motivates experimental photographic methods; it presses a need to reform the materials and processes of photography. The lifecycle of the platinum/palladium prints ties them to histories of colonial theft and industrialisation and to futures that look the same. Indeed, the work envisages the endpoint of neocolonial capitalist systems: the annihilated landscapes of mass extinction towards which these logics are propelling us.

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<sup>7</sup> Some sites are so large as to be seen from space, and they are certainly noticed by humans in their vicinity. They are only unseen in the global north, making "visibility (or the lack thereof) a paradoxical and deeply fraught issue." (Parks 2021: 355)

<sup>8</sup> Digital photography has its own issues, many to do with its technological underpinnings – data storage, obsolescence, rare minerals, disposal of technology – but I would suggest also arising from the habits and attitudes it fosters: of immateriality, detachment, and proliferation. The digital arena encourages illusions of separateness from nature, permanence, and dimensionless capacity, all complicit in our present state of environmental crisis.

The mining that obliterates this South African landscape for platinum eases along a groove worn by centuries of systematic dispossession. Extractive practices and the structures that underwrite them are organised and legitimised, Kathryn Yusoff argues, by the discourse of geology, through its "systematic framing of materiality" (2018: 3, footnote), a framing that founded both land theft and racialisation. She makes a compelling case for re-examining geological language, from its inception to its re-elaboration in the present. Geology divides matter into active and inert; this ontological distinction elides into a second, human and inhuman, and either division, according to Yusoff, is capable of bifurcating both corporeal and mineralogical matter.<sup>9</sup> Inert, inhuman, non-agentic matter is inscribed as resource; geologic vocabulary "stabilizes the *cut* of property" (ibid: 4). "The concept of the inhuman", in particular, "is a connective hinge [...] that establishes an extractive axis in both subjective and planetary life." (ibid: 5) Categorising earth matter as inhuman cuts minerals from the mesh of ecologic relations and *at the same time* the inhuman as category mistake slips grotesquely: "the inhuman is made to slide over personhood." (ibid: 72) Mining and slavery are twins<sup>10</sup>, both brought into being at the same moment,<sup>11</sup> through "the brutal calculative logic of inhuman materiality as a praxis for dispossession" (ibid: 67) that strips personhood from flesh, and severs both inhabitants and minerals from land. Thus race and ecology are intertwined, and an account of one without the other is another strategic unseeing of extractivism at work.

Starling's work shows us the geo-trauma that is the cost of the photographs, and the embedding of the photo-ecology within extractive systems.

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9 Cp. Yusoff 2018: 2

10 Twins that switch places within colonial practices: "where gold shows up as bodies and bodies are the surplus of mineral extraction." (ibid: 5)

11 Colonial extractivism and transatlantic slavery began together, bodily resources being required to extract mineral resources in the New World. (cf. ibid: 14; 68)



But we do not see the people who work the mine, the black bodies that absorb its harm, the imbrication of minerals and flesh imposed through those logics. As Yusoff notes, the descriptive qualities of geology mask its world-making effects, its continued structuring of subjectivity and geopolitics. This enables a "cultivated silence"<sup>12</sup> about race as a line drawn by power within the framework of geology – an erasure that perpetuates unequal environmental exposure. What is required is a profound rethinking of geologic categories, because, as Yusoff writes: "only through a shift of the axis of sense that allows this transaction (at a material and symbolic level) can a different possibility be enacted." (ibid: 73) She proposes that the "mineralogical intimacy" (ibid: 67) forced upon bodies and earth through the category of the inhuman be reworked, into "an insurgent geology of belonging" (ibid: 88). Such a new belonging re-aligns human bonds with the earth – refusing those of property and labour for a chosen affinity with stones that "makes a commons in the measure and pitch of the world." (ibid: 99)

### **3.1 disruptions and between-states / remote**

Extractivism and remoteness are linked within the problematic of the north; distance enables extractive violence, and allows it to slip over the horizon.<sup>13</sup> Remoteness is a spatial term, but it and its cousin terms – isolation, marginality, the frontier – also entail being far from densely populated areas, and so are relations not only of distance but also of difference.<sup>14</sup> Remoteness therefore has a gradient, which defines power relations, inequalities and a proliferating set of binaries: centre/periphery, inside/outside, civilised/wild. As historian Ken Coates

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<sup>12</sup> Sadiya Hartman's term, cited by Yusoff. (ibid: 4)

<sup>13</sup> This is more than just being out of sight; distance also facilitates detachment and othering.

<sup>14</sup> There is an ambiguity inherent in the term between 'remote' tout court and 'remote (from people)', but I follow here Ken Coates's account of remoteness from dense population, which he considers "the fundamental aspect of life in northern regions." (1993: 36)

points out, it forms a slope in politics, economics and culture that smooths the course of resource extraction, while generating other tensions, deprivations and impositions.<sup>15</sup> This differential is acute in the polar north, but not uniquely so<sup>16</sup>, and remoteness admits of degrees. In moderate form it causes cultural and economic asymmetries between urban centres and rural regions everywhere. In the west of the UK, for instance, histories of mining, industry and war defences that have disturbed the landscape in lasting ways are glossed over by landscape tourism, myth-making and cultural stereotyping. Such issues, of ruins and their obscuring, are brought to the photographic surface in Ryan Moule's practice, through disruptions of the photographic process that degrade photo-materials. *Billet and Bloom*, 2016, is a pair of black and white prints of (and also made with) a post-industrial landscape in south Wales. The tall, framed photographs stand on the floor, objects as much as images, bodily in dimensions.<sup>17</sup> Silt from the Port Talbot steelworks was brought into the developing of the 35mm negatives, damaging them to the point of near-unintelligibility. The positive prints register this damage at one remove, inverted. They are the legacy of damage, its mirror, its child – and that dirt-violence, enacted within the genealogy of the photographs, materially inherits and reiterates the impact of the steelworks on the Welsh earth. Thus the poisoning of the negatives recurs as a re-enactment and vivid allegory of how violence cascades through cycles and generations.

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<sup>15</sup> Coates discusses these consequences in detail for the context of northern Canada. He describes an endemic "culture of opposition" that is the outcome of colonial histories of conflict between incomers and the indigenous inhabitants, consolidated by the ordinary dynamic of uneven power between population centres and remote regions. (ibid: 41)

<sup>16</sup> Indeed, Coates suggests that these concepts could productively be applied to a geographically diverse set of remote regions, including the Australian outback and the upper Amazon basin. (ibid: 35)

<sup>17</sup> However, I encounter them on a screen and so can only imagine experiencing the relation between our bodies.

[Figure 2. Ryan Moule, *Billet and Bloom*, 2016, silt damaged negatives,  
Hahnemuhle Fibre Based Print, 120 x 156cm.]

Through the agency of waste/contaminated silt, trauma returns as an echo or landslide that nearly obliterates the visual field. Blank darkness partially covers each panel; like a shutter coming down, it unsettles, it frustrates. What remains has geological cues: sedimentary layers, or slippage; a boundary contour; veins that crackle; granular drift. It is hard to distinguish image from damage; what we are looking at seems to be an interface, a place of struggle, where the eye struggles too, involving the viewer in the difficulty. As Catherine Yass finds, "the physical silt grain mixes with photographic grain" (2016: unpaginated). There is nothing to anchor scale or perspective, yet areas of legibility remain: almost enough to read a marred, interrupted landscape, enough to keep a viewer trying.<sup>18</sup> The image is suspended or in transition: between representations (of place or process); between the figurative and the abstract.

This visual liminality, created by disrupting the photographic causal line, is made in the darkroom – itself a borderline, gestational space, where unpredictable events are set in motion under a red twilight. For Yass, blindness is at the centre of Moule's practice. His process underlines the transition between photographic negative and positive, the inherence of each in the other that holds the potential for transformation.<sup>19</sup> That darkroom flux, amplified in the work, sustains a vital ambivalence. The photographs, Yass writes, "resist the dialectic of being one thing or another and refuse to enter a language of fixed meanings", and through this refusal "a political space emerges at the level of the grain, in the

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<sup>18</sup> For Yass, on the other hand, the prints are "abstract, illegible".

<sup>19</sup> Cp. Yass (2016)

grammar of the imagery." (ibid) Moule's emphasis on process (on coming-into-being) and his use of process to trouble the image (to make it persistently indeterminate) both occupy this space that is resolutely in-between categories and concepts. Here, acts of picturing and destroying are not identical, but entangled.

In these experiments with silt, the potential of the darkroom is amplified into a wait-and-see where causation becomes obscure. The darkroom moment also represents a hiatus, a gap where the assumed order may be derailed. These ideas – transformation, obscurity, and the gap – together echo the geological rupture of industrial landscapes. The prints make visible the kind of breakage that tends to happen too slowly for humans to see. As Yass notes: "It is hard to see that we live on shifting ground; we cannot even really say where we are standing." (ibid) And it goes further than this darkness, this seismic vulnerability: like most of Moule's photographs, the *Billet and Bloom* pair are chemically unfixed. They degrade slowly as they are exhibited (through the light exposure that allows viewing, so that seeing and destroying are also entangled). This decision to make work of exaggerated transience, work that will (for a photograph) die young, positions photography, Moule says, "not as a medium that has a privileged position to time, but a medium that has a finite, human relationship to time." (Moule/Williams 2022: 01) We, too, are pulled into the frame. These materially disrupted photographs (physically and temporally sabotaged) remind us that imperceptible changes can destroy worlds, and bring us into proximity, intimacy with those worlds, to identify with that acceleration towards loss. Distance is an illusion, they seem to say: these are not remote events; they are happening here.

### **3.2 ghosts / the edge of sight**

Moule's 2022 series, *Objects to Place in a Tomb*, also engages with the erasure of ruins from sight and memory, but here the characteristic transience of his work resonates differently. The small collodion plates reverberate less with violence than with a strange longing in their depiction of human-made scars on the Welsh landscape: "industrial relics, disused mine shafts, contaminated land and demolished radar stations."<sup>20</sup> Marked by the violence of modernity, these places contain what Tsing, Gan, Swanson and Bubandt term *ghosts* (2017). A landscape is a continual making and unmaking of ecologies, in which traces of multiple histories remain. "Ghost" is used flexibly by Tsing et al, to embrace the "many kinds of time" (G8), many agencies threaded through places. Ghosts carry messages, "about stretches of ancient time and contemporary layerings of time, *collapsed together* in landscapes." (G8, my emphasis) These many kinds of time are not simply stacked, rather, they "swirl" (ibid: G8). Physicist and philosopher Karen Barad describes the "strange topology" (2017: G109) of nuclear ghosts, "every morsel of spacetime mattering [...] specifically entangled inside all others." (ibid: G110) Moule's photographs of modern ruins, "shaped by war and ideology"<sup>21</sup> register "all that has been, or will soon be removed from the history of these lands".<sup>22</sup> We reshape the landscape, we tidy up, but ghosts remain. The photographs attend to the ghosts, while also enacting the same movement towards obscurity that time and our will-to-forget works on these landscapes. They are double folds: remembering and forgetting, singular, self-erasing records.

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<sup>20</sup> Exhibition press release, Serchia Gallery, 2022.

<sup>21</sup> Moule and Williams 2022: 04.

<sup>22</sup> Exhibition press release, Serchia Gallery, 2022.

[Figure 3. Ryan Moule, *Rhossili Down*, unique collodion plate, 10.2 x 12.7 cm, From the series *Objects to Place in a Tomb*, 2022]

The wet collodion technique, a relic of Victorian photography, itself haunts the works; it suffuses them with a layer of strange time. And it connects these ruins and their picturing to the interwoven early histories of industry and photography. The process is an uncanny revival that deforms the photographic present. They resemble museum pieces, or dream-fragments. They represent, in exquisite sombre miniature, places known intimately to the artist; they are home, but made strange – *unheimlich*, Freud would call it. The antique process generates an uncomfortable temporal perspective, a future-past perhaps: a mirror that looks back on us in the way we do the 19th century. It turns us to ghosts too.

The metal plate reflects its surroundings – the muted grey positive of the image flickers against that unreliable surface. "Trying to look at these photographic objects is like attempting to discern something in a pond, under its surface, disturbed by small waves," Camille Ines Relet (2022: 3) writes. This elusiveness is both present-moment and daydream-like – it re-establishes the now, but allows it to drift. The experience of looking at these photographs is heightened, underlining their physicality in an odd way, where they seem both particularly solid and also ungraspable. Their *thingness* is enhanced by their hand-smallness and their containment in deep walnut frames. They are alive with haptic joys: glossy-dark and ashen-soft, with minute raised detail like braille. Vibrant and untouchable, they create an "embodied space of engagement" (Moule/Williams 2022: 02), an active viewing. In person, the encounter is delicious, frustrating, bodily – requiring movements of head, neck, feet, to make the tiny images out. Between the bodily looking and the doubly haunted

photograph, an emotional space is opened, of connectivity and loss. It makes vivid the mysteriousness of things. For philosopher Timothy Morton, our everyday, unobtrusive encountering of objects is the distortion of things; a not-noticing that spares us from ecological awareness.<sup>23</sup> "Being in a place," he writes, "being in an era, for instance an era of mass extinction, is intrinsically uncanny." (2021: 14-15) Eerie and short-lived, Moule's *Objects* call forth attentiveness and letting go, the kind of engagement that the nonhuman world needs from humans.

#### **4 the book and the archive / timeless**

The problematic matrix includes a notion of time as suspended or extremely slow in the north. Slowed time is lent support by permafrost (in which infant mammoths may be found preserved), but in its inflection as timelessness it is a denial of time, a fantasy of permanence that casts geophysical change as *infinitely* slow, and undermines the urgency of environmental efforts.<sup>24</sup> Also troublesome is the notion of the north being *earlier*, an archive of pre-modern ways of life. While nomadic, non-agricultural, and hunter-gatherer practices do persist in remote places, it goes further to frame these differences along a timeline.<sup>25</sup> Both frozen time and earlier time coexist uncomfortably with evidence of changes in the polar north, and this tension calls not simply for a recalibration of timescales, but for a more complex understanding of time – because time is not smooth or linear.<sup>26</sup>

Marianne Bjørnmyr and Dan Mariner's collaborative book *Beneath the Salt*

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<sup>23</sup> He describes this with a reversal of the hierarchy that Heidegger gives to his terms *zuhanden* (ready-to-hand) and *vorhanden* (present-at-hand), the latter being associated for Heidegger to something going awry, making objects seem peculiarly present. For Morton, it is that peculiar presence that is how things really are, a truth masked by ordinary life.

<sup>24</sup> As geologist Marcia Bjornerud explains, human "chronophobia" (2028: 7) prevents us from recognising that "we have set in motion changes for which there are few precedents." (128)

<sup>25</sup> Timelines that measure 'development' valorise industrialised society and devalue indigenous relationships with ecologies; counter-narratives of time as corruption generate idealisations that are equally unhelpful.

<sup>26</sup> As Timothy Morton says of timescales: "That kind of thing confuses time with the measurement of time." (2021: 33)

(2017) engages with nonlinear models of time, with time's pleats, twists and inversions. The outcome of a joint residency on the remote island of Træna (in northern Norway), the book curates photographs from a mix of sources: Norwegian archives and museums; Mariner's own photographs of island rock pools and salted *klippfisk*; and artworks submitted to the artists' open call. Processes of selection, organization and reproduction have created a new archive, in which the images flow without notation or hierarchy; authorship, date and materials are listed in a loose booklet, tucked into the back. The motif of salt is a thread through the project – visual, historical, material and metaphorical. "Salt" ties Træna, a place where life is dominated by the sea, by its stringencies and gifts, to Henry Fox Talbot's first experiments with salt prints (cp. Payet 2017: 2). "Beneath" implies an excavation, an unearthing, or its inverse, a burying under layers of sediment or crystal growth<sup>27</sup>; it implies the duality of salt-as-time, of material-time.

[Figure 4. Marianne Bjørnmyr and Dan Mariner, *Beneath the Salt*, 2017]

Within the book-archive, times and geographies are untidy and evocative. Photo-materialities, too, rub together: museum prints among digital composites, new silver gelatins and revived formats such as cyanotype (Rhona Eve Clews' oceans) and salt prints (Melanie King's *Sun*, *Moon*, and *Corona*). However, materiality is encountered at one remove, in reproduction. The photographs are all re-materialised as book pages, flattening their physical and age differences, and there is a visual unity to their appearance: all are soft, muted, clear. They appear

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<sup>27</sup> Erica Payet connects Bjørnmyr and Mariner's use of salt to Robert Smithson's "view of history as an accretion that obscures the past" (2017: 5).



as image-aspects of a new object. Individual social and material histories, moreover, are banished to the index. There is a complicated motion within the process of the book: it removes materiality and context (which includes medium, the description of materiality) to a distance, then attends carefully to materials: those of the photographs (the grain and flaws of their surfaces) and those pictured in them. What is liberated by this double mediation, and what is lost? De-contextualisation works, as Erica Payet points out, as a mechanism of abstraction, shifting focus from the pictorial to the aesthetic qualities of the images.<sup>28</sup>

Language anchors photographs in structures of signification and value; without the captions a free movement between absorption-in and association-with can open out from the images. Playful sequencing builds visual rhythms of texture, tonality, and shape: strange tactile families that bring diverse substances (salt, ice, limestone, skin, photographic paper) into relationships. Yet context is not absent, merely displaced to the booklet, a flexible companion that can be referred to when needed. And it *is* needed, because some tying-in of visual phenomena to the known world is essential to recognising these emergent patterns as meaningful. Scalar puns only work if the penny drops – then dented polaroid film and salt pans can resemble celestial bodies, or a waterfall rhyme with verdigris. Thus matter can become mobile, can be seen to dance through things.

The book holds a jumbled archive. Its disruption of temporal order and inheritance exfoliates some of the atmosphere of pastness that clings to old photographs. While this does not entirely free them – the archive images are still identifiable – it allows enough drift to find new points of contact, such as the resonance of wooden jetty (Svartisen, 1900) with industrial crane (Sam Kelly,

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<sup>28</sup> "One becomes more sensitive", she writes, "to whether an image is sharp or soft-focused and black-and-white or in colour." (ibid: 4)

*South Bay Salt Works*, California, 2016). New allegiances help to shake off romantic nostalgia and the feel of temporal distance. This opens a space for critical reflection on how to frame archival images, for considering the shape given to time. Bjørnmyr and Mariner's residency in Træna was a dwelling-in-place with pronounced social dimensions: time spent among the local community, in the landscape, and in local archives.<sup>29</sup> The artists rely on the archive, Payet tells us, as "an underlying collective memory"; the borrowed photographs "initiate a dialogue." (ibid: 5) These phrases hold a rich seam of implicit social interaction: conversations, unspoken communal practices and assumptions. They suggest time as emerging from a social field: not a linear, museological narrative, but something networked, at once expansive and inconsistent, characterised by the loops, lacunae and stumbles of group memory. Further, they suggest that some aspects of social forms of life, social time, may be unclear – indeterminate – in a fundamental way that is to do with their lying below the surface of what can be said.

The archive images spark a web of dialogues that bloom outwards through the book, human assonances linking places and times. Children on a small fishing boat (Alma Sandøy, 1925) meet others playing in the shallow Sardinian sea (Fabrizio Musu, silver gelatin print, 2016). The brown hair of a woman stacking dried fish is windblown (Per Lillegaard, 1952); likewise the person stood nested in a Venezuelan salt outcrop, shadows on bare skin, dark hair flying up (Lucia Pizzani, undated). Such visual echoes effect a sense of skipping across a temporal surface. Circles of empathy and difference open out from the human, to embrace seals and pumice, fish and sails and mountains, distributing a material liveliness

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<sup>29</sup> As Payet notes, the resulting artwork is founded on social connections: in its fieldwork, in its central co-authorship, and its use of artworld relationships. (2017: 6-7)

through all things. These threads of dialogue and energy, thrumming through the images, give visual life to ecological thought. They make vivid Jane Bennett's new materialism, according to which there is "a vitality intrinsic to materiality as such" (2010: xiii). Bennett's understanding of all matter as "lively and self-organising" (ibid: 10), and possessing *thing-power*, "an active, earthy, not-quite-human capaciousness," is developed in opposition to human exceptionalism and the tendency to treat things as resources.<sup>30</sup> In the unfathomable weave of global resource-moving, salt is brought in to Træna from elsewhere for the *klippfisk* industry, a fact absorbed into the book as a literal network beneath the abstract trajectories of matter. Materials travel through the book; they move. Salt in particular: sea salt in Sardinia; a Venezuelan mine, a depot in Scotland; stacks in Australia. It shape-shifts, forms rings, shelves, crystals, white hills. Human involvement is woven through these motile ecologies: they are full of transportations, buildings and shapings; fish are out of water and there are bloody sealskins on deck. The impression, though, is not of human control but a complex entanglement. Nothing stands still and there is human touch on everything. The haptic runs through the images as textures: glassy, riven, sandy, papery, rippled, mottled. Touch is reciprocal; maybe everything is touching us, reminding us that we are material too, "a particularly potent mix of minerals." (ibid: 11)

Deft research, curation and ordering has resulted in a rich array of affinities and variations among the images. Things gather into skeins, allegiances and tendencies, with energies that align or conflict, that shift like shoals. Agency, for Bennett, is congregational; it belongs to human-nonhuman assemblages. (ibid: 36) The capacity for action is (differentially) distributed through these loose and

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30 Against "the image of dead or thoroughly instrumentalized matter [that] feeds human hubris and our earth-destroying fantasies of conquest and consumption." (ibid: ix)

diverse groupings<sup>31</sup>, and effects arise from them in a fractal, nonlinear way. In *Beneath the Salt*, water, salt and stone recur, transforming as they go. Crashing waves are seen again, arrested in thick mineral crusts; foamy rock markings speak to receding surf, salted fish to snowfields and freckled sky. Water, life and rocks do become one another in this way, "in coal or fossil limestone reefs" (ibid: 8), and these are the kind of biogeochemical cycles that climate change disturbs, the kind that require our attention.<sup>32</sup> Salt runs through the metamorphoses, as substance and also as metaphor. Payet describes a cultural history of crystal growth as suggesting the most mysterious of all changes – "a liminal movement between the mineral (static) and the organic (live)." (2017: 5) This movement erodes the life-matter binary, the nub of human cultural resistance to acknowledging our continuity with the more-than-human.<sup>33</sup> In salt we return to time, as fluidity and accumulation, stuttering, halting, rushing, circling: rock-time, star-time and fish-time. The recognition of these times as having equal status is an ecological act. As Timothy Morton writes, "from grasses to gorillas to gargantuan black holes, *everything has its own time*, its own temporality." (2021: 33, original emphasis)

## **5 the zine / geology**

Alongside timelessness, northern landscapes evoke deep time, in the form of the geological sublime. Visitors seek out spectacular instances of the power of earth processes – volcanoes, fjords, sea cliffs. These visions can obscure the

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31 The powers of people, fish and stones are not the same, but Bennett underlines the importance of reading those differences horizontally: "there is no necessity to describe these differences in a way that places humans at the ontological centre or hierarchical apex." (ibid: 11)

32 As Bjørnerud argues, there is a need for us to acquire a basic understanding of geological rhythms – what she calls "timefulness" (2018: 5).

33 A binary no longer supported by scientific thinking. As Bennett writes, "developments in the natural sciences and bioengineering have rendered the line between organic and inorganic, life and matter, increasingly problematic." (ibid: xviii)

vulnerability of geological systems to human-caused change, even while the north calibrates global heating in disappearing glaciers and sea ice. Awe and anxiety collide, feeding one another in a cycle that generates guilt, panic, and powerlessness. Poet Rebecca Tamás describes "a kind of climate despair or melancholia," (2020: 82) that stultifies action.<sup>34</sup> This curdled grief, acute for those directly in the path of change, affects those still shielded as a lethargy, worsened by Western habits of dissociation from nature – by landscape as view, respite or recreation. What is needed, Tamás writes, is "a genuine mourning" that fuels our efforts to alter conditions, and a watchful, critical awareness of the world as "perpetually wounded." (ibid: 89)

The world as a place of wounds, that we struggle to see clearly, comes through in Aster Reem David's photographs *Salt and Light* (2018-21). The series, elaborated from an initial exhibition, was published as a photozine in 2022. Beginning from some old postcards of Iceland and expanding to include her own photographs, of Iceland and elsewhere, the images unfold as a set of experiments. The postcard, redolent of travel and romanticised nature, is a social object or personal souvenir of place. Scanned and altered – converted to red, solarised, or darkened – they shed their object-fetish aspect and their univocality. They lose themselves among images with other origins, among other visual modes. David ranges among image-making strategies, from darkroom printing to cyanotype to digital manipulation, producing a delicate meditation upon the lenses that configure landscapes. Sequences often repeat a single image, varying technique, colour, or paper, or fading the image (as in *Darkroom 'Falls' repetition*) in a nod to darkroom test-prints. These self-conscious variations elide ways of seeing with

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<sup>34</sup> "Rather than mourning for what is lost," she explains, "and being galvanised to try and protect what is left, we are, understandably thrown into a darkness that makes us revolt against our sense of being in the world." (2020: 82)

ways of altering landscapes; they suggest human effects on them, the consequences, perhaps, of our ways of seeing. They also notice the *extended* time of the photograph, a period of making – not an instant of 'capture' but an evolution that could go different ways. Sets of optional versions demonstrate the distortions, explorations and many subjective choices involved in making a photographic print. David's printing riffs run counter to photographs as factual documents, counter to the concealment of point of view. They make Donna Haraway's (1988) point that all knowledges are situated, that our positioning creates what we see.

The digital printing of the zine, which is glossy, high-contrast and sometimes woolly, partially masks differences in process. Ambiguities are enabled by the zine's loss of titles, dates or mediums (although that information is available on David's website). The effect of this flattening of materiality is not the same as in Bjørnmyr and Mariner's book; here it augments the speculative, loose feel of the image series into something both enigmatic and provisional. The valence of zines is anti-archival, throwaway, which feeds that tentative quality and adds a layer of aesthetic rebelliousness. As Hito Steyerl notes, images that are difficult to make out, or degraded, tap into a history of subversive and anti-capitalist publications: "The poor image [...] takes its place in the genealogy of carbon-copied pamphlets, cine-train agit-prop films, underground video magazines and other nonconformist materials." (2009: unpaginated). A quiet resistance to being finished and resolved inheres in this format. The photographs reflect on deteriorating landscapes, but they are not polemical; they do not lecture or explain. Rather they are subtended by an atmosphere of melancholy that inheres in the winter light, deep shadows, blue tones and ragged surfaces.

Despite the zine's homogenising effect process can usually be made out. Digitally collaged snapshots declare themselves, aligned to follow contours or

rock seams across diverse locations (as in *GORGE*) in what feels like a searching for relationships, for a kind of holism, cause and effect dispersed across the globe. There are repeated motifs (frozen waterfalls, rock faces) and textural echoes, but the images and their connections are too few for sustained patterns to emerge. Rather, the effect is tentative and concentrated in sets of repetitions; they suggest partial snatches of coherence. Varied printings give four iterations of a sea stack, *Sculptural Rock (reinforced)*. It first appears as a negative cyanotype, pale neon on dark blue, then a black and white positive of the first (with the same drips), blurry, on creased tracing paper. The third and fourth are crisp: on brown paper and bright white. The work's improvisational quality lends it a certain relaxed ease, but there is also a weight of sadness that clings to the rock itself. Repetition with variation suggests weather moving over, different moments, points of view, or perceptual models. Photographic process stands for other changes. It generates open-endedness: a sense of alternate states, alternate timelines, that visually erode the permanence of the rock. The sequence effects a kind of dismantling of stone and duration, and yet the images are not greatly altered by the varied printings. Humans see such a short span of time, and, as Marcia Bjornerud notes, most of us lack a "feeling for distances and proximities in the geography of deep time." (2018: 17)

[Figure 5. Aster Reem David, *Sculptural Rock (reinforced)*, 2018-2020,  
from the series *Salt and Light*]

Throughout *Salt and Light*, geometries of water, ice and stone have equivocal sculptural qualities. They appear shaped – by geo-processes, yes, but also through their selection and framing (by the eyes of human and lens), and by

photographic processes. David's compositions present landforms, make them salient – and then these forms recur (locally and through the series) in alternative visions, in layers of possibility. This method of representing the multiple and overlaid shapings of landscape cuts in various ways. Human activity is implicit in the photographs but none is pictured; these are vacant landscapes, without human or nonhuman animals, or built structures. Maybe they reach towards nonhuman time, the world without us. There is irony in the title, with its Biblical reference to salt (of the earth) and light (of the world). In the era of climate emergency, these figures of "healing, preservation [...] and hope"<sup>35</sup> seem like a rebuke. Marred 35mm film stands as a particularly poignant metaphor. The paired images of *Untitled (melting ice)* show the same seam of snow in a dark hollow, with the same framing. Black twigs stick up, and rocky hummocks scallop one side of the snow. The shapes repeat; they seem to say: Do you see it now? Yellow-red light damage floods the middle of the first frame; in the second, only the upper half of the image survives, hazed with pink, the rest is whitespace – like two different nuclear disasters. This kind of print came back wearing advice stickers in the 1980s and 90s. They are suffused with nostalgia, ugly-beautiful, glowing failures of the photographic process. David describes this as "weathered" film, which leaves open the nature of the weathering – human action, friction, rain, snow – in a way that seems to say: there is nothing to be gained by tracing the causes. Indeed, events do not have single origins, as Bennett observes, but form "circuits in which effect and cause alternate position and redound on each other." (2010: 33) After all, rain too has causes, human and non-human.

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<sup>35</sup> Email correspondence with David.



## **6 plant pigment and care / wilderness**

Uninhabited land is a colonial fantasy that lingers in the idea of wilderness, tainting the word by association. In the colonial mindscape, great empty spaces unfurl, replete with available resources. The expanding edge that separates the familiar from the wilderness is fetishized – as frontier, opportunity – as is the 'wealth' beyond it. Geology, in these hands, is a logic of dispossession. As Yusoff writes, "the places of Athabasca, Algonquin, Salish, Inuit, become 'wilderness', nickel, coal, prairie, commodities to be extracted." (2018: 97) Wilful denigration of ecological embedding "renders the indigenous as subhuman" (ibid: 65); it empties the landscape of habitation, of human activities and culture interleaved with complex ecologies. Contradicting this imaginary of emptiness, learning to see what is there, involves recognising these collaborations between human and more-than-human as profoundly relational and mutually constitutive. In Amanda Couch's ongoing work *Becoming With Wheat (and Other More-Than-Human Others)*, photography is one strand in an expanse of activities – performance, text, video, woven objects – that explore "our interspecies kinship with wheat" (Couch 2022b: 136) and with other entities entangled in that relationship. Since 2018, Couch has been cultivating small rhombus-shaped<sup>36</sup> fields of ancient wheat varieties in her back garden. These sites are the focus of her evolving collaboration with wheat plants that draws in communities, human and nonhuman, in an ever-widening engagement with the commons of land and food.<sup>37</sup>

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<sup>36</sup> The rhomboid or lozenge is an ancient fertility symbol, thought to represent the vulva. (cp. Couch 2022a: 60-61)

<sup>37</sup> In conceiving the project, Couch draws on Annette Arlander's articulation of the artistic-research process as akin to that of a "dispersed vegetal being" (Arlander 2019: 458). "*Becoming with Wheat...* is a scattering, manifesting not as a single outcome, but rather multiple germinations, crops, cycles and iterations – many of which are speculative and ongoing, with the aim of cultivating a more connected, sensitive way of being with plants, landscape, people and food." (Couch 2022a: 62)

[Figure 6. Amanda Couch, *Becoming with Wheat (and Other More-Than-Human Others) Harvesting Grain Spirit*, anthotype, 78 x 102 cm, 2022]

In 2021, a series of anthotypes arose from the work, each depicting a female figure among the ripened wheat; she holds a sickle and wears a mask of intricately woven wheat stems. In *Becoming with Wheat (and Other More-Than-Human Others) Harvesting Grain Spirit* (2022), the figure is seated; her knees spread under an apron decorated with rhombus motifs. The "botano-morphic" (2022a: 61) masks, made by Couch for her rituals of planting and harvesting, are informed by corn dollies<sup>38</sup> and are elaborated to mimic wheat germinating or in sheaves. The masks are hybrid objects, both formally and materially – their substance and process entwine across the nature-culture dichotomy.<sup>39</sup> Similarly, the anthotypes are hybrids: plant-human collaborations, their aesthetic a blend of the Victorian and the contemporary home-made, their genesis involving pinhole camera, digital scanning and the (Victorian) anthotype solution which is entirely non-toxic and easy to cook up. The anthotype process uses plant pigment that is exposed to sunlight under a positive; it follows the responsiveness of plants to sunlight, but in reverse. The pigment fades where it is not masked, resulting in soft, biogenic tones, not black and white – here it gives a textured green-brown lit with bright rose-golds. Couch's practice with anthotypes endows a sense of plants as active. It is an attempt to see plants well, to see *with* plants. She mentions Michael Marder's idea that plants live on the edge of visibility – we're almost plant-blind until we need them.<sup>40</sup> This notion of need is complicated. It is partly because we need plants so profoundly that we have become automatic in our

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38 These folk objects were once woven to provide refuge for the spirit of the field, supposedly driven into the final sheaf during reaping. (cp. Couch 2022a: 61)

39 "Maris Widgeon wheat (nature) is intertwined through straw craft (culture)." (Couch 2022a: 61)

40 See Marder 2013; from a phone conversation with Couch.

reliance on them; we have forgotten that such relationships can unravel if abused. Plants are an important borderline for the tendency of human discourse to deny agency and consciousness to the nonhuman. In Couch's extensive research around the project, she makes Monica Gagliano's point that plants signify "the marker points of our resistance to transcend our narcissistic and anthropocentric propensities toward exceptionalism."<sup>41</sup>

That denial of our continuity with the more-than-human, our resistance to seeing it and acting in the light of it, can be eroded by care – in the broad and complex sense afforded it by María Puig de la Bellacasa. Care is a force that "supports our worlds as a thick mesh of relational obligation", in which we find "the potential to transform entrenched relations to natural worlds as resources." (2017: 20-21) Relations of care tangle through the imagery, materials and process of Couch's photograph and extend into the network of her practice: nurturing the wheat and its destination as bread to be shared; the artist/grain-spirit protective figure that is human and plant and icon (and signifies a triangular cycle of care: spirit – wheat – human); and the combination of plant pigment, hand and sun that enables them all to be seen. Couch's distributed, collaborative, socially and politically engaged practice thinks with and gives many visible shapes to this deeply ecological understanding of care. For Puig de la Bellacasa, care is an ambivalent involvement, and it is reciprocal, a "living web" that is maintained by "a collective disseminated force" (ibid: 19-20).

Couch used dandelion leaves for the anthotypes, plants that had been sacrificed – weeded out – for the sake of the grain. In the anthotype the weeds remain present, enabling the grain spirit to be visible; but also they fade, they will eventually disappear. Tsing, Gan, Swanson and Bubandt tell us that weeds are

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41 Gagliano, 2018: 17, cited in Couch 2022b: 139.

ghosts. "As humans reshape the landscape, we forget what was there before [...]" Forgetting, in itself, remakes landscapes, as we privilege some assemblages over others. Yet ghosts remind us." (2017: G6) Here, the dandelion is lost in the ambivalent cut of care, in favour of wheat, our companion species, but its vigorous colour lingers in the photograph, which remembers for a while. Like all anathotypes, these are transient, imperfect images. Their beauty is vegetal and evanescent. They are in-process, even more radically so than Moule's unfixed prints. The same sunlight that made them will devour them, in the same timeframe – the image is given to us in its brief moment of emergence. It shows us an unstable world where everything is becoming.

In general, folkloric imagery and social landscapes can act as antidotes to the imaginary of emptiness and the glossing of unexploited landscapes as not being made use of. Valuing folk practices and local knowledge pushes back against the hubris of modernity – the idealisation of 'progress' and science, modelled as vectors of growth and human control. Nils Bubandt argues that in the Anthropocene we operate "under the sign of metaphysical indeterminacy rather than certainty, unintended consequences rather than control." (2017: G125) Spirits thrive, he writes, "under the same conditions of uncertainty and possibility." (ibid: G125) Further, in human spirit-tales, nature is given agency. Couch's grain spirit underlies and guarantees our relationship with wheat. In its anthropomorphism, it alerts us to the difficulty of ascribing agency and care to the more-than-human "without reinstating a human center." (Puig de la Bellacasa 2017: 21) That said, there is power in imagery and thoughts that straddle the line between human and nonhuman. As Bennett writes, "We need to cultivate a bit of anthropomorphism [...] to counter the narcissism of humans." (2010: xvi) The hybrid figure is an attempt to represent nonhuman agency – Bennett's thing-power – something that

is "intrinsically resistant to representation." (ibid: xvi) Perhaps a hybrid is the best we can do. Furthermore, it visualises an instance of thing-power that humans find especially hard to acknowledge: the thorough permeation of the human with the nonhuman, the human body as human-nonhuman assemblage<sup>42</sup>, "not human all the way through" (Morton 2021: 23). Couch's masked grain-spirit-woman taps into the pagan tradition of green men, vividly described by Rebecca Tamás as: "the human and nonhuman intertwined, bursting out of each other with discomfort, joy, pleasure. The human face becoming inhuman, showing the swirling movements beneath, where we become the other." (2020: 54-55)

### **7.1 sentience and plant developer / wild**

The north (or any place) as wild is not the same as the "impossibly pure space" (Tamas 2020: 54) of wilderness. 'Wild' is a more flexible term; it admits of degree, of admixture, and it applies to many things besides landscapes, but it too can enact a separation of nature from culture. A wild landscape has not (yet) been tamed for human use, or it has been neglected and nature is reclaiming it. This framing of the term through negation (not yet, or no longer) lends itself to the colonising mind: it is apt for presuming that value lies the other way, in cultivation. A version of this tension runs through all uses of the word. Wild signifies the independence of nature, natural extremes, and sometimes nature as threatening. What it registers is the absence or loss of human control, and so it enframes something that it (an item of language, a human tool) cannot grasp – the more-than-human that escapes us. In that it is like the word 'nonhuman'; it gestures beyond the fence. As we know, this conceptual partitioning does not serve us well. There is something inadequate, hemmed in, about our existing ways

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42 As Bennett discusses, see 2010: 10-11, 39-43, and 49.

of thinking, and wild is a thread that needs to be tugged. As Elizabeth Grosz says, "if the human and its modes of conceptualization understood this world better, the place of the human would not be so perilously close to extinction." (Roffe/Stark 2015: 18) One way to reorganise our framework is by recognising human continuity with other things, other matter, by tracing lines through. There is the wild in us, humans slipping their own leashes, unmastered forces rising in our bodies. Bennett describes Henry David Thoreau's notion of the Wild as "a not-quite-human force that addled and altered human and other bodies [...] an irreducibly strange dimension of matter, an *out-side*." (2010: 2-3) If the Wild names that which is irretrievably mysterious (to humans), an out-side that runs through human and non-human things, that ties us together, is there an *in-side* that does the same? That is, what broader shape might we give to interiority – to intentions, self-consciousness and language – that would allow aspects of it to permeate the nonhuman too?

Rebecca Tamás notes the sentience of trees, in their intercommunications, their "crown shyness", and "ability to express their will." (2020: 43) She writes of the nonhuman in general as "part of our mental web of existence" (ibid: 45), affecting *our* capacities for thought, enlarging and reshaping them. Sayako Sugawara's *Redwood Magdalene* is one of a series of photographs tracing the artist's relationship with a redwood tree. The tree stands by the source of the river Fleet, a tributary of the Thames that flows mostly underground. Filling the centre of the image is the broad foot of the redwood: its deeply grooved trunk, fine lower branches and roots twisting into the soil. Its solid bulk defines a space of proximity around it, one that invites sitting, rest, and tactile contact. The print was made with photo emulsion painted onto paper and processed using a developer extracted from the fallen bark of the redwood itself. The paper is warm-toned and

it crinkles; it evokes both skin and bark. Within the making of the work, Sugawara says that the tree is a "source" – not a resource but an origin. Like a water source, or an initial idea, it acts through "what it brings up, the way it makes me think, the thread."<sup>43</sup> She refers to "invisible confluences" (ibid) that alter how a familiar place is seen.<sup>44</sup> The bark developer establishes a material presence in the photographic ecology, a second index of the tree. However Sugawara is careful to say that she does not regard it as a 'material'. Its role is not that of an inert substance. Rather, as she puts it, the subject is brought in to the image "to imbue something, make it sacred".<sup>45</sup> Its presence is in what it lends to the image: the golden tint that came as a surprise, and which she understands as a gift. Treating the redwood in this way ascribes agency to the tree, but it goes further than that, it embraces the possibility of seeing it as a being with its own kinds of awareness and intention.

[Figure 7. Sayako Sugawara, *Golden Redwood Magdalene*, photo emulsion on Offenbach Bible Paper, 21.5 x 31.5cm, 2021]

The gift has a particular resonance within Sugawara's preference for giving up control of art outcomes. She often works through what she calls "conversations with objects", an unfolding process not defined by a goal. In the notion of conversation lies something egalitarian and friendly. "Play", she says, "is the starting point of everything."<sup>46</sup> Her wider practice, with experimental cyanotypes, photograms and artist's books, expresses a lightness – works often uncover a dreamlike abstraction within the real. They seem receptive, mobile. This way of

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<sup>43</sup> Interview with Sugawara, 22 April 2022.

<sup>44</sup> Interview with Sugawara, 22 April 2022.

<sup>45</sup> Interview with Sugawara, 22 April 2022.

<sup>46</sup> Interview with Sugawara, 22 April 2022.

working, its openness to chance and to significant joy, seems to me to be a particularly ecological mode of engagement. The redwood developer results in a rich colour that may not be stable. For Sugawara this is as it should be – a way to let the photograph live out its own ecological cycle, to "feel the time through the materials."<sup>47</sup>

## **7.2 cyanotype / barren**

Sugawara's conversations with objects are open to the vitalities and lifecycles of matter, the sentience of trees. Within Anna Niskanen's practice, too, there is an openness to the liveliness of both photo-ecologies and landscapes. The cyanotypes and sculptural installations of "A Dune is a Wave"<sup>48</sup> give visual life to the rich layers of nonhuman and human habitation layered in a landscape. Works such as *Good Luck, Good Luck* – a grouping of 242 cyanotype photograms of four- and three-leaved clover – or *Aarre (Treasure)* – 23 tiny bronze casts of mushrooms, arrayed on the floor – tap into a child's experience of 'nature', enlivened with wonder by social practices, family culture and folk beliefs.<sup>49</sup> These works are meeting points with something that includes us; they express relationships with the nonhuman, rooted in participation in an environment. In their child-height focus on the very small, their way of seeing runs counter to the inflection of the wild as barren. Barrenness is a not-seeing of overlaid living spaces, a lack of attention to the tiny, the slow-growing and the unspectacular: lichens, beetles,

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47 She adds: "They have their own lives to get on with!" (Interview with Sugawara, 22 April 2022).

48 Exhibition at Vaasa City Art Gallery, 2021.

49 The clover photograms remember a childhood habit that was also her mother's: collecting them "under my grandma's garden table" (Press release, "A Dune is a Wave"). Niskanen's revival of the cyanotype process also recalls Anna Atkin's pioneering – and long-neglected – botanical prints, underscoring the work as an act of tracing and celebrating the female line. For Niskanen, the cast bronzes are related to photographs through their reproducibility.



tundra ecosystems, subtle practices of environmental stewardship. In Niskanen's images, the Finnish landscape of her childhood is animate and complex.

Within Niskanen's practice dwelling-in-place is emotionally layered. It is informed by ideas of displacement and memory, of embedding and uprooting: "the places that accompany us when we move."<sup>50</sup> *Syreeneissä (In Lilacs)* invokes a somatic sensory immersion in lilac blossom, as well as a longing for those sensations. The six-part print has depth and delicacy, the result of overlaying two exposures, one tinted with tea so the colour shifts in places towards green. The flowers emerge from deep indigo shadows; they float. Distinct here, diffuse there, they seem to move in a wind, to press thickly past the slightly dishevelled paper surface. The handmade surface asserts the picture plane, and yet looking at it is like pressing your face into a lilac bush and breathing in among dancing leaves and thick blooms. Such experiences weave us into a place, pull us back to it. Here the north arises as a yearning for home. "Lilacs are when summer starts in Helsinki," Niskanen tells me, "It's lighter outside."<sup>51</sup>

Niskanen's large-scale cyanotypes have a particular aptitude for immersion, for entangling the viewer in the landscape. Her images offer not a single viewpoint but a warped, undulating field, a "not looking at, but being in."<sup>52</sup> The negatives are constructed as digital collages from numerous photographs, with close and distant standpoints fused together. This process of building the image produces something that is accumulated and distorted, that contains more than one time and more than one space; it opposes the detached point of view on landscape, the dominating gaze. *Vedestä nousee kasvi (There's a plant rising from water)*, 18 cyanotypes on paper, shows waterlily pads and stems and rippled rings

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<sup>50</sup> From a conversation with Niskanen, 25 May 2022.

<sup>51</sup> Conversation with Niskanen, 25 May 2022.

<sup>52</sup> Conversation with Niskanen, 25 May 2022.

of light in water, in an image space that itself ripples and recedes. The assembled print is huge, 2.55 by 3.55 metres, and emphatically physical; the paper edges curve. In person it would elicit a bodily reading, reinforced by the movement within the image. The image distortion is subtle but discomfiting; some leaves are too large, others appear to drift away too quickly, to be smaller than expected. In some ways it is like a swimmer's underwater glimpse, wherein things suddenly loom, but something about its strange perspective also suggests the experience of some other creature, a frog perhaps, or the lilies themselves (there is something conversational about the way they sit with one another). This strange, shifty view notices that things elude us. It corroborates Timothy Morton's point that "nothing can be grasped or accessed all at once in its entirety" (2021: 10). What follows from this, he argues, is that human modes of access are not privileged over others. Other, nonhuman (and unintelligible to humans) ways of accessing the world – those of a mushroom, a swift, an ant, a river – are as valid as ours. "Things are open." (ibid: 20) The image of waterlilies slips between visual and physical experience, human and nonhuman – in this opening to alterity I find again something of childhood and its expansive, pagan sense of possibility.<sup>53</sup>

[Figure 8. Anna Niskanen, *The Dune*, nine cyanotypes on paper, 210 x 150cm, 2021]

The same openness comes through in *The Dune*, which registers the micro-shifts in a particularly subtle wild landscape. A slope of sand tilts up to and then curves away from the viewer. The detail and incident are almost entirely

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<sup>53</sup> Jane Bennett's new materialism reinvokes "childhood experiences of a world populated by animate things rather than passive objects." (2010: vi)

textural – ruffled and creased sand, marks inscribed by weather and possibly footprints, some small clumps, and the crisp edge of a lifted hillock. But at the top left a butterfly rests, that stops the eye's drifting because it fixes the scale that had been fluid, fluctuating, open. The butterfly magnifies perspectival inconsistencies across the image; it prompts looking again. There is a frustration of gestalt, a need for the eye to travel. This is a live, moving field, an animate nature, shimmering out of our visual grasp. The dune is indeed a wave – not an object or a ground, but a movement, containing many temporalities. In this elusiveness, this sense of happenings that exceed us, the images express ecological thinking. Parallel thoughts happen in Niskanen's making, which embraces improvisation and chance. The not fully predictable results of the cyanotype chemistry, and the loop of scattering and restoration at the heart of her process – collaging the negative only to fracture it, expose the parts, then piece them back together – mean ceding some control of the outcome. The final pieces are allowed to get away from her a little; she only sees the largest ones whole when they are assembled on a gallery wall. By working in this way, Niskanen expresses an attitude towards her materials that is non-instrumental; she affords them (as Sugawara does) a species of autonomy, even authorship. And her engagement with the materials also conveys intimacy; her methods are tactile and domestic, enabled by the low toxicity of cyanotypes. Both tactility and autonomy remain in the finishing of the work: pinned lightly to the wall, not framed, their undulations intact. "I don't press prints", she says, "because I like living surfaces and edges." (Hillberg 2022: 22)

The material life of Niskanen's photographs is acknowledged in her processes, and apparent in their final form. Paper and cyanotype chemicals (like the pond or the dune they picture) are imbued with vital force, synecdoches for all matter and its vibrant excessiveness.

## **8 soil portraits / dirt**

The last term within my problematic of the north is an endpoint of resource logic applied to landscapes: land as mere dirt. Dirt also connotes rejection; in spaces occupied by humans, dirt (like weeds) is matter out of place, inserting itself where it isn't wanted. Hannah Fletcher's practice engages closely with earth through her soil chromatographs and clay lumen prints on expired photographic stock (there, too, her method takes up paper matter that is no longer deemed useful). In general, humans are more resistant to noting our kinship with matter that appears less animate, less alive – plants are harder than animals, and air, water or earth more difficult still. Yet it is both possible and productive, as Bennett makes clear, to understand *all* material things as having their own lively capacities that compete and collaborate with ours – indeed to understand humans too as material things, composite things. One of the shifts that this produces is in the idea of agency, which for Bennett is always distributed across an assemblage, "a federation of actants" (2010: 28). Human individuals have agentic capacity *within an assemblage*, and so too do microbes, sandwiches, weather systems and peat bogs. There is "always a swarm of vitalities at play".<sup>54</sup> This intermingling of thing-powers disturbs our habit of placing matter in hierarchies; it forces us to take seriously our continuity with mud and snails and photons, for "all bodies are kin in the sense of inextricably enmeshed in a dense network of relations." (ibid: 13)

Fletcher cites Bennett's vital materialism as a framework for her practice. Her chromatographs express an affinity with soil that is alert to its hidden vitality. The "chroma" (as she calls them) are made following the procedure soil scientists

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<sup>54</sup> Bennett 2010: 32. She continues: "To figure the generative source of effects as a swarm is to see human intentions as always in competition and confederation with many other strivings, for an intention is like a pebble thrown into a pond."

use to analyse soil and assess its health. A soil sample in a solution of caustic soda is dispersed across a filter paper suffused with low-concentration silver nitrate. As the different particles in the soil spread outwards on the light-sensitive surface, colours and markings emerge in concentric rings – oranges, browns, blacks, pinks, golds – crisp, inter-bleeding, ruffle-edged, jagged or striated. After a few days in daylight, more detail has come out, and according to Fletcher the finished print is relatively stable, but it may also be dipped in beeswax to preserve it. The images that result have a specific beauty. They are odd objects; a little of the laboratory clings to them in their new context, where they are read for their poetics. For me they have a totemic aspect. They strike me as emblems of a place – each soil opened up like a flower into a graphic of its makeup, its ancestry. There is a gentle attentiveness to each chromatograph; they express patience, dirty fingers, an ear to the ground.

[Figure 9. Hannah Fletcher, *Soil Chromas*, soil, silver nitrate and sodium hydroxide on filter paper, 18cm diameter, 2017]

Fletcher describes these works as "saturated with subjectivity".<sup>55</sup> The soil that is the subject of the work makes the image and remains within the surface: "the soil is inside and out, it is on the front and back. The print is the same on both sides."<sup>56</sup> This elision from subject to subjectivity gets at a slippery sense that these photographs are not only indexical prints but arise from a process of the soil picturing itself. Fletcher calls the creation of rings a "natural picture-forming method present in earth,"<sup>57</sup> allied to the growth rings of trees. Such attention to the

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<sup>55</sup> Conversation with Fletcher.

<sup>56</sup> From email correspondence with Fletcher.

<sup>57</sup> From email correspondence with Fletcher.

visual *language* of soil and trees moves beyond acknowledging them as active participants in a process, towards a glimmer of nonhuman modes of accessing the world. Such an empathetic reimagining of soil is encouraged by Puig de la Bellacasa's discussion of soil as alive, an ecosystem "composed of living and nonliving components having many interactions".<sup>58</sup> She argues for "the idea that humans are part of soil communities" (2017: 193), and describes "intense affective relations" (ibid: 197) that sometimes arise between (organic) farmers and their soil.<sup>59</sup> Emotional connectivity recognises the relatedness of nonhuman and human; it expresses proximity and care capable of disrupting "the sterile binary of utilitarian versus altruistic relations with other than humans." (ibid: 187) Bennett disrupts the same binary with her complementary account of the human self as a heterogenous compound, irretrievably entangled with nonhuman bodies. This loosened idea of the self leads necessarily to an enlarged, or "enlightened" notion of self-interest, since "in a knotted world of vibrant matter, to harm one section of the web may very well be to harm oneself." (2010: 13) In our community with soil, in our permeable, interdependent selves, we find the emerging shape of an ecological relation that values our intimacy with dirt, as Yusoff's (2018) reconfigured belonging does. Fletcher's chroma tease out the multiplicity of soil, the many overlapping energies at work within it, and give visual forms to those hidden complexities. In these small mappings we may also see our own aggregate nature mirrored.

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<sup>58</sup> Coleman, Crossley and Hendrix 2004, xvi, cited in Puig de la Bellacasa 2017: 189.

<sup>59</sup> Where we find the farmers "treating it with the commitment, concern and empathy normally reserved for close family members." (ibid: 197)

## 9. **conclusion**

Each practice discussed here treats the photograph as matter implicated in the world. Their various troublings of photographic materials and processes generate ecological thoughts, which I have explored in counterpoint to the ideas interleaved in the problematic of the north. One way to consider these methods and their expressive scope is to say that replacing the photograph-as-picture with the photograph-as-material-ecology complicates it in a beneficial way. Therein we find the photograph as a generative complex, a coming-into-being that does not have clear borders. The photograph-as-material-ecology widens the sense of what is important about a photograph, to embrace all of its footings in and relationships to the world.<sup>60</sup> As a result, photographic meaning is distributed through a flexible structure that is able to resonate with phenomena, ideas and interactions of all kinds, at many points. Among these art practices, such resonances often happen in ways that are allusive or multivocal, but do not thereby lack force.

The structures of these ecological thoughts are layered, looping and interconnected. In Bjørnmyr and Mariner's photobook, the twin processes of re-curating the archive and turning photographs into pages free the images to spin patterns of matter and time, to trace social webs and seams of becoming. The bark pictured in Sugawara's redwood print also participates in it as process, colour, and ephemerality, everywhere expressing the receptiveness of her practice: the photograph as a conversation, its flow and associative leaps capable of surprising her. For Couch and Fletcher too a photograph is a collaboration, into which plants and earth are *invited*, wherein they have agency and their own kind of innerness at which we can only guess. Throughout the case studies, we find the intricacy of

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<sup>60</sup> I think of a photograph as a complex with these interrelated aspects: process—material—image—referent—connotation—context.

time and its erasures. Enfoldings and unfoldings are enacted in Moule's marred, fugitive prints. In David's experiments, time erodes and scatters; ambiguities and alternatives arise in her repetitions, as they do in Niskanen's composite cyanotypes. For Fletcher time accretes; it blooms. Emphases on the physical qualities of photographs bring forth embodied readings and haptic encounters. Fragility recurs through the artworks – in vulnerable photographic prints, negatives, and process (so easily derailed); in evanescent and broken images; in signs of landscapes exposed to harm; and in the frailty of our grasp on things – fragility as part of being alive.

As a thing *and* an ecology, the photograph is analogous to other bodies (human, lichen, mountain) and systems (cultural structures, water cycles, biospheres), able to allude to their mutability, active powers or composite makeup. Above all, it shows that a material body is also an ecosystem, woven into the flesh of the world. And since photographs are cultural products, an allegorical point emerges from noticing how they arise from and dissolve into wider ecologies: the photograph stands for culture restored to its continuity with nature. Boundaries are blurred by the visual slippage of qualities across matter (Bjørnmyr and Mariner, Moule), by human sensory immersion in a more-than-human field (Niskanen), by the symbiotic mingling of human and plant in objects, images and connotations of care (Couch). Matter is seen to interpenetrate and extend, in a knotted reciprocal network. In these slips and mixings, and in the alchemical shape-shifting of photographs themselves, we also find matter in flux: liminal states and becoming-other. "All bodies," as Bennett writes, "are shown to be but temporary congealments of a materiality that is a process of becoming, is hustle and flow punctuated by sedimentation and substance." (2010: 49)



Further, the material photograph reminds us of something about photographs in particular: they are not simply images, nor documents, and they do not freeze time. Like all things, like all knowledge, they are situated, partial and implicated. It is in embracing those entanglements that these works gain their rhetorical strength, and their ability to generate more nuanced imaginaries. For it is not enough to analyse and criticise what representations are in place; we must also envision alternatives, and not simply clearer pictures. As Bennett argues, a "landscape of affect" (ibid: xii), an understanding with emotional and connective powers, is needed in order to alter human behaviour. The artworks discussed here imagine landscapes and humans together, along a more-than-human continuum. Their emphasis on the photograph as an entangled material ecology generates multiple resonances and sympathies between nonhuman and human aspects of the world, lines of perception that transect categories, branch and cross-pollinate. *These* lines conjoin; they close distances, propose kinships. Humans are found to be both permeable and hybrid – materially emulsified in ways that photography can make apparent. Here, we are part of a shifting mesh of interconnections, sharing in the processes and lively matter of the more-than-human, its precariousness.

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## Inge Paneels. Mapping the Anthropocene: Beautiful Destruction and Dark Ecology

### Introduction

This chapter explores how the photographic works of Louis Helbig's *Beautiful Destruction* (2014) and *Nikel Materiality* (2015) by Tatjana Gorbachewskaja and Katya Larina map the disturbed ecologies in the far North of Canada and Northern Europe as evidence of the Anthropocene. The two case studies are located in the boreal region of Canada and Northern Europe which are placed in the broader geo-political context of the North.

The aesthetic of *cognitive mapping* (Jameson, 1988) is evidenced here in *Beautiful Destruction* (2014) by Canadian photographer Louis Helbig and charts the changes of the Canadian landscape in the Alberta province of the Tar Sands exploration. The images in this hefty photography book are complemented by sixteen essays by first nation campaigners, journalists, environmental campaigners, politicians and industrialists and as such *maps* effectively not only the changing geographical landscape through aerial photography but also the myriad of relationships and interests, which affect this landscape. The particular sky-situated knowledge of the vantage point of the bird-like, aerial view is explored as a boundary object (Stewart, 2016) built on the 'agonistic model' (Mouffe, 2007), of dissensus rather than consensus.

In contrast, *Nikel Materiality* (2015) by the Russian architect Tatjana Gorbachewskaja and urban designer Katya Larina offers a ground level perspective of the city of Nikel. *Nikel Materiality* was part of the pan-European art project *Dark Ecology* (2014-2016) by Sonic Acts and took place at the northern edge of Europe, in the border region of Norway, Finland and Russia.

*Nikel Materiality* maps the material vibrancy of the city; of the slag dust blown across the landscape, embedded in the lungs, buildings and streets of the city. It considers the city as a living organism (Bennett, 2010); its people, its energy infrastructure and materiality, underpinned by the philosophical framework of ‘dark ecology’ (Morton, 2016) of enmeshment and unintended consequences. The maps provided here are not ones which give an aerial perspective but rather a terrestrial, human-centred view which fully enmeshes the human into the map.

## **North**

The Arctic North has provided the proverbial canary in the coalmine of the Anthropocene: climate change is accelerating faster in the Arctic than anywhere else on Earth (WMO, 2021) and is a contested region for present and future explorations for energy resources. In 2011 the geographer Laurence Smith predicted that a radical geopolitical shift *north* would occur in the next three decades. Four global megatrends of exponential demographic growth, increased need for natural resources, increased globalisation and global warming, together with new technology will shape our future. This new north encompasses the Arctic regions of Russia, Alaska, Canada and Scandinavia, abbreviated to NORCS. This region is already emerging as an economic and political powerhouse in the Arctic Council, established in 1996. The Council is an intergovernmental forum promoting cooperation, coordination and interaction among the Arctic States and indigenous communities, in “particular on issues of sustainable development and environmental protection in the Arctic” (Arctic Council, 2015). The Council thus forms a political union of states for which climate change is an economic, social and environmental imperative for its existence (Kirby, 2016). Yet, the continued investment in the Canadian tar sands

or the Russian industrial complex in the Arctic tundra speaks of the deep entanglement of livelihoods, of pension investments and of a way of life to which we - collectively as a Western society- have grown accustomed. At the time of writing, the 46<sup>th</sup> President of the USA, Joseph Biden rescinded the permits for the controversial Keystone XL pipeline signed by his predecessor, arguing it was incompatible with action on climate change despite other pipelines continuing, despite continued and expanded drilling in other places (Volcovici and Groom, 2021). In a way, the case studies discussed here sum up this duality in public and political discourse, or this “great derangement” (2016) Amitav Ghosh speaks of. On the one hand, all countries involved in the art projects discussed here (Canada, Russia, Finland and Norway) are part of the Arctic Council whose overriding mission it is to tackle climate change as a key threat to its collective futures and have signed up to the Paris Agreement in 2015, and on the other hand these countries continue to explore and invest in industries which defy these aims. The concept of growth as evidenced in The Great Acceleration (Steffen *et al.*, 2015) argues that it is unsustainable for both planet and people, as had been predicted in *Limits to Growth* (Meadows, *et al.* 1972). Naomi Klein (2014) noted that in a world where profit is consistently put before people and the planet, climate protection is intrinsically a moral and ethical issue where the current economic system is both fuelling the climate crisis and actively preventing us from taking the necessary actions to avert it. This tension is at the heart of *Beautiful Destruction* in particular.

The philosopher Timothy Morton (2013) considers global warming to be a *hyperobject* formed by interactions between the Sun, fossil fuels, and carbon dioxide, among other objects. Hyperobjects refer to things which are “massively distributed in time and space relative to humans” and are directly responsible for

what he calls “the end of the world as we know it” (2013, p.1). Morton argues that part of the problem with climate change and capitalism, is that we cannot perceive these directly. These are entities of such vast temporal and spatial dimensions that they defeat what a *thing* is in the first place.<sup>1</sup> Criticism in visual culture has equally argued that the Anthropocene is perhaps a misnomer: Nicholas Mirzoeff (2014) observed, like Morton’s hyperobjects, that the Anthropocene cannot be observed or seen or the subject of argument, it can only be visualised – imagined: “The last moment of human agency comes in the rendering of this phenomenon into an aesthetic, comprising both the ancient concept of bodily perception and the modern sense of the beautiful” (2014, p. 213).<sup>2</sup>

### **Beautiful Destruction**

The Canadian province of Alberta is the locus of Canadian photographer Louis Helbig’s *Beautiful Destruction* (2014) and records the profound changes to the Canadian landscape in the Lower Althabasca region in north-eastern Alberta as the site of the Tar Sands exploration. These are lands where indigenous communities have lived since time immemorial. Helbig noted that unlike other northern countries, Canada’s connection to its rural hinterlands and wilderness is ‘very abbreviated, by any measure’ (Helbig, 2014, p. 281). As such he argues, there is little emotional connection to or respect therefore for this part of Canada’s landscape and the people and cultures it contains. This can arguably be contested as Canada’s landscape plays a critical part in Canadian visual culture, self-identity, and history, most notably its indigenous population. Whilst Helbig acknowledges its key role in Canadian cultural life, he argues that there was “little

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<sup>1</sup> My emphasis.

<sup>2</sup> Mirzoeff called it the ‘autoimmune climate-changing capitalism syndrome’ or AICS, that is ‘a Western imperial project, the shame and the crisis is that it has affected every living thing whatsoever’ (2014, pp. 215-217).



Canadian media coverage or political engagement, and certainly not commensurate with their [geographical] size, economic importance and environmental impact” (p. 281). The vast oil fields and mines of the Tar Sands make it one of the largest industrial complexes on the planet, set in boreal forest and peatbog. A demarcation line can be seen in Helbig’s aerial photographs which clearly denote the transition from boreal forest to an industrial clearing. “All the operations, the open pit mining, the large, oily tailing ponds, the refineries, the whole thing ‘situated somewhat incongruously in the boreal forest, is stunning” (Louis Helbig in: Storm, 2014) (See Fig. 1).

[Figure 1. ‘Kearl Forest Edge’, from *Beautiful Destruction*, Louis Helbig.

Whilst this position of investment in beauty may appear disingenuous in its wilful portrayal of destruction through an aesthetic lens, I consider its careful positioning of dissensus as described in Chantal Mouffe’s ‘agonistic’ model where plurality is not one of consensus but rather *dissensus* (Mouffe, 2007, p. 4) to make visible what the dominant consensus tends to obscure and obliterate. Félix Guattari envisioned a more pluralistic approach which embraces heterogeneity and difference in his seminal work *The Three Ecologies*: “Rather than looking for a stupefying and infantilizing consensus, it will be a question of cultivating a *dissensus*” (Guattari, 1989, p.10). Guattari was prescient of the need to include social relations and human subjectivity in relation to any discourse on the environment. This too is an argument made by climate scientist Katherine Hayhoe (2021) who argues that engaging in conversations with “dismissives” (those who still need convincing of climate action) cannot be moved by guilt, facts or further evidence but rather to ‘bond, connect and inspire’ over common

ground, rather than consensus. Dialogue, she argues is *the* critical tool in the fight against climate change. *Beautiful Destruction* was conceived as a dialectic photographic work.

When Helbig flew over this industrialised landscape for the first time in 2008 in his small antique plane, he felt overwhelmed and likened it to “travelling to a different country, exotic, bizarre, and otherworldly” (Helbig, 2014, p. 280). *Beautiful Destruction* was thus a quest to try to understand how this landscape came to ‘be’. The photographs in this substantial photography book (302 pages, just shy of A3 size) are hauntingly beautiful but visceral in the unflinching record of the destruction it records. *Beautiful Destruction* was made possible by a crowdsourcing campaign and the resulting book was published in 2014 (<https://beautifuldestruction.ca>). The title references the line “a terrible beauty is born” from W. B. Yeats’ poem “Easter, 1916” (Helbig, 2014, p. 281). Rebecca Solnit (2014) posited that climate change is a global scale violence against places and species as well as human beings. By referencing Yeats’ poem on the violence of the Irish rebellion movement in the early 20<sup>th</sup> century, the beauty inferred here is possibility of something emerging beyond the violence and destruction; a “boundary event”. Donna Haraway considers the Anthropocene a “boundary event” (2015), that marks the Anthropocene as a brief moment, a boundary, between the stable Holocene and a new era of unprecedented global change: “an inflection point of consequence” that changes life on earth for all ecosystems, for everybody and everything, and that what comes after will not be like what came before. This boundary event is not simply a transition in geological terms, but one that acknowledges there is no longer a (modernist) separation between culture and nature. The global Covid19 pandemic of 2020/21 has highlighted more clearly

than ever before this interconnectedness and that ‘a return to normal’ is no longer possible as things have irrevocably changed.

Aerial photographs have a “map-like quality, but they are not cartographic” (Cosgrove and Fox, 2010, p. 7) with no words or symbols, scale or direction to provide context and or reference yet highly recognizable to the human eye. Each photograph in *Beautiful Destruction*, however, is geographically located, with both its place name and grid reference marked (Fig. 2). Each place name is noted in English, Denesuline and Cree, a critical contribution which starts to map the relational entanglements of this contested space.

[Figure 1. ‘Green Pond’, location data, from *Beautiful Destruction*, Louis Helbig]

The democratization of air travel, from 19<sup>th</sup> century hot air balloons to early 20<sup>th</sup> century powered flight, shifted the aerial view away from the god’s eye view – “a position of anonymous, remote and objectifying power”- to a specific human position of what cultural geographer David Matless called a “sky-situated knowledge” (1999, p. 212). The advent of the Space Age further changed our perspective. As cartographer Denis Cosgrove (2001) noted, the enduring cultural impact of the Apollo Space programme has not been the knowledge of the Moon, but a fundamentally altered image and knowledge of the Earth, and its fragile nature, through two iconic photographs: *Earthrise* (1968) (NASA, 2021a), and *Blue Marble* (1972) (NASA, 2021b).<sup>3</sup> The Tar Sands is an industrial project of such scale, that it can be observed from the moon. Oil and natural gas pipelines

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<sup>3</sup> It was the Soviet Space Programme that pioneered Space Exploration from the 1930s, until its dissolution in 1991 but it was the US NASA Space Programme, which truly explored Space and exploited the data gathered in a developing programme of Earth Sciences.

are generally buried, and out of sight. The aerial perspective makes this infrastructure visible. The detached perspective of the aerial view of *Beautiful Destruction* thus brings “sky- situated knowledge” not normally afforded to those on the ground. It is perhaps worth noting that the advancement of and accessibility to drone technology by the public in the intervening years since the publication of *Beautiful Destruction* has brought an additional layer of democratization of the aerial view. This has notably been deployed in its use for protests, - such as No Fly Zones of contested oil pipelines for example (Tuck, 2018, p. 170) – for its ability to provide counter surveillance and reclaim power in contested space.

Cosgrove and Fox argued that “what aerial photography perhaps does best, and what it shares with the map, is to establish a context for individual features on the ground, to place them in relationship to one another and to a broader topography, revealing patterns to the eye, or we might say, to create geographies” (2010, p. 9) and, critically, that both maps and photographs can be viewed with “scientific objectivity” or be read “artistically” and that these roles are not mutually exclusive. Janet Stewart (2016) argued that photography in particular is one of the key visual technologies of the 20<sup>th</sup> century that should be regarded as a “boundary object”. The concept of a boundary object was originally developed within sociology and technology studies (Star and Griesemer, 1989; Star, 2010) as a means to describe objects that “are both plastic enough to adapt to local needs and constraints of the several parties employing them, yet robust enough to maintain a common identity across sites” (Star and Griesemer, 1989, p. 393). They noted how maps, field notes, specimens etc. can be considered boundary objects: each used by different communities to different ends. The boundary object of photography as conceptualised by Stewart offers “a key visual research method, the efficacy of which is largely due to its apparent indexicality” (Stewart,

2016, p. 327), whilst on the other hand – after Bourdieu (1991), it is valued as a form of image-making that is open to many. This inherent flexibility and, like a cartographic map, perceived objectivity of the boundary object make it an agonistic model, after Mouffe.

It is in this context of photography as a “boundary object” and the Anthropocene as a “boundary event” that the photographic *mapping of Beautiful Destruction* should be read.

While those from industry and from environmental organizations (at times caricatures of themselves) occasionally have their point of view affirmed by what they see in my photographs, these responses at their best create a space where it becomes okay to contemplate the imagery on its own terms, where room is created, perhaps even in antithesis to the usual simple polarity, for people to think, imagine and contemplate on their own terms, according to their own ideas and values. When this happens, I, as an artist, no longer own or control the image. The viewers do. (Helbig, 2014, p. 281)

The visual theorist T.J. Demos (2017) contends that the term Capitalocene refers to the geological epoch created by the start of corporate globalisation in the 15<sup>th</sup> century. This also coincides with the emergence of cartography, and mapping, as an enterprise so thoroughly associated with Modernity (Cosgrove, 1999; Brotton, 2012; Garfield, 2012; Bryars and Harper, 2014). The mapping of our world has long been a significant scientific undertaking which has influenced how we think about the world and our place within it. The history of geography from early modern navigation and enlightenment exploration to the institutional

geographies of the 19<sup>th</sup> and 20<sup>th</sup> centuries and the focus of recent history of spatial thinking in human geography illustrates how maps have played a key role in the Modern Era. Maps are defined as “graphic representations that facilitate a spatial understanding of things, concepts, conditions, processes or events in the human world” (Harley and Woodward, 1987, Vol 1, p. xvi). Maps no longer map “terra incognita” and are no longer considered neutral (Wood, 1992). The *process* of mapping can be understood to be a consolidation of disparate fields of knowledge (Abrahams and Hall, 2005) and has thus emerged as a methodology of choice for visualising and synthesising increasingly complex concepts of *space*, especially in the context of an emerging post-capitalist society (Thompson, 2015).

The cultural critic Fredric Jameson (1988) called for “a new aesthetic of cognitive mapping”. He argued that without a conception of the social totality, it is impossible to imagine a society that repudiates the economics of the market (p. 347). The cognitive map – as an idea to represent the mental map that embodies the accumulation of spatial knowledge - was first mooted by neurologist Edward Tolman (1948) but has since been developed as a concept within critical theory. For Jameson the traditional formulations of art “to teach, to move, to delight” had been virtually eclipsed from contemporary criticism and theory. Cognitive mapping as an aesthetic, he argued, would not displace other forms of aesthetics, but would be an additional one that would be required if we were to make any sense of the spatial representations of capital. Cultural critics Alberto Toscano and Jeff Kinkle contend in *Cartographies of the Absolute* (2015) that artworks that address “the place of individuals and collectives within this ‘*sublime*’ system of the functioning of a global political economy”, use the aesthetic of cognitive mapping. Jameson argues that the “incapacity to map socially is as crippling to political experience as the analogous incapacity to map spatially is for urban

experience”(1988, p. 353). The 19<sup>th</sup> century town planner Patrick Geddes used the position of elevation, of an aerial perspective, to construct his ‘regional survey’ to make visible the social and environmental relations to tie a location to its region (Cosgrove and Fox, 2010). Like Guattari, Geddes was prescient of the need to include social relations and human subjectivity in relation to any discourse on the environment. The aesthetic of cognitive mapping then, is a necessary task of depicting social space and class relations in postmodernity. Works emerging under the banner of such aesthetic “would not be merely didactic or pedagogical, they would of necessity *also* be didactic or pedagogical” (Toscano and Kinkle, 2015, pp. 7-8).

Journalist and writer Katharine Harmon defined mapping in art as symptomatic of the post-modern era, “where all conventions and rules are circumspect” (2009, p. 9). Artists have explored the subversive use of the powerful semiotics of cartography since the 1960s and more notably since the 1990s (Rogoff, 2000; Casey, 2002; Harmon, 2004, 2009; Thompson, 2008; Watson, 2009; Panneels, 2018; Reddleman, 2018) with cultural production “reaching critical mass” (Mogel in Thompson, 2008, p.107) in the first decade of the 21<sup>st</sup> century. Increasingly artist did so in their own locale: “Concomitant with the rise of locally rooted artworks came a renewed interest in the geographic and gave up on theories that focused on language and semiotics and turned instead to the study of the realities that existed in the places we live” (Thompson, 2015, p. 156). The case studies discussed in this chapter thus fit into an emerging discourse and scholarship on mapping in art as well as art in the Anthropocene (Reiss, 2019; Davis and Turpin, 2015; Neal, 2015; Brady, 2016; Miles, 2014; and Weintraub, 2012).

*Beautiful Destruction* (2014) can be placed in context of the photographic monograph *Petrochemical America* (2012) by Richard Misrach and Kate Orff (Harris, 2012), or David Maisel's *Black Map* series (Maisel, 2013): photographic works which attempt to make perceptible this hyper-object of natural resource extraction, capitalism and climate change, by making their broader implications accessible and put in context. Whilst the photographs of *Petrochemical America* are taken on the ground – at eye level- *Black Maps* provides a bird's eye view outlining the aesthetic qualities of human interventions in the landscape, an approach shared by *Beautiful Destruction*.

In a review of *Beautiful Destruction* the abstract views of the bitumen slicks, and the sulphur piles (Fig. 3), reminded the reviewer of Land Art, and more specifically of Robert Smithson's *Spiral Jetty* (1970). The Land Art of the 1960s proved pivotal and influential on a new generation of artists emerging in the late 20<sup>th</sup> century. The 'earthworks' in *Beautiful Destruction* are, however, not aesthetic interventions but have the character of a "destructive sublime" (Veldhoen, 2015). The human, although invariably absent in the photographs, leaves its marks in the enormous new landforms, but also in its conundrum embodied in the title: "Sulphur Escher": of impossibly large earthworks in relation to the human scaled ladder.

[Figure 2. 'Sulphur Escher' Louis Helbig]

Art critic Brian Wallis noted how the Land Art movement in the USA in the 1960s coincided with "the fundamental reordering of critical and representational practices conceived at that time" (in: Kastner, 1998, p. 23). The emergence of 'spatial practices' was not only exemplified in the "expanded field"



as observed by Rosalind Krauss (1979) but in the physical dematerialisation of the art object itself, towards simply ideas or concepts (later Conceptual Art). This ‘decentering’ that emerged in the Land Art movement united politics and art in a new visual form of communication that encompassed not just theory, but aesthetics, performance and activism. This new passion for ‘environmental art’, Casey noted, “is sensitive not just to the natural world as such but also to its cultivation and conservation”(Casey, 2005, p. xiv). As Lucy Lippard noted, the monumental earthworks from the 1960s and 70s would not be considered environmental art in today’s context but did change the discourse on how nature was represented. Whilst those earlier works often resulted in urban audiences travelling long distances to view these work in-situ, the new generation of environmental artists are changing that direction and bring rural and agricultural sites to an (often) urban audience, reminding them of the hidden, forgotten or neglected ecosystems. The altered perception of an environmental artwork’s location as a *site* to one of *place* has opened up a discourse around history and ecosystems and morphed from sculptural objects and institutions to ideas and actions, leading to interventions in the inhabited landscape (Lippard in: Moyer and Harper, 2011). *Beautiful Destruction* does not create ‘interventions’ in the landscape but rather uses the perceived neutrality of the photography and mapping (as boundary objects) to bring the Tar Sands site to its dispersed audience. The boundary objects enable discussions of place – rather than site – to take place. Sculpture critic Twylene Moyer wrote in an overview of Land Art to date (*The New Earthwork*) that “if art was looking for larger purpose beyond commodity and investment vehicle, beyond entertainment and urban decoration, then this is it. There is no other issue so universal, no meaning more intrinsic than survival” (2011, p. 9).

The images in the book, due to their perspective, are generally devoid of people but instead offer abstract compositions, with only their titles revealing the subject and context. The double spread pages often make opposing visual connections: *Three Standpipe* (p. 200) emerging from a circular oil slick, surrounded by a beige, bleak sandy landscape is juxtaposed with a circular *Aspen Copse* (p. 201) set in a green, lush landscape (Fig 4).

[Figure 3: Three Standpipe (L), Aspen Copse (R), Louis Helbig]

The use of juxtaposition evident in the aesthetic decision making can be found also in the sixteen essays that accompany the photographs. They are by first nation campaigners, journalists, environmental campaigners, politicians, scientists, a physician, theatre makers, industrialists and pro-oil protagonists. The essays are presented in the respective language of each contributor; English, K’Ai Taile Dene and Québécois, and translated in English. Thus, the true voice of each speaker is represented. The authors speak of different realities of the tar sands. As such it *maps* effectively not only the changing geographical landscape through aerial photography but also the myriad of relationships and interests, which affect this landscape. *Beautiful Destruction* makes no moral judgment on the images or the essays contributed. Instead it challenges our understanding of the Tar Sands by presenting the physical space it occupies through the photographic lens as a boundary object. It is, as a reviewer noted, “the point of departure for a larger conversation” (Veldhoen, 2015). Helbig considers it his responsibility as an artist “not to postulate about something one way or another” but to present the site as it is: unfiltered. He argues it is more powerful to create a space for reflection and

conversation and allow people to engage “on their own terms and in their own way” (Cezer, 2015).

*Beautiful Destruction* is arguably a project that uses mapping to explore the social licence of the Tar Sands. ‘Social licence’ was initially a term with which to describe social engagement by fossil fuel companies but has latterly denoted a means of environmental and social activists to help improve weak environmental legislation and to defuse conflicts around resource extraction. Without a social licence, drilling for oil would be far more confrontational, if not impossible (Mather and Fanning, 2019). Increasingly it is recognised that our dependency on fossil fuels is as much cultural as it is infrastructural. The culture of “extraction” has been hardwired into our everyday thinking, argues Janet Stewart, evident in word choices such as “extracting knowledge”, “mining information”, “deep thinking” but also in the collective myopia by which we ignore that which is “hidden from plain sight” (Douglas, 2017). *Beautiful Destruction* makes that which is hidden from plain sight, visible. Helbig recorded that when he first exhibited the photographs, prior to the publication of the book, he was taken to task for “bringing this to light” and condemned for “aestheticizing and celebrating it” (Robertson, 2014). One of the sixteen interviewees in *Beautiful Destruction*, MP Elizabeth May noted that “art is not always beautiful”. She put forward that when the message is one of horror - and she references *Guernica* - then a response is required. She argued that the Tar Sands are not important, when the overriding imperative is “to avoid destroying ourselves” (Helbig, 2014, p. 77). Political scientist Jim Dator (2017) argued that our collective notion of *future* finds its roots in the “Abrahamic/ western/ enlightenment view of the future that understood time to be both linear and ultimately (potentially) progressive” and that an indigenous understanding of time might be different. Helbig commented

that he wished to make more space “culturally, philosophically, intellectually and creatively” (Robertson, 2014) by challenging the binary suppositions of the Cartesian worldview (good/bad - east/ west – enviro/industrial - rural/urban – past/present). Interviewee MP Scarpeleggia made this very point: “In art, nuance and contradiction shove the search for the linear path to certainty ruthlessly aside. Art takes us on a journey towards new and greater insights. Art leads us: we do not control it” (Helbig, 2014, p. 261). French philosopher Félix Guattari had already noted in 1989 that a new market system, which places value on the ‘profitability in the social and aesthetic sense’ (p. 145) was needed thereby making the argument for creative approaches to challenge capitalism in order to affect action on climate change. Jacques Derrida noted that “language invaded the universal problematic and everything became ‘discourse’” ([PJ(8)] 1966/1978, p. 280). Deconstruction as argued for by Derrida reveals the dualistic hierarchies they conceal. Cultural theorist Elizabeth Ermarth thus prefers to refer to post-modernism as the “discursive condition” (2010) to avoid confusion with other interpretations of the post-modern. The discursive condition, she argues, requires recognition of the systemic nature of everything. Rather than speak directly of things in themselves as they really are, actions in post-modern conditions must take into consideration the systematic context. In other words, they require a cognitive mapping. The political theorist Chantal Mouffe (2007) acknowledged that “there is an aesthetic dimension to the political and there is a political dimension in art”. She contends that the real issue, which concerns possible forms of critical art, are the different ways in which artistic practices can contribute to questioning the dominant hegemony. Helbig considered the tar sands as a symbolic of profound failure of civic society and political process “believing that unless and until those are repaired, the check and balances that one might

normally associate with a fair and democratic society that protects all interests – in this case the environment as much as industry will not exist” (p. 281). This cognitive mapping through the boundary object of photography, is positioned here as an agnostic model Mouffe argued for.

*Beautiful Destruction* can thus be seen as a post-modern, ‘discursive’ project: one which dissects the systematic structures and relations which construct and affect the changes of the Albertan landscape. It attempts to do this by portraying the landscape through cognitive mapping: by being both scientifically objective (recording aerial views) - using the boundary object of photography and mapping - as well as the aesthetic decision making of composition and layout. More importantly, the contributing essays bring this landscape to life through a multitude of discourses presenting a “dissensus” over what *is* the Tar Sands and gives voice to all those who are “silenced within the framework of the existing hegemony” (Helbig, 2014, p. 4). The artist’s skill was not simply to record and make aesthetic decisions on composition and layout but also whom to ask to contribute to the book. His skill in persuading a diversity of voices to contribute is a critical part of this art project. Helbig made no moral judgements on their content. He simply allowed them to be heard in equal measure. Helbig did however concede that the ‘public screaming match, the deliberate caricature and cultivation of conflict’ surrounding the debate of the tar sands, to be “morally and philosophically bankrupt” (p. 281). The political theorist Julian Reid noted that “in reality the real world is a human one, replete with politics, hubris, creativity, action, imagination and transformative potential” (Reid in: Wakefield, 2017). *Beautiful Destruction* thus details the complex human relationships entangled in this global, capitalist structure, which far outreaches the geographical boundaries

of the Alberta Province. It is a discursive agonistic mapping which uses the aerial photographs as the boundary object to provide a cognitive map of the Tar Sands.

### **Nikel Materiality**

In contrast, *Nikel Materiality* (2015) by the Russian architect Tatjana Gorbachewskaja and urban designer Katya Larina provides a human-centred viewpoint. *Nikel Materiality* took place in the town of Nikel. It was part of the pan-European art project *Dark Ecology* by Sonic Acts which explored the northern edge of Europe, in the border region of Norway, Finland and Russia between 2014 and 2016. It continued on in the *Living Earth* (2018) which was exhibited in Murmansk, Oslo –which showcased the *Nikel Materiality* project - and Kirkenes (Dark Ecology, 2021a). The *Dark Ecology* project was specifically set up to “invite artists to go outdoors and investigate the industrial landscape and create site-specific works for these environments” (Lucas van der Velden in: Belina, 2016, p. 10). Timothy Morton’s definition of *Dark Ecology* (2021c) not only provided the title but also the theoretical framework in which the *Dark Ecology* project was conceived. Morton notes that “various interconnected actors, both human and non-human, are caught up together in a process of world-making. Dark ecology takes this interconnectedness seriously and thinks it through” (in: Belina, 2016, p. 10): “ecology is ‘dark’ because it invites – or demands – that we think about our intimate interconnections with, for instance, iron ore, snowflakes, plankton, or radiation...” (Dark Ecology, 2021a). Though these issues are relevant anywhere in the world, they are especially pertinent in the Barents Region with its pristine nature, industrial pollution and open-pit mining. Speculation on global warming fuels local economic growth, as the prospects for both the exploitation of the oil and gas reserves below the Barents Sea and the trade through the Northern

Sea route are rising, despite an economic stagnation in the region, wrought by the economic sanctions imposed by the West on Russia in the aftermath of Russian invasion of the Ukraine in 2014. Disparate interests and ‘approache’ from both sides of the border have to negotiate. Gideon Kiers, one of the five project organisers, noted that having grown up in an era where the European goal of “borderless-ness” has been superseded by a resurrection of borders throughout Europe as a physical sign of a new era marked by fear: “bells of much darker times that were not so long ago can be heard ringing all across Europe again” (Belina, 2016, p. 14). As such this project, in this difficult terrain, was as much about ‘unbordering’. Annette Wolsberger, one of the project organisers, argued that acknowledging differences and overcoming borders in all senses were key to enable the testing of new approaches and ideas to understand the world in a different way. The borders implied were not just geopolitical, but also cultural, linguistic, social, economic, ecological and artistic. This agonistic model, like in *Beautiful Destruction*, informs the *Dark Ecology* project and is a starting point to invite artists and theorists to develop new approaches and new works.

When Gorbachewskaja, a native of Nikel, encountered the *Dark Ecology* project, and noted these ‘strangers’ using her hometown as a site of investigation, she contacted the project as she felt affinity with its ethos. Her position as an ‘insider’ offered a different perspective to the diverse ones already represented in the backgrounds of the group of artists, writers and philosophers. The town of Nikel in Russia, only seven kilometers from the Norwegian border, took its name from the huge reserves of nickel ore found in nearby fells in the 1930s. The town is twinned with Kirkenes in Norway which provided the venues for the *Dark Ecology* project. Nikel grew from a small smelting factory into a large town despite its remote location, and harsh climate with uninhabitable conditions. It

was a completely new town: planned, populated and maintained, first as an emblem of Finnish Modernism and later as a symbol of Soviet industrial might. Nikel is part of Soviet industrial history that saw the large-scale strategic development of far Northern cities. The settlement was founded as “a centre for technologically advanced industry” (Gorbachewskaja, 2015) but relied entirely on a top-down structure of command, supply and support. Two nearby small brick factories could not supply a sufficient amount of building materials, which was thus supplanted with lightweight concrete blocks trucked in from Helsinki. In the post-war period, the Soviet government decreed that the town was to only use local materials for its construction. Latterly, housing designs for central Russia but not adapted for the Arctic, were transposed and exposed the imported materials to Arctic conditions of wind, extreme cold and industrial pollution. The town’s infrastructure was thus built with brought-in materials and those that emerged during the production of the towns industrial processes: material which in turn generated some very ‘strange’ materials, detached from the nature of the Arctic region in which it sits. Therefore, the unique materiality generated by the city appealed to the artists. As Gorbachewskaja observed:

Nikel was initially set up as a very artificial system, controlled top down by the estate. But in time it started behaving and expressing itself as a real living organism. All of its components, including the materials from which it was built, are changing and evolving to adapt to the transforming conditions. All materials behave dynamically in Nikel. The degrade faster than elsewhere. Nature is quite aggressive. It’s all about the energy the city shares with nature and for which it competes with nature (Belina, 2016, p. 101).



The artists imagined discovering “a new sort of ecological system”, which in order to describe it “like a 19<sup>th</sup> century explorer”, focused on the materials. Whilst this approach could have taken a Modernist, hubristic anthropocentric extractive approach to collecting, instead, it pays attention to the “vivacity” (Bennett, 2010) of materials. By collecting material artefacts, they wanted to tell the story of how the city used to function, and how it evolved through the evolution of the materials evident on the site: by examining the story, and evolution of each material, and how it had been affected by the climate and the internal activity of the city. The artists used an organisational classification system of ecological systems proposed by the planner John T. Lyle’s *Designed for Human Eco Systems* (1999). Lyle (after Odum) identified four categories of ecosystems: productive, protective and compromise areas and finally, dead zones.<sup>4</sup> The area of most interest would be the “compromise” areas where nature and human ecologies co-exist, often in uneasy compromise: “those places in which human beings and nature might be brought together again after a very long and dangerous period of estrangement” (1999, p. 15). Lyle called these places “human ecosystems”: the merging and interacting of human and natural processes. He contended that the creation of new ecosystems, often unintentional, and without conscious understanding of natural processes, and often without any comprehension of its system, meant humans could not predict how an ecosystem would work, with unintended consequences. Lyle thus anticipated the condition of the Anthropocene. It is exactly this that Gorbachewskaja and Larina sought to

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<sup>4</sup> Eugene Odum would classify all land into one of four categories:

1. Productive areas: where succession is retarded by human controls to maintain high levels of productivity
2. Natural areas: protected areas where succession is allowed or encouraged to proceed into the mature, and thus stable if not highly productive stages
3. Compromise areas: where a combination of first two stages exists
4. Urban, industrial areas: of biologically, non-vital areas (dead zones)

explore in *Dark Ecology*. Nickel is an artificial environment, built in the “wrong location” with little connection to the context apart from its proximity to resources in the ground. The project records the story of Nickel as that of a place that transformed the natural environment, seemingly no longer dependent on its geographical, geological or atmospheric attachments to the Earth, as *Beautiful Destruction* did in Canada. However, the volatile economic and political circumstances of the region, left it without sufficient central control: “The materiality of the artificial organism of the city started to interact directly with the natural conditions of the unique Arctic climate and ecosystem. Nickel’s artificial materiality was forced to adapt to survive” (Gorbachewskaja, 2015)). Nickel could thus be identified as a “compromise” area.

The artists conducted a field study – their choice of words - of the territory and observed that the materials themselves could tell the story of Nickel. The unpredictable effects of harsh climatic conditions on the materials became the focus, recorded through photographs, fieldnotes and nearly three hundred samples of materials: boundary objects. Using Lyle’s classification system, they grouped the collected samples in four categories, which were geographically located on four base maps (Fig. 5). Each base map was colour coded: red for the historical foundation, yellow for the energy infrastructure, green for the boundaries of ecosystems, and blue for its unique industrial material culture. Further detail maps were developed, each mapped to one of the base maps. Each detailed map was paired with photographs of the location that visualised its materiality in situ (Fig. 6).

[Figure 4. ‘Four Components of Analytical Model’, *Nikel Materiality*,

*Dark Ecology*, 2014]

[Figure 5. 'Classification code, location map and site photographs'. *Nikel Materiality, Dark Ecology*, 2014.]

The first 'base' map, colour coded red, charts the historical layers of Nikel: 'Here we group materials related to the history of social and political rhythms (that) structured the physical territories of the town' (Gorbachewskaja, 2015). The urban tissue of Nikel has been shaped by five distinct periods ranging from the pre-war Finnish era through to the post-Soviet era: "the composition of the biological community". The artists noted that 'the material entity of the city of Nikel has been shaped by successive ideological paradigms of the Soviet and the post-Soviet political context. The artists used the metaphor of a dome to describe Nikel as totally dependent on a single monopolist: the state, not only as an employer but also as a supplier of the most basic needs such as heat, lighting, water (Fig. 7). The second base map, colour coded in yellow, reflected on the energy infrastructure modelled on Lyle's concept of 'function', closely intertwined with the concept of an ecosystem. The yellow coded base map and its detail maps follow what happens to the infrastructure when the dome breaks down metaphorically speaking (Fig.8).

[Figure 6. Red coded maps: charting the historical layers of *Nikel Materiality*]

[Figure 7. Yellow coded maps: charting the energy infrastructure of *Nikel Materiality*]

The city's infrastructure was built for human comfort and ignored local nature. These "infrastructural elements of resistance" to the harsh climate of the Arctic winter – such as the central heating system and the artificial daylight system- when no longer serviced and protected, begin to fail. Because of the permafrost, heating pipes are not underground in Nikel. The neglected heating system becomes exposed to the surface like popped up veins on the surface of the townscape, marking warm patches in winter and creating local microclimates: "It is like an exposed artificial organism. You see the flow, the veins" (Gorbachewskaja in: Belina, 2016, p. 104). The lighting stopped working, only partially restored in newer parts of the town. A new colour range regulation introduced in the 1990s requiring the painting of facades of the city buildings in bright colours to compensate for the colour starvation in the city, were later superseded by more subtle, softer colours. These layers of flaking paint are evidence of central decrees and subsequent neglect, materialised in the fabric of the town. This group of materials represents Nikel "as a life support mechanism of a large industrial machine" (Gorbachewskaja, 2015). But, as one Nikel inhabitant pointed out, the artists had forgotten to identify one more important (energy) resource: its inhabitants. In this observation, the enmeshment of the human and non-human in the Anthropocene was vocalised. The 'self-organising' boundaries identified in the third map, colour coded green, explores the location of the materiality of Nikel: "These group of artefacts reveal the fragmented character of the city and trace out boundaries and borders which are naturally evolved in the town as a response to the overlay and resistance of different elements of Nikel's artificial ecology" (Gorbachewskaja, 2015). The green map collates ways in which Nature has made adaptations to reclaim territory but also of the ways in which the town and nature are forming new forms of co-existence (Fig.9). This

map thus charts how biological ecologies co-exist, or have merged, with non-biological systems.

Figure 8. Green coded maps: mapping the self-organising boundaries of  
*Nikel Materiality*

Figure 9. Blue coded maps: charting new materiality of Nickel

The final base map, colour coded in blue, explores the New Materiality of Nickel (Fig. 10). The unique materiality of the town is evidenced in the physical representation of the nickel copper dust, the slag of the nickel ore, that has embedded itself in the fabric of the town and is an invisible force that has shaped it. Nickel as a material existed in both an underground mineral but manifested itself also in the city streets, buildings and towns squares which were built upon it and named after it. Visible and invisible human infrastructure (including good pensions, good education and sports facilities and double holiday allowance for example) were built upon this material exchange. Nickel's industry generated tonnes of toxic matter that contaminated hectares of the surrounding area, affecting local eco systems and living organisms, including humans. Nickel produces yearly 1.5 million tonnes of slag as a by-product of the smelting process. The slag dust was used as an experimental anti-slip surface and road filler on the icy roads, as insulation material or a novel mortar, making buildings virtually indestructible due to its uncommon hardness and yet when used as a building material it became brittle and fragile and useless. The slag slowly destroyed the settlement from inside: "The toxic dust was cutting through the surface of the town, 'sharp like crystals". The black dust blowing through the town, mixed with

the brightly painted surfaces of the facades, accumulated in cracks between materials, penetrated through the surfaces. Nickel thus became an experimental site, where new uses of the material were tested without any clear understanding of the danger of this substance to humans and its surrounding ecosystems. The sulphur dioxide emissions had a devastating effect on the surrounding environment: “This energy flow was shaping all the aspects of the life of the city. Simultaneously such valuable matter created by human culture turns against people and all the artificial system created by the industrial city” (Gorbachewskaja, 2015). Arguably these last two sets of maps (green and blue) speak most of the Anthropocene, where biological and non-biological ecosystems co-exist and merge, and where human and non-human ecosystems collide and merge and where distinctions between both become superfluous.

These four ‘macro’ maps were expanded with micro maps that zoomed in on the material realities of the site; evidenced in materials found, in photographs (Fig. 6). The maps created were interactive. In addition to the maps produced, a talk and a conceptual walking tour through the city of Nickel were also presented as part of the project. In an interview (10<sup>th</sup> of August 2018) Gorbachewskaja and Larina explained that when *Nickel Materiality* was presented to the people of Nickel as part of the *Dark Ecology* project, the local audience was delighted with the attention and focus that was given to their town by these ‘visitors’. Secondly, the Nickel Materiality project reflected back to the inhabitants their place of habitation in a new light, providing a new perspective on that which was familiar. Philosopher Graham Harman argues that the distinction between surroundings (Umgebung) and environment (Umwelt) are defined by their relative closure, where one (human or non-human entity) can be living in one’s environment

without being aware of its surroundings (Belina, pp. 115-130). *Nikel Materiality* thus sought to open up the environment into its surroundings.

This *materialist* approach differs from the modernist scientific materialism, that allows for one ‘true’ representation of matter, and post-modern cultural constructivism which allows for a multitude of shared representations, New Materialism argues that “matter is a transformative force in itself, which, in its ongoing change, will not allow any representation to take root” (Dolphijn & van der Tuin, 2012, chapter 5; 2011, 2010) and that the “transversality” – a term already coined by Guattari in 1964 – of new materiality traverses the territories of science *and* the humanities (emphasis in original). Both artists identified with New Materialism; “rethinking relationships between object and subject, people and nature; moving from a focus on the human experience of things to things themselves” (Belina, 2016, p. 99). Gorbachewskaja and Larina argued that the methods of New Materialism helped them to trace the non-material social processes and transformations through the material agency, as a ‘vibrant matter’ (Bennett, 2010). It explores the impact of this extreme site, on the edge, in the material manifestation of a place so affected by temperature. Following Serres’ observation that temperature “intercepts all the relations between all locations” in both space and time, the cultural geographer Kathryn Yusoff argued that “as we have become more attuned to the material aspects of technoscience, of materializing and dematerializing operations within science, we might look to how materials exchange properties/states in which temperature is a vector” (Yusoff, 2011, p. 302). The unique emergence of the town of Nikel, the influence of nature on the materials brought to and produced at this extreme Northern location, and the meaning of *Nikel Materiality* are inherently entangled.

*Nikel Materiality* sought not just to portray a historic narrative of the town of Nikel as the failed past of human ambition, but through the properties of the materials of the Anthropocene to map a possible future of co-existence, by mapping the self-organising boundaries of the city (Fig. 10) where human and non-human boundaries blur, and by mapping the new materiality of Nikel (Fig. 11). *Nikel Materiality* can be considered a ‘boundary event’ which embodies this emergent transition of the Anthropocene, as evidenced in these boundary objects of maps, photographs and specimens.

## **Conclusion**

If the Anthropocene can only be visualised or imagined, then *Beautiful Destruction* provides a sky-situated knowledge of a landscape normally not seen or visible, whilst *Nikel Materiality* offers an earthbound perspective of the material fabric of the city, not normally afforded. Both projects map the Anthropocene, using photography and mapping to create boundary objects (after Stewart) that record and evidence the slippery Anthropocene: the boundary event (after Haraway) that dislocates the human from the centre of world. Helbig’s aerial photography is a boundary object that functions as a cartographic visualisation (through his use of grid references), a sociological analysis (through the mapping of the social relations) and an artwork (through careful composition and aesthetic decision making). The artist took an agonistic approach to portray the Tar Sands – this hyper object of capitalism and climate change - in all its complexities of human and systematic entanglements. The abstract aerial view arguably disconnects the viewer from the “vitality” (Bennett, 2010) of nature, and its destruction. In contrast, *Nikel Materiality* portrays Nikel close up and personal in all its visual messiness through a grounded perspective. The Lyle classification



system was deployed to categorise the collected boundary objects of photographs, maps and specimens. In particular, the collated boundary object of map and photograph functions as a geographic visualisation of the new materiality that has emerged from this dark ecology. Finally, this too is an artwork, with careful composition and aesthetic decision making.

Both provide an important understanding of the visual culture of the North. These cartographic and geographic perspectives are *ontological* (Chandler, 2018), which map not how the world ought to be, but rather as the world *is*. They thus map the dark ecology Morton alludes to: of the intimate interconnections of the interaction of the material world with the human world, of unintended consequences and the unequivocal enmeshment of culture and nature. These case studies provide an important understanding of the visual culture of the North. The artists here have demonstrated skills beyond the visual: they are also *discursive*. These then, are cognitive mappings which use map, photographs, fieldnotes and specimens as a boundary objects to bring a new ontological understanding of the Tar Sands or Nickel and by implication the boundary event of the Anthropocene.

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Figure. 1 Dana Lixenberg (2007) *Nathan Weyiouanna's House*.

Note to typesetters: please place this image on the left-hand page opposite  
the title page of Julia Peck's chapter

**Julia Peck. Imperial and geopolitical relationships in Iñupiaq climate change narratives: extinction and cultural survival in *The Last Days of Shishmaref***

Landscape representations of the north, especially the circumpolar north, are often depicted as dedifferentiated spaces of snow and ice. This reflects a long tradition in polar expeditions, where, as Lisa Bloom has demonstrated, the “blank spaces” on nineteenth century maps authorised explorers’ access and possession, “preceding and legitimating” their desire to know and define the landscape (1993: 1-2). In Euro-American conceptualisations, the icy north features as a site of scientific examination, heroic exploit, and endurance (Kaalund 2021: 4). Similarly dedifferentiated photographic representations often fail to engage with geopolitical aspects of place, indigenous experiences, and human/non-human relationships. Contemporary European photographic practices that depict indigenous experiences work towards acknowledging cultural specificity and existential challenges such as the impact of climate change, but as this chapter will demonstrate, documentary representations both limit the understanding and conceptualisation of the contextual impact of geopolitical inequalities whilst also offering some interesting and nuanced depictions of cultural survival.

This chapter specifically analyses several representations of Shishmaref in Alaska, which is situated just south of the Arctic Circle, and is ice-bound for part of the year. Home to around 600 Iñupiat residents it has featured in the book and documentary film *The Last Days of Shishmaref* (Lixenberg 2008; Louter 2008). Central to these representations is the narrative of climate change impact on the erosion of the place and on subsistence practices. Examining these

representations enables a geopolitical analysis, sensitive to the cultural survival of the Iñupiat, to emerge. In these representations, the *placeness* of Shishmaref matters, even though people and culture are strongly foregrounded. This is perhaps not a surprise given that for Iñupiaq communities outside of metropolitan centres, subsistence practices, and close ties to ecology and the non-human world, are paramount to their existence and cultural identity (Sakakibara 2020). Alaska, however, is also part of the USA, and this means that Shishmaref is also connected to, and affected by, the global economy through imperial relationships. Central to this discussion is the representation of cultural survival and the production of imperialist knowledge, which is both caught *in* geopolitical relations, and is also the outcome *of* geopolitical relations. Whilst contemporary anthropological approaches rightly foreground resistance, creative adaptation and continuity, this potentially overlooks the unequal relations produced through geopolitics. This chapter, then, analyses the book and film *The Last Days of Shishmaref*, through the lenses of anthropology, geopolitics and critiques of imperialism.

### **Geopolitics and imperialism**

Analytic geopolitical frameworks have the potential to enrich our understanding of the circumpolar north. Dodds (2019: 3) claims that there are three qualities to geopolitics:

First, [...] geopolitics is concerned with questions of influence and power over space and territory. Second, it uses geographical frames to make sense of world affairs ... [including] 'sphere of

influence', 'bloc', 'backyard', 'neighbourhood', and 'near abroad'.

Third, geopolitics is future-oriented.

Dodds advocates for a critical geopolitical approach, which “focus[es] on how the interactions between the human and the physical produces ‘geopolitics’” (ibid: 3). The ‘north’ of this chapter is a place called Shishmaref, just a few miles south of the Arctic Circle, in Alaska. Alaska’s status within the United States of America is that of a peripheral ‘backyard’, physically disconnected from the US by a lack of a shared border but part of the wider north American landmass. Alaska, certainly in the popular imagination, is associated with wilderness imagery, spectacular scenery and charismatic wildlife. However, Alaska is also the US’s strategic state in the Arctic, providing access to Arctic ‘resources’ such as gas and oil. The wider international awareness of Indigenous peoples’ perspectives is inconsistent but becomes activated commonly through climate change discourses where Indigenous activists have had success in bringing their plight, and their relationship to the US and energy companies, to wider attention. This awareness of the geopolitical dimension enables the discussion in this chapter to consider imperial and commercial relationships for Indigenous communities in Alaska, as well as considering the current and future impacts of climate change. This approach includes a space for Indigenous perspectives, which “imagine, mobilize, and interact with the wider world” (ibid: 9).

Jairus Victor Grove (2019: 2) has developed a critical approach to geopolitics that acknowledges how power imbalances in the realm of international relations have led to the “right of survival *for some*”, acknowledging the impact on both human and non-human living beings. Grove continues by claiming that “geopolitics is violence against life. It is connected to war, power and selection of

life. It involves lethal force” (ibid: 3). Grove sees geopolitics as a shaper of the world, indeed, he says it is an “obstacle to any other version of our world, whether plural or differently unified” (ibid: 5). Eschewing ideas of the Anthropocene due to its depoliticization (ibid: 39), Grove frames European colonialism as the Eurocene, a maker of the world as homogenization rather than differentiation, spreading Eurocentric world views that produce terraforming, atmospheric engineering, and ecological catastrophe within the power politics of a Euro-American global order (ibid: 43). Grove’s account of geopolitics is fundamentally a violent *Savage Ecology* of European making.

Such critical accounts of the idea of the Anthropocene abound. Kathryn Yusoff, for example, frames the sudden concern of white people for the environment, climate, and way of life, in contrast to the experiences of black people, who have experienced such impacts for centuries (2018: xiii). For Yusoff, the framing of these large-scale changes as recent history excludes longer historical specificities by prioritising white geo-trauma, perpetuating an on-going violence against Black and Indigenous subjectivities (ibid: 59-60). The changes wrought over centuries to people, environments, living beings, and cultures, have been monumentalised into a “cultural edifice” that is extractive, racialised and industrialised (ibid: 59). The “White Anthropocene,” she claims, “takes the epistemology of the particular into a ‘general expression’ without a collective refashioning” (ibid: 61). Similarly, T.J. Demos, in his book *Against the Anthropocene* (2017: 18) rails against the large-scale refashioning of the planet as ‘human’ or a species activity, instead noting that deforestation, ice melt and large-scale pollution are the activities of corporate industries. Demos further notes that Anthropocene rhetoric, produced through images and texts, universalises complicity, disavows responsibility, obscures accountability, despite the relatively

small-scale or insignificant individual or cultural contributions that some people and cultures have made to the ecological crisis this rhetoric signifies (ibid: 19).

The loss of languages, connected as it is with a loss of “worlds” (Grove 2019: 55), leads to a loss of life. Combined with worldviews that aim to overthrow the human-centric perspectives and priorities of thinking about planetary-scale changes from Western and dominant perspectives, Black and Indigenous epistemologies have become resurgent. Unlearning the dominance of imperial epistemologies has become vital. Ariella Aïsha Azoulay in her book *Potential History: Unlearning Imperialism* (2019) is a case in point. The starting point for her writing acknowledges that work undertaken to undo or understand imperialism continues to perpetuate imperial relationships in the present and that our current ways of unlearning imperialism often remain hegemonic (ibid: xv). In similarity to Grove and Demos (and others working with ideas of worldings), Azoulay’s concern is for the different cultural ideas of ‘world’, yet she also analyses how the onto-epistemological structures of imperialism contain, limit and destroy these worlds, whilst simultaneously trying to rescue them for intellectual discourse. Photography is intrinsically part of this imperial discourse. Whilst it is the case that the limiting, partial epistemological frameworks precede photography’s invention, photography has a tendency, nevertheless, through its framing, use of perspective and the slicing of time, to produce units of knowledge or representations which are partial at best, and thoroughly incorporated within imperial discourse at their worst.

Imperialism across the world created the conditions for looting, violence, the destruction of alternative worlds and epistemologies, and in the process it also created a new world (Azoulay 2019: 3); one that Grove sees as universalising and limiting, and fundamentally European in its world view. The study of people,



places and objects that was created by imperialism was only for a select few (Azoulay 2019: 4). In Azoulay's thesis, photography (and specifically the shutter) creates three dividing lines: time (before and after the photograph); space (who is in front and who is behind the camera); and the body politic (those who practice photography or labour within it, and those who are depicted by the shutter) (ibid: 5). The pervasiveness of photography has, however, helped to blur the lines of responsibility, creating by its very prevalence a sense of neutrality. The extraction of knowledge, including cultural knowledge, created "imperial divisions and imperial rights", which those subject to its power have some recourse to draw upon, yet only through acceding to the epistemological world of imperialism. The violence of imperialism is therefore recreated through such acts as reparation without recourse to the reconstruction of the worlds already extinguished in its creation. Azoulay continues:

Unlearning imperialism is an attempt to suspend the operation of the shutter and resist its operation in time, space and the body politic in common cause with those who object to it. Unlearning imperialism attends to the conceptual origins of imperial violence that presumes people and worlds as raw material, as always already imperial resources. (ibid: 8)

Subjects of imperialism are made "agents of progress" and they seek "to destroy what is cherished by them... namely their worlds and modes of being with others" (ibid: 12). Indeed, finding potential history means not privileging imperial accounts and instead retrieving other "modalities of being in the world" (ibid: 16). In contrast to postmodern accounts of Indigenous culture (Clifford 2013) Azoulay

sees ideas of the “new” and “progress” as “both the reason and excuse for destruction and its remedy, the preferable way to deal with the wreckage left behind producing ever-increasing ruination” (Azoulay 2019: 18). She maintains that:

To rewind history is to insist on the existence of different patterns and incommensurable modalities of citizenship experienced prior to colonisation by different groups of people who shared their world as cocitizens of different sorts in the societies in which they lived. (ibid: 19)

The current, predominant task of museums and archives, then, is to create a past for imperial citizenship. This is predicated on the ‘preservation’ of the past through these different cultures, yet they also simultaneously and implicitly create a museum to the violent destruction of the worlds from which these artefacts emerged (ibid: 19). Azoulay sees these objects of veneration as not for study but as objects which enshrine the “rights of violated communities... they constitute part of the material worlds out of which people’s rights are made manifest” (ibid: 30). Azoulay’s thesis, however, does not stop there, sounding a warning about the speaking position of scholars and experts who study these artefacts:

When research focuses mainly on oppressed groups, I argue, it contributes to the socialisation of citizens to act as privileged subjects who can afford to care about what is done to others, thus reproducing the radical difference between them, rather than as cocitizens who care for the common world they share with those others and who are

committed to dismantling the principle of differentiality that organises it. When ruling is differential, citizenship is a privilege and a light weapon against all other groups of the governed population. (ibid: 37)

This last section of Azoulay's work issues a challenge to scholars such as me. Writing in a European context with privileged access to cultural products and knowledge, I risk reproducing the kinds of differentiated citizenship-as-concern that bypasses addressing the imperial violence of the production, distribution, and consumption of representations, however well-meaning my intentions, or the intentions of the makers of those representations. Azoulay's own work is supported by "companions" who assist in ensuring that the ways in which representations, objects, and histories are analysed in the context of seeking reparations are undertaken without repeating the pitfalls of imperialist thinking. She also analyses various creative practices and interventions into the spaces of the museum and archive that actively decolonise institutions. Unfortunately, decolonisation is often partial. Some institutions have yielded to the demand for the repatriation of objects, but continue to impose imperialist thinking by stipulating that restored artefacts are contained in Western-type museums, where light levels, humidity, and security are controlled, ensuring that they remain subject to imperial 'expert' framings. These stipulations hinder the recognition of the objects' vital meanings in living cultural practices within their original communities. Azoulay acknowledges the loss of worlds that accompanied their removal, seeks restorative justice and restoration of those worlds. Arguing that researchers and academics should "refuse to relate to these ... objects of study" (ibid: 446) and instead engage with "worldly caring" (ibid: 321), Azoulay understands that imperial relationships are all too likely to be reproduced through

the analysis of representations even where attempts at critical thinking are deployed.

In this chapter I want to analyse a series of representations associated with a culture beyond my personal experience that is affected by geopolitics, imperialism, colonialism, unequal relationships in trade and commerce, and climate change. I can attempt to ‘unlearn imperialism’ and work for the restitution of rights but I am also a viewer of these products, far from their site of production, and closer to the centres of power where their production is enabled, a situation within which both the production and consumption of documentary film and photography continue long-established imperial relationships based on knowledge extraction. (Knowledge extraction, occurs in this instance through the Iñupiaq community sharing their traditional knowledge about environmental thinking and subsistence, together with the narrative of their environmental peril, which risks being assimilated into Western knowledge for the purpose of commodification and for exploitation within environmental campaigning (Grosfoguel 2020:209-10)). My viewpoint is produced through imperialism’s lens, but I can work to fight for the non-destruction of this differentiated world. My interest here, then, is in the rights of an Iñupiaq community to be heard, appreciated, valued and acted upon in the name of the continuity of multiple worldings, even though the risk here is that this account will also result in the continued production of imperial knowledge and the increase of my own cultural capital through the performance of concern. The aim of this analysis is to examine the kinds of messages and implications created by representations of endangered landscapes and communities whose worlds are both geopolitically located in, and epistemologically beyond, the power base of Europe and USA. This analysis will specifically consider the representations of the landscapes and people of

Shishmaref in Alaska. In drawing upon these European representations of Shishmaref, this account will focus on the purpose of the performance of care and concern for both people and place.

### ***The Last Days of Shishmaref***

Shishmaref is a small city on the island of Sarichef in Alaska, on the edge of the Chukchi Sea. Shishmaref is home to around 600 Iñupiat inhabitants who are losing their island and their houses to erosion exacerbated by climate change. The Iñupiat in Shishmaref have been active in bringing their plight to the attention of the wider world through activism and they have featured in many films and news reports including Al Gore's *An Inconvenient Truth* (Guggenheim 2006). Notable amongst the visual representations is *The Last Days of Shishmaref* (Jan Louter 2008; Dana Lixenberg 2008), which is both a documentary film and a photobook. Shishmaref's residents and their story is also more recently recounted in the British Museum's *Arctic: Culture and Climate* (2020) and in Bryan Adams' book *I am Inuit* (2018), although the plight of Shishmaref is not the focus of these two books.<sup>1</sup> The book and film *The Last Days of Shishmaref* include photographs of the island and its landscape, portraits of the residents, and photographs of everyday life. In these representations of Shishmaref, the close connection between people and place is emphasised through their subsistence practices, which are dependent on the sea, land, its ecologies and seasonal patterns of living, hunting and gathering food.

Subsistence, however, is also threatened as loss of sea ice has an impact on hunting seal, and the migration patterns of caribou are changing. At the time of the making of the film and photographs, Shishmaref residents wished to relocate

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<sup>1</sup> Collectif Argos also covered Shishmaref in their book *Climate Refugees* (2010).

to Tin Creek, a site further inland and relatively close to the island (Lixenberg 2008: 44). American authorities, however, are offering relocation to an existing Alaskan city, Nome, which raises concerns within the community about cultural assimilation, the influence of alcohol and drugs, and whether the younger members of the community will retain their language and cultural identity. The predominant aim in both the book and the film, whilst there are significant differences between them, is to make the audience aware of the specific loss of place due to climate change, and to foreground the community's desire for cultural continuity. This dovetails with the desire of one of the people filmed – Ardith Weyiouanna – who believes that if people knew about their plight, something would be done to help them.

The film, *The Last Days of Shishmaref* deals with the end of a world: the extinction of a place, a culture and way of life, concern about changing ecologies and subsistence practices. This concern is expressed directly through the title *The Last Days...* Imperial relationships abound, though, in discursive spaces surrounding Indigenous identities and cultural practices. Extinction narratives, especially when concerning people and culture, are reminiscent of the 'dying race' theory prevalent at the end of the nineteenth century in colonised places (McGregor, 1997), where the extinction of races was conveyed in the tones of melancholic regret, but was also seen as inevitable in the face of progress. Dying race theory has traditionally both *openly* acknowledged the impact of colonialism and imperialism on people and cultures beyond Europe whilst presenting this demise as unavoidable. Importantly, imperial powers continue to disavow responsibility for the extinction and refashioning of the world (Yusoff 2018: 27). Extinction narratives, then, are fraught with pitfalls for those who produce and engage with them. *The Last Days of Shishmaref* is made with the co-operation of

a community who actively campaign for their sensitive and safe relocation, and it is made within the space of broader concern for the practices, languages, ecologies and customs that constitute a diversity of worldly being. It is made to address those who want to support the continued existence of the richness of the world. There are several questions to address, then, in analysing the book and film, together with the associated material. Firstly, to what extent does the melancholic tone of the film assist with the community's activism and what are the pitfalls of using this particular form of communication? Secondly, what are the differences and potential advantages of the book, which emphasises family relations instead of producing an elegy? Thirdly, how do contemporary geopolitics affect opportunities to maintain a world and culture that is both in and beyond American and European epistemologies and stereotypical identities? This will bring together concerns about imperial relationships as depicted through the film and photographs towards Shishmaref as a place and towards the people who live there and their culture. The purpose of this chapter, then, is to analyse the kinds of extinction narrative that are set up by the film and the book *The Last Days of Shishmaref*. To answer these questions, it is worth undertaking a fuller examination of the film and the book, noting the overall narrative arc and key differences between both cultural products.

### **The narratives of *The Last Days of Shishmaref***

*The Last Days of Shishmaref*, directed by Jan Louter, is in many respects a conventional documentary film. It introduces Shishmaref as a place, using wide shots of the landscape, and it also introduces key members of the community. Whilst several members of the community speak in the film, a significant narrator and subject is Ardith Weyiouanna. Her reflections, worries and descriptions of

cultural practice provide the structure and pace of the film. The film observes everyday activities, including family meals, community gatherings, such as bingo night, teenagers hanging out in their bedrooms listening to music, subsistence practices, including hunting and the preparation of food. Attention is paid to collecting ice for water and specific cultural activities such as carving, fishing through the ice and keeping huskies. Snowmobiles and their maintenance are frequently depicted as this is the more usual mode of transport. The use of hunting grounds such as Serpentine Hot Springs, and seasonal subsistence practices at Tin Creek are depicted. The soundtrack of the film combines mournful string music with voiceover accounts of living in Shishmaref together with the voices and interviews from community members. The film follows a calendar year, from winter to winter. Signs of modernity appear throughout the film: modern housing, vehicles, references to the island's airstrip and connections with the wider world, television, computer games, music and food, as well as consumer goods and fashion.

After the establishing shots set the scene for an ice-bound landscape, we are introduced to Ardith Weyiouanna who is washing up [fig. 2]. Ardith describes her arranged marriage to Johnny before introducing other family members. Her account opens with the words: "I am Iñupiat, full blooded. I am an Eskimo and I am also American because we are part of the United States. But first of all, I am Iñupiat."

Figure 2. Still frame from Jan Louter's (2008) film *The Last Days of Shishmaref*, 04:27



Ardith introduces the subsistence practices which are the focus of the film and the dependence on sea ice for the capturing of walrus and bearded seal. The shortened winter season, and the reduction of sea ice as a consequence, increasingly reduces the hunting season. Perry Weyiouanna, Ardith's son, has a key role in hunting (we see him hunting both caribou and seal) and he reflects that "Our people have always worked with nature." Ardith concludes: "It is a lot of work but if we don't do it then our family is hungry. But nowadays everything is different. Everything is changing." Water is also important: Shishmaref has no running water or sewerage, making the collection of ice for water necessary, and every household has a "honeybucket" for waste. The community's desire for running water and sewerage is mentioned several times in the film, and support from the US government has not been forthcoming. Whilst Shishmaref has a shop that stocks Western food, gas (petrol), clothes and consumer goods, the expense of a mainstream American diet is noted. Joel Magby, another significant person introduced in the film, explains that a T-bone steak costs the same amount as five gallons of fuel, which is sufficient for hunting two-to-three caribou. For the residents of Shishmaref, having a snowmobile and gas means more food.

The community's awareness of climate change is articulated through several means. Ardith and others expressly talk about changes to the weather: storms in the autumn are stronger, fall is later, and spring is coming earlier. But the residents of Shishmaref often gather in their families to watch representations of climate change on television: whether Al Gore on Oprah, excerpts of his film *An Inconvenient Truth*, or news bulletins about Shishmaref, the destruction of the village is described in urgent and desperate tones. The documentary cuts to the northern edge of Shishmaref, which is perilously close to the sea, and included in the footage is evidence of the houses falling into the sea as the shoreline is eroded.

Two younger residents of Shishmaref map the location of their family and community members, both in the present and the past, signalling their awareness of change in their community. The city is being swept into the Chuckchi Sea, a few metres at a time, and in bad storms the changes are more dramatic and threatening. Later in the film Joel Magby reflects on the lack of interest and support from the Federal Government and Ardith further worries “What is to become of our people?” Joel believes the place is coming to an end, the residents will be refugees and that his son, Cody, will not remember Shishmaref. Ardith talks about the offer of being relocated to Nome, but she is worried about the effects of alcohol and drugs; this is part of a wider concern about whether young people will connect with their culture. Instead, the residents have voted to move to Tin Creek, although Ardith acknowledges that it will be hard to imagine living in the hills. The end of the film finishes with Ardith: “How would Shishmaref be if it washed away and if people went different ways? If we are not together anymore, I think we will become weak and lost. It is painful to think about and heart breaking.” The final shots of the film are of Ardith and Johnny, her husband, walking over the snow into a wide expanse of white. Ardith states that she does not want to be buried at Shishmaref and worries about her bodily remains being washed out to sea.

Whilst the use of mournful string music is not continuous throughout the film, it does periodically support the emotional trajectory of a community mourning their home and expressing its worries about the future, both from the point of view of maintaining subsistence practices, and in the emotional upheaval of relocating (even the preferred location brings its changes and worries, although moving to a city brings the greatest fears around cultural continuation). The periodic shots of wide-open landscapes, people either working together or alone in

the expanse of the landscape, suggests isolation. Yet these shots are also complimented with footage of community activities such as basketball, bingo and eating together. The landscape, though, never seems to be populated, even in the shots of the city. In depicting the city as quiet, the isolation of the community is strongly suggested.

The book, by noted photographer Dana Lixenberg, is different although similar themes emerge.<sup>2</sup> The book contains photographs, with captions and intersecting chapters of text. Each photographic section focuses on an extended family, and paragraphs of text at the start of each section outlines kinship relationships. There are numerous portraits, photographs of dwellings (both interior and exterior) and photographs of the wider village, as well as landscape photographs that depict the island of Sarichef and its surroundings. Portraits of individuals and family units form an important part of the book, and the photographs of Shishmaref, dwellings and surroundings are used to contextualise the place where people live. Photographs of hunting and preparing food (such as skinning a caribou and seal) are included and some portraits include visual references to subsistence practices. Short chapters report on the impact of climate change, which is the main content of the chapter 'Relocation' (Lixenberg 2008: 43-45), and other chapters cover 'Cultural Identity' (ibid: 83-84), 'US Institutions and Infrastructure' (ibid: 123-125), 'Subsistence' (ibid: 163-165) and 'Modern Life' (ibid: 203-205). The book opens with a short Iñupiaq story on the creation of Sarichef Island (ibid: 5), as told by Ardith Weyiouanna to her granddaughter Emma Bessie. The photographs are made on a large format camera and are compelling in their formal rigour and in their depiction of the relationship

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<sup>2</sup> The photographic project, developed alongside the film, was supported by Paradox, a non-profit organisation based in the Netherlands, dedicated to stimulating the development of documentary photography (Paradox).

between people and place. The book, devoid of an emotive soundtrack, is significantly less melancholic than the film.<sup>3</sup>

The film and the book are well contextualised, providing details of Iñupiaq history as well as outlining the challenges of moving as a community. Both are moving testaments to the life of the Iñupiat and their ability to organise and campaign for their culture. However, reading this film and book is complex and the telling of the Iñupiaq story of Shishmaref is fraught with pitfalls. Of concern here is the apparent similarity between salvage ethnography and the type of narrative that emerges from *The Last Days of Shishmaref*, particularly in the documentary film.

### **Salvage ethnography, extinction narratives and mourning**

The dominant narrative strategy used in the film is one of elegy. The film is slow-paced, using long takes of people engaging in everyday activities. Many of the people who speak about their way of life reflect on change, such as subsistence practices and the availability for processed foods, although some change is actively sought (such as access to running water). Perry Weyiouanna expresses regret at the loss of the “old ways”. Hunting and subsistence are becoming harder as the changing climate alters the environment and animal behaviour, and this is repeatedly mentioned throughout the film. The vulnerability of Shishmaref to coastal erosion is clear in a long panning shot, where houses are both hanging off the edge of the sand island and in immediate peril of joining those that have already been destroyed. Frequent concern is expressed about the violence of the recent destructive storms and the truncated timescale for the safe relocation. Joel

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<sup>3</sup> Associated educational workshops were developed alongside the photography, including a video workshop for children in Shishmaref.

Magby expressly articulates his fear of Shishmaref “coming to an end”, of the residents being “refugees” and his sadness at the loss of the place where his family has been resident for generations. The fate of Shishmaref has already been accepted by the residents: we are told more than once that in ten to fifteen years the island will no longer be there as the place will be swept away in a storm or will be uninhabitable. Pervading the film is a sense that Shishmaref has already been surrendered.

Extinction narratives have become common across a range of literary, televisual and photographic contexts and are not new. However, this era of unprecedented climatic upheaval and declining biodiversity has been called the 6<sup>th</sup> mass extinction (Kolbert 2014) and has spurred the production of numerous responses to biodiversity loss. The extinction not just of charismatic megafauna but also of insects, flora and entire ecosystems have been of major concern, yet the definition of extinction and its parameters is contested (Kolbert 2014; Heise 2016). Given that a lot of the living world is still yet to be identified and quantified by Eurocentric scientific means, measuring extinction is a complex activity. Yet many scientists and amateur natural historians, as well as members of Indigenous populations, are noting species decline in significant numbers and across numerous contexts. Ursula Heise (2016: 5) has argued that “biodiversity, endangered species, and extinction are primarily cultural issues, questions of what we value and what stories we tell.” In Heise’s analysis, extinction narratives often follow set templates: “the idea that modern society has degraded a natural world that used to be beautiful, harmonious and self-sustaining and that [it] might disappear completely if humans do not change their way of life” (ibid: 7). Furthermore, Heise notes that Indigenous, “ecologically grounded” practices form a politically powerful contrast to the unsustainable and destructive modern

practices of agriculture, extractivism and consumption. Heise, following both theoretical development in flat ontologies and environmental justice, rejects simple binaries between nature and culture. She sees species extinction narratives as a critique of modernity (ibid: 32), which leads to mourning and melancholia. Whilst Heise notes that many extinction narratives envision extinction as a “narrative endpoint” she notes that there are possibilities for new beginnings and different narrative possibilities of continuation. Avoiding a naïve and unsophisticated account of endings-as-beginnings, Heise further argues that without questioning who and what is deemed worthy of being included in an appreciation of species diversity (discussions that can be positively fuelled by either flat ontologies or by the concerns of environmental justice), there are risks that familiar anthropocentric frameworks will exclude many species from consideration, including non-human species and those people and their languages and culture who are less likely to be deemed important for saving.

Heise argues (2016: 23) that elegies often involve narratives of regret for modernisation and colonisation, producing a sense of loss in response to a “narrowing of culture.” In the film we experience a sense of loss for the environment and ecology that is part of Shishmaref as the landscape itself is vulnerable: it is highly likely that what we see in the film will not exist in the future. Perry Weyiouanna also states that the “Modern way has put us in a vulnerable position,” indicating ambivalence about the impact of modernisation on and in the community. It is here that frameworks of understanding Indigenous cultures become strained, demonstrating imperial fractures. Historically, narratives of salvage ethnography demonstrated a desire to document cultures before they became extinct (Clifford, 1989). In the late Nineteenth Century such narratives existed due to the common belief that Indigenous peoples were unable

to adapt and change and would therefore ‘die out’.<sup>4</sup> In reality, many Indigenous peoples around the world were adapting to modernity, not least to imperial and colonial demands, and this partly fuelled colonial concerns about cultural specificity and its loss. A double-bind was created in which Indigenous concerns about culture were all too often not recorded.

The melancholy desire to save both Shishmaref and its residents’ linguistic, subsistence and cultural practices, raises questions about the similarities and differences to salvage ethnography from the late 19<sup>th</sup> Century. Indeed, the narrative structure of elegy, whilst driven by the desires of the Iñupiat to save their community and culture, also fuels the desires of a modern European sensibility to ‘save’ a place and a culture that is threatened by both climate change and modernity. What other ways can the mourning of a place and its culture be understood? Answering this question means engaging both with the significance and expression of mourning, and a closer look at salvage ethnography.

Ashlee Cunsolo (2017: xiv) has examined the impact of climate change on Inuit communities in the Arctic north finding that there are effects on the Inuit relationship to place, nature, sustenance, and wellbeing, all of which have consequences for mental health. Cunsolo has further reported that Inuit communities frequently see land as a person, who is also capable of expressing loss and reciprocity (2017a: 171). Indeed, in worrying about the future impact of climate change, many Inuit communities also experience anticipatory grieving, yet these representations fail to appear in the wider media. She concludes: “Mourning provides the opportunities to learn from deaths, or the potential deaths, of bodies beyond our own, and beyond our species to unite in individual and

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<sup>4</sup> Concerns about cultural loss were expressed racially, with ‘full blooded’ descendants being perceived as legitimate members of a race and those who were ‘mixed blood’ were not (McGregor 1997: 16). Such terminology is often considered unacceptable today, although some Indigenous peoples use such language and concepts, including some members of the Iñupiat in Shishmaref.

global action and response” (2017: 172). Sebastian Braun (2017) has further argued that mourning expresses kinship, because mourning is social, and it is often an essential part of representations for members of communities affected by climate change (65). Unlike grieving, which is private, Braun also sees mourning as being linked to pragmatic resilience and adaptation. Cunsolo and Karen Landman (2017: 15) see “resistant mourning” as a means of using “experiences of loss and associated grief ... [to mobilise and expose] systematic marginalisation, political injustices, and systemic violence.” Mourning, therefore, is not reducible to disempowered expressions of regret and it has resonance in both Euro-American and Indigenous communities. In the film *The Last Days of Shishmaref*, the expression of mourning, both for what has been lost so far and in anticipation of further losses, the Iñupiat are expressing their activism, refusing marginalisation, and finding ways of expressing the violence of climate change.

As a western viewer, however, I am troubled by the similarities to salvage ethnography. In the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, across colonised countries, ethnographers, commercial and amateur photographers took part in a dispersed activity of collecting information and representations of Indigenous cultural practices and people (Clifford 1989). These representations of cultures caught on camera were fuelled by preoccupations with racial purity of Indigenous subjects, disavowing continuity through diasporic lineages and cultural adaptation (Morton 2005: xii-xv), but some photographers were also concerned, on occasion, with the rights and dignity of the subjects themselves (Peterson, 2003: xi). Salvage ethnographies situate photographers, anthropologists, and museum collectors as saviours of Indigenous knowledge, often in problematic ways, and these accounts frequently deny Indigenous agency. As James Clifford demonstrated (1989: 73), salvage ethnography, whilst considered “old fashioned”, continues to exist, not



least in travel narratives and ethnographies. Of particular concern in relation to the film is a worry that Indigenous activism is overlooked and emphasis is placed on tradition over, perhaps, more nuanced understandings of how tradition and modernity are temporally synchronous and sometimes intertwined.

However, understanding Iñupiaq culture does not necessarily require splitting cultural practices into ‘modern’ and ‘traditional’ distinctions. As Clifford and others have argued, Indigenous cultures are not static and unchanging, and in the context of globalisation, “Indigenous vitality requires a degree of tactical conformity with external expectations and at least a partial acceptance of multicultural roles and institutions” (Clifford 2013: 17). Clifford’s later work not only eschews ethnocentrism, but considers power relations which are often deeply unequal, together with possibilities for cultural renewal and survival. Part of this Indigenous revival and survival is dependent on media-disseminated imagery, of which *The Last Days of Shishmaref* can be seen as an example. Importantly, Clifford avoids the pitfalls of the “teleological narratives of a civilising modernity” (ibid: 23) whilst acknowledging that “tradition and its many near synonyms ... denote interactive, creative and adaptive processes” (ibid: 29). In Clifford’s view there are “determinations without determinism” in contemporary Indigenous experiences (ibid: 40).

Not only can traditions be understood as living and dynamic, but contemporary Iñupiaq subsistence practices use modern technologies such as ski mobiles and drones. The Iñupiat have adopted some modern practices and aspects of Western culture and they are now intrinsically connected to American politics and policy. At once highly adept at looking after themselves, and articulating their challenges, they are dependent on wider geopolitical powers to facilitate their relocation, not least the US government. The visual and written representations of

Shishmaref partly capture the complexity of Iñupiaq lives: the desire to hold onto subsistence practices and cultural identity, their acute attachment to place and negotiation of both American and Iñupiaq culture. As Chie Sakakibara (2020: 10) notes, technology can be a vital part of Iñupiaq practices:

This reality does not mean that subsistence is *less* indigenous than what was in the precontact past. On the contrary, modern subsistence activities proactively support a traditional economy that requires special skills and a complex understanding of local environment.

The issue of change, whether modern (as in the use of technology or dwellings) or about place (the erasure of Sarichef Island caused by climate change) also needs to be understood in relation to the developing discourses surrounding ecologies and worldings, which are both producing and fuelling a desire to retain and reinstate different kinds of worlds: both cultural and ecological. Both Clifford and Sakakibara, as anthropologists, approach Indigenous subjects with deep respect for lived experiences and the desire for Indigenous sovereignty. Yet as Azoulay and Grove have also argued, the geopolitics and power of imperialism continue to contribute to the destruction of worlds, and the imposition of a new world order in different parts of the world. Indeed, Shishmaref residents are dependent on global communities agreeing to limit carbon emissions to check continued climate change, on the US government to fund their relocation and to imperial powers at large to respect their traditions and

culture.<sup>5</sup> Some Inuit cultures in Alaska are also the subject of negotiations with both governmental and commercial interests in the extraction and distribution of oil and gas, which can result in internal community tensions (Sakakibara 2020: 102); and commercial interests, particularly oil, are globally connected. Perry Weyiouanna's concern about Iñupiat culture being connected to globalised culture, is telling and reveals the fault lines of the effects of imperialism on the residents of Shishmaref. Whilst incorporating modern technologies prove the Iñupiat's ability to adapt (in a narrow sense around ideas of modernity), these technologies are often intrinsically connected to the causes of climate change and imperial dominance. No wonder Perry Weyiouanna's relationship with modern ways, and the coexistence of modernity in subsistence practices, is experienced as fraught and problematic; at once modernity aids survival but it is also fuelling loss.

### **Portraits, kinship and activism**

It is perhaps time to consider the book in more detail. The narrative of climate change and place extinction is addressed through an Iñupiaq short story on the formation of the island which is at the start of the book (Lixenberg 2008: 5). Family and kinship are visually and structurally prioritised throughout the book, with families being grouped together in sections, punctuated by the written chapters mentioned earlier in this essay. The overall narrative of the book is much looser and more open than the film and there is more emphasis on life in the summer months, as well as living in ice-bound conditions. The text in the book,

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<sup>5</sup> Judith Butler (2016) has noted that the recognition of life and its precarity is unequally recognised politically, including within the boundaries of a nation state. We could therefore see the lives of the Inupiat as precarious but not fully acknowledged by the US government. Indeed, the US government is enthralled to the production and consumption of carbon, yet this is the same authority to which the Inupiat turn to be protected from the ensuing violence, both in terms of the immediate impact of extraction, and in the longer term impact in terms of climate change.

whilst avoiding specific information about the causes of climate change, provides more information on the community's activism, specifically through the formation of the *Shishmaref Erosion and Relocation Committee*, which formed in 2001 and the high school group *Save our Shishmaref* (Lixenberg 2008: 44). The text informs the reader that the community have successfully engaged Congress in looking at their situation, and that they have garnered extensive media attention (ibid: 44). The island is depicted in some detail, including summer flowers, ice, detritus, and numerous views of the dwellings. An important aspect of the photographs of the interior of the homes is the frequent occurrence of family photography on the walls: extended families and their memories are important to the Iñupiat. [fig. 3] The interweaving of traditional culture and modernity is clear in many of the photographs, including a few detailed photographs of hunting or cultural practices, and references to subsistence practices are frequently included as part of the portrait photographs. Individual photographs have captions, naming people and frequently stating time of day, or the ownership of the location (associating specific interiors with specific families, for example). The photographs are engaging, encompassing a range of visual styles to create a portrait of both people and place, intimately connected. The text mentions cultural revival (ibid: 204) although there are no specific photographs of events that foster an ongoing interest in Iñupiaq traditions, with the exception of subsistence practices.<sup>6</sup>

**Figure 3. Dana Lixenberg (2007) *Minnie Olanna's home***

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<sup>6</sup> Such images appear in *Climate Refugees* by Collectif Argos (2010) and *I am Inuit* by Bryan Adams (2018).

The ambiguity of the photographs is notable, although Lixenberg's documentary intent, the representation of a marginalised community affected by climate change, is clear. The images in Lixenberg's book are anchored in their meaning by the captions, maps, diagrams, and the short chapters, but the images also lend themselves to uses in other contexts. Of note here is the availability of some of the images through Lixenberg's gallery, GRIMM. Fourteen images are presented on the website and cover a range of subjects: individual portraits, family portraits, interiors, scenes of the city, images of food, one image of the precarity of Shishmaref [fig. 1], and one image of a view that looks out to the Chuckchi sea, depicting old ice melting in June. GRIMM's website provides biographical information, which in addition to drawing attention to Lixenberg's editorial photography, states that Lixenberg makes "stripped down portraits" that avoid "social stereotyping" of "marginalised communities" (GRIMM n.d.) and *The Last Days of Shishmaref* is given as one such example. There are captions for these images, but the photographs lack an introductory statement, which severs the imagery from the social and political aspects of the project and its direct link to climate change.

**Figure 4. Dana Lixenberg (2007) *Nora Iyatunguk***

*Nora Iyatunguk*, 2007 [fig. 4], a beautiful, close-up portrait of a young woman from Shishmaref, represents *The Last Days of Shishmaref* on GRIMM's website, and it also opens the last section of photographs in the book (2008: 169). Her fur collar and simple background frame her face as she looks to the right. Nora's face is available for our gaze, and it is likely that her collar is made from subsistence fur. In the book, the portrait signifies independence, strength, and her

membership of a specific community. The text opening this section informs us that Nora has a boyfriend and two sons, as well as outlining her other kinship relations and the names of other members of her household. Nora Iyatunguk makes an appearance in several photographs in this section of the book, including with her boyfriend, Tim Nayokpuk, and her sons. The image's appearance within the world of contemporary art, however, results in the meanings of the image becoming less specific. The inclusion of Nora's images, and other portraits of Shishmaref's residents, is typical of documentary and editorial photographs that successfully negotiates a variety of contexts.<sup>7</sup> Nora's image becomes an object of beauty linking her image to Lixenberg's portraits of both famous and less famous Americans, and the presentation of *The Last Days of Shishmaref* on GRIMM's website situates Lixenberg's practice as socially engaged.<sup>8</sup>

**Figure 5. Dana Lixenberg (2007) Ardith Weyiouanna**

The portrait of Ardith Weyiouanna in Lixenberg's book [fig. 5], together with another image of Ardith skinning a seal, create contrast to Louter's portrayal of Ardith. In both of Lixenberg's images, Ardith is depicted as a strong woman full of vitality. The portrait inside their home shows some details of their kitchen, but the emphasis is on Ardith's face, clothes and jewellery (made of carved bone). Ardith is shown smiling, upright and composed. In Louter's film, whilst Ardith is an important person, bookending the narrative and appearing frequently, she is often working, preoccupied, reflective, and she expresses grief and worry about

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<sup>7</sup> Lixenberg started her career as an editorial photographer but like many photographers, she has worked across different contexts, and her editorial work is as likely to be presented in a gallery as it is in the pages of a magazine.

<sup>8</sup> Lixenberg is keen to ensure that print sales from *The Last Days of Shishmaref* are sensitively placed in collections where the values of the work are maintained and that avoid commodification (Lixenberg 2022).

the future. Lixenberg's portrayal of Ardith, however, suggests an active, vital person, who is resilient and hopeful. Lixenberg's portraits, which feature individuals and group shots, together with the information on kinship relations, creates a sense of a community held together by relationships: relationships to each other, their relationship with the place they live, and their relationship to food, especially subsistence practices. The images, in the vein of portraiture, convey dignity for the individuals and the community, and yet they remain ambiguous, able to move across contexts and perform the cultural capital of art. This ambiguity, however, also allows room for different emotions to emerge. Concern and worry for the future still feature in the text, as does mourning, but the emphasis on family and the written references to activism suggest also hope for cultural continuity in the future.

## **Conclusion**

Both the film and the book have wider relationships with the ongoing violence of imperial representations. The Iñupiat have been subject to both imperial and colonial demands and expectations, including the requirement that they give up their language at the turn of the 19<sup>th</sup> and 20<sup>th</sup> Century (Lixenberg, 2008: 84) and experienced imperial influence on a regular basis from 1901 onwards. Like many communities across the circumpolar north, the Iñupiat of Shishmaref are enmeshed with the commerce and politics of Alaska, eating Western food, buying goods, and using modern forms of transport (both locally and in terms of wider travel across the state). Their ties to the broader political, social and cultural environment of the US are pervasive, even though there are good questions to be asked about the extent to which this threatens their cultural survival. Nonetheless, Shishmaref's residents are not equal citizens in the US, nor equal traders in the

world of commodities, and they experience marginalisation and its violence on several levels. The film, whilst made with the permission and input of the community, with Perry Weyouianna as one of the producers, facilitates the transportation of knowledge out of the community to a broader public, and to scholars such as me. This enmeshed interdependence involves a series of unequal power relationships typical of imperialism. Whilst Lixenberg's book is more optimistic about the future of the Iñupiat, the imagery circulates within an economy of goods that mirrors the tradition of using Indigenous subjects and their cultural knowledge for imperial curiosity and potentially for benefit as well. The film, in particular, with its melancholic tone and absence of the representation of the community's activism, produces a portrait of a community that is resilient but dependent and waiting for a decision, federal action and funds to help them. The funds and decision are significant, but this overlooks the activism of the Iñupiat themselves, their energy, organisation, and determination. The global geopolitical dimension of the causation of climate change is not addressed and the representations, on the whole, avoid addressing the global picture of responsibility, keeping the decisions to the internal politics and imperialism of the United States.

The contemporary context is not the same as the late 19<sup>th</sup> Century context, despite parallels between the two regarding the loss of Indigenous lives. Like many forms of salvage ethnography, the representations capture both a changing culture *and* the traditions of that culture. The book and film include an acknowledgement of the importance of place and ecologies, and the central role of Indigenous voices. The film's lack of engagement with the form of activism that the residents of Shishmaref engage in, then, is a significant oversight and one that risks reproducing paternal and imperial relationships between Indigenous subjects



and those who have access to the means to media production. Louter, the director of the film, in not highlighting the activism, either through narrative voiceover or through visual representations, risks showing the residents as passive subjects of representation, rather than drivers of media engagement. However, the elegy of the film, at once signifying the loss of place, and potentially the loss of cultural specificity, also communicates the anticipatory mourning of the community regarding their sense of place, their culture and for broader changes in weather and environment. Their worries about cultural continuity and subsistence practices are vividly conveyed in the film.

Sakakibara (2020: 24) studied Iñupiaq resilience. Whilst she acknowledges that links to “psychology and psychiatry are inevitable, resilience should also be understood as inherently an Indigenous concept that elucidates ... culture and society and contributes to a process of decolonisation through the integration of personhood with the community, land and environment”. Sakakibara further elaborates that resilience is embedded in families, organisations, communities, and the natural environment, including subsistence practices. The community-based movements function on local, national, and international levels. The film and book, made by European photographers and filmmakers, are entangled with Indigenous activism, and the expression of this activism happens *through* the film and book rather than being depicted *in* the film and book. Whilst, as Yusoff encourages us to note, white populations have only relatively recently started to engage with the implications of large-scale destruction of the world, overlooking Black and Indigenous knowledge and experience, in the case of *The Last Days of Shishmaref*, white concern for environment and diversity of culture results in media representations that advance already-existing Indigenous activism.

The broader geopolitical aspects driving the violence of climate change, remain invisible and unnamed, especially in the film, although they are partially implied through the inclusion of news reports and the excerpt of Al Gore's film. The wait for support from the US government, which also subsidises and supports oil and gas extraction from Alaska, feels particularly bleak in this regard. On the one hand, as viewers, we can connect to the subjects of imperial violence, but we do not see the positive impact of activism on a wider world. The film and the book are assumed to do that work *for us* and *on us*, even though it is not clear what that impact might be. Climate change is a form of violence, including the erasure of history and culture, erasure of human and non-human relationships, erasure of non-human species, and erasure of cultural continuity. Imperial relationships become fraught, weaving interdependence. Whilst this can be part of cultural continuity (Clifford 1989) it is also causing cultural erasure in many ways. Imperial relationships are never equal, just as geopolitical ones are not. This does not eradicate opportunities for reinvention, opposition, and creative adaptation, but a geopolitical framework such as Grove's enables us to see the unequal power relationships and forms of violence driving such necessities and strategies for survival.

The end of Shishmaref is taken as a foregone conclusion. However, the film leaves the question open about the future of the community: the walking away suggests finality, but it also enables the community to express their grief at the loss of a place and to express concern about their own death and place in the world after they have gone. Such concerns are not unusual in Iñupiaq communities: Sakakibara's anthropological work in Point Hope, a relocated city about 150 miles north of Shishmaref, shows that concern for cemeteries and its association with ancestors, memories and spiritual beings is very strong. Indeed,

spiritual relationships with the old city continue long after relocation (2020: 132).

However, the end of Shishmaref's Iñupiaq community and their subsistence practices is not taken for granted in the book; the structure of family and kinship, suggests cultural survival and revival (although in similarity to the film, the efforts at cultural revival are not depicted).

*The Last Days of Shishmaref*, then, can be seen to perform distinctly important functions in relation to extinction narratives. In highlighting the precarity of Shishmaref and the desire for cultural continuity and self-determination, we see the Iñupiat as *important* in relation to extinction: Louter and Lixenberg are advocating for appreciation of this specific group of people, their lives, and their culture. The melancholic tone of the film, whilst indebted to the traditions and pitfalls of salvage ethnography, advances already existing Indigenous activism, and reinforces the case of the Iñupiat for assistance in moving; it also enables the subjects, particularly Ardith Weyiouanna, to express their anticipatory mourning for the loss of their home. The book, in contrast, emphasises more of the activism of the residents of Shishmaref, but also highlights kinship relations. Both the book and the film advocate for cultural continuity and self-determination, whilst also depicting the co-existence of traditional and modern practices of living. The book and the film link the residents geopolitically to questions of climate change, oil extraction, energy use and the Eurocene, which is embedded in the lives of Iñupiat. This leads to the expression of regret, at least by Perry Weyiouanna, who sees the adoption of modern ways as linking the erosion of Shishmaref to the changes in their culture, but aspects of modernity also, for now, enable subsistence practices to continue. Importantly, it is evident that whilst the lives of the Iñupiat are entangled with modernity, their responsibility for climate change is limited and they are at risk of being

homogenised through their relocation to a larger metropolitan district. Their precarity, however, is not just a question of subsistence, but it is also politically and socially at stake through increased exposure to modernity and their removal to a site not of their choosing will be an act of violence. Whilst the film and book have the potential to become a “museum to the violent destruction of the world” from which they emerged (Azoulay 2019: 19) they have the potential to manifest the rights of the Iñupiat.

The witnessing of these rights and potential violence is both imperial in its nature *and* part of worldly caring. The use of salvage ethnography and elegy potentially positions Europeans, including me, as a troubled white saviour viewer, able to acquire cultural knowledge about others and imagine contributing to the longevity of the community, or witnessing, in a voyeuristic way, the community’s demise. There was at least some collaboration in the making of *The Last Days of Shishmaref* as both book and film, and we can read both as extensions of Iñupiaq activism, but there remain important questions about how to *read* or encounter such cultural products in sensitive ways, without appropriating Indigenous knowledge and experience. Ensuring the absence of exploitative or extractivist ways of thinking when practicing criticism of representations of Indigenous peoples whose lives are imperilled by climate change has to be a part of the challenge of redressing the historical and contemporary power imbalances in the geopolitics of the north.

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**Robert A. Saunders, Irina Souch, Anne Marit Waade. Screening Arctic  
Landscapes in Nordic Television Drama: Anthropocenic Imaginaries,  
Ecological Crises, National Identities**

**Landscapes of the ‘North’ in Times of Transition**

Filmed in Iceland and Svalbard, the British “Nordic noir” series *Fortitude* (Sky Atlantic, 2015-2018) begins with the discovery of a mammoth carcass freed from its millennia-long suspension in glacial ice by global heating. This event ignites a narrative of murder and mayhem across the small Arctic settlement of Fortitude, an imaginary of Longyearbyen (pop. 2,350). In its screening of the disturbed ecology of a televisual imaginary of the Norwegian archipelago Svalbard, the series focuses on the effects of an ancient pestilence loosed upon the international community of a sparsely-populated outpost north of the Arctic Circle. Framed by septentrional panoramas, *Fortitude* provides a sinister metaphor for the unknowable outcomes that will undoubtedly continue to plague the High North, particularly as the planet moves deeper into the epoch of the Anthropocene.<sup>1</sup> The visual rhetoric of *Fortitude*, like other examples of Nordic noir, is defined by its landscapes, which – like its characters – have much to say about the current state of the North; in the case of *Fortitude*, the bleak mountain vistas and harsh grey seas present a once-unspoilt world now tainted by human activity. Desperation, greed, lust, and the hunger for power combine in ways that inevitably harm the environment; however, in the somewhat fantastical conceit of the story, nature fights back, staining the arctic snow with the blood of (human) interlopers. Indeed, like other contemporary television drama series set in northern extremes,

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<sup>1</sup> The notion of the Anthropocene was first introduced in 2000 by Paul Crutzen and Eugene Stoermer to denote the advent of a new geological epoch. They argue that the impact of human activity has radically altered the planet’s ecosystems and climate and thus ended the Holocene during which major human civilisations have developed.



*Fortitude* is as much about place as it is about people. More than just providing aesthetic value, representations of the land are integral to the storytelling process, with specific northerly landscapes serving as the canvas for events to play out and ideologies to be brought into focus.

Abetted by new distribution platforms, evolving viewer practices, and demand for quality content regardless of country-of-origin, television series produced in Norden are increasingly on our small screens. These digital glimpses of Nordic Europe – and especially its northernmost territories (Greenland, Iceland, Svalbard, and the Cap of the North/Sápmi) – are endowed with a particular power of representation during the current era of geopolitically-inclined media consumption, one which is defined both by a fascination with all things Nordic (Saunders 2020) *and* growing concerns about climate change in the Arctic realm (Christensen, Nilsson, and Wormbs 2013). Driven by a shared regional commitment to addressing social, economic, and political concerns (Redvall 2013), and defined by complex storylines, multi-faceted characters, and on-location filming practices that privilege the use of “local colour” (Toft Hansen and Waade 2017), Nordic TV wields an outsized influence in terms of the flow of images across the world, especially when it comes to the digital renderings of landscapes. This matters not only in how viewers outside the region see Norden, but also how the various Nordic nations see themselves (and how they wish to be seen). Regarding the most pressing issue of our time – i.e., the climate crisis – Sweden, Norway, Denmark, Iceland, and Finland hold key positions of influence, not only as “nations of the north,” but also as models for less-affluent countries to follow in terms of sustainability and environmental policy (Witoszek and Midturn 2018). Hence, it is vital to scrutinise the Nordic televisual gaze when it comes to the threatened ecologies of the High North.

This intervention considers the ways in which popular Nordic television series (re)imagine the landscapes of the European (near-)Arctic as they become irrevocably transformed by the presence of human beings, alterations in the climate, and environmental degradation. Whether we speak of the raging rivers of glacial melt in Greenland (*Thin Ice*), the snowbound roads of coastal Iceland (*Trapped*), or the picturesque beaches of northern Norway (*Twin*), the frosty topography of the Northern landscapes – by turns placid, foreboding, and sublime – does not simply provide an atmospheric narrative frame but, instead, is itself framed as a “repository for social values” (Mostafanezhad and Norum 2019, 422). Blurring the boundaries of the human and natural worlds, these screened landscapes refract the scars of colonial violence, resource exploitation, and rampant neoliberalism. Bringing together approaches from cultural geography, film and media studies, and art history, we investigate how such “geography-minded” television series – as a distinct form of visual culture – engage with ecological themes by bringing into relief the imbrication of environmental vulnerability and specific historical, economic, and social conditions. Via three Nordic dramas, we explore how the bio-politics and geo-politics of the Anthropocene visually map on to ongoing contestations and re-articulations of national identity among northern nations. We argue that these series challenge viewers to imagine innovative societal solutions to mitigate the environmental crisis, while simultaneously profiting off historical processes that have commoditised the Arctic landscape, converting it into a product to be consumed (see Mostafanezhad and Norum 2019). Therefore, we seek to problematise these landscape representations as a mirror of contemporary national identities, considering how the visual consumption of a purportedly “pristine” landscape

both highlights and obfuscates past (imperial) and present (neoliberal) abuses of nature and its (more-than-)human inhabitants in Europe's Far North.

Landscapes – whether in the form of paintings, photographs, moving pictures, or digital images – are key to national identity production. This is particularly true in the northern parts of Europe, where mountain ravines, barren coastlines, and ancient forests serve not only as places of memory, but also as articulations of ongoing identity-making and imaginaries of the future (see Norberg-Schulz 1996). Indeed, the contemporary concept itself is a northern European invention, being introduced into English via the Dutch word *landschap* ('land-shape'), and finding cognates across the other Germanic languages (Ice. *landslag*, Swe./Nor. *landskap*, Dan. *landskab*, and Ger. *Landschaft*). As Jackson argues, landscape evolved from its origins as a 'picture of a view' to the 'view itself', later coming to connote a complex relationship between bounded space that gives meaning to particular events and relationships, while at the same time spatially fixing these interrelations in the world (1984, 3-4). Unlike Latinate analogues such as the French word *paysage*, which primarily convey the notion of the "setting" qua representation, the Germanic "land-shape" goes further, rooting the concept in the notion of perception as well (Lefebvre 2007, 20). As a consequence, Olwig argues that in the north of Europe, such renderings of space create a "self-referential circulation of reference," wherein the landscape shapes its own "representation image" (2004, 42), exemplifying Jackson's definition of it as a "composition of man-made or man-modified spaces [that] serve as infrastructure of background for our collective existence" (Jackson 1984, 8). Reflecting this interlaced triad of setting, representation, and perception (cf. Lefebvre 1991, Westphal 2011), the northern landscape – qua a culturally conceived and recognisable space – thus became an indispensable adjunct in the

act of making nations, a process greatly defined by its imaginative capacities (see Anderson 1991). For the Icelanders, Norwegians, and Finns in particular, the rise of national sentiment in the late 1800s was accompanied by an articulation of organic ties to the countryside, being reflected in the national-romantic landscape paintings of Þórarinn Þorláksson, Peder Balke, and Pekka Halonen, among others. Emblematic of the period, these paintings glorified the human spirit in the context of a harsh, but ultimately tameable natural world.

With the advent of motion pictures, cinema surpassed the static visual arts in bringing representations of landscapes to the masses. Beginning with the short films *Kørsel med Grønlandske hunde/Traveling with Greenlandic Dogs* (Peter Elfelt, 1897) and *Fiskerlivets farer/The Dangers in a Fisherman's Life* (Julius Jaenzon, 1907), the imposing landscapes blazed on celluloid, pioneering the ways in which Nordic geographies would be represented on screen: remote, unsullied, and perennial. For the remainder of the twentieth century, auteurs and commercial directors alike revelled in the visual qualities of the Nordic wilderness as a palimpsest for telling stories that reified and/or challenged national idylls (see Kääpä 2014). Contemporary filmmakers from beyond the region have increasingly flocked to Iceland to capture its land- and seascapes, presenting these otherworldly vistas as primordial spaces beyond time in such big-budget dramas as *Noah* (2014) and *Interstellar* (2014). However, the realities of anthropogenic climate change present a host of challenges to these idyllic treatments. The septentrional topoi of the High North, which were once viewed as stable – one might even argue, *frozen in time* – are now in a state of unpredictable transition, thus sapping their purported sublimity. In a word, these ecologies are *disturbed*; and at this historical juncture, the confluence of melting glaciers, reduced sea ice, volatile weather, shifting relationships between/among flora and fauna, and

pollution from mineral extraction threaten the fixity of Europe's northern horizon. Reflecting on these calamitous ecological insecurities, contemporary representations of human/non-human entanglements demand a critical reassessment of the national myths associated with the land, territory, and nature. As in previous periods of national reflection, visions of the natural world serve as meaningful expressions of the nation. However, as this collection makes clear, the relational axis between people and the(ir) environment has now radically changed, and it is not just the human presence in the natural and human-built environment that we should concern ourselves with, but also the interconnecting assemblages of other forms of life (animals, plants, fungi) and nonlife (oceans, glaciers, rocks) (see Johnson et al. 2019).

### **Gazing upon the Northern Face of the Anthro(s)cene**

Perhaps more than anywhere else, the notion of the "good Anthropocene" (see Arias-Maldonado 2019) finds purchase in northern Europe. With its small, wealthy populations, dense woodlands, and smartly-designed cities, the Nordic countries are well-branded as sustainable and environmentally-friendly when compared to nearly any other region on the planet (see Frig and Sorsa 2020). Norden seems to be at the cutting edge of achieving a "brave new world" where fossil fuel use and endless waste-making give way to "agroecology, green roofs and buildings [and] distributed renewable energy systems" combined with "a reawakened sense of wonder, an ethic of care, and aesthetic and cultural production" associated with the planet (Buck 2015, 369). Part of this gestalt is the self-congratulatory stance of the Nordic governments which are keen to be seen as the most progressive state actors with regards to sustainability and care for the environment, even as Norway's economy is dependent on hydrocarbons and the

other countries offshore environmentally-degrading elements of industrial production. Moreover, this image of a sustainable Norden is one alloyed to the benevolent exceptionalism of Nordicity (Browning 2007), from the region's reputation as a socialist utopia outside cutthroat realm of globalised capitalism, to the deluded notion that the northern countries are free of the colonial legacies that plague their western European counterparts Britain, France, Germany, and the Netherlands.

Nordic Europe is often glossed over in discussions of imperial exploits, typically with only a passing reference to Danish outposts in the Caribbean or the establishment of the short-lived colony of New Sweden in the Delaware River Valley; however, this is an unfortunate blind spot in the history of global geopolitics. Besides the obvious example of Greenland, a territorial possession of the Kingdom of Denmark where 90 percent of the population is ethnic Inuit, there is also the long history the subjugation of the Sámi people of Fenno-Scandinavia by Norwegians, Swedes, Finns, and Russians. These examples involve forms of settler colonialism whereby the indigenous communities came under rule of an occupying, modernising power. When looking at the Far North from the perspective of the Anthropocene epoch, we might also consider the settlement of the previously unpopulated islands of Iceland (c. 870) and the Svalbard Archipelago (c. 1600) as alternative forms of settler colonialism, though one bereft of an indigenous population to assimilate, displace, or annihilate. And, as geographer Elizabeth Johnson reminds us: "The violence of settler colonialism cannot be undone—the land cannot be unsettled" (Johnson et al. 2019, 1325); rather, the foundations of imperialism scaffold subsequent forms of (more-than-)human exploitation.

Consequently, it is relevant to consider the question of neoliberalism in both the context of the Anthropocenic and geopolitical imaginaries of Norden. With Sweden pioneering the model of the People's Home (*folkhemmet*) in the interwar period, the Nordic nations all eventually embraced a social-democratic model that steered a middle path between the laissez-faire free market policies of the Americans and the command-and-control state socialism of the Soviets. Thus, the Nordic approach to the environment avoided both the capitalist exploitation of the natural world (profit at all costs) *and* the Leninist-Stalinist subjugation of nature (advancement of the worker-state at all costs). Combining strong identifications with the countryside and Lutheran ethics of environmental stewardship, the regional approach to territorial exploitation thus established conditions whereby Norden emerged as an ecologically-sustainable region in comparison with the USA and Russia, as well as its more densely-populated neighbours on the continent. That being stated, the slow creep of neoliberalism into the region since the 1970s serves a perpetual issue for Nordic societies, and one which drives the narratives of Nordic noir as a televisual genre, taking a cue from its predecessor Scandinavian crime fiction (see Nestingen and Arvas 2011).

We suggest that the neoliberal threat to national identity and national territory is often one and the same. However, the ways in which the tendrils of global commerce and consumption extend into these imaginaries differ. The analyses of the selected cases demonstrate that representations of land are always intertwined with the imaginations of (national) identities. As indicated above, the equation of nation with landscape follows from the fact that the rise of nations historically coincided with the emergence of natural sciences and related discourses of land exploration, geological survey, and mapping (see Anderson 1991). As shared imaginary constructs rooted in our collective consciousness,

nations depend on an array of cultural fictions of which landscape art is one. To that effect Mitchell seminally argued that landscape “is central to the national imaginary, a part of the daily life that imprints public, collective fantasies on places and scenes” (2002, 27-28). Importantly, another powerful signifier through which nations are established is family: “the collectivities of community, town, and nation have all traditionally defined themselves through reference to that image” (Silverman 1992, 42). Consequently, in what follows, we employ a scalar approach that complements the three geographies (Greenland, Iceland, and arctic Norway) explored herein, focusing on the national territory (*Thin Ice*), the local community (*Trapped*), and the family (*Twin*). We argue that by opening up the affective horror of social collapse in the face of neoliberal globalisation and environmental crisis, these series plumb such fears by challenging and then (partially) re-establishing community-as-family and family-as-nation identity moorings.

## **Televisual Landscapes of the Disturbed “North”**

### ***Thin Ice***

Produced by Yellow Bird for Swedish TV4, the self-styled “environmental thriller” *Thin Ice* (*Tunn is*, 2020-) premiered on a number of public service broadcast channels across the Nordic region in February 2020, also being available on the Nordic streaming services SVT4 Play, NRK.tv, and C-More. The opening scene sets the stage for the series, putting the petroleum industry’s impact on climate change at the forefront of the narrative which takes place in the Danish crown territory of Greenland/Kalaallit Nunaat. The scene features the Swedish minister for foreign affairs, Elsa Engström (Lena Endre), preparing her speech for an Arctic Council meeting in Greenland:



If we pass 2°C degrees of warming, the ice sheet will presumably begin to irreversibly melt. The Greenlandic ice sheet already shrinks 286 gigatons every year. And if it melts completely, global sea level will rise by 7.5 meters. Melting ice water from the Greenlandic ice cap could alter the Gulf Stream, which means drastically lower temperatures in Western Europe, refugee crises, crop failures, civil wars, and possibly a new ice age. (S1, Ep1)<sup>2</sup>

*Thin Ice* represents a paragon of the new direction in Nordic crime drama, with “Arctic noir” carrying on the genre’s societal critique by adapting to political, economic, ethnical, and climate conditions in Europe’s northern reaches. The key characteristic of the Arctic subgenre is the triple premise: the crime plot, the critical societal plot, and the storytelling function of the cinematic landscape (Waade 2020). In the case of *Thin Ice*, the crime plot encompasses a hostage-taking of a Swedish government officer and a young Greenlandic activist, among others. The critical societal plot relates to the warming climate conditions in the greater Arctic region. Such changes dramatically impact local communities and the Inuit culture due to conflicting local-global interests where the (supposedly) democratic system fails to function. The Arctic-specific third premise – the cinematic landscape – features otherworldly vistas defined by endless snow-covered mountains, awesome glaciers, imposing fjords, and the country’s colourful houses – all shown using high-angle cameras and long-shot panoramas (including scenes captured from helicopters, drones, and satellites). The Arctic

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<sup>2</sup> Established in 1996, the Arctic Council consists of Canada, Denmark, Iceland, Finland, Norway, Sweden, US, and Russia, alongside six organisations representing indigenous Arctic peoples; see <https://arctic-council.org/en/about/>.

landscape is not just a backdrop, instead it is elemental to the series' aesthetics, narrative, and its critical societal engagement, particularly at the current historical juncture wherein Greenland is striving to "become a real nation, with a real economy" (S1, Ep3).

[Figure 1. The main characters of *Thin Ice* (from left): the Swedish hostage Viktor (Alexander Karim), the Swedish security officer Liv (Bianca Kronlöf), the Swedish foreign minister Elsa (Lena Endre), and the local Greenlandic policeman Enok (Angunnguaq Larsen). *Thin Ice*, Promotional Image.

©Yellow Bird. Used with permission.]

In its narrative, *Thin Ice* weaves together three plotlines, each being purposefully framed by and situated within the Greenlandic landscape. The first plotline follows a local Greenlandic police officer's collaboration with Danish authorities to solve the hostage case, thus allowing for his indigenous knowledge to focus the viewer's gaze on local colour of the Greenlandic environs. Here, the vastness of the country serves as the perfect hiding place for the hostage-takers, as a small hunters' shack (which may or may not be the villains' hide-out) on an otherwise-deserted peninsula is shown via satellite imagery as the police lament that locating the victim is like "looking for a needle in a haystack" (S1, Ep3). The second plotline focuses on the Arctic Council's use of the remote location of Tasiilaq on the south-eastern coast of Greenland to sign the climate treaty, guaranteeing that the threatened Arctic backdrop will visually feature in any international news coverage.<sup>3</sup> At the same time, the Greenlandic Self-Government

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<sup>3</sup> Much of the principal filming was done in the western Icelandic town of Stykkishólmur, with limited filming was done in Greenland due to high costs and a lack of infrastructure. However, following changes in 2020, Greenland is now poised to benefit from Iceland's film subsidy scheme, with up to 20%

authorities are secretly negotiating with petroleum companies to utilise the country's recently-acquired economic independence to lift Inuit families out of a cycle of suffering defined by unemployment, alcoholism, and cultural and social deprivation, one brought on by a combination of Danish settler-colonialism and environmental changes. Grassroots activists are meanwhile using the media attention to inform the outside world on how climate change threatens Inuit culture, especially the traditional hunting practices dependent on Arctic wildlife. The third plotline consists of three parallel family stories: the Greenlandic policeman Enok Lyngé's (Angunnguaq Larsen) struggle to care for his child while grappling with his wife's alcoholism; a pregnant Swedish security service officer's arrival in Greenland only to find her partner has been taken hostage; and, finally, the Swedish foreign minister's crisis of confidence resulting from the media's accusation that she illegally adopted her two daughters from Ethiopia.

[Figure 2. The Arctic Council meets in Tasiilaq, Greenland to sign a climate contract to restrict oil drilling in the region. *Thin Ice*, S. 1, Ep. 2. ©Yellow Bird. Used with permission.]

The complex narrative-cum-landscape screening in the series underlines the varied, often conflicting interests that are at stake in contemporary Greenland as global heating threatens the lives and livelihoods of the Inuit population, just as the Greenlandic nation seeks to exert its newfound control over the country's oil and mineral wealth.<sup>4</sup> Employing the great territorial expanse of Greenland dotted

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of budgets for Icelandic-filmed projects now being available for on-location shooting in Greenland (Pham 2020).

<sup>4</sup> *Thin Ice* works in the same way as the French-Swedish crime drama *Midnight Sun* (*Midnattssol*, Nice Drama/SVT 2016). Set in another sub-arctic Sweden, the narrative centres on competing ethnic, local, and international interests (Swedish miners, Sami activists, local and French police, and foreign agents in the service of international corporations and governments). As such, both series illustrate how the Arctic

by the modest villages and small houses of the Inuit against the sleek “Western” infrastructure of convention halls and hotel rooms, the series presents a scopic tableau of the indigenous Greenlandic nation against those more powerful nations from abroad (e.g., Danes, Russians, and Americans). Such dynamics are echoed in the soundscape of the series, which showcases the Greenlandic language alongside the colonial tongue Danish (spoken by Danes and Inuit alike), while also featuring English, Swedish, and Russian. Quite poignantly, this sonic topography mirrors the ongoing competition that characterises contemporary Greenlandic geopolitics.

The delicate relations between Denmark (as the imperial power), Greenland (as a colonised land), and the US (as both countries’ security guarantor) are reflected in both the narrative and landscape representation, screening the fact that “indirect, subtle colonial control continues” (Kuokkanen 2017, 48), whether in the form of the Sirius Patrol harassing Greenlanders on the open ice or the “Americans” covert actions from their redoubt at Thule Air Base. Deepening the colonial framework, Danes are portrayed treating Greenlanders in condescending ways, such as dismissing their local expertise or patronisingly complimenting them on their pronunciation of a language that is mandatory in schools. At the same time, we see the official Greenlandic representatives as having lost sight of the needs of their community, forcing individual citizens and local activists to fight for their rights outside the traditional realm of politics. The finale shows the Greenlandic prime minister celebrating the country’s independence thanks to a new partnership with Washington and US corporate investment in Greenland’s oil fields: “Greenland is finally independent.” The

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region is a significant contested and multi-ethnic area in which different cultural, political, and commercial players fight for their right to make use of the territory (see Waade 2020).

irony is obvious: a partnership with the Americans does not portend national liberation, but rather the initiation of a new, but still uneven set of power relations, or in the disingenuous words of the US envoy: “Arctic cooperation at its finest” (S1, Ep8). Coming in the wake of former US President Donald Trump’s offer to “buy” Greenland, *Thin Ice*’s coda augurs even more disturbing ecologies in the High North as climate challenges are balanced with the legacy of colonisation and neoliberal forms of subjugation-by-other-means. The final scene takes place on the ice shelf as foreign miners initiate drilling, quietly grumbling about the dead huskies they found in the nearby waters; referring to the young Greenlanders in the frame: “Animals. Savages” (S1, Ep8).<sup>5</sup>

The series’ visual aesthetic trades in panoramas of endless, desolate spaces, enormous mountain formations, and city-sized glaciers, all placed in contrast to the comparatively minuscule human body, snowmobile, or helicopter moving across the milky wilderness. In its vastness, Greenlandic topography presents a challenge to the (human) eye, and thus renders somewhat inert the staid definition of landscape as ‘that portion of the earth’s surface the can be comprehended at a glance’ (Jackson 1984, 8). Reflecting on our aims of interrogating the use of “land-shapes” as elemental to ongoing processes of national identity articulation, it is obvious that the arctic landscape plays a pivotal role in the series: it represents crucial natural resources and a space of colonial power; the land is also essential to the Inuit people’s culture and heritage and serves as a signifier of local knowledge and traditional practices of hunting and transport.<sup>6</sup> More broadly, Greenland’s vistas – when interspliced with scenes

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<sup>5</sup> It is unclear if the sled dogs were culled due to infection from new climate-triggered viruses or their lack of value due to changing economics and geographic conditions.

<sup>6</sup> Following MacKenzie and Stenport’s (2015) distinction between Arctic films representing viewpoints from outside or inside the Arctic region, it is clear that *Thin Ice* – in contrast to the aforementioned UK-based Arctic crime series *Fortitude* – includes distinct Greenlandic voices, despite being produced by a Swedish company and shot mostly in Iceland.

showing the eight nations of the Arctic Council – come to function as a synecdoche of the hotly-contested circumpolar region, a geopolitical realm that is being redefined by ever-warmer temperatures. Moving on to the Anthropocenic imaginary, the concept presents in the title itself: *Thin Ice*, an expression indicating that we (as a species) are on uncertain footing, liable to be swallowed up by what lies under our feet (particularly in times of global heating). Framed by torrents of unseasonable glacial meltwater, the series critiques politicians' hubris in making decisions about natural resources with little regard for future consequences. The Anthropocenic imaginary further manifests concretely in the question of hydrocarbon exploitation in Greenland, underscored by the Swedish foreign minister's description of "the horrors the oil industry always and everywhere entails" (S1, Ep6).

Along with ice and snow, another recurring motif in the series is fire. Fire is the core element in the concept of the new geological epoch since as Glikson notes: "The Anthropocene and subsequently the 6th mass extinction of species hinges on the mastery of fire and thereby the magnification of energy output and entropy in nature over which, in the long term, the species has no control" (2013, 89). Humanity's geopolitical culture of combustion, or what Dalby (2018) calls global "firepower," has far-reaching consequences for greenhouse gases and the melting of the polar icecaps, committing the atmosphere to a warming trend that will eventually produce the catastrophic outcomes referenced in the opening scenes of the series. We see fire on ice in the title sequence, a great bonfire in the snow, and the dramatic explosion of the primary communications mast linking Greenland with the rest of the world. Ice on fire is a strong image, an oxymoron that frames the current climate crisis in ways that evoke supernatural, even Gothic elements (Agger 2021), having been used in George R.R. Martin's fantasy series

*A Song of Ice and Fire* (2011) and the environmental documentary *Ice on Fire* (2019) alike. In *Thin Ice*, fire is used as a visual concept that warns of threats to the territory of Greenland, its people, and the globe as a whole.

[Figure 3. Fire on Ice: The main communication tower explodes in flames.

*Thin Ice*, S. 1, Ep. 2. ©Yellow Bird. Used with permission.]

*Thin Ice* points out the different political viewpoints and conflicting interests that are at stake when looking at the Arctic region, and not least the conditions for the Indigenous communities of Greenland. In its representation of the contested geopolitics of the High North, climate change is but one of several concerns; economic independence, sustenance of Inuit traditions and culture, and negotiating the colonial past also feature in the series' imagery. Textually and visually, the series gives voice to the Greenlandic community, although without providing answers to the country's challenging conditions. From a production perspective, it is interesting that the series is Swedish, not Danish. Given sensitivities over the Danish treatment of the Inuit communities in Greenland, the series resolution – which reveals a Danish policewoman as the mastermind behind the hostage-taking and a situation only made worse by a cowardly Danish foreign minister – speaks to the lingering wounds of imperialism in Greenland – scars that are becoming increasingly visible across the giant island's unique ecologies.

### ***Trapped***

The themes of landscape, national identity, community, and family resonate strongly with the Icelandic television drama *Trapped* (Ófærð, RVK Studios, 2015-present). Two internationally-successful ten-episode series have been released

thus far, with the third series in production. Sharing distinct traits with Nordic noir's most prominent examples, *Trapped*, however, is a "noir with a polar twist" with "the kind of nature that inspires cathedrals, dwarfs human beings ... the kind of nature that humans cannot take on and win" (Bramley 2016). *The Guardian* critic Sam Wollaston (2016) even positions the series as consummately Icelandic, noting that "the beauty is different – it's more about nature: grand, scooped-out glacial valleys, icy fjords, a volcanic land that is alive and dangerous." Setting *Trapped* apart from the rest of the oeuvre, these reviews bring into relief the series' emphatic reliance on the Icelandic nation's "poetic understanding(s) of itself" as a unique breed of people nurtured by the tremendous power of nature all around them (Saunders 2020, 88), and informed by the mythological and historic Viking ideals forged in hardship, resilience, and self-sufficiency (Loftsdóttir 2010, 2014). In both series, *Trapped* explicitly engages with the topic of Icelandic authenticity "portrayed as submerged and in need of recovery" in the wake of the 2008-2009 global economic crisis (Gregiorek 2020, 78), which brought about the erosion of the welfare state and unsettled Icelanders' faith in the cohesion of community (*samfélag*). Thus, *Trapped* screens Davidson's notion that the combination of frigid climate and desolate landscapes underpins the ideal of Northern purity of a world where culture is frozen in time and where people are bound together by strong relationships and common interests; as he states: "Against the northern winter, the only antidote is society, interconnectedness with others" (2005, 68).

*Trapped* capitalises on the notions of social mutuality and tradition by setting the story in an unnamed coastal town where people honour family histories, and retain contact with the land and sea through farming, fishing, and



manual labour.<sup>7</sup> To stress the Icelanders' dependency on nature's savage forces, the series' creator Baltasar Kormákur claims that he "wanted to remind the audience that we are on the outskirts of the inhabitable world. The weather is one of the ruling factors in Iceland – so I made it a pivotal character" (qtd. in Seymour 2016). The series is consistent in conveying this sense of isolation while regaling viewers with spectacular images of the Arctic sublime (Egilsson 2020), a fact recurringly framed by the opening credits which artistically splice Icelandic vistas with extreme close-ups of dead bodies. In the opening scene of the series, a motorbike speeding down a narrow, deserted road is flanked by ragged mountains, frothing streams, and pools of dark icy water, edging towards an assemblage of colourful houses in the distance. Later in the episode, the peaceful, everyday existence of the close-knit community becomes suddenly disrupted when a human torso is discovered floating in the harbour, just as a ferry arrives from Copenhagen. Before the investigation can properly start a heavy blizzard seals the town off from the outer world. With the ferry trapped in the fjord, the dwellings caved in from the snowfall, the roads blocked, and helicopters unable to fly due to high winds, the killer is necessarily "trapped" in the town like everyone else. As the narrative tension mounts, an avalanche (which, significantly, is triggered by a human interloper) kills another person and a reindeer. Although not directly related to the narrative, the appalling view of a dead animal again emphasises that life, both of humans and animals, is always exposed to the deadly and largely unbeatable powers of the Icelandic climate and its treacherous geographies. As the scenes of snow blowing through barren landscapes multiply, the police team led by Andri Ólafsson (Ólafur Darri Ólafsson) struggles to

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<sup>7</sup> The series was shot over six months in Seyðisfjörður, a tiny coastal fishing village with a population of just 1,000.

untangle a tight knot of criminal activities which feed into the Icelanders' collectively-inculcated fears of outsiders in general, and foreigners in particular (see Jakobsdóttir 2011). In its resolution, the narrative reveals that despite a host of red herrings associated with external threats (Danish, eastern European, Chinese, etc.), the village's malevolence germinated from seeds that were sown by the locals themselves in their rush to make a profit and the subsequent financial collapse of the mid-2000s (Saunders 2020). In condemning the culprits' self-serving, individualistic path, *Trapped* problematises the reified "notion that Icelanders have specific intrinsic, natural characteristics" (Loftsdóttir 2010, 9) informed by extreme weather conditions and marked by communal transparency and support in the face of corruptive intrusions of the globalised world.

In the second series, the received ideal of Icelandic identity as attuned to internal solidarity (owing to its geographic and climatological conditions) is explicitly problematised in the larger context of national neoliberal policies, new right extremism, immigration, and homophobia. What makes it particularly interesting for this chapter though is the explicit environmental preoccupation serving as the background to crime, therein embedding landscape deeply within the frame of the narrative (see Roberts 2016). Detective Ólafsson is now working in Reykjavík when a shocking self-immolating assassination attempt on an MP leads him back to his hometown to discover it tangled in vendettas, and divided by the mayor's plan to expand the geothermal power plant and build a new aluminium smelting facility with foreign investment. When, in the first episode, Ólafsson is asked of the unfolding situation: "Does this concern politics, or is this a family affair?" viewers are already aware that in the Icelandic society the two are never separated. And while the web of dark family secrets is being unveiled, the death toll rises, escalating from an upsetting mass cull of livestock and a

police dog mortally injured in the line of duty to two brutal murders linked to the plant.

[Figure 4. Farmers protesting in front of the city hall. *Trapped*, S.2, Ep.1.

RÚV/RVK Studios. Used with permission.]

Gradually, the Arctic sublime of the first season gives way to the images of what Eva Horn (2019) calls the “Anthropocene sublime,” redefining the aesthetics of the sublime in relation to the destruction of the new geological epoch named for humanity’s imprint on the planet. Here, Jackson’s assertion that any landscape is a space that is ‘deliberately created to speed up or slow down the process of nature’ (1984, 8) takes on a particularly profound meaning in the context of our troubled times. Bereft of the stormy whiteout of winter, the majestic views of fjords, moors, and mountains, complemented by a solitary raven flying above, put on display the devastation people have inflicted not only on themselves, but also on the environment and its more-than-human inhabitants. Even in clement summer weather, the landscape is constantly being shaken by lurching mini-quakes triggered by industrial drilling, while sheep continue dying from what the farmers believe to be poisonous gasses released by the plant. When a fugitive member of a nationalist-extremist organisation named Hammer of Thor is apprehended, weak and sick in the mountains, and a flock of dead birds are found in the vicinity, everything suggests water contamination. Further, an apocalyptic scene of sorts depicts a remote lakeshore choked with dead fish after which a ban of drinking water is put in place making tension rise in the community.

[Figure 5. Dead fish in the lake and on the lakeshore. *Trapped*, S.2, Ep.7.

RÚV/RVK Studios. Used with permission.]

Unable to explain the tragic events, most people are inclined to believe a local elder who explains the predicament is a curse caused by building on enchanted rock some two generations ago. Yet, in the end, it is not supernatural powers of faerie-folk (*huldufólk*) that has brought about the disaster, but the barrels of toxic waste dumped in a crevasse on the heath poisoning a nearby lake. With the collective solace in the incorruptibility of the thousands-of-years-old volcanic waters taken away, the heap of rusty, leaking barrels against the stunning mountain background signifies that the cherished image of Icelandic pastoral landscape has been suppressed by a new and horrifying one of the Anthropocene sublime. Thus, *Trapped* presents an ecological disaster as an adjunct to human depravity and violence, holding up a mirror to ongoing abuses of that which sustains us, the lands. The damage inflicted upon the environment becomes symbiotically connected to corporate consumption, human irresponsibility, and the morally-fraught social milieu of the community. With the Arctic idyll besmirched and under threat of total destruction, the family, as a symbol of the nation, is equally and irreparably corrupted.

[Figure 6. Barrels of toxic waste hidden in a crevasse. *Trapped*, S.2, Ep.9.

RÚV/RVK Studios. Used with permission.]

### *Twin*

Whereas *Thin Ice* is a septentrional paragon of the geopolitical thriller, and *Trapped* serves as the epitome of the Arctic police procedural, *Twin* is a more

straightforward family drama, albeit one which depicts several crimes. Written and directed by Kristoffer Metcalfe and starring *Game of Thrones* actor Kristofer Hivju as two twins, Erik and Adam, *Twin* aired on the Norwegian public service broadcaster in October 2019.<sup>8</sup> International distribution deals currently include BBC 4 (UK), MHz Choice (USA), SBS (Australia), and ARD (Germany), as well as 40 other countries. The prologue features the Oslo-born brothers discovering a surfing mecca above the Arctic Circle on the Lofoten Peninsula. As one review portrays the opening scene, the series begins with the twins driving their “battered caravan over a hill, whose dramatic black granite cliffs suddenly give way to a bay, with a sandy beach, the sea boiling with white water” (Hopewell 2019). Some fifteen years on, Erik is still living in the derelict caravan and running a failing surf-rental business out of a cargo container. Conversely, Adam has married into the Williksen family, who dominate the increasingly prosperous tourist trade in Sakrisøy. Adam’s new brood roughly parallels the real-life Gylseths, whose seafood restaurant and fisherman cabins (*rorbuer*) define the tiny island, which is crossed by the E10, the roadway that connects the peninsula to Sweden and lower Norway.

[Figure 7. A picturesque Sakrisøy flanked by snow-covered mountains.

*Twin*, S.1, Ep.2. ©Nordisk Film Production. Used with permission.]

By the end of the first episode, the two brothers – who have been estranged for years – are pushed together by a crisis. Unable to make payments on a loan, Erik has his caravan confiscated as collateral, sets out to “steal” it back,

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<sup>8</sup> No family name is ever given for the two brothers, thus providing a mythological element to the narrative, and one somewhat reminiscent of a Biblical parable.

and in the process runs off the road careening into a fjord. Unwitnessed, he swims ashore and visits his brother seeking aid, only to be met with hostility. As the two men quarrel on the deck of one of the family boats, Adam's wife Ingrid Williksen (Rebekka Nystabakk) intervenes, accidentally knocking her husband unconscious. Hoping to avoid scandal, Erik flees with his catatonic brother on board of the small craft, later losing him to the sea in a violent storm. When the body is discovered, Ingrid and Erik conspire to keep Adam's death a secret by having the surf bum impersonate his entrepreneurial twin. A police investigation ensues, but Erik finds it more difficult to manage the demands of family life and his role as a hotelier, excursion guide, and the "face" of tourism in Arctic Norway.<sup>9</sup> Indeed, the frictions generated by this fiction reach a peak in Episode 6 when a team from the British daily newspaper *The Guardian* visits Sakrisøy for a profile on Adam and Ingrid, as their homespun resort has been ranked the top destination for the coming year. Here we see a mirroring of *National Geographic*'s declaring of nearby Uttakleiv Beach "the most romantic in the world" in 2005; yet, this "archetypical blessing that turn[ed] into a curse," inevitably leading to massive over-tourism in the area with 250,000 summertime visitors flocking to a village of a dozen people, resulting in environmental degradation, sanitary issues, and garbage-strewn coastlines (Becker 2018).

While its creators frame *Twin* as a "Western" identity-switch set in northern Norway rather than the American frontier, we examine the series from the perspective of the Anthropocene imaginary. In doing so, we focus on *Twin*'s

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<sup>9</sup> Adam and Ingrid have two children, a perpetually disgruntled teen-aged daughter who may or may not be Erik's biological offspring (a flashback reveals a night of drunken lovemaking between Erik posing as Adam that coincides with her pregnancy), and a much younger adopted son who exhibits developmental disorders. To complicate the situation, Adam was engaged in a homosexual affair with one of the resort's employees, something unknown to Erik but suspected by Ingrid.

highlighting of the irony of seeking out of “authentic experiences...beyond the realm of capitalist modernity” in ecologically-fragile places made accessible only by an embrace of colonial-neoliberal structures (Mostafanezhad and Norum 2019, 426). As referenced above, *Twin* begins with two young men arriving from the capital to “claim” a sandy Nordland beach as “theirs.” Despite their hippie-esque groundings, the twins reprise countless annexations – formal or otherwise – of Nordic conquerors that go back to Viking Age (in keeping with the previous-referenced blind spot of Nordic imperialism, there is no reference made at any point to the Sámi people who call the region home). Not insignificantly, in the claiming of the surfing cove in the first scene, we see a twenty-first-century performance of the “Viking spirit,” given the etymology of “Viking” is postulated to derive from the Old Norse *vík* (‘fjord’, ‘small bay’, or ‘inlet’) and the suffix -*ing* connotes “belonging” to a place (see Holman 2003, 277).

By choosing to situate *Twin* within the framework of the “Arctic western,” but with hints of Nordic noir through a “killing within the family” (see Hiltunen 2020), the series taps into both the freedom of the (northern) frontier, while also including themes of captivity so often associated with such a sublime geography. As Metcalfe comments: “I really hope Lofoten will work in an emotional way for the audience, helping it to feel the dramatic inner life of the characters. For me the mountains and the weather constantly create a feeling of imprisonment” (qtd. in Hopewell 2019). In keeping with its “Western” narrative framework, the “white hat” brother, Adam, cements his authority over the septentrional Shangri-La by taking a local wife whose family holds the keys to the locale’s economic development. As a southerner from the capital, we are to assume that his metropolitan canniness is the key to Lofoten’s success in attracting a booming

trade in tourists seeking bourgeois comforts in retro-fitted nineteenth-century fishers' quarters.

Conversely, the “black hat” brother, Erik, wallows in inaction, becoming a human bit of polluting detritus on the shores of the Cap of the North. Throughout the series, there are screenings of Erik’s presence cheapening the sublime landscape both “as trash” and a maker of trash (particularly in a scene showing a rusted, ruined caravan hauled from the fjord). Towards the end of the series (which features numerous car trips around the region that allow for extensive landscape depictions), Erik the imposter grows tired of maintaining the image of his outwardly upstanding brother, and returns to the site of their original colonisation of the North. Here we see him squatting in a cargo container framed by precipitous granite peaks, clinging to his meagre identity as the “first man” to exploit what may be the most northerly surf destination on the planet. His homecoming is, however, cut short when his hitherto-girlfriend Mary (Nanna Blondell) – a woman of colour from Sweden – evicts him from his coastal homestead and throws out all his (i.e., Erik’s) worldly possessions. As she informs him, she has decided to finally develop the stretch of beach into a proper (read profit-making) enterprise.

[Figure 8. Erik/Adam being evicted from “his” beach. *Twin*, S.1, Ep.7.]

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Unlike the twin’s colonial approach, Mary’s new project profits on the “tourism frontier making process” by combining imaginaries of “new land” to attract and satisfy the consumptive urges of “the global bourgeois class” (Mostafanezhad and Norum 2019, 427). Recalling Erik’s past, Mary tells the man



whom she thinks is his twin brother: “This is where he woke up every morning. He must have felt like royalty. Feels like the edge of the world, right?” Her plans for the strand are less imperial, and more neoliberal and global-facing, including “Arctic yoga” classes and a “silent retreat” led by a guru to be flown in from Bali. All Erik is left with is an old surfboard and a faded photo of him and his brother backgrounded by an endless ocean seascape; such a vestigial reminder of a “lost world” rhymes with the (screened) colonial ephemera of meridional empires of yesteryear such as that of *The Man Who Would Be King* (1975) or *Out of Africa* (1985). The series closes with Adam/Erik estranged from both “families” (the Williksens and his partnership with Mary), cast aside in a North that no longer needs or wants him.

While nowhere near as popular as *Game of Thrones* (also starring Hivju), *Twin* – through its choice of setting – creates a paradox, in that it narratively and visually pays reverence to the High North, while simultaneously encourages tourism to places of ecological precarity (in the case of *GoT* it is Iceland). Featuring an extended family of touristic entrepreneurs, a fictive *Guardian* commendation of Lofoten as the world’s top destination, and visually defined by its unique setting and alluring landscape representations, the series itself is a powerful advertisement for visiting Lofoten, and one that builds on other forms of place-branding of arctic Norway. But such visits are problematic, given the fragile state of the environment above the Arctic Circle. Promulgated in 1274 by King Magnus VI, Norway embraces the “right to roam”, a legal loophole that allows the free movement of people in any “uninhabited area” of Norway. Meant to promote settlement and agricultural development in earlier times, the result is increasingly unfettered touristic exploitation/abuse of ecologically-sensitive north of the country, which in Lofoten has included everything from destruction of

wildlife habitats to mountain streams being polluted with human defecation (Becker 2018). Not insignificantly, such “democratic” colonisation of space girds the aforementioned “annexation” of the beach by the twins 15 years before, while also serving to validate centuries of displacement of the nomadic Sámi by Norwegians from the south.

Returning to the imbrication of the series’ narrative and the everyday realities of Lofoten, while most locals lament the throngs of sightseers, whose spending pales in comparison to the fishing revenues, the two industries are connected by iconic vistas of Sakrisøy – the key human-nature contact point of the series – just as they both profit off the “free gifts of nature” and the “violent processes” that turn them into marketable commodities (Mostafanezhad and Norum 2019, 428). According to the town’s website, the island has long served as a node of contact with the larger world: “From a very early stage, the market was far away from little Sakrisøy, cod heads were dried and exported to the Nigerian market and whole round dried fish to Italy” (Sakrisøy 2020), therein reminding us of landscape as a tool for meaningfully emplacing the (local) environment within a larger world system (see Jackson 1984). Today, however, it is the consumption of the landscape that is putting the spot on the map, a fact underlined by NRK’s choice to film a tourism-inflected crime drama in Lofoten. Yet, seen from the larger perspective of Norwegian national identity, *Twin*’s screening of the iconic cliffs, fjords, and beaches of the country’s far north serves a purpose, one vested in the current trend towards nation branding as a profitable form of statecraft and postmodern national-identity production (see Gienow-Hecht 2020). However, *Twin*’s touristic imaginary of the pristine North is complicated by real-world mediaeval inclinations towards land exploitation that now abet neoliberal extraction of value from nearly every place on the planet’s surface. And like

*National Geographic*'s 2005 profile of Uttakleiv, the international broadcasting of *Twin* is almost guaranteed to attract more visitors to the Arctic reaches of Nordland, and in doing so, only promises to disturb further the fragile ecologies that the series is at pains to showcase.

## **Conclusion**

In their conscious and meticulous engagement with landscape, Nordic serial narratives create a productive space for long-form storytelling about the unique manifestations of ecological calamity in northern Europe and beyond. From a conceptual perspective, television dramas with their six-to-ten-hour series lengths provide ample opportunities to showcase landscapes, therein being a space where the landscape functions both as a 'picture of a view', while overtime becoming a *view* in and of itself (see Jackson 1984). In its evocative use of the fire and ice within and across Greenlandic landscapes, *Thin Ice* screens cultural, political, and economic interests by imbricating criminal acts within complicated power relations that bind together the Indigenous government, the colonial power Denmark, a trans-Arctic political framework, non-governmental organisations and climate activists, and the global hydrocarbon industry. *Trapped*'s Icelandic scenery – from white-out conditions to a bay of poisoned fish – functions as an awe-inspiring force that reminds the denizens of the High North that – without the bonds of community – there is no hope against the unforgiving elements. And *Twin* uses the pristine Arctic coast of northern Norway to frame a family drama which lays bare the colonial past and contemporary value-extractive relationship between those who live in the North and the bounty of nature, particularly in an era of global tourism.

Drawing on Nordic Europe's rich history of landscape representation, we have argued that each of these series makes use of Anthropocene imaginaries to comment on national identities in flux as we move deeper into the new geological epoch. Our cases examined representations of disturbed (albeit sometimes sublime) ecologies at different scales, from the great expanse of Greenland's ice sheet, to a polluted crevasse outside an Icelandic village, to a surfer's cove in Norway's Lofoten region. In keeping with the aims of this volume, we have likewise endeavoured to unpack the consequences of undifferentiated human activity in each series, from the global oil industry's "firepower," to insular Icelanders' avarice, to two Oslo twins' white-male entitlement over "their beach." In each series, we identified the looming threat of social collapse under the stress of global capitalism and environmental crisis; however, in their respective resolutions, *Thin Ice*, *Trapped*, and *Twin* all offer succour by re-establishing Nordic traditions of the community-as-family and the family-as-nation (though laced with baleful caveats in the well-established tradition of noir narratives). Taken collectively, these series reflect Nordic television's commitment to meaningful engagement with the landscape as a marker of national identity/identities, steadily shifting High North landscape depictions from the Arctic sublime to the Anthropocene sublime. However, from the standpoint of the more-than-human, these endings offer little hope for the future, leaving us with the forlorn acceptance that despite the "good Anthropocene" offered up by Nordic enthusiasts, the North is suffering – just like the rest of the planet. Given the growing power of serial television drama to shape audience's worldviews, particularly with regards to perceptions of complex issues like climate change (Saunders 2020), landscape-centric productions such as *Thin Ice*, *Trapped*, and *Twin* represent an important force in contemporary visual culture's engagement

with geopolitics in the era of environmental crisis, even when the story is not a pretty one.

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**Thale Sørli. The future made present: Photographs of climate change victims in the Norwegian newspaper *Arbeiderbladet* 1948 – 2006**

In “The Clash of Visualizations” from 2011, Nicholas Mirzoeff states that “Perhaps the single most powerful icon of climate change has been the image of the polar bear hovering on an apparently melting ice floe. If we see a polar bear poised on the edge of a small piece of floating ice, we make the anthropomorphic identification with the bear and fear being forced into the icy water” (Mirzoeff 2011: 1190). The image was printed on the cover of the April edition of *Time* in 2006. The bear became a symbol not only of humanity, but of the entire global ecosystem (Born 2019: 649-650). The title and the introduction enhanced this: “Be worried. Be very worried. Climate change isn’t some vague future problem – it’s already damaging the planet at an alarming pace. Here’s how it affects you, your kids and their kids as well” (Special Report: Global Warming 2006).

With the cover of *Time* in 2006 as a peak, polar bears have for many become *the* image of climate change and its victims. The focus on polar bears has, however, been criticized, as it is claimed to be both a “tired and hackneyed icon” (O’Neill 2019: 18) and an icon with colonial aspects, excluding indigenous perspectives (Tam et al. 2021: 4-5). It is argued, therefore, that the representation of climate change victims has a central role in the photographic conceptualisation of climate change, and that it is important to gain knowledge about the former in order to enhance our understanding of the photographs in themselves, and because such images shape our agency in facing climate change (Boykoff 2011: 2, 15-19; O’Neill 2013). Focusing on the Norwegian newspaper *Arbeiderbladet*, I investigate how victims of climate change have been portrayed photographically in this particular publication, negotiating between depictions of events in the

present and imaginations of an expected future. My analysis spans from the first mention of climate change in the newspaper after World War II in 1948 until 2006, just ahead of the 4<sup>th</sup> IPCC-report. From 1948 to 2006, climate change is mentioned on 1023 days accompanied by 1650 photographs in *Arbeiderbladet*. Not one shows a polar bear on an ice floe. This corresponds with previous research showing that the use of polar bears is not universal and that, paradoxically, photographs of polar bears have seldom been used in climate change communication in the Arctic countries. As “silence and absence are often as telling as words” (Tam et al. 2021: 3), it is interesting to investigate this gap between the dominating icon of climate change and the photographs of victims in *Arbeiderbladet*.

As I show in this chapter, the photographs of victims mainly depict humans or human activities. I state that the photographs by and large encompass two connected dynamics. On the one hand, as Julie Doyle and others have underlined, photographs work as evidence of climate change, giving it reality and presence; thereby negotiating past, present, and future (Doyle 2009; and Doyle 2011: 42-45, 48-53). I follow her analysis, but rather than describing them as evidence I claim that the photographs of victims act as testimonies. They are simultaneously testimonies of something that has occurred and something that will occur in the future. I further claim that these testimonies of present and future events can be understood as idealistic, in Platonic terms, in that examples of climate change are given visual reality, even though they are not actually photographs of what was present in front of the camera, but of the yet-to-happen.

## **The pile and the close-up**

The study is limited to the Norwegian daily newspaper *Arbeiderbladet* (*Dagsavisen* from 1998). Today *Arbeiderbladet/Dagsavisen* defines itself as independent with a regional focus on the Norwegian capital Oslo. It was, however, owned by the Labour movement from 1894 until 1991. The editor was elected at the Labour Party convention until 1975 and played a central part in the party, with significant political power (Flo 2010: 78). Rune Slagstad calls the period from 1945 to the 1960s *Arbeiderpartistaten*, the State of the Labour Party, and *Arbeiderbladet* was the place where new policies were presented (Slagstad 2001: 223-428). Even though the formal link was gradually broken from 1975 onwards, it has remained closely connected to the Labour Party and the Labour movement. This central position in Norwegian politics in the postwar years makes *Arbeiderbladet* particularly interesting to investigate even though it was the so called “number two” paper in the Oslo area between 1948 and 2006, having a significantly lower circulation than the competitor, the conservative newspaper *Aftenposten*.

The material analysed in this chapter is extracted from the collections of the National Library of Norway through their research engine [www.nb.no](http://www.nb.no). Using the keyword klima [climate] I have included editorials, letters to the editor, articles, and paragraphs where terms such as climate, climate change, and climate treaty are mentioned. Advertisements are not included. This has resulted in a large but manageable quantity of material. It would have been interesting to supplement this search with terms such as ‘global warming’, ‘greenhouse’ etc. As “there is a lack of work investigating how the visual discourse has evolved over long periods” (O’Neill 2019: 12), I have chosen to limit the key words in order to maintain a manageable diachronic analysis. The term klima is used in a wide

range of cases, including weather, political climate, climate in art or sports, to mention a few. The materials have therefore been manually sorted, keeping only those referring to climate change accompanied by photographs. As O'Neill underlines, "[t]he difficulty and time-consuming nature of constructing a rigorous and reliable visual data archive is a major reason why visual analysis is rarely undertaken" (2019: 13). Studies of the Norwegian press have an advantage here. The Norwegian National Library has digitalized Norwegian newspapers for several years and their database benefits visual studies such as mine.

*Arbeiderbladet* is to a large extent, but not completely, digitized. In total 17 294 issues have been accessed and this study has identified 1023 issues of the paper that mention climate change, accompanied by 1650 photographs. The results must be understood as indications, not absolute answers. For example, the OCR-reading included in the search engine is not perfect and I have not cross-checked it manually. Thus, there may be stories that have escaped my results. Added to this, for some editions, especially in the 1970s, only a few months are digitized. Despite this, the material gives an overview of the photographic coverage of climate change corresponding with previous research of Norwegian media (Dalen 2020; Martiniussen 2013; Anker 2018).

The chapter follows a twofold structure. First, the images are presented based on quantitative visual content analysis. The focus is not solely on the image, but following Kress and Leeuwen, the entire message created in coproduction with the text (Leeuwen and Kress 2020). The categories have been formulated based on an overview of the entire corpus as well as previous research of photographic coverage of climate change (Duan, Zwickle, and Takahashi 2017: 347; cf. DiFrancesco and Young 2011; O'Neill 2013, 2019). Given the rather long time span of the analysis, as well as the breadth of the material which also

includes articles just mentioning climate change in connection with other subjects, it has been useful to construct quite wide categories to catch overall tendencies throughout the nearly 60 year period. At the same time, a specificity in the categorisation was needed to uncover trends and important functions of the photographs. Four main categories of victims were formulated – Humans, Nature, Cultural landscape and The Planet.

Second, I take a closer look at a few selected stories and photographs using qualitative analysis. As O'Neill points out:

While content analysis can be used to investigate the 'loudness', or quantity, of visual images in newspapers, it does not explore either the composition of particular images; nor can it place images or image types within a broader discourse. This is a non-trivial problem, as an increased quantity of particular imagery does not necessarily translate to greater significance (2013: 13).

As the polar bear on the cover of Time indicates, this is particularly important in relation to photographs of climate change. It is not necessarily the most reproduced images that have the largest emotional power or ability to shape our perceptions. That said, this does not imply that our perceptions are only shaped by such icons. Rather, our ability to comprehend climate change photographically is shaped by a combination of multiple factors. In this chapter I combine a quantitative analysis of images with an attempt to understand what they are doing as photographic conceptualisations of climate change, selecting several images for qualitative analysis from the 373 photographs used to depict victims of climate change. I claim that the way in which photographs work as conceptual

metaphors is profoundly connected with what Peter Osborne describes as “the meaning-effect of ‘the real’” (Osborne 2003: 6). I identify a twofold movement where the photographs of climate change victims work both as indexical testimonies and as models that serve to make the future present. As O’Neill highlights, there is a lack of diachronic studies of photography and climate change, and her study from 2019 is seen as the first longitudinal analysis of photographic coverage of climate change investigating the period from 2000 to 2010 (2019: 12). The following analysis of *Arbeiderbladet* supplements and expands this. It argues that there is a steadfastness in the photographic conceptualization of climate change and its victims over a timespan of nearly 60 years in this publication, through several fundamental conceptual and institutional alternations to the phenomenon of climate change.

### **Emerging victims**

Victims of climate change are present in *Arbeiderbladet*’s coverage of climate change from the very beginning of this study, in the period after WW2. It is important to emphasize that the conceptualization of the phenomenon in the 1940s, 1950s and 1960s was significantly different from our present understanding. Until around 1970 climate change was mainly understood as a natural phenomenon causing mostly positive alterations in the Northern hemisphere (Sørli 2020; Dalen 2020; Weart 2008). This is fundamental for the framing of victims.

[Figure 1. *Arbeiderbladet* August 17<sup>th</sup>, 1951]



For instance, on the August 17<sup>th</sup>, 1951 *Arbeiderbladet* described large amounts of rain in the Oslo-area and connected this unusual weather to a warmer climate. Even though the article describes damages caused by the rain, the overall impression is optimistic with the author underlining that as all the deposits for the hydropower plants are full, electricity for the winter is secured. The article is followed by a photograph of a man cycling in large amounts of water. The photograph and the accompanying caption contribute to the optimistic tone, making it a comical snapshot from everyday life in the city. The victims are then not really victims. It is more like they are passers-by, or hapless but unavoidable victims of a natural process beyond human control and responsibility but generally considered to be benign.

From around 1970 uncertainty spread in the columns of *Arbeiderbladet* as well as in other Norwegian newspapers (Sørli 2020: 77-79; Dalen 2020: 41). Conceptualizations of climate change as caused by particular kinds of human activity slowly emerged, foremost as changes on a local basis. This affected the conceptualization of the victims. Foremost, their predicament was now considered to be the consequence of human actions rather than unavoidable transformations, meaning that what they experienced was determined by political issues and decisions. These changes were, however, understood as local changes in weather, without global consequences, affecting local victims such as the Sami settlement of Masi in Northern Norway (*Arbeiderbladet* 1985, 1982).

While other articles pointed towards a global conception of those affected by climate change, this did not, however, encompass all of humanity. For instance, the article “En katastrofe skapt av mennesker” [A man-made catastrophe] from 20<sup>th</sup> of September 1982 mentioned that the Himalayas had undergone climate change in the last 30-40 years. This was treated as a local

phenomenon as the climate in this region was changing, not the global mean temperature. The floods described in the article had local victims, even though the destruction of farmland in the Ganges Valley was believed to have become the largest environmental catastrophe humankind had experienced (Gimmestad 1982).

In Norway as well as internationally, the character of coverage changed in 1988. Now the photographs and their captions contributed to the anchoring of climate change and its victims in the present and as a global phenomenon. For instance, *Arbeiderbladet* on January 14<sup>th</sup>, 1989 published a photograph of people standing in water with the caption “Flood in Bangladesh: Catastrophic floods have in recent years affected millions of people in Bangladesh. The main cause of the catastrophe is situated in Nepal and India” (Sagflaat 1989: 15).

[Figure 2. *Arbeiderbladet*, January 14<sup>th</sup>, 1989 ]

In the article, the reporter Erik Sagflaat described how deforestation causes local as well as global change in climate with floods as an effect. Even though this group of victims were to some extent situated in the present, there persisted a recurring theme that the consequences of climate change were mainly something for the future and that people in the Global South would be its principal victims. The focus on the future is also a feature of articles describing how people in the Global North might be affected by bad weather or an increased cancer risk, how new species were arriving in Norway and possibly changing the fauna, or how the planet itself might suffocate or burn if actions were not taken.

While in the early 1990s, those portrayed as directly affected were all living in the Global South, by the end of the 1990s, Europe, Norway and other regions of the Global North, were presented as facing the emerging consequences

of climate change such as heat waves and floods. One example is *Arbeiderbladet* on January 10<sup>th</sup>, 1996, where people exhausted by the heat in Japan and Paris are shown relaxing or sleeping in parks to illustrate how the earth is getting hotter toward the year 2000 (Mauno 1996). Climate change was becoming something happening here and now, not something purely for the future.

[Figure. 3 *Arbeiderbladet*, January 10<sup>th</sup>, 1996 / March 29<sup>th</sup>, 1995]

As climate change became increasingly evident in the present, a new group of victims entered the columns of *Arbeiderbladet*, climate refugees. For instance, on March 29<sup>th</sup>, 1995, the readers encountered Terje, Emma and Sonja Dahl in their new home in Oslo, giving climate change refugees a face through their portrait (Almendingen 1995) (I will return to this particular article in fuller depth later in the chapter). At the same time as the credibility of climate change science was given support through the publication of photographs of climate refugees and victims of droughts and floods, ambiguity was constructed into the texts within which they appeared. Several articles pointed toward the planet getting hotter, and people experiencing the consequences, but this was qualified through use of words like “probably”, “might” and “can”.

At the end of the 1990s and towards year 2000, the media coverage of climate change reached a turning point. The third IPCC report concluded that the earth was getting warmer and that this was due to greenhouse gases (Weart 2008: 178). Photographically speaking, this turning point is particularly interesting. Suddenly climate change could be observed – and photographed. To a significant extent, the victims and consequences of climate change became increasingly visible. As shown in Graph 2 in the following section, photographs of cultural

landscapes affected by climate change rose in 2002, and photographs of human victims rose significantly in 2004.

**[Figure 4. Arbeiderbladet, July 17<sup>th</sup>, 2003]**

The article “Knallvarme og ekstremvær [Great weather and extreme weather]” from *Arbeiderbladet* July 17<sup>th</sup>, 2003 is one example. Three photographs open the article with the caption “Stunning weather in Norway and summer prime at Hvalstrand in Asker. But in Asia, floods have driven millions on the run and taken almost a thousand lives, and in Texas in the US the hurricane Claudette is raging.” The heading and photographs are accompanied by a quote from Pål Prestrud, director at CICERO Center for International Climate Research: “There is no longer any reason to doubt global warming” (Johnsen 2003). The photographs are directly connected to global warming and anchor climate change to the immediate present, occurring all over the world in different forms.

The analysis has so far shown that victims of climate change were depicted to an increasing degree in *Arbeiderbladet* between 1948 and 2006. The photographic coverage underwent important changes in the period. First, the concept of climate change was fundamentally altered around 1970, from a natural phenomenon causing mostly positive developments in the northern hemisphere, to future catastrophic alterations to life on earth caused by human activity. Second, in 1989 climate change broke through as an important and relevant issue worthy of media coverage. Third, in 2000 climate change was no longer understood in terms of scientific projections of a future phenomenon, but as something happening right here and now, visible to the naked eye and possible to photograph. This study ends in 2006. This can be described as a fourth turning

point, when climate change had its final breakthrough in the public debate. With the IPCC's fourth report, climate change was no longer presented as a largely scientific domain, but instead as a phenomenon demanding political solutions (2008: 193-194). On entering this political phase, human victims increasingly shaped the coverage of climate change in *Arbeiderbladet*, making it an urgent theme needing political action.

### **Human victims**

Between 1948 and 2006 373 photographs of victims were printed in *Arbeiderbladet* out of a total of 1650 photographs depicting climate change. Almost all of these were printed after 1989. The fluctuation in coverage corresponded with the political framework surrounding climate change, including the publication of reports from IPCC and the political summits that followed (Weart 2008: 162; O'Neill 2019: 10). The use of depictions of victims followed this trend to a great extent. There are however some notable differences. As shown in the graph in figure 1. - "Photographs depicting climate change and victims" - there was an increase in the general coverage of climate change in 1997 without a corresponding increase in the number of photographs of climate change victims. This was the year of the Kyoto protocol, and victims did not play a central part in *Arbeiderbladet*'s coverage leading up to, or during the summit. As the general coverage of climate change decreased in 2003, the depiction of victims was stable, giving victims a larger proportion of the coverage in total. It is not a clear trend, but the gap between victims and climate change more generally seems to narrow from 2003, indicating that victims became more visible in the coverage. Depictions of victims continued to grow throughout the period with a peak in 2005, likely due to extreme weather both in Norway and abroad.

[Figure 5. Photographs depicting climate change and victims ]

As mentioned earlier, the photographs of victims can be structured into four main categories – Humans, Nature, Cultural landscape, and The Planet. Human victims and Nature were the two dominant subcategories with 150 and 151 out of the total 373 photographs of climate change victims in *Arbeiderbladet* between 1948 and 2006. The category Humans includes photographs of people affected by floods, heat waves, increased sea-level and more abstract depictions of future generations. The 151 photographs categorized as Nature spans from new species entering the Norwegian flora and fauna, glaciers in the Arctic and Antarctica or trees with buds in the winter. All photographs of nature used in *Arbeiderbladet* in connection with climate change have been placed within this category. They are all presented as undergoing alterations caused by a changing climate, whether a decline in the number of polar bears, an increase in the number of parasitic ticks, or nature being ‘out of sync’, as in the case of plants blooming earlier in the spring.

[Figure 6. Victims of climate change in *Arbeiderbladet*, 1948 - 2006]

Depictions of victims were not limited to photographs of humans or nature. Another significant subcategory was Cultural landscape, consisting of 54 images. These showed flooded houses, ruined fishing boats and dried out riverbanks, among other examples. They did not depict humans directly, but showed objects, buildings, and infrastructure. Even though there were no actual persons in the images, they told a story of human loss. The last category, The

Planet, consists of only 18 photographs. It is, however, quite narrow and specific with images of the earth; either satellite images or in the form of still lifes of a globe. These were representations of victims of climate change, whether they were satellite images, photo montages of a burning earth or a globe with a gas mask. The articles accompanied by photographs of the planet thematised climate change and global alterations as having drastic consequences for various ecosystems.

Of the 373 photographs of victims of climate change that were printed in *Arbeiderbladet* between 1948 and 2006, nearly half depicted human victims. In addition, many of the other photographs depicted traces of human activity such as flooded cities or ruined fishing boats. *Arbeiderbladet* is not exceptional in terms of a human oriented photographic conception of climate change. Rather, the amount of non-human victims might be considered significant compared to studies in for instance Canada, UK and US (DiFrancesco and Young 2011: 522; Rebich-Hespanha et al. 2015: 508-509; O'Neill 2019: 16). The barely visible victim is the planet. With only a handful of photographs depicting the earth as a whole, the photographic conceptualization of climate change and its victims in *Arbeiderbladet* can scarcely be said to offer the readers “interpretive packages to conceptualize” climate change as a global phenomenon (O'Neill 2013: 11). It is depicted as affecting humans.

### **Victims as testimonies**

Photographic representations of melting glaciers “function as powerful and persuasive signs of the visible impacts of climate change upon the landscape,” as Julie Doyle states in “Seeing the Climate?” from 2009 (279). As a photograph is believed to depict something that once was present, they give reality to climate

change. Doyle focuses on how this limits the impact of climate change communication, as the aim, of for instance Greenpeace, is to evoke change to avoid a climate crisis. In Doyle's argument such photographs are limited to depicting what is present, not future consequences of climate change, as photographs can only communicate climate change after it has had visual consequences, not contribute to avoid them from happening (2009: 280). As stated at the beginning of this chapter, the photographs of climate change victims in *Arbeiderbladet*, can be read as attempts to overcome this. They not only depict the present and the past between 1948 and 2006, they also act as testimonies of both something that has already occurred and that will occur in the future. In the following I discuss how the temporality of climate change – with past and present actions creating consequences in the future – works together with a conception of photography as making something that once was, present, in the photographs of climate change victims.

As stated above, most of the photographs depict human victims of climate change, spanning from sunbathing women to climate change refugees. The first photograph of climate change refugees printed in *Arbeiderbladet* mentioned earlier in the chapter, was published in 1995 under the headline "Flyktet fra paradis [Escaped paradise]" and it is a good starting point to discuss photographs as testimonies of climate change. The article covers nearly a full page and a group portrait of a mother and father (Terje) with a girl on his lap, together with the headline, dominate the layout. In the text, Terje tells the readers about the violent storms that are destroying life on the island Tuvalu: "Living on an island like Tuvalu, you feel climate change on your body. All signs indicate that the island is about to break down due to climate change. [...] It is simply vanishing into the ocean" (Almendingen 1995). There are no alternate voices in the article, only



Terje giving climate change victims a face and a voice. The readers are not offered additional information either to confirm or correct Terje's story. But we are given his portrait. Portraits of individuals were increasingly being used in Norwegian newspapers after WWII, to draw readers into the various news stories (Sørli 2020: 84; Gynnild 1990: 55-57, 124). In *Arbeiderbladet* the most common portrait type in stories about climate change was of a politician, not of victims (Sørli 2020). Arguably the portraits of victims confer a larger degree of reality to climate change that move beyond political speech and modelling; these are real human beings. And not any human beings – it should not be underestimated that this is a Norwegian family that has settled in the suburbs of the country's capital.

The visual regime of climate science is dominated by images marking authority and trustworthiness. Realism and the mantra of 'seeing is believing' dominates the communication of knowledge about climate change (Brenthel 2016). The photographs from *Arbeiderbladet* are news photographs, not scientific renderings. The belief in and need to ground knowledge in truthful visualisations seems also to dominate the depictions of victims in *Arbeiderbladet*. A document is a form of "evidence not to be questioned, a truthful account backed by the authority of law. And documentary photography, as a genre, has invariably rested within this frame of authority and significance" (Clarke 1997: 145). The portrait of Terje, Emma and Sonja is not objective evidence or a trace of what happened at the island Tuvalu. Instead, it is a harmonious family portrait by the photographer Fredrik Nauman from NTB, a reputable Norwegian press agency, captured at a balcony at Lambertseter, a suburb of the Norwegian capital, Oslo. Still, it is a testimony. Portraits used in newspapers are not only documents, they might also be "demonstrations", portraits depicting "persons showing objects, things or animals" (Gynnild 1990: 89). This is a fitting description for the portrait of the

family. The family is, however, not “showing” anything other than themselves. As such, the portrait becomes a proof of someone escaping climate change to start a new life in Norway and the persons depicted become a visual testimony of climate change. At the same time, the contrast between the optimism and calm in the photograph and the desperation and despair expressed in the text contribute to an ambiguous message. It is almost as if the story becomes a happy story of the lucky refugees establishing a new life in Norway.

The other, small photograph published in the article [Fig.3], shows Emma and Sonja sitting together on a tree trunk washed on to the beach by the storm at Tuvalu. This photograph can be simultaneously characterized as demonstrating and documenting. Emma and Sonja are photographed on the spot where the event happened, making a connection between the story being told and a trace of ‘what occurred’. In this sense, it resembles the family portrait. One important difference between documentary photography and demonstrational portraits is, however, the role of the photographer. Whereas the photographer in documentary photography is the witness, the one giving the truthful and objective account, in demonstrational portraits, the person photographed is the witness. It is Terje, the storyteller and main witness in the article who has photographed Emma and Sonja on the beach, thus transforming the portrait from a demonstration into a document of what occurred at Tuvalu. At the same time, the photograph of Emma and Sonja is small, the large family portrait at Lambertseter dominates the story. Whereas Doyle characterizes the photographs of glaciers used by Greenpeace as “photographic evidence of climate change”, the portraits of Emma, Sonja and Terje are not evidence in themselves. They are more like circumstantial evidence, depicting those who witnessed the effects of climate change, and, as such, the

photographs become testimonies of climate change, giving climate refugees a face.

### **Exemplary victims**

The photographs of Terje, Emma and Sonja serve as examples of climate change victims both in *Arbeiderbladet* and here in this text. Writing and analysing always involves reference to examples which “are used in order to link something particular to something general, they provide a link between something subordinate and something superordinate, they connect a part to a whole, the concrete to the abstract,” as Ellen Krefting, Anne Birgitte Rønning and Anne Eriksen write in *Eksempels makt* (2012: 9). They are necessary tools to think, to comprehend and to grasp visually. A classical approach to examples and exemplarity is the division between Platonic and Aristotelian examples. Platonic examples are vertical connecting the individual phenomena to a general idea, whereas Aristotelian are horizontal referring “to other singular cases of the same kind” (Rønning, Krefting, and Eriksen 2012: 12). Aristotelian examples are empirical, whereas the Platonic examples are idealistic.

This division can be juxtaposed with photography’s claim on truth and the real. This has to a large degree been connected to photography’s indexical aspects. To what extent – if any – photographs can be understood as indexes has been disputed, especially since the structuralist critique in the 1960s and 1970s. As John Roberts points out, a “reinvigoration of the debate on the relations between the index, the icon and the symbol in representation [...] became crucial” in the 1990s (2014: 27). Emphasising photography’s indexical aspects while remaining aware of its pictorial qualities, it was underlined how “photographs may be pictures, but they are pictures of a particular kind: that is, they are light *traces*,

indices *of* things, and as such the result of “spontaneous” ordering of contingent appearances” (26-27). Building on Martin Lefebvre, Roberts points out that this connection with light is not the basis of photography’s truth claims. Rather, “neither the chemically produced photodocument nor the digitally produced image tell the truth *of*; rather, photographs are able, through causal analysis and the act of interpretation, to put themselves *in the way of truth*” (30-31). This corresponds with what the philosopher Peter Osborne, underlines; the ontology of photography is connected to ideas about its ability to capture reality, not specific technological solutions (Osborne 2003: 1). What Osborne points towards is that a factual answer to the question of how photography can be said to capture “the real” is less interesting. What unites photography is not light reflected on a chemical surface or a digital sensor, it is not a specific interpretation of the relationship between this imprint and what was in front of the camera, but the entire discussion, “the meaning-effect of ‘the real’” (Osborne 2003: 6). This “meaning-effect of the real” is not essentialist, but historically and socio-technologically situated (Osborne 2003: 6; Bjorli 2014: 29). The understanding of photography has transformed and expanded since its invention in 1839 (2003: 1). What the defining moments have been, are disputed - whether these be technological developments or new practices associated with political revolutions. What is of importance in my analysis is that although photography’s relationship with truth is constantly evolving and interpreted in conflicting ways, the interest in its indexical aspects has persisted. In relation to the division between the Platonic and Aristotelian, the indexical has mainly, but not exclusively, been connected to photography depicting concrete, singular facts. Photographs have mostly been understood as Aristotelian examples, being singular cases referring to

other singular cases. The portrait of Emma, Sonja and Terje fits well here. It is one of many (potential) photographs of climate change victims.

[Figure 7. *Arbeiderbladet*, October 19<sup>th</sup>, 1995]

A group is wading through water. Their faces are worn out and the man in the front seems to hold on tightly to a bag. In the background cars are almost covered by water. The despair is more evident than in the photograph from Tuvalu. At first, the photograph seems quite straight forward. We see people as victims of a flood. They act as evidence that this flood took place and had devastating consequences. The photograph seems to be an ordinary Aristotelian example of floods. This story, though, is not about the people seen in the photograph. The caption informs the readers that “North Palm Beach in Florida was recently hit by floods. A rise of sea level will threaten coastal areas all over the globe. It is already very expensive to get an insurance in high-risk areas” (Hjorthol 1989) Further, under the headline “Warmer, wetter and more violent weather” the text refers to a forthcoming report from the IPCC about climate change and its expected consequences. When reading the text, the photograph of those hit by the flood in Palm Beach transforms and is no longer an example of that actual event. It points to *future* sufferings due to climate change. The photograph of the waders on Palm Beach is used as a document, an illustration of a situation that will happen more frequently in the future. It gains its credibility through the indexical aspects of photography, that underlines how a photograph is an imprint of what occurred in front of the camera at a given moment. In a sense, it is an Aristotelian example – it is one singular case among other similar cases that will happen. But this is complicated by the temporality of the singular cases

as they are not equal. The photograph of the victims at Palm Beach acts as a model, an archetype of what to expect. The article is telling the readers that in the future reality will look like this photograph. Suddenly the photograph is not a singular case among others of the same kind, but a model for imagination. It is also a Platonic example.

### **Future victims**

In 1997 Greenpeace photographed and published a crack in the Larsen B ice shelf in Antarctica. This “can be regarded as the first influential and recognizable photographic evidence of global warming,” Doyle claims (2009: 288). Due to its invisibility, communicating climate change is considered profoundly difficult and problematic. When Doyle highlights the photograph of the crack in the Larsen B ice shelf as significant, it is based on a hope, by Greenpeace and others, that visual evidence will contribute to solving the communication challenges. As the above presentation of climate change victims in *Arbeiderbladet* has shown, this is however not a profound and clear breakthrough. It might be claimed that climate change is invisible in, at least, three ways: the gases causing a global temperature rise cannot be seen; the scale of it too grand for humans to perceive; and for those not directly affected it is often perceived as a phenomenon for the future, although created in the present (and the past) (Brenthel 2016: 56). Single, Aristotelian examples do not seem to be enough to overcome this invisibility. As Adam Brenthel underlines in *The Drowning World: The visual culture of climate change* “the most fundamental question is whether or not it would be possible, in principle, to actually and finally capture change with a representation” (2016: 62). He answers by claiming that, due to its commitment to producing images that present the world as it is, “[t]he visual regime of climate change science is

predisposed to show space instead of time, and the result is that the imagery fails to account for the complexity of thinking in process and time, which is necessary to grasp climate change and its coming effects” (Brenthel 2016: 64).<sup>1</sup> I consider photographs taken within the logic of space as Aristotelian examples. They are singular cases referring to other singular cases. As long as the photographs of climate change victims depict singular, concrete victims, like the climate refugees Terje, Sonja and Emma, they work within a context of accumulation. Climate change and its victims are given power through an increase in the number of victims. I agree with Brenthel. I am not sure that this accumulation will ever make climate change visually comprehensible. The true obstacle is to develop comprehensible photographs of climate change as enfolding over time. Within science, the preferred solution is virtual simulations of imagined futuroscapes without human victims. As the news to an ever increasing scale is event-driven accompanied by photographic illustrations, making readable photographs seems necessary to get media attention (Doyle 2014: 242). The photograph of the waders is one example of how the climate change photographs of victims can be perceived through a multitemporal perspective. The photograph of victims of the flood in Palm Beach is simultaneously an example that serves to imagine *more* of these situations – more bad weather, more floods, more hurricanes –, an accumulation of victims and consequences, and a model for imagining the future.

The accumulation of Aristotelian examples and imagining through Platonic models are not the only ways that photographs of climate change victims in *Arbeiderbladet* exemplify the future. For example, in the article ‘Naturen merker drivhuseffekten’ (Nature feels the greenhouse effect), the text is

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<sup>1</sup> The account of ‘before-and-after’ photographs of melting glaciers, by Garrard and Carey (2017) suggests that some limited knowledge of process and place in time can occur through this specific use of photography.

accompanied by a photograph of a fishing boat surrounded by birds out at sea (Arbeiderbladet 1992). The image is sunny and vivid, and there is nothing alarming or dramatic about the photograph. The caption, however, suggests the fishing boat, the birds and the scenery are possible victims of climate change: “Changes in the Arctic ice may have direct consequences for the fisheries in the Barents Sea” (Arbeiderbladet 1992). As the article points out, with increased temperatures, the ecosystems in the Barents Sea will change drastically, one expected result of which will be less fish. The message of the photograph is thus that scenes such as this of fishing boats followed by a hoard of birds will be rare – and might disappear altogether. The photograph is then not to be taken at face value, but quite the contrary, as it is actually showing its anti-image, its meaning is not to signify the presence of sea gulls, fish and fishing boats but their *absence* in the future.

[Figure 8. *Arbeiderbladet*, February 21<sup>st</sup>, 1992]

In her study of Greenpeace’s photographic mediation of climate change, Doyle underlines how photographs of retreating glaciers and melting ice construct “a sense of loss” (Doyle 2009: 291). This loss is intrinsic both to their function as evidence of climate change and their emotional power. As Doyle writes, “[t]hey appear to invite us to look at the beauty of the landscape, to experience shock, and to feel loss.” These photographs depict damage that has already happened. They show us something that is already in the past, although the melting of the glacier takes place here and now. As Doyle underlines, photography’s ability to make something past, present, is deeply connected to the indexical aspects discussed earlier in the chapter. Underneath is photography’s connection with the moment.



It is a particular moment in time that is reflected by light. Another conception related to this is the “decisive moment”, or as Roberts renames it in *Photography and its violations*, “the singular event”:

My understanding of “event” here refers more generally to what happens to the “decisive moment”, as the moment of imagined convergence, and as a space of historical disclosure. That is, how the “event” of the photograph, how these “pulls” constitute the syntax of photography’s historicity. In other words, the photograph’s essential contingency and contemporaneity recover for us the “pastness” of the past and – as the discursive life of the image unfolds in time – the moment’s historical textuality. This is why the historical particulars of the photograph have always had a privileged relationship to the representation of the event as a form of historical knowledge. [...] Today, though, this sense of the event of photography – or the notion of photography as an event – no longer appears to be available to photography in quite the same way. (Roberts 2014: 96)

Roberts’ conception of the singular event can be juxtaposed with Reinhardt Koselleck’s description of experience as “present past, whose events have been incorporated and can be remembered” (Koselleck 2004: 259). Photographs as singular events are experiences that can be remembered. They provide information about the past, as an indexical imprint of something that has occurred or as Roberts says “representation of the event as a form of historical knowledge” (2014: 96). But what we are dealing with is not history, but climate change and the predicted victims of its severe consequences.

[Figure 9. *Arbeiderbladet*. May 4<sup>th</sup>, 1990]

The article ‘Dramatisk klimaendring’ (Dramatic climate change) is dominated by a large photograph of people sunbathing, relaxed and content. The caption anchors the image as it states “HOTTER: Norwegian scientists agree that an increased greenhouse effect will result in warmer weather in Norway, and an increase of 10 to 40% in various forms of skin cancer” (Bakken 1990). Even though it recalls a moment around 1990, the caption makes the photograph as an experience ambiguous. Rather than depicting sunbathing around 1990, it is a photograph of something we currently take pleasure in, but that might disappear in the future. Yet, what gives it credibility is the indexical. As Roland Barthes writes in *Camera Lucida*:

Every photograph is a certificate of presence. [...] The first photographs a man contemplated [...] must have seemed to him to resemble exactly certain paintings. [...] he knew, however, that he was nose-to-nose with a mutant [...] The Photograph, for the first time, puts an end to this resistance: henceforth the past is as certain as the present, what we see on paper is as certain as what we touch.  
(Barthes 1981: 87-88)

It might then be possible to reformulate Barthes and state that the photographs of climate change victims are idealistic examples, or imaginations attempting to make the future as certain as the present, by being indexical imprints of the past. As Koselleck points out: “[E]xpectation [...] takes place in the today; it is the future made present; it directs itself to the not-yet, to the non-experienced, to that which is to be revealed”, (Koselleck 2004: 259). To imagine a future is to imagine it in relation to something happening in the present, making the present

comprehensible. Expectations can be expressed in many forms, including photography, and several of the photographs of climate change victims are examples of this: they are imprints of something seen and experienced today, but depict an expectation of a possible future.

Roberts claims that the changing availability of photography as an event is due to eco-political developments such as neoliberal capitalism. The photographs of climate change might be seen as part of a photographic transformation. I would not claim that they drive or cause this transformation. They are however part of a movement altering the relationship between photography and the historical event. Roberts highlights so-called “after-math” photographs as one interesting and fruitful response to this transformation of documentary photography: “[T]his is a photography of the event in which the event is displaced from its conditions of immediacy [...] Indeed, we might say that this is a photography of the event, *after-the-event*” (Roberts 2014: 107). In the after-math photographs the truth-claim is not connected to being an index of the zenith of the event unfolding. Rather, their political potentials are grounded in them becoming a place “for reconstruction and extension of the event”. The photographs of the waders, sunbathers or the fishing boat can also be viewed as reconstructions and extensions of events. Whereas the after-math photographs are images after-the-event, the photographs of future victims are images before-the-event. Returning to Brenthel and his emphasis on how visualisations of climate change need to “account for the complexity of thinking in process and time, which is necessary to grasp climate change and its coming effects”, the configuration of past, present, and future in the climate change photographs of victims in *Arbeiderbladet* display some possibilities. Through the anchoring of the text, the photographs work simultaneously as Aristotelian examples accumulating testimonies of climate

change and as Platonic models for imagining future victims of its severe consequences.

### **The missing polar bear?**

In the opening of this chapter, I pointed out that of more than 1023 issues mentioning climate change accompanied by photographs in *Arbeiderbladet*, none depicts a polar bear on an ice floe. Instead, there are human victims who, since the 1970s, are no longer victim to natural alterations beyond human control, but to changes in climate due to human action. At the end of this discussion about who and what *were* depicted as victims of climate change, it is appropriate to underline that even though there are no polar bears on ice floes, there are polar bears. Two examples are the article “Arktis under lupen!” [“The Arctic under the magnifying glass!”] from June 21<sup>st</sup>, 1980 and “Isbjørnen i fare” [“The polar bear at risk”] from August 27<sup>th</sup>, 2002 (Hansen 1980; Svensli 2002).

[Figure 10. *Arbeiderbladet*, June 21<sup>st</sup>, 1980 / *Dagsavisen*, August 27<sup>th</sup>, 2002]

What separates these images of polar bears from the cover of *Time*, resides in the extent to which the bears symbolize something beyond themselves. The polar bear on the cover of *Time* acts as a symbol not only of changing life conditions for polar bears, but for humanity. The large bear on the tiny ice floe becomes an image of future generations, as the text points out “Here’s how it [climate change] affects you, your kids and their kids as well” (. In *Arbeiderbladet* in 1980 and 2002 the polar bears represent polar bears. True enough as threatened by human activity and climate change they might serve as indications, as the canary bird in the mines warn about deadly air, but they are not transformed into

an image of something else, like humanity. They remain concrete and living testimonies of a future to come and what might be absent. As such, they make the future present like many of the photographs of climate change victims printed in *Arbeiderbladet* between 1948 and 2006. Not merely as either symbols of humanity or an imprint of a concrete polar bear, rather they are simultaneously indexical, Aristotelian examples of climate change and Platonic models for the imagination bridging past, present and future.

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**Darcy White. On getting “in the way of the world”: the work of Helene Schmitz and the urgency of decolonising the Western gaze**

## **Illustrations**

### **Flora Bartlett**

Figure 1. Arjeplog town: Flora Bartlett.

Figure 2. The exhibition space: Flora Bartlett.

Figure 3. Arjeplog Church: Flora Bartlett.

Figure 4. The red sticks of the road boundaries washing downstream into town:  
Flora Bartlett.

Figure 5. A carton, decorated with an image of blueberries, emerges from the  
melting snow surrounding the large recycling containers in town: Flora Bartlett

Figure 6. Being in the forest: Flora Bartlett.

Figure 7. One of the many snowmobiles in Arjeplog, Flora Bartlett.

### **Stephanie Hartle**

All images by courtesy of Victoria Lucas, Jules Lister and Site Gallery, Sheffield.

Figure 1. Installation view, Victoria Lucas, *Formations I - VII*, Limited Edition.

Photographic Series (1/30), 2020, 420 x 594mm. Photograph by Jules Lister.

Figure 2. Installation view, Victoria Lucas, *Formations I - VII*, Limited Edition.

Photographic Series (1/30), 2020, 420 x 594mm. Photograph by Jules Lister.

Figure 3. Installation view, Victoria Lucas, *Coalesce*, Video Projection, 2021,

10:00. Photograph by Jules Lister.

Figure 4. Installation view, *Entanglement*, Single Channel Artist Video,

2021,09:00. Photograph by Jules Lister.

Figure 5. Installation view, *Entanglement*, Single Channel Artist Video,

2021,09:00. Photograph by Jules Lister.

**Aileen Harvey**

Figure 1. Simon Starling, detail of *One Ton, II*, Five handmade platinum/palladium prints of the Anglo American Platinum Corporation mine at Potgieterus, South Africa, produced using as many platinum group metal salts as can be derived from one ton of ore, 2005.

Set of 5 platinum/palladium prints framed in acrylic boxes, prints 65 x 85 cm, boxes 75.4 x 94.7 x 5.7 cm. Courtesy of the artist and The Modern Institute/Toby Webster Ltd., Glasgow.

Figure 2. Ryan Moule, *Billet and Bloom*, 2016, silt damaged negatives, Hahnemuhle Fibre Based Print, 120 x 156cm.

Figure 3. Ryan Moule, *Rhossili Down*, unique collodion plate, 10.2 x 12.7 cm, From the series *Objects to Place in a Tomb*, 2022.

Figure 4. Marianne Bjørnmyr and Dan Mariner, *Beneath the Salt*, 2017, pp. 32-33.

Figure 5. Aster Reem David, *Sculptural Rock (reinforced)*, 2018-2020, from the series *Salt and Light*.

Figure 6. Amanda Couch, *Becoming with Wheat (and Other More-Than-Human Others) Harvesting Grain Spirit*, anthotype, 78 x 102 cm, 2022.

Figure 7. Sayako Sugawara, *Golden Redwood Magdalene*, photo emulsion on Offenbach Bible Paper, 21.5 x 31.5cm, 2021.

Figure 8. Anna Niskanen, *The Dune*, nine cyanotypes on paper, 210 x 150cm, 2021.

Figure 9. Hannah Fletcher, *Soil Chromas*, soil, silver nitrate and sodium hydroxide on filter paper, 18cm diameter, 2017.

## **Inge Paneels**

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Figure 10. 'Green Pond' (p 115), location data, *Beautiful Destruction*, Louis Helbig.

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Figure 13. 'Four Components of Analytical Model', *Nikel Materiality, Dark Ecology*, 2014.

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## **Julia Peck**

Figure. 1 Dana Lixenberg (2007) *Nathan Weyiouanna's House*.

Figure 2. Still frame from Jan Louter's (2008) film *The Last Days of Shishmaref*, 04:27.

Figure 3. Dana Lixenberg (2007) *Minnie Olanna's home*.

Figure 4. Dana Lixenberg (2007) *Nora Iyatunguk*.

Figure 5. Dana Lixenberg (2007) Ardith Weyiouanna.

**Robert A. Saunders, Irina Souch, Anne Marit Waade**

Figure 1. The main characters of *Thin Ice* (from left): the Swedish hostage Viktor (Alexander Karim), the Swedish security officer Liv (Bianca Kronlöf), the Swedish foreign minister Elsa (Lena Endre), and the local Greenlandic policeman Enok (Angunnguaq Larsen). *Thin Ice*, Promotional Image. ©Yellow Bird. Used with permission.

Figure 2. The Arctic Council meets in Tasiilaq, Greenland to sign a climate contract to restrict oil drilling in the region. *Thin Ice*, S. 1, Ep. 2. ©Yellow Bird. Used with permission.

Figure 3. Fire on Ice: The main communication tower explodes in flames. *Thin Ice*, S. 1, Ep. 2. ©Yellow Bird. Used with permission.

Figure 4. Farmers protesting in front of the city hall. *Trapped*, S.2, Ep.1. RÚV/RVK Studios. Used with permission.

Figure 5. Dead fish in the lake and on the lakeshore. *Trapped*, S.2, Ep.7. RÚV/RVK Studios. Used with permission.

Figure 6. Barrels of toxic waste hidden in a crevasse. *Trapped*, S.2, Ep.9. RÚV/RVK Studios. Used with permission.

Figure 7. A picturesque Sakrisøy flanked by snow-covered mountains. *Twin*, S.1, Ep.2. ©Nordisk Film Production. Used with permission.

Figure 8. Erik/Adam being evicted from “his” beach. *Twin*, S.1, Ep.7. ©Nordisk Film Production. Used with permission.

## **Thale Sørli**

Figure 1. *Arbeiderbladet* asked on August 17<sup>th</sup>, 1951, whether the image from the most recent flooding might be seen as promoting the bike as a means of transportation – the water only reached halfway up on the rubber boots.

Figure 2. *Arbeiderbladet* connects deforestation and floods under the headline “One man’s logging, another man’s flooding” [Den enes hogst den andres flom] on January 14<sup>th</sup>, 1989.

Figure 3. Facsimile of the article “The Earth is boiling over” [Kloten koker over], *Arbeiderbladet* on January 10<sup>th</sup>, 1996, and “Escaped from paradise” [Flyktet fra paradiset], *Arbeiderbladet* on March 29<sup>th</sup>, 1995.

Figure 4. Facsimile of the article “Splendid weather and extreme weather” [Knallvær og ekstremvær], *Dagsavisen* on July 17<sup>th</sup>, 2003.

Figure 5. Graph: Photographs depicting climate change and victims

Figure 6. Graph: Victims of climate change in *Arbeiderbladet*, 1948 – 2006.

Figure 7. Facsimile of the article “Warmer, wetter and more violent weather” [Varmere, våtere og villere vær], *Arbeiderbladet*, October 19<sup>th</sup>, 1995.

Figure 8. Facsimile of the article “Nature feels the greenhouse effect” [Naturen merker drivhuseffekten], February 21<sup>st</sup>, 1992.

Figure 9. Facsimile of the article “Dramatic climate change” [Dramatisk klimaendring], *Arbeiderbladet*, May 4<sup>th</sup>, 1990.

Figure 10. Facsimile of the article “The Arctic under the magnifying glass!” [Arktis under lupen!] from June 21<sup>st</sup>, 1980, and “The polar bear at risk” [Isbjørnen i fare] from August 27<sup>th</sup>, 2002.

**Liz Wells**

Figure 1. Map of the Arctic. © [Arctic Portal.org](https://arcticportal.org/).

Figure 2. Map of Svalbard. © PublicDomain\_NP\_Tromso.

Figure 3. 'Buchenbreen', 2011, Tyrone Martinsson. Insert image Herbert Chermside 1873. © Tyrone Martinsson.

Figure 4. 'The Mine, Pyramiden, Russian ghost town', Tyrone Martinsson, September 2011. Original in colour. © Tyrone Martinsson.

Figure 5. 'Arctic Highlanders', George White, Greenland, n.d. © Scott Polar Research Institute, University of Cambridge.

Figure 6. 'A view across a bay towards the Franklin search ships under Captain Belcher's command', Photographer Unconfirmed, c. Summer 1852. Precise date and location unknown. Unwaxed calotype negative. © National Maritime Museum, Greenwich, London.

Figure 7. 'Items found in the boat', John Powles Cheyne, 1861, from British Franklin Search Expedition, 1857-59. © Scott Polar Research Institute, Cambridge.

Figure 8. 'The sea of ancient ice', Photographer Unknown, 1876, glass lantern slide. Hand coloured. From British Arctic Expedition, 1875-76. © Scott Polar Research Institute, Cambridge.

Figure 9. 'Umiaq and North Wind during Spring Whaling', Kiliiii Yuyan from *People of the Whale*, 2018. Original in colour. © Kiliiii Yuyan.

Figure 10. 'Icy Prospects, 40', 2008, from the series, *Icy Prospects*. Original in colour. (Exhibition print, 160 x 198 cm). © Jorma Puranen.

Figure 11. 'Gullybreen, south coast of Magdalenefjorden', Tyrone Martinsson, Carl Müller & Son, c.1926-1930/Tyrone Martinsson, 2016. © Tyrone Martinsson.



Figure 12, 'Ringhorndalen', Heidi Morstang, Svalbard, Norway, 2019. (Seed sections, on matte heavyweight Hahnemuhle paper, each 12cm x 8cm, 29.5cm x 21cm mounted and framed.) © Heidi Morstang.

Figure 13. 'Entry Tunnel, Svalbard Global Seed Vault', Dornith Doherty Spitsbergen Island, Norway, 2010, from *Archiving Eden*, 2017. Original in colour. © Dornith Doherty.

Figure 14. 'Seed Accessions, Svalbard Global Seed Vault', Dornith Doherty, Spitsbergen Island, Norway, 2010, from *Archiving Eden*, 2017. Original in colour. © Dornith Doherty.

## Biographies of Contributors

Flora Mary Bartlett is a Visual Anthropologist working with landscape and experimental visual methodologies. Her PhD research at Goldsmiths examined climate scepticism and experience of landscape in the rural North of Sweden. She has collaborated with the Nordic Museum in Stockholm on their exhibition *Arktis, medan isen smälter* (The Arctic, while the ice is melting). She is currently researching the Swedish forest, supported by the Royal Swedish Academy of Agriculture and Forestry, and is a Guest Researcher at the Nordic Museum where she is focusing on bark beetles and more-than-human forest relations.

Janna Frenzel is a PhD student in Communication Studies at Concordia University in Montreal, Canada. Her research revolves around the environmental and social impacts of computing infrastructure, the role of extraction in the digital economy, and cultural imaginaries of energy and techno-futures. She holds a MA and BA in Political Science from Freie Universität Berlin. Before starting her PhD, she worked as a communication strategist and writer/editor for non-profit organizations.

Chris Goldie is formerly Senior Lecturer, currently Honorary Research Fellow, in the Department for Media Arts and Communication, Sheffield Hallam University. He has a BA in history and an MA in cultural studies. His PhD thesis explored the culture and politics of space in 1960s Britain. Chris taught at Sheffield City Polytechnic/ Sheffield Hallam University from 1985 to 2020. His teaching and research focus was interdisciplinary, working with students in the fields of history, fine art and design, art history, film and media. He co-edited two previous

anthologies in the 'Northern Light' series on contemporary landscape photography of the north: *Northern Light* (2018); and (2020). Re *Proximity and Distance*. Recent writing has been published in the *Journal of Design History* (2011), *The Journal of International Relations, Peace Studies and Development* (2017), (2018), (2020), and the *Design Journal* (2019).

Stephanie Hartle is a Senior Lecturer in the Department of Media Arts and Communication at Sheffield Hallam University where she is the Course Leader of the BA Photography programme. She was co-curator of the Northern Light: Proximity and Distance photography exhibition held at the Yorkshire Artspace, in July 2018. Her research interests include the history and theory of photography and the interface of aesthetics and politics in contemporary art practice. An anthology, *Visual Activism in the 21st century: Art, Protest and Resistance in an Uncertain World*, which she co-edited with Darcy White, was published by Bloomsbury in 2022.

Jonas Harvard is a Senior Lecturer at the Department of Media- and Communication Science, Mid Sweden University and Adjunct Professor in the History of Political Discourse and Communication at the University of Jyväskylä. His research concerns the roles of technology in journalism, media history in the Nordic countries, and the transformation of local news media business in Sweden.

Aileen Harvey is a London-based artist and researcher. She makes drawings, photographs or objects that consider relationships to place and engage with light and time, loss and geology. Her materials are often connected to the landscape she is working with, and her processes tend to follow rules, wherein chance and

experimentation have roles. Aileen studied philosophy (Edinburgh; Cambridge) and then sculpture (Wimbledon College of Art) – she finds that the subjects inform one another. Exhibitions include: The Photographers' Gallery, London; An Lanntair, Stornoway; Karussell, Zürich; Bernard Leach Gallery, St Ives; Customs House Gallery, Sunderland; Blind Alley Projects, Texas.

Mats Hyvönen is Media Scholar at Uppsala University and coordinator for the Engaging Vulnerability Research Program. Hyvönen's research interests are mainly in media history, especially the study of the public sphere as a vulnerable space, and how the media both resist and facilitate that vulnerability. Recent publications include (as co-editor and contributor) *Vulnerability in Scandinavian Art and Culture* (Palgrave Macmillan, 2020).

Inge Panneels, artist and Research Fellow at Edinburgh Napier University, Creative Informatics, is looking at how data and technology is deployed, or missing, to help the creative industries embrace the quadruple bottom line (people, planet, profit and purpose), and the role creativity can play to implement a culture shift towards a circular economy which operates within social and ecological boundaries. Her (AHRC) PhD thesis "Mapping the Anthropocene: an investigation of Cultural Ecosystem Services through artists' engagements with environmental change in Scotland" (2020) (Visual Culture, Northumbria University) explored the possible contributions mapping methodologies, evidenced in environmental art practices, could make to the cultural ecosystem services of Scotland by making visible environmental and climate change to local communities (and policymakers) through socially engaged art practices. She is a Trustee of Edinburgh Tool Library, was Senior Lecturer at the Artist Designer

Maker course, University of Sunderland; Crafts Advocate for Creative Arts

Business Network (CABN) and Specialist Advisor for Creative Scotland and Scottish Arts Council.

Julia Peck is a photographer, writer and academic based at the University of Gloucestershire. Julia has had a long-standing interest in the landscape and the environment and is particularly interested in political ecology and philosophies that explore non-binary approaches to human/nature relationships. Her photographic work has been exhibited in the UK and she has contributed images, articles and reviews to *Next Level*, *Dandelion*, *Source*, *Visual Studies*, *History of Photography*, *Photographies* and *Journal of Australian Studies*. Update? [PJ(10)]

Robert A. Saunders is Professor in the Department of History, Politics, and Geography at Farmingdale State College, a campus of the State University of New York (SUNY), USA. His research explores various intersections of popular culture, geopolitics, and national identity. He is the author of five books, including *Popular Geopolitics and Nation Branding in the Post-Soviet Realm* (Routledge, 2017) and *Geopolitics, Northern Europe, and Nordic Noir: What Television Series Tell Us About World Politics* (Routledge, 2020).

Thale Sørli is a photo archivist and Head of Collections at the Norwegian Museum of Science and Technology. She has a MA in Intellectual History and a BA in Photography. She has curated several exhibitions within Norwegian photo history. In 2015 she participated at the Istanbul Art Biennial curated by Carolyn Christov-Bakargiev, with a piece about the mathematician Carl Størmer. Sørli is

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