PRZEGLĄD KULTUROZNAWCZY
NR 4 (38) 2018, s. 473–492
doi: 10.4467/20843860PK.18.025.10363
www.ejournals.eu/Przeglad-Kulturoznawczy/

Anne Karhio http://orcid.org/0000-0003-4150-9295
University of Bergen / National University of Ireland, Galway

PICTURING THE DARK SVALBARD. TECHNOLOGY AND THE INVISIBLE LANDSCAPE

Abstract: This article considers the ways in which visual landscape imagery is a result of non-visual social, cultural and technological processes. In particular, it focuses on the way in which landscape aesthetic has traditionally hidden its non-visual foundations by examining a series of images taken near the town of Longyearbyen, Svalbard, during the polar night in January 2017 and January 2019. During the winter months, between November and February, the sun remains below the horizon in this far-Arctic location, which means that in early January there isn't enough light for the naked human eye to discern the exact contours of the wider surrounding terrain, even at midday. The images through which the invisible foundations of visual landscape aesthetics are explored are approached with the help of applications and devices that render visible, or highlight, the technologies and conventions of machine-enhanced visual perception: Snapchat filters, Theodolite app images, and digital night mode photography. The resulting pictures are examined to raise questions on the role of human agency in situations where we are entirely reliant on machinic forms of perception to make sense of our material environment. While scientific imaging is also addressed, the emphasis here is on media that inform, and are informed by, the everyday or tourist experience, and the aesthetic imaginary of landscape as a cultural category. Furthermore, the article will consider a series of artistic and literary renditions engaging with the same location. I propose that in the contemporary context of networked digital media, these images, drawing on our need to render the unknown environment visible literally as well as figuratively, draw our attention to the processes and structures of what Christian Ulrik Andersen and Søren Bro Pold have termed the "metainterface", "characterized by hidden exchanges of information between objects" in the persistent pictorial representations of landscape in our media environment.

Keywords: darkness, visual aesthetics, machine aesthetics, landscape, photography, digital media, tourism, media technology

Landscape and the dark imaginary

The following discussion considers the relationship between visual technology and landscape aesthetics through a series of images and photographs taken near Longyearbyen, Svalbard, during the polar night, with almost complete absence of daylight. It considers how our inability to *see* the surrounding landscape with the naked

eye, and our reliance on media technology to capture and communicate it, can be employed to highlight aspects of visual engagement and mediation that we habitually bracket or dismiss. The imagery of the dark landscape allows us to visualise and thus reflect on the in-visible imaginary domain that underpins our relationship with the material environment, and spatial aesthetics related to landscape. As a travel destination Svalbard is strongly marketed through imagery emphasizing the "Arctic sublime", a natural landscape unspoiled by, if not quite void of, human presence. Yet due to its history as a hunting and mining settlement, its current economy relying on science and tourism, and the growing threat to its fragile ecosystem posed by climate change, Svalbard can be seen as a microcosm of human colonisation of the environment and its close connection to visual (or visually dominated) landscape aesthetic.

Here, B.H. Welling's characterisation of the term "ecoporn" is helpful in describing the aesthetics of such pictorial objects, and to how "visual representations of nature […] can code the viewer's eye" to repeat an aesthetic relying on "a solitary, central but remote, omniscient, all-powerful, potentially violent, pleasure-taking, commodifying, an all-seeing but simultaneously invisible consuming male subject to its marginalized, decontextualized, powerless, speechless, unknowing, endangered, pleasure-giving, commodified, consumable female object".[1] It would be somewhat misguided to suggest that the implied violence or subjugation through technologically enhanced visual aesthetics would be the primary or only possible way of "seeing" Svalbard, but understanding the sociopolitical, cultural and theoretical underpinnings of technologies of visual mediation can be considered as a necessary step for imagining alternative modes of interaction.

In the global West in particular, the history of landscape as an aesthetic and cultural category in literature and the arts is also the history of science and media technology. It is a cultural form relying on a position of the human observer, and their engagement with the physical environment from a sufficient distance for it to be "taken in at a glance from one point of view" (*OED*), prompted by emerging technologies of media and travel. The resulting techniques of visual representation in cultural production relied, from the beginning, on an uneasy connection between the pleasure of aesthetic detachment, and the (often implicit rather than explicit) desire to control the object of such representations. W.J.T. Mitchell, for example, has described how "the nature, history, and semiotic or aesthetic character of landscape is constructed in both its idealist and sceptical interpretations".[2] Drawing on John Barrell, Mitchell draws attention to the figurative or symbolic "dark side" of landscape: "This dark side is not merely mythic", he stresses, "not merely a feature of the regressive, institutional drives associated with nonhuman 'nature' but a moral, ideological darkness that covers itself with […] innocent idealism".[3]

[1] B.J. Welling, "Ecoporn: On the Limits of Visualizing the Nonhuman", in: *Ecosee: Image, Rhetoric, Nature*, ed. by S.I. Dobrin, S. Morey, Albany: Suny Press, 2009, pp. 53-54.

[2] W.T.J. Mitchell, "Imperial Landscape", in: *Landscape and Power*, ed. by W.T.J. Mitchell, Chicago: University of Chicago Press, 2002, p. 7.

[3] Ibid., p. 6.

For Mitchell, the close link between landscape and this kind of figurative darkness has manifested itself particularly in the context of the imperial project's contribution to the formation of the Western landscape aesthetic. It might seem that there's little that historical landscape paintings of the colonial period and present-day tourist photographs on social media platforms share, or that the dreamy vistas of nineteenth century paintings and the at times humorous images shared among Snapchat users would be far removed from the darker manifestations of the colonial project. Yet it has also been repeatedly highlighted that the ubiquitous landscape imagery that we continue to encounter in art and everyday media environments to a considerable extent continues to reflect and repeat the structures of domination and control, as well as possession and consumption. It perpetuates the visual aesthetics of what Donna Haraway has termed "the god trick": "direct, devouring, generative, and unrestricted vision, whose technological mediations are simultaneously celebrated and presented as utterly transparent".[4] Or, as Urry and Larsen observe, "'Landscape' is about how humans take control and possession of, and derive pleasures from, 'nature'", and the production of "[this] landscape vision depends on various objects and mundane technologies".[5] In tourism, landscape becomes "a marketable commodity […] an object to be purchased, consumed, and even brought home in the form of souvenirs".[6] The coloniser, not dissimilarly to the tourist, depicted newly encountered terrains either as vacant, wild expanses marked by exotic natural beauty, or as hostile and alien environments to be tamed and civilized.[7]

In this essay I consider landscape aesthetic in the context of a location where colonisation did not involve indigenous *human* communities: the archipelago of Svalbard was, at the time of its discovery by European travellers and explorers, uninhabited by humans. It is situated in the Arctic Ocean at 74° to 81° north latitude, and from 10° to 35° east longitude more than 800 kilometres from the northern coast of the Norwegian mainland. During the midwinter months, the landscape remains largely invisible to the naked human eye, and a visual observation of the details of Svalbard's terrain in the middle of the winter requires considerable technological enhancement. It therefore also offers an opportunity to challenge the apparent "transparency" of visual technologies to which Haraway refers: in some cases, it is only the technology that we finally see.

This discussion thus addresses the aesthetics of visualisation itself, as the bracketing of an immediate and pre-discursive visual experience of the terrain, which draws out attention to the processes of its becoming-landscape through the acts of framing,

4 D. Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective", *Feminist Studies* 1988, vol. 14, no. 3, p. 582.

5 J. Urry, J. Larsen, *Tourist Gaze 3.0*, London: Sage Publishing, 2011 (Kindle Edition), p. 110.

6 W.T.J. Mitchell, op. cit., p. 15.

7 On Arctic landscapes and the marginalization of indigenous human presence in representations of the Arctic, see e.g. E. O'Dochartaigh, "The Visual Culture of the Franklin Search Expeditions to the Arctic (1848-55)", doctoral dissertation, National University of Ireland, Galway, 2018, https://aran.library.nuigalway.ie/handle/10379/7152, accessed 11 January 2019.

selection, enhancement and editing. This is what Joanna Zylinska describes as "the inherent manufacturedness of what counts as 'landscape'".[8] New technologies remediate and repeat established characteristics and features of landscape aesthetics, and increasingly automatize the process whereby the travelling photographer "[reads] the landscape for signifiers of certain pre-established notions of signs".[9] By exploring them in the context of the invisible landscape of the polar night, we can interrogate the ways in which they habitually engage us by offering a surface experience of familiar technological processes, hiding other, social, political and cultural discourses. Focusing on the technological frameworks and their aesthetic/material manifestations rather than the "content" of that which remains within the frame also paves way to discourses other than those emphasizing representation. Various non-representational approaches to land(scape) have been adopted increasingly often in the past few years. Nina Morris, for example, has discussed how "Landscape 'installations' challenge us to think differently about landscape art" by moving from "representing" to "presenting" material experiences and environments.[10] Jussi Parikka's work, informed by New Materialist thought, has considered how new art practices build on earlier land art projects, and their "refusal of the distance-taking gaze of landscapes".[11] I would suggest that such interventions can be termed as a "post-landscape" approach to considering our aesthetic environment in the context of 21st century media technology and the social, cultural and ecological challenges it presents.

Most of the images included in this essay were taken during my two visits to the town of Longyearbyen, Svalbard, first as a participant in the Island Dynamics conference "Folklore and Superstition" in 2017, and later as the academic convenor of the "DARKNESS" conference in January 2019. These images are not included here due to any kind of photographic merit—if anything, they are in most cases extremely (and to some extent intentionally) clumsy demonstrations of how darkness can bring to surface many of the social and cultural underpinnings of our often unreflected approach to landscape through everyday devices and applications, especially in the contexts of tourism and travel. Thus, as an initial and in many ways tentative investigation into the challenges and possibilities of new technologies in visual mediation, this essay necessarily has its limitations. It only addresses a small selection of media available to the occasional amateur traveller: the Theodolite app, Snapchat, and night sight modes of present-day consumer grade digital and mobile cameras. These applications allow me to reflect on the continuing reiteration of established forms of landscape aesthetics in digital media environments, and offer a starting point for imagining alternative practices. Related imagery in the context of numerous other

[8] J. Zylinska, "The Creative Power of Nonhuman Photography", in: *Photographic Powers*, ed. by M. Elo, M. Karo, with M. Goodwin, Helsinki: Aalto University, 2015, p. 134.

[9] Culler's views in "Semiotics of Tourism" reiterated in J. Urry, J. Larsen, op. cit., p. 16.

[10] N. Morris (drawing on C. Bishop's Installation Art), "Night Walking: Darkness and Sensory Perception in a Night-Time Landscape Installation", *Cultural Geographies* 2011, vol. 18, no. 3, p. 317.

[11] J. Parikka, "Earth Forces: Contemporary Land Arts, Technology and New Materialist Aesthetics", *Cultural Studies Review* 2015, vol. 21, no. 2, p. 52.

online image sharing platforms, or forms related to aerial views or mapping through satellite and drone imagery (certainly a present-day remediation of Haraway's "god trick") in such a context has been explored—and remains to be further investigated—in more detail elsewhere.[12]

I also want to note that though much recent scholarship challenges the perceived overemphasis on visual aesthetics and visual representation, and focus has increasingly moved to multimodal or embodied forms of perception and engagement with landscape, the discussion here considers mainly visuality and visual aesthetics. This, however, is discussed less through the aesthetic qualities of the "seen" or "pictured" landscape itself, than through the processes and technological frameworks, and the devices through which this visuality materialises, or is enacted and presented. The physical terrain and specific setting of Svalbard is therefore paradoxically both relevant and irrelevant to the present discussion: relevant because it offers the conditions for considering the technological, material and sociocultural aspects of visual aesthetics in the darkness of the polar night, at a tourist destination which has been marketed dominantly through landscape imagery. It is irrelevant in the sense that the essay does not focus on specific features, details, or cultural manifestations of the material terrain of the location, or analyse this landscape as a sociocultural interface connecting the technological medium and unmediated materiality.

The setting of Svalbard

It is nevertheless necessary to provide some background information on Svalbard and Longyearbyen as the setting that has informed this essay. The name "Svalbard", believed to mean "cold coast or edge" was, as Vidal Hisdal notes in his overview of the history of human presence on the islands, "first mentioned in Icelandic annals from 1194 in connection with a brief information, such as *Svalbarði fundinn*", "Svalbard met/found".[13] Hisdal also stresses, however, that it is not known whether these early mentions specifically refer to the archipelago we currently known as Svalbard, or to some other geographical location for which the term offered a suitable description. Some Russian sources suggest that huts were set up on the islands by hunters from the White Sea region in the 16th century.[14] The first Western European explorer to discover the islands was the Dutch Willem Barentsz in 1596, and in the 17th century the islands became a base for whale and walrus hunting by Dutch, British and Basque hunters.[15] Gradually Norwegian presence on the islands became most established, and after the near-decimation of the walrus population by mid-19th century it was the

[12] For work carried out on other platforms, see e.g. M. Man, "The Legacy of the English Picturesque in the Tourist Photography of Instagram", *The Vassar College Journal of Philosophy* 2016, no. 3, pp. 2-15.

[13] V. Hisdal, *Svalbard: Nature and History*, Oslo: Norsk Polarinstitutt, 1998, p. 94.

[14] Ibid.

[15] Ibid., p. 96.

highly profitable coal mining that led to the establishing of the Arctic Coal Company by the American businessmen Frederic Ayer and John M. Longyear in 1906 (the latter also gave the name to the town of Longyearbyen).[16] The history of exploration, habitation and exploitation of Svalbard is more complex, of course, but the short overview above should highlight the brevity of recorded human engagement with the islands, and the lack of the kind of violent encounters between native human population and colonisers that characterizes (or haunts) many literary and artistic representations of remote or non-western regions. In other words, when Svalbard landscape is presented as untamed wilderness, it is not because the history of the indigenous population would have been erased, but because it does not, to the best of our knowledge, exist. Its remoteness thus suits the raised expectations of the Arctic sublime. Inasmuch as the "magnificent features of the landscape are a consequence of, on the one hand, the constructional power of geological processes and, on the other, the destructive effects of water, frost and ice",[17] visual imagery of Svalbard typically seeks to reflect such "magnificence".

But this lack of long *human* history also brings to the foreground human colonisation of the non-human ecosystems and life of the archipelago, and the entire planet. The encounters between explorers, hunters and businessmen, and the flora and fauna of the archipelago have a history that is no less problematic than in other cases of colonial invasion. And as the effects of climate change are coming more fully into view, the fragility of the Arctic environment and the violence of Western expansion are manifestations of processes taking place on a global scale. The present-day engagement with Svalbard is also motivated by frameworks that are highly relevant to the processes behind the tradition of landscape aesthetics, and politics: as the coal industry has become less and less profitable, the Longyearbyen community now sustains itself with science and tourism, and habitation on the islands is further motivated by the continuing (and increasing) political interests of governments (Norwegian and Russian) to retain a presence in the Arctic region. Therefore, scientific knowledge and exploration, and the marketing of the Svalbard landscape to tourists continue to inform the visual depiction of this environment, one which is now beginning to pay the price of the destructive process of industrialisation that was long fuelled by coal, the resource that led to the birth of Longyearbyen. Here, the focus will be on everyday media and technologies that inform the ways in which visitors engage with Svalbard, and on how the changing media environment continues to repeat the structures and elements of pre-digital landscape aesthetics.

[16] Ibid., pp. 98-99.
[17] Ibid., p. 21.

Literal and figurative darkness of the landscape image

The Svalbard environment during the polar night raises questions related to the post-human, non-human, or other-than-human dimensions of the landscape as a visual or visually evoked category in two senses. Firstly, as mentioned above, the short history of human presence on the islands, which still remain largely uninhabited, should make us alert to the natural environment not as empty wilderness, but as an ecosystem and a habitat for numerous animal and plant species, some facing extinction due to human colonisation, some recently introduced by humans and thus new to the ecosystem; the figurative darkness inherent in landscape aesthetic discussed by Mitchell has assumed new meanings in the age of the Anthropocene. Secondly, the lack of daylight and the difficulty of easily capturing the essential features of the surrounding terrain through the naked human eye, or everyday pre-digital imaging technologies like the tourist camera, foreground the role of the technological tools and devices as forms of machine vision that have contributed to the "visual vernacular" (to use Anne Friedberg's term) of our contemporary landscape aesthetic.

The figurative and physical darkness also bind technological developments to the aesthetics of violence and colonisation as outlined by Mitchell and others. Bishop and Phillips, for example, have addressed the relationship "between visual technology and visual culture and aesthetics", and how "the story of military technology [in the 20th century] has been one of prosthetic extension, especially that of sight, with weapons becoming gifted with sensory perception and intelligence".[18] The implied violence of imperial depictions of landscape assumes new forms in 21st century technological environments of warfare: "sighted weapons" such as military helicopters and drones are rapidly eradicating the spatial as well as temporal distance between perceiver and the perceived target, and "the moment of perception approaches the moment of destruction".[19] Crucially, this aesthetics of violence relies on a presumed degree of detachment and distance between the observer and the observed environment. This is closely related to the foregrounding of the ability to "take in" the landscape at a single glance, or landscape as an object "out there", "apprehended with reference to the horizon", as Edensor phrases it.[20] An increasing amount of scholarly work focusing on landscape or material/natural/physical environments and darkness challenges this view by considering the multimodal aspects of perceptual aesthetics, and "thwarts the usual sense that the landscape broadens out from the observer".[21] Instead of focusing on alternative modalities or forms of perception, I want to consider how the lack of visual reference points highlights the technologies and processes that we usually bracket when observing landscapes or landscape imagery. Or, to

[18] R. Bishop, J. Phillips, "Sighted Weapons and Modernist Opacity: Aesthetics, Poetics, Prosthetics", *Boundary 2* 2002, vol. 29, no. 2, p. 158.

[19] Ibid., p. 159.

[20] T. Edensor, "Reconnecting with Darkness: Gloomy Landscapes, Lightless Places", *Social & Cultural Geography* 2013, vol. 14, no. 4, p. 455.

[21] Ibid.

quote John Urry and Jonas Larsen, it demonstrates how "there is nothing inevitable or natural about this organising power of vision".[22] Inasmuch as photography and related digital visual technologies have emerged as a means for "extending the tourist gaze",[23] our desire to nevertheless visually capture the landscape we cannot see without technology turns the focus from the naturalized gaze to the processes of visual capturing.

In the present-day context, the relationship between tourism and colonial or military violence also assumes new guises: the tourist as an observer, and the "tourist gaze" that seeks to incorporate and consume newly encountered locations and environments, also presumes a degree of detachment, with a paradoxical search for authenticity or even intimacy. The impact of travel on the environment is also an increasing concern, and it is impossible to ignore the connection between air transport that brings most tourists (as well as scientists and scholars like myself) to Svalbard, and the growing threat that the climate change poses to the fragile Arctic environment. Inasmuch as our understanding of landscape aesthetics draws both on established understanding of human biology and perception, and sociocultural, historical and economic structures in society, the overhaul of a perspective that relies on the centrality of such human perception and experience could also profoundly challenge the premises on which Mitchell's "darkness", inherent in the popular landscape aesthetic, also builds. A change in everyday media aesthetics could prompt, I hope, a change in attitudes towards the environment.

Pictures in /or darkness: Theodolite, Snapchat, night-time digital photography

The second half of this essay focuses on three ways of visually capturing landscape in the darkness of the polar night: the Theodolite app, Snapchat, and the night vision mode of the digital camera for amateur/tourist (rather than professional or scientific) use. Each of these media is understood as a digital application of a technology or aesthetic medium that has a longer history, or builds on a pre-digital tradition of pictorial representation by replicating, as well as slightly transforming, the key structures and processes of its predecessors. The distance required for a comprehensive view here meets the traveller's desire to be a part of the landscape; the Theodolite app is marketed to hikers who wish to keep track of their exact route and position, Snapchat images are distributed online to alert fellow social media users of the exact location of the person posting the photographs, and new digital camera imaging technologies are aimed at producing an aesthetically spectacular record of a visitor's environment in an exotic location, even when it remains invisible to the naked eye.

[22] J. Urry, J. Larsen, op. cit., n. pag.
[23] Ibid.

The Theodolite

The theodolite is an optical device that was designed for the purposes of land surveying. Its history can be traced back to Alexandria in about 100 A.D., where it emerged as "one of the first surveying instruments to be concerned with the measurements of angles rather than distances":[24]

> A sighted alidade moved over a circular plate which could be rotated into any desired plane. Screws and cog-wheels provided adjustment for verticality of the altitude scale, which was set by means of a water-level. In 1571, Thomas Digges described a type of theodolite designed and made by his father, Leonard Digges, in which the sighted rule was mounted on graduated azimuth circle.[25]

The origin of the device's name is unclear. According to the *Oxford English Dictionary*, the name "originated in England, and […] Its first user, and probable inventor, L. or T. Digges, has left no account of its composition"; "*Theodelite* [the original spelling of the word] has the look of a formation from Greek; can it have been (like many modern names of inventions) an unscholarly formation from θεάομαι 'I view' or θεῶ 'behold' and δῆλ-ος 'visible, clear, manifest', with a meaningless termination".[26]

As the technology was developed and refined, it also became a key instrument for the colonial project, as new territories were measured, charted and mapped. One of the best known literary engagements with the device is Brian Friel's play *Translations* (1980), in which the theodolite as a medium of scientific recording and measurement of the Irish landscape is also presented as a metaphor for the military as well as sociopolitical control and eradication of the indigenous Irish culture: "[the] theodolite is wielded as if it were a weapon", as Kevin Phelan observes[27] and seals the fate of the indigenous language, as place names as well as the oral tradition connected to the landscape are "translated" into the idiom of the coloniser.[28] Its use in mapping has also been referred to as Haraway's "god trick", as it enables location-specific but "placeless observation".[29]

While the theodolite and its uses were designed for scientific (and, indirectly, colonial/military) purposes, the theodolite I used in Svalbard was a digital application, easily available to non-specialists. The augmented reality app enables you to take images which automatically record and display all the data, and some more, that its

[24] H.C. King, *The History of the Telescope*, Mineola, NY: Dover Publications, 1995, p. 114.

[25] Ibid.

[26] "theodolite, n.", *OED Online*, Oxford University Press, December 2018, www.oed.com/view/Entry/200359, accessed 11 January 2019.

[27] K. Whelan, "Between: The Politics of Culture in Friel's Translations", *Field Day Review* 2010, no. 6, p. 10.

[28] See B. Friel, *Translations*, New York: Farrar, Straus, and Giroux, 2001.

[29] S. Hind, S. Lammes, "Digital Mapping as Double-Tap: Cartographic Modes, Calculations and Failures", *Global Discourse* 2016, vol. 6, no. 1-2, p. 80.

pre-digital predecessor allowed users to record manually. This data forms a frame around the image itself, pinning it down to a specific location coordinates (presuming that your mobile device has its GPS function on, it will automatically record your location, or use the previous available location coordinates), latitude, longitude, altitude, horizon angle, azimuth and bearing.

In Svalbard, I used the theodolite app during an organised hike to the Longyearbyen glacier, attempting to capture images of the surrounding landscape just before midday (Fig. 1). However the camera on my device was not designed for night time photography, and while there was just about enough dark blue light to get a sense of the immediate surroundings with naked eye, all that remained visible on my iPad screen was a faint horizon that divided the image into a very dark blue sky above, and the black (despite being snow-covered) glacier terrain below. The image was of Longyeabyen glacier, but only recognisable as such due to the coordinates and other data included in the photograph; without this augmentation, the image would have been a blurry, blue-black view of darkness, and could have been taken anywhere.

Fig. 1: Theodolite app image: Longyearbyen glacier, 11.12 am, January 2017. Image by author

With the physical environment itself invisible, what the resulting Theodolite image highlighted was the role of framing information, editing and expectations in constituting landscape as an object of knowledge in traditional forms of representation. For hikers, the app offers a means of orienting themselves in relation to the environment, in real time. At the same time, for me the saved images present a record of an embodied experience of a hike in darkness in pictorial terms, and framing the view with the data and signs reveals the function and purpose of the technology, rather than any crucial aspect of the environment itself.

Unable to record the outdoor views with a regular mobile camera during this first visit, I ended up using the same app to record images of Svalbard landscape indoors, if only half in earnest: on the walls of our hotel foyer, there were pictures of

19th century lithograph prints of Svalbard landscape. In the absence of visual reference points in the darkness outdoors, for me and the other visitors the only way of visually accessing the landscape was through these kinds of images, created by others. When I took pictures with the Theodolite app, it again included all the framing location data for the specific coordinates of the town of Longyearbyen: the images were *mise en abîme* reflections of historical representations of Svalbard, in which the print frame was a frame within the frame of the Theodolite screen view (see Fig. 2). There were also large landscape photographs of the vistas available in daylight, but now covered in the darkness of the polar night (see Fig. 3). I realised that in public places I was constantly surrounded by images of the landscape I could not see with my own eyes, from engravings depicting early exploration to present-day digital landscape spectacles. While the theodolite photographs of these images were a rather clumsy or an almost comical attempt to visually access my surroundings, they did highlight the extent to which our visual material depicting Svalbard's landscape relies on previous encounters with media, art and marketing. Indeed, they also made me realise how my own mental image of Svalbard, even *after* my first visit, still mainly drew on material related to tourism and travel, encountered online *before* I ever set foot on the island, or by others who had visited and seen the landscape before me.

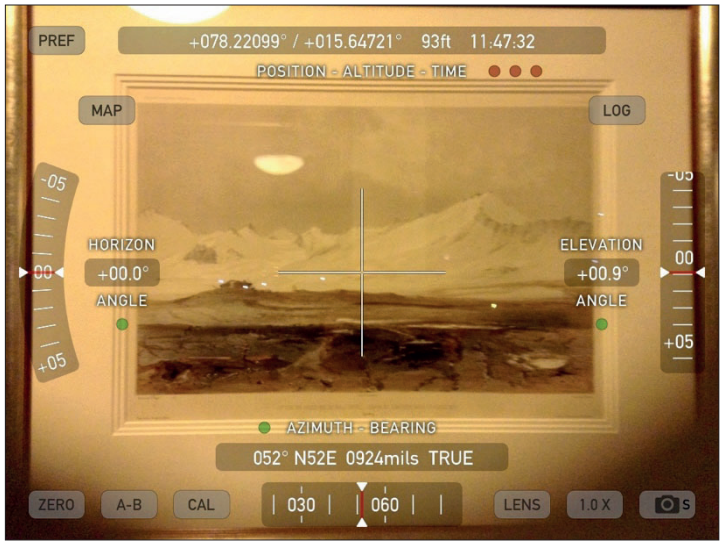

Fig. 2: Theodolite app image of framed lithograph print, Radisson Blu hotel foyer, Svalbard. The image in the print is a panorama of Bellsund by Léon Jean Baptiste Sabatier, created between 1842 and 1856. Image by author[30]

[30] For an image of Sabatier's original print and related information, see Norwegian National Museum digital collections, http://samling.nasjonalmuseet.no/en/object/NMK.2008.0256, accessed 8 April 2019.

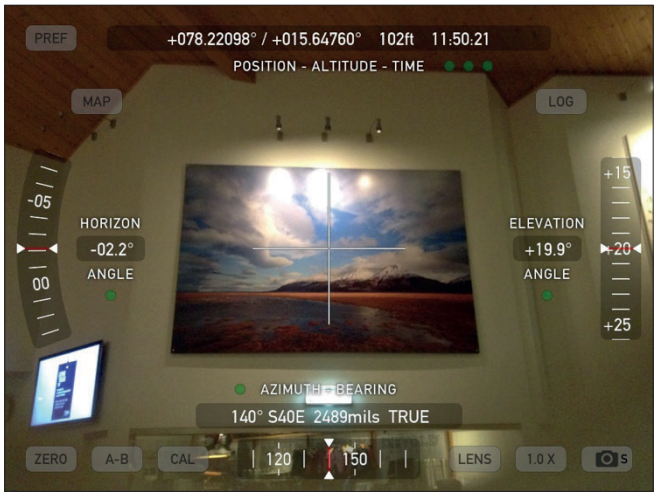

Fig. 3: Theodolite image of landscape print, Radisson Blu hotel foyer, Svalbard. Image by author

Snapchat

In the imagery of tourism and travel, especially in images targeted at actual tourists as well as potential visitors to a destination, the aesthetic characteristics of landscape images often serve a two-fold function: first of all, they attract the tourist's gaze with the new, the exotic or the unfamiliar, the "other" of a distant location. Secondly, they act to reaffirm existing expectations and perceptions of the destination: the tourist is offered a view corresponding with previous (visual) media encounters. Those fascinated with the idea of the Alps, the Norwegian fjords, the hills of Tuscany or the bright blue waters and whitewashed houses of Greek islands look for familiar markers and points of recognition in images as well as in the vistas they encounter once they reach their destination, which has already been rendered familiar with previous encounters with brochures, websites and magazine ads. The function of the image and the tourist photograph is often to enforce pre-held conceptions of what a landscape is, or what it should be.

Such processes are also replicated by the social media platform Snapchat. The application is often perceived as favoured by young people, and as encouraging fleeting, superficial and easily entertaining forms of communication. In particular, its use of augmented reality elements, including various location-specific geofilters has made it a popular platform for taking selfies and images with added elements (that may distort your face to make you look like an animal, even your skin and enlarge your eyes for the attractive look, etc.). The quickly recognizable here-and-now quality is essential to the Snapchat experience of tourists and travellers. But Snapchat, too, has its pre-digital predecessors. In the 18th century, the Claude glass, named after the landscape painter Claude Lorraine, was, as Denis Cosgrove describes it,

"a convex, circular instrument [of] highly polished copper surface through which actual views could be framed and tinted to resemble painted ones". It augmented and filtered the surrounding view to make it suitable for the needs of the traveller or the artist. "Northern scenes", for example, "came to be framed, composed and illuminated by soft Mediterranean light", and "the instrument's use required the viewer to face away from the scene, privileging the eye and distancing it from material nature as effectively as any movie screen or TV monitor"[31]—or, I should add, a mobile screen.

The specific details included in the image filtered through Snapchat have changed, of course. Ginette Verstraete describes the process: "accessing the Snapchat app on location also enables you to select geofilters that are unique to the event and that visibly mark the images with its logo but also the place, time, and temperature at the time of production".[32] The location-specific filters for landscape photographs tend to repeat the aesthetic characteristics and functions of the established tourist image or photograph: they often add to the photograph a site-specific frame or other visual element that depicts some recognizable icon or feature of the pictured location. Due to the highly ephemeral nature of Snapchat images (they will remain visible on the viewer's screen for less than ten seconds), complexity or depth must be sacrificed for quick recognition: inasmuch as pictures with added geofilters are simple and cherish the geographical/cultural stereotype, this is specific to the purpose and function of this particular application. As Verstraete phrases it, "If a true explorer moves towards the risk of the unknown, Snapchat's tourist ends up in the security of the cliché".[33] Here, the term "ecoporn" seems appropriate for describing the process of quick consumption and discarding of imagery, rather than a more meaningful long-term encounter.

In Bergen, Norway, for example, available frames include for example the houses at the UNESCO world heritage site Bryggen, or the mountains surrounding the city (Fig. 4), or the city's highest mountain Ulriken, easily distinguishable by the television tower at its top. Such frames allow a Snapchat user to mark any photograph as Bergen through the easy inclusion of the city's best-known attractions, and simultaneously reinforce established image of what Bergen looks like.

[31] D. Cosgrove, "Landscape and the European Sense of Sight-Eyeing Nature", in: *Handbook of Cultural Geography*, ed. by K. Anderson, M. Domosh, S. Pile, N. Thrift, London: Sage Publications, 2003, p. 258.

[32] G. Verstraete, "It's about Time. Disappearing Images and Stories in Snapchat", *Image [&] Narrative* 2016, vol. 17, no. 4, p. 110.

[33] Ibid.

Fig. 4: Image of Snapchat geofilter, Bergen. Video created by author in collaboration with Jill Walker Rettberg, screenshot by author

The economy of Svalbard, too, relies heavily on tourism as well as the imagery if sublime Arctic vistas, untainted by civilization. Photographs of fjords, mountains, glaciers and snow-covered valleys dominate in material offered to visitors. During the darkest winter months, however, these pictures are all the traveller has to rely on to form an image of the Svalbard landscape, which is shrouded in darkness. Snapchat geofilters augment snapshots taken in the darkness of the polar night with text and image that become an almost humorous sign of the setting of the photograph (see Fig. 5). The only visible features of the environment in the picture itself are a snowy foreground and a few lit windows, and the street lights forming a line of light on the other side of the valley.

Fig. 5: Svalbard and Longyearbyen geofilters on photographs taken at the Longyearbyen valley in Nybyen. Image by author

Svalbard is marketed with landscape imagery that stresses the Arctic location rather than any specific, well-known landmarks in the area, and the filters themselves simply incorporate vague shapes and colours denoting ice, water and mountains, rather than any *particular* mountain, fjord, valley, or human construction. The Snapchat image does not even purport to capture the landscape in detail, but adds the relevant, or what are seem as *adequate* verbal and visual details on the images, which in themselves may or may not portray details of the actual environment.

Digital camera night vision

The average tourist snapshot taken with a digital or mobile camera is still unequipped for the task of enhancing human vision to the extent that details of the environment would be easily captured: even at midday, in January there is too little light for a detailed photograph, and the result often offers few if any recognizable elements (see Fig. 6).

Fig. 6: Midday in Longyearbyen, Svalbard, on 12 January 2019—mobile camera snapshot. Image by author

However tourism and travel to destinations of natural beauty relies on landscape imagery for marketing, and the individual tourist explorer is also keen to capture and share a record of their journey, increasingly in a public or semi-public online setting. Images of winter Svalbard, with the combined spectacle of snow-covered mountains and valleys, and the aurora borealis, are extremely popular for example on the photography platform Instagram. In contrast to the ambiguous shapes of black and dark blue that we have to settle for with no technological enhancement, both professional and amateur photographers now use various techniques to produce images filled with otherworldly light of the polar night, like in Figure 7.

Fig. 7: Northern lights above a mountain ridge near Longyearbyen. Image courtesy of Debbie Lee

Most recent digital photography has also provided the occasional traveller with new tools that allow them to photograph landscapes at times when natural light is scarce. Unlike previous analogue or digital cameras, which could capture images in dark environments only with long exposure times that required for the device to be held immobile for a prolongued period of time (something for which the average, busy visitor would often not have time, patience or equipment), many new digital cameras have a night vision or night light mode that is based on a composite image. The camera records a series of individual photographs in rapid succession and then combines them to form a single image with a level of detail that often surpasses the capabilities of the naked human eye, as well as the traditional amateur snapshot. Google, for example, has launched this Night Sight as a new mode for its Pixel smart phone to enable the "segmenting the exposure into a burst of consecutively taken frames, which are then reassembled into a single image using the company's algorithmic magic".[34] In addition, the photographing process begins before the user even presses the button:

> Before a shot is even taken, Google's Night Sight camera does a ton of multifactorial calculations. Using what the company calls motion metering, the Pixel takes into account its own movement (or lack thereof), the movement of objects in the scene, and the amount of light available to decide how many exposures to take and how long they should be.[35]

[34] V. Savov, "Google Gives the Pixel Camera Superhuman Night Vision", *The Verge*, 14 November 2018, https://www.theverge.com/2018/11/14/18092660/google-night-sight-review-pixel-2-3-camera-photos-image-quality?fbclid=IwAR3BVaIxNNL0BTa-TrdHUB10EKB7DJZv2d1kf_3TD9g8gZvO6FESTza8h5M, accessed 11 January 2019.

[35] Ibid.

The functioning of the mode, and the Google Pixel camera, takes a small but not insignificant step away from the agency of the individual human subject—the camera begins preparing for the photograph before the command to take it has been given. Furthermore, the Night Sight algorithm has been taught to engage with colour in a way that raises questions of what is to be considered a "faithful" depiction of the dark environment.

The night vision capabilities of the human eye compromise colour in favour of detail. Tim Edensor, for example, highlights how "the apprehension of darkness is conditioned by the propensities of the human eye to discern aspects of place and landscape in little or no light".[36] Two different kinds of receptors exist for light-perception in the human retina: cones and rods, the former operating in normal light conditions, and the latter when there is little light: "the rods […] shape the human visual apprehension of darkness, making the eyes more sensitive to light, shape and movement but impairing the ability to discern colour".[37] Thus, the night time photographer faces a choice as to whether to seek to replicate the characteristics of the (human) visual experience in darkness, or whether to display as much colour and detail as possible. Images like the one in Figure 6 and many of those taken with the composite night vision mode display both sharp details and bright colours, making the image dramatic and spectacular, thus departing from the ambition of "faithfulness" to the visual experience not relying on technological enhancement. Google's new system is said to be "using a […] learning-based algorithm that's been trained to discount and discard the tints cast by unnatural light". The algorithm has been "fed […] loads of images in both a tinted state and with a corrected white balance and taught it to prefer the latter", and as a result, "the machine is learning more than just colors".[38] Google's representatives note that it has learned "something inherent to pictures". Finer details of these technicalities aside, the language used in the above quotations is interesting: the question of "natural" or "unnatural" light" prompts the follow-up question of natural from what perspective, or for whom?—human eyesight, or conventions of tourist photography, western landscape art, or something else? Ultimately, whatever the perspective, the end result may end up discarding both: in some cases "the photo no longer looks like it was taken at night. [Google] had to pick between the most faithful image, which would keep the shadows intact, or the most detailed one", and it opted for detail.[39] Thus, while the resulting image offers more detail and a more accurate portrayal of the material details of the environment than older techniques, it is "wrong" in the sense that it is neither a photograph of the landscape as it would appear in natural light, nor similar to how it would appear to the visitor observing it outdoors, on site. Instead of familiarity, such an image offers technologically generated strangeness: it is not "how it really looked", as many of my fellow

[36] T. Edensor, op. cit., p. 452.
[37] Ibid.
[38] V. Savov, op. cit.
[39] Ibid.

travellers to Svalbard often commented the beautiful landscape photographs taken during the conference trip.

For the tourism industry in particular, the function of these photographs is to reaffirm the expectation of the appearance of a landscape of the Arctic sublime—yet they also make visible the technology that allows such images: whether long exposure photographs or those taken with the Google's Night Sight mode or other cameras relying on composite image technology, faithfulness to the "unmediated" experience gives way to the faithfulness to the desired and spectacular aesthetic experience—or to the pre-held ideas of the appearance of Arctic landscape.

Conclusion: post-landscape countervisuality

Through the discussion of a series of images and photographs, I have above examined the role of present-day visual media technology in the aesthetics of landscape, mainly in the context of everyday devices, applications and platforms. More specifically, rather than on any particular characteristics of the landscape of Svalbard and Longyearbyen itself, my focus has been on the visible elements of the chosen technology in the images as an intrinsic part of this imagery. In photographing the landscape of Svalbard in the darkness of the polar night, our attention can be more critically directed to the (figurative and literal) processes of framing and mediation understood as the entire process of visualising the largely invisible environment. In the case of digital applications and devices, the framing processes become manifestations of the infrastructure and relations that underpin landscape images, which we often continue to consider simply as pictorial representations of a material terrain "out there".

This essay also contributes to existing (and increasing) scholarly discussion on contemporary spatial aesthetics in artistic production that looks beyond landscape motif as we understand it, or, turns away from the "distance-taking gaze of landscapes" mentioned by Parikka. Such art projects have been carried out in Svalbard as well, also during the conference during which some of this essay was written, by Sara Davidmann and Catherine Faulds whose "Dark Works", based on their work in Longyearbyen in January 2019, combined "slow" pinhole camera photography with sound and poetry to reflect on the relations of visual, sonic and verbal perception and expression through which we engage with this environment.[40]

The turning away or refusal in "Dark Works" and many other art projects can be linked, I finally want to suggest, to what Nicholas Mirzoeff has phrased as "the right to look", or "countervisuality". For Mirzoeff, "visuality" is less the totality of what can be pictorially presented or perceived through the eye, but more about something that should be understood as "a set of relations combining information, imagination, and insight into a rendition of physical and psychic space".[41] It relates to "nam-

[40] S. Davidmann, C. Faulds, "Dark Works", art project, performance and presentation, DARKNESS conference, Longyearbyen, 16 January 2019.

[41] N. Mirzoeff, "The Right to Look", *Critical Inquiry* 2011, vol. 37, no. 3, p. 476.

ing, categorizing, and defining", and to "social organization" and "classification" in a manner that makes this classification "seem right and hence aesthetic".[42] The "right to look" or "countervisuality", then, is a right to challenge the authority of the visible, to access that which remains beyond its forms, categories, or aesthetics—the invisible imaginary. In the case of landscape imagery, visual technologies tend to direct us to remediate established aesthetics of landscape, and thus the structures of control, consumerism and unreflected power relations (or the "god trick") that continue underpin the 21st century landscape imagery in everyday media environments. In the context of Svalbard during the polar night, countervisuality is literal as well as figurative in the sense that Mirzoeff suggests: what remains invisible in nighttime imagery in particular are the slow processes of environmental change (melting sea ice and warmer winters), commercial development (construction of new facilities for tourism) and traces of historical exploitation (the mining industry, whale and walrus hunting) that form the narrative of problematic human presence in the archipelago. The literal darkness can become a filter of its own, creating a canvas on which to project an image of that which is desired: a wild, sublime landscape.

We are nevertheless increasingly encountering aesthetic forms, and a relationship or technological, natural and material environment that can be termed "post-landscape"—new forms of exploration and engagement are needed to reflect the entanglements between perception, technology and the world. As a term, "post-landscape" joins a long list of others incorporating the prefix "post-" to describe concepts and phenomena that follow and express some paradigm shift in scholarly or theoretical thought. Like the term "posthuman", it continues to incorporate its predecessor, but also responds to, and challenges, former frameworks of thought. Eventually, such a concept is likely to become unnecessary, and make way to language emerging from the new aesthetic/technological frameworks themselves. In commenting on the concept of the posthuman, Parikka has suggested that "against the regulatory historical framework of Man, the notion of the posthuman is a placeholder for a different set of concepts, one that foregrounds alternatives to anthropocentric formations".[43] Moving towards spatial aesthetics of "post-landscape", is similarly to be considered as a scaffolding to be dismantled as human and non-human entities claim the right to look, the right to bring forth hitherto invisible aspects of the material environment. This also remains a challenge for travellers, tourists as well as artists and scientists visiting Svalbard.

[42] Ibid.

[43] J. Parikka, op. cit., p. 48.

Bibliography

Bishop R., Phillips J., "Sighted Weapons and Modernist Opacity: Aesthetics, Poetics, Prosthetics", *Boundary 2* 2002, vol. 29, no. 2, pp. 157-179.

Cosgrove D., "Landscape and the European Sense of Sight-Eyeing Nature", in: *Handbook of Cultural Geography*, ed. by K. Anderson, M. Domosh, S. Pile, N. Thrift, London: Sage Publications, 2003, pp. 249-268.

Davidmann S., Faulds C., "Dark Works", art project, performance and presentation, DARKNESS conference, Longyearbyen, 16 January 2019.

Edensor T., "Reconnecting with Darkness: Gloomy Landscapes, Lightless Places", *Social & Cultural Geography* 2013, vol. 14, no. 4, pp. 446-465.

Friel B., *Translations*, New York: Farrar, Straus, and Giroux, 2001.

Haraway D., "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective", *Feminist Studies* 1988, vol. 14, no. 3, pp. 575-599.

Hind S., Lammes S., "Digital Mapping as Double-Tap: Cartographic Modes, Calculations and Failures", *Global Discourse* 2016, vol. 6, no. 1-2, pp. 79-97.

Hisdal V., *Svalbard: Nature and History*, Oslo: Norsk Polarinstitutt, 1998.

King H.C., *The History of the Telescope*, Mineola, NY: Dover Publications, 1995.

Man M., "The Legacy of the English Picturesque in the Tourist Photography of Instagram", *The Vassar College Journal of Philosophy* 2016, no. 3, pp. 2-15.

Mirzoeff N., "The Right to Look", *Critical Inquiry* 2011, vol. 37, no. 3, pp. 473-496.

Mitchell W.J.T., "Imperial Landscape", in: *Landscape and Power*, ed. by W.T.J. Mitchell, Chicago: University of Chicago Press, 2002, pp. 5-34.

Morris N., "Night Walking: Darkness and Sensory Perception in a Night-Time Landscape Installation", *Cultural Geographies* 2011, vol. 18, no. 3, pp. 315-342.

O'Dochartaigh E., "The Visual Culture of the Franklin Search Expeditions to the Arctic (1848-55)", doctoral dissertation, https://aran.library.nuigalway.ie/handle/10379/7152, accessed 11 January 2019.

Parikka J., "Earth Forces: Contemporary Land Arts, Technology and New Materialist Aesthetics", *Cultural Studies Review* 2015, vol. 21, no. 2, pp. 47-75, http://epress.lib.uts.edu.au/journals/index.php/csrj/index.

Savov V., "Google Gives the Pixel Camera Superhuman Night Vision", *The Verge*, 14 November 2018, https://www.theverge.com/2018/11/14/18092660/google-night-sight-review-pixel-2-3-camera-photos-image-quality?fbclid=IwAR3BVaIxNNL0BTa-TrdHUB10EKB7DJZv2d1kf_3TD9g8gZvO6FESTza8h5M, accessed 11 January 2019.

Urry J., Larsen J., *Tourist Gaze 3.0*, London: Sage Publishing, 2011 (Kindle Edition).

Verstraete G., "It's about Time. Disappearing Images and Stories in Snapchat", *Image [&] Narrative* 2016, vol. 17, no. 4, pp. 104-113.

Welling B.J., "Ecoporn: On the Limits of Visualizing the Nonhuman", in: *Ecosee: Image, Rhetoric, Nature*, ed. by S.I. Dobrin, S. Morey, Albany: Suny Press, 2009, pp. 53-79.

Whelan K., "Between: The Politics of Culture in Friel's Translations", *Field Day Review* 2010, no. 6, pp. 7-27.

Zylinska J., "The Creative Power of Nonhuman Photography", in: *Photographic Powers*, ed. by M. Elo, M. Karo, with M. Goodwin, Helsinki: Aalto University, 2015, pp. 132-154.