

The Armchair Traveler's Guide to Digital Environmental Humanities

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ABSTRACT The technological mediation of near and distant landscapes have long fascinated scholars and the public alike, and it seems like this interest peaks around times of large-scale technological transition, when new modes of both transportation and mediation become available. Few scholars have analyzed this relationship between technology, media, and the perception of landscape as convincingly as Wolfgang Schivelbusch, who famously argued that the landscape perceived by travelers was filtered through the machine ensemble of the railroad system. This article brings Schivelbusch's thesis into the digital age as a way of examining the spatiality of digital media and the natural world. The article analyzes a series of technologically mediated digital representations of travel and movement through landscapes, in particular the Norwegian Broadcasting Corporation's "slow travel" series of digitally enhanced TV programs. These highly popular mediations of railroad or boat travel challenge Schivelbusch's ideas of speed, distance, and experience of landscapes, but also direct our attention towards the role of digital media in making sense of a changing world.

The empirical reality that made the landscape seen from the train window appear to be "another world" was the railroad itself, with its excavations, tunnels, etc. Yet the railroad was merely an expression of the rail's technological requirements, and the rail itself was a constituent part of the machine ensemble that was the system. It was, in other words, that machine ensemble that interjected itself between the traveler and the landscape. The traveler perceived the landscape as it was filtered through the machine ensemble.

–Wolfgang Schivelbusch¹

Introduction

The armchair traveler explores the world from the comforts of home. Through the printed word, still photographs, moving pictures, and sound, scenic locations and remote landscapes come alive, conveying some form of filtered and mediated experience of the world. You are armchair traveling when you read a Lonely Planet book about some place you may or may not be planning to actually visit; when you watch the Travel Channel on cable TV; when you watch

¹ Wolfgang Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the 19th Century* (Berkeley: University of California Press, 1986)

penguins in Antarctica on Google Street View. Armchair travel is a way of seeing the world with age-old traditions. The genre has tight connections to nature writing, seeking to build understanding of, knowledge about, and attachment to natural and cultural places. At the same time, armchair travel is about estrangement, as Bernd Stiegler argues: to not just learn about new places, but also to see familiar places in a new light.² As such, armchair travel is a deeply humanistic practice, weaving a web of meaning, narratives, and connections across the world, but always centered in the physical location of the armchair traveler. The media of armchair traveling, however, is in constant change. In recent years, geolocative technologies and networked screens have seemingly extended the range and immersive depth of what we now think of as virtual travel experiences. Using examples from Norwegian travel mediations, this article asks what happens when new media forms and networked digital technologies become part of the armchair travel experience. What are the affordances of media technologies and the modes of storytelling and experience in digital representation of travel?

The technological mediations of near and distant cultures and environments have long fascinated scholars and the public alike, and it seems like this interest peaks around times of large-scale technological transition, when new modes of transportation and mediation become available. Few scholars have analyzed this relationship between technology, media, and the perception of landscape as convincingly as Wolfgang Schivelbusch, who famously argued that the landscape perceived by railway travelers was filtered through the machine ensemble of the railroad system, creating a new panoramic view of landscape that was not possible before the railroad. *The Railway Journey*—which was published in German in 1977 and translated into English two years later—has had a considerable influence on the way historians of technology understand the relationship between technology and the experience of travel and place.

For Schivelbusch, *The Railway Journey* is a story of new transportation technologies, of “annihilation of space and time” by speed. His big argument is that the railway destroyed the traditional relationship, the close contact, between travelers and their environment, and replaced it with a panoramic experience of time and space. For him, the railway was the first truly *modern* mode of transportation, where mobility replaced the physical act of movement, and his main goal with the book was to capture this subjective experience of railroad travel at the very moment it was new.³ Schivelbusch’s original argument can very well apply to each successive generation of transportation technologies, where faster modes of transportation—be it cars, boats, airplanes, or others—continue to shrink space by time.

A corresponding argument would be that reverting to older forms of transport technology slows down the passage of time and expands the sense of place. As travel slows down, a new consciousness emerges, more deliberate and more attuned to the landscape being traveled through. In the spirit of Schivelbusch, we should consider this slowness an often-romanticized narrative invoked in depictions of railroad travel. The actual travel time between two locations can in some circumstances be less by the slow and steady movement of a train than through the increasingly stressful and antagonistic experience of modern airplane

² Bernd Stiegler, *Traveling in Place: A History of Armchair Travel* (Chicago: University of Chicago Press, 2013), Kindle ebook file, loc. 6.

³ Schivelbusch, *Railway Journey*.

travel. Slow travel is a carefully cultivated state of mind more than anything else, and one that needs to be historicized and contextualized in order to be fully understood.

Building on Schivelbusch's thesis, this article explores new media types of storytelling—in other words, armchair travel—that have emerged around this form for slow travel, arguing that new media technologies function as a medium that enables particular relationships between people and the world. With the coming of the railroad, the viewpoint for observing landscape was no longer a static one. The focal point changes—nearby is a blur, further away is clear—but slowly moving. Railway travel frames the experience, literally and metaphorically. The landscape of train travel is not experienced directly on the body, but through a window. In some ways, this particular framing of nature can be seen as a predecessor to screen-based media.

Following Schivelbusch's emphasis on the sensory and experiential quality of the human-landscape relation, I will focus on the roles media forms can play in shaping relationships between people and landscapes. In such a perspective, Schivelbusch's insights in *The Railway Journey* give us an opportunity to think about the relationship between the digital and the material, and the technological affordances of mediation, in ways that are critical for the environmental humanities. We seldom experience nature fully directly and unfiltered, but instead mediated through, even enabled by different technologies.⁴ The rapid movement of bodies through landscapes in trains on railroad tracks is one example. Technology provides a connecting bridge between the different timescales of human and environmental change. However, technology is not a neutral mediator. The newness or oldness of a particular technology at any given point in time shapes our understanding of both the mediated phenomenon and ourselves.⁵ For most technology, newer means faster, more powerful, and more sophisticated, simultaneously making older technologies seem less so, despite how advanced they had seemed when they were new (as most smartphone owners discover upon the release of a new and much more advanced model). When thinking about change over time, however, it is imperative that we recognize how old technologies were all once new, as Carolyn Marvin argues.⁶ Technologies we today consider stable, unchanging, and devoid of transformative power when compared to the new, were once disruptive, changing social relationships and the built environment alike.

Slow Travel and Sustainable Tourism

The world is a much smaller place than it used to be. Commercial airlines fly to almost every corner of the planet, which means that there are very few places in the world that are actually hard to visit. Travelers complain about the indignities of security checkpoints and being crammed into ever-narrower plane seats, but the fact remains that we live in a time with unprecedented amounts of travel opportunities across larger distances and at much higher speed than before. We are bombarded with images and narratives of exotic and enticing travel

⁴ In a strict interpretation, you would have to walk barefoot and naked through uncharted land at a time before the Anthropocene, with no goal of returning to civilization, in order to experience nature unfiltered by technology.

⁵ Michael North, *Novelty: A History of the New* (Chicago: University of Chicago Press, 2013).

⁶ Carolyn Marvin, *When Old Technologies Were New: Thinking About Electric Communication in the Late Nineteenth Century* (New York: Oxford University Press, 1988).

locations across the world, in advertising, entertainment, and culture, and more and more people actually have the opportunity to seek out these places for themselves.

Vacation travel has become a marker of affluence and personal satisfaction, and is today a consumer and leisure experience on a large scale.⁷ Particularly faraway and exotic travel destinations can function as a sort of conspicuous consumption as Thorstein Veblen defined it, but also the more everyday chartered flights to mass tourism sites like Gran Canaria matter.⁸ As a result of this dramatically increased travel activity, many have questioned and criticized the sustainability of extensive travel and tourism.⁹ Climate change discussions frequently reference the high and growing emissions from air travel, and in more local contexts noise pollution from transport infrastructure has also become a concern. Furthermore, the sheer numbers of tourists represent significant wear and tear on natural and cultural landscapes.

Slow travel is one of the responses to these environmental challenges in the emerging literature on sustainable tourism.¹⁰ For instance, Dickinson *et al.* define slow travel as “an emerging conceptual framework which offers an alternative to air and car travel, where people travel to destinations more slowly overland, stay longer and travel less.”¹¹ Yet, there seems to be a lack of consensus over the appropriate modes of transportation. Instead, slow travel should be seen as a group of associated ideas, a mindset rather than a tangible product.¹² Other literature on slow travel explores the connection between speed and positive values in modernity, such as freedom and progress, whereas slowness and stillness are seen as undesired. Molz examines how pace becomes socially encoded in media, demonstrating that slow travel opens the door to a more nuanced story of modernity.¹³ It is precisely this story this article investigates, with slow travel as a way of making sense of a changing world.

This emphasis on speed and slowness, paired with an underlying narrative of modernity and environmental degradation resonates with Schivelbusch’s story of the railway ensemble. When travelers today place railroad travel in the slow travel category, we see clearly what a relative phenomenon speed is. The “slow” is attributed by us, accustomed to higher speeds. Contemporary sources to Schivelbusch, on the other hand, emphasized the speed of train travel, the feeling of almost flying when traveling on a train.¹⁴ What was once new and modern

⁷ Frédéric Dimanche and Diane Samdahl, “Leisure as Symbolic Consumption: A Conceptualization and Prospectus for Future Research,” *Leisure Sciences* 16, no. 2 (1994): 119-129.

⁸ Thorstein Veblen, *The Theory of the Leisure Class* (New York: Penguin Books, 1994 [1899]).

⁹ Tommy Gärling, Dick Ettema, and Margareta Friman, eds., *Handbook of Sustainable Travel* (Berlin: Springer, 2014).

¹⁰ Janet E. Dickinson, Les M. Lumsdon, and Derek Robbins, “Slow Travel: Issues for Tourism and Climate Change,” *Journal of Sustainable Tourism* 19, no 3, (2011): 281-300; Janet Dickinson and Les Lumsdon, *Slow Travel and Tourism* (London: Earthscan, 2010).

¹¹ Janet E. Dickinson, D. Robbins, and Les Lumsdon, “Holiday Travel Discourses and Climate Change,” *Journal of Transport Geography* 18, (2010): 482-489.

¹² Les M. Lumsdon and Peter McGrath, “Developing a Conceptual Framework for Slow Travel: A Grounded Theory Approach,” *Journal of Sustainable Tourism* 19, no 3 (2011): 265-279.

¹³ Jennie Germann Molz, “Representing Pace in Tourism Mobilities: Staycations, Slow Travel and *The Amazing Race*,” *Journal of Tourism and Cultural Change* 7, no. 4, (2009): 270-286.

¹⁴ Michael Freeman, *Railways and the Victorian Imagination* (New Haven: Yale University Press, 1999).

seems to have become slow, deliberate, and authentic. What do these alternating senses of speed and modernity mean for the relationship between travel, experience, and landscape?

Landscapes of Textually Mediated Travel

Narratives of travel to distant locations have been a foundational element of literature. Romance, politics, war, and other interpersonal relationships are all distributed in time and space, which means that travel and mobility have been essential components of storytelling for as long as humans have shared tales around a fireplace. In written literature, Marco Polo is perhaps one of the most well-known travel narratives, having inspired armchair travelers for centuries, but the genre is much older. Pausanias' ten-volume *Description of Greece* dates to the second century, for instance, and the *Odyssey* is even older.

Travel literature as a genre became extremely widespread in the eighteenth century, particularly through British writers reporting on the far places in the British Empire and elsewhere.¹⁵ These British travelers also visited Norway at the end of the eighteenth century, joining a small but prolific group of Norwegian explorers.¹⁶ Scientists, folklorists, authors, journalists, painters, and more or less professional explorers can be found among the travelers. The books, articles, and artworks that these travelers published represent a simultaneous mapping of the countryside and of modernization, as modern transportation infrastructures followed in the footsteps of the pioneering travelers. Railroad travel came to feature frequently in contemporary travel reports. These narratives of railroad travel mainly took place in textual media in Norway; in travel books and in short articles in the popular volumes of the Norwegian Trekking Association, published annually since 1868.

Schivelbusch attempted to capture the experience of a large-scale technological transition, and contrasted railway travel with walking. Travel was slow before the railroad. We would think it was painfully slow, but as Schivelbusch writes about the nostalgia for pre-railroad traveling: it had more "soul." There is an inherent assumption in his writing that travel by foot was contemplative, rich, and full of details. Furthermore, referring to Georg Simmel's writings on the urban perception and John Ruskin's writings on travel, Schivelbusch reflects on the quality of sensory input at different speeds. The less input, the more time we have to dwell on it. In this sense, change is bad. Ruskin writes "... to any person who has all his senses about him, a quiet walk along not more than ten or twelve miles of road a day, is the most amusing of all traveling; and all traveling becomes dull in exact proportion to its rapidity."¹⁷

We find similar sentiments in the writings of the early explorers of the Norwegian countryside. A posthumous tribute to three trekkers, Mayor P. Birch-Reichenwald, Professor Axel Gudbrand Blytt and Professor Dr. Marius Sophus Lie, portrayed them all as old-fashioned tourists, spending the summers on foot, getting to know Norwegian nature. They were all active and influential people in science and politics, but gained the energy for this work while trekking in the mountains.¹⁸ The pioneering explorers were hardy men, reveling in the challenges of the road. The so-called "old tourists" however, were a breed of men that were

¹⁵ Brian Dolan, *Exploring European Frontiers: British Travellers in the Age of the Enlightenment* (London: MacMillan, 2000).

¹⁶ Jørgen Alnæs, *I eventyret. Norske reiseskildringer fra Astrup til Aasheim* (Oslo: Cappelen Damm, 2008).

¹⁷ Schivelbusch, *Railway Journey*, 58.

¹⁸ *Den norske turistforenings aarvog for 1899* (Kristiania: Grøndahl & Sønn bogtrykkeri, 1899), 1.

fast disappearing at the turn of the nineteenth century. These old tourists claimed to enjoy (most) of the hardships of the road by foot, and shared their experiences in the form of travel reports, many published in the annual reports of the Norwegian Trekking Association since 1868. Written travel narratives of this kind can be found in abundance, and they start appearing from around the late 1700s. In the 1800s, it seems like the Scandinavian countryside in particular is full of rather well-to-do travelers who all end up writing about their experiences.¹⁹ These travelers in practice map and catalogue Scandinavian landscapes, identifying scenic locations, explaining the best routes and modes of transportation to get there, and attempt to convince other urbanites that getting there is worth the trouble.²⁰ These narratives attached considerable romance to the old form of trekking, before modern transport infrastructure civilized the countryside, in ways that can be construed as anti-modern. Yet, we can also read these narratives as expressions of complex negotiations over the changing relationship between technology, nature, and national identity.

The narratives in these books change as the railroads between the major cities started opening up. Travelers such as the history and geography professor Yngvar Nielsen—the most prolific Norwegian travel writer of the period—described the new way of traveling in ways that are very much in line with Schivelbusch.²¹ But to him, the railroad was just one of a whole flood of technologies that heralded the coming of modernity. In his memoirs, Nielsen describes personally being present at pretty much the first arrival of every single piece of new technology. Trains, electricity, telegraphs, telephones—he had seen it all. It is not a coincidence that the appreciation for nature experiences as a leisure activity increased so dramatically during this period of rapid technological change.²² While clearly appreciative of these new technologies, Nielsen's writings were also tinged with nostalgia over a disappearing mode of experiencing Norwegian nature.

The railroad was not the only rapidly expanding transport infrastructure at the time, but it was one of the most immediately visible on the landscape. W. Matthieu Williams, a British scientist, wrote a book comparing the travel experience of 1853 and 1876, and pointed out how the new railroads that were built had taken over much of the tourist traffic in 1876. He wrote that the railway between Oslo and Trondheim was “emphatically a tourist’s railway; the portion I have traversed presents the most splendid panorama of scenery I have ever seen from any railway.” Despite this strong promotion of the panoramic qualities of the railroad, he considered the railroad less authentic, less proper, than walking by foot. The railroad would “take all the luxurious and hurried traffic—americans and others who are ‘doin’ Europe, &c, and whill leave the old carriole roads to the full and healthful enjoyment of those who desire and are able to leisurely travel through Norway with a knapsack.”²³ As with Schivelbusch,

¹⁹ Peter Fjågesund and Ruth A. Symes, *The Northern Utopia: British Perceptions in Norway in the Nineteenth Century* (Amsterdam: Rodopi, 2003).

²⁰ See for instance *Den norske turistforenings aarbog for 1897* (Kristiania: Grøndahl & Sønn bogtrykkeri, 1897), 5.

²¹ Yngvar Nielsen, *Reisehaandbog over Norge* (Kristiania, 1879). This travel guide was published in a total of 12 editions until 1915.

²² Yngvar Nielsen, *Erindringer fra et halvt aarhundredes vandreliv* (Kristiania, 1909).

²³ W. Matthieu Williams, *Through Norway With a Knapsack* (London: Edward Stanford, 1876), 41.

there's an implied interpretation that older ways of traveling had been freer. The new went on a track, predetermined. The machine ensemble of the railroad thus annihilated more than just time and space, it also endangered the healthy relationship to nature that many sought.

Yet railroads and travel books went together in an almost symbiotic fashion. Together, they opened up a way of intimately knowing the landscapes of the young country, both in a material and a meaningful sense. Written travelogues became a widely read genre at the same time as travel became more broadly available for ever-larger groups of people. As such, they both reflected the growing interest in travel and served to reinforce this interest. The books were as much guides for directions as they were guides for emotion—what you were supposed to feel when traveling, the sense of discovery and the sublimity of nature combined with a certain appreciation of physical and cultural hardship. However, as both David E. Nye and David Blackbourn suggest in their explorations of technological and natural sublime in respectively the United States and Germany around the same period, nostalgia was not the only possible response to the technological face of modernity.²⁴

Travel in New Media

When travel narratives met moving images, time began to matter in a different way. A book lives outside of time, in many ways. While authors pace their narratives at different speeds and draw the attention of readers to particular elements of the story, people read at different speeds, and a book can be put down and taken up again at the reader's leisure. A film, on the other hand, has duration. The camera takes in a whole scene, demanding the viewer's attention at any given time. "The camera's fundamental relationship to the world around us and its recording of other cultures has always dogged documentary," writes Andrew Utterson.²⁵ As travelogue first moved into film media and later into the digital age, the relationships between viewers, landscape imagery, and the increasingly networked world shifted.

In Erkki Huhtamo's recent history of moving panoramas, he demonstrates how the 360-degree moving panoramas were a media spectacle without equal at the time, and became a big fad in the decades preceding the railroad. This passed when the railroads opened, and the panoramas were completely swept away when movie theaters began opening across Europe and the United States. But for this brief window of time, panoramas offered viewers immersive landscape paintings of close and distant places. The panoramas could take their audience to exotic and scenic locations, often far away, without the inconvenience, hardship, and expense of traveling.²⁶

Trains arrived with the film medium, in a sense. The first film at the very first public showing of moving film, arranged by the Lumière brothers in Paris in 1895, was *L'Arrivée d'un train en gare de La Ciotat*. For viewers in the twenty-first century, the film is nothing spectacular, really. We have become so accustomed to moving pictures that we no longer see what the big

²⁴ David E. Nye, *American Technological Sublime* (Cambridge, MA: The MIT Press, 1996); David Blackbourn, *The Conquest of Nature: Water, Landscape, and the Making of Modern Germany* (New York: W. W. Norton & Company, 2007).

²⁵ Andrew Utterson, "Destination Digital: Documentary Representation and the Virtual Travelogue," *Quarterly Review of Film and Video* 20, no. 3 (2003): 193–202.

²⁶ Erkki Huhtamo, *Illusions in Motion: Media Archaeology of the Moving Panorama and Related Spectacles* (Cambridge, MA: The MIT Press, 2013).

deal is. A train arrives at a station, and the passengers get off. It's all over in 48 seconds. A frequently told story is that the first audience ran away in panic when the train came towards them, but this is likely only a myth.²⁷ But newspaper articles and commentaries from the time indicate that the audience found the milling about of the passengers on the platform as fascinating as the movement of the train through the landscape.²⁸ The movement of the train and its passengers became entangled in the newness of moving pictures as a medium.

Railroads have continued to capture the imagination of travelers and armchair travelers worldwide. In 2009, the Norwegian Broadcasting Corporation aired a seven-hour long program following Bergensbanen, the railroad between Bergen and Oslo in real-time, minute by minute. In this pre-recorded program, aired on the 100th anniversary of the railroad's opening, the TV audience could see the view from a front-mounted camera, leaving the train itself invisible. The viewpoint is thus not that of the driver, but perhaps of the train itself. In front of the train, we see the track winding its way through the landscape, as illustrated in Figure 1. More than a million Norwegians watched the show, "almost paralyzed" by the real-time and mostly unedited slow journey through the Norwegian countryside.²⁹



Figure 1 The Bergensbanen railroad penetrating a snowy landscape at Finse. Norwegian Broadcasting Corporation, *Bergensbanen: Minutt for minutt*, 2009. Creative Commons License, CC BY-SA 3.0.

²⁷ Martin Loiperdinger, "Lumière's Arrival of the Train: Cinema's Founding Myth," *The Moving Image* 4, no. 1 (2004): 89-118.

²⁸ Hellmuth Karasek, "Lokomotive der Gefühle," *Spiegel* 52, (1994): 154.

²⁹ News in English.no, "Marathon documentary marks Bergen-Oslo line's 100th year," accessed 22 January 2014, <http://www.newsinenglish.no/2009/11/30/marathon-documentary-marks-bergen-oslo-lines-100th-year/>.

This Norwegian show was not the first of its kind. The Deutsche Bahn operated a TV channel called Bahn TV from 2001-2010. One of the programs, “Bahn TV in Fahrt,” showed the view from the cab of a moving train, following the regular train lines between cities in Germany, Austria, and France. Initially started as an internal staff television channel, it expanded into a niche channel that some cable subscribers could get from 2005-2006. After 2008, the channel shifted to a pure webcast. The NRK *Bergensbanen* program was similar in scope in that it did not significantly augment this plain video feed with digital content. An audio signal and superimposed text notified viewers of train station and tunnel names, but beyond that, the slowly changing landscape penetrated by the railroad tracks took center stage.

This was to change in a later iteration of the slow railroad travel TV idea, which thoroughly embedded born-digital perspectives on place and mobility in the show. The *Nordlandsbanen—minutt for minutt* program first aired in late December 2012, following the train from Trondheim to Bodø, over almost ten hours, through 729 kilometers, 42 stations, 156 tunnels and 361 bridges. The new element added here was that NRK recorded the journey four times, one for each season. The four video feeds were then synchronized using GPS data recorded during the journey. The website gave viewers the option to watch the seasons individually or all at once, as we see in Figure 2. The NRK editors pointed out that this was an incredibly time-consuming and intricate process. Microphones mounted on the train recorded sound both inside and outside of the train, adding to the mediated experience of the journey. Viewers got a bit more feeling of speed as a result of the forward-facing camera, but the overall impression is still one of slowness, of painstakingly making your way through a landscape.



Figure 2 *Four seasons in sync.* Norwegian Broadcasting Corporation, *Nordlandsbanen: Minutt for minutt*, 2012. Creative Commons License, CC BY-SA 3.0.

Watching and exploring this train ride becomes strangely hypnotic, with the clackety clack sound of the train on the tracks (I keep it on in my office when writing sometimes, as a kind of white noise). But the experience we get is not the compression of time and space that Schivelbusch describes. Instead, time is drawn out, stretched over distance, highlighting the slowness of train travel instead. The four seasons give the viewer a peculiar sense of time passing, but more important is the way new media and geospatial technologies are profoundly intertwined in the presentation of the railway journey from Trondheim to Bodø. The absolute location information enabled by the synchronized GPS data links the four different train rides to each other. When presented as four video feeds on one screen, the train becomes one machine moving through four seasons, four different versions of one place, at the same time.

The accompanying website allowed viewers to choose between the original broadcast, with music, interviews, and some video material from other cameras outside and on the side of the train; the four seasons as individual feeds; and the synchronized version with all four feeds at the same time.³⁰ A dynamically updated map displays the train's position and allows viewers to click to skip ahead to particular locations. In addition, the website had information about the history of Nordlandsbanen, the playlist for the 77 songs with local artists that played during the broadcast, and a interactive video mixer (in beta), where visitors can create their own video mix between two of the seasons. A link to a very technical write-up about the production documented the actual and time-consuming work that went into creating the show.³¹

As Slow As It Gets? Hurtigruten.

As interesting and popular as the two railroad shows were, they cannot compare to what we can only describe as the high point of the NRK slow travel series, an 8048-minute (five and a half days) live broadcast of Hurtigruten, the Coastal Express, sailing from Bergen on the southwest coast of Norway to Kirkenes in the far north, a total distance of 2703 km or 1460 nautical miles. As you might expect, the show was very slow—viewers could see the view from the ship, mixed in with interviews and commentaries onboard the ship, all in real-time. NRK showed everything live and a website showed the video stream, paired with a map where you could see the ship move in real-time and other information. Furthermore, NRK made downloads of the stream available in full HD as BitTorrent downloads while the show was still on.

The show was a big hit in Norway when it ran in June 2011—when the show peaked, half of Norway's roughly five million people had watched it. Furthermore, the show was also transmitted live on the Internet, where 46% of the viewers came from outside of Norway. Even more interesting were all the people that showed up along the coast, waving from land, cruising around in boats, and also the huge crowds at all the stops. The small places were generally the ones with the most people. My hometown Sortland (with 10,000 inhabitants), for instance, had more people show up at 3:30 at night (although the sun was out since it's above

³⁰ Norwegian Broadcasting Corporation, "Nordlandsbanen: Minutt for minutt," accessed 22 January 2014, <http://www.nrk.no/nordlandsbanen/>.

³¹ Norwegian Broadcasting Corporation, "Årstider i sync: produksjonen av Nordlandsbanen minutt for minutt," accessed 22 January 2014, <http://nrkbeta.no/2012/12/29/arstider-i-sync-produksjonen-av-nordlandsbanen-minutt-for-minutt/>.

the Arctic circle, as shown in Figure 3) than Trondheim (with 175,000 people) had in the middle of day. It seems like the experience of watching the show took people somewhat by surprise. The premise sounds quite ludicrous, like watching paint dry on live TV, but people initially looked out of pure curiosity and then found it hard to stop. Twitter was full of people who seemed unable to turn off the TV and go to bed at night as Hurtigruten sailed through Vesterålen in the midnight sun. The #Hurtigruten hashtag trended in Norway during the entire week of the show, and many place names would also appear on the top list of Twitter topics as Hurtigruten sailed into those places. In other words, this was a mediated representation of the coast of an entire nation that really interfaced with people's daily lives. During both the train shows and the Hurtigruten one, the Twitter discussion backchannel was critical to the popularity of the show. This was not a form of armchair travel undertaken alone and in isolation, but rather a deeply social event, extended and augmented by digital media.



Figure 3 Hurtigruten sailing into Sortland in the midnight sun. Norwegian Broadcasting Corporation, *Hurtigruten: Minutt for minutt*, 2011. Creative Commons License, CC BY-SA 3.0.

The popularity took NRK completely by surprise, even knowing how well the Bergensbanen show had gone. The producers spent a fair amount of time before the show launched justifying the expenditure of taxpayer money, arguing that “it is probably considerably cheaper than many large sports events, and it may perhaps also connect with people in a deeper way. After all, we are the license-funded Norwegian Broadcasting Corporation. We need to do things like this, because if we don't, no one else will.”³² I think

³² Anders Hofseth, “Hurtigruten: FAQ – Ofte stilte spørsmål,” accessed 22 January 2014, <http://nrkbeta.no/2011/06/22/hurtigruten-faq/>.

there are many reasons why the Hurtigruten show struck a chord in Norway. One of them has to do with history and nature. The infrastructural role of Hurtigruten as a critical means of transportation is long past. Once upon a time it was essential for transporting people, mail, and goods in a reliable way along the coast. It still brings cargo and people, of course, but today there are many other options available. Like many old technologies, Hurtigruten has found new life in new roles.

More than anything else, Hurtigruten is a tourist ship now. But the show also demonstrates how Hurtigruten has become a part of the cultural landscape of coastal Norway and a way of experiencing and taking part in nature. The old infrastructures of travel live on as narratives of bodies in motion through landscapes, but not just any landscape. In the same way that the early trekkers and the Norwegian Trekking Association explored the Norwegian countryside as a way of constructing a new national identity in the 1800s, the tourist experience of sailing along the coast in Hurtigruten is one of experiencing an iconic national landscape. We find similar sentiments expressed in the Norwegian tourist railroads; traveling with these particular transportation infrastructures becomes a way of seeing the best that Norway has to offer as a tourist destination. Both written and digital armchair travel media build upon such interpretations of national landscapes.

The website that NRK made for the show represents a great model for visualizing travel in digital media. As we see in Figure 4, the site has three main elements: 1) a zoomable map with a red line marking the progress of Hurtigruten and markers for all the stops along the way;³³ 2) a video window showing a live or archived video stream in which clicking anywhere along the red line on the map will show you the video for that spot; 3) an information window that shows you the Hurtigruten, radar data, links to torrent downloads of raw video data in full HD (CC-licensed), and a link to a 3D view in Google Earth. Some of this content clearly targets what we can only describe as enthusiast viewers rather than the mainstream viewer, who would probably be unlikely to download and explore the radar data file.

The Hurtigruten show is not just a successful example of new media armchair travel, but also how rich this media can be. It was a slow, but deeply mediated experience. When planning the show, NRK tested various ways of integrating place data in augmented reality-like approaches such as floating text bubbles that would move with the camera onscreen. They asked people for input on the NRK website—what would they like to see? Suggestions included water temperature, air temperature, humidity, air pressure, accelerometer, compass data, radar and sonar live feed, underwater cameras, engine room sound, GPS coordinates, raw video files with time stamps, and so on. The combination of suggestions hinted at a desire to use various types of sensors and recorders to blend the technology of the ship with the outside landscapes that Hurtigruten sailed through, all presented to the viewer through a digital interface. After the show was over, NRK did not end up releasing all the data they recorded, but made the GPS data available in JSON format, as well as around 600 GB of high-quality video files for free download under a Creative Commons license.

³³ The map recently broke, most likely as a result of a Google Maps API update. NRK notified me that they are trying to fix the problem, but this illustrates well the challenges of sustaining digital projects over time.

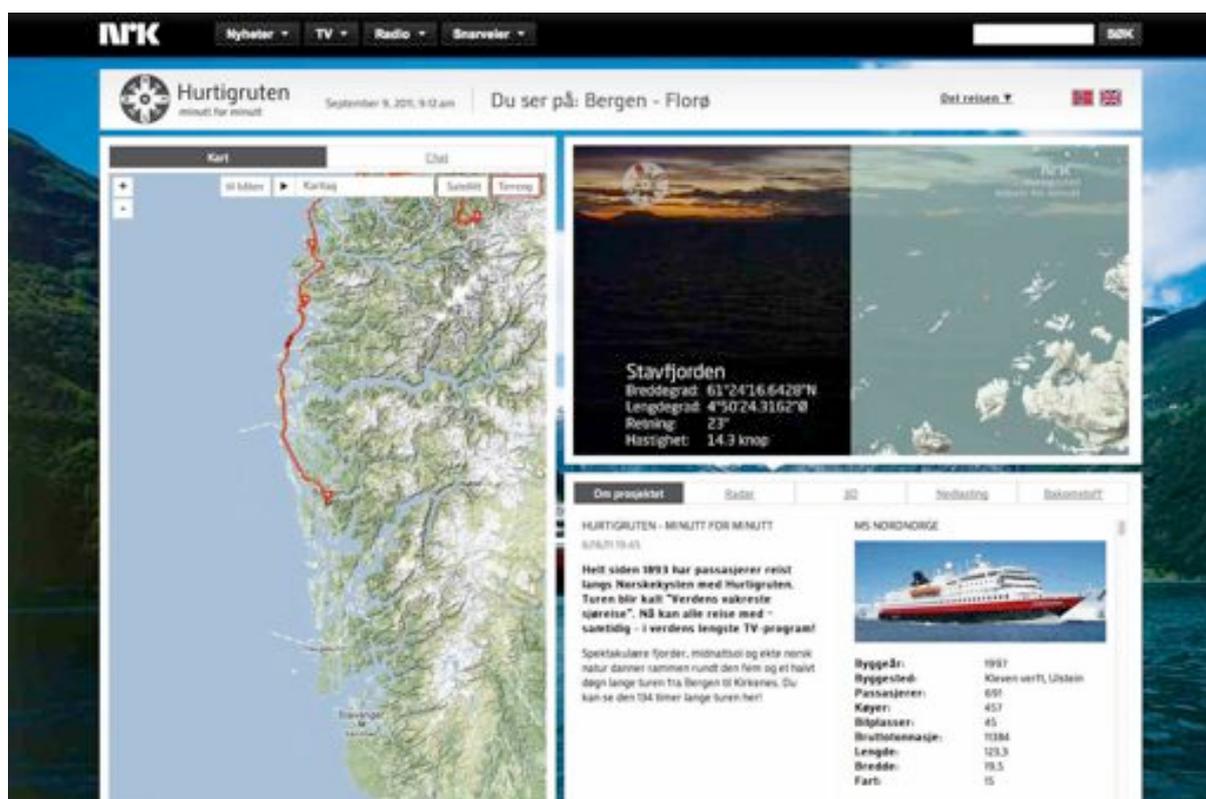


Figure 4 The Hurtigruten: *Minutt for minutt* interactive website. Norwegian Broadcasting Corporation, Hurtigruten: *Minutt for minutt*, 2011. Creative Commons License, CC BY-SA 3.0.

NRK announced a competition for the best remixes and mash-ups created with the Creative Commons-licensed material. The perhaps most obvious entries fast-forwarded the video, compressing the 134 hour long journey all the way down to a five-minute speed run of the Norwegian coast.³⁴ Other entries took screen captures at regular intervals and organized them into gorgeous, high-resolution posters that look like they are sorted by color, but that actually visualized the slowly changing light of the Norwegian summer.³⁵ Going to the other extreme, one viewer extracted the 9,486,520 frames where Hurtigruten was moving and used these to generate one composite image of the “average” view—a blurred gray and flat sea separated from a slightly lighter gray sky by a dark gray horizon—with the white bow of the ship sharply in focus.³⁶ The winner was probably the most time-consuming and meticulous of all the entries—a massive timetable index of the entire journey, listing events and points of interest, time, location, and a direct link to the location in the archived stream on the NRK website. This indexing job took a total of eight months to complete. While the winner did not use the Creative Commons-licensed video at all, the NRK jury thought that his entry added so

³⁴ Andreas Doppelmayr, “Hurtigruten In 5 Minutes,” accessed 7 May 2014, <https://vimeo.com/26214090>

³⁵ Jon Olav Eikenes, “Hurtigruten minutt for minutt” Flickr set, accessed 7 May 2014 <https://www.flickr.com/photos/jonolave/sets/72157626928644711/with/5873571817/>

³⁶ Geir Bjerke, “‘Hurtigruten: Minutt for minutt’ in one frame,” accessed 7 May 2014, <https://www.flickr.com/photos/neonstz/5899253694/in/set-72157627109390926/>

much value to the project that they found him a clear winner of the competition.³⁷ The grand prize was (obviously) a free trip with Hurtigruten.

In the full Hurtigruten show, viewers are presented with what we can describe as an *annotated landscape*, including both recorded geospatial information and highly manual annotations such as those of the remix competition winner. If we think about how we often navigate landscapes now, accessing these invisible digital layers of information about the landscape as we move through it, using a handheld GPS-enabled device (finding out our direction, speed, altitude, routes, weather forecasts, notable attractions and their history, the location of the nearest Starbucks, etc.), we are simultaneously moving in two types of landscapes at once, both the immediate and physical on the one hand, and the digital and distributed on the other. Experiencing and navigating the world around us requires us to circulate between these two categories of knowing.

The Hurtigruten show was an experiment in geospatial visualization that successfully managed to blend these two views of the world in an appealing and popular manner. It is a fantastic experience, culturally immersive and able to bring the entire country together in a way that few other TV programs have. But it is important to note that it is without the instant gratification of so much contemporary entertainment. In a way, it can be compared to the slow food movement. It is slow entertainment, meant to be stretched out and savored.

Conclusion

Armchair travel directs our attention to the mediated character of location and of nature itself. Schivelbusch has been criticized, and in some ways rightly so, for focusing almost exclusively on the phenomenology of train travel, being more concerned with “the making and remaking of world views rather than the contested qualities of world views as modes of reception and representation, with implications for politics and sectional interests,” as George Revill writes.³⁸ The ways in which we experience, navigate, and ultimately know natural environments and landscapes today have become suffused with digital information structures, making armchair travel as dependent on technology as physical travel is. Our mode of transportation as we travel—in body or in armchair—influences the way we view the landscapes we travel through. This insight is one of the broader contributions of Schivelbusch’s work beyond transport history.

The slow digital travel programs developed by the Norwegian Broadcasting Corporation point to a convergence of mediating strategies: texts, images, maps, GPS data, video, sound, even integrating social media in the experience. The result is simultaneously an extension and an update of traditional travel narratives. Highlighting the processes of mediation that take place in the relationship between the experience of being aboard Hurtigruten or a train, experiencing nature first-hand, and watching it on TV is very much in line with Schivelbusch’s goal to understand the subjective experience of new technologies. In

³⁷ Norwegian Broadcasting Corporation, “Hurtigrute-vinneren,” accessed 7 May 2014, <http://nrkbeta.no/2013/07/05/hurtigrute-vinneren/>.

³⁸ George Revill, “Perception, Reception and Representation: Wolfgang Schivelbusch and the Cultural History of Travel and Transport,” in Peter Norton, Gijss Mom, Liz Millward, Mathieu Flonneau eds., *Mobility in History. Reviews and Reflections* (Neuchâtel: Editions Alphil-Presses universitaires suisses, 2012), 43.

this sense, mediation is about more than simple representation. As in Schivelbusch's machine ensemble, we have seen how digital media forms a layer between (virtual) traveler and landscape. On the one hand, these mediated relationships create a response from the viewer, evoking and shaping a new experience; on the other, they deepen our understanding of the act of moving through the landscapes they open up for us.

Environmental historians and nature writers alike have to a large degree been concerned with close readings of the relationships between particular groups of people and particular places. The nature we meet in these narratives is very often a nature that is experienced through the body, a very physical relationship. Yet our idea of what nature is has expanded quite dramatically as a result of both new scientific instruments and new nature management regimes. The natural world becomes both bigger and smaller at the same time, extending out in space and down into our own bodies. We know from science studies that we generally can't know this "nature" directly.³⁹ This idea of nature is becoming very hard to separate from the digital tools and media we use to observe, interpret, and manage it. Our ideas, our standards, for what is natural are distributed and maintained in digital tools and media like databases, computer models, geographical information systems, and so on. Paul Edwards' massive and prize-winning book on computer modeling and climate change, *A Vast Machine: Computer Models, Climate Data, and the Politics of Global Warming*, is one recent example of studies highlighting this perspective.⁴⁰ Such a perspective on nature pulls us in a few different directions. Up, towards abstraction and global management systems, like Edwards and his vast machines. But also down, out into the field, to the bodily experience of nature. We can call these *distant* and *close* natures, directly borrowing from Franco Moretti's ways of reading literature on different scales.⁴¹ Distant natures, those that are not experienced through the body but distributed through data and media, need different modes of analysis and storytelling. Human interpretation and experience is still relevant, but we need to understand how it is mediated through machines and technologies, models and database structures.

If we think of technology as a set of relations—social, economic, even epistemological—the digital turn certainly embodies the same kind of relations. Animal-based travel carries a set of relations between bodies: of struggling, tired horses and humans jostled about in carriages or on horseback. The locomotive took away the animal, converting coal and water into steam, smoke, power, and motion. What happens with these relations in the digital? Things never remain the same as we move between media; something is lost and something is gained. Still, if we think of the mediation process as primarily one of representation, then something is definitely lost in translation. Instead, we should think of mediation as the making of connections. Travel narratives demonstrate this clearly—as John Urry argues, "multiple forms of actual and imagined presence that carry connections across and into various kinds of

³⁹ For example, Sara B. Pritchard, "Joining Environmental History with Science and Technology Studies: Promises, Challenges, and Contributions," in *New Natures: Joining Environmental History with Science and Technology Studies*, ed. Dolly Jørgensen, Finn Arne Jørgensen, and Sara B. Pritchard (Pittsburgh: University of Pittsburgh Press, 2013), 1-18.

⁴⁰ Paul N. Edwards, *A Vast Machine: Computer Models, Climate Data, and the Politics of Global Warming* (Cambridge, MA: The MIT Press, 2010).

⁴¹ Franco Moretti, *Graphs, Maps, Trees: Abstract Models for Literary History* (London: Verso, 2007).

social space."⁴² If we focus on the experiential aspect that Schivelbusch was out to capture in his book, we can see how something new is created in this process. New media technologies enable particular relationships between people and the world, and this act of mediation is by no means neutral, in the same way that Schivelbusch's machine ensemble is not neutral. In that sense, mediation is an important way *we are in the world*. Mediation is how we interface with the world, with all that it implies, including the fact that *we have always been mediated*.⁴³ And if we have always been mediated, we can't assume that the shape and content of this mediation has remained constant over time. But this fact also means that forms of media, old and new alike, are fundamentally entangled with both historical and present human experiences of the world. The forms of digital armchair travel discussed in this article are both mediated and augmented, a communal experience that adds to the physical experience. There is something profound and tremendously powerful at work in the slow travel programs: the articulation of authenticity and meaning.

The railroad that Schivelbusch describes as "the annihilator of time and space" is no longer as fast as it once seemed. Now that the railroad is increasingly framed and portrayed as a technology for slow, contemplative travel—for observing landscapes slowly change as we travel through them—we must ask what is the difference between our experience of the journey and the subjective experience that Schivelbusch was out to capture. While armchair travel as a genre has become updated and brought into new digital media, the search for meaning in a changing world continues to be a key theme in this genre. This is a place where history of technology, the environmental humanities, and the digital humanities can and should work with each other. Rich and deep digital media can enable new forms of storytelling and presentation that we can't afford to ignore.

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⁴² John Urry, "Social Networks, Travel and Talk," *The British Journal of Sociology* 54, no. 2 (2003): 156.

⁴³ Sarah Kember and Joanna Zylinska, *Life after New Media: Mediation as a Vital Process* (Cambridge, MA: The MIT Press, 2012).

ACKNOWLEDGEMENTS The author wishes to thank the anonymous reviewers (one of whom produced the most awesomely thoughtful, constructive, and helpful review I have ever received), the participants providing feedback at the various events in Europe and the US where I have presented parts of the material in this article, and most of all Dolly Jørgensen for valuable comments. I'm also indebted to Wilko Graf von Hardenberg and Kimberly Coulter for making this publication happen in the first place, and Thom van Dooren for his help in the process.

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