The Anthropology of Historical Photography in a Protected Area: Life and Death in Waterton Lakes National Park, Alberta

Trudi Lynn Smith   *University of Victoria*

Abstract: This article offers an ethnographic and anthropological investigation of historical photography carried out in Waterton Lakes National Park, Alberta. I recount my attempts to precisely retake a photograph from its historical location. Once there, I scrutinize photography's presences to better understand how a photograph emerges as an event. Photography can be used to understand human–wind encounters, the force of effort, the conventions that shape place, the impact of available water and how these come to bear on visibility and invisibility, life and death, in the present.

Keywords: photography, archives, national parks, posthumanism, International Boundary Commission, G. M. Dawson, Canada

Résumé : Cet article concerne ma recherche ethnographique et anthropologique sur la photographie historique du Parc national Waterton Lakes en Alberta. Je relate mon attention à reproduire avec le plus d'exactitude possible une photographie dans sa localisation originale. De là, j'examine ce qui est présent dans l'image afin de mieux comprendre comment une photographie appert tel un événement. La photographie peut être utilisée pour déchiffrer les rencontres entre l'humain et le vent, pour mieux saisir la force de l'effort, les conventions qui se matérialisent, et l'impact de l'eau. Il s'agit d'apprécier comment ces facteurs touchent, au moment présent, le visible et l'invisible, la vie et la mort.

Mots-clés : photographie, archives, parc nationaux, post-humain, Commission de la frontière internationale, G. M. Dawson, Canada

Introduction

In the 1885 *Canadian Militia Gazette*, an anonymous writer proposes that "circumstances alter photographs" (Greenhill and Birrell 1979:116). Taking this statement as a starting point, I investigate the visual practices of the 1873–74 International Boundary Commission by focusing on one photograph, taken inside present-day Waterton Lakes National Park, a federally protected area in western Canada. Two aims inspire this article. First, I recount my attempt to return to the exact location of Figure 1 to re-photograph it. I walk with this archival document to scrutinize photography's presences and to better understand how a photograph emerges as an event. Through extensive ethnographic and anthropological research (2002–present) of historical photography in Waterton—including abundant time loitering in the park with archival photographs in hand—I find photography is "relationally entangled rather than taxonomically neat" (Haraway 2008:105). Photography can be used to understand human–wind encounters, the force of effort, the conventions that shape place, the impact of available water and how these come to bear on visibility and invisibility, life and death, in the present. Second, I provide examples of photography's absences— events that escape representation and do not appear in photographs and archives. How does the visible impact the photographically invisible and vice versa?

Approach: The Photograph as Event

In this article I am interested in considering the *photograph as event*. To Elizabeth Povinelli (2013), the ethical and political implications of prioritizing the event over the fact is a practice in locating the otherwise or the monstrous and these can break the actuality of neoliberal and late liberal forms of social imaginary. Bringing this approach to bear on photography, I focus on the event-ness rather than the essence of photography. This is to move beyond considering photographs as images of something or objects you can hold to consider

Figure 1: Waterton Lake Alta., from the north shore. 4 miles North of Boundary line and 757 miles West of the Red River (August 1874). International Boundary Commission. Library Archives Canada.

how a photograph becomes possible though multiple forces.

To focus on the various agents at play in photographs is to refuse the categorization and purification of photographs and parks as images or objects, science or art, nature or culture, but to place attention on the process of flow and transformation (Ingold 2012) in the making of a photograph. Recognition of and accounting for the more-than-human world that photographers are a part of provides ground for the embodied complexity of the event—an assemblage of wind, conversation, humans, technology, sun—all agents with their own uneven forces (Bennett 2010). How can photography account for these entanglements and the vividness of their effects? Here, I focus on the making of photographic expertise through George Mercer Dawson's iconic *Waterton Lake*. I address the complexity of historical records and their influence on the present through fleshing out an anthropology of historical photographic practices. This approach draws on the work of Donna Haraway (2004), Bruno Latour (1993) and Tim Ingold (1993, 2012), whose scholarship seeks to replace

humans within the world and reveal the endless enmeshment of the human and more-than-human (see also Abram 1996; Braun 2008). In particular, Haraway's work on multispecies relations provides a ground for my study. Haraway writes that we in North America are in the midst of "reinvented pastoral-tourist economies and ecologies," which raises basic questions about "who belongs where and what flourishing means for whom" (2008:41). As a way to investigate "flourishing," I consider photographic practices in a more-than-human world and build on phenomenological ideas about change and movement that have been integrated into anthropological theory (Bender 1993; Ingold 1993, 2011; Tilley 1994). Feminist, queer, anti-colonial and activist critiques provide ground to investigate the world through specific embodied practices that pay attention to the foregrounding of embodiment and affect (Culhane 2011) to emphasize non-species specific "interactions rather than disembodied observation" (Hayles 1995:51). I consider photography as a process embedded in the more-than-human world, one that has never corresponded to imposed binaries and linear processes of time.

In her book on art, photography and landscape, Liz Wells (2011:356) describes why the stakes are high in photography: "Most particularly, photographs are afforded an authority, founded in the authenticity that has been ascribed to the photographic since its inception."[1] Photography is presented as a simple representational technology that tells an objective truth about places. The search for change, movement and under-recognized phenomena challenges photography's association with truth, objectivity and visibility. Visual anthropology provides a framework to focus on how the visual is created through use as sensorially integrated, embodied and experienced (Banks and Ruby 2011; Edwards and Bhaumik 2008; Edwards and Hart 2004; Grimshaw and Ravetz 2005; Pink 2006). Anthropology of the senses recognizes "the multisensory nature of embodied experience," which challenges "the supremacy of sight as the historical articulator of modernity" (Porcello et al. 2010:61).

Method: Walking with Archives

Taking into account the presence of archives in colonial photography, Foucault's (1969) "question of the archive" and Derrida's *Archive Fever* (1996) each address the archive as a way of knowing (Steedman 2002). Foucault and Derrida are interested in how an archive is not a thing, but a representation of whatever power is being exercised now, anywhere, in any place or time (Derrida 1996; Povinelli 2011; Steedman 2002). While it can be analyzed as a process that inscribes and commemorates (Kaplan 2002), tracking this kind of power has limitations. Elizabeth Edwards points to the importance of approaching the history of the archive and photographs in a detailed and focused way and warns that critique and investigation into archives and photography must be a series of "micro-intentions as much as a universalizing desire" (2001:7).[2] What counts as an archive (or photograph)? What gets included and excluded? (Povinelli 2011) As things are included, how does the archive then produce an event as much as it records it? (Derrida 1996) I draw the larger historical, aesthetic and political questions into the specific, local micro-intentions and multisensory aspects of photographic practice. I explore how uncertain knowledge starts to take shape to become archival facts and to come to bear on flourishing on the ground.

Re-enacting photographs addresses the conditions of production—from the relationships between the photographer's stance and the image produced, between wind and the sharpness of the image, between what is found inside and just outside the frame of the photograph—and how these come to bear on interpretation

and knowledge (Bedford 2009; Smith 2007). This method brings power and the effect of structures together with the process of meaning-making. Taking archives on a walk and attempting to find the exact location from where a photograph was made becomes a process of revealing the tangible and intangible aspects of experience in the world (Smith 2007). I worked with wardens, ecologists, biologists, philosophers, tourists, friends and alone to re-enact many hundreds of photographs over the course of several years. The photographs came from various archives and eBay, and I brought them back to Waterton for examination. At the location of *Waterton Lake*, I re-photographed images and simultaneously conducted participant observation among those taking photographs themselves. As I have written elsewhere (Smith 2007), re-enactment creates a particular type of looking. Using a photograph to try to locate a particular point in space and working back and forth between a set of intersections and comparisons focuses the anthropologist's attention, fine-tuning her perceptual skills and producing what Ingold, following James Gibson, calls an "education of attention" (Ingold 2000:23; Gibson 1966). Christina Grasseni (2004:17, 21) describes the exercise of looking through the lens of a camera as a catalyst of her attention, as an education in better understanding her subjects while they were conducting skilled practice. The attempt to re-enact a photograph likewise facilitates a way into a perceptual environment.

Waterton Lakes National Park

The photographs I work with were taken inside present-day Waterton Lakes National Park, a federally controlled space in western Canada managed by Parks Canada. In 1895, Waterton was designated a forest reserve in response to local citizen action (Parks Canada 2010c:8) and, in 1909, it was designated a national park. The park is located at the hunting grounds, spiritual sites and pathways of the Upper Kutenais and Nitsitapii peoples (Campbell 2011; Parks Canada 2010c; Reeves 1994).

However, beginning even before Waterton was formally established, colonial visuality produced traveller's tales, scientific photographs, geological surveys and popular publicity accounts for an anticipating Canadian public. While the practices of the Upper Kutenais and Nitsitapii peoples had long been shaping the region when it was encountered by colonial science, it was presented in photographs as an empty, unpeopled wilderness, thus ensuring the government could lay claim to the territory and resources within. Like other national parks in Canada and the United States, practices of mutual obligation between indigenous groups dwelling in these

places has been interrupted and obscured, and dispossession and displacement of people from their homes and economic practices in and around national parks is common to make the way for uninhabited nature (Fife 2006; MacLaren 1999; Sandlos 2007; Winthrop 2001). Despite this violence, there is ongoing resistance to settler governmental control (see Reeves 1994; West et al. 2006). Two Nitsitapii groups, Piikani and Kainai, who live near Waterton in the present, "continue to hold Waterton as a sacred and powerful place" (Parks Canada 2010b:9) and use vision quest sites within park boundaries (Reeves 1994).

National parks are deeply symbolic in Canada, mandated by Parks Canada as places for human use and enjoyment and ecological integrity (Parks Canada 2010b). A recent Focus Canada survey reported that 72 per cent of Canadians found national parks important, ahead of the national anthem, multiculturalism, literature and music and the Canadian Broadcasting Corporation (Environics Institute 2010:17). It is crucial to study the genesis of photographic images of national parks in Canada, as they maintain a pervasive grip on how governments and publics relate to national parks in the present. In summer 2010, as part of a 125th anniversary celebration, Parks Canada held a job competition for "Canada's Greatest Summer Job": to visually document parks in photography and film. Thirty-two students were placed at Parks Canada field units across the country to promote parks as "unique and exceptional places that represent the very essence of Canada. [To] tell its story and offer an unforgettable and unique experience for visitors who are looking to discover the real Canada" (Parks Canada 2010a).

The visual production of what counts as the "real Canada" directly relates to the ongoing history of artists and photographers who worked to promote Canadian national parks. For example, in 1884, well-known photographer William Notman was outfitted by the Canadian Pacific Railway with a rail car equipped with a darkroom, and he spent 15 years documenting Banff National Park and surrounds to encourage tourism (McCord Museum:n.d.). Wayne Fife (2006:32) has shown how the creation of Gros Morne National Park in Atlantic Canada was supported by visual images by government and commercial interests, which "have resulted in the formation of a romantic image of the park as a peaceful uninhabited 'nature' just waiting to be enjoyed by the spiritually starved urban middle-class" despite the history of other practices and engagements in the area such as fishing, hunting and gathering.

The photographic methods used by the Boundary Commission to construct knowledge in Waterton Lake continue to inform contemporary visual practices in Waterton. Over the past 139 years, many people—scientists, tourists, artists, commercial photographers, wedding photographers and recently even the Google Street View camera operator (Figure 2)[3]—have converged at the spot where Waterton Lake was first imaged in 1874. I create a tangible relationship, joining historical photographs to present practices in Waterton, and examine the first photograph taken from the popular viewpoint in Waterton to provide insight into how visual practices in Waterton become the "real Canada."

Photography's Presences: "Waterton Lake Alta., From the north shore"

On a mid-September morning in 2007, I walk up a hill slope at the end of Upper Waterton Lake. I am tracking the first photograph taken in this location and hold a copy of *Waterton Lake*, which I retrieved from Library Archives Canada in Ottawa almost 3,000 kilometres due east. At first, I follow a dusty path, then the photograph leads me away into knee-high grasses. I stop at the edge of a hill and turn toward mountains framing a large body of water that slips out of view into the distance. The sun shines overhead, warming me and there is a light breeze from the south, forming ripples on the water but scarcely disturbing the grasses where I stand. I set my camera on a tripod and bend slightly forward to look through the viewfinder. The blues and greys of the water, sky and mountains contrast with the gold of the grasses. I compare the black and white photograph in hand with what I see through the viewfinder. There are differences between what I see through the lens and in the photograph in hand, so I wander around, experimenting and trying to get closer to the spot. I move slightly forward, slightly back, side to side; I lower the tripod. The wind picks up. Eventually, I compose a photograph and make an exposure.

Nearby, up the gentle slope and to the west, there is a group of people who also stand facing south. Most of these people hold cameras in front of their bodies and point them down toward the lake. Some frame people in front of their cameras as these people turn their backs to the lake view. Others, like me, wait to make sure people are not in the frame and then make exposures.

This is not the first time people have gathered together in this location to form part of a photographic event. It's not my first time. As I wander with photographs in hand, my performance draws attention from those standing on the hill.

A few metres behind us stands a multi-story hotel, a gift shop, several restaurants, a water tower and employee residences. The hotel website claims that, since it was constructed in 1927, the building is the most photographed in the world. But it is the view of the

Figure 2: Google Street View camera operator at the site of photograph Waterton Lake, 2013. Courtesy Parks Canada/C. Koerselman.

lake and mountains that dominates the visual record—re-enacted and found in records ranging from postcards (available in the gift shop) to tourist snaps to professional photography to scientific records. We are located in the centre of a national park, overlooking the town site at the most prominent vista in the park. From the main road, visitors drive up to the nearby parking lot and walk up trails from the main town site to visit the viewpoint and hotel. People sit inside the hotel and gaze out the window at this view and witness the flux and flow of groups of people engaging the viewpoint with cameras (Figure 3).

I loiter near a small group of people who each stand with cameras pointed down toward the lake. Together and, for a moment, we form a community of practice, bringing our singular and non-repeatable experience up against the universality of photography (Richter 2010; Derrida and Kamuf 2002). And yet, what event do we re-enact? Derrida writes that

> photography always bears witness by interrogating us: What is an act of witnessing? Who bears witness to what, for whom, before whom? The witness is always singular, irreplaceable, unique, he presents himself in his physical body ... but as a third party he attests and testifies exemplarily to the universality of a law, a condition, a truth. [Richter 2010:xxiv]

Visual Practices in Science

In late August 1874, Dawson and his men produced the image *Waterton Lake*, marking the end of a field season and the close of a two-year mapping project by the International Boundary Commission that ran 1,300 kms along the 49th parallel between Lake of the Woods (Ontario) and Waterton (Alberta). The discovery of gold on the Thompson River prompted the demarcation of a line between the United States and the geopolitical space of Canada.[4] During the 1873 and 1874 field seasons, a Canadian team and an American team leapfrogged one another to trace a fictional line on the ground across muskeg, grasslands, mountains and glaciers. In their construction of the boundary, the Canadian team used photography alongside field notes and measurements.

In addition to training as a geologist and his eventual role as the Surveyor General for the Geological Survey of Canada (GSC), G. M. Dawson is considered a precursor to professional anthropology in Canada (Darnell 1998). Dawson wrote a letter of introduction for Victoria-bound Franz Boas in 1886, and Regna Darnell (1998) points out that Dawson's father, John William Dawson was principal of McGill University for more than 40 years, making him central in the development of academic institutions in Canada. J. W. Dawson collected specimens, a foundational activity of the GSC, and later

Figure 3: Photographic practices on the Prince of Wales Hotel Hill 2009.

these collections provided material for the construction of the Museum of Civilization (recently rebranded as the Canadian Museum of History) under the direction of Edward Sapir. Known for his photography, the visual collections that G. M. Dawson brought together through his fieldwork and his descriptive reports continue to have implications for resources in Canada (C. Smith 2002:17). The GSC and the academic institution were entangled, as the GSC, with a focus on demarcating boundaries, charting and claiming resources and collecting specimens using technological advances such as cameras, "provided an incipient framework for professional anthropology in Canada" (Darnell 1998:11).

In his extensive 387-page report introducing the 1873–74 field season, Dawson notes that he is single-handedly undertaking the natural history work of the survey. The report solidifies Dawson's scientific reputation (Dawson and Jenkins 2007), and it is worth quoting his words to get a sense of his geographic desire:

In undertaking single-handed the care of the Natural History work in connection with the Boundary Commission, it was obvious that in attempting too much it might happen that nothing should be well done. I therefore decided to give the first place to geology; and in that field to endeavour to work out as far as possible the structure of the country and to make illustrative collections of rocks and fossils, rather than to amass large local collections at the expense of general information. [1875:iii]

This entry places particular emphasis on visual means of translation and knowledge generation in Canada and reflects the interests of the surveyors in creating permanent records using photographs. Technology was key to the modernist pursuit of collecting data and to legitimating the geological project toward colonial ends, and photography was a necessary part of this project. Through the emphasis on illustrative collections that can be examined later from the comfort of his office,

Dawson may have helped ignite a connection between photography and survey in Canada. In the 1880s, Surveyor General E. G. Deville developed a unique phototopographical survey for mapping high mountain areas in Canada, known in international circles as "The Canadian Method" (MacLaren et al. 2005; Smith 2004; Webb 2003).

The early survey photographs were embedded in the middle of a struggle not only to constitute and make claims about the space they colonized, but for what constitutes vision and what an observer is (Crary 1992). Dawson and the four camera operators received their training in England, and their use of photography in the 1873–74 survey reflects lively debates, ones that Edwards finds between proponents of pictorialism and of survey photography in England "about the very nature and purpose of photography itself, about relations between the document and the aesthetic, and the social expectations which cluster around it" (Edwards 2009:5).

In Canada, the possibilities of photography were entwined with the colonial effort to categorize and by extension, exert control over people and places, including plans for "a network of Photographic Stations spread all over the world, acting under systematic instructions and having its results permanently recorded at the [British] War Department" (Birrell 1996:13). The institutionalization of photographs in colonial archives parallels what Edwards (2009) names a desire for an externalized collective memory bank that would define the past, present and future.

The practices of the visual figure prominently in Dawson's 1874 account as a key technology in record making (and, by 1881 the camera is fully incorporated into his work with the GSC). Yet, it is easy to find signs of uncertainty in photography in the first field season of the same survey of 1860–61. At the onset, recommendations to use the technology were couched in terms of the potential for description, truth and accuracy (Donnelly in Birrell 1996) but, in the final report, the camera surprised: It was considered a burden, the technology of photography full of discontinuity, mistakes and ruptures (Hawkins in Birrell 1996). The American counterpart carried camera equipment on the 1860–61 survey but no training was provided for the men who were expected to use the gear in the field and so they failed to produce usable materials (Birrell 1996).

Photography is not just a technology the skilled engineers learned to control: It has its own liveliness. Nineteenth-century photography was demanding, requiring strong actinic rays of the sun to create chemical reactions, long exposure times, abundant water, time carved from the busy work of boundary measurements

and good weather. The survey team built a relationship with it and learned from their failures. By 1874, the IBC was tasked to generate illustrative collections of natural history and geological features, but it was well understood that "circumstances alter photographs," a phrase reported in the *Canadian Militia Gazette* in 1885 that would resonate with me a century later (Greenhill and Birrell 1979:116). These circumstances not only alter but shape the archival record. This is made clear in Birrell's 1996 history of survey photography. He explains that hot summer months and drought-like conditions meant that few photographs were taken in the plains region. Entering the mountains with a chain of lakes and rivers meant an abundance of water for their photographic needs. Birrell notes, normally dry diary entries, became lyrical (1996:118).

These relationships set the stage for the events that produced the 28 photographs in the Waterton area that dominate the survey collection, making their way into archives, books, personal collections, scientific reports and government documents. The bulk of the images were made in the span of a few kilometres. These images have been in continual circulation over the course of 139 years, bringing Waterton into a particular visibility in the present. In reading survey reports, relocating, rephotographing and analyzing the visuality within the 28 images, I found that the surveyors' discomfort in structuring the country was met with an openness to techniques of aesthetics, documentary and even (what we would consider today) experimental photography. The visuality of these photographs is complex and greatly varies. As a result, some of these photographs are continually re-enacted through to the present (e.g., *Waterton Lake*, Figure 1), while others are never re-enacted although they are pictured side-by-side in archives.

Photography's Absences: Human–Wind Encounters

Learning to photograph is a practice in listening and responding to the demands of a more-than-human world and the demands of history. My grounded attempts to re-enact a photograph come up against the structures of a 19th-century model of vision that was understood to capture a "pre-given world of objective truth" (Crary 1992:39), a world that was never there and, yet, a power and force that still animates photography.

The most striking thing about *Waterton Lake* is the weather: Dawson writes about cloud cover and the force of wind. One day he writes, "Lake under the influence of the strong and continuous south wind making a noise like the sea" (1875:155). Yet, neither evidence of wind

nor cloud cover is to be found in the 1874 photograph. Instead, Dawson and his men wait to make the photograph that makes its way into history. In my fieldwork I found that the photograph shows a very unusual—almost impossible—view: mountains reflected in the calm waters of Upper Waterton Lake. Trying to re-enact the photograph in Waterton contests the effortless look of the photograph. In present-day Waterton, the weather remains a social organizer and, as I witnessed over the course of my research, when it is windy, visitors stay inside. In the summer, the hill is a busy place where buses unload, bike tours converge, wedding photographs are framed and high tea is served. All of this movement is in view of the site where *Waterton Lake* was staged. Hotel guests amble past the photo location and then carry on down a rustic pathway to the main town site. Standing at this promontory, more often than not the ephemeral nature of wind moves the large groups of people who stand to take in the scene and practice photography. This is particular to Waterton, known for its extreme wind: in the sudden rise of the wind, I would watch visitors rush away. Vibratory blasts of wind would send small, light pieces of reddish brown shale forcefully through the air, and the sharp sting of shale on my bare face became a testament to the way the wind mediates and influences experience, emotions and thoughts. The hill remained empty until the arrival of calm, permitting practices of photography. Then people would return, flowing from the hotel, up and along pathways from the town.

Yet practices of weather are largely absent from the visual record. As Ingold points out, there is little scholarly literature that can be found on the question of how the weather impacts on practices of vision, "for the most part, you would think that there is no more weather in the world than in the studio, laboratory or seminar room" (2008:377). This is of little surprise. The legacy of the Cartesian perspectivalist scopic regime is the removal of vision from the body (Crary 1992). To Ingold (2008:388), "weather is not what we have a perception of, it is rather what we perceive in." To consider that wind influences photographic event—the driving wind drives out the possibility of picture taking—then it seems that photography, valued as direct and straightforward observation, actually indexes the particularity of experience (Edwards 2009). In Waterton, visitor experience is deeply influenced by the force of wind. It influences the movement to take a picture or not.

Wind is a shared event among visitors to the hill. It brings up an awareness of inside and outside, convenience and disruption. Locals and tourists alike complain and joke about the wind, and the biography of the

Prince of Wales Hotel is aptly named "High on a Windy Hill" (Djuff 1999). Ray Djuff (1999) reports that the hotel sits at an angle because the force of driving wind shifted the building on its foundation when under construction. The whistle and moan of the wind through a more than $200-per-night room is part of the rustic charm. Photographs are linked to the weather. The practice of photography in Waterton is about force, not only the force of the sun's actinic rays onto lively sensitive emulsion or an image sensor, but also the force of wind creating movement. The long exposures needed to expose a plate in 1874 would require the still of the wind.

Conditions co-produce place in highly specific ways. The objective and detached eye of 19th-century visual culture is dismantled and bodies are situated: basking in the heat of the sun, being moved by the rise of wind and annoyed by the hum of mosquitoes. The wind contributes to the world's becoming—found not only in the aesthetic charm of wind-shaped trees that huddle the shoreline, but also in the very absence of wind that provides an opening to a photographable moment. Dorian Sagan writes that "Anthropology—the study of (hu)man—obeys this same logic of the return of the ghost of what was excluded, in this case all the systems, living and nonliving which make our kind possible" (Fuentes 2011:n.p.). To focus on the relationship between wind and photography in 1874 is to return to the ghosts of what makes us human.

Aesthetic Practices in Scientific Programs

Dawson and the surveyors operated the camera in a specific historical moment through which scientific inquiry, aesthetic reflection and economic and political calculations touch down for an instant onto a photo-sensitive glass plate coated with silver halide chemicals to capture a spectral trace of the world. The Boundary Commission wait for *Waterton Lake* to emerge. After two days of clouds "clinging round the peaks," the weather clears. It is calm and partly cloudy, and there are "beautiful effects of light and shade on the mountains ... The lake a magnificent sheet of water long and river-like and running South a long way bordered by almost precipitous mountains" (1874:120). Several days later Dawson describes the scene again: "scenery is wonderful the lake running away south among magnificent mountains" (1874:149). The two meanings of magnificent—beauty and wealth—are at the centre of what Dawson and his men visualize: *Waterton Lake* is made with a wealthy focal length, an expansive view from an elevated viewpoint, constituting a visual depiction of a wealthy geography, a way of picturing Canada that has become an important concept to Canadian identity (Berland 1991).

In this narrative, timber is visible as far as the eye can see, water is in abundance and geology is found in the interesting and complex folds of the Lewis overthrust: "The lower beds are brought up by an irregular anticlinal fold, which crosses the lake near its north end" (1875:57). Beauty and wealth are united through the perception of the pristine. To be pristine is to be separate, "unspoilt by human interference" (especially industrial), as per a definition found as early as 1910 in Encyclopedia Britannica: "this presence of the pure, the pristine, the virginal in the verse, this luminousness, spaciousness, serenity in the land" (OED online 2012). The pristine denotes value and power (Berland 1991). Contemporary scholarship on national parks in Canada recognizes that to generate the pristine is to create the conditions for the designation of national parks (Braun 2002; Fife 2006; Loo 2006; MacLaren 1999). This colonial visuality runs through contemporary practices in Canada and can be found in a recent description of the parks system:

> Protected and preserved for all Canadians and for the world, each is a sanctuary in which nature is allowed to evolve in its own way, as it has done since the dawn of time. Each provides a haven, not only for plants and animals, but also for the human spirit. A place to wander … to wonder … to discover yourself. [Parks Canada 2008:n.p.]

Despite a division in the 19th century over the meaning and role of photography as art or science, the survey photographs are tangled in both registers. The picturesque is a part of the scientific toolkit of the International Boundary Commission. In his article "The Aesthetic Map of the North, 1845–1859," Ian MacLaren (1985:89) establishes that aesthetic principles of the picturesque and sublime, alongside astronomical computations for charting landscape, were instruments British explorers used to identify new lands in a way that would be familiar to British and European readers. The picturesque "grew out of the habit of viewing tracts of land as if they were landscape paintings" (90). Dawson frames Waterton in his written account: "A very perfect double lunar rainbow visible about 8.45 P.M. The colour of the inner very distinct. The whole placed in exact symmetry over one of the ranges of mountains and looking like a gigantic frame" (1874:155). MacLaren explains that the picturesque was important to England:

> The Englishman who discovered the Picturesque abroad, therefore, was achieving three purposes: he was affirming England's belief in its own imperial destiny by stamping foreign tracts as English in appearance; he was conducting his travels/explorations in a sufficiently orderly manner to be able to perceive the composed qualities of nature; and most importantly, he was nourishing his own aesthetic identity as an Englishman, which required sustenance in proportion to his temporal distance from the gentle hill-and-dale topography of his Home. [1985:90]

Through the picturesque convention, Dawson and his men established *Waterton Lake* as a calm, orderly and pleasant view. The photograph is made from an elevated prospect point, the foreground looks down onto a middle ground with a water course running through it and "onto a rising background that encloses or contains the view." (MacLaren 2007:45). The photograph is harnessed for scientific use to illustrate the geology, botany and geography of the country and its art, fixing the picturesque into a frame ready for a museum or gallery. Both art and science are linked responses to the same historical moment and the same uncertainty, anxiety and desire.

Practices of Commensurability: Following What Has Come Before

The surveyors searched for commensurability to make Waterton like places that they have experienced before. In conversation, Featherstonhaugh, the head of one of the units of the Boundary Commission, compared Waterton Lake with Lake Lucerne in Switzerland. This resonated with the men, and Dawson notes the comment in his journal. The power of conversation to shape relations and experience generates a particular visuality. The photographer is in all likelihood a part of the conversation and draws his knowledge of Lake Lucerne, and the way it might be pictured, into his imagination to compose the photograph accordingly—a move to the east, a step north away from the edge of the hill to dip down, effectively lowering the height of the vantage point. Featherstonhaugh's subjective desires, his longing for Switzerland, are realized. In *Waterton Lake*, scientific scrutiny is made material through a mix of subjective memory recounted in conversation in a group and that translation by the hand and eye of the camera operator onto a glass plate. Found in Featherstonhaugh's utterance about Lake Lucerne is confirmation of the power of conversation in shaping relations to cultural experience. By finding similarity, Dawson and his men make Switzerland present. The ability to imagine a commensurability between Switzerland, a space they had seen before, and the space they were encountering is perhaps another reason so many photographs from the Waterton area can be found in the record. While crossing the prairies was arduous, making photography more difficult than in Waterton, it is also possible that the Commission found it challenging to frame the experience into an existing visuality.

Imaginary relationships between places—Waterton as Switzerland—eventually become material practice in more than photographs. In 1933, the Prince of Wales Hotel was built by Great Northern Rail on the spot where the Boundary Commission was camped that day. Famous for its Swiss-style chalet architecture with a steep roof, the dormers and rustic beams imitate the architecture found in photographs and postcards of towns such as Trieb on Lake Lucerne, a popular destination for travel in the late 19th century and a place greatly valued for its beauty. The colonial enterprise stamps Switzerland onto Canada. Yet, the intense wind produces a hybrid agency alive in the experience of the park: Waterton as Switzerland is off-kilter as the force of wind re-shapes the experience of Switzerland in the form of a tilted hotel.

Practices of Imagination and Verification

While Dawson expressed a desire to order and to make sense of his experience, there is also a rebellious liveliness at play. Dawson writes about beauty and magnificence, "nightmarish and weird" things, like his sense of bison:

> The appearance of the animal altogether nightmarish and weird, looking like a survivor of a bygone age or a reverified Tertiary monster. They stalk slowly along in lines one after another or feed in little herds ... Their bellow has a hoarse hollow metallic sound and has a peculiarly eerie effect when heard coming across the prairie after dark. As I write, a great herd are lowing and bellowing within earshot. [1874:174]

Imagination is also part of the lively production of geographic visual knowledge on the ground. First, standing behind the camera to make an exposure is an imaginative act. Looking at the subject they photographed, Dawson and his men imagined what it will show. Not only is this a practice of imagining the outcome but also how it will be interpreted once out of the field, removed from the referent. This includes the potential of the subject in the future: it was both actual and imagined resources that led the Boundary Commissions in Canada and the United States to form and agree to delimit the international boundary.

And yet what does this imagination show? In *Waterton Lake* smoky haze from forest fires in the area or atmospheric haze or an effect from the printer's touch in the darkroom make it impossible to properly see the details of distant mountains or even the end of the lake. This slippage in the possibility of photography as a way to make something known is reflected in Dawson's accounts of his fieldwork and the failure to verify the lakeshore represented in the photograph. He writes in his report,

> The southern end of Waterton Lake, I was, however, unable to examine in any detail, from the precipitous and impassible nature of the mountains surrounding it, and the impossibility, in the short time at our disposal, of making a serviceable boat or raft. [1875:58]

Dawson set off to circumnavigate the lake in pursuit of a structure of the country. After several improvisations and attempts by foot, horse and raft, he gave up, expressing frustration at the unknown.

Historical Photography: A Live Wire

The vista produced in *Waterton Lake* is found in art mixing into scientific accounts, and in the liveliness of imagination, conversation and commensurability. Dawson and his men loitered in Waterton, waiting for the right moment: a calm, bright, late summer morning. These conditions coalesce providing an opening for a photograph to be made. Dawson encountered a world unruly and in flux, and his diaries recount falling trees that rerouted pathways and made travel difficult, painful and slow, the danger of raging fires that they or other travellers set and that they had to put out, the violence and death of wars that were being fought, sickness and accidents that injured. All of this was present in their experience and built into their visual practices. Despite this unruliness or because of it, *Waterton Lake* enters the archive, and what Dawson describes in his journal as nightmarish and weird and in his report as calm and orderly, to appear as an effortless instant where light exposed the glass plate. The survey collection was printed by the well-known Notman and Sons in Montréal, and the touch of the printer's hand smooths out and softens the image, later passed between the various party members while they were writing their reports. Despite the haze and the failure of Dawson to verify what was in the distance, the photograph can be successfully narrated by the boundary commission: in *Waterton Lake* they find the "structure of the country."

Absences count as much as presences. The photographic collection is made up of middle and distant vistas, rather than close-up views of botanical, geological or geographical detail. In part a technological limitation (e.g., the focal length of the lens), it was also the most practical way to claim "pristine" space. Survey photography is not close-up views of geological detail, portraits of people you know, indigenous guides or existing pathways. While their photography denied these possibilities
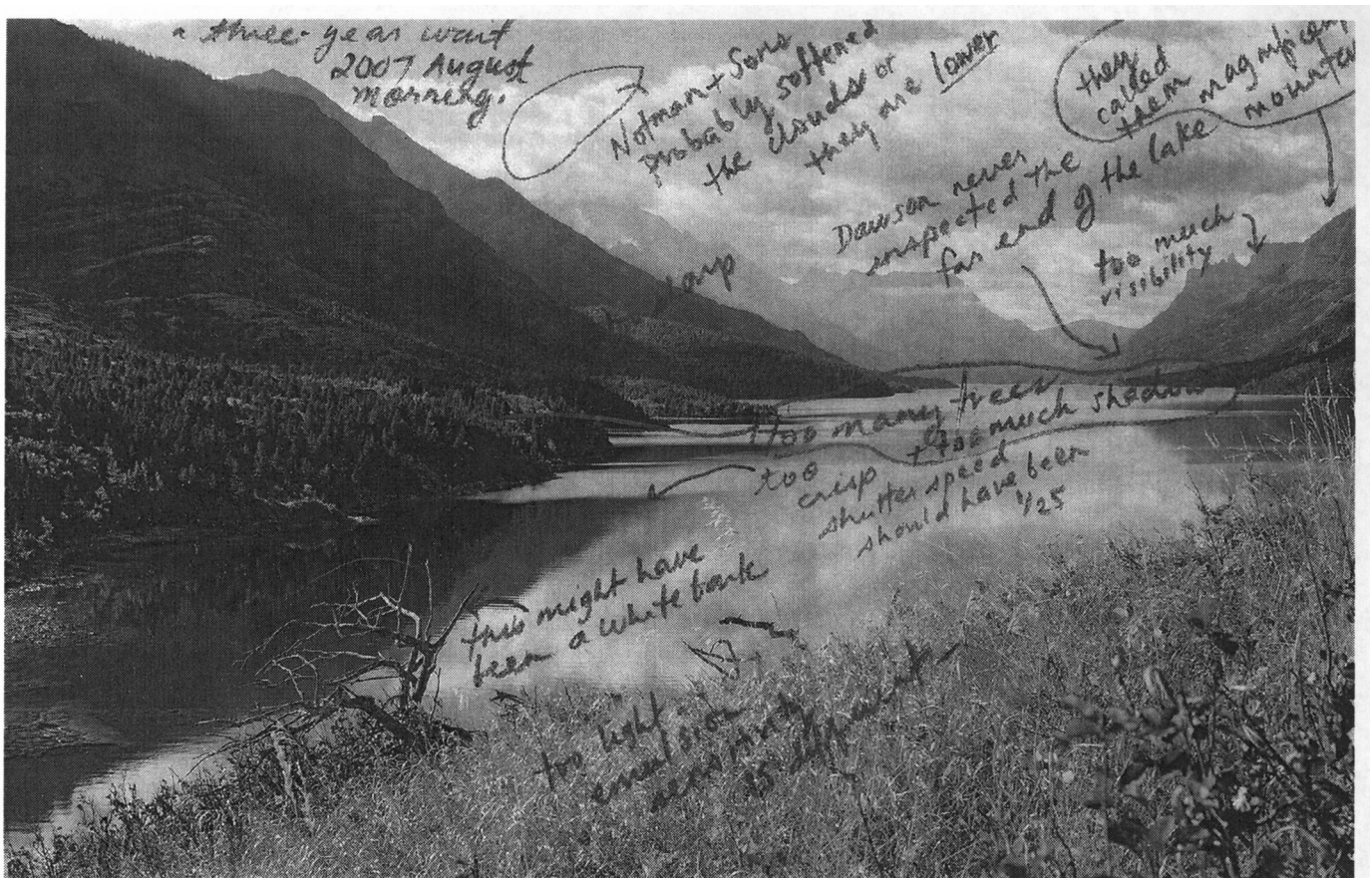
Figure 4: Waterton Lake Alta., from the north shore. 4 miles North of boundary line and 757 miles west of the Red River, after the International Boundary Commission. August 2007. Photograph by author with field notes describing the gap between the historical photograph and repeat.

through omission, the surveyors encountered more than they recorded: Dawson's photographic practices located on the nearby slope of South Kootenay Pass were enabled by walking on pathways inscribed over time by travel by particular indigenous peoples such as the Nitsitapii, whose descendants remain in the surrounding area but whose access to the park is in part scripted by the same colonial accounts that excluded their ancestors' inhabitance from representations of the pristine. These political implications of photographic visuality deny the very access points that made the views possible. In the negation of what might be there—a history that includes human dwelling as a part of parks—the camera was used for its instrumental potential, "a silence that silences" (Sekula 1986:6).

Taking photographs is a re-iterative act to "internalize and repeat earlier displacements which over time take on the appearance of common sense" (Willems-Braun 1997:43) (Figure 4). The powerful performance that produced the International Boundary Commission

photograph in 1874 was first re-enacted by the United States Geological Survey in 1901. In the 20th century, the lenses of outfitters, commercial photographers and tourists framed their views in relationship to Dawson's geological description. These events carry into the present when many thousands of visitors arrive in the summer months and walk well-travelled paths that lead them within a few metres of the photographic location. People stand close to one another and, from the height of the edge of the hill, gaze south and record the lake framed by the mountains. The view remains important to how parks are visualized at present: A recent Facebook posting from Parks Canada of a Google Earth camera operator suited up in the very location where the 1874 Boundary Commission photograph was taken provides an example of the power of certain sites for photography over time (Figure 2).

To attempt to re-enact *Waterton Lake* is about connecting to a story that is larger than one person (Weems 2009). It is not only that visitors to parks expressively

engage the experience through walking, reading guide-books, comparing and contrasting experiences, searching and organizing, but visitors also come to know the history of photography through their bodies embedded in the world: looking, peering, bending, stilling their bodies by holding their breath, and waiting for a lull in the wind, a break in the clouds, for the clouds to lift off the mountains.

Life and Death in Waterton

In writing about the picturesque aesthetic in the Sub-Arctic, MacLaren makes an important contribution by carefully thinking through the consequences in forcing the shape of England, "by making a northern valley into an English gallery by means of an imported schema is the danger of not apprehending the terrain's own unique qualities" (1985:91). The danger to the explorers was real. Buildings placed on hilltops to produce a more picturesque view, rather than in more forgiving valleys, meant that, for explorers in the Sub-Arctic, "aesthetics had precluded saving themselves" (1985:91). Their resistance to attuning themselves to the specificity of their surrounds cost them their lives.[5]

In Waterton the force of wind shifting the angle of the Prince of Wales Hotel is not the only consequence of the habit of photography. While Dawson and his men remained relatively safe in making *Waterton Lake*, the re-enactment of the picturesque convention affects flourishing in the present. The material performance of parks and photography can be found in the inscription of roadway pullouts and pathways leading to distant vistas for the purpose of photographic practices. In summer months, hundreds of visitors travel up the Akamina Parkway each day on their way to Cameron Lake, a 30-minute drive from the town. In archives, by re-enacting the photographic record, and by observing photographic events, I found a parallel history to the *Waterton Lake* location. Over two summers I conducted fieldwork in the area and found that generally people travel to the lake with family and friends and take distant views of the lake and the mountains (including many photographs containing people posing for the camera, framed by the lake and mountains).

On July 17, 2007, I was riding my bike to Cameron Lake when the air became animated with the fleeting movements of migrating butterflies. The sky was transformed by their grey, yellow and blue hues. I stopped to witness and document butterfly movements and mass death as they crossed one of the two highways that intersect the park. Countless of these tiny travellers were hit and killed by windshields, caught in car grates

and crushed under tires of recreational vehicles that were travelling up to the lake, filled with people on their way to take pictures of the lake and mountains. In this act of continuing on, human travellers overlooked the butterflies as something that counts as park experience. The butterflies, it seemed, were not a part of Waterton as a "sanctuary in which nature is allowed to evolve in its own way, as it has done since the dawn of time." Nor, it seemed, was Waterton "a haven, not only for plants and animals, but also for the human spirit" (Parks Canada 2008:n.p.). The challenge of unexpected butterfly migrations is that they do not show up in the photographic record.

The lively movements and fleeting nature of their migration render the butterflies outside of the visuality of Parks Canada's "real Canada." Non-recognition of the fleeting nature of butterflies descends directly from the transfer of the picturesque from England into Canada. A failure to recognize the specificity of the surrounds is an inheritance from colonial pasta and promotes not just our own human danger but also the danger for the rest of life. I followed the cars up to the Cameron Lake, where a few people pointed out the butterflies while walking across the parking lot area to the shoreline to make photographs of the lake and mountains.

A non-recognition of migration helps to re-enforce park borders and the movements that flow across them. In mid-summer 2002, I found an interpretive sign on the north side of the park that read, "National Parks are living museums of nature preserved for the benefit education and enjoyment of this and future generations." Through the visuality of images like *Waterton Lake*, this lively place is materialized as a "living museum," one unable to contain the temporal and spatial reality of butterfly migrations on the move.

The butterfly migration was arresting. It raised questions about recognition of the real and about providing an ethics of care for a species on the move. It provided a shape for what counts, by showing what does not. But the butterfly migration also caused a literal arrest. One of the Parks Canada employees I worked with relayed a story from the townsite: A visitor to the park, moved by the experience of the butterflies, stopped his car, stepped out and tried to stop other cars from killing the butterflies. His act of agitation and resistance was considered by some to be weird—we might say monstrous, even—as he acted outside of what was considered acceptable, normal human behaviour in a national park. Parks Canada employees squelched the disruption by escorting the man to the park gates and
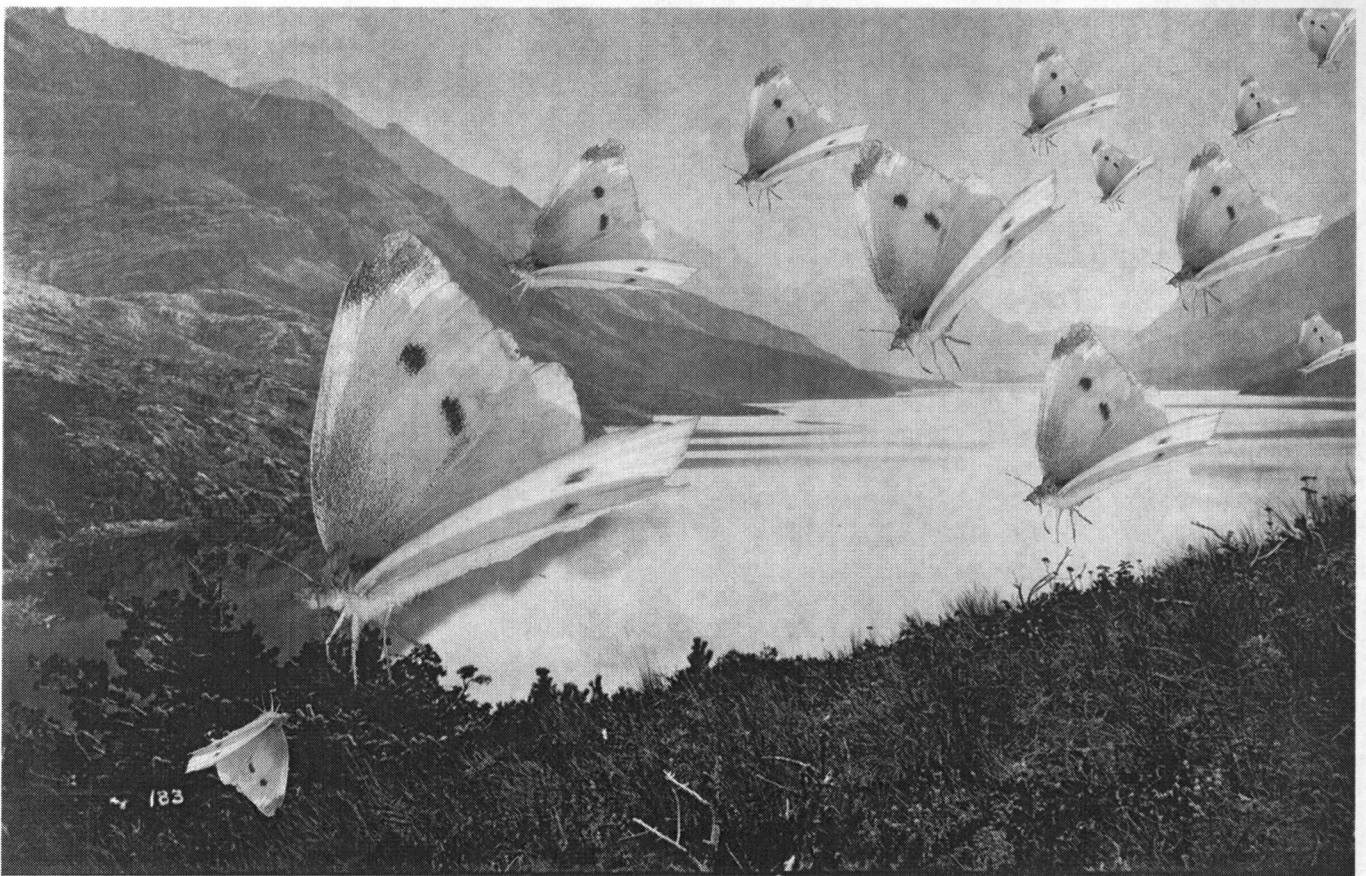
Figure 5: New relations: Dawson (1874) and a butterfly retrieved from migration (2007). Collage by author, 2013.

evicting him from the park. His act of defiance reveals the possibility of recognizing the world that goes beyond a hunger for the scripted experience of taking a picturesque view. In their visible invisibility, butterfly migrations reveal parks and photography as constructions that are exceeded by reality (Figure 5). How does recognizing things like butterfly migrations—eventful outside of the photographic record—provide an opening to ongoing, unrecognized, more-than-human forms of relations or new forms of relations?

Parks Canada scientists record over 100,000 images each year in Waterton on their remote wildlife cameras (Parks Canada 2013:n.p.). In a recent online Parks Canada publication entitled "Wild in Waterton: Images from Waterton's Remote Cameras," an issue was devoted to "Rare Images." The web page reported that some species like deer and elk are photographed thousands of times, while other species are less apt to trigger cameras (either because of habitat or a physical inability to trigger cameras like pileated woodpeckers or low-density populations like wolverines). Parks Canada is addressing the problem of the remote camera tech-

nology to overlook certain relationships and to pick up the trace of some lives and not others. Extending visibility of the more-than-human world is often the purpose of the cameras; yet, the question of photographic invisibility remains important. To return to Haraway's idea that North America is in the midst of "reinvented pastoral-tourist economies and ecologies" that raise basic questions about "who belongs where and what flourishing means for whom" (2008:41), we might ask what kind of flourishing is possible in protected areas? Given the visual history of parks, how might we encounter *more* than we might expect? And given the promise of new forms of record-making, like time-lapse cameras (e.g., as non-intrusive ways to record the more-than-human), how might photography connect to flourishing, life and death in the future?

Conclusion

Photography and national parks are not static containers but rather are lively and on the move. At the same time, the photographs by Dawson live in the past, present and the future. They live in archives, in texts,

in memory, in current photographic re-enactments, in ideas about protected areas and in paths inscribed on the ground. To analyze their event-ness is to construct and flesh out a fuller account of human relationships through a more-than-human anthropology. Recognizing multisensory and more-than-human connections to photographic practices offers an affirmative critique of the practices of colonial photography as a way to show how the past comes to echo in the present—one that we need to take responsibility for. Challenging the hegemony of photographic practices can provide ground for knowledge, experience and liveliness that brings into fuller view how humans are situated in an emergent world.

Trudi Lynn Smith, School of Environmental Studies, University of Victoria, PO Box 3060, STN CSC, Victoria, BC V8W 3R4, Canada. E-mail: trudis@uvic.ca.

Acknowledgements

Notes

1   For example, we only need look as far as one of the very first photographs made, the famous *Boulevard du Temple* image by Louis Jacques Mandé Daguerre, who is credited with the invention of photography. Due to lengthy exposure time the boulevard appears empty, but in actuality, it was a busy street. Daguerre introduces the photographic process, writing that "The DAGUERROTYPE is not merely an instrument which serves to draw Nature; on the contrary it is a chemical and physical process which gives her the power to reproduce herself" (1839, quoted in Batchen 1997:66). Yet, what or whose Nature is this? This photograph was never as it would have appeared to a human bearing witness to the event, and it reveals that photography is not simply a reflection of "reality." At the same time it reveals that in photography, movement is often perceived as an absence, and of something that did not really happen.

2   This is important because sometimes it is the very way that people misbehave, the way they resist doing the job "right," that leads some things to remain archived when they should not have been. For example, the Dominion Land Survey phototopographical survey consists of tens of thousands of glass plates that were supposed to be destroyed by the Geological Survey of Canada and Library Archives Canada. For some reason, they were overlooked and remained in auxiliary storage outside of Ottawa for many years until "rediscovered" by researchers at the University of Alberta and have now found a new life as part of the present-day Mountain Legacy Project, including their accessioning into the Library Archives Canada (http://thediscoverblog.com/2013/09/26/the-mountain-legacy-project-an-archive-based-scientific-project/).

3   In 2010 visitation to Waterton numbered 380,000 visitors, down from over 400,000 in the late 1990s (Waterton Lakes National Park Management Plan 2010:12).

4   The survey ended a process that was started in 1861, but then interrupted due to civil war in the United States.

5   The Franklin expedition is the most famous example of this phenomenon. Parks Canada's present involvement in this story provides a complex connection between parks and explorer accounts; see http://www.cbc.ca/news/canada/franklin-searchers-find-bones-artifacts-but-no-ships-1.1862083

References

Abram, David
   1996   The Spell of the Sensuous: Perception and Language in a More-Than-Human World. New York: Pantheon.
Banks, Marcus, and Jay Ruby
   2011   Made to Be Seen: Perspectives on the History of Visual Anthropology. Chicago: University of Chicago Press. http://dx.doi.org/10.7208/chicago/9780226036632.001.0001
Batchen, Geoffrey
   1997   Burning With Desire: The Conception of Photography. Cambridge, MA: MIT Press.
Bedford, Christopher
   2009   Qualifying Photography as Art, or, Is Photography All It Can Be? *In* Words Without Pictures. Alex Klien, ed. Pp. 4–11. New York: Aperture.
Bender, Barbara
   1993   Introduction. Landscape—Meaning and Action. *In* Landscape Politics and Perspectives. Barbara Bender, ed. Pp. 1–18. Oxford: Berg.
Bennett, Jane
   2010   Vibrant Matter: A Political Ecology of Things. Durham, NC: Duke University Press.
Berland, Jody
   1991   Fire and Flame, Lightning and Landscape: Tourism and Nature in Banff, Alberta. *In* Between Views and Points of View. Daina Augaitis and Sylvie Gilbert, eds. Pp. 12–17. Banff: Walter Phillips Gallery.

Birrell, Andrew J.
  1996 The North American Boundary Commission. Three
       Photographic Expeditions, 1872–74. History of
       Photography 20(2):113–121. http://dx.doi.org/10.1080/
       03087298.1996.10443633
Braun, Bruce
  2002 The Intemperate Rainforest: Nature, Culture and
       Power on Canada's West Coast. Minneapolis:
       University of Minnesota Press.
  2008 Environmental Issues: Inventive Life. Progress in
       Human Geography 32(5):667–679. http://dx.doi.org/
       10.1177/0309132507088030
Campbell, Claire Elizabeth
  2011 Introduction Governing a Kingdom: Parks Canada,
       1911–2011. In A Century of Parks Canada 1911–2011.
       Claire Elizabeth Campbell, ed. Pp. 10–19. Calgary:
       University of Calgary Press.
Crary, Jonathan
  1992 Techniques of the Observer: On Vision and Modernity
       in the 19th Century. October Book. Cambridge, MA:
       MIT Press.
Culhane, Dara
  2011 Introduction to New Directions in Experimental and
       Engaged Anthropology. Anthropologica 53(2):201–
       206.
Darnell, Regna
  1998 Toward a History of Canadian Departments of
       Anthropology: Retrospect, Prospect and Common
       Cause. Anthropologica 40(2):153–168. http://
       dx.doi.org/10.2307/25605894
Dawson, George Mercer (G.M.)
  1874 The 1874 Journal of George Mercer Dawson. http://
       www.ourheritage.net/index_page_stuff/
       following_trails/Dawson/Dawson_74/
       Dawson_1874_Intro.html, accessed February 2013.
  1875 Report on the Geology and Resources of the Region
       in the Vicinity of the Forty-ninth Parallel from the
       Lake of the Woods to the Rocky Mountains.
       Montréal: Dawson Brothers. http://dx.doi.org/10.5962/
       bhl.title.62419
Dawson, George Mercer with Phil Jenkins
  2007 Beneath My Feet: The Memoirs of George Mercer
       Dawson. Toronto: Emblem.
Derrida, Jacques
  1996 Archive Fever. A Freudian Impression. Chicago:
       University of Chicago Press.
Derrida, Jacques and Peggy Kamuf
  2002 Without Alibi. Palo Alto, CA: Stanford University
       Press.
Djuff, Ray
  1999 High on a Windy Hill: The Story of the Prince of
       Wales Hotel. Surrey: Rocky Mountain Books.
Edwards, Elizabeth
  2009 Unblushing Realism and the Threat of the Pictorial:
       Photographic Survey and the Production of Evidence
       1885–1918. History of Photography 33(1):3–17. http://
       dx.doi.org/10.1080/03087290802586153
Edwards, Elizabeth and Kaushik Bhaumik
  2008 Visual Sense and Cultures of Sight: An Introduction.
       In Visual Sense. A Cultural Reader. Elizabeth

Edwards and Kaushik Bhaumik, eds. Pp. 3–16.
       Oxford: Berg.
Edwards, Elizabeth and Janice Hart
  2004 Mixed Box: The Cultural Biography of a Box of
       "Ethnographic" Photographs. In Photographs Objects
       Histories. On the Materiality of Images. Elizabeth
       Edwards and Janice Hart, eds. Pp. 47–61. London:
       Routledge.
Environics Institute
  2010 Focus Canada 2010: Public Opinion Research on the
       Record. Serving the Public Interest. Toronto:
       Environics Institute. http://www.queensu.ca/cora/
       _files/fc2010report.pdf, accessed May 2012.
Fife, Wayne
  2006 National Parks and Disappearing People: Romantic
       Landscapes and the Urbanization of Rural Spaces in
       Newfoundland. In Galicia and Terranova and
       Labrador" Comparative Studies on Economic,
       Political and Socio-Economic Processes. Xaquin
       Rodriguez Campos and Xose Santos Solla, eds. Pp.
       31–54. Santiago de Compostela: Universidade de
       Santiago de Compostela.
Foucault, Michel
  1969 [1972]
       The Archaeology of Knowledge and the Discourse on
       Language. A.M. Sheridan Smith, trans. New York:
       Pantheon Books.
Fuentes, Agustin
  2011 The Whole Is More Than the Sum of the Parts:
       Extended Minds and Extended Selves. Fieldsights—
       Theorizing the Contemporary, Cultural Anthropology
       Online. http://www.culanth.org/fieldsights/230-the-
       whole-is-more-than-the-sum-of-the-parts-extended-
       minds-and-extended-selves, accessed April 23, 2011.
Gibson, James J.
  1966 The Senses Considered as Perceptual Systems.
       Boston: Houghton Mifflin.
Grasseni, Cristina
  2004 Video and Ethnographic Knowledge: Skilled Vision in
       the Practice of Breeding. In Working Images: Visual
       Research and Representation in Ethnography. Sarah
       Pink, László Kurti and Ana Isabel Afonso, eds. Pp.
       16–29. New York: Routledge.
Greenhill, Ralph and Andrew Birrell
  1979 Canadian Photography:1839–1920. Toronto: The
       Coach House Press.
Grimshaw, Anna and Amanda Ravetz
  2005 Introduction: Visualizing Anthropology. In
       Visualizing Anthropology. Anna Grimshaw and
       Amanda Ravetz, eds. Pp. 1–16. Bristol, Portland:
       Intellect.
Haraway, Donna Jeanne
  2004 The Haraway Reader. New York: Routledge.
  2008 When Species Meet. Posthumanities, vol. 3.
       Minneapolis: University of Minnesota Press.
Hayles, N. Katherine
  1995 Searching for Common Ground. In Reinventing
       Nature? Responses to Postmodern Deconstruction.
       Michael E. Soule and Gary Lease, eds. Pp. 47–63.
       Washington, DC: Island Press.

Ingold, Tim
 1993 The Temporality of Landscape. World Archaeology
   25(2):152–174.
 2000 The Perception of the Environment. Essays on
   Livelihood, Dwelling and Skill. London: Routledge.
   http://dx.doi.org/10.4324/9780203466025
 2008 The Eye of the Storm: Visual Perception and the
   Weather. *In* Visual Sense. A Cultural Reader.
   Elizabeth Edwards and Kaushik Bhaumik, eds. Pp.
   377–386. Oxford: Berg.
 2011 Being Alive: Essays on Movement, Knowledge and
   Description. London: Routledge.
 2012 Toward an Ecology of Materials. Annual Review of
   Anthropology 41(1):427–442. http://dx.doi.org/10.1146/
   annurev-anthro-081309-145920
Kaplan, Elisabeth
 2002 "Many Paths to Partial Truths": Archives,
   Anthropology and the Power of Representation.
   Archival Science 2(3-4):209–220. http://dx.doi.org/
   10.1007/BF02435622
Latour, Bruno
 1993 We Have Never Been Modern. Cambridge, MA:
   Harvard University Press.
Loo, Tina
 2006 States of Nature. Conserving Canada's Wildlife in the
   Twentieth Century. Vancouver: UBC Press.
MacLaren, Ian
 1985 The Aesthetic Map of the North, 1845–1859. Arctic
   38(2):88–103.
 1999 Cultured Wilderness in Jasper National Park.
   Canadian Studies 34(3):7–58.
 2007 Introduction. *In* Culturing Wilderness in Jasper
   National Park: Two Centuries of Human History in
   the Upper Athabasca River Watershed. I.S.
   MacLaren, ed. Pp. xv–xliii. Edmonton: University of
   Alberta Press.
MacLaren, Ian, Eric Higgs and Gabrielle Zezulka-Mailloux
 2005 Mapper of Mountains. M.P. Bridgland in the
   Canadian Rockies. Edmonton: University of Alberta
   Press.
McCord Museum
 n.d. Notman, William McFarlane. http://www.
   mccordmuseum.qc.ca/scripts/explore.php?Lang=
   1&tableid=1&tablename=artist&elementid=
   00479_true, accessed July 19, 2010.
Parks Canada
 2008 National Parks System. http://www.pc.gc.ca/progs/np-
   pn/pr-sp/index_e.asp, accessed February 2013.
 2010a Canada's Greatest Summer Job 2010: Parks Canada
   news release, Parks Canada Newsroom online, April
   14. http://www.pc.gc.ca, accessed April 2010.
 2010b Parks Canada Charter. http://www.pc.gc.ca/eng/agen/
   chart/chartr.aspx, accessed August 2010.
 2010c Parks Canada Waterton Lakes National Park of
   Canada: Management Plan. Ottawa: Government of
   Canada.
 2013 Wild in Waterton: Images from Waterton's Remote
   Cameras, Parks Canada Waterton Lakes National
   Park of Canada. http://www.pc.gc.ca/eng/pn-np/ab/
   waterton/ne/ne5/ne5l.aspx, accessed December 2013.

Pink, Sarah
 2006 The Future of Visual Anthropology: Engaging the
   Senses. Oxon: Routledge.
Porcello, Thomas, Louise Meintjes, Ana Maria Ochoa and
David W. Samuels
 2010 The Reorganization of the Sensory World. Annual
   Review of Anthropology 39(1):51–66. http://dx.doi.org/
   10.1146/annurev.anthro.012809.105042
Povinelli, Elizabeth
 2011 The Woman on the Other Side of the Wall: Archiving
   the Otherwise in Postcolonial Digital Archives.
   Differences: A Journal of Feminist Cultural Studies
   22(1):146–171. http://dx.doi.org/10.1215/10407391-
   1218274
 2013 The Anthropocene Project: An Opening. Keynote
   presentation. Haus der Kulturen der Welt. Published
   on January 20, 2013. http://www.youtube.com/
   watch?v=W6TLlgTg3LQ, accessed April 2013.
Reeves, Brian (Barney)
 1994 Ninaistákis—the Nitsitapii's Sacred Mountain:
   Traditional Native Religious Activities and Land Use/
   Tourism Conflicts. *In* Sacred Sites, Sacred Places.
   David L. Carmichael, Jane Hubert, Brian Reeves and
   Audhild Schanche, eds. Pp: 265–296. London:
   Routledge.
Richter, Gerhard
 2010 Between Translation and Invention: The Photograph
   in Deconstruction. *In* Copy, Archive, Signature: A
   Conversation on Photography. Pp. ix–xxxviii. Jacques
   Derrida. Jeff Fort, trans. Stanford: Stanford
   University Press.
Sandlos, John
 2007 Hunters at the Margin: Native People and Wildlife
   Conservation in the Northwest Territories.
   Vancouver: UBC Press.
Sekula, Allan
 1986 The Body and the Archive. October 39:3–64. http://
   dx.doi.org/10.2307/778312
Smith, Charles H.
 2002 Rock Stars: George Mercer Dawson: Pioneer
   Explorer of Western Canada. GSA Today 12(8):16–
   17. http://dx.doi.org/10.1130/1052-
   5173(2002)012<0016:RSGMDP>2.0.CO;2
Smith, Trudi Lynn
 2007 Repeat Photography as Method in Visual
   Anthropology. Visual Anthropology 20(2–3):179–200.
   http://dx.doi.org/10.1080/08949460601152815
 2004 Vantage Points, Scientific Photography in Jasper
   National Park. The Bridgland and Repeat
   Photography Projects. MA thesis, interdisciplinary,
   University of Victoria (ProQuest).
Steedman, Carolyn
 2002 Dust. Manchester: Manchester University Press.
Tilley, Christopher
 1994 A Phenomenology of Landscape: Places, Paths, and
   Monuments. Oxford: Berg.
Webb, Jenaya
 2003 Imaging and Imagining: Mapping, Repeat
   Photography, and Ecological Restoration in Jasper

National Park. MA thesis, Department of Anthropology, University of Alberta (ProQuest).

Weems, Carrie Mae
    2009 Compassion. Art 21: Season 5. Art in the Twenty-First Century. PBS.

Wells, Liz
    2011 Land Matters: Landscape, Photography, Culture and Identity. London: I.B. Tauris.

West, Paige, James Igoe and James Brockington
    2006 Parks and Peoples: The Social Impact of Protected Areas. Annual Review of Anthropology 35(1):251–277. http://dx.doi.org/10.1146/annurev.anthro.35.081705.123308

Willems-Braun, Bruce
    1997 Buried Epistemologies: The Politics of Nature in (Post)colonial British Columbia. Annals of the Association of American Geographers 87(1):3–31. http://dx.doi.org/10.1111/0004-5608.00039

Winthrop, Kathryn
    2001 Historical Ecology: Landscapes of Change in the Pacific Northwest. *In* New Directions in Anthropology and the Environment. C. Crumley, ed. Pp. 203–222. Walnut Creek,CA: Altamira Press.