



Siobhan Angus

Camera Geologica:

An Elemental History of Photography

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In the introduction of the catalogue to their highly regarded exhibition *Nature's Nation* (Princeton University Art Museum, October 13, 2018–January 6, 2019), Karl Kusserow and Alan C. Braddock make a case for ecocritical art history.¹ Defining the approach as one that “consider[s] the environmental implications to materials—the stuff of art,” Kusserow and Braddock use mahogany as a concrete example for applying their methodology. To study a piece of furniture made from this wood, they argue, means recognizing “not only certain aesthetic traditions and artisan practices but also far-flung networks of shipping, enslaved labor, and the harvesting of endangered mahogany trees in the Caribbean.”² Siobhan Angus’s debut monograph, *Camera Geologica: An Elemental History of Photography*, takes up Kusserow and Braddock’s call in its close examination of the materials that make photography possible. Each of the six chapters focuses on a specific mineral: bitumen, silver, platinum, iron, uranium, and rare earth metals. For Angus, the topic is not simply a matter of inventorying photographic techniques and writing a comprehensive history of the process. Rather, the subject is framed

as a matter of the gaze, of seeing beyond the visible and material by beginning with the question, “How does photography look from the perspective of the mine?” (4). While historical by necessity, Angus does not impose any temporal boundaries when it comes to choosing case studies and tracking the lives of these minerals. In each chapter, the reader will find nineteenth-century photographs comingling with those of the twenty-first. Angus uses these contemporary examples to show how techniques and the stability in the usage of these minerals belies an increasingly volatile history of colonialism, industry, and racial and class injustices that have bubbled up to the surface in ways that are difficult to ignore. Contemporary photographers employ the minerals previously used to justify colonial conquest to draw attention to their colonial consequences, from decimated landscapes to hazardous zones that continue to affect people within these locations.

Camera Geologica marks a landmark development in material-focused scholarship on the history of photography. The ecocritical approach advocated by Braddock and Kusserow has begun to inform scholarship on the history of photography but has more commonly been used to discuss subject matter rather than underlying photographic processes. Scholars have built on the work of Braddock and Kusserow to examine nature photography while attending to larger socio-political motivations for producing the images under consideration. One representative of this approach is Keri J. Cronin, whose work on Jasper National Park has examined the central role that photographic representations of the park have played in shaping public perceptions of it as a pristine and timeless wilderness.³ Macarena Gómez-Barris’s influential book *The Extractive Zone: Social Ecologies and Decolonial Perspectives* (Duke University Press, 2017) asks broader questions about the optics of extraction. Rather than limiting the discussion to photography, Gómez-Barris asks what it means to take on a “submerged perspective,” a concept she coins in the text. This approach entails moving away from seeing land as resource to seeing it as an entity that other life depends on, including human beings. One of the first truly material history approaches to photography is Kevin Coleman and Daniel James’ edited volume *Capitalism and the Camera: Essays on Photography and Extraction*

(2021), to which Angus also contributed.⁴ That collection focuses on the relationship between photography and capitalism, asking to what extent the medium is complicit with the extractive politics of empire and in what ways the medium pushes back against these policies. Adding to this growing subfield of the history of photography, *Camera Geologica* is a field-defining book in the way it makes a case for critically evaluating a photograph's materiality but doing so in a way that puts aesthetic questions behind political and ethical ones. This methodological commitment places Angus's debut monograph firmly at an interdisciplinary intersection, emphasizing that the study of art history and visual culture can and should go hand-in-hand with critical re-engagements of historical events like nation-building and scientific discoveries.

The question of the gaze surfaces quickly in chapter one, although positioned from a different angle than one might expect. The author asks: "What does it mean to see through oil?" (33). Examining the history of bitumen and the mineral's connection to the nascent oil industry of the nineteenth century, Angus points to the invisibility of oil and of those who labour for it. Whereas coal is associated with the working class and would often be depicted in photographic narratives of industrial success, Angus suggests that oil is a more ambiguous resource in its movement across the different classes. The chapter moves from canonical photographs by Louis Daguerre and Nicéphore Niépce to the now equally famous contemporary works of Edward Burtynsky and Warren Cariou, moving away from the conventional history of photography preoccupied with innovation to look at the aftermath of the heavy extractivism that made photography possible. The theme of invisibility carries forward into the next chapter on silver, whose physical pervasiveness in the photographic process hides a history of slavery, in the case of Potosi, Bolivia. Angus also speaks to the competing ideas of profit that are integral to silver's role in the West—how its function as literal currency existed in tension with its value as a means of representing the labour that, ironically, made its existence possible. By comparison, Angus's discussion of platinum in the next chapter discusses the metal as possessing individual properties while also being receptive to other forces that work on reshaping it, namely pollution, the market, and war. Thus,

the instability of silver that made platinum so appealing was eventually replaced by the instability wrought by aesthetic preferences. Angus notes that the "platinotype" faced criticism from some in the nineteenth century, who perceived these images as "unphotographic" (112), resulting in the platinotype never quite becoming a technique of choice. The final lethal blow to the platinotype was dealt by the First and Second World Wars: the mineral's importance for the production of munitions and for things like engines and explosives caused its use to be restricted solely for direct use in war.

The second half of *Camera Geologica* contains material histories that move slightly further away from the physical surface of the minerals under examination and begin to consider the transformative powers they have on lives across multiple scales. The fact that iron opens this second "act" of the book is fitting, as a mineral that functioned as a kind of binding agent for different materials and geographies. In the fourth chapter, Angus binds together a discussion of cyanotypes—a literal physical trace of the object being "photographed," as represented by Anna Atkins' infamous *British Algae* series—and of the "industrial gaze" (151) and the "industrial sublime" (152). Connecting these two seemingly disparate topics is iron's fluid place as it moves between the human and non-human worlds, within the human body and within industry, a binding agent that made blueprints possible while also contributing to climate change. It is here that one finds one of the most compelling of the contemporary case studies, the works of LaToya Ruby Frazier, which Angus discusses as being rooted in deindustrialization and the goal of representing what Rob Nixon calls "slow violence," the drawn-out destruction that is made purposefully invisible because it affects people of the lower classes who are also usually racialized minorities. Chapter five's discussion of uranium combines material histories with atomic imaginaries. Angus contrasts the irony of uranium's liveliness and capacity for spontaneous photography when in the form of uranium salt with the documentation of the bombing of Hiroshima and Nagasaki. Once again returning to the theme of (in)visibility, Angus goes on to address the eventual invisibility of these very documentary photographs from 1945 to 1952, when the US

occupied Japan. Despite uranium's connection to death, from figures like Marie Currie and Wilhelm Röntgen—who did not know of the element's radioactive properties—to deliberate large-scale destruction, Angus ends the chapter on a more optimistic note, using Susanne Kriemann's *Pechblende* series (2016-17) to think of uranium's archival and imaginary potential, including remediation.

It is fitting that rare earth metals are the focus of the last chapter given that they are among the minerals that have spurred proposals for highly contested projects such as deep-sea mining. Here, Angus's discussion of the material history of digital image-making recenters the physical world that is otherwise hidden away by capitalist and neo-colonial systems, as evidenced by "sacrifice zones" like Baotou, China, where rare earth minerals are mined before being transported to the West, where the less-toxic process of separation is performed. It is also in this chapter that Angus's critique of Burtynsky, which began in chapter one with the observation that the photographer seems more interested in aestheticizing his subject matter rather than critiquing it, is vocalized most strongly in a challenge to the notion of a "Good Anthropocene" (204). This concept, which is not exclusive to Burtynsky, suggests that capitalism can provide the solution to climate change, a problem for which capitalism is largely responsible. The idea that better resource management and the development of "greener" technologies are feasible solutions ignores the fact that the issue is systemic and requires more than a simple belief in a holistic "we are all in this together" approach. In a chapter focused on decontextualized photography, Angus makes a case for a return to the image, if not physical then at least stable in its digital existence, which she sees as "an opportunity for a kind of slow looking that can initiate ethical spectatorship" (218).

In the introduction, Angus states that *Camera Geologica* is not concerned with "the agency of materials" (22). Here, Angus separates herself from the fields of new materialism and object-oriented ontology, where thinkers like Jane Bennett explore ideas of agential being and liveliness as a form of inconvenience to human lives. Despite this indirect rejection, in a particularly touching passage from chapter

five, Angus refers to radium and polonium as "the daughters of uranium" (170), evoking a form of kinship that further adds a sense of liveliness to uranium's natural decaying process that produces the two aforementioned elements. In this instance of resistance, Angus reiterates the humanness of the photographic process that permeates all its stages. *Camera Geologica* moves away from the false narrative of empirical objectivity and compartmentalization that has been critiqued by scholars like Michelle Murphy.⁵ While the minerals discussed by Angus do not speak or move of their own accord, their complex interrelations amongst each other and with the environment, along with their fabricated dispensability in our human lives, demonstrate that they are much more than just tools for aiding the human gaze, enhancing and confining it to a physical form.

In writing these material histories of photography, Angus offers the reader of *Camera Geologica* a vocabulary of keywords to both follow the throughline of the book as well as to take with them beyond its pages. Some of these terms draw on existing research in other fields, such as the concept of the extractive gaze, as defined by Macarena Gomez Barris, while others offer reworkings of existing terminology. Angus's usage of the term abstraction, for example, sees "the material process of commensurability imposed on concrete labor processes and their products by a global market in commodities—innumerable diverse labor, things, and lifeways treated as though all simply represented in a quantity of economic value" (57). Although in many ways reminiscent of Kusserow and Braddock's words, Angus emphasizes the role of (in)visibility and narrative in addressing the biased material histories that have been written for decades by capitalism and colonialism. Equally significant is Angus's addition of the category "yet-to-come" to Roland Barthes' categories of "there-then" and "here-now," which she uses to argue for a much-needed urgency in recognizing environmental destruction, to say nothing of taking steps to meaningfully address and prevent it. In a sense, *Camera Geologica* is an alchemical text of the Anthropocene, where, instead of magical properties and wondrous possibilities, one finds an index of harm to human and non-human life for the sake of profit and convenience. Although a book heavily dependent on sight given the field

(art history) and even more so the medium (photography), *Camera Geologica* draws attention to the danger of limiting discussions of photography to its iconographic surface. Instead, Angus demonstrates an alternate material history, in which questions of process and artistic vision give way to a growing recognition of labour and violence as equally important factors in the development of the photographic image.

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- 1 The exhibition then went on to travel to the Peabody Essex Museum in Salem, MA (February 2–May 5, 2019) and to the Crystal Bridges Museum of American Art in Bentonville, AR (May 25–September 9, 2019).
- 2 Alan C. Braddock and Karl Kusserow, “Introduction,” in *Nature’s Nation: American Art and Environment*, ed. Alan C. Braddock and Karl Kusserow (Princeton: Princeton University Press, 2018), 30–31.
- 3 Keri J. Cronin, *Manufacturing National Park Nature Photography, Ecology, and the Wilderness Industry of Jasper* (Vancouver: UBC Press, 2011).
- 4 See Siobhan Angus, “Mining the History of Photography,” in *Capitalism and the Camera: Essays on Photography and Extraction*, ed. Kevin Coleman and Daniel James, 55–73 (New York and London: Verso, 2021).
- 5 See Michelle Murphy, “Chemical Regimes of Living,” *Environmental History* 13, no. 4 (2008): 695–703, and Evan Helper-Smith, “Molecular Bureaucracy: Toxicological Information and Environmental Protection,” *Environmental History* 24, no. 3 (2019): 534–60. For a discussion of the history of objectivity, see Lorraine Daston and Peter Galison’s *Objectivity* (New York: Zone Books, 2007).

Radical Stitch/Perler, radicalement

Musée des beaux-arts
du Canada

17 mai au 30 septembre 2024

Commissaires :

Michelle LaVallée,
Sherry Farrell Racette
et Cathy Mattes

Shelley Niro: 500 Year Itch

[Shelley Niro : 500 ans de réflexion]

Musée des beaux-arts
du Canada

21 juin au 25 août 2024

Commissaires :

Melissa Bennett, Greg Hill
et David W. Penney

/ Sophie Guignard /

À l’été 2024, les arts autochtones étaient à l’honneur au Musée des beaux-arts du Canada à travers deux expositions d’envergure : *Radical Stitch/Perler, radicalement*, et *Shelley Niro: 500 Year Itch* [Shelley Niro : 500 ans de réflexion]. Les deux expositions paraissent a priori très différentes, l’une étant une exposition collective centrée sur une forme d’art spécifique et l’autre, une rétrospective sur une artiste multidisciplinaire. Elles se complètent et se répondent pourtant. Considérées ensemble, elles permettent également d’affiner notre compréhension du geste créatif comme acte radical.

L’exposition *Radical Stitch/Perler, radicalement* présente une centaine d’œuvres de quarante-quatre artistes autochtones qui révèlent l’ampleur de la création contemporaine en perlage. S’inscrivant dans la lignée d’autres événements qui ont, dans les dernières années, mis en valeur l’importance de la pratique dans les arts contemporains autochtones, *Perler, radicalement* est organisée par le Musée d’art MacKenzie où elle a été inaugurée en 2022. L’exposition, mise sur pied par le trio de commissaires Michelle LaVallée, Sherry Farrell Racette et Cathy Mattes, réunit des artistes de toute l’île de la Tortue et constitue le plus important événement de perlage contemporain à ce jour. Le court texte à l’entrée de l’exposition nous invite d’emblée à considérer autant la dimension traditionnelle que politique et esthétique du perlage. Ces trois aspects se font d’ailleurs sentir dès les premières œuvres exposées, notamment celle de l’artiste métis