IMAGINATIONS

REVUE D'ÉTUDES INTERCULTURELLES DE L'IMAGE ■ JOURNAL OF CROSS-CULTURAL IMAGE STUDIES

IMAGINATIONS

JOURNAL OF CROSS_CULTURAL IMAGE STUDIES |
REVUE D'ÉTUDES INTERCULTURELLES DE L'IMAGE

Publication details, including open access policy
and instructions for contributors:

<http://imagination.csj.ualberta.ca>

Issue URL

<http://imagination.csj.ualberta.ca/?p=3869>

September 6, 2012

To link to this issue:

<http://dx.doi.org/10.17742/IMAGE.sightoil.3-2>

The copyright for each article belongs to the author and has been published in this journal under a **Creative Commons Attribution NonCommercial NoDerivatives 3.0** license that allows others to share for non-commercial purposes the work with an acknowledgement of the work's authorship and initial publication in this journal. The content of this article represents the author's original work and any third-party content, either image or text, has been included under the Fair Dealing exception in the Canadian Copyright Act, or the author has provided the required publication permissions.

IMAGINATIONS **SIGHTING OIL**

REVUE D'ÉTUDES INTERCULTURELLES DE L'IMAGE • JOURNAL OF CROSS-CULTURAL IMAGE STUDIES

GUEST EDITORS • SHEENA WILSON & ANDREW PENDAKIS

WRITINGS BY • ALLAN STOEKL • WARREN CARIOU • URSULA BIEMANN • IMRE SZEMAN • MIKE GISMONDI
SHEENA WILSON • MARIA WHITEMAN • TRACY LASSITER • MERLE PATCHETT • ANDRIKO LOZOWY
PETER HITCHCOCK • ANDREW PENDAKIS • LANCE DUERFAHRD • DEBRA J. DAVIDSON
JONATHAN GORDON • MICHAEL TRUSCELLO • TIM KAPOSY
MARK SIMPSON • GEORGIANA BANITA

Guest Editors • Sighting Oil • Sheena Wilson & Andrew Pendakis

Editor in Chief | Rédacteur en chef: Sheena Wilson

Editorial Team | Comité de rédaction:
Daniel Laforest, Dalbir Sehmy, Carrie Smith-Prei, Andriko Lozowy

French Content Editor | Contenu français: Daniel Laforest
Copy Editor | Révisions: Justin Sully
Designer and Technical Editor | Design et technologie: Andriko Lozowy
Web Editor | Mise en forme web: Carrie Smith-Prei
Reviews Editor – Elicitations | Comptes rendus critiques – Élicitations: Tara Milbrandt
French Translations | Traductions françaises: Alexandra Popescu

Editorial Advisory Board | Comité scientifique:
Hester Baer, University of Oklahoma, United States
Mieke Bal, University of Amsterdam & Royal Netherlands Academy of Arts and Sciences, Netherlands
Andrew Burke, University of Winnipeg, Canada
Ollivier Dyens, Concordia University, Canada
Michèle Garneau, Université de Montréal
Wlad Godzich, University of California Santa Cruz, United States
Kosta Gouliamos, European University, Cyprus
Faye Hammill, University of Strathclyde, United Kingdom
Anton Kaes, University of California Berkeley, United States
Dominic McIver Lopes, University of British Columbia, Canada
Sarah McGaughey, Dickinson College, United States
Peter McIsaac, University of Michigan, United States
Marie-Dominique Popelard, Université de la Sorbonne Nouvelle - Paris 3, France
Christine Ramsay, University of Regina, Canada
Laurence A. Rickels, Academy of Fine Arts, Karlsruhe, Germany
Will Straw, McGill Univeristy, Canada
Imre Szeman, University of Alberta, Canada

Founding Editors: William Anselmi, Daniel Laforest, Carrie Smith-Prei, Sheena Wilson

Sighting Oil

Guest Editors: Sheena Wilson & Andrew Pendakis

Table of Contents:

Sight, Site, Cite : Oil in the Field of Vision
By Andrew Pendakis and Sheena Wilson • 4-5

This is Not a Pipeline: Thoughts on the Politico-Aesthetics of Oil
By Ursula Biemann and Andrew Pendakis • 6-16

Tarhands: A Messy Manifesto
By Warren Cariou • 17-34

Unconventional Oil and the Gift of the Undulating Peak
By Allan Stoekl • 35-45

Oil Imag(e)inaries: Critical Realism and the Oil Sands
By Imre Szeman and Maria Whiteman • 46-67

Imagining the Tar Sands 1880-1967 and Beyond
By Mike Gismondi and Debra J. Davidson • 68-103

Everything's Gone Green: The Environment of BP's Narrative
By Peter Hitchcock • 104-114

A Scale That Exceeds Us: The BP Gulf Spill Footage
and Photographs of Edward Burtynsky
By Lance Duerfahrd • 115-129

Resistance is Futile? Enduring Hegemony Despite Ideological Challenge
By Tracy Lassiter • 130-139

Reframing the Canadian Oil Sands
Curatorial Essay by—Merle Patchett • 140- 169
Photographs and Essay by—Andriko J. Lozowy

Rethinking Bitumen: from “Bullshit” to a “Matter of Concern”
By Jonathan Gordon • 170-187

The New Topographics, Dark Ecology, and the Energy Infrastructure of Nations:
Considering Agency in the Photographs of Edward Burtynsky and Mitch Epstein
from a Post-Anarchist Perspective
By Michael Truscello • 188-205

Book Reviews by
Tim Kaposy • 206-207
Georgiana Banita • 208-209
Mark Simpson • 210-211

Front (2011) and Back Cover (2009) Images by
Andriko Lozowy

SIGHT, SITE, CITE:

OIL IN THE FIELD OF VISION

ANDREW PENDAKIS AND SHEENA WILSON

The image we have chosen for the cover of this special issue on oil and visibility nicely frames our problematic. To one side, burns oil literalized, oil in the shape of its own productive apparatus, the classical image of the silent, effective refinery. This is a culturally transparent image, one which domiciles oil's complexity, its life as social process, and even its historical contingency, in the simple immediacy of a functional industrial procedure. Oil does nothing more or less than its societally prescribed duty: there are no spillages or externalities, no leaks in the coherence of its $A = A$. It may be, however, that this identity is today unravelling and that the refinery—here smoking brightly in the background—already has about it the whiff of an apocalypse, a dying industrial Mordor. Very quickly the gleaming effectiveness of oil's technologies can morph into their opposite: images of excess and failure, a process without a subject, utility pushed to a point without telos or reason, sheer instrumental nihilism. Though we would not want to dismiss the urgency, even the political necessity of this picture, there is a way in which it suffers from the same debilitating iconicity, one which pushes into oblivion the whole ramifying nexus of petroleum. Meanwhile, in the foreground of the image, we are confronted abruptly by an oil extraterrestrial, anonymous, without use or place, beyond sensible scale, a creature, weapon, or tool, perhaps, depending on the light. At once hideous and foreign this is an object freed to a place beyond stable relations, beyond meaning or inherence, pure defamiliarization in all its discomfort and uncertainty. We do not want to rest content at any moment of this dialectic: not the first stabilized image of functioning production, nor its apocalyptic reversal, nor even this classical figure of aesthetic or epistemological rupture. Instead, looking again at the image, but now from within the spirit of what Ursula Biemann calls visual research, we find a name for the object in the foreground—a 'bucketwheel excavator'—and a context for its display, positioned across from the Syncrude plant on Highway 63 north of Fort McMurray. What initially disturbed us is now understood as a fragment from the oil industry's reproduction of its own techno-historical legitimacy—it is an affair of history and discourse. The bucketwheel in this photo, paired in physical reality with another relic, a dragline excavator, function both to imbricate

oil into Albertan and Canadian history, as well as its future. These two machines are an archive of outdated technology and inefficiency that stand in contrast to contemporary oil discourses that revolve around a focus on scientific innovation. It is not enough to defamiliarize oil, to free it to some imagined objectal monstrosity or reticence. Rather, the task of visualizing oil, one which goes beyond phenomenology, beyond even the logic of the gaze itself, is that of hoarding maps and screens and files, layering mediums, and setting into motion myriad arts and sciences of oil's determinate presence. This is a task which is by definition endless, but not precisely infinite, not endlessly deferred; or rather, it is one which restlessly explores and investigates a concrete material knot, drawing conclusions as it goes. It is research construed as profusion, but also, crucially, as *intervention*. This is a picture, then, that owes equal debts to sociology and art history, to discourse analysis and materialist geography, to political economy and the history of science. It is a picture that is not merely an image, but a si(gh)ting.

Sight, site, cite: sighting oil requires this triple passage through vision, space and discourse. Oil, perhaps, is no more invisible than any other element of our postmodern economies, no more occluded, say, than corn or socks or coffee—or even the image itself, for that matter. In the age of oil it is the image, at this time more than in any other era, that proliferates as a medium of communication. And, the very image-technologies that allow us to conceptualize our relationship to energy and petroleum are a product of oil: the first photograph in 1827 resulting from a combined use of bitumen, metals, solar energy and chemicals in a solvent. The problem of visualization, of the proliferation of determinate, useful maps of our economic lives, is not specific to oil, but one politically structural to a system that is at once spectacularly consumerist and fully globalized on the level of production. However, it could be argued that oil is a uniquely occluded substance: not only does its exchange value engender an enormous corporate project of hiding, an explicit machinery of deception and spin, its pervasiveness, its presence everywhere, perhaps singularly christens its position as "hidden in plain sight" (Szeman & Whiteman). At the same time,

there is no alternative to oil, no substance available to the system by which its functions can be replaced or exchanged without massive structural disorder; it is this indispensability, the way oil comes to appear more and more like our time's secret *substantia* that necessitates the diverse situating procedures employed by the various contributors to this collection. Their research makes blatant the visual rhetorical strategies of individuals and groups invested in either maintaining or disrupting hegemonic structures. Taken as a whole the articles in this issue lead us to question how diverse visual petro-narratives function collectively to construct a public understanding, whether factual or fantastical, about the role of oil and energy within our historical moment. Oil in the field of vision: the balance of all that stands to be squandered or saved remains to be seen.

Works Cited

Szeman, Imre and Maria Whiteman. "Oil Imag(e)ries: Critical Realism and the Oil Sands". *Sighting Oil*. Spec. Issue of. *Imaginations: Journal of Cross-Cultural Image Studies/ Revue d'Études Interculturelles de l'Image* 3.2. (Fall 2012). pp. 46-67.

Sheena Wilson est professeure adjointe au Campus Saint-Jean de Université de l'Alberta. Elle est titulaire d'un doctorat en littérature comparée avec une concentration en études cinématographiques et médiatiques. Elle s'intéresse au rapport entre le mot écrit et l'image comme référents discursifs dans leurs contextes socio-politiques. Ses recherches mènent de manière interdisciplinaire à l'étude des abus humains/civils tels que présentés dans la littérature, les films et les médias. Récemment, sa passion pour les droits humains et pour les questions concernant la femme a suscité son désir d'examiner le rapport entre la marginalisation lié au sexe et les autres types de marginalisation dans le contexte de la culture pétrolière globale. Dr. Wilson est co-directrice de *Petrocultures Research Group* (petrocultures.com). En 2012 elle a également co-animé (avec Imre Szeman) la conférence internationale *Petrocultures: Oil, Energy, Culture*. Site web: sheenawilson.ca

PENDAKIS & WILSON

Sheena Wilson is Assistant Professor at Campus Saint-Jean, University of Alberta. She holds a PhD in Comparative Literature with a specialization in Film and Media studies. She is interested in the relationship between the written word and the image as discursive referents in socio-political contexts. Her research involves an interdisciplinary approach to the study of human/civil rights abuses as they are represented in literature, film, and media. More recently, her interest in human rights and women's issues have crossed over into an analysis of the relationship between gendered and other forms of marginalization within context of global oil cultures. Dr Wilson is the co-director of the Petrocultures Research Group (petrocultures.com) and in the fall of 2012 she co-hosted with Imre Szeman, an international conference titled *Petrocultures: Oil, Energy, Culture*. Homepage: sheenawilson.ca

Andrew Pendakis Bio, see page 16, cf. pg 16.

THIS IS NOT A PIPE-

THOUGHTS ON THE POLITICO-AESTHETICS OF OIL

URSULA BIEMANN & ANDREW PENDAKIS

Fig. 1 Still from *Black Sea Files* (2005), Bibi Heybat oil fields near Baku.

This piece is a dialogue between Andrew Pendakis and video artist Ursula Biemann. In it they attempt to work through questions pertaining to the aesthetics of petroculture: How can one represent oil? Is there a generalized aesthetics of oil? What are the linkages between oil and secrecy? What strategies are best avoided in attempting to force into visibility the complex realities of oil culture?

Cet entrevue a pris place entre Andrew Pendakis et la vidéaste Ursula Biemann. On essaie d'y explorer les questions liées à l'esthétique de la culture pétrolière: comment représenter le pétrole? Quels liens existe t'il entre l'industrie pétrolière et la confidentialité? Quelles stratégies faut-il éviter dans les tentatives de rendre visible la complexité de la réalité pétrolière?

Andrew Pendakis: I want to begin by asking you a very general question about the aesthetics of what we might call primary substances, those materials or liquids, like oil, water and coal, which come to peculiarly mark or subtend the cultural structure of an economy. I am interested particularly in those substances which we are tempted to imagine vertically at the bottom of things, the floorboards or groundwork of any given historical period or locale. Both water and oil would appear to be candidates here: the first, indispensable, structural, perhaps, in a manner wholly unto itself, the very ur-liquid of life; the second, a basic condition of modernity, essential, but ‘artificially’, as the element necessary less for life itself than life lived under the conditional second nature of industrial capitalism. In what sense can we speak about an aesthetics of oil cultures, a set of recurring spatial, infrastructural, or architectural motifs, for example, or even a dominant structure of feeling or experience which seems to pass through the very molecules of a whole historical reality? Is there an aesthetics of oil or are its cultural manifestations too diverse and localized to be usefully generalized?

Ursula Biemann: Water has traditionally been associated with specific cultural or symbolic meanings, so it is hard to generalize the aesthetic dimension of this life-sustaining liquid. But oil is an entirely different case: it has literally propelled humanity into a different era of mobility and consumption. Hydrocarbon society is rooted in a concrete moment of discovery--it has a specifiable beginning – and an end! It has engendered the whole universe of plastic culture. We usually do not associate crude oil with the vast number of new substances and objects which have entered our lives as products of petrochemistry. In our minds, the preciousness of oil is more closely linked to petrodollars: it is a political substance. Apart from geopolitics and its inevitable spatial tropes – and that is certainly a major problem in the representation of oil – as a mineral resource, the discourse that shapes the image of oil is articulated in economic and industrial terms: it is, in other words, very much a corporate substance as well. Corporations are hyper sensitive when it comes to their public image, they are very careful in controlling

visual representation. There is always some pipeline patrol lurking on the horizon, ready to charge down the hill and prevent you from filming. So we ended up with an aesthetic that essentially foregrounds the gigantic investments in the infrastructures necessary for extraction and evacuation, as well as their spectacular failures. The petro-era coincides with a period marked by technology and hardware; it seems that culturally speaking it has already come to an end.

Pendakis: I think you are right that our conception of oil is usually oriented by this wide-angle image of the silently running oil refinery or platform. Oil is, in this sense, dangerously literalized, wrongly conceived as simply coextensive with a highly simplified figure of its own productive apparatus. What do you think is screened out by this image? Also, I am intrigued by this invocation of “plastic culture”. Might this be a kind of shorthand for our moment’s particular relation to oil? It is true that it seems the ‘age of oil’ is coming to an end, not in the literal spectre of Peak Oil or some kind of imminent shift to a new primary energy source, but in the sense that oil seems to chug into the present like an echo from the nineteenth century. The roar of the combustion engine feels quaintly modernist, almost embarrassingly promethean and earnest when viewed from the angle of the silent and immobile microchip. Could you speak more about this paradoxical end to (or transformation within) a certain dominant era of petro-culture?

Biemann: I see this level of abstraction in the representation of oil as yet another way to keep it firmly in the hands of market dynamics, a remote and inaccessible entity, supposedly too big and complex to grasp for the average citizen. What does not come through in these repetitive stencils of oil related images is the regional histories and local textures of interaction between infrastructures and social communities, the thorough reorganization of cultural alliances and political forces on a regional level, the relocation of populations as a result of big money flowing into an impoverished area and the non-democratic decision-making processes of regimes involved in these deals as

Fig. 2 Still from *Black Sea Files*, eviction of Kurdish recycling operations in Ankara

well as the impressive epistemic apparatus that is set into motion by the conception of big infrastructure projects. All these dynamics affect large populations one way or another. To begin by giving these ephemeral processes some form of visual presence, is a way to start filling in the missing elements.

The discovery of the vast potential of oil for the creation of new materials mustering an extraordinary range of qualities has fueled our imagination to create a synthetic world and overcome natural limits. This fact is probably just as important for the understanding of who we are today as the mobilization and substitution of labour power facilitated by the combustion engine itself. It seems to me that humanity has jumped ahead in out-of-synch rhythms. While it advanced its material sophistication to a high degree, the engine remains sadly stuck in the 19th century and yet we still invest huge resources into building infrastructures for a system we know is long outdated. But I sense there is another connection there that would be important to understand better. The ability to chemically synthesize the world and thus create its artificial extension has simultaneously triggered an imagination of nature and its relation to the human subject. This bizarre construction of nature as

something separate from us is what makes the gigantic ecological devastation of petro-culture possible.

Pendakis: Oil and water, though not quite opposites, are anecdotally understood as chemically incompatible (‘they don’t mix’). This incompatibility mirrors a very strong associative or symbolic antagonism. Oil is arguably the dirtiest of liquids, ‘the devil’s excrement’, not just on the level of its (highly racialized) material properties (its blackness, its stickiness, its opacity, etc.), but on the terrain of its social and political usage. Sociologists have long noted the ways in which reserves of oil have a way of evolving into inflexible or brutal state structures (layers of corrupt officials and bureaucracy) even as they engender uniquely consumerist life-worlds, populations habituated to expect an inexhaustible and ‘labourless’ flow of automobiles, luxury goods, etc. Water seems to come from an utterly opposed moral universe. Linked to ablution, sustenance, openness, transparency, purity, etc water is the liquid of transcendence, but also the most modest and common of social goods. This opposition has been dramatically compromised by the increasing commodification of water and the emergence of huge conglomerated interests in the profits available to those who own and market it. How do your works attempt to

navigate the existing infrastructural realities of oil and water in the light of these moral geographies? Do you prefer to work within these inherited meanings as a way of mobilizing an audience politically or aesthetically or should the artist instead try as hard as possible to have done with moral rhetorics premised on lost purities or ‘nature’?

Biemann: Rather than looking at oil and water in these essential and nominally opposed terms, I have investigated the environment they each tend to generate in conjunction with human, social and technological entities and these are highly situational. I would refrain from assigning symbolic meaning to the substance itself. As a corporate capital-intensive fluid, oil tends to create top-down power structures. It is a deeply anti-democratic substance in that governments, which are thriving on large incomes from fossil resources, have no need to consult their taxpayers to make political decisions: they don’t need a people. States like this are like a head without a body, they are bound to create autocratic regimes. However, there are subtle and brutal processes, both of which are important to show. When I began my research on oil for *Black Sea Files* about ten years ago, there was hardly any cultural theory and very few aesthetic productions on the topic. It would have been inconceivable then to organize a conference on petrocultures, since the signification of oil beyond the economic and geopolitical dimension was largely unarticulated. I wish there had been books available then like Reza Negarestani’s *Cyclonopedia* who creates a fantastic vocabulary around this dark lubricant and narrative undercurrent of all politics and ethics of life on earth. Without such inspiring prose, I practically had to start from scratch. But what I noticed during my research is that there is a considerable discrepancy between the explanatory heart of energy geography in urban centers and at the campuses, and the messy, remote and unstable resource fringes where these situations take place. There is a center/periphery dynamic set up between the cores of theory building and the social struggles around the extraction zones. If anything, I see it as my moral obligation to keep establishing the links between them, even at the risk of placing this very process again at the center.

It has become obvious that ecological devastations go hand in hand with the existential struggles of marginalized communities. But my ongoing concern with the human geographies of hydrocarbon society doesn’t mean that I’m disinterested in the molecular level of how reality constitutes itself through water and oil and a million other things. Interesting that you would mention the chemical reaction between these distinct liquids, since in chemistry, substances are characterized entirely by their willingness to bond and transform into new compounds. Both water and oil are made of hydrogen, when combined with oxygen we get water, when combined with carbon we get oil, each opening up a different arena of bonding opportunities. The interaction with one another might be repulsion, but that is still a strong relation, if in the negative. We should be looking for the chemical substance common to blood, plants and petroleum and we would find that we share a high degree of DNA.

The problem I see with highlighting the cultural value of water by foregrounding its symbolic virtues is that we continue along the line of an economic thinking that assumes that anything which has a value requires some sort of compensation. It firmly remains within a human-centric vision of culture. Even before the calamity of bottled water, any hydraulic infrastructure, any dam, barrage or irrigation canal, prepares the ground for the commodification of water. By processing and facilitating water, it automatically becomes something that can be charged for. States have begun to take into account what they call virtual water, i.e. the water needed to produce something, whether it be a computer chip, roses or a loaf of bread. By importing water-intensive products, a state can save a lot of its own water.

With *Supply Lines*, a collaborative art and research project on resource geographies I’m involved in, a number of stakes start to emerge. A central issue is to make natural resources a matter of public debate and decision-making rather than leaving it to market dynamics. The question here is how we can engage in aesthetic productions that will make commodities more transparent and accessible to public knowledge. Another point that you just mentioned is to problematize the

Fig. 3 Still from *Black Sea Files* (2005) pipeline corridor in Southeastern Turkey

notion of nature and do away with an anthropocentric perspective on the world whereby everything is turned into a resource for humans. This is deeply linked with the act of representation as a way to shift the discussion from the object of oil, water or gold to the cultural meaning the stuff has for us. The frantic use of global resources goes hand in hand with an accelerating process of over-signification, not least through cultural studies or the tendency to open aesthetic and cultural discussions to fields that have been hitherto subjects of economic-industrial discourses or natural science. These are some of my most urgent concerns: how can I image resource issues in ways that are both signifying and a-signifying. Whether we assign pure and spiritual qualities to water or devilish ones to oil makes no difference, the problem is with representation itself.

Pendakis: You referred above to the omnipresent “pipeline patrol” and this issue of policing touches upon another question I would like to pursue. We are unquestionably living in an age of secrecy, an age in which, one might say, the secret has gone structural. The insider’s stock tip, offshore accounts, classified production facilities, ‘creative accounting’, the research records of pharmaceutical companies: secrets populated

earlier societies, and they were perhaps always in some way ‘functional’, but there is a way in which the hidden has become conscious, a basic requirement of the production and reproduction of capitalist economies. Catherine Malabou speaks of the way neurobiological processes are structurally invisibilized in the process of creating the transparency of consciousness; Karl Marx’s own work would seem to echo this on the level of production, positing an order of the invisible which renders possible the liberal vista and its life-world. In *Black Sea Files* you purposely travel to the Southern Caucasus to visually research the construction of the Baku-Tblissi-Ceyhan pipeline; it is as if your objective was to literally capture this mechanism of flow before it was interred permanently into a domain of invisibility and silence. How does your work travel along this thin line between unveiling the hidden and respecting the complexity and opacity of things? Given the epistemological obsessiveness of your work, how does one reveal without blundering into the territory of absolute transparency? What can you tell us about this process or about your thoughts on the dialectic between seeing and hiding in modern or postmodern economies? What role does secrecy or hiddenness play in the political economy of oil itself?

Biemann: Are you alluding to the idea that infrastructures are most powerful when they are invisibly operating in the background, hidden from our consciousness? Well, the only way to capture the moment of the giant effort necessary to build such an invisible power structure is by filming the actual construction of this crude oil corridor clearing the access far into former Cold War territory. There is something to be gained from visually mapping these procedures in the most diverse way possible, challenging the monological narration based on technological pioneering. To offset the linear master narrative provided by oil corporations I instead install a loose cartography of multiple voices uttered by migrants, peasants, fishermen, prostitutes, oil workers and the like who intertwine with the pipeline. The powerful impact of invisible structures is true, of course, not just for energy but also, very prominently, for the media apparatus. What is kept in the hidden realm is

Fig. 4 Still from *Black Sea Files* (2005) Jula and Nara in Turkish border town Trabzon

what's not considered to be of immediate world interest, which is almost everything. What is shown is merely a selected narrow vision. I see the problem not so much in the incorrect representation but in the selection process itself and the pretense to bring clarity via this scripted formula of news writing, when in my experience, the production of knowledge on site is an immensely confusing and fragile undertaking. In an interview with two sex workers in the presence of their pimps and agents, I attempt in *Black Sea Files* to make the emergence of misunderstanding more transparent.

The essayist video format with its diverse image sources, scrolling text and voice-over narration generally tends to stack multiple layers of meaning and interpretation, none of which pretend to be a stable, exclusive representation of reality. On occasion, I even weave myself into the process by reflecting on my practice as an undercover agent to find hidden, secret knowledge and in the process turning into an embedded artist who operates in the trenches of geopolitics. All this is acknowledging the subjective and often subversive dimension of artistic fieldwork that is more closely related to secret intelligence than, say, to anthropology.

Pendakis: As I alluded to above your latest work appears to be focusing less on oil proper and more on the human (and in- or non-human) geographies of water in an age of climate change. And yet there remains a great deal of continuity here: transformations in the viability of global water are only the flip-side of our dependence on fossil fuels, the perverse externality of oil's central location at the heart of our societies. In your video *Embankment*, part 2 of your project *Deep Weather*, we are presented with an opening shot that almost appears to arrive unfiltered from the origins of stabilized agricultural civilization itself. Approaching from the sea, the camera captures a seemingly infinite line of wriggling human motion, a continuous flow of Bangladeshi workers dragging bags of mud to shore up and secure a barrier they hope will prevent their communities from being flooded by rising waters. This is a primeval image, one resonant with echoes from the original domestication of the Nile and other such 'cradles of civilization'. In such moments, you seem to be working in a mode that transcends or transmutes realist documentarity, one imbued with a sense for anthropological invariance, the repetitions of cyclical time, even a *poesis* conceived of as co-extensive with nature itself. I sense a very similar set of concerns in the fragments I have seen from your

Fig 5. *Deep Weather* (2012) communal embankment building in the Bengal Delta.

current project, *Egyptian Chemistry*. Here again past and present seem bound in a space/time that defies the illusion of their separation, one which draws on myth (without devolving into holism or apoliticism), but also on science or sociology (without giving into determinism or a too-simple empiricism). Am I wrong to think you are trying to invent videographically a new form of universality, one that is fragile, plural, ragged, full of holes, yet somehow coacervated by the muddy oneness of the planet itself? I discern in your work the lineaments of a very interesting materialist universality, one which confidently draws on scientific naturalism, the methodologies of the social sciences (especially ethnography), but also on poetry, aesthetics, and the mythic imagination without stumbling into incoherence or eclecticism.

Biemann: This unspeakable image of thousands of villagers building a giant mud embankment entirely by hand without any mechanical assistance is what derailed climate patterns and melting ice fields will

mean for many of us on earth. The image speaks of the primeval need for safety from extreme weather events and floods and of the futility of believing we could protect life on the planet with ridiculous technological measures. Part 1, by the way, is shot in the toxic tar sands of Alberta where the dirtiest of fossil resources is being extracted that will no doubt continue to impact on the living conditions of populations on the other side of the earth. We are speaking of a terrestrial scale here. When we have been thinking in global dimensions over the last two decades, this is the time to go planetary. And this shift requires a whole new vocabulary, both visual and verbal. Geography as a theoretical platform for tackling global issues such as migration networks, supply lines or communication infrastructures, turns out to be insufficient, or simply too flat, for this enlarged dimension because it falls short of grasping the depth of many dawning questions such as species survival and the transformation of the biosphere. So my new images intend to evoke temporal depth by returning to moments prior to the industrial revolution

Fig. 6 Still from *Egyptian Chemistry* (2012) Desert development project on the Upper Nile

with its frantic dam building activity, and to scientific knowledge with its partition into disciplines and infinite sub-disciplines. It is this alchemist approach of raising metachemical and philosophical concerns, perhaps, that imbues the video with a mythic imagination. Al Khemia (Arabic for chemistry) also happened to be the ancient word for Egypt, meaning the Black Land, possibly due to the dark muddy Nile floods periodically covering the land. The term alludes to the vision that, before anything else, the earth is a mighty chemical body, a place where the crackling noise of the forming and breaking of molecular bonds can be heard at all times. So when documenting vast land reclamation projects in Egypt, beyond a comment on technocapitalism, it is first and foremost a videography of the conversion of desert dust into soggy fertility.

So yes, I would love to think that I am inventing videographically a new, if flawed and ever morphing, sort of universality through the meddling with the muddy materiality of the Earth itself. Incidentally, for

Egyptian Chemistry I took a number of water samples from the Nile, so the project is not about making images only. I'm not primarily focusing on strategies of representation, it also contains objective reality. I have come to realize that if we solely attempt to culturalize the discourse on the physical and chemical transformations our planet is currently undergoing by prioritizing meaning and representation, we fail to address a deeper problem. For if we are to speak about the non-human world -- weather patterns, organic pollutants, copper atoms -- it will not suffice to deploy an anthropocentric discourse. Not everything comes into being through human intention, we need to examine the ways in which human and non-human realities emerge together in a variety of formations. Rather than through a particular set of criteria, this is more likely to happen through the hybrid consciousness engendered by the assemblage of technological, social and natural stuff, where some elements signify, others not. Metachemistry grasps this turbulent instance of physical and epistemic change, or lineament, as you call it, and propels us into

Fig. 7 Still from *Egyptian Chemistry* (2012) taking of water samples in the Nile Delta.

a slightly altered dimension that can only be invoked mythically through space travel, time barriers and the interbiospheric mobility of species.

Image Notes

Fig. 1 Biemann, Ursula, dir. *Black Sea Files*. Video. 2005. Video stills reproduced with the permission of the artist.

Fig. 2 Biemann, Ursula, dir. *Black Sea Files*. Video. 2005. Video stills reproduced with the permission of the artist.

Fig. 3 Biemann, Ursula, dir. *Black Sea Files*. Video. 2005. Video stills reproduced with the permission of the artist.

Fig. 4 Biemann, Ursula, dir. *Black Sea Files*. Video. 2005. Video stills reproduced with the permission of the artist.

Fig. 5. Biemann, Ursula, dir. *Deep Weather*. Video. 2012. Video stills reproduced with the permission of the artist.

Fig. 6 Biemann, Ursula, dir. *Egyptian Chemistry*. Video. 2012. Video stills reproduced with the permission of the artist.

Fig. 7 Biemann, Ursula, dir. *Egyptian Chemistry*. Video. 2012. Video stills reproduced with the permission of the artist.

Biemann, Ursula: Ursula Biemann, is a video artist and theorist based in Zurich, Switzerland. She has produced a considerable body of work on migration, technology and resource geographies. She is curator of research projects such as *The Maghreb Connection* (2006), *Sahara Chronicle* (2006-2009), *Egyptian Chemistry* (2012) and the collaborative media platform *Supply Lines* (2012). She published several books including *Stuff It: The Video Essay in the Digital Age* (2003), *Geography and the Politics of Mobility* (2003) and *Mission Reports* (2008), a monograph of her video works. Biemann's practice has long included discussions with academics and other practitioners, she has worked with anthropologists, cultural theorists, NGO members and architects. Her video essays reach a diverse audience through festival screenings, art exhibitions, activist conferences, networks and educational settings. She holds an honorary degree in humanities of the Swedish University of Umea and is a researcher at the Institute for Critical Theory at the University of the Arts Zurich. www.geobodies.org

Biemann, Ursula : Ursula Biemann est une vidéaste et théoricienne basée à Zurich, en Suisse. Elle a produit une œuvre considérable sur la migration, la technologie, et la géographie des ressources naturelles. Elle a été conservatrice de projets comme « The Maghreb Connection » (2006), « Sahara Chronicle » (2006-2009), « Egyptian Chemistry » (2012), ainsi que d'une plateforme médiatique collaborative intitulée « Supply Lines » (2012). Parmi ses nombreuses publications, on trouve *Stuff It - the video essay in the digital age* (2003), *Geography and the Politics of Mobility* (2003), ainsi qu'une monographie sur son travail de vidéaste intitulée *Mission Reports* (2008). Biemann a beaucoup collaboré avec des universitaires et des praticiens, parmi lesquels des anthropologues, des théoriciens culturels, des membres d'ONGs, et des architectes. Ses essais vidéo touchent un public diversifié dans les cadres pédagogique et populaire à travers des projections en festivals, des expositions d'art, et des colloques d'activistes. Elle est titulaire d'un *doctorat honoris causa* en lettres et sciences humaines de l'Université d'Umeå, en Suède. Elle est actuellement chercheure dans le cadre de l'Institut de la théorie critique à l'École supérieure des arts de Zurich. www.geobodies.org

Pendakis, Andrew: Andrew Pendakis is Postdoctoral Fellow of Contemporary Culture at the University of Alberta. His research focuses on contemporary political culture, with a special interest in the conceptual and institutional histories of centrism. His work has appeared or is forthcoming in *Criticism, Imaginations, Politics and Culture, Essays in Canadian Writing*, and *Mediations*. He is also a contributor to upcoming books on Adorno (Polity Press) and *Canadian Cultural Studies* (Oxford UP) and the co-editor, with Dr. Imre Szeman and Dr. Nicholas Brown, of *Contemporary Marxist Theory: An Anthology* (Continuum Press).

Pendakis, Andrew : Andrew Pendakis est chercheur postdoctoral en culture contemporaine à l'Université de l'Alberta. Sa recherche se concentre sur la culture politique contemporaine, avec l'accent mis sur les histoires conceptuelles et institutionnelles du centrisme. Ses publications sont parues, ou paraîtront sous peu, dans *Criticism, Imaginations, Politics and Culture, Essays in Canadian Writing*, et dans *Mediations*. Il a aussi contribué à des livres à paraître sur Adorno (*Polity Press*) et sur les *Canadian Cultural Studies* (Oxford UP). Il est coéditeur de *Contemporary Marxist Theory: An Anthology* (Continuum Press) avec le Dr. Imre Szeman et le Dr. Nicholas Brown.

Copyright Ursula Biemann and Andrew Pendakis. This article is licensed under a Creative Commons 3.0 License although certain works referenced herein may be separately licensed, or the author has exercised their right to fair dealing under the Canadian *Copyright Act*.

TARHANDS: A MESSY MANIFESTO

WARREN CARIOU

This essay attempts to make visible the physical reality of the Athabasca oil sands mining developments in Canada, a reality that has been occluded by corporate and governmental disinformation as well as by citizens' unwillingness to face the consequences of their actions and their inaction. By presenting photographs of oil sands mining operations interspersed with brief ironic narratives, aphorisms and poems, the essay creates a collage of disjunctive responses to the contemporary situation in the Canadian petro-state. Given that this situation is one of national self-deception, denial and fundamentally irrational behavior, the paper sets aside any attempt to make reasoned arguments about conservation or regulation, and instead embraces irrationality as the last possible mode of engagement with a contemporary public that will no longer listen to reason. In tone and structure the essay echoes F. T. Marinetti's 1909 "Futurist Manifesto," but it is very different in its intent, mapping a way toward a different kind of future than the technologized and hyper-individualistic one that Marinetti espoused. By moving into the realm of the irrational and engaging with Canadian petroculture as an expression of a kind of national unconscious, the essay attempts to reveal some of the psychological structures that prevent Canadians from seeing the dirt that is on their hands.

Cet article veut rendre visible la réalité physique des complexes miniers des sables bitumineux de l'Athabasca, au Canada. Les désinformations des entreprises et du gouvernement ont occulté cette réalité, mais les citoyens ont aussi contribué à cette occultation en évitant de faire face soit aux conséquences de leurs actions, soit à l'absence de celles-ci. On offre ici un collage des réactions variées face à la situation contemporaine de l'état pétrolier canadien à travers des photos des travaux d'exploitation minière des sables bitumineux entrecoupées de petits segments écrits, d'aphorismes et de poèmes. Étant donné que cette situation est le produit d'un aveuglement et d'une négation à l'échelle nationale qui stimule un comportement irrationnel, cet article met de coté les *arguments traditionnels* raisonnés sur la conservation ou la régulation et adopte le ton irrationnel comme dernier recours afin d'en appeler à l'engagement d'un public qui se détourne de la raison. Le ton et la structure de cet article font écho au « Manifeste du futurisme » publié en 1909 par F. T. Marinetti, mais l'intention est d'indiquer la direction d'un autre avenir que celui technologique et hyper-individualiste que Marinetti proposait. En adoptant l'irrationnel afin d'envisager la culture pétrolière canadienne comme une manifestation de l'inconscient national, j'essaie de dévoiler quelques structures psychologiques qui empêchent les Canadiens de se rendre compte qu'ils ont les mains sales.

Look at us! We are not out of breath, our hearts are not in the least tired. For they are nourished by fire, hatred and speed! (Marinetti)

Have you noticed anything about your hands? I mean, I didn't want to say anything at first, but I couldn't help seeing it, and... what are friends for, right? If you had guacamole in your teeth, I'd say something. If your fly was down... not that it is! Nothing like that. But still, I just thought I should ask: have you noticed?

Fig 1.

Tarhands rose up out of the swamp wearing a nation on his back. He was hungry.

The people fed him whatever they could. They had wakened him, after all, and they knew he was going to go far, so they shoveled all kinds of everything at him: trucks, roads, steam, pipes, trains, muskeg, lives, methamphetamines, rivers, *pastahowin*, laws, futures. He ate as fast as they could shovel, and sometimes he was almost satisfied. But everything he touched turned the opposite of gold. He wanted more than anything to have that gleaming metal for himself, to fold it in his sticky embrace, but every time he tried, the tarnish spread in seconds. It wasn't fair, he thought. Someone else got all the gold and he couldn't touch a bit of it.

Still, he tried to keep himself happy. He wore that colourful nation like a cape, and it waved out behind him almost cheerily, fluttering in the breeze of his motion. But when he wasn't moving (which was, let's face it, most of the time) it hung straight down and dragged in the muck. If he wasn't careful, he stepped on it with his heels. Sometimes it annoyed him, that nation dangling there from his neck, always rustling, getting caught in his hands when he tried to scratch his back. Once in a while he stepped backward on purpose, pinned that nation under his heels, and leaned forward as far as he could. The fabric stretched, but no matter how hard he pulled, it wouldn't break. Worst of all, it tightened around his neck like a slipknot. Sometimes he leaned there for ages, pressing against his own weight, until he passed out. He always woke up with a mouth full of dirt and a tighter collar.

"Guess I'm stuck with you for good," he said finally, rubbing his neck.

The nation said nothing, as always.

Fig. 2

Okay, I've lost it.

I was going to write my manifesto and be done with it, nail my 95 theses to the parliament door and all that, stand back and listen to the silence, all reasonable like. But then my nation embarrassed me (again) by reneging on an international climate treaty, and as I cringed, I recognized the problem with my plan: nobody listens to reason anymore. In the court of national opinion, reason is treason. That's the only explanation for Canada's current climate change and energy policy. And even when people do recognize the rational validity of something as unpleasant and intractable as climate change, they simply don't want to accept it. They find ways to think about something else. Anything else.

A manifesto needs to make things manifest: to open eyes, unclog ears. And if reason doesn't work anymore, then I'll have to try something else. Anything else.

Fig. 3

What I remember most about the tar sands is the stink. We stood there with our cameras, trying to capture a record of that obliterated landscape, but I could hardly even see. The fumes were like hammers: sulfur and benzene and diesel and something else—a dead smell, a charnel residue on the back of my tongue. I had a migraine in half a dozen breaths. I breathed into my shirtsleeve, trying not to retch. How could people work in this, day after day? How could the Cree, Metis and Dene people of Fort Mackay live in it?

“Oh I used to smell it, too” one security guard laughed, after warning us to stay off Company property. “But after a week or two you don’t notice a thing.”

Fig. 4

The Tarhands Institute is a stink-tank based in beautiful downtown Waterways, Alberta, but we have chapters, sties and tarpits all across this great nation. We reside online at tarhands.org, just next door to the national unconscious, and some day soon we’ll move in next to you.

What do we do? We make a stink. We disturb the proverbial shit. Because something is already rotten in the petro-state, and NOBODY SEEMS TO NOTICE.

How do you point out that the air smells, when everyone’s already used to it? By making more stink.

How do you point out that everyone’s hands are dirty? By making more mess.

That is our credo. Mess as manifest. Stinking as thinking.

And this is our membership drive.

Fig. 5

My country pulled out of Kyoto, and now I want to pull out of my country. Make a mess on the sheets, on the ground, wherever. Why not? Everyone else does.

Pull out! It's the Canadian way. We're always pulling something out, of the ground that is. Pulling and pulling.

Everyone else does. That's the problem, isn't it? Everyone else.

Fig. 6

Generations ago, the Cree and Dene used the tar on the banks of the Athabasca River to seal their canoes. Today, it's used to plug the holes in a sinking ship called modernity.

How long will it keep us afloat? How much will we burn in the effort?

Fig. 7

The futurists on speed.

They got off on it: hard, fast, gleaming, efficient. The iron and the motorcoach, the rocket and the train.

They were hateful, like velocity.

But they never forgot the muck, the grime, the smoke. They knew where their god came from, and where it would go back. And they were damn sure they'd all be dead by then. No need to care about that future.

Fig. 8

Have you ever gone to shake someone's hand and noticed, too late, that yours was dirty? At the last moment you saw that patch of grime on your palm, that sticky residue on your fingers, but you couldn't abort the handshake because—well, because a handshake is never stopped once initiated. That would be rude. Unthinkable, really. So you went through with it, shook that hand as briefly as you could, maybe trying to cup your palm a little bit, gazing straight into the face of your new acquaintance without even flinching. Hoping it would be over soon.

But even worse, before it was over, you realized that the other person had noticed the dirt too. You could tell by the look in their face, that squeamish little half-smile, and by the way they held their right hand away from themselves afterward, waiting to wipe it on their pants as soon as you'd turned your back. Which you did—turn your back—as soon as you possibly could. And you walked away quickly, without looking back to see what that poor unfortunate was doing.

And the strangest thing was that neither of you ever said anything to anyone about what had passed between you. Both of you pretended it was never there.

Fig. 9

If you look at something for too long, it becomes invisible. Your eyes need a little shake, *saccade*, to wake them up, so you can see what's right in front of you. A bit of blur, some judder, to make it all come into focus.

When I say give your head a shake, that's what I mean.

There. See it now?

Fig. 10

That apple you're eating. The milk you drank at lunch. Every little thing you touch, even just to lift it into your mouth. It's there. It rubs off. Think about that.

Fig. 11

Denken ist Danken, Heidegger was fond of saying: thinking is thanking. But I think he was misquoted. What I believe he really said was *Denken ist Stinken*.

Who can deny that some forms of thought create a noxious atmosphere, a stink, sometimes subtle and other times overwhelming? We all believe this about the people we disagree with, the ideologies we hate. But maybe it's even true that most thinking creates a kind of exhaust, a residue that lingers in our air. And maybe the other kinds of stink that humanity creates—the hydrocarbon pollution, the sewer gas, the industrial waste—can be seen as a kind of thinking. Thought bubbles. Olfactory philosophy. Smell is irrational, of course. That's what makes it so appropriate to the modern human condition.

But I believe we need to learn a new kind of stinking. We need to think outside the nox. It will be like inventing a new language, a new medium of being.

Let's go. Follow your nose to somewhere, someone, you've never been.

Fig. 12

Satan Rouses his Legions on the Shores of Syncrude Tailings Pond #4

Inhale, my friends: breathe deep
the bitumen air. I give you
a waveless lake,

stacks blowing brimstone,
the slick earth itself
turned out, spilled like troubled guts

into the pipeline of need.
The stink that lingers on the back
of your tongues

is the scent of our conjuration.
We are wanted here.
The heavy-haulers drone our names,

the pit-sumps wail to us, desperate
as sirens, and mile-long flags
drape from the mouths of smokestacks

waving us in. I for one will enter
and plant my ensign here.
Which among you hordes will follow?

Come then, hurry!—
wings unfurled, torches on high,
past evaporators and bright

ziggurats of sulfur, past even
the unanchored pits themselves
to the waiting world.

This time, the ground is laid for us
wide open. Sniff and you know:
all of it was made to burn.

Fig. 13

Could there be a different futurist movement, one that actually cares about the future, not as a technological apotheosis of the now but as the grandchildren, the great-grandchildren, the generations of creatures, the species, the biomes? The future as life, as what will live on after we're all gone, back to muck and tar, to the mess we were made from.

The future we are making, whether we admit it or not.

Fig. 14

Letter for a time capsule to be opened in 2112

This is just to say
we've burned up all the oil
and poisoned the air
you were probably hoping to breathe.
Forgive us.
It was delicious
the way it burned
so bright and
so fast.

Fig. 15

Join us. Together we can make visions that shudder a billion eyes, make a stink to awaken the nostrils of the world! There is still some time, maybe enough, but we need numbers, we need creativity, we need community. We can refuse to be everyone else. We can look around ourselves and see what's happening, we can say to the future that we saw, and we acted. We did whatever had to be done.

Fig. 16

Tarhands.™ How clean are yours?

Cariou, Warren: Warren Cariou was born in Meadow Lake, Saskatchewan into a family of Métis and European heritage. He has published numerous articles on Canadian Aboriginal Literature and he has published a collection of novellas, *The Exalted Company of Roadside Martyrs* (1999) and an award-winning memoir/ cultural history entitled *Lake of the Prairies* (2002). He has also co-directed and co-produced two films about Aboriginal people in western Canada's oil sands region: *Overburden* and *Land of Oil and Water*. His latest book is *Manitowapow: Aboriginal Writings from the Land of Water* (2012), co-edited with Niigaanwewidam James Sinclair. He is a Canada Research Chair and Director of the Centre for Creative Writing and Oral Culture at the University of Manitoba.

Cariou, Warren : Warren Cariou est né à Meadow Lake, en Saskatchewan, d'une famille d'origines Métis et européenne. Il est auteur de nombreuses publications sur la littérature autochtone canadienne, d'un recueil des *novellas* intitulé *The Exalted Company of Roadside Martyr*, et d'un essai primé d'histoire culturelle intitulé *Lake of the Prairies*. Il est également co-réalisateur et co-producteur de deux films sur les peuples autochtones de la région des sables bitumineux de l'Ouest canadien, *Overburden* et *Land of Oil and Water*. Plus récemment, il a écrit et coédité avec Niigaanwewidam James Sinclair le livre *Manitowapow: Aboriginal Writings from the Land of Water*. Il est titulaire d'une chaire de recherche du Canada en création littéraire et dirige le *Centre for Creative Writing and Oral Culture* à l'Université du Manitoba.

Copyright Warren Cariou. This article is licensed under a Creative Commons 3.0 License although certain works referenced herein may be separately licensed, or the author has exercised their right to fair dealing under the Canadian *Copyright Act*.

UNCONVENTIONAL OIL AND THE GIFT OF THE UNDULATING PEAK

ALLAN STOEKL

In the first part of this essay, I consider why the discussion over the likelihood of imminent “peak oil” has faded from public view in the last few years. I suggest that, due to the decline in demand (due to the recession) and the development of “unconventional” natural gas and oil sources, the “cost” of fuels has passed from the obvious rise in *price* to that of another dimension: the rise of hidden, “external” costs—a recession triggered by too-high prices, pollution, climate change, and so on.

I argue, moreover, that this externalized cost forever defies precise measurement. This is clear, for example, in the case of the “unconventional” production of gas in the “tar sands” region of Alberta. How can one measure the cost of drifting underground plumes of arsenic that may not show up for hundreds of years? All of this makes a precise calculation of “sustainability” just about impossible, while at the same time not absolving us—all of those living in the current fossil-fuel civilization—from attempting to calculate it.

In the final part of the essay, I suggest that our subjectivity—as consumers, as free agents—is itself an after-effect of the agency of oil: we as subjects are interpellated by oil. Thus one response to the unknowability of externalities—tied to the impossibility of the “closed economy” of sustainability calculation—may be a different model of agency, in which calculation is replaced, or supplemented, by the act of gift-giving. Most important, perhaps, would be the giving of the gift of oil “addiction” not to any recipient (or agent), but to a necessarily repeated forgetting.

Dans la première partie de cet article, j'examine les raisons pour lesquelles les discours sur la probabilité d'un imminent « pic pétrolier » sont passés depuis peu à l'arrière-plan. Je suggère que, à cause d'une demande en baisse pendant la récession, de même qu'en raison du développement du gaz naturel et des sources de pétrole « peu conventionnelles », le « coût » des combustibles connaît des augmentations non seulement en matière de prix, mais aussi en matière des coûts « extérieurs » cachés, ce qui implique une autre forme de récession provoquée par des prix trop élevés, par la pollution, par les changements climatiques, etc. De plus, je soutiens qu'une mesure précise de ces coûts extérieurs est peu envisageable. L'exemple de la production « peu conventionnelle » du combustible dans la région des sables pétrolifères de l'Alberta illustre cette proposition. Comment, par exemple, prévoir les conséquences d'un nuage mobile d'arsenic souterrain qui pourrait ne remonter à la surface que dans une centaine d'années? Ces facteurs d'indétermination rendent impossible toute prévision de la « durabilité de l'environnement », sans pourtant nous décourager de continuer à tenter de telles prévisions. En dernier lieu, je propose que notre subjectivité de consommateurs apparemment doués de libre-arbitre est elle-même une conséquence de l'action du pétrole : celui-ci nous interpelle comme sujets. Face à cela une réaction envisageable pourrait être la production d'un modèle actantiel différent, dans lequel on remplacerait le calcul par le don.

Whatever Happened to Peak Oil?

A funny thing happened on the way to Peak Oil. It has not happened, or so it seems, at first. A few years ago—between 2005 and 2009, to be precise—there was much talk in the public prints (the ‘mainstream media’) about ‘oil running out’—this was how ‘Peak Oil’ was apparently conceived. Kenneth Deffeyes, the author of *Hubbert’s Peak*, declared that Thanksgiving, 2005 was the official date of Peak Oil: after this, presumably, oil would get progressively more expensive, and society would collapse.¹ ‘Peak oilers’ were identified with ‘doomers,’ those who imagined that very soon we would all be living in caves, surviving as well as we could with early twentieth century implements and weapons (at best). James Howard Kunstler’s novel, *World Made By Hand*, published in 2008, depicted in its rather aimless narrative a society that had somehow reverted either to a nineteenth century mode of existence, or perhaps to a new dark ages, depending on how one wanted to interpret it.

Facts seemed to bear out the prognostications of the ‘doomers,’ at least for a while. Oil hit \$147 a barrel in July of 2008,² and yet production did not rise, which it should have, assuming conventional laws of economics (higher price means higher production, and an eventual fall in price). Motorists were not waiting in lines before the gas pumps, as they had during the ‘energy crisis’ of the 1970s, but they were paying the (then) astounding price of over \$4 a gallon for that precious elixir, gasoline. The world seemed to be shifting on its foundations: China was booming, ever more oil was called for, and yet production was stagnant, at best. Would we all be living in caves in a few years?

Daniel Yergin, the Pulitzer Prize winning author of *The Prize* and mainstream go-to guy on oil, was called on to make his pronouncement, and he did so: through CERA (Cambridge Energy Research Association), his high priced (and profitable) think tank, his spokesperson proclaimed: Peak Oil is garbage.³ But which Peak Oil? At this point a careful observer could start to note a problem: Peak Oil was coming to mean different things to different observers. For Yergin, it was indeed the

sudden dropoff of production leading to a ‘primitive’ existence—perhaps the future as foreseen in caricature by Kunstler. But Yergin himself recognized, if not a “peak” followed by a sudden drop-off in production, then at least a slow rise, an “undulating plateau” (another geological/topographical metaphor) followed, in, say, forty years by—decline.⁴ He wasn’t calling it ‘Peak Oil’—he excoriated the term and those who used it—but it amounted to the same thing: an eventual drop-off in oil production. One had the strange feeling that people were arguing about semantics, for Deffeyes, and any number of other ‘Peak Oil’ gurus, had already indicated that the issue was not so much a sudden peak followed by apocalypse, but rather the steady falloff in production caused by the decline of returns on energy investment: in other words, energy from oil from here on out would cost more in energy to extract and produce; “Energy Return on Energy Investment” would tend toward a point of negative returns.⁵ Oil, in short, would start to cost more. While some people were arguing about apocalypse, and trying to score points, the real problem started to appear: how to calculate the rise in the *cost* of oil (in energy invested), presumably, but not necessarily, reflected in the *price* of oil (as measured in dollars)? But how would high cost manifest itself, if not in high price?

What happened next served to discredit the peak oil as apocalypse story, but for attentive observers hardly banished Peak Oil in its larger sense to the trash heap of discredited ideas. The price of oil fell dramatically, going as far down as \$35 a barrel in February of 2009.⁶ Suddenly oil was ‘cheap’ again, but there was a massive recession; car sales fell through the floor, GM was headed for bankruptcy, and it seemed that the American Way of Motoring had finally swerved into a ditch.

If oil was cheap, its cheapness clearly had something to do with the recession. Cheap oil, coming so soon after peak oil, taught everyone a serious lesson: even if oil production is stagnant, fall in demand will cause prices to fall dramatically. Oil is not or will not be eternally expensive (in price): a recession due precisely to high oil prices will cause demand to fall, and prices along with

it.⁷ One can well imagine that the famous “undulating plateau” would be caused not by continual discoveries of new (often ‘unconventional’) oil sources and their quick exhaustion, but by the rise and fall of demand as the world entered a roller-coaster phase in which demand gyrated with the onset and alleviation of multiple oil-price induced recessions. Peak Oil, from this perspective, would be associated, precisely *not* with a simple peak but with the undulations of a not so calming and bucolic plateau. The plateau, after all, announces the inevitable fall; thus it is a kind of long drawn out peak (long in media-attention span terms—another few years or even decades—but hardly on a geological or even historical scale). An undulating peak?

By this time the mainstream media had pretty much lost interest in the whole question: Barack Obama’s election and his standoff with the Republican Party stole media attention not only from energy issues, but from questions of ecology, which had been highlighted in the last few glowing years of prosperity before the crash. Michael Pollan’s locavorism, issues of city structure, food miles, active transportation—all that headed back to the blogs from whence it came.⁸

And then, starting in late 2009, the real blockbuster: natural gas was no longer in crisis mode (because there had been talk of ‘Peak Gas’ as well); gas supplies were growing *more* plentiful, and the bottom of gas prices was nowhere to be seen. Oil production too was actually rising; the same technological ‘breakthrough’ that was enabling the uptick in natural gas production—namely hydraulic fracturing or ‘fracking’—was having its effect in the oil fields. The era of ‘unconventional’ oil and gas was finally dawning: these resources were being wrested out of the ground through the injection of steam and a witches’ brew of chemicals, transforming and traumatizing local economies from Montana and North Dakota (the Bakkan fields) to Pennsylvania and New York State (the Marcellus Shale). Moreover, the Athabasca Tar Sands, producing synthetic oil from cooked down tar, were also proving to be a new major source for oil, as ‘conventional’ oil production inevitably declined (as per Peak Oil theory). Hence the

mainstream take on oil, following, as always, Yergin: yes, conventional oil was in decline—as was natural gas—but unconventional sources would make possible not only the replacement of disappearing conventional oil, but would actually provide more oil to the market. The seeming peak of Thanksgiving, 2005 would be forgotten.⁹

So what is one to make of all this? Will the price of oil and gas continue to drop not because of a terminal recession, but because of ever increasing ‘unconventional’ production?

What is interesting, I think, is the fact that at a certain point people lost their ability to understand what the rising cost of oil could mean. The basic, most primary meaning, was obvious: more expensive oil was oil that had a higher price in dollars. So when oil hit \$147 a barrel, everyone talked about “Peak Oil.” If oil cost more it was because it was getting scarcer, the specter of ‘lights out,’ of the decline of empire, hovered over considerations of easily measured price. Of course some skeptics, including President Obama, argued that the price run-up was due to nasty speculators. The latter, for some reason, had never existed before, at least not in the oil markets. But the skeptics’ protests were muted, as long as a general fear of high prices, and the overarching question, “Where will this end?”, presided over debates. As soon as prices started to fall, however, a surprising thing happened. “Peak Oil,” it turned out, really was garbage, or so it seemed, precisely because prices were falling—it was irrelevant why. Suddenly, a disconnect took place between price and cost: it was generally ignored, at least in the public prints, that the falling price was due to a recession caused in large measure by the preceding *rise* in oil prices. The fall in oil prices, in other words, was now caused by nothing less than their previous rise, and by, yes, increasing scarcity. What was starting to appear, and what subsequently appeared very clearly, was that the price of oil had to be seen in the context of the cost of oil. The cost, moreover, was not always to be measured in dollars—but then how to measure it?

One could easily answer—perhaps too easily: in recession, in generalized (or more generalized) human misery. As money went to pay for oil, it could no longer pay for other stuff: housing, industrial investments, whatever. The entire growth/debt economy was threatened. The cost of oil would now be measured in rising joblessness, in political angst, in the rise of a lunatic right, in a not-so charming insouciance pertaining to global climate change. The important thing, though, was that the cost of energy, and the cost of Peak Oil—which is always how Peak Oil will manifest itself, *through cost*—was being ‘externalized.’¹⁰ Costs, in other words, were being passed on, or passed off, in such a way that they did not seem to be a factor in what was happening. Oil seemed to be cheap—\$35 a barrel—Peak Oil was dead, but now the rising cost of oil was to be measured in terms that did not lend themselves easily to quantification, uncomplicated pricing, and sudden recognition. In other words, ‘Peak Oil—the ever-rising cost of conventionally produced oil products—made (and makes) itself felt though externalized costs that may not initially be associated in a direct way with the price of oil at all.

Peak Oil’s really high cost, then, was not primarily the scary price of \$147 a barrel, but the endless ‘Great Recession,’ and the larger (ecological, social) costs of the production of ‘unconventional oil.’ The beauty of the recession, though, is that it can be attributed to so many things other than Peak Oil. Similarly, the costs of ‘unconventional’ production—contaminated water, air, and land, along with the larger effects of global climate change—can be overlooked, or can be dissociated from the actual price of oil, and thus ignored. This difficulty of conceptualizing and quantifying the import and precise impact of external costs was not due, I think, entirely to the obfuscations of pundits on television or in the *Times*. It was due to the inherent and profound difficulty of determining external costs. It is one thing, in other words, to realize that the real cost of things is being passed off and somehow obfuscated. It is another thing to figure out what those real costs are, and locate them.

The Puzzle of External Costs

Externalized cost in the case of the Athabasca Tar Sands can be characterized in a number of ways. The most important, I think, and the most general, is this: *it is not fully knowable*. This is the paradox of external cost: it is extreme, but it plays out in scenarios of the future that resist representation, prediction, calculation, and that, quite clearly, extend over long periods of time into the future. In his excellent book, *Tar Sands: Dirty Oil and the Future of a Continent*, Andrew Nikiforuk says this about water use in the production of ‘unconventional’ oil:

For nearly a decade, scientists, as well as environmental and Aboriginal groups, have asked the government to study how much these city-scale withdrawals are impacting the [Athabasca] river’s health and instream flows. To date, nobody can say with any certainty whether the province’s promiscuous permission-granting has left enough water in the Athabasca for the fish. In the wintertime, water levels drop so low that by 2015 industry will be withdrawing more than 12 percent of the water’s flow. (Nikiforuk 65)

The non-knowledge of the future of environmental contamination—the externalized cost of unconventional oil (and hence of oil in general)—is in principle never fully knowable because the future is never precisely predictable. Costs will make themselves felt, but may not be recognized as costs, and will have to be ‘paid,’ in one way or another, for periods of time that are beyond the time scale of (modern) civilization as we know it.

Writing of proposed carbon capture technology—which in principle would store the carbon produced through unconventional production and refining—Nikiforuk notes that

Once CO2 begins to be injected at carefully chosen sites, the EPA has proposed that regulators track CO2 plumes in salt water, monitor local aquifers above and beyond the storage site to assure protection of drinking water, and sample the air over the site for traces of leaking CO2. And this isn’t something to be done over twenty or fifty years—the EPA believes this oversight needs to be maintained for hundreds, if

not thousands, of years. (Nikiforuk 141)
What’s true of the imagined (really science-fiction) technology of ‘carbon capture’ is true of the very real and present danger of the spread of other kinds of ‘plumes.’ Nikiforuk writes, for example, of Arsenic plumes that result from SAGD (Stream Assisted Gravity Drainage), a technique used to “melt [bitumen deposits] into black syrup” (69):

Arsenic, a potent cancer-maker, poses another challenge. Industry acknowledges that in situ production [...] can warm groundwater and thereby liberate arsenic and other heavy metals from deep sediments. Canadian Natural Resources recently reported that one arsenic plume moved nearly twelve hundred feet over a fifteen-year period but estimated “it would take centuries, if ever,” for that arsenic to affect drinking water. No one, however, knows how much arsenic seventy-eight approved SAGD projects will eventually mobilize into Alberta’s groundwater and from there into the Athabasca River. (Nikiforuk 72)

Here again we see unpredictable “movement” and “leakage” (Nikiforuk 140-141) tied to deep uncertainty and an inconceivable time-frame: “centuries, if ever” for disaster to happen—or not. My point is not to highlight the dangers of all this plume-movement—Nikiforuk, with his impeccable and detailed research, has already done that—but to note the ways in which this movement is unknowable in at least three ways, at a cost so external in its hiddenness that it becomes inconceivable. Maybe (or maybe not) the arsenic will move (first unknowability); maybe this movement will happen over centuries, or over thousands of years (second unknowability). As with the CO2, one can imagine that it would have to be monitored for millennia, even in the uncertainty of its movement. But by whom, and under what circumstances? (Third unknowability.)

But at this point the smallness of human calculation collides with the vastness of cost beyond human scale, and certainly beyond the momentary scale of the spasm of capitalism now driving Tar Sands development. What human civilization will be found in Alberta in, say, two thousand years? What sense will it make of our ‘addiction

to oil’? What will be the cost to that civilization of the future of the ‘plumes’ of ‘moving’ arsenic? The cost of monitoring it? Of ameliorating it? Of abandoning the region because it is unlivable? All of this is unknowable, and unknowable too, for that reason, are the final, externalized costs of ‘unconventional’ oil.

Seeing these costs as ‘hidden,’ however—and unknowable in their hiddenness—has a corollary: they will leak out. Just as ‘plumes’ drift, and eventually show up in drinking water, or on the surface, so costs will appear, unpredictably, showing themselves in ways that do not immediately allow us to see them as costs. Just as arsenic might appear far from its initial source, on a completely different geological level, so cost might appear in forms that conceal, rather than reveal, their sources. Leakage, then, is both material and semiotic, and the two are linked, indeed inseparable. The cost of arsenic leakage depends on the movements and directions of that leakage, which can never be fully known and yet will refuse to stay hidden; in the same way cost as a measure and consequence shows up in different places, never fully knowable or definable, coming in different forms or versions, ruining things, leaving issues whose resolution or amelioration seems to have nothing to do with the strata out of which it has emerged. This will (or may) go on for centuries, millennia, forever, for people whose civilization is shrouded in the distant future. External cost, like arsenic plumes, like the fictional CO2 plumes, drifts, appears, disappears—is known, ignored, represented, conjured away. Costs continue, or will continue, to be felt (or reckoned, ignored, displaced) long after what incurred them—‘oil’—is forgotten. What is the ‘origin’ of this (not-so) hidden cost, then, of those plumes? Our ‘fossil fuel addiction’? This is as difficult to pinpoint as the movement of cost itself, in all its various guises. Just as we will have a hard time indicating the true cost—let alone price—of a barrel of ‘unconventional’ oil, so too we will have difficulty in accounting for the ‘need’ for oil that drives its extraction and refinement. We know by now all the arguments: that we could live with the consumption of a lot less energy, of a lot less fuel; that our houses could be more efficient, and our cities too. There is no need to drive

so much, heat empty and leaky rooms, waste energy consuming stuff we do not want and that only alienates us from others. We know all that. But still we consume. We consume heedlessly, locked in the semio-material linkage of leakage, of the drift of poison and cost.

What language can we use to represent cost, what calculus to quantify it? And what psychology, what physiology, what cultural urge or somatic drive to explain, fully reckon, the ‘need’ for the useless expenditure of energy? Energy that, moreover, comes to us from sources we do not need to know about, cannot know about. Thinking about the fate of the Athabasca river, really understanding its ecology, the movement of all the plumes, even the barest outline of all that, the future of all that to infinity, would ruin a nice drive to McDonald’s. Just as cost and the origin of all those costs is unknowable, ungraspable, we have a motive to keep them unknowable. This, I suppose, is yet another level of unknowability. The unknowable, ungraspable urge to spend, to consume, to burn—by definition irrational, given all the consequences of the act, themselves (or their costs) ultimately unknowable—along with the willful desire, kept hidden no doubt, not to know. We know enough to want not to know. We want to not know all that we know is ultimately unknowable. Denegation to infinity. To blame it all on capitalism is certainly tempting, it could certainly work in an analysis—but that supposes another calculation, one in which all the numbers work out correctly, one in which the future is perfectly mapped and known in all its sustainable glory. Certainly a worthy goal, that, but one fears that sustainability posited in the teeth of the radical unknowability of the cost of the human footprint is just one more example of semiotic leakage: an equalization of material process and the powers of calculation/representation that is more wish than fulfillment. The river is already endangered, CO2 levels are already elevated, the future cost of all this is already a formidable conundrum. Ultimately the future of ‘unconventional oil’ may boil down not to precise calculations through which it can be known and controlled—though all that is necessary—but to its role as an *agent* in which our very subjectivities are both constituted and called into question.

The Agency of Oil

To say that the carbon footprint defies simple calculation is not to say that we have a free hand in polluting. It is to say, however, that our response to egregious catastrophes like the Athabasca Tar Sands projects must be nuanced in the sense that simple representation of a clearly identifiable event—an event without leakage, so to speak—by clearly identifiable and singularly responsible subjectivities is no longer sufficient.

Why, after all, do corporations produce oil from the Tar Sands? Why do legislators and jurists enable them? Why do television and print journalists in the mainstream media affirm their activities? More is at stake, I think, than simple economic pressure, the love of profits, and so on. To be sure, all that is involved, but I think at the same time one must go back and consider, if you will, the genesis of the subjectivity of the agent of unconventional oil.

As Paul Robbins and Julie Sharp point out in their article “Turfgrass Subjects,” the subject of ideology is itself the result of an interpellation on the part of the other. If, as Althusser has argued, individuals are constituted in ideology through systems of “natural necessity and immediate practice,” this is possible because they act both as seemingly free agents and as “subjected being[s] who submit[...] to higher authority” (Robbins and Sharp 121). This freedom in submission—one is a responsible subject and one is subject to authority—is characterized by a moment in which the subject recognizes him or herself in free submission: the interpellation of a policeman, followed by the response of the (now guilty, ‘responsible’) individual, is a moment of the constitution of subjectivity (self-awareness in subjection).

Robbins and Sharp point out that it may not be a question merely of the agency of the policeman: turfgrass, to which the homeowner is subject, can play exactly the same role. They write:

Thus, as the turf draws its demands from the culture and the community, it helps to mould the capitalist economy into specific forms, and helps to produce peculiar kinds of people—turfgrass subjects. [...]

Industry is not producing desire, but is rather responding to the need for information required for the material practice of lawn care by the turfgrass subject. Neither does community pressure, a clear driver for individual behavior, engage in some simple way through the demands of industry. Rather, it can far more easily be argued that community pressures suit most directly the demands of turfgrass. (Robbins and Sharp 122)

Of course, the ‘demanding’ agent in a case like this need not be animate. To be sure, plants of all sorts ‘use’ humans to proliferate; as Michael Pollan has pointed out, corn, apples, marijuana and other crops “use” us to aid them in their genetic quest for dominance, just as much as we “use” them (Pollan). But what Robbins and Sharp say of turfgrass can be just as easily said of the automobile: virtually all of human society turns around the acquisition, care, development, and disposal of cars. In other words, an extraterrestrial observing earth could be forgiven for thinking that cars are the dominant species, and humans are bred simply to serve them.

Which brings us back to the Tar Sands, sustainability, and Peak Oil. As with turfgrass, oil too ‘moulds the capitalist economy into certain forms—indeed one could argue that the rise of capitalism itself was a function of ever cheaper and more efficient energy sources, with the energy produced by the burning of oil at the very end of the process (see Heinberg 45-84). As subjects, we are interpellated by oil, by its demands and inconsistencies. As with the auto, we care for it, cultivate it, propagate it, rouse it from its slumber by freeing it from shale or melting it from sand, love it, abuse it, waste it. That is what we do, what we are. We are subjects of, and subjected to, the energy slaves provided by oil—we are inconceivable without those slaves, their demands are our demands.¹¹ When they call, we answer. (Indeed if Hegel were alive today, he would rewrite the master-slave dialectic as the confrontation between a subject living under ‘late’ capitalism and the energy slaves powering her appliances, cars, providing her food, her heat, her leisure.)

But the demands of those energy slaves—and ultimately of oil, whose agents they are—are as close as we can come to quantifying the external costs of oil, and understanding Peak Oil as a function of those external costs. Just as, when the policeman calls, we can never be sure what he is calling about as we turn around, so too when oil calls we can never know fully what its demands, and its costs, will be. Where will the plumes of its poison reach? What will be the limits of those demands? When will oil go away, leave us without our dear slaves, force us to respond to the demands of ever more costly fuels? We can never be sure of the ‘other,’ never firmly grasp its position as us only separate from us, the mirror of our subjectivity all the while being a profoundly foreign agency, a profoundly alien and even hostile one. In the face of this anxiety we will leave no stone unturned, spare nothing to provide the apparatus of oil—its vast industrial infrastructure, its energy slaves working in every continent and in every service—with what it wants and needs, despite the obvious risks to the environment and even to our own health. We can never fully and clearly calculate that cost, but we can depict, quite clearly, our dependence on an agency that is unconcerned with all that other stuff, with all the stuff of our subjectivity in (impossible) isolation from a socio-technical ‘frame’ that brooks no opposition.

Put another way, to free ourselves from that ‘other’ agency, as from turfgrass or some other noxious monoculture (corn, for example, itself obviously dependent on an oil infrastructure), we will have to imagine defeating an agency which has called forth, through its interpellation, our very subjectivities—and something to which we are *subjected*. Not an easy task, for we never really know where this agency is coming from or where it will take us; where, in other words, its plumes are drifting, where its leaks are opening, what new demands it will make. If we could draw the line once and for all and be done with it, it would perhaps be easy. But ‘it’ can never be pinned down: when will Peak Oil ‘arrive’? How will its external costs be manifested in 30 years, 50, 100? Who will be there to attend to those costs, how can we prepare those people of the future by preparing and attending to our own needs, now and in all the possible futures to come?

It is not, then, just a matter of ‘kicking our addiction to oil.’ Or perhaps it is, if we can argue that any addiction—to heroin, food, cigarettes, cars, whatever—is about not just us and what we want, but also what the ‘other’ wants from us, how its character, makeup, whatever, determines how we go about acting (or not acting) in relation to it. If the heroin addict is called by his drug, finds it to be “my wife, and my life” (as Lou Reed put it), so we, and the entire civilization, are called by oil. We turn around to face it—with guilt, perhaps, but we turn around. Every other addiction flows (literally) from that of oil.¹² To break our enslavement to our energy slaves means literally reformulating our subjectivity: how we constitute ourselves in every way in what we are subjected to. A task a thousand times harder than kicking any specific addiction, because energy enslavement through oil is the necessary condition of all others (it is hard to imagine the current vast army of heroin addicts in a solar-energy economy).

One can imagine an antidote, after a sort, to this economy of interpellation and indebtedness (I am obliged to the policeman to turn around when he calls me: I owe it to him, to what he represents). It is the gift economy.¹³ Now there is already a gift giving implied in the Tar Sands developments, but it is not a very happy one. Canada is exporting synthetic crude to the US, and retaining all the environmental destruction that goes along with it. In short, the US gets the oil and Canada gets the devastation. This is the biggest gift one country can give another, dwarfing even the gift giving of the Marshall Plan about which Bataille waxed so enthusiastic.¹⁴ But this gifting is nothing more than an affirmation of the supremacy of oil and its agency, through recognizing above all the US’s *need* for oil.

One could imagine another giving of oil: to give the gift of oil in this case would be to refuse dependence on it. Rather than giving the poisoned gift (to oneself, one’s own country) of ecological devastation, one could give the gift of the agency of the other.¹⁵ In this case, the other—here oil—would not be seen as a hostile mirror-image, but rather as a fragile, death-bound agent of finitude (which oil, at its peak, certainly is).

In Marguerite Duras’s screenplay for the Alain Resnais film *Hiroshima mon amour*, Duras has her heroine cut herself off from the power of the traumatizing memory of the shooting of her German lover at the end of the war. Speaking to her own 18 year old self in the city of Nevers, she says: “Je te donne à l’oubli”—“I give you to forgetting.”¹⁶ In this case, the ferocious agency of her other, her double—herself as a traumatized girl, guilty of collaboration—is *given* to forgetting. In this scenario, a lack of remembrance is an agent—it receives something, a memory—but an agent as non-agency. Of course no forgetting is permanent, one is always subjected to the horror of the eternal return, but in this case forgetting can serve as a recipient of a gift whose giving puts in question an economy of demand, need, addiction, and careful calculation of payback (cost). This is, in other words, a movement by which *another* economy is embraced; this one, however, is not one of giving to another clearly defined entity (the US, for example) but to forgetting—the absence of agency—itself. A forgetting as gift.

This, then, is a relation not of precise calculation but of disengagement. Imagine if one could give turfgrass to forgetting. Just stop watering and mowing it. But how to give oil—now in its imperious agency ‘unconventional’—to forgetting? That’s a much more difficult question, because oil, as I’ve noted, is in many ways the ‘root’ of all other addictions.

This is hard, in the same way that kicking turfgrass is hard. The agency of turfgrass depends not just on what grass wants (water, pesticides, the labor of mowing), but on what a number of socio-technical infrastructures demand: neighbors, friends, communities, industries. Grass’s demands, we could say, are framed by a number of other subjectivizing structures. But the demands of oil, its unknowability—Where is it? Where are the plumes associated with it leaking? How is it to be gotten? What is its finitude and futurity?—is tied to the demands not just of some other people but the gravity of one’s apparent survival. My car interpellates me, but my food keeps me alive.

Perhaps this is the true moment of not-knowing. At a certain point, the gift to forgetting cannot be knowing, anticipating, calculating. Calculation may be only an infinite regress in which the overweening agency of the other—oil’s interpellating power—is recognized and ultimately affirmed: how can we balance accounts, how can oil be mastered, but only to the extent that its use is formatted within a fully sustainable economy? *Forget* by just doing it: stop feeding it. Starve the beast. Consume less. Eat less (especially ‘cheap’ food). Stop driving. Hell, give up the internet. Do anything to break a dependency in which external costs are seen only as a staggering sublime, a mind-boggling infinite, rather than what they also are: ideological forms to be given away, to the recurring oblivion of forgetting.

Such a forgetting cannot be permanent, definitive—any more than can be that of Duras’s heroine. The days of the supposed easy measure of efficacy (like the easy measure of externalities) is over. But it is a gesture, the first one to ‘take,’ or to let go.¹⁷

(Endnotes)

1. See, for example, the prediction of Thanksgiving 2005 as the official date of peak oil, at Kenneth Deffeyes’s website: <http://www.princeton.edu/hubbert/current-events-05-11.html>.

2. On July 11, 2008, to be precise: http://afp.google.com/article/ALeqM5gsJAY3OhpMxZLy_GSprXLsqTY2A

3. “‘Peak Oil theory is garbage as far as we’re concerned’, said Robert W. Esser, a geologist by training and CERA’s senior consultant/director of global oil and gas resources, according to *Business Week* online national correspondent Mark Morrison (Sept 7).” See <http://www.energybulletin.net/node/20418>. HIS-CERA defines itself as a “global energy information company,” providing research to corporations. Its website: <http://www.ihs.com/about/index.aspx>.

4. See Yergin’s comments, as reported on The Energy Blog: http://thefraserdomain.typepad.com/energy/2006/11/cera_the_undula.html

5. On “Energy Return on Energy Investment” (EROEI), see Heinberg 125-126.

6. See the *Los Angeles Times*, 18 Feb., 2009: “Crude Oil Slides Below Key Threshold of \$35 a barrel”: <http://articles.latimes.com/2009/feb/18/business/fi-gas18>

7. See Gail the Actuary, “Oil Limits, Recession, and Bumping Against the Growth Ceiling,” for an exhaustive discussion on the relation between the availability of oil and the prosperity of the growth economy.

8. See Pollan, “Why Bother?” on the virtues of confronting global climate change through changes in energy and food policy—this in an open letter addressed to the next president (undecided at the time of the writing of the article). Such idealistic, and inspiring, articles rarely seem to appear in the *Times* any more (at least as of 2012).

9. See Krauss: “This striking shift in energy started in the 1990s with the first deepwater wells in the Gulf of Mexico and Brazil, but it has taken off in the last decade as a result of declining conventional fields, climbing energy prices and swift technological change. [...] The United States may now have the means to reduce its half century of dependence on the Middle East.”

10. On external costs, see Laffont.

11. On energy slaves, see Heinberg 30-31.

12. By this I mean that the flourishing of our “late capitalist” economy is entirely dependent on fossil fuel inputs: agribusiness (monocultures), transportation, the widespread production of delightful commodities and toys, all of this is unthinkable without massive fossil fuel inputs. The cost of every other addiction goes up when the overall cost of oil goes up.

13. For the classic analysis of gift economies, see Mauss.

14. See, for example, the last chapter of Bataille’s *The Accursed Share*.

15. In German, of course, *gift* means poison. On the poison-gift connection, see Mauss 81.

16. The full line is: “Petite tondue de Nevers, je te donne à l’oubli”—“Little shaved-headed girl from Nevers, I give you to forgetting” (Duras 118). Duras’s heroine has had her head shaved by members of the Resistance (or simply by nasty townspeople), as punishment for “horizontal collaboration.”

17. Szeman notes the absence of a coherent discourse on the left concerning peak oil and all its consequences. How, precisely, to see that capital will end before nature, and not vice versa? (820-821). Citing Jan Oosthoek and Barry Gills (821), Szeman notes that what’s needed is “a new political economy [that] must take our impact on the planter’s environment fully and realistically into account.” As Szeman also notes, this is “easy enough to say, but much, much harder to produce when what is called for is a full-scale retraction against the flow of a social whose every element moves toward accumulation and expansion.” I would note here only Oosthoek and Gills’s use of the word “realistic” in the above quote. How does one take one’s impact realistically into account? What is real? I can only suggest here that a gift economy might very well have a different definition of the real—or the Real—than that of a growth/debt economy.

Works Cited

Bataille, Georges. *The Accursed Share: An Essay on General Economy*. Trans. Robert Hurley. New York: Zone Books, 1988. Print.

Deffeyes, Kenneth S. *Hubbert’s Peak : the Impending World Oil Shortage*. Princeton, NJ: Princeton UP, 2001. Print.

Duras, Marguerite. *Hiroshima mon amour*. Paris: Galllimard, 1960. Print.

Gail the Actuary. “Oil Limits, Recession, and Bumping Against the Growth Ceiling.” *The Oil Drum*. August 17, 2011. Web. Feb. 20, 2012.

Heinberg, Richard. *The Party’s Over: Oil, War and the Fate of Industrial Societies*. Gabriola Island, BC: New Society, 2005. Print.

Krauss, Clifford. “New Technologies Redraw the World’s Energy Picture.” *The New York Times*. Oct. 25, 2011. Web. Feb. 20, 2012.

Kunstler, James Howard. *World Made by Hand*. New York: Atlantic Monthly Press, 2008. Print.

Laffont, J. J. “Externalities.” In *The New Palgrave Dictionary of Economics*. 2nd Edition. Ed. Steven N. Durlauf and Lawrence E. Blume. London: Pelgrave-Mcmillan, 2008. The New Palgrave Dictionary of Economics. Web. Feb. 20, 2012.

Mauss, Marcel. *The Gift: The Form and Reason for Exchange in Archaic Societies*. Trans. W. D. Halls. London: Routledge, 2002. Print.

Nikiforuk, Andrew. *Tar Sands: Dirty Oil and the Future of a Continent*. Vancouver BC: Greystone Books, 2011. Print.

Pollan, Michael. *The Botany of Desire: A Plant’s Eye View of the World*. New York: Random House, 2001. Print.

---. “Why Bother?” *The New York Times* April 20, 2008. Web. Feb. 20, 2012.

Robbins, Paul and Julie Sharp. “Turfgrass Subjects: The Political Economy of Urban Monoculture.” In *the Nature of Cities: Urban Political Ecology and the Politics of Urban Metabolism*. Ed. N. Heynen, M Kaika and E. Swyngedow. London: Routledge, 2006. 110-128. Print.

Szeman, Imre. “System Failure: Oil, Futurity, and the Anticipation of Disaster.” *South Atlantic Quarterly* 106:4(Fall 2007): 805-823. Print.

Yergin, Daniel. *The Prize : the Epic Quest for Oil, Money, and Power*. New York: Simon and Schuster, 1991. Print.

Stoeckl, Allan: Allan Stoeckl is Professor of French and Comparative Literature at Pennsylvania State University. He has written extensively on twentieth century French intellectual history, from the double perspective of intellectual engagement and the economies of expenditure. Recent work has focused on issues of energy use and waste in the postmodern fossil fuel economy, from the perspective of a revised reading of the French philosopher-critic Georges Bataille, *Bataille’s Peak: Energy, Religion, Postsustainability* (2007). Future work involves readings of avant-garde theories of the city (surrealism, the situationists, Le Corbusier) from the perspective of contemporary questions of energy use and mobility in the city.

Stoeckl, Allan : Allan Stokl est professeur de français et de littérature comparée à l’Université de l’État de Pennsylvanie. Il a de nombreuses publications à son actif sur l’histoire intellectuelle française du XXe siècle, du double point de vue de l’engagement intellectuel et de l’économie des dépenses. Son travail récent, intitulé *Bataille’s Peak: Energy, Religion, Postsustainability*, se concentre sur les problèmes liés à l’usage de l’énergie et des déchets dans une économie postmoderne du combustible fossile, le tout du point de vue d’une lecture renouvelée du philosophe-critique Georges Bataille. Ses projets futurs impliquent des relectures de théories avant-gardistes –parmi lesquelles le surréalisme, le situationnisme, et Le Corbusier–, afin d’examiner les questions contemporaines de l’usage de l’énergie et de la mobilité urbaine.

Copyright Allan Stoeckl. This article is licensed under a Creative Commons 3.0 License although certain works referenced herein may be separately licensed, or the author has exercised their right to fair dealing under the Canadian *Copyright Act*.

OIL IMAG(E)INARIES: CRITICAL REALISM AND THE OIL SANDS

IMRE SZEMAN AND MARIA WHITEMAN

This photo-essay constitutes an initial attempt to map out the forces and dynamics of capital at work in Fort McMurray, Alberta—a primary site of global oil extraction and a space that is now at the heart of the contemporary Canadian economy; it does so through the practice of ‘critical realism’ advocated by artist and critic Allan Sekula. The essay consists of three parts. In the first part, we describe the characteristics of Sekula’s critical realism, focusing in particular on his employment of this aesthetico-political practice in his book *Fish Story* (1991), an attempt to challenge dominant narratives about globalization as immaterial and unrepresentable by means of a focus on the transportation of goods by container ships. In the second part, we explore the challenge of representing another all-too frequently hidden material dimension of globalization: our continued dependence on oil and its by-products. Instead of focusing directly and literally on the site of oil extraction, the photo-essay we produce in the third part probes the effects of oil on life and labour in Fort McMurray. We do so in order to better understand the city’s specific socio-political challenges and to grasp the broader implications of oil for contemporary politics, culture and representation.

Ce photoreportage constitue une première tentative de mettre en image le pouvoir et la dynamique du capital à Fort McMurray, en Alberta, où se trouve le site principal d’extraction pétrolière qui est au cœur de l’économie contemporaine canadienne. L’approche que nous proposons à cette fin est celle du « réalisme critique » mis de l’avant par l’artiste et critique Allan Sekula. L’article se divise en deux parties. Premièrement, nous décrivons les caractéristiques du réalisme critique de Sekula en mettant l’accent sur son emploi de la pratique esthétique-politique dans son livre *Fish Story* (1991); ce dernier renverse les discours dominants de la globalisation perçue comme processus immatériel irréprésentable en se concentrant sur le transport des produits commerciaux sur les bateaux porte-conteneurs. Deuxièmement, nous tentons de présenter une autre dimension matérielle méconnue de la globalisation : notre dépendance vis-à-vis du pétrole et de ses sous-produits. Au lieu de mettre le site d’extraction au premier plan, notre photoreportage se concentre sur les effets du pétrole sur la vie et sur le travail à Fort McMurray afin de mieux comprendre les défis socio-politiques de la ville et les implications au sens plus large du pétrole sur la politique, la culture et les représentations contemporaines.

Fig. 1 Maria Whiteman, *HWY 63 N #3*

Nothing is indeed quite so perverse or aberrant for the truly postmodern person as the polemic expression ‘photographic realism’—as though photography, today so mysterious and contradictory an experience, had anything reassuringly trustworthy or reliable about it. (Jameson, “Modernism” 53)

In what ways might it be possible to more fully explain the social and economic dynamics at work in the Alberta oil sands? This essay constitutes the beginning stages of an aesthetico-theoretical experiment, undertaken jointly by an academic and an artist, whose aim is to map the forces at work in Fort McMurray, Alberta, through the combined use of text and images. The way in which we frame our approach is through the employment of a critical realism that attempts to uncover the forms

and shapes of life in late capitalism in a manner that is analytically rich and nuanced. We take the term “critical realism” from the work of photographer and theorist Allan Sekula, whose photo-series and book *Fish Story* remains (to our minds) unduly neglected as an aesthetic project whose intent is precisely that of navigating the complexities of global capital and to do so in a manner that might engender new political possibilities.¹

The thought that *any* kind of realism—much less a realism indebted to the necessarily troubled relationship of photography to the real—might be open to the task of naming the operations of twenty-first century global capitalism might, for many critics and scholars, be seen as misguided and misplaced. After the criticisms of the Frankfurt School and Bertolt Brecht of the literary theories of György Lukács, and Fredric Jameson’s description of the relation of different generic forms to specific historical periods, the affirmation of an untroubled political function for realism today seems to constitute a willful misunderstanding of the operations and possibilities of genre.² Sekula’s version of realism is not one that relies uncritically on the relation of the photographic image to some easily accessible real that can be comprehended outside of the discursive and narrative frames that constitute the social. At the same time, Sekula resists the all-too easy dismissal of the possibilities of the photographic image—its almost unprecedented capacity to provoke conceptual, theoretical and political openings as a result of its relation to the real. Our visual-textual experiment proceeds in three parts. First, we offer an overview of Sekula’s account of critical realism in order to address some of the potential anxieties that attend the link of photography with realism, as well as to explore and explain the manner in which he assembles photo-texts that address aspects of operations of global capital that would otherwise remain hidden or obscured. Second, we briefly explore the specific difficulties of capturing our subject matter in photographs, in order to shape the focus of our critical-visual practice with respect to the oil sands. Finally, we experiment with a mapping of a specific, essential aspect of capitalism—its dependence on oil as dominant energy source—by means of a critical-realist photo-essay of Northern Alberta oil, specifically the city of Fort McMurray located at the heart of Canada’s controversial oil sands development.

In *Postmodernism, or, The Cultural Logic of Late Capitalism*, Fredric Jameson writes:

An aesthetic of cognitive mapping—a pedagogical political culture which seeks to endow the individual subject with some new heightened sense of its place in the global system—will necessarily have to respect

this now enormously complex representational dialectic and invent radically new forms in order to do it justice. This is not then, clearly, a call for a return to some older kind of machinery, some older and more transparent national space, or some more traditional and reassuring perspectival or mimetic enclave: the new political art (if it is possible at all) will have to hold to the truth of Postmodernism, that is to say, to its fundamental object—the world space of multinational capital—at the same time at which it achieves a breakthrough to some as yet unimaginable new mode of representing this last, in which we may again begin to grasp our positioning as individual and collective subjects and regain a capacity to act and struggle which is at present neutralized by our spatial as well as our social confusion. (54)

The short critical-realist photo-essay found in the third part of this essay is by no means an example of that “unimaginable new mode of representing” that Jameson names in his famous description of cognitive mapping (2003). At a minimum, however, we hope to show that (contra Jameson’s claim in the epigraph) photographic realism can operate in a mode other than in the direct one-to-one relation between image and object/event. This essay is in part about how photos *can* contribute to a cognitive mapping of a resource reality about which we too commonly imagine we already know everything there is to know.

On Critical Realism: Photography and Capitalism

The exhibit and book that make up Sekula’s *Fish Story* are framed in explicit opposition to what had by the mid-1990s become the dominant way of understanding globalization—as comprised by the immaterial flows of media images, economics, politics and ideology across now anachronistic national borders. *Fish Story* is an appropriate title for the project, the third in a series of projects that explore “the imaginary and material geographies of the advanced capitalist world” (202). Sekula’s photographs, the accompanying text, and the long essay that breaks up the book, explore the central and continued importance of shipping and the sea in our attempt to make sense of the present. It does so in

order to counteract what Sekula sees as the hyperbolic ‘fish story’ of globalization, as it has been developed both in academic accounts and in the popular press, which stresses the easy movement of culture and money across borders at the expense of the materiality of global labour and the physical goods moved around the world via the world’s oceans. Sekula writes:

My argument here runs against the commonly held view that the computer and telecommunications are the sole engines of the third industrial revolution. In effect, I am arguing for the continued importance of maritime space in order to counter the exaggerated importance attached to that largely metaphysical construct, “cyberspace,” and the corollary myth of “instantaneous” contact between distance spaces... In the imagination, e-mail and airmail come to bracket the totality of global movement, with the airplane taking care of everything that is heavy. Thus the proliferation of air-courier companies and mail-order catalogs serving the professional, domestic, and leisure needs of the managerial and intellectual classes does nothing to bring consciousness down to earth, or to turn it in the direction of the sea, the forgotten space. (50)

Sekula’s photographic project undertakes the challenge of presenting a material history of globalization. In contrast to those attempts to theorize global space that take as given a description of the world as dominated primarily by the chaotic flow of disembodied sign-systems—whether this is seen as the transnational flow of money or of culture—in both text and images Sekula traces out the concrete labour and material networks that produce and are produced by globalization. The aim is not to deny the existence and importance of communication technologies and their effect in collapsing the globe spatially, nor to contest the fact that capitalist space is being fundamentally reorganized. Rather, he wishes both to complicate the picture and to restore to the study of global capitalism a number of factors that are in danger of fading away from our contemporary picture of the globe. For example, the focus on the harbour, the site where “material goods

appear in bulk” (12), allows Sekula to emphasize the ways in which the globe resists being turned into a one big village. He writes:

Large-scale material flows remain intractable. Acceleration is not absolute: the hydrodynamics of large-capacity hulls and the power output of the diesel engines set a limit to the speed of cargo ships not far beyond that of the first quarter of this century. It still takes about eight days to cross the Atlantic and about twelve to cross the Pacific. A society of accelerated flows is also in certain key aspects a society of deliberately slow movement. (50)

Sekula’s emphasis on the materiality of globalization might seem to be merely the result of a photographic imperative or limit: the need to focus on and capture visible signs. And of course, one of the problems that the global present has posed for contemporary art, especially art that is politically committed, is that the reality of the world system is something that seems altogether impossible to represent. The complicated web or network of technological and social systems that make-up contemporary global finance or mass media, for example, defies the ability of our contemporary aesthetic forms (all of which had their genesis prior to the twentieth century) to render them in some way comprehensible, due both to their scale and their invisibility—powerful electronic phantoms (in the case of financial and media transactions) whose presence everywhere and at all times makes them no easier to frame in snap shot of any given place, event or thing. So what does Sekula propose to do that is different, that makes comprehensible what seems incomprehensible?

As Benjamin Buchloh points out, the avant-garde in photography has since the 1950s become identified primarily with modernist experimental forms such as photomontage, while documentary photography, with its insistence on capturing the ‘real,’ has been marginalized as an artistic practice. This is because the relationship of the photograph to reality has been viewed with increasing suspicion over time, especially in terms of the political potential of photography. Once seen as the

unique characteristic of photography, it is now common to view the ‘Real’ of the photograph as that which most obscures or interrupts the procedures by which ‘reality’ in the photograph is managed and constructed (thus its ‘perversity’ or ‘aberrance’ for the truly postmodern person). So while critical photographic practices have turned away from the use of photography to document reality, for Sekula it is in fact the photograph’s unavoidable “social referentially, its way of describing—albeit in enigmatic, misleading, reductive and superficial terms—a world of social institutions, gestures, manners, relationships” (Sekula, *Photographs* ix) that makes it a necessary tool in the attempt to understand the present.³ In opposition to both the interdiction on representing the real in the aesthetic practices of the Left within which Sekula positions himself, as well as the various critical and artistic suspicions about documentary photography, his photographic practice insists on the importance of addressing reality. This is a form of realism that does not settle for the quotidian surfaces and experiences that are usually imagined (especially in relation to the photographic images) as reality, but a realism whose aim is to document what is hidden *in* that phenomenal everydayness and its ready-to-hand socio-political codes and narrative conventions that are all-too easily passed off as reality. In *Fish Story*, this is the world of industrial labour and the concrete movement of goods that are hidden or obscured by most discourses concerning globalization, whose representation thus gives us a different vision of the global than that produced in either its victorious or resistant modalities.

It is important to emphasize that the realism of Sekula’s photographs is not a naïve realism that insists that the structure of the contemporary world is visible and accessible to simple photographic representation. Instead, Sekula’s aim has been to create a “critical realism.” Sekula characterizes this as

a realism not of social facts but of everyday experience in and against the grip of advanced capitalism. This realism sought to brush traditional realism against the grain. Against the photo-essayistic promise of ‘life’ caught by the camera, I sought to work within a world already replete with signs. (x)

It is an essential aspect of Sekula’s ‘critical realism’ that the photographs must both insist on their relationship with reality while simultaneously drawing attention to the fact that they are partial and constructed, without either position canceling the other one out; the reality in the photographs is further not merely indexical—an accumulation of details about the external world—but reveals and critiques the system of social, political, and economic relationship under capitalism. This dialectic between what Buchloh calls “a conception of photography as contextual (i.e., as a discursively and institutionally determined fiction) and a conception of photography as referential (i.e., as an actual record of complex material conditions)” is maintained by Sekula through three procedures (195). First, Sekula’s photographs are not random snapshots, but are arranged in a narrative sequence. The indexical function of individual photographs is problematized by their inclusion in a narrative that has necessarily been created rather than offered up by reality. Second, since the photographs exhibit a wide range of techniques, photographic conventions and aesthetic choices, the different ways of producing the real are highlighted formally. Finally, as Buchloh notes, “the sudden focus on a seemingly irrelevant and banal detail interrupts the overall narrative in the manner of a Brechtian intervention that reminds the viewers/readers of the constructed nature of the representation with which they are confronted” (196).

In assessing the operations of critical realism, it is important to actually look at Sekula’s photographs themselves, however briefly, in order to assess its possibilities and limits as a way of analyzing the space of global culture. *Fish Story* is comprised of seven narrative sequences of photographs interspersed with short pieces of text that add additional information to the reading of the narrative, either in the form of anecdotes or historical or social information. The book also includes an essay in two parts entitled “Dismal Science” (41-55; 105-38) that traces with great complexity the historical shift in representations of the sea, from the maritime panoramas of seventeenth-century Dutch painting to the development of containerized shipping in the 1950s and

1960s, and from an ocean sublime in its sheer breadth and scale to one entirely rationalized by the logic of containment: the container hides its cargo, transforming its concrete contents into abstract units that, stacked up, even resemble money. To capture the full complexity of Sekula’s project, the multiple narratives that exist within *Fish Story*—the seven photographic narratives themselves, the accompany text, and the essay—must themselves be read as a larger, heterogeneous and ambiguous narrative about globalization that remains indeterminate, even though Sekula adheres to a vision of globalization that emphasizes the importance of the economic within it.

We will limit ourselves here to a consideration of two of Sekula’s photographic narratives in *Fish Story*. The photographs in the very first section of the book are of the harbours of California—the forgotten harbours of L.A., Long Beach and San Diego, which nevertheless are amongst the busiest in the United States. Sekula begins his study of harbours and of the sea at home, before traveling outward to other ports—Gdansk, Rotterdam, Ulsan in South Korea, Vigo in Spain, and Veracruz, Mexico. As the text that begins this first narrative sequence reveals, however, with respect to the sea, home has become a problematic concept. There are, strictly speaking, no American shipping vessels: ships travel under flags of convenience that have made the Bahamas and the Marshall Islands into world shipping powers, while simultaneously transforming the concept of the nation into little more than a commodity to be bought and sold. Nevertheless, at the ‘local’ site of the Los Angeles harbour, where materially the United States encounters the East that lies to the West of it, a whole host of relations becomes apparent through the sequence of individual photographs that Sekula takes: the end of the ship-building industry in the United States and its continuation; the transformation of harbour into a space of “bourgeois reverie on the mercantilist past” (12); the ecological catastrophes visited on the globe as a result of the demands of a fuel-hungry economy; the appropriation of the sea as an architectural motif in the design of the conference room of an advertising agency; the decidedly less romanticized, rationalized world of a

contemporary container facility that has rendered the sea into a giant factory; a sign of race, as World War II-era housing for shipyard workers is moved from its now desirable location next to the sea to by re-used in South-Central Los Angeles; the co-existence of low technology with high technology; the militarization of the sea; and the effects of technological ‘progress’ on individual lives. This sequence of photographs, outlining the multiple modalities of shipping and the work of harbours, is followed by text that recounts an odd moment in geo-political history: “*Weapons for the Iraqis in the forward hold. Weapons for the Iranians in the aft hold.* For a moment the global supply network is comically localized, as pictorially condensed as a good political cartoon” (32).

The second photographic narrative concerns Ulsan, the factory town built by Hyundai in order to serve the largest shipyard in the world. Here, we see a contemporary version of Utopia coming to completion (the ship *Hyundai Utopia* in a shipyard), followed by the myths of its primordial origin (a picture of the ironclad turtle-ship used in defeat of Japan in 1592 in the Hyundai headquarters); the laboring body, displaced from the fishing village that once occupied the site of the shipyards and from the former site of industrial labour in the West, set against the profits extracted from it (a photo of an executive golf course on the edge of the shipyard); a billboard announcing plans for an amusement park set against an image of the fishing village that it will displace. Against these images of Ulsan, it is important to weigh Sekula’s anecdote about the “The Korean’s Workers’ Museum” established by an American crew on one of the first ships built by Daewoo, another of Korea’s shipbuilding giants:

When an American crew picked up the first of these ships from the Daewoo dockyard, completed the sea trials, and began the voyage across the Pacific, they discovered in the nooks and crannies of the new ship a curious inventory of discarded tools used in the building of the vessel: crude hammers made by welding a heavy bolt onto the end of a length of pipe, wrenches cut roughly from scraps of deck

plate. Awed by evidence of an improvisatory iron-age approach to ship building, which correspond to their earlier impressions of the often-lethal brutality of Korean industrial methods, they gathered the tools into a small display in the crew's lounge, christening it "The Korean Worker' Museum."

American elites have cultivated a fantastic fear of superior Asian intelligence; in doing so they obscure their own continued cleverness. (74)

It is perhaps hard to get a sense of Sekula's entire project from these brief descriptions of his photos and a summary of small portions of his text. Nevertheless, it allows us to suggest what we see in this effort to map global space and to do it in a 'concrete' or material way rather than from a large-scale assumption that culture is deterritorialized in the way imagined by some critics and transnational corporations, and to engage in this mapping through photography—a medium whose ability to relate to the concrete has been rendered increasingly suspect in critical thought. Sekula's photographs and text together produce a vision of the global present that is just as complex as one that a critic such as Arjun Appadurai wishes to produce via his vocabulary of 'scapes' (to point to but one prominent example of a new discourse whose intent is to better grasp the complexities and contradictions of contemporary global reality). It is shot through with all of the numerous contradictions and paradoxes that globalization introduces: the displacement of labour; the wholesale transformation of societies; the complexities of race and identity; the growing abstraction of even the most apparently concrete processes; the existence of new localities, both those generated by capital and in resistance to it; the rationalization of production; and the continued existence of labour and the labouring body in a world that when viewed through the Western media sometimes seems to have commodity traders and economic forecasters as its only possible professions. It addresses these various levels in multiple ways: through direct documentation, through the juxtaposition of images with text, anecdotes with defamiliarizing photo-narrative sequences, serious academic writing with off-handed comments, important images with apparently

minor and trivial ones. By focusing on sea-trade as the axis along which to examine global phenomena, Sekula also manages to get beyond the nation into the 'space' of globalization, a space marked by the criss-crossing of ships not only from West to East, center and periphery, but within the periphery itself (Hong Kong to Tapei, Taipei to Shenzhen, Shenzhen to Beijing, and so on), thereby disorganizing this binary in a way that insists on a new conception of space. Nevertheless, Sekula's critical realism maps this space with new insights and a density of experience that is often missing from accounts of the framing forces and energies of globalization. The insistence of his photographs on recording the reality of specific sites, and furthermore, the multiplicity of signs in this reality, accomplishes three things. First, by focusing on labour, it draws into question a narrow academicism that has rendered globalization into a name for the global dispersal of cultural commodities. Second, by insisting on the visibility of globalization, Sekula's critical realism challenges us to avoid turning the circuits and spaces of globalization into something that, like Kant's sublime, is 'too big for representation.' Finally, by mapping the everyday spaces of labour that are all too often hidden from view, it encourages a renewed ethnographic attention to globalization, the reading of signs in and from reality, rather than as they have been transformed and rendered symptomatic in those global cultural commodities that cultural critics love to decode.

We do not mean to suggest that Sekula's attempt to reinvigorate the genre of realism is without its own problems (which would need to be investigated in more depth). Nevertheless, it is clear to us that Sekula's mode of critical realism opens up a way of thinking about the politics of globalization and of the globalization of culture that permits us to remain both open to and yet critical of the potentialities occasioned by the contemporary reorganization of space. Sekula's critical-aesthetic practice is a model of how it might be possible to think space—and so, too, culture and economics—differently, and one that avoids becoming, as much contemporary criticism all too quickly and all too frequently does, "indistinguishable from an ideological

Fig. 2 Maria Whiteman, *Dune*

legitimation of the social forms that are the creation of global capitalism" (Dirlik, "Global" 36).

More than a strict model that should be taken as the framework for all future politically motivated aesthetic investigation, Sekula's critical realism highlights a means and method by which to name the materiality of a global system whose generative force all too often seems to have evaporated into the immateriality of communication systems and the effects of a hi-tech revolution. Against those who are anxious at the very thought of a 'capitalist realism'—anxious because the conjunction of the terms immediately suggests a

theoretical limit, a too quick arrival at a solution, or a misunderstanding of realism as an easily-adopted interpretative pragmatism instead of a historical genre burdened by hermeneutic preconceptions—the analysis that we hope to provide here by means of a photo-essay of a key site of globalization in Canada is intended to challenge the comforts of incapacity that all too often attends the identification of global capital as an unrepresentable system.⁴

Oil in the Streets?

Such is the promise of critical photographic realism. To what effect might it be used in trying to name another

Fig. 3 Imre Szeman, *Pumpjack*

largely hidden dynamic of globalization: the system of oil extraction and production that is the lifeblood of capitalism—so essential to it that capitalism could not even exist in its absence? It is telling that even in the age of Apple and Google, any list of the largest companies on the planet is crowded with firms who generate the ultimate substance on which the planet's economy runs: oil.

It might seem questionable to start from the assumption that the realities of oil are hidden from view. But

consider: even in the streets of Edmonton, a city whose economy has continued to grow as a result of the role it plays in servicing and supporting Canada's oil sands, there are fewer directly visible signs of oil than one might imagine. On the eastern edge of the city, a large stand of refineries and oil tanks sit just off the Anthony Henday freeway. Lit up like Christmas trees and smoldering away in the crystalline winter air of Edmonton, refinery row can be seen from almost any building in the city over a few stories high. But it is easy

enough to resolve the aesthetic/environmental/economic problem these industrial objects pose: turn your eyes to the west or simply stay low to the ground. What does one *then* see? To the west: a sky animated by the beautiful sunsets that grace northern skies; low to the ground: banal commercial and residential streets, but also the deep, wooded valley of the North Saskatchewan River, as striking and attractive as any urban park anywhere in the world. There are many smaller signs marking the significance of oil to the making and shaping of this part of the world—a billboard advertising a strip club with the tag-line “We Support Big Oil!”, a life-sized bronze statue of rig workers in the middle of West Edmonton Mall, a multi-coloured pumpjack in the parking lot of a suburban McDonald's—but none linger long in one's imagination. Instead of demanding an account of the what and the why of Canada's most northerly major city, they appear as the sort of curiosities one might expect to come across in the wild, wild West, and can be as quickly and easily written out of one's view as the much larger and more intimidating industrial structures from whence the lifeblood of petrosocieties flows.

One could object: is not the very existence of Edmonton a visible sign of oil culture? Are not its skyscrapers and that of its sister-city, Calgary, nothing if not oil rendered visible? Indeed, is not the whole of global modernity itself nothing but liquid oil transformed into the capacity for movement and solidified into objecthood? The problem of rendering the reality of oil visible in the form of a photo-essay like the one that Sekula produces in *Fish Story* is two-fold: *either* oil is so contained within the quotidian landscape of modernity that it does not present itself to view, *or* it is so omnipresent, equivalent to global capitalist modernity itself, that it is hidden in plain sight. Given this either/or, all or nothing, how is one to proceed?

To try to map oil imaginaries via images of oil produces an interpretive hermeneutic that is full of problems. The limit introduced by the search for small visual clues—a billboard, public statuary, a faux pumpjack—is that one already knows the answer to the problem. The statistics tell us that Edmonton is a city whose economy is highly

dependent on oil and so one goes looking for examples of oil iconography in its streets—and finds the results disappointing. The disappointment is two-fold: the (relative) absence of the kind of visible signs that one hoped to find; the lack of an appropriate index of a practice whose import suggests that one *should* find signs of it here, there and everywhere. This is a disappointment founded on a series of flawed interpretive presumptions, which nevertheless force us to confront the question of how to interrogate an oil imaginary in the absence of perceptible images of oil—the equivalent to the space of Sekula's harbours and the traffic between them.

As with Sekula's interrogation of Ulsan, we have chosen to engage with oil by looking at the way in which a local, supposedly peripheral space is mapped into the circuits of globalization. Situated in the northeastern corner of the province, and linked by a single, treacherous highway to other ports of call, Fort McMurray, Alberta, is far from the dominant population centres of Canada. At the same, it lies at the heart of the country's twenty-first century economy. In an age that is thought to be defined by the operations of service economy and cognitive capitalism—a high tech age in which immaterial capitalism trumps the material variety—40% of the value of Canadian exports consists of the commodity extracted from the oil sands that surround the region (Cooper). The financial canyons of Toronto are filled with cash the origins of which can be traced back to a northern community struggling with the challenges of isolation and ferocious growth, which together produce social and economic difficulties of a kind experienced nowhere else in the country, and, indeed, in few other places on earth.

The most familiar images from Fort McMurray are of the oil sands themselves. These images are inevitably aerial shots whose intent is to emphasize the sheer size and scale of those sites at which bitumen is extracted—a vast and destructive mining operation that requires surface vegetation to be shoved aside, and which leaves behind massive tailings ‘ponds’ and mountains of sulfur. With the exception of small vehicles that appear to be more like toy trucks than the genuine monstrosities they

Fig. 4 Maria Whiteman, *Power Systems*

in fact are (the largest ground vehicles on the planet are put to work in the oil sands), there is seldom evidence of human bodies in action in the mine sites. To frame the scale of these sites in a single image is to say all that one needs to say about them: such images constitute not only a specific indictment of the oil sands, but form an allegory that condenses the brutal environmental consequences of capitalist modernity into a single image. Or such seems to be the presumption, based on visual representations of the oil sands to date.

We will leave aside the question of whether or not this scalar approach is ultimately successful, either aesthetically or politically.⁵ What we want to draw

attention to is what is left out of such oil images: labour, forms of life, the experience of bodies working and living in proximity to the oil sands—in other words, all those varied registers of experience on which Sekula draws on to produce his critical photo-narratives of the shipping trade and its role in late capitalism. In a world replete with signs, images of the oil sands have limited themselves to the visualization of extraction sites; in doing so, they provide almost no account of the full complexity of the space and time called ‘Fort McMurray.’

Let us be clear: by turning our attention away from mining sites, we intend no apologia for oil extraction

Fig. 5 Maria Whiteman, *Gathering Storm*

and its environmental consequences. On the contrary: we think it is only by more fully naming and explaining the dynamics of life and labour in relation to the sands that we can begin to figure the significance of a place that oil imaginaries in Canadian urban centres are so quick to render peripheral, assigning to it an environmental culpability which they somehow do not share. Paying attention to the signs of labour and globalization in Fort McMurray, to the organization of life and work at a central site of resource extraction on the planet, offers us a beginning point for a more complex and nuanced narrative of oil economies and their role in global capitalism.

Recovery: Life, Labour, Oil—A Photo-Essay

There is an incredible infrastructure needed to manage and enable work in the oil fields. In addition to the primary sites of oil extraction, workers are required to fill out a huge secondary economy made up of all manner service industries—from fast food and gas stations to firms specializing in the complex equipment required for oil exploration. With few notable exceptions, the oil extraction sites up north are hidden from view, accessible only via gated and guarded dirt roads. Much more visible—indeed, inescapable to vision—are the oil service companies, their vehicles, machinery, and the physical detritus that comes with infrastructure work. These

Fig. 6 Maria Whiteman, *HWY 63 N #1*

companies occupy hastily constructed light industrial buildings on either side of the city; the strip malls that stretch between them contain bars, liquor stores, and those few companies in the city that can manage the high rents and uncertain economics of the place.

The workers who spend their days in these parts of Fort McMurray are perhaps the most heavily impacted by the high cost of living in the region. Well-paid, but not nearly as well compensated as the oil workers whose high salaries inflate the cost of housing, they must scramble to find a decent place to live. The lack of affordable housing (indeed the dearth of housing in any form) is

due in part to the limited land made available for the development of private accommodation. The majority of the land surrounding the city is owned by the Crown, which has been slow in releasing it to the Municipality of Wood Buffalo—too slow to absorb the rapid expansion of population.⁶ As for the size of the population: a huge gap exists between municipal censuses and the ones conducted by the federal government, largely because the latter finds it hard to count the number of people living in unusual, quasi-legal dwellings across the region. The result: too few services for too many people, without even taking into consideration the large numbers of workers who spend chunks of time in Ft.

Fig. 7 Maria Whiteman, *HWY 63 N #2*

Mac, flying in to work and out for breaks, who make demands on municipal services and extend the line-ups of the country's busiest Tim Hortons (Pratt).

New condo towers are being constructed in the city core, but for now, they remain sketches whose details have yet to be filled in. In other places, land is left unused by developers intent on driving up prices by producing and managing property scarcity. And so, on the outskirts of town, clumps of young men live in trailer homes, their new trucks squeezed together in the narrow driveways of their homes-away-from-home. It is hard to commit to a place where one must live in such conditions, which

is no doubt why the city tends to feel ephemeral and impermanent, despite the ferocious activity in its streets.

The streets can be full of traffic. As with so much else (water and sewage systems, social services, etc.), there are more people living in the region than the architecture of the streets was designed to handle. At the beginning and the end of each workday, Highway 63 is jammed with traffic—a shock to a visitor or newcomer, who might expect the energies of commerce to run at a slower speed this far north. The city is in the midst of a massive expansion of road infrastructure. The bridge across the Athabasca River, which can already handle more

Fig. 8 Maria Whiteman, *Transit*

than three times the load of normal bridges in order to manage massive construction and transportation loads, is being widened and will eventually host ten lanes of traffic. Enormous new intersections, whose scale seems out of proportion with the size of the community it services, are being crafted to move traffic in and out of the huge suburbs nested in the boreal forest above the noise and chaos of the river valley.

Adding to the traffic: a fleet of mud-caked buses, which move workers from home to field, from field to airport, and from airport to work camp. On its 400 coaches and 300 site vehicles, the company Diversified records

5 million passenger trips a year. Even in a city whose economy depends on a substance linked to private car travel, mass transportation is a necessity. Much of the workforce arrives via plane to start their shifts at far-flung mining and *in situ* sites. Without access to private cars, they are ferried by bus up and down 63, before snaking out on dirt and gravel roads whose sign posts bear the names not of nearby towns, but of extraction sites of specific companies: Suncor, CNRL, Shell.

In front of PTI's Athabasca and Wapasu Creek campsite 60 km north of the Ft. Mac, drivers pick up and unload workers in a scene reminiscent of a large city's

Fig. 9 Maria Whiteman, *Camp #1*

central bus stop. Wearied workers stomp into the main entrance, grabbing a snack or coffee from the on-site Timmy's, before trudging off to their rooms. In the lobby, one can imagine that one is at one of the nicer chain hotels located off a highway ramp close to a big city. From the outside, however, the camp is lifeless, and resembles nothing if not a detention facility or prison. It comes as no surprise to learn that PTI built the military camps used by Canadian Forces in Afghanistan. The same disciplined, controlled, institutional logic pervades these buildings, up to the fact that many such camps are dry: no alcohol is allowed. In the rooms, workers are provided with Internet and satellite TV. Outside,

the poorly constructed basketball court looks as if it has rarely been used; so, too, the golf driving range, which is dusty and empty of life. Camp life is time to be endured until the next spell away from work and back in civilization.

Recovery: what the body gets when it is away from Ft. Mac, but also the promise that everything will be replaced after industry has extracted what it needs. Whether recovery is in fact possible is hard to gauge from the few existing examples. A tour of the Suncor site ends with a trip through Wapisiw Lookout, a tailings pond that has been turned into a grassland dotted with

Fig. 10 Maria Whiteman, *Camp #2*

clumps of rock for animal habitation and monitoring stations to measure the health of the soil under the grass. A video shown on the tour bus makes it clear that a great deal of science and effort was put into the task of reclaiming the site; to the eye, it looks unimpressive, incomplete, especially with the dunes of the Suncor site just behind it all too visible, regardless of which way one turns. A sign on the edge of the grassland reads: “Do Not Enter.”

At the junction where Highway 63 loops back upon itself, one finds an earlier patch of reclaimed land: Syncrude’s Gateway Hill. Across it run the Matcheetawin (the Cree word for “beginning place”) Trails, at the head of

which sits an installation representing the Cree circle of life. We walk the length of the trail and encounter no one. Indeed, the trail seems disused and forgotten: it is overgrown and many of the interpretive markers that identify reclamation dates and names of trees stuck back in are in danger of disappearing into the underbrush. Gateway Hill is experienced more as an object lesson of corporate responsibility whose message grows old fast, than as a space where one can spend time in nature. An industry pamphlet picked up at the Oil Sands Discovery Centre (printed on recycled paper) reads: “Canada’s oil sands industry is committed to reducing its footprint, reclaiming all land affected by operations and maintaining biodiversity” (CAPP n.p.). Even if one were

Fig. 11 Maria Whiteman, *Work Adult Mature*

not to doubt the commitment, the existing evidence of the recovery suggests that the industrial use of the land will leave permanent scars, both on nature and on those who will live alongside these spaces.

At the Suncor Community Leisure Centre, people lift weights, make use of the jogging track, enjoy the pool and read in the community library. On the day we visit, the indoor soccer courts are taken up with events connected to the 32nd Annual Alberta Surface Mine Rescue Competition. This is the only sign that we are someplace strange—the only burst to the surface of consciousness of an economy that elsewhere is able to all too easily hide in the nooks and crannies of daily life and habit.

It is tempting to see Fort McMurray as exceptional. But even a brief encounter with this place makes it clear that it should be seen as an index of the rule of life and labour in the 21st century. As long as we treat it as an exception, we avoid reading in its configurations the signs of our own crises, conveniently shedding our culpability in the environmental and social circumstances generated by the oil sands. Is it not the case that, in effect, we *all* live next to sites of oil extraction, even if it is all too easy for many of us to offshore this recognition to remote sites, whether at home or abroad? Do we not all participate in an oil economy? Are we not all agents of a capitalism run amuck, which has so diminished social life that we live in our homes as if in a work camp—waiting for the

Fig. 12 Maria Whiteman, *First Aid*

moment to come when we finally are off work for good and don't have to spend our days in thrall to the private solitude of satellite TV?

By using photographs to open up an investigation of the material realities of globalization, Sekula's practice of critical realism has offered a counterpoint to those discourses that too quickly narrate the global present through the ephemerality of telecommunications systems and the near instantaneity of the movement of ideas, money, and even bodies. Sekula's *Fish Story* emphasizes the sites where multiple forms of exchange take place—the harbours and docks—as well as the slowness of physical movement in a world whose

contemporary substance is most often given form through narratives of speed. We believe that engaging in a critical realist photo practice in relation to oil produces similar insights into both the narratives that surround it and the role this substance plays in giving shape to global reality. Oil is an omnipresent feature of the world we inhabit—the life-giving substance of the physical and imaginary infrastructures we have shaped over the past century-and-a-half. Even so, there is a tendency to ignore or to underplay its significance, seeing it instead as an important but not irreplaceable substance, as one form of energy which can eventually be substituted for others without necessitating major changes in social life. Our focus on Fort McMurray is

meant to give shape, depth and complexity to a place that has become little more than a normative by-word for all that is wrong with the world. As with Sekula's visual-textual interrogations, critical realism of the oil sands also generates more general reflections on the narrative forms through which globalization is named and explained, and draws attention to the real bodies and the living labour that continues to be put to use to generate profit regardless of the consequences.

Image Notes

- Fig. 1 Maria Whiteman, *HWY 63 N #3*
- Fig. 2 Maria Whiteman, *Dune* (2012)
- Fig. 3 Imre Szeman, *Pumpjack* (2012)
- Fig. 4 Maria Whiteman, *Power Systems* (2012)
- Fig. 5 Maria Whiteman, *Gathering Storm* (2012)
- Fig. 6 Maria Whiteman, *HWY 63 N #1* (2012)
- Fig. 7 Maria Whiteman, *HWY 63 N #2* (2012)
- Fig. 8 Maria Whiteman, *Transit* (2012)
- Fig. 9 Maria Whiteman, *Camp #1* (2012)
- Fig. 10 Maria Whiteman, *Camp #2* (2012)
- Fig. 11 Maria Whiteman, *Work Adult Mature* (2012)
- Fig. 12 Maria Whiteman, *First Aid* (2012)

Works Cited

Appadurai, Arjun. *Modernity at Large: Cultural Dimensions of Globalization*. Minnesota: U of Minnesota P, 1996. Print.

Baetens, Jan and Hilde Van Gelder, eds. *Critical Realism in Contemporary Art: Around Allan Sekula's Photography*. Ithaca, NY: Cornell University Press, 2010. Print.

Ernst Bloch et. al. *Aesthetics and Politics: They Key Texts of the Classic Debate Within German Marxism*. New York: Verso, 1977. Print.

Buchloh, Benjamin. "Allan Sekula: Photography Between Discourse and Document" in Allan Sekula, *Fish Story*. Dusseldorf: Richter Verlag, 1991. 189-200. Print.

Canadian Association of Petroleum Producers (CAPP). *Upstream Dialogue: The Facts on: Oil Sands*. April 2012. Print.

Cooper, Dave. "West Coast pipeline key to Canada's interests, economist says." *Edmonton Journal*. 10 May 2012: C1. Print.

Dirlik, Arif. "The Global in the Local." *Global/Local: Cultural Production and the Transnational Imaginary*. Eds. Rob Wilson and Wimal Dissanayake. New York: Columbia UP, 1994: 21-45. Print.

Fredric Jameson, "Beyond the Cave: Demystifying the Ideology of Modernism." *The Bulletin of the Midwest Modern Language Association* 8.1 (1975): 1-20. Print.

--. "Modernism and Imperialism." *Nationalism, Colonialism, and Literature*. Minneapolis: U of Minnesota Press, 1990. 43-66. Print.

--. *Postmodernism, or, The Cultural Logic of Late Capitalism*. Durham, N.C.: Duke UP, 1991. Print.

Morton, Timothy. *Ecology Without Nature: Rethinking Environmental Aesthetics*. US: Presidents and Fellows of Harvard College. 2007. Print.

Regional Municipality of Wood Buffalo. "Cost of Living." Web.

Pratt, Sheila. "Federal Census Missed Thousands of Residents, Fort McMurray's Mayor Says." *Edmonton Journal*. Feb. 8, 2012. Web. Aug. 6, 2012.

Sekula, Alan. *Fish Story*. Dusseldorf: Richter Verlag, 1991. Print.

---. *Photography Against the Grain: Essays and Photoworks 1973-1983*. Ed. Benjamin Buchloh. Halifax: The Press of the Nova Scotia College of Art and Design, 1984. Print.

Szeman, Imre. “Crude Aesthetics: The Politics of Oil Documentaries.” *Journal of American Studies* 46.2 (2012): 423-439. Print.

Szeman, Imre and Maria Whiteman. “The Big Picture: On the Politics of Contemporary Photography.” *Third Text* 23.5 (2009): 551-556. Print.

(Endnotes)

1. The one sustained confrontation with Sekula’s critical realism can be found in, a collection of papers from a symposium held at the Lieven Gevaert Research Centre for Photography and Visual Studies (Belgium) in September 2005.

2. See the essays in Bloch et. al. and Fredric Jameson’s essay “Beyond the Cave: Demystifying the Ideology of Modernism.”

3. Other art photographers identified with realism use it to different effect through the size of the photos in their exhibitions and the scale their images represent. For a discussion of this form of realism, see Imre Szeman and Maria Whiteman, “The Big Picture: On the Politics of Contemporary Photography.”

4. Against the comforts of capacity, we follow Timothy Morton’s response to the habit of the “beautiful soul” to remain in cynicism. He writes:

Our choice is false if it has been reduced to one between hypocrisy and cynicism, between wholeheartedly getting into environmental rhetoric and cynically distancing ourselves from it. In both cases, we would be writing liturgies for the beautiful soul. Although it is ‘realistic’ to be cynical rather

than hypocritical, we do not wish to reinforce the current state of affairs. Our answer to the ruthless ransacking of nature, and of the idea of nature, must be yes, we admit to the reality of the situation. And no, we refuse to submit to it. (140)

5. For an extended discussion of the politics of scale in environmental film, see Imre Szeman, “Crude Aesthetics: The Politics of Oil Documentaries,” especially 432-439.

6. “The main service area of Fort McMurray is surrounded by Crown land and therefore, there is limited land available for development where most people live” (Regional Municipality of Wood Buffalo).

Szeman Imre: Imre Szeman is Canada Research Chair in Cultural Studies and Professor of English and Film Studies at the University of Alberta. He is the author, co-author or co-editor of ten books to date; four additional books are under contract and will appear in print by 2014. As author or co-author, he has written *Zones of Instability: Literature, Postcolonialism and the Nation* (2003), *Popular Culture: A User’s Guide* (2003, 2nd ed. 2009, 3rd ed. 2013, co-written with Susie O’Brien), and *After Globalization* (2011, co-written with Eric Cazdyn). His editorial projects include *Pierre Bourdieu: Fieldwork in Culture* (2000), *The Johns Hopkins Guide to Literary Theory and Criticism* (2004), *Canadian Cultural Studies: A Reader* (2009), *Global-Local Consumption* (2010), *Cultural Autonomy: Frictions and Connections* (2010), *Cultural Theory: An Anthology* (Blackwell, 2010), and most recently, *Contemporary Literary and Cultural Theory: The Johns Hopkins Guide* (2012).

Szeman, Imre : Imre Szeman est titulaire d’une chaire de recherche du Canada en études culturelles, et est professeur d’anglais et d’études cinématographiques à l’Université de l’Alberta. Il est auteur, co-auteur et coéditeur d’une dizaine de livres à ce jour – quatre autres livres étant sous contrat et devant paraître d’ici 2014. Parmi ses œuvres, on trouve : *Zones of Instability: Literature, Postcolonialism and the Nation* (2003), *Popular Culture: A User’s Guide* (2003, 2^{ème} ed. 2009, 3^{ème} ed. 2013, co-auteure : Susie O’Brien), et *After Globalization* (2011, co-auteur : Eric Cazdyn). Parmi ses travaux éditoriaux, on trouve : *Pierre Bourdieu: Fieldwork in Culture* (2000), *The Johns Hopkins Guide to Literary Theory and Criticism* (2004), *Canadian Cultural Studies: A Reader* (2009), *Global-Local Consumption* (2010), *Cultural Autonomy: Frictions and Connections* (2010), *Cultural Theory: An Anthology* (Blackwell, 2010), ainsi que *Contemporary Literary and Cultural Theory: The Johns Hopkins Guide* (2012).

Whiteman, Maria: Maria Whiteman is Assistant Professor of Drawing and Intermedia in Fine Arts at the University of Alberta. She teaches courses in mixed media, photography, video, drawing and installation art. Her current art practice explores themes such as art and science, relationships between industry, community and nature, and the place of animals in our cultural and social imaginary. In addition to her studio work, she conducts research in contemporary art theory and visual culture. She is currently working on *The Retreat* (co-editor; to be published by Autonomedia) and *Refiguring the Animal: Plasticity and Contemporary Art* (co-edited with Amanda Boetzkes; to be published by University of Minnesota Press). In 2011, Whiteman had a solo exhibition at Latitude 53 and she will be included in the 2013 Alberta Biennial at the Art Gallery of Alberta. Whiteman is a co-director of the 2012 Banff Research in Culture/documenta 13 research residency.

Whiteman, Maria : Maria Whiteman est professeure adjointe de dessin et de recherches intermédiatiques dans la branche des Beaux-Arts à l’Université de l’Alberta. Elle enseigne des cours sur les médias mixtes, la photographie, la vidéo, le dessin, et l’art de l’installation. Son projet artistique actuel consiste en l’examen de thèmes comme l’art et les sciences, les rapports entre l’industrie, la communauté et la nature, et l’importance des animaux dans les imaginaires culturel et social. En plus de son travail en studio, elle mène des recherches théoriques en art contemporain et en culture visuelle. Elle est coéditeure de *The Retreat* (Autonomedia, à paraître) et de *Refiguring the Animal: Plasticity and Contemporary Art* (University of Minnesota Press, à paraître; coéditeure : Amanda Boetzkes).

Copyright Imre Szeman and Maria Whiteman. This article is licensed under a Creative Commons 3.0 License although certain works referenced herein may be separately licensed, or the author has exercised their right to fair dealing under the Canadian *Copyright Act*.

IMAGINING THE TAR SANDS 1880 -1967 AND BEYOND

MIKE GISMONDI AND DEBRA J. DAVIDSON

[...B]y seeking to comprehend this photograph—by looking at it, by looking *through* it, and by thinking *with it*—in terms of the meanings that swirled around it, we can achieve a clearer and fuller understanding of time and place, landscape and identity, image and reality. (Joan Schwartz 107)

For much of the history of Alberta's tar sands, a series of visual conventions have shaped Canadian imaginaries of the resource, the emergence of the non-conventional oil industry, and the mining of oil. We introduce a series of archival images dating from 1880 until the opening of Great Canadian Oil Sands (Suncor) in 1967, to analyze how visual representations were used to justify government and public support for bitumen mining and refining, to legitimate state research into the separation of oil from the sands, and to ideologically sustain public funding of the development of this unique Canadian resource industry. We conclude that many elements of these early positive normative conceptual frameworks remain in play today, used by corporate and government meaning-makers to blunt contemporary critiques by the public of social and ecological tradeoffs, and ultimately to legitimate Alberta and Canada's pursuit of non-conventional oil as an acceptable energy future.

Au cours de l'histoire albertaine, une série de conventions visuelles ont contribué à façonner l'imaginaire canadien des ressources naturelles, l'émergence d'une industrie pétrolière non conventionnelle, et les pratiques d'extraction minière. Nous proposons ici un regroupement d'images d'archives allant de 1880 jusqu'à l'ouverture de *Great Canadian Oil Sands* (Suncor) en 1967, afin de montrer le rôle de ces conventions visuelles dans plusieurs sphères. Premièrement dans la justification des soutiens gouvernementaux et publiques de l'industrie d'extraction et de raffinage. Ensuite dans la légalisation des recherches sur la séparation du pétrole et des sables. Enfin dans le maintien idéologique du financement public pour le développement de cette industrie d'exception au sein des ressources canadiennes. En conclusion, nous indiquons que même aujourd'hui les entreprises et les faiseurs d'opinions politiques utilisent plusieurs éléments de ces premières méthodes conceptuelles normatives. Ils le font pour éousser les critiques contemporaines en faveur des compromis social et écologique, et ultimement pour légitimer l'industrie d'extraction pétrolière non conventionnelle dans l'avenir.

Fig. 1 G.B. Dowling, *Geological Survey of Canada; Tar Sands Athabasca River, Alta*

Introduction

The visual record of activity in the Athabasca tar sands of Northern Alberta extends more than 120 years and claims over a century of storytelling, in which the photographic images built a public imaginary of the landscape and the industry.¹ Early photographs helped national and international audiences picture a remote geographic place and led them to see in the tar sands its economic potential for a young Canadian nation. In the province of Alberta (founded in 1905) that visual record worked alongside political narratives of meaning-making to legitimate an uncertain and precarious public investment throughout the entire time period of our study. Representing the tar sands as an immense resource in the wilds of Canada, and its exploitation as heroic, historic, and carried out by hardy Albertans, carried the quest to extract non-conventional oil from the tar sands

into broader Canadian narratives of the conquest of nature: the holy grail to countrywide nation-building.²

From the late 1880s onwards, photographs of “the Athabasca tar sands” would begin to evoke both a geographic place and a natural resource in the minds of colonizers and settlers in Calgary and Edmonton or interested bureaucrats in Ottawa, and investors in faraway Montreal, New York, or London, England. The camera use by geologists, surveyors, and travelers added credibility to claims about potential natural riches at the edge of a remote northwest Canadian frontier. Images picturing the landscapes as extractive (Pratt and Karvellas; Schwartz 966) were reinforced by the classical perception that the camera provided a documentary record of reality (Mraz 163-192). For much of its history, a series of visual conventions or tropes have

shaped Canadian perceptions of the mining of oil and the industry's difficult emergence. Two exceptionally positive storylines emerged: (1) the application of human ingenuity, science, and technology to release useable crude oil from the bonds of sandy bitumen, and (2) the key importance of the Alberta state and public investment in the process to open Alberta's northern wilderness to commercial investment and industry. Like all powerful social facts, these well-constructed meanings and images now appear familiar to modern readers, internalized and normalized, part of our mental inventory of representations of the development of this unique Canadian resource. In this paper, we highlight a series of key individuals, projects, and socio-historical chapters in that process of normalization. Many of these early photographs and associated storylines have been reproduced in archives and newspapers, museum displays and interpretive exhibits, magazines and textbooks, a national stamp depicting the bituminous sands industry of Alberta, and a designated Alberta heritage site (Bitumont). Archetypes of industrial development, they mediate public perceptions of reality, and until recently sustained the industry's reputation in a positive light. As Schwartz explains, "if photographs record outward appearance with unparalleled realism, their optical precision does not preclude ideological content" (169).

Concentrating on the dominant readings of tar sands visuals from 1880 until the opening of Great Canadian Oil Sands (Suncor) in 1967, we analyze how a network of images and meanings teamed up with scientific or political explanations to legitimate state support for bitumen mining, the separation of oil from the sands, and the commercial viability of the industry. Geographers Castree and Braun argue that images work together with discourses as acts "of conceptual construal" (167): what Hajer and Versteeg describe as an "'epistemic' quality. . . inaccessible to subjects but that nevertheless steer them in their thinking" (181). In this paper, we draw to the surface patterns across a series of historical images of the tar sands to argue how these elements formed part of an increasingly sophisticated cultural web of meanings that guided public consciousness

in these early years. We conclude that many of the elements of these conceptual frameworks remain in play in contemporary politics, used in new ways to continue to influence meaning-making about society/nature relations, blunt the contemporary critique of social and ecological tradeoffs, and legitimate state support for non-conventional oil for the future of civilization (Davidson and Gismondi).

Age of Discovery

Looking at photographs in historical geography is, ultimately, not a search for 'truth' but rather a mode of inquiry. By going beyond subject content and photographic realism to think more broadly about the way in which photographs, gathered in the empirical practices of exploration and surveying, played an active role in the production of geographical knowledge and the construction of imaginative geographies. (Schwartz 125)

The opening photograph, taken on the banks of the Athabasca River in 1892, shows two men, perhaps Government of Canada geologists, dwarfed by an enormous band of tar sands (Fig. 1). The angle of the image, the apparent scale of the resource, the survey marker, and the gaze of government employees confirm observations by adventurers, explorers, and naturalists who reported tar ponds and streams of oil weeping down the riverbanks of the Athabasca River. Dowling's photographs, while highly directed, added credibility to early reports in 1882 by Dr. Robert Bell, a field geologist who became acting director of the Geological Survey of Canada. Bell believed that beneath the sandy pitch and belts of black tar sands lay "pools of petroleum." Like other post-Confederation government survey work in the northwest, Dowling's reports also affirmed Canada's sovereignty at a time when the United States and Britain coveted the same region. Inventories, maps, and reports by surveyors and engineers were both practical tools and symbols of state power. Replacing the older practice of hand drawn landscapes, early photographs detailing the potential of the tar sands brought documentary certainty to the tar sands and its place in "the idea of a transcontinental national existence" (Zeller 9).

Other pioneers like Count Alfred Von Hammerstein would punch holes along the Athabasca River in the early 1900s hoping to hit conventional oil. Kodak images of Von Hammerstein's drill works appeared in Agnes Deans Cameron's widely read *The New North: Being Some Account of a Woman's Journey through Canada to the Arctic* (1909, see Fig. 2). While the Count was unsuccessful drilling for "elephant pools of oil," Deans Cameron's book and its images became a best seller and made her a media celebrity. Deans Cameron would lecture across Canada and the United States about her "Journeys through Unknown Canada." As a Canadian Government representative in Britain, with magic lantern slides of her photographic images on display, she promoted Prairie immigration. She offered this description of the Athabasca region:

In all Canada there is no more interesting stretch of waterway than that upon which we are entering. An earth-movement here has created a line of fault clearly visible for seventy or eighty miles along the river-bank, out of which oil oozes at frequent intervals. [...] Tar there is [...] in plenty. [...] It oozes from every fissure, and into some bituminous tar well we can poke a twenty foot pole and find no resistance. (71)

Her photographs were recently reproduced in an exhibit at the Canadian Museum of Civilization in Ottawa, Canada.

As a promoter, Von Hammerstein would work the region for almost forty years. This image (Fig. 3) from the early 1900s is attributed to him by the Library and Archives Canada and shows tar weeping from the river bank with the scribbled note "Tar Sands and flowing Asphaltum in the Athabasca District ca. 1908." The same image is also held by The Alberta Provincial Archives and includes the legend "millions of tons of material in sight." The Provincial Archive of Alberta file advises that the image is a "Fragment of printed publicity leaflet on the Athabasca District's oil potential and illustration of oil sand exposure on river bank." A gloss of mathematical scribbles left by one eager reader suggests more (Fig. 4).

Fig. 2 Robson Studio, Hammerstein's Oil Works, *Oil and Gas Well, Athabasca District*

Fig. 3 Alfred Von Hammerstein, *Tar Sands and Flowing Asphaltum in the Athabasca District*

Images of bitumen and oil seeping from the Athabasca River banks (Fig. 3 and 4) acted like eyewitness testimony (Burke) invoking the scale and immensity of the resource for those living in distant cities, reinforcing narratives of commercial possibility especially in the minds of government administrators and petroleum investors. The effect of image on perception stemmed from an historically specific view, as Schwartz argues, that camera images were a mirror of reality: “the society which produced and consumed these images placed

unwavering faith in the truthfulness of the photographic image and its ability to act as a surrogate for first-hand seeing”; the photograph became a “surrogate for first-hand observation—a convincing visual experience akin to ‘being there’” (Schwartz 113). Presenting cornucopian images of the Canadian North, members of the Geological Survey and entrepreneurs like Von Hammerstein and writers like Deans Cameron partook in a process that anthropologists call turning sights into sites, whereby images become cultural or symbolic shorthand that instill preferred meanings onto a geographic space. At the start of the petroleum and automobile age in Canada, such images from Alberta’s North presaged new economic staples and indicated new directions for industrial futures. As with other staples, the tar sands also promised enormous wealth and personal power for those who controlled it (Huber 2008). The stories and visual impressions of the promoters of the tar sands were not all truthful, but they were true in their effects; drawing entrepreneurs, investors, and both levels of government into the region, as well as into a particular way of seeing the landscape. Von Hammerstein would be named to the Canadian Petroleum Hall of Fame in 2011 (“Honoured CPHFS Members”).
The Government Gaze

Sydney Ells, considered by some the “father of Alberta bituminous sands research” (Ells 101) spent over thirty years as surveyor, cartographer, and engineer researching tar sands for the Canadian Government Department of Mines. His field survey of the bituminous sands along the Athabasca River in summer 1913 examined reaches and tributaries south and north of Fort McMurray, first presented in a Preliminary Report published in 1914 that comprised over eighty-five dense pages, including forty photographs.

In 1962, the Canadian Department of Mines published his memoir, *Reflections of the Development of the Athabasca Oil Sands*—a less technical narrative of his career in the region, covering the years between 1913 and 1945. From opening poem to closing words, Ells sketches a manly frontier (Fig. 5) where skilled ‘white’ engineers supervised urban tenderfoots, with

Fig. 4 Oil Sand Exposure Near Fort McMurray

Fig. 5 Roy Ells, *Dr. Sidney Ells at Fort McMurray Tar Sands*

Fig. 6 Sidney Ells, *Bituminous Sand; Grand Rapids, Athabasca River District*

the assistance of ‘shiftless’ Aboriginal labour. Ells’ memoir includes fascinating images and descriptions of quarrying techniques, use of explosives, power shovels, and shalers in early mining activities, alongside discussions of various paving tests and results of trials at separation of the oil from the sands. Described by his colleagues as “one of these hardy pioneers,” and a “rugged individual,” Ells admits he was seduced by the “romance of mining” (Ells 4). Despite the official topics, his reports come alive with recounts, in muscular tone, of camping in the open air at fifty-below zero, drying clothes by campfire and repairing snowshoes after a long day of winter surveying. Ells literally took the measure of the place, concentrating his geologist’s eye on verticality and not on surfaces. For months in 1913, he surveyed the region, measuring and photographing the depth of bands of bitumen deposits (Fig. 6), and the depths and densities of its overburden. He identified high grade deposits (many in commercial play today) and his map work is especially attentive to the commercial challenges of moving the bitumen to market, describing

the locations of prime deposits, transportation challenges like crossing terraced land (Fig. 7) and impossible river banks (Fig. 8), and cost predictions per ton based on distances from mine deposit to future railheads.

Ells’ original 1913 maps, and a later series of topographical maps he completed in the early 1920s (surveying over 1240 square miles of deposits), became the only comprehensive maps of the region (and are available at Glenbow Museum, Calgary). One oil company official argued that industry specialists relied upon his early maps well into the 1950s.

In *Imperial Landscapes*, Mitchell argues that maps, surveys, reports and photographs of colonial agents construed ‘facts’ about a distant geographic place, and that this ‘government gaze’ was used by state administrators to guide political decision-making about the management of colonial peoples and resources from afar. Another researcher argues that early survey and mapping work charting northern Canadian resource landscapes “provided a provisional form of surveillance,

Fig. 7 Sidney Ells, *Terrace Structure, Athabasca River*

control, and supervision;” a “projection of state power” over places and peoples (Sandlos 396). Anthropologist James Scott calls these “maps of legibility,” conventional descriptions which simplified complex realities for state administrators in ways that marginalized certain social groups and practices, or valued certain aspects of geologic formations, wildlife, and ecosystems over others (2).

Aboriginal peoples are glimpsed occasionally in the dotted lines on Ells’ maps around reserves, or in images (Fig. 9) or diary descriptions of their labour as trackers and freighters hauling the tar sands south. But like most reports of the age, they are empty of Aboriginal land uses—an omission that Mitchell (10, 15) calls a ‘social hieroglyph’ of the historical social relations they conceal.

Ells’ early reports and memoir are also largely devoid of attention to ecosystems; for him, natural systems (climate, local foods, disease, weather, terrain, waterways, and more) are subtly classified as either supporting or inhibiting extractive strategies. Nature is not denied, but circumscribed. At best the muskeg, forest, and climate are presented as human trials, obstacles to

be endured and conquered: “A fly-infested country, of many streams, in timbered or burned out areas, and almost limitless muskeg” (Ells 10), to be overcome, in the masculinist discourse of the day, by hardy men charged with developing a modern industrial nation. But it was under the dual gaze of commerce and government that the Athabasca territory became constructed into a commodity frontier, understood in terms of deposits of natural resources, relationships to markets, and obstacles to extraction of tar sands for human use. Rivers were seen for their navigable properties, not as natural ecosystems—as means to move people and technologies inland or move products out (only later would the importance of water for the separation and waste tailings processes become important). Forests and muskeg became reduced to obstacles—not sources of biodiversity and habitat. The original inhabitants simply became a part of that landscape. Aboriginal peoples became at best a potential labour force or disappeared into a wilderness terrain. “Objective images” and “disinterested scientific facts” began to appear as more authentic depictions of the region, displacing indigenous and local understandings, while affirming traveler observations with expert confirmation of geological

Fig. 8. Sidney Ells, *Steepbank River*

Fig. 10 H. S. Spence, *Sydney Ells at Tar Sands Plant*

Fig. 9 Dr. Karl Clark, *Packing dogs with Tar Sands, Ells River*. The description reads “unidentified men with dogs packed with tar sands.”

Fig. 11 Sidney Ells, *Working Face of Bituminous Sands*

formations, navigation routes, engineering opinions on potential mining sites and so on—a topography of exploitation.

Ells, the engineer blended physical masculinity with a confidence in the technological domination of nature (Fig. 10). Such attitudes were common among engineers at this time, part of their civilizing mission. Early ecologists shared in this ideology of technological progress in the 1920s, convinced of the role of scientific knowledge in helping human society overcome the constraints of nature (Lecain 57-59). Despite Ells' predictions, the scale of tar sands operations remained limited for many decades. The arrival of the railway to the region made some things easier. But the resource itself was not quite so free and easy (Fig. 11) as first depicted. Commodification of the resource required new methods of separation of oil from the sands that would take decades to evolve, dampening this early enthusiasm.

Political Handfuls of Tar

Railways were crucial to the Canadian extractive economy. In the early 1900s business pressure mounted for the Canadian and Alberta Governments to support railway expansion westwards and northwards. Zaslow notes that initially “the oil boom [in 1910 in the tar-

sands lands] quickly faded. . . but while it lasted, it strongly affected the railway program of the Alberta Government” including their commitment to the proposed Alberta and Great Waterways rail line to join Edmonton to Fort McMurray (212). Financial issues associated with its development would force a government resignation and a new election in 1910, but the rail line reached Draper in 1922 (12 kilometers south of McMurray) and McMurray in 1925-26. Alberta developed considerable public debt building northern transportation and communication (Richards and Pratt 19-20). Images of well-dressed men, with handfuls of tar, repeat across the visual record of this time. This first image (Fig. 12) includes right to left: S.E. Mercier, Northern Construction Company; Hon V.W. Smith, Minister of Railways; Alberta Premier Herbert Greenfield; and Colonel Jim Cornwall, Northern Transportation Company. Greenfield, Smith and the United Farmers of Alberta party were first elected that year, the powerful hands of politics and public transportation alongside those of private finance at the tar sands in early 1921.

Men in urban business attire out in nature (Fig. 12) suggest the easy availability, access, and abundance of the resource and the apparent ease of its potential extraction. Edmonton business men, in dress clothes and fashionable urban headgear (Fig. 13), collecting

Fig. 12 *Oil Sands - ½ mile north of Fort McMurray*

Fig. 13 *Oil Saturated Stones Examined by a Group of Edmonton Business Men*

handfuls of tar sands or dipping into liquid tar pools (Fig. 14), sent a message about the riches of this place as a kind of repository of black gold.

The arrival of well-dressed men at the tar sands suggests the coming of commercial investment to the region (Fig. 13-15). Alongside reports of the mile-by-mile approach of the railway, such images no doubt encouraged distant

publics, shareholders and the state. But the images also spoke to a difficult problem: how to separate out the oil from the sands and the need for investment in the process of extraction. The next stage in this process was to bring such visions to fruition through science.

Fig. 14. Robert Fitzsimmons, *Unidentified Man Checking out a Surface Pool of Bitumen*

Fig. 15 *Group Examining Tar Sands, Fort McMurray, Alberta. Left to Right: Walter Jewitt, Ted Nagle, Bill McDonald.*

Fig. 16 *Rutherford Caley, Man Looking at Oil Flowing Freely from Tar Sands Exposed to Heat of Sun*

Fig. 17 Daniel Diver, *Interior of Shack with Sample of Tar Sands and Extractions, Fort McMurray*. Remarks: “Pail on stove holds tar sands, bottle shows oil and a milk like substance. Gas comes from tube at other end. 8 pounds, sand produces 12 ounces, oil; 6000 poundss, sand produce 1 pound bitumin (sic).”

Fig. 18 McDermid Studios Edmonton, *Dr. Karl Clark, University of Alberta, Tar Sands Department*.

Karl Clark: Geographic Sites of Science

The transportation costs to move heavy and unwieldy bituminous sands to market heightened the need for an industrial process to convert bitumen into a liquid form that could flow southwards for commercial use and profit. But bitumen’s special material conditions—it was dense, heavy, and mixed with sand, water, other chemicals, and clays—meant that large investments in science would need to be injected for an extensive period of time before any returns on those investments would begin to flow. No process to separate the oil from the tar sands appeared to work well at an industrial scale, although many images (Fig. 17) record homespun efforts at separation.

One of those whose perseverance would prevail was Dr. Karl Clark, a University of Alberta scientist, and employee of the provincially-supported Research Council of Alberta (founded in 1921 with the initial purpose of pursuing industrialization of the Athabasca sands). Clark is credited with developing a hot water separation method in 1926. Over many years, Clark moved his research back and forth from university laboratory to Edmonton warehouse yards to wilderness workshop.

Images like that of the scientist at work (Fig. 18), lab coat stained in oil, affirmed Clark’s efforts at applied science. Clark’s work in the field brought increased authority to his laboratory science at the University of Alberta and to the government’s Alberta Research Council, and vice versa. Pilot plants were built in Edmonton and the Dunvegan rail yards (Fig. 19) in 1924 and rebuilt in 1929 (Ferguson 191 and 53-54).

Fig. 19 D. S. Pasternack, *Oil Sands Extraction Plants- Edmonton Dunvegan Yards*

Fig. 20 D. S. Pasternack, *Oil Extraction Plant - Clearwater River Plant*. The plant processed 800 tons of oil sands in the summer of 1930, and yielded over 75 tons of bitumen (Ferguson 54).

Fig. 21 Sidney Ells, *Men Carrying Sacks of Bituminous Sands as Shipment Passes Cascade Rapids, Athabasca River, Alberta.*

Fig. 22 McDermid Studios Edmonton, *Alberta Tar Sands Grand Trunk Pacific Rail Car*

While the end goal was commercial investment and profit, the scientific challenge itself appeared to be a strong source of enthusiasm. Barry Ferguson argues that “the fact that the Premier himself was chairman [of the Research Council of Alberta] and that the board included both cabinet ministers and the University President” indicates its importance (52). Whether intentional or not, scientific and technological problem solving brought a dose of heroism to the process that often obscured the ultimate ends—which were always commercial exploitation. Images of bush laboratories confirmed that lab experiments and processes could be adapted to the terrain and climatic conditions. This visually-conveyed presence on the land was crucial to legitimating Clark’s work, and to attracting future commercial investment to the tar sands. Separation was shown to work in nature: that is, in “real” conditions albeit at a moderate scale. Field experiments brought with them the powerful authority of science and the

university, and confirmed a separation process based on universal principles of chemistry. In *Putting Science in Its Place*, Livingstone argues that the location of where science is carried out adds to its claims. Clark’s strong presence, at a time when science was revered, further increased public acceptance of government taking a role in the industry by using taxpayers’ money for research and infrastructure, while at the same time reassuring the eventual private investors needed for commercial scale production (Ferguson 31-58).

Early Commercial Uses - Asphalt

The arrival of the Alberta and Great Waterways rail line to south McMurray and Waterways made it possible to transport heavy machinery for use in commercial separation experiments northwards, and to ship large amounts of bitumen south. But separation would not come until the late 1920s, and commercial scale extraction still much later. In the meantime, Ells and

Fig. 23 Robert Fitzsimmons, *Experimental Pavement Laid with Alberta Bituminous Sand under Direction of Mines Branch, Department of Mines.*

Fig. 24 Sidney Ells, *Walkways at Jasper Park Lodge Surfaced with Bituminous Sand, Jasper, Alberta.*

Fig. 25 Robert Fitzsimmons, *Early Process of Liquefying Bitumen*

Fig. 26. Robert Fitzsimmons, *International Bitumen Company Limited.* Unidentified men using early process in liquifying bitumen.

Fig. 27 Robert C. Fitzsimmons, *Tar Sands Building Edmonton; View of Exterior of Building Located at 5338-126 Avenue in Edmonton, Alberta.*

Fig. 28 Mackenzie Air Service, *Aerial View Looking North of Abasand Oils Ltd., Horse River, Fort McMurray, Alta.*

Clark and both governments were under pressure to demonstrate return on public investment in science and infrastructure.

A number of high profile experiments took place. Ells, on behalf of the federal Department of Mines, describes packing tar sands by dog or Aboriginal and Métis labour tracking scows south on the Athabasca river (Fig. 21), and later by train (Fig. 22) to pave roads and sidewalks on Jasper Avenue in the commercial heart of the capital in Edmonton (Fig. 23), surface approaches to the new Alberta Legislature (see the Alberta legislature paving image in Hunt 347), and to pave approaches to Jasper Park Lodge, a federal landscape (Fig. 24). In its natural state, barely reworked, bituminous sands proved a useable surface.

Billboards that announced train cars of tar sands in Edmonton or its use in federal government paving experiments, no doubt somewhat justified the public investment in mapping, research, and the rail line to McMurray. And high profile ‘experiments’ at the Alberta Legislature and at the federally controlled Jasper Park Lodge symbolically linked each competing level of government to the resources future. The Dominion of Canada would control the Athabasca tar sands region for the Crown until Alberta took control of its natural resources in 1930. Even then, the federal government retained tar sands leases in the McMurray area until 1945, indicating federal priorities for the resource. Both governments would later play a role in co-funding Syncrude in the Lougheed era (1971-1982). The high profile of the experiments resonates with many current corporate and government promotions that extol publicly funded university science and its role in cleaning up the industry.

Commercial Scale Experiments

Between the 1930s and the 1940s, two important, privately-funded commercial projects—International Bitumen followed by Abasand Oil—emerged, and failed. Images of these pioneer commercial plants (e.g., Fig. 25 and 26) are sprinkled throughout Canadian history books, invoking pride for the industriousness of commercial pioneers on the tar sands frontier.

Robert Fitzsimmons’ efforts in the 1930s are described as amateur and promotional, but they also caused a contagious “fever of belief” among his followers. Ferguson (85) describes the hypnotic effect of the tar sands on engineers and scientists who worked with Fitzsimmons to try to make separation and production commercially viable, but by 1939, just nine years after construction, the International Bitumen plant, was considered “worthless” and consigned to the dustbins of industrial history.

This photograph of the Fitzsimmons Tar Sands Building under construction in Edmonton (Fig. 27) suggests his optimism and certainly would have added to the public ‘fever’ around the business. Even today, snazzy head offices of tar sands companies have important symbolic value.

The Abasand Oil plant began operations in 1936 (Fig. 28), and was considered a vast improvement over Fitzsimmons’ earlier efforts, constructed under the guidance of Max Ball, an American engineer. The Abasand plant took years to develop and test, and images of it give the impression of a professional and technically sophisticated industrial enterprise. The plant began to produce petroleum products of various kinds in 1941 but was destroyed by fire in November of that year, never reaching its “design capacity of 3000 barrels of bitumen per day,” attaining on average 400 barrels of oil per day in the summer of 1941, although it did prove extraction could be effective (Ferguson 204). Two key factors were common to both of these commercial ventures: “they followed paths beaten by government researchers” like Clark, and they required “advanced technical expertise and large sums of money if commercial development was to be successful” (Ferguson 94).

Faced with fuel shortages during World War II, at a time when Canada produced only five percent of the oil it consumed, the federal government decided to resurrect the failing Abasand project and started reconstruction in 1943. A number of federal investigators carried out a series of studies to identify problems with Ball’s engineering, plant design, and operations, and the technical changes needed to guarantee commercial

Fig. 29 George Sherwood Hume, *Abasand Plant*.

Fig. 30 George Sherwood Hume, *Abasand Plant*.

Fig. 31. George Sherwood Hume, *Abasand Plant* alongside *Horse River*. Note cribs for waste sands.

Fig. 32 *Aerial View of Provincial Government's Pilot Plant for Extracting Oil from Northern Alberta Tar Sands, Bitumont, Alberta*

potential of the tar sands, including the need to upscale the plant in size (Ferguson 93). The Federal Department of Mines, with Sydney Ells at the helm, took the lead financial role, although some private Canadian money remained in play. They moved the operation to a lease hold controlled by Ottawa (originally scouted by Ells) containing richer deposits of tar and expanded the project to 4,000 barrels of bitumen a day. Alberta was wary of the project, fearing a federal takeover of the resource. Various authors report the lack of collaboration between federal and provincial specialists and scientists, including Ells and Clark.

These Abasand images were photographed by geologist George Sherwood Hume (Fig. 29 and 30). He recorded many images of Abasand during a series of visits in the 1940s.³ Hume started work for the Geological Survey of Canada in 1921 and at the time of Abasand would have been considered the Canadian government expert on petroleum exploration and resources. During the Second World War he was advisor to the oil controller for Canada, and later he became chief of the Bureau of Geology in 1947. In 1949 he became director of the Mines, Forests, and Scientific Services branch of the Department of Mines and Resources and acting Deputy Minister of Mines.

Hume's first two photographs (Fig. 29 and 30) provide a perspective that shows the scale of the industrial operation; its location on the edge of a wooded area, apart from, yet a part of, a landscape dominated by the surrounding boreal forest.

This third image (Fig. 31) shows the relationship of mining pit and extraction plants to the Horse River and includes one of the few images of early waste tailings ponds. The reliance on proximity to water for the separation processes is clear. The pipe crosses the river to outflow ponds that foreshadow contemporary waste tailings impacts on landscapes and ecosystems, but the scale of future projects remains unimaginable. In the end, the project was a spectacular failure, and again burned down in 1945. According to Chastko, "the simmering conflict between the two groups allowed the oilsands

issue to become subsumed within the federal-provincial battleground over natural resource development" (54).

During the Abasand years leading up to and during World War II, growing fears of the scarcity of oil supply boosted government and public enthusiasm and support for tar sands research and development. That context of fear altered after a large conventional oil deposit was discovered at Leduc in 1947. The use of energy security discourses would re-appear in the 1970s during the first oil crisis, and once again in the contemporary post 9-11 era, the latter period infused with energy and political security alike (Davidson and Gismondi 159).

Bitumont: Success at Last

To maintain the interest of private investors in the tar sands, the Alberta government funded the building of Bitumont, a large-scale pilot separation plant in 1946 and 1947, near the site of the old Fitzsimmons plant (Fig. 32). It was re-designed by American engineers under the supervision of Karl Clark's colleague Sydney Blair; its purpose once again to prove commercial viability. The plant operated for two seasons, beginning in the summer of 1948, and intermittently thereafter for another decade, at a total cost to Alberta taxpayers of about one million dollars over the lifetime of the plant. (In comparison, the entire 1953-54 Alberta budget was \$53 million.) Employing Clark's hot water method, it only produced 500 barrels of bitumen a day, but "proved viability of the separation process and bitumen production" (Ferguson 209-211).

The size of these plants is miniscule compared to today's scales. But aerial images of professionally engineered production plants on the edge of the boreal wilderness instilled confidence in the progress by the state and corporations, especially when contrasted with early images of boiling pots of oil and slipshod systems of mining and separation. This 1949 photo of Karl Clark at the Bitumont plant depicts a gentleman scientist, in his comfortable old sweater, pipe in hand, standing in front of the fruits of his research (Fig. 33). Clark looks more like he has just risen from his easy chair beside a fireplace, providing a certain public reassurance that

Fig. 33 Dr. Karl Clark who has been in charge of the bituminous sands project since 1920. Bitumont Plant

the tar sands have arrived, nature at last tamed by science and industriousness. Clark would attend the sod turning of the Great Canadian Oil Sands in 1965, but died some months before it went into operations. However, in contrast to the reassuring symbol his image represented, Mary Clark Sheppard would later write in her biography of her father that he had a deep respect for nature and, at the end of his life, was saddened to see the scale of mining and processing required at the GCOS plant (89). Nevertheless, today, visitors to Alberta can visit the Alberta Research Council on Dr. Karl Clark Road, Edmonton or the Dr. Karl Clark School in Fort McMurray.

In 1974, the Bitumont site, located 89 km north of Fort McMurray, was designated an Alberta historical site. The statement of historical significance by Alberta Historical Resources staff (“Bitumont Site,” *Canada’s Historic Places*) affirms:

The heritage value of Bitumont lies in its association with the attempts of the provincial government, private individuals, and oil companies to develop methods of profitably extracting oil from northern Alberta’s tar sands. The hot water separation process pioneered at Bitumont established the economic viability of the tar sands and laid the foundations for future exploitation of this valuable resource. . . . Although Bitumont was abandoned in the late 1950s, the research and technology associated with the site has had an enduring impact upon Alberta’s oil industry. Through the efforts of government agencies and private companies at the site, the Athabasca oil sands were established as a viable commercial endeavour, paving the way for the creation of the massive Suncor and Syncrude oil sands plants.

The approval by the Alberta Government of Bitumont as a Provincial Heritage site did more than preserve some remnants of old industrial buildings; it filled the place with *meaning*, integrating the story of the industry into the official history of Alberta’s province building. Osborne argues that in the culture of nation-building, certain Canadian geographic landscapes have become

symbolically invested (like civic monuments) with historical meaning, woven into social memory and, in our case, internalized as part of the Alberta identity.

Great Canadian Oil Sands Company 1967

If Karl Clark in his later years expressed alarm at the scale of destruction that ensued, his concern was easily drowned out by the ‘wow’ factor expressed by visuals of the massive machinery dwarfing humans and devouring landscapes (Fig. 34-35). Government and commercial promoters of the tar sands industry in the 1960s and 1970s would celebrate this immensity; images of giant bucket-wheels or draglines became selling features to the public, symbolizing the enormity of challenges overcome. As Berger says, “nothing is accidental in an image,” and visual depictions of the tar sands developments convey scale, perhaps more than any other message (Fig. 34-36). Photo-journalist shots of giant machines worked alongside of discourses about the immensity of the resource, the jobs, and the wealth to keep the scale of destruction at bay, displaced by the wonder of huge technologies. In *No Caption Needed*, Hariman and Lucaites argue that iconic images like the bucket wheel (Fig. 35-36) represent unspoken civic virtues associated with an historic event (109, 126, 129). With the celebrations surrounding the success of the Great Canadian Oil Sands in Canada’s centennial year (1967), those civic virtues reached the world stage.

Fig. 34 *Heavy Machinery Used at Athabasca Tar Sands.*

Fig. 35 *Fort McMurray—Great Canadian Tar Sands Project.*

Fig. 36 *Heavy Machinery Used at Athabasca Tar Sands.*

A digitization of a film of the opening of the plant in 1967, uploaded to YouTube by Suncor Energy in 2010, captures the pride of those workers who built the GCOS plant, and also records Alberta's Premier Manning dedicating the new plant "not merely to production of oil but to the continual progress and enrichment of mankind." GCOS reproduced the bucket-wheel image (Fig. 37) on commemorative medals in 1975 (on the tenth anniversary of public debentures purchased by over 100,000 Albertans to sustain the company), and in 1978 the Government of Canada and Canada Post created a stamp of the Athabasca Tar Sands (Fig. 38), honouring the industry in both official languages.

Fig. 37 *Pioneering Energy Together Great Canadian Oil Sands Medallion (1975).*

Fig. 38 *Canada Post Corporation, Athabasca Tar Sands Stamp, 1978.*

The Medallions appeared in a blue sleeve with this text: Ten years ago, through the purchase of Great Canadian Debentures, you and more than 100,000 other Albertans joined with The Great Canadian Oil Sands Limited and Sun Oil Company in the creation of the world's first oil sand mine. You have helped pioneer a very difficult venture that today stands as a milestone in realizing the potential of this unique Alberta resource. In commemoration we have commissioned the special minting of an original medallion: *Pioneering Energy Together—1975*. We hope that you will value this medallion as a gift of our sincere appreciation of your faith and confidence in the Great Canadian Oil Sands. Your role has been an important one—Your participation Historic.

The wording reminded all Albertans of their connections to the industry as co-founders who had invested both dollars and certain amount of provincial pride.

According to Raento and Brunn stamps act like political messengers; illustrations that take images to a wider audience and perform much like social texts that offer ideological "readings" of a territory or project (145). Often overlooked as part of visual culture, stamps

promote national identity with what Raento and Brunn call "banal nationalism." In 1978 this stamp added a pleasing aesthetic and artistic quality to the bucketwheel at work, exhibiting enormity yet diminishing perceptions of environmental impacts. Today "Cyrus," the 850 tonne bucketwheel excavator, has been retired to the outdoor museum at the *Oil Sands Discovery Centre* in Fort McMurray, "one of the largest land based artifacts in Canada." While the bucketwheels were surpassed by the giant truck and shovel technologies in the 1990s, Cyrus stands on guard as historical icon, both 'live' and on this social media photography website.

Continuities: Visual Threads, Ideological Mainstays

Images of the tar sands differ from the usual oil derricks, drilling rigs, and pump jacks associated with the global oil industry. Tar sands petroculture is non-conventional, just like the non-conventional oil it produces. The industry has had more in common with the massively destructive open-pit mining and smelting cultures of North America than the conventional Alberta oil industry (LeCain). In this paper we introduced a series of historical Athabasca tar sands images to illustrate how representations operated at various stages in the

growth of this speculative economic and technological undertaking by the Alberta state.

We unearthed traces of scientism and technologism, of masculinity and frontierism, of nature and society dualism, of dominant and excluded gazes, of scale and invisibility, of iconic images and exhibitionary complexes, particular to the social construction of the historical imaginary of the industry well into the late 1980s. Our interest in doing so was neither antiquarian, nor purely historical. As global society faces peak oil and declining rates of supply of conventional oil, non-conventional oil is being looked to solve present and future energy shortages. The ecological, entropic and political contradictions of global expansion into non-conventional oil are the focus of a more complex critique in our work *Challenging Legitimacy at the Precipe of Energy Calamity* (2011). But what struck us in that work is that many of these older images and traditional messages (i.e. science can solve all problems, and problems in nature can be engineered away) attached to them circulate still today, used in new ways to represent and narrate ‘past and present processes’ of province building and the natural evolution of science, technology and discovery in the industry. Moving out from the archives, these images circulate in corporate and government oil sands publicity and Alberta heritage and culture sites: “the same photograph circulat[ing] in time and space, between historical document and formal experiment, from mass media to curated exhibition” (Gabara 140, 167). Others have become institutionalized in what Bennett called “exhibitionary complexes” like the Oil Sands Discovery Centre (OSDC, established and run by the Alberta Government since 1985), “vehicles for inscribing and broadcasting the messages of power [...] throughout society.” At the OSDC, trendy designers integrate hundreds of heritage images into displays of current mining and extraction practices to normalize the step by step growth of the industry, shown twice daily in films like “Pay Dirt – Alberta’s Oil Sands: Centuries in the Making,” a 45-minute “documentary” viewed by thousands of school children and their families annually at the interpretive centre, complete with online teacher’s guide. The scale of environmental consequences, while

acknowledged, is resisted with appeals to that black and white history of corporate and government collaboration to find technological solutions.

Such overt legitimacy work has been called into question in part by a series of contemporary photographic compositions that broke through the controlled corporate and state images available, to offer seldom-seen views of the industrial impacts of tar sands extraction and development. Because of the circulating capacity of the Internet, a global flow of stills and videos of the extent of industrial operations and its ecological impacts now move at different political scales and among different publics—Don van Hout’s personal canoe journey down the Athabasca River in 2007; Louis Helbig’s aerial photography shot from his own airplane as he flew above tar sands operations; the work of Magnum photographers Jonas Bendiksen and Alex Webb; Peter Essick’s *National Geographic* shoot; or the industrial landscape photography of Edward Burtynsky and his world-renowned study *The End of Oil* with wide scale images of Alberta’s tar sands operations prominent in the exhibit. Available extensively on social media sites, these and other photographic and moving images inform worldwide critical oppositional discourses.

But the effectiveness of that critique for building a politics or movement of change, despite its global reach, is aggressively resisted by both the Alberta (and now the Canadian federal) state and the global oil industry. Local and national criticism, while at times strong in some progressive sectors, remains muted by a booming Alberta economy, and contemporary discourses about security of supply. One essential element ever present in the multi-layered strategies of supporters of the industry, is this complicated older set of cultural and heritage imaginaries of the industry, which comprise an enduring, if contested, element of subjectivity among Albertans and Canadians, including the social identity of the province. Like Canada’s problematic national identity as a natural resource exporter, such images of heroic extraction linger, acting like “buried epistemologies” (Braun 3) that confuse and thwart current public thinking about ecological, ethical, and political alternatives to the tar sands.

Image Notes

- Fig. 1 Dowling, G.B.. *Geological Survey of Canada; Tar Sands Athabasca River, Alta.* 1892. Photograph. PA-038166, 1892. Library and Archives Canada, Ottawa.
- Fig. 2. Robson Studio Hammerstein’s Oil Works. *Oil and Gas Well, Athabasca District.* 1905. Photograph. MIKAN 3524914. Library and Archives Canada, Ottawa.
- Fig. 3. Von Hammerstein, Alfred. *Tar Sands and Flowing Asphaltum in the Athabasca District.* c1908. Photograph. PA-029259. Library and Archives Canada, Ottawa.
- Fig. 4. *Oil Sand Exposure Near Fort McMurray.* N.d. Photograph. PAA 77.178/22. Provincial Archives of Alberta, Edmonton.
- Fig. 5. Ells, Roy. *Dr. Sidney Ells at Fort McMurray Tar Sands.* 1928. Photograph. PAA A12023. Provincial Archives of Alberta, Edmonton.
- Fig. 6. Ells, Sidney. *Bituminous Sand; Grand Rapids, Athabasca River District.* 1913. Photograph. MIKAN 3373021. Library and Archives Canada, Ottawa.
- Fig. 7 Ells, Sidney. *Terrace Structure, Athabasca River.* 1913. Photograph. MIKAN 3373027. Library and Archives Canada, Ottawa.
- Fig. 8. Ells, Sidney. *Steepbank River.* 1923. Photograph. MIKAN3373204. Library and Archives Canada, Ottawa.
- Fig. 9. Clark, Karl. *Packing dogs with Tar Sands, Ells River.* c1925. Photograph. PAA A5560. Provincial Archives of Alberta. Edmonton.
- Fig. 10. Spence, H. S. *Sydney Ells at Tar Sands Plant.* 1931. Photograph. MIKAN 3215356. Library and Archives Canada, Ottawa.

- Fig. 11. Ells, Sidney. *Working Face of Bituminous Sands.* 1927. Photograph. MIKAN 3193674. Library and Archives Canada, Ottawa.
- Fig. 12 *Oil Sands - ½ Mile North of Fort McMurray.* 1921. Photograph. Photo A 3344. Provincial Archives of Alberta, Edmonton.
- Fig. 13. *Oil Saturated Stones Examined by a Group of Edmonton Business Men.* N.d. Photograph. PAA B1067. Provincial Archives of Alberta, Edmonton.
- Fig. 14. Fitzsimmons, Robert. *Unidentified Man Checking out a Surface Pool of Bitumen.* N.d. Photograph. PAA A. 3381. Provincial Archives of Alberta, Edmonton.
- Fig. 15 *Group Examining Tar Sands, Fort McMurray, Alberta.* 1927. Photograph. PD 356-311. Glenbow Archives, Calgary.
- Fig. 16 Caley, Rutherford. *Man Looking at Oil Flowing Freely from Tar Sands Exposed to Heat of Sun.* N.d. Photograph. A12182 Provincial Archives of Alberta, Edmonton.
- Fig. 17 Diver, Daniel. *Interior of Shack with Sample of Tar Sands and Extractions.* Fort McMurray. 1920. Photograph. NA-1142-6. Glenbow Archives, Calgary.
- Fig. 18. McDermid Studios Edmonton. *Dr. Karl Clark, University of Alberta, Tar Sands Department.* 1929. Photograph. ND-3-4596c. Glenbow Archives, Calgary.
- Fig. 19 Pasternack, D. S. *Oil Sands Extraction Plants-Edmonton Dunvegan Yards.* Provincial Archives of Alberta, Edmonton. Photograph. A11233, 1924-25).
- Fig. 20 Pasternack, D. S. *Oil Extraction Plant - Clearwater River Plant.* c1930. Photograph. PAA 11223. Provincial Archives of Alberta, Edmonton.
- Fig. 21 Ells, Sidney. *Men Carrying Sacks of Bituminous Sands as Shipment Passes Cascade Rapids, Athabasca River, Alberta.* 1923. Photograph. MIKAN 3524747. Library and Archives Canada, Ottawa.

Fig. 22 McDermid Studios Edmonton. *Alberta Tar Sands Grand Trunk Pacific Rail Car*. 1924. Photograph. ND-3-2684. Glenbow Archives, Calgary.

Fig. 23 Fitzsimmons, Robert. *Experimental Pavement Laid with Alberta Bituminous Sand under Direction of Mines Branch, Department of Mines*. c1930. Photograph. A3399. Provincial Archives of Alberta, Edmonton.

Fig. 24 Ells, Sidney. *Walkways at Jasper Park Lodge Surfaced with Bituminous Sand, Jasper, Alberta*. 1927. Photograph. MIKAN 3524748. Library and Archives Canada, Ottawa.

Fig. 25 Fitzsimmons, Robert. *Early Process of Liquefying Bitumen*. 1930. Photograph. PAA A3384. Provincial Archives of Alberta, Edmonton.

Fig. 26. Fitzsimmons, Robert. *International Bitumen Company Limited*. 1930. Photograph. PAA A3383. Provincial Archives of Alberta, Edmonton.

Fig. 27 Fitzsimmons, Robert. *Tar Sands Building Edmonton; View of Exterior of Building Located at 5338-126 Avenue in Edmonton, Alberta*. N.d. Photograph. PAA A3364. Provincial Archives of Alberta, Edmonton.

Fig. 28 Mackenzie Air Service. *Aerial view looking north of Abasand Oils Ltd., Horse River, Fort McMurray, Alta*. November, 1936. Photograph. MIKAN 3524916. Library and Archives Canada, Ottawa.

Fig. 29 Hume, George Sherwood. *Abasand Plant*. 1944/1945. Photograph. PA-574-1074. Glenbow Archives, Calgary.

Fig. 30 Hume, George Sherwood. *Abasand Plant* 1944/1945. Photograph. PA 574-1072. Glenbow Archives, Calgary.

Fig. 31. Hume, George Sherwood. *Abasand Plant*

alongside Horse River. 1944/45. Photograph. PA 574-1073. Glenbow Archives, Calgary.

Fig. 32 *Aerial View of Provincial Government's Pilot Plant for Extracting Oil from Northern Alberta Tar Sands, Bitumont, Alberta*. c1949-1950. Photograph. Originally published in the Calgary Herald, February 12, 1951. PA-1599-451-2. Glenbow Archives, Calgary.

Fig. 33 *Dr. Karl Clark Who Has Been in Charge of the Bituminous Sands Project Since 1920. Bitumont Plant*. 1949. Photograph. PA 410.3. Provincial Archives of Alberta, Edmonton.

Fig. 34. *Heavy Machinery Used at Athabasca Tar Sands*. 1967. Photograph. s-229-21a.tif Glenbow Museum, Calgary.

Fig. 35 *Fort McMurray—Great Canadian Tar Sands Project*. June 27, 1967. Photograph. PAA J99. Provincial Archives of Alberta, Edmonton.

Fig. 36 *Heavy Machinery Used at Athabasca Tar Sands*. 1967. Photograph. S-220-21. Glenbow Archives, Calgary.

Fig. 37 *Pioneering Energy Together Great Canadian Oil Sands Medallion (1975)*. Photograph. Gateway Coin Auctions. N.d. Web. August 22, 2012.

Fig. 38 Canada Post Corporation. *Athabasca Tar Sands Stamp*. 1978. MIKAN 2218481. Library and Archives Canada, Ottawa.

Works Cited

Bendiksen, Jonas. "Fort McMurray 2007 Album." *Magnum Photography*. 2007. Web. August 20, 2012.

Bennett, Tony. "The Exhibitionary Complex." *Culture/Power/History: A Reader in Contemporary Social Theory*. Ed. Nicholas B. Dirks, Geoff Eley, and

Sherry B. Ortner. Princeton: Princeton University, 1994. Print.

"Bitumont site." Canada's Historic Places: A Federal, Provincial and Territorial Collaboration. Parks Canada. n.d. Web. March 3, 2012. <<http://www.historicplaces.ca/en/rep-reg/place-lieu.aspx?id=4998>>.

Braun, Bruce. "Buried Epistemologies: The Politics Of Nature In (Post) Colonial British Columbia." *Annals of the Association of American Geographers* 87.1 (1997): 3-31. Print.

Burke, Peter. *Eyewitnessing: The Uses of Images as Historical Evidence*. NY: Cornell University, 2001. Print.

Burtynsky, Edward. *The End of Oil*. Edward Burtynsky Photographic Works. n.d. Web. August 20, 2012.

Caley, John. "Memorial to George Sherwood Hume 1893-1965." *Geological Society of America Bulletin* 77:9 (September 1966): 179-184. Print.

Castree, Noel, and Bruce Braun. "Constructing Rural Natures." *Handbook of Rural Studies*. Ed. Paul J. Cloke, Terry Marsden, and Patrick H. Mooney. London: Sage, 2006. Print

Chastko, Paul. *Developing Alberta's Oil Sands from Karl Clark to Kyoto*. Calgary: University of Calgary, 2004. Print.

Comfort, Darlene. *The Abasand Fiasco: The Rise and Fall of a Brave Pioneer Oil Sands Extraction Plant*. Ed. Peter G. Duffy. Edmonton: Friesen Printers, 1980. Print.

Davidson, Debra J., and Mike Gismondi. *Challenging Legitimacy at the Precipice of Energy Calamity*. New York: Springer Press, 2011. Print.

Deans Cameron, Agnes. *The New North. Being Some Account of a Woman's Journey through Canada to the Arctic*. New York: Appleton, 1909. Print.

Ells, Sidney C. *Recollections of the Development of the Athabasca Oil Sands*. Ottawa: Department of Mines and Technical Surveys, Mines Branch, 1962. Print.

Essick, Peter. National Geographic Oil Sands Images. Aurora Photos. 2009. Web. August 20, 2012.

Ferguson, Barry G. *Athabasca Oil Sands: Northern Resource Exploration 1875-1951*. Regina, SK: Canadian Plains Research Center, 1985. Print.

Gabara, Esther. "Recycled Photographs: Moving Still Images of Mexico City, 1950-2000." *Photography and Writing in Latin America: Double Exposures*. Ed. Marcy E. Schwartz and Mary Beth Tierney-Tello. Albuquerque: University of New Mexico, 2006. Print.

Hajer, Maarten, and Wytse Versteeg. "A Decade of Discourse Analysis of Environmental Politics: Achievements, Challenges, Perspectives." *Journal of Environmental Policy & Planning* 7.3 (2005): 175-84. Print.

Hariman, Robert, and John Louis Lucaites. *No Caption Needed: Iconic Photographs, Public Culture, and Liberal Democracy*. Chicago: University of Chicago, 2007. Print.

Helbig, Louis. Beautiful Destruction. n.d. Web. August 20, 2012. <<http://www.beautifuldestruction.ca>>.

"Honoured CPHFS Members." Canadian Petroleum Hall of Fame. 2011. Web. August 20, 2012.

Huber, Matthew. "Energizing Historical Materialism: Fossil Fuels, Space and the Capitalist Mode of Production." *Geoforum* 40 (2008): 105-115. Print.

Hunt, Joyce. *Local Push—Global Pull: The Untold History of the Athabaska Oil Sands. 1900-1930*. Calgary: Push Pull Ltd, 2011. Print.

LeCain, Timothy J. *Mass Destruction: The Men and Giant Mines that Wired America and Scarred the Planet*. New Brunswick, NJ: Rutgers University, 2009. Print.

Livingstone, David N. *Putting Science in Its Place: Geographies of Scientific Knowledge*. Chicago: University of Chicago, 2003. Print.

Mitchell, W.J. Thomas. Ed. *Landscape and Power*. Chicago: University of Chicago, 1994. Print.

Mraz, J. *Nacho Lopéz, Mexican Photographer*. Minneapolis-London: University of Minnesota Press. 2003. Print.

Osborne, Brian S. “Landscapes, Memory, Monuments, and Commemoration: Putting Identity in Its Place.” Library and Archives of Canada. 2001. Web. August 20, 2012. <http://epe.lac-bac.gc.ca/100/200/300/citizenship_and_immigration_canada_metropolis/landscapes_memory-e/putinden.pdf>.

“Pay Dirt: Alberta’s Oil Sands: Centuries in the Making.” Pay Dirt Pictures. 2005. Web. August 20, 2012.

Pratt, Larry, and Matina Karvellas. “Nature and Nation: Herder, Myth and Cultural Nationalism in Canada.” *National History* 1.1 (1997): 58-77. Print.

Richards, John, and Larry Pratt. *Prairie Capitalism: Power and Influence in the New West*. Toronto: McClelland and Stewart, 1979. Print.

Raento, Pauliina and Stanley D. Brunn. “Visualizing Finland: Postage Stamps as Political Messengers.” *Geografiska Annaler Series B: Human Geography* 87.2 (2005): 145-164. Print.

Sandlos, John. “Landscaping Desire: Poetics, Politics in the Early Biological Surveys of the Canadian North.” *Space & Culture* 6.4 (2003): 394-414. Print.

Schwartz, Joan M. “More Than ‘Competent Descriptions of an Intractably Empty Landscape’: A Strategy for Critical Engagement with Historical Photographs.” *Historical Geography* 31 (2003): 105-30. Print.

Schwartz, Joan M. “Photographs from The Edge Of Empire.” *Cultural Geography in Practice*. Ed. A.

Blunt, P. Gruffudd, J. May, M. Ogborn, D. Pinder, D. London: Arnold, 2003: 154-171. Print.

Schwartz, Joan M. “Photographic Reflections: Nature, Landscape, and Environment.” *Environmental History* 12 (2007): 966-93. Print.

Scott, James. *Seeing Like a State. How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale University Press, 1999. Print.

Sheppard, Mary Clark. *Oil Sands Scientist: The Letters of Karl A. Clark*. Edmonton: University of Alberta, 1989. Print.

Webb, Alex. Fort McMurray Oilsands Album. Magnum Photos. 2005. Web. August 20, 2012.

Zaslow, Morris. *The Opening of the Canadian North 1870-1914*. Toronto: McClelland and Stewart, 1971. Print.

Zeller, Suzanne. *Inventing Canada: Early Victorian Science and the Idea of a Transcontinental Nation*. Toronto: University of Toronto, 1987. Print.

(Endnotes)

1. This paper advances on arguments from chapters 3 and 4 of Debra J. Davidson and Mike Gismondi, *Chal-*

Gismondi, Michael: Mike Gismondi is Professor of sociology and global studies at Athabasca University. His areas of teaching and research include the sociology of power and environmental issues. Together with Debra J. Davidson, with whom he shares an interest in interdisciplinary thinking about the transition to sustainability, he has co-authored *Challenging Legitimacy at the Precipice of Energy Calamity* (2011). This is one of very few sociological analyses of the Alberta tar sands.

Gismondi, Michael : Michael Gismondi est professeur de sociologie et d’études mondiales à l’Université de l’Athabasca où il enseigne les sujets principaux de ses recherches : la sociologie du pouvoir et les questions environnementales. Il partage avec Debra J. Davidson un intérêt pour la réflexion interdisciplinaire sur la mise en place et la mise en valeur du développement durable. Cet intérêt commun a mené à l’œuvre collaborative *Challenging Legitimacy at the Precipice of Energy Calamity* (Springer, 2011) qui constitue une des rares analyses sociologiques des sables bitumineux de l’Alberta.

Davidson, Debra J.: Debra J. Davidson is Associate Professor of environmental sociology in the Department of Resource Economics and Environmental Sociology at University of Alberta. Her areas of teaching and research include the social dimensions of energy and climate change. Together with Michael Gismondi, with whom she shares an interest in interdisciplinary thinking about the transition to sustainability, she has co-authored *Challenging Legitimacy at the Precipice of Energy Calamity* (2011). This is one of very few sociological analyses of the Alberta tar sands.

Davidson, Debra J. : Debra J. Davidson est professeure agrégée de sociologie environnementale dans le département de sociologie environnementale et d’économie des ressources naturelles à l’Université de l’Alberta. Les dimensions de l’énergie et des changements climatiques sont au cœur de son enseignement et de ses recherches. Elle partage avec Michael Gismondi un intérêt pour la réflexion interdisciplinaire sur la mise en place et la mise en valeur du développement durable. Cet intérêt commun a mené à l’œuvre collaborative *Challenging Legitimacy at the Precipice of Energy Calamity* (Springer, 2011) qui constitue une des rares analyses sociologiques des sables bitumineux de l’Alberta.

Copyright Mike Gismondi and Debra Davidson. This article is licensed under a Creative Commons 3.0 License although certain works referenced herein may be separately licensed, or the author has exercised their right to fair dealing under the Canadian *Copyright Act*.

EVERYTHING'S GONE GREEN: THE ENVIRONMENT OF BP'S NARRATIVE

PETER HITCHCOCK

This essay looks at a particularly galling phenomenon for environmentalism, the “green” globalism of an oil conglomerate. Rather than simply dismiss such gestures as corporate cynicism, the paper suggests that one might usefully pay attention to the narrative modes at stake in these initiatives which here connect the exploitation of modernity to a parabolic logic. BP’s going green is seen as an extension rather than as a contravention of its social being and shows why, even after the Deepwater Horizon disaster, BP’s desire to move “beyond petroleum” means more rather than less oil exploitation.

Cet article examine un phénomène particulièrement irritant dans le domaine de l’environnementalisme, à savoir l’internationalisation « verte » d’un conglomérat pétrolier. Au lieu de rejeter ce type d’actions comme un cynisme d’entreprise, on suggère ici qu’il faut considérer les modèles narratifs en jeu dans ces initiatives qui établissent une connexion entre l’exploitation de la modernité et une logique parabolique. L’adoption par BP d’une perspective verte est perçue comme un développement plutôt qu’une infraction de son existence sociale; c’est la raison pour laquelle, même après le désastre de Deepwater Horizon, le désir de BP « d’aller au-delà du pétrole » [*Beyond Petroleum* »] exige une extraction pétrolière encore plus considérable.

The truism and circular argument that global climate change is global nevertheless represents a significant challenge for environmental justice movements, whether they are confronting the prospect of massive environmental degradation in the exploitation of Alberta tar sands or laws on carbon emission that read like carbon omission when it comes to those most likely in need of legal sanction. The invocation of the planet against the globalism of globalization does not interrupt or sublate the paradox of globality, but essentially renames its logical impasse for dominant modes of socialization. The pithiness of thinking global and acting local might seem to short-circuit the impossible demands of planetary activism, but simultaneously mimics the scalar practices of the average transnational corporation, although this is far from saying that either is constitutively ineffective. A sensitivity to scale means that globality must be radically particularized and that a politics and aesthetics of environmentalism undoes spurious appeals to the global while articulating a scale that would actually be at one with the planetary implications of sustainability as such. A certain dialectics is at stake, but not one that assumes theoretical integrity or practical solutions in advance. This does not, for instance, negate an ethical incredulity when faced with a carbon capitalism inexorably ‘going green’ in the current conjuncture, but it does place a special emphasis on the nature of what is otherwise an obvious logical contradiction. On the one hand, we could say it is simply not a contradiction: those who exploit natural resources, for instance, can just as easily exploit their defense—their creed is exploitation not its object. On the other hand, the contradiction remains to the extent that the scale of exploitation in one act cannot be matched by the scale required by the other. It is not just that sustainability cannot be placed in the hands of those who have facilitated its jeopardy, but going green would require an alternative logic of socialization that would dissolve the antinomy in which such a contradiction is manifest. Rather than resort to philosophical fiddling in the face of Roman fires, I want to suggest that the disjunct scales of green capitalism hold important lessons for how environmentalism is narrated. Indeed, the discursive limits of one overdetermine to a significant degree the narrative of change desired by the other.

Since my discussion is about narrative more than policy, aesthetics more than prescriptions, one might be forgiven for thinking that the hard work of activism is being bracketed for contemplation; but part of my point is that the *ratio* of oil exploitation by BP, the parabolic subject of the following critique, operates at the level of inertial rhetoric, a sustainable grammar, that both ruthlessly and elegantly orders the world as its conceptual pivot. According to this narrative frame, the problem of the environment is read as an extension of BP’s global logic, not as a confirmation of its limit. Environmentalism is the scene of engaging the world and because oil majors directly affect the environment (they are always already environmental) they are singularly equipped to consider the logical extent of its globality. Now of course, the idea a transnational oil conglomerate might pioneer the dissolution of its carbon-based ontology could not be more absurd yet it makes good sense from the position of the antinomy in its globalism, especially one in which principles of justice might seek compensation for its harmful reach. For capital, ‘going green’ is not just a cost of production or cynical gesture: it is also the *sur-vivre* of its modern matrix, a growth model consonant with its worldly pretensions. The scale of globality comes to rest on its rhetorical logic, one in which ‘sustainable development’ is calibrated to sustain the development of capitalist social relations (the modernization in modernity) not the development of a sustainability coterminous with the planet (which can no longer be capital intensive according to modernization’s standard model). Such scalar dissonance is most marked in how oil is constituted as a global commodity so that all claims to its alternative must match the naturalized contours of its economic, energy, and political functions while asserting their subsumption. For BP in particular, the alternatives to petroleum it poses are often discussed as a hedge against its booked oil reserves and this has much to recommend it as a Best Practice. Indeed, if one wanted to measure the truth of Hubbert’s Peak Oil thesis one could usefully start by tracking the investment decisions of the oil majors, both announced and hidden in PR campaigns. The trouble is that when ‘green’ alternatives are articulated within an ideology of growth, oil extraction is more aggressively pursued, not less. The

emergence of one is tied to the intensive practices of the other, as if renouncing or denying environmentalism might actually leave the remaining vault of oil unlocked. Again, we laugh at such ridiculousness, but no more so than BP, who appears to understand the force of farce that globality demands and the difference between a bell curve and a parabola in oil's future.

It is often argued that BP's environmentalism is a special case among the oil majors who by and large have strenuously resisted any and all legislation that takes seriously the environmental impact of their practices. Even then, one should remember, however, that as BP's corporate narrative seemed to change course, particularly after 1997 (about which more below) it had previously lobbied as part of the Global Climate Coalition formed in 1989 to defend a climate for business against environmentalist demands. What I am suggesting is that BP's stance is consistent with its understanding of transnational globalization, but that this position is itself riven with scalar disjunctions in its worldliness, dialectical contradictions that cast a pall over whether the rate of change in the dissolution of carbon capitalism can outpace the sustainability or real foundations of planetary life. The difference between the desired narrative and the actually existing story of modernity continues to be a political and theoretical challenge necessitating closer scrutiny of how an oil corporation can be, particularly when the persistence of its being seems otherwise tied to a terminal ontology (a being-towards-death, the death of species being itself). I will sketch the contours of BP's identity as a machine of modern growth then read this into what I will elaborate as its parabolic logic which is not a strategy so much as a determinate symptom of disjunct scaling, an aesthetic correlative to what Bellamy Foster et al. have described as a metabolic rift.

The basic elements of BP's emergence in and through the oil industry are relatively well known, but offer some pertinent twists. BP traces its origins to the Anglo-Persian Oil Company (APOC), incorporated in 1909, a company led by William Knox D'Arcy, a former gold explorer who turned his hand to oil concessions (interestingly,

D'Arcy's first oil concession was formalized initially by the registration of an entity called First Exploitation Company in 1903—in the days before PR companies were not quite so bashful). British Petroleum was the marketing name of a German distribution company (Europäische Petroleum Union, of Bremen) for Royal Dutch Shell that was seized as an enemy asset at the beginning of the First World War. After purchasing BP from within a government trust, APOC kept this brand name for marketing and distribution (APOC itself was a Glasgow-based subsidiary of Burmah Oil, whose most famous consultant was Winston Churchill, who in turn used government and military influence to secure its monopoly in the region). Yet since much of its oil reserves remained in West Asia (thanks to the D'Arcy Concession), the parent company remained Anglo-Persian until 1935, when Iran emerged as a nation state and the corporation was renamed Anglo-Iranian (AIOC). In fact, while BP sometimes traces its 'birth' to 1909 the parent company did not become BP until 1954, after the CIA-backed coup against Mossadegh in Iran placed the Shah in power and the corporation sought a more explicit and perhaps less controversial national affiliation (AIOC had already lost its Iraq oil concession in 1951 thanks to postcolonial nationalization). The nation hinge, while flying in the face of the realities of the global oil market, remains an important integer of oil's complex relationship to sovereignty. Indeed, as much as we would like to believe BP and the other oil majors control the petroleum business, their booked reserves now represent only 10% of the whole with national oil companies continuing to dominate the industry. In the days before the oil embargo of 1973 the oil majors, then known as the Seven Sisters, used their control of oil surpluses to fix prices and contracts over as much as 85% of global supply. Yet OPEC's formation in 1960 underlines that oil's role in modernity cleaves closely to the nation-state idea as fundamental to modernization (and was a harbinger of its 'eternal return' to the oil market stage). The nationalization of oil industries is often read as protecting sovereign command over resources, but one of the notions it consolidates is the primacy of modernity's project in which maximal resource exploitation is tied to the robust development

of the state. For all of the scrambling among oil majors for market share the truth in their competition is dialectically bound by their negotiations with national oil conglomerates who can swallow or reapportion their assets in ways far more demonstrable than mergers and acquisitions. From the outbreak of the First World War until the completion of Thatcherite privatization in the late 1980s, BP was fundamentally a national corporation. Indeed, the evolution of the Anglo-Iranian Oil Company into British Petroleum elicits a strong fealty to the nation (at the time, a dying imperialism) even as capital demands accumulation beyond it. If the disjunction is obvious, however, it does not accurately explain the narrative logic of BP's being within it.

Several factors are important here. The initial strength of APOC was guaranteed by its dominance in West Asia coupled with its supply monopoly to the British war machine (aided by the aforementioned Churchill who had pushed the Royal Navy to diesel over coal-powered ships). While its BP subsidiary was distributing petrol to the new car industry (as 'motor spirit'), APOC's control by the government assured that it would not be subject to the full vagaries of market prices. In the aftermath of the Second World War, however, AIOC's profile faded like Britain's and the switch to the BP brand confirmed its diminished status before the juggernaut of American oil hegemony. Unable to compete head to head with U.S. giants like Exxon, Mobil, and Chevron, BP diversified its business interests while keeping close to its domestic advantages in which North Sea contracts were pivotal. British government control turned out to be its best defense during the oil crisis of the 1970s (when Kuwait and Libya nationalized their oilfields), although further diversification ensued (into the mining and chemical industries). In the 1980s, however, with full government divestment by 1987, a new set of strategies emerged. First, BP would revert to its core businesses, principally oil exploration, production, and distribution (it halved its workforce by doing so). Second, it saw new opportunities through mergers and acquisitions. Third, building on the success of its Alaskan exploration, it turned next to partnerships in the former Soviet Union as crucial to its global expansion. Indeed, it

is only during the 1990s that BP began to exude the brand power of its American competitors signaled most obviously by its merger with Amoco in 1998 (a legacy company of the old Standard Oil Trust) and its joint venture with THK in Russia initiated in 2003 (an endangered but profitable partnership that has allowed BP a foothold in the huge post-Soviet oil market). Finally, as a high profile global player in the oil business, BP announced in May, 1997 that its status required a public commitment to corporate social responsibility. In the words of John Browne, BP's charismatic CEO at the time: "Governments, corporations and individual citizens have all had to redefine their roles in a society no longer divided by an Iron Curtain separating capitalism from communism. A new age demands a fresh perspective on the nature of society and responsibility. If we are all to take responsibility for the future of our planet, then it falls to us to begin to take *precautionary* action now" ("Where BP stands" Browne, 1997) Like a cross to a vampire, this declaration was not exactly taken smilingly by the oil industry who added to the environmentalist charge of hypocrisy the no less realist accusation of heresy. Not every oil company cried foul, however: Shell, for instance, had already seen the public relations advantage in corporate social responsibility ('good corporate citizenship') and made steps to push its own ethics and environmentalism agenda. Three years after the speech at his *alma mater*, Stanford, Browne solidified BP's environmental credentials by rolling out its new corporate logo, a blossom of sun in yellow and green accompanied by an acronym which now meant 'Beyond Petroleum' (BP claims this is a slogan, not the company name but British Petroleum almost never appears alongside the new logo). Few waited for the Deepwater Horizon disaster to call the bluff on such brand bravado, but the speech and its implications for BP's profile as a transnational corporation place a special stress on narrative logic that requires further comment.

Beyond the obvious pause one must feel before an oil behemoth declaring its commitment to fighting the deleterious effects of hydrocarbons the real question is how the aim is declared as reasonable and reasoned, as the epitome of non-contradiction delivered in a tone

devoid of either irony or self-abasement. Here I believe it is useful to conjoin a parabolic aesthetic with the extant demands of corporate social responsibility under the sign of perceived globalism. While Umberto Eco's interpretation of Thomas Aquinas (Eco's first book, developed from his dissertation) offers a template for the parabolic, the intention here is not to reproduce parabola as the ward of thirteenth century hermeneutics, but to consider it as an epiphenomenon of reading the world today as necessarily post-ideological. For Aquinas, the parabolic was not a synonym for allegory, but a poetic sense in which the word and its meaning were maximally appropriate. Here, appropriateness is a measure of scalar semiosis and dissonance. What could be read as blatantly false might nevertheless be appropriate to its scalar demands, which is more about the difference between fiction and truth in fiction. On this level, Browne's perception of BP's new mission is neither opportunistic nor hopelessly muddleheaded, but replete with the rhetorical conventions of worlding, a passionate admixture of *nationalis nervosa* and the perception that the corporation is indeed a global citizen. The parabolic rhetoric holds these elements in tension as a condition of narrative extension. Put another way, the parabola permits narrative sustainability as sustainability as such. The rhetoric of sustainability can certainly contribute to sustainable practices regarding renewable resources and alternative forms of energy, but its primary thrust is to sustain its rhetoric as a solution produced by the schisms between nation and the environment as a planetary concern. However contradictory, such parabolic rhetoric is crucially consistent with the predicaments modernity has wrought.

When Browne delivered his speech he had already become something of a corporate star (the following year he would be knighted, and in 2001 he would become a Lord—Baron Browne of Madingley). The oil business is risk-centered and Browne took on risk with gusto (an enthusiasm that not surprisingly would lead to his replacement as CEO in 2007, although media revelations of his private life also played a significant part). While the speech is dialogically measured, its worldview surprised many across the industry, as if it

were an innovation like slant and horizontal drilling in oil's history. As noted, Browne begins his analysis by referencing the collapse of communism and the fall of the Soviet Union, an epochal shift that reconfigures the world and oil in equal measure. If modernity had always been riven by the conflicting claims of nation and transnationalism, the end of the Cold War alibi for imperialism returned this schism to the global stage in an intensified form. In light of communism's fall, two possibilities, according to Browne, were quickly offered: one by Fukuyama's end of history thesis, the other by Jacques Delors in the form of "accelerated history." (Delors, one should recall, in his plea for European integration and the Euro and in his formation of the think tank "Notre Europe," was not well liked by the British establishment.) Neither is accurate, says Browne, but something has indeed changed and that is "ideology is no longer the ultimate arbiter of analysis and action." The ideology that denies itself as such is the ideology of deepest pedigree, but this is not the heart of the parabolic conundrum BP now represents.

"Social" for Browne means identifying BP interests with those of teachers and students (recall, he is speaking at Stanford), "business people with capital to invest" (a key portion of the audience), legislators (who might otherwise legislate a reduction in BP's power via taxes or regulation), voting citizens (whose democratic zeal must be considered at odds with the power of corporate donations) and finally consumers (those with the 'power of choice'—determined by disposable income or access to debt). Overlaps between each category are acknowledged by Browne, but here social is assumed to be the space of agreement where, in the absence of ideology, a response to environmental crisis is mutually shared rather than fragmented by constitutive contradictions and fundamentally antagonistic interests, like class. To this extent, Browne's "social" is meant to fill the conceptual space produced by the basic Thatcherist maxim that there is no such thing as society. In neoliberal logic, "society" encourages socialism; "social," parabolically, excludes it. Again, this kind of thinking (a shared 'conviction' that you do not know you have—ideology) is precisely permitted by the appeal

to scale that the global environment represents. It is, moreover, a 'thrown parallel' in which BP's identification is posed as a plane consistent with the social as its axis. The invocation of a geometric parabola is perhaps most appropriate when thinking of modernity as not only an arc opening upward in terms of development and growth, but also as the curve of Galilean falling bodies that occurs as gravity pulls a projectile back to Earth. We might associate this rising and falling action with Aristotelian aesthetics yet we should also note its register in Aquinas: *sub sensu litterali includitur parabolicus seu metaphoricus*. The metaphor is parabolic to the extent that it curves back to a literal sense of the word, a relationship that Aquinas distinguishes from its mystical or spiritual sense, which is further subdivided into allegorical, anagogical, or moral. I would suggest there is also a parabolic connection between the literal and mystical, which is the arc of ideology Browne must sensibly repress. Thus, social is a metaphor in Browne's speech yet might also be posed as the solution to the impasse that metaphorization represents.

For his part, Browne introduces what he calls "an appropriate metaphor" to describe the new space and process of responsibility, 'the journey.' The "precautionary action" as journey sounds particularly anodyne but in fact it radically reduces the promise of action to one route (something along the lines of "our way or/on the highway"). Browne explains that there are two possible courses of action, but only one effective journey because the other entails immediate and drastic reductions in carbon emissions and/or the banning of fossil fuels (necessitating the social exclusion of BP itself). Thus, the only way for the metaphor to be substantive is for the journey to include BP and for steps to be "balanced and gradual." Again, one alternative is banished while the other, preserving BP, is perfectly reasonable. The cognitive dissonance here is symptomatic of the scalar disjunction capitalist globalization offers. Corporate social responsibility at this level means acknowledging specific courses of action are unsustainable (Browne's term) because they would adversely affect the modernization efforts of developing nations. This is true, of course, but only if

there is a prior determination not to redefine growth or redistribute social wealth globally. Instead, "we believe we can contribute to achievement of the right balance by ensuring that we apply the technical innovations we're making on a common basis - everywhere in the world." It is vital we understand the parabolic function of this claim because it appears rational and logical even when you add the silent conditional clause for those other members of the social invoked along this journey, "if you let us." Here reason always seems to fall short of understanding, which is the truth of its action. In fact, we are closer to metonymy because the social as axis has been substituted by its putative parallel, the responsible corporation. Again, the antinomy is not wrong, but consistent with how BP must be global. If it has a *Weltweisheit*, a kind of worldly wisdom, it is yet discontinuous with the world as environment.

This is not simply the vulgar ideological cut between appearance and reality, as if this alone would be a measure of truth and falsehood. The appearance of tackling environmental degradation is the real of BP's being, as a corporation, as an oil major. The 'journey' forward cannot be imagined outside its crucial participation just as, after the events of 1989-1992, the truths of capitalist history are irrelevant. This part of the speech is very clear: we will take care of business rather than you taking care of us. We will monitor, measure, and reduce our carbon emissions and strive to "keep our house in order" so that you are not compelled to do so. In a statement remarkable for its gestural largesse, Browne declares, "Our overall goal is to do no harm or damage to the natural environment" as if corporations regularly assert the opposite. He continues not by hiding the real role, but by carefully explaining it: "Companies work by prioritizing what they do. They take the easiest steps first—picking the low hanging fruit—and then they move on to tackle the more difficult and complex problems. That is the natural business process." In the oil business, especially drilling and exploration, there is no low hanging fruit left. If the price of oil is high enough, cost-intensive extraction is feasible, with the caveat that difficult and complex problems may emerge. To put this in perspective, Browne's speech comes

in a banner year of 104 recorded oil spills for BP. In 2000, BP paid the EPA a \$10 million fine for sloppy management practices at its U.S. refineries that had raised the risk of greater environmental harm. In 2001 and 2005, BP was assessed by Multinational Monitor as one of the ten worst transnational corporations based on environmental and human rights records. It is true that by 2002 Lord Browne had declared global warming to be real, but BP's fruit-picking mentality could hardly claim to be addressing it.

Why then does Browne argue for BP's environmental credentials? Rather than maintaining a relationship with the denialists, Browne reads corporate responsibility as "showing willing" about fighting climate change. The strategy both attempts to set BP apart (a leviathan with a social conscience) while constructing a rather literal corporate sustainability model: "market based solutions are more likely to produce innovative and creative responses than an approach based on regulation alone." The market, and particularly technology, will roll back the threat of ecological catastrophe and part of what is meant by social responsibility is recognizing that fact. The conceit here is that corporate nature, like environmental nature, is self-regulating. The corporation is organic enough to understand its metabolic function in the world and social enough to be as good a citizen as any other. The journey metaphor parabolically assumes our consent to its convention, which conveniently sees BP as a constituent in its narrative. This is corporate ontology as narcissism, in which the transnational oil company makes the world its dependent and is therefore as indispensable to it as its sun.

Much is written about the anthropomorphization of the corporation whereby its rights are defined as not just social (citizens) but human. Corporations are not living, breathing organisms of course (they have bodies, *corps*, but this is metaphorical and sometimes metaphysical weight). Often the desire is simply to render the corporation human enough to claim its individual protections and deflect the perception that it often acts beyond broadly social mandates. For BP, corporate personhood is defined by its social responsibility, and

Fig. 1 BP Corporate Logo

to brand the latter in 2000 the company unveiled a new logo that invoked Helios, the personification of the sun in Greek mythology.

This is in keeping with Browne's famous speech that clearly wanted BP to step up its efforts in developing alternative energy, including solar. The colors of the Helios, according to BP, suggest heat, light and nature. It represents a pattern of interlocking shapes: like BP, a single corporation produced by many different parts that form a single image. The conceit here is literally magnificent because the power of the sun as god is the spirit of the new age, one in which we draw on nature to offset the disequilibrium we have produced in it. While it is true big oil branding closely follows the standard

public relations and marketing practices of transnational corporations (they produce a consciousness flexible enough to be niche-marketed within global exchange), the differences are instructive, particularly because oil and gas production and distribution simultaneously affords an oil major power, prestige, and pariah status unmatched by other industries. The Helios is both a measure of that intensity and contradiction: the sun as master signifier of all that founds and founders socialization.

Helios in Greek mythology is also a master eye, the preeminent panopticon whose powers of observation over the world made him a tale bearer for the gods. This function of narrative mediation remains in BP's Helios which is why we might usefully cleave to the stories the oil majors make. There is no room for this here, but one of the ways Big Oil occupies national oil space is by claiming it can "see" oil that state oil companies cannot (via proprietary imaging software and equipment): seeing energy is a scale of power. The other side of anthropomorphization is the ontological aura such cognition provides, one shorn of basic psychology yet replete with all we associate with drives, Eros and Thanatos combined. BP wants Helios to simply represent power in its myriad forms, but it cannot escape the deep structure of its sign, the political and poetic unconscious of its very possibility. Gathering oil, like stories, has its own narratological compulsion and while a brand's cultural symbolic is meant to stabilize or obfuscate any adverse elements associated with such pursuit the Helios in this example richly accentuates the waywardness of BP's storyline. Like Shell (whose name and insignia also brim with pertinent paradox), BP must convince itself (and in turn its shareholders) that its story is in accord with its narrative needs and is as dependable as a sunrise or fractional distillation. The logo intends to explain the brand both as a reality and as an aspiration or desire. Here again, however, the structure of the narrative permits BP to extol contradictory parts of its corporate being as coeval and complementary. Yes, BP has invested significant capital in solar, wind, and biofuel power, but the carbon footprint of its oil and gas operations dwarfs these efforts at every turn. BP's

website (itself a master narrative) claims that it strives to provide power without harming the environment but, while the effort is appreciable (ebbing and flowing according to the dictates of its core business), this seems only to sanction the ecological catastrophe the oil industry otherwise facilitates. On this level, the Helios is parabolic not in shape, but in its poetic license whereby its powerful association is made possible by the power that, historically and narratologically, has meant its negation. Parabolic logic permits BP to become "bp" ("We're not big bad oil, we're a lower case giant") and British Petroleum to become "beyond petroleum." The latter slogan is BP's insurance policy, a hedge on energy futures, for this is how its world and story must be scaled.

These elements, of scale, narrative, and symbol are not unique to capital, corporations, or globalization, but their specific combination in BP is salient and vital at this juncture because of the dominance of oil and the ecological crisis in which it seeps. What tends to happen is that the logic of articulation, its grave grammar, is obviated in the face of a storyline that teeters between truth and falsehood. The big books on BP, the journalistic exposés, (recently, for instance, those by Edwin Black and by Mike Magner) provide scathing evidence of the company's questionable business practices and environmental harm, but only by meeting the expectations of the genre, which is to say that a defense of Big Oil, while often proffered, does not sell as many books. Obviously, one hopes that the greater the criticism of oil conglomerates like BP, particularly after the Deepwater Horizon disaster, the more possibility will be created to limit the power of Big Oil and draw down the use of the commodity at its base. The value of oil supply under the sign of capital, however, structures the logic of its narrative hold; something as strong as power dependency and profit is not fatally undermined by rational explanation of its true costs. Indeed, the muckraker, like the oil producer, is calculating the costs of the narrative options she or he pursues according to what the market will bear. Make no mistake, intense critique makes more than a living and can, for instance, embolden deeper and far-reaching sanction for the

excesses of the industry. Yet, such is the inertia in BP's being that every public relations fiasco, even one like Deepwater Horizon that has so far cost it over forty billion dollars in damages and compensation, is simply a business risk not a fatal flaw. It is already part of the business model, part of the 'journey' that BP sets itself. The "beyond" in "beyond petroleum" is not a lie, but a constitutive limit, an existential claim determined by oil in its value. To change this narrative one would have to change the value form of oil itself.

The scale of this value form also prescribes the content of BP's "going green," irrespective of the cynical opportunism and outright falsehoods one may discern in its pronouncement. In Lefebvre's terms, BP has a perceived space, a spatial practice that precisely shapes its relationship to people, other companies and states. I suggested earlier that oil's consanguine ties to modernity give to us the lineaments of a world, but one that cannot but be out of sync with the planetary scale environmental change requires. It is not just that BP deals with those spaces in which oil and gas can be extracted and distributed, but that modernity's logic of under and uneven development determines the force or resistance to "green" initiatives. The value form of oil produces a world at this scale and at this scale only. It is variable—new oil discoveries, new technologies of extraction, dried up wells, embargoes, accidents, wars, fluctuating demand, etc.—but it cannot, by definition, jump effectively to the planet as a global, homeostatic system. Surely, however, the scale of failure in BP's *dispositif*, which is not only about power but the business of power, must logically undo its grip on the hegemonic ways sustainability is thought?

The Deepwater Horizon disaster of 2010 produced the largest oil spill in U.S. history, with almost five million barrels of crude oil devastating the eco-systems of the Gulf of Mexico (almost two years after the spill slicks and tar balls are still being detected along the Louisiana coast in particular—interestingly, because BP maintains that the spill volume from the blowout is not precise, it omits *all* such calculations from its website). The cause of the blow-out has been linked to well design

as well as to insufficient or faulty safety precautions in the daily operation of the rig. In some respects, the Deepwater Horizon rig was a marvel of technological development. Built by Hyundai, owned by Transocean, and leased to BP, in 2009 the rig, sitting some four thousand feet above the ocean floor, had drilled a well over 35 thousand feet deep. The Deepwater Horizon was drilling in the Macondo Prospect in April 2010 when an explosion occurred, killing eleven rig workers and creating a well leak that took over two months to cap. As the crisis developed, BP set aside a fund of \$20 billion to cover litigation and clean up, but it was soon clear their financial exposure would far exceed that figure. Some of their costs will be offset by the outcome of their own lawsuits (these suits total \$40 billion), particularly against Transocean, Halliburton (who provided the cement for the well) and Cameron (who had manufactured the blow-out preventer). Despite the *schadenfreude* of the other oil majors there was deep concern that the legal proceedings and BP's subsequent tumbling share price would cripple the company or subject it to takeover bids that might be a necessary consolidation yet would set a dangerous precedent for the industry's approach to risk. Without reviewing all the elements of the case, Deepwater Horizon offers further insight for our understanding of BP's 'journey' through oil and the environment.

First, the inertia in its narrative cannot be creatively subsumed even by the deepest of crises. If the construction and running of deep-water wells risks environmental disaster, this is an inevitable cost of being an oil major; of maintaining a market share of available oil and gas output. Second, Deepwater Horizon did not necessarily negate BP's environmental credentials; on the contrary, BP has used its robust response to the accident (which has much to do with legal enforcement) to massage its profile by claiming that its diligence in emergency response proves its commitment to ecological sustainability. Third, in BP's post-Browne culture, there has been another marked turn to the industry's core values: not only has BP backed off on its investment strategies in solar energy (the "beyond" part of "bp"), but its pursuit of oil exploration and commodity trading

in oil itself has intensified. For those who thought that BP would blink at the prospect of high extraction costs and environmental risks of Alberta tar sands, for instance, the opposite has been the case (the first of its massive lease fields, "Sunrise," will be operational in 2014). And the volatility of oil prices, while allowing for complex trade manipulations (in derivatives in particular) has meant an increase in risk positioning. As for the Gulf, BP continues to fight the legal fallout from Deepwater Horizon, but now operates *more* drilling rigs in the region than it did before the crisis. When Deepwater Horizon blew up and sank, some environmentalists saw this as a moment of decisive change, that new legislation would sharply curtail high risk oil and gas extraction and that we would witness a credible turn to green in power production. There are many encouraging signs outside the oil industry, but the margins in oil production and distribution remain substantial and the demands of compressed modernization push oil prices high enough to justify ever more difficult extraction scenarios. Would it not be better if BP just said forget "beyond" and, like Exxon-Mobil, just focused on the petroleum at the heart of its being?

In the same way BP's investment division can take positions against itself to hedge its exposure in the industry, so addressing rather than denying global warming, as Browne did in his Stanford speech, offers a green position against the reality of the oil market. The scale of this market is imbricated in the life of states and transnational commerce in such a way that corporate responsibility is better viewed as a niche market rather than as a paradigm shift, along a scale that follows the long fall of a parabola rather than the abrupt finitude of a bell curve (like Hubbert's theory). More than this, however, the investment strategies of transnational corporations can make 'going green' a flexible exploitation strategy. It is not a mask for the deleterious business of fossil fuels, but a complement of its productive logic. For instance, cognizant of a parallel compulsiveness between oil and coffee production, BP sought to garner increased credible responsibility by developing a sustainable coffee subsidiary, Wild Bean Café. As Starbucks has proved, the margins on

specialty coffee are appreciable, but legitimate questions about the Arabica industry have led major purveyors to stake claims for ethical production, sustainable agriculture, organic certification, fair trade practices and labor protections. Obviously, Wild Bean Café was meant to enhance revenue streams at gas stations while simultaneously offering a sustainable complement to the parent company's oil practices. BP's coffee is UTZ certified, but like rig safety, responsibility's narrative form contains small print. The UTZ code of conduct leaves a lot open to interpretation and is particularly vague on environmental protection. Originally developed by a large Dutch coffee conglomerate, Ahold, it has often been favored by similarly large corporations (Sara Lee, IKEA) looking for global citizenship. Crucially, it does not prohibit the use of chemicals in coffee production either as fertilizer or as insect control, compounds that can be produced for the coffee industry by sourcing BP's petrochemical division. This is not a case of direct synergy but, like my other examples, underlines that BP's green logic is hardly inconsistent with its oil ontology.

Clearly one can read BP in a number of different ways. Ecological critique can easily dissect the "greenwashing" of its environmental campaigns, but my point here has been to examine narrative aspects in the logical structure of BP's being. ("We are BP" is its constant refrain, but what is the being at stake in the pronouncement, Cartesian, Hegelian, Heideggerian, Deleuzian?) Oil majors do not just exercise economic and political power, but actually shape the manner in which we conceive of global interaction. BP's narrative or 'journey' articulates a scale that reveals both the shortcomings of an oil ontology, but also the conditions of its persistence. In part, parabolic logic merely returns us to the scene of ideology, in which governing ideas seem to paralyze logical alternatives; but more than this, it draws attention to the schism between state and corporate solutions and the scale of responsibility necessary for an end to oil. BP's global citizenship accentuates the impasse because the more it claims to self regulate the less a true alternative in power production and distribution can establish a being and narrative in its own scale. And without this planetary basis for being, there will be no beyond petroleum.

Image Notes

Fig. 1 BP Logo. August 28, 2012. <<http://hilobrow.com/2010/06/15/bp-logo-redesign/>>

Works Cited

Aquinas, Thomas. *Thomas Aquinas: Selected Writings*. Ed. Ralph McInerny. London, New York: Penguin, 1999. Print.

Black, Edwin. *British Petroleum and the Redline Agreement: The West's Secret Pact to Get Mideast Oil*. Washington, DC: Dialog Press, 2011. Print.

Browne, John. "Where BP Stands On Global Climate Change." May 19, 1997. Web. August 22, 2012. <http://www.bp.com/pressoffice/speeches/sp_970519.htm>.

Eco, Umberto. *The Aesthetics of Thomas Aquinas*. Trans. Hugh Bredin. Cambridge, MA: Harvard University Press, 1988. Print.

Magner, Mike. *Poisoned Legacy: The Human Cost of BP's Rise to Power*. New York: St. Martin's Press, 2011. Print.

Hitchcock, Peter: Peter Hitchcock is Professor of English at Baruch College and the Graduate Center of the City University of New York. He is also Associate Director of the Center for Place, Culture and Politics at the GC. His books include, *Dialogics of the Oppressed*, *Oscillate Wildly*, *Imaginary States*, and *The Long Space*. His current research includes a study of commodity architectonics of which his work on oil is a part.

Hitchcock, Peter: Peter Hitchcock est professeur d'anglais au Baruch College et à l'Université de la Ville de New York, dans le cadre du Graduate Center. Il est également directeur adjoint au Center for Place, Culture and Politics dans le cadre du même Graduate Center. Il est auteur des livres *Dialogics of the Oppressed*, *Oscillate Wildly*, *Imaginary States*, et *The Long Space*. Sa recherche actuelle, dans laquelle s'inscrit son travail sur l'industrie pétrolière, traite de l'architectonique des marchandises.

Copyright Peter Hitchcock . This article is licensed under a Creative Commons 3.0 License although certain works referenced herein may be separately licensed, or the author has exercised their right to fair dealing under the Canadian *Copyright Act*.

A SCALE THAT EXCEEDS US: THE BP GULF SPILL FOOTAGE AND PHOTOGRAPHS OF EDWARD BURTYNSKY

LANCE DUERFAHRD

ABSTRACT: Our fascination with the surveillance video of oil gushing from the British Petroleum Gulf Spill in 2010 expresses a paradox: our ultimate irrelevance to technological progress apparently undertaken for our benefit, in our name, and in response to our demand. These images present a visual model for all future disasters: here, something is happening but nothing is changing. This picture of disaster without progression and syntax has been witnessed before but only on stage, in Samuel Beckett's *Waiting for Godot* and *Endgame*. Art has mustered only a weak rejoinder to the subdued shudder inspired by the BP video. Our fascination with the BP footage is echoed faintly in our response to Edward Burtynsky's *OIL*. In his photographs of the petroleum industry, Burtynsky removes the human measuring stick, thereby triggering our sense of the enormity (both of the size and of the crime) of the petroleum industry. Yet unlike the BP video, these images recuperate our horror at the obscure scale of what they show us. Instead of recoiling from Burtynsky's work, the viewer is placated through an appreciation for the artist's control of his medium and its iconic language.

Notre fascination devant les images vidéos du déversement pétrolier causé par British Petroleum (BP) dans le Golfe du Mexique en 2010 exprime le paradoxe voulant que nous n'ayons aucun contrôle sur le progrès technologique entrepris en notre nom, et qui est apparemment mené dans notre intérêt et en fonction de notre demande. Ces images nous présentent un modèle pour les désastres de l'avenir : quelque chose a lieu sans que rien ne change. Ce portrait d'un désastre sans progression et sans syntaxe n'est pas quelque chose de nouveau; on l'a vu sur scène avec *En attendant Godot* et *Fin de partie* de Samuel Beckett. En dépit de cela, l'art n'a suscité qu'une faible réponse à la trépidation silencieuse causée par la vidéo BP. Une même fascination est présente dans notre réponse à *OIL* d'Edward Burtynsky. Dans son travail photographique sur l'industrie pétrolière, Burtynsky retranche la dimension humaine, nous montrant ainsi l'énormité seule (liée à la grandeur et au crime) de l'industrie. Pourtant, contrairement à la vidéo de BP, ces images amenuisent notre horreur devant l'ampleur de ce qu'elles montrent. Au lieu de réagir à l'œuvre de Burtynsky, on s'apaise en appréciant le contrôle de l'artiste sur son milieu et sur son langage symbolique.

Fig. 1

The footage of the Deepwater Horizon disaster is not art. It is nothing more than grainy technical video captured by cameras attached to BP's Remotely Operated Underwater Vehicles (ROV's). The video ran almost nonstop from April to May in 2010, while oil gushed from the broken wellhead. Edward Burtynsky also treated the subject. Styling himself in the tradition of the great 19th century artists/landscape photographers Carleton Watkins and William Henry Jackson, Burtynsky uses a large format view camera that fosters a contemplative approach to his subject and exhibits his images in galleries and glossy books.¹ Despite their distinct objectives and formal aspects, the BP video and Burtynsky's photographs elicit an eerily similar response from us as viewers: hypnotic awe. How do these images activate our wonder? What is the outcome, in each instance, of our spellbound state? Burtynsky's images seemingly invite awe about the photographic medium itself, thereby utilizing the oil industry to confirm our

role as consumers and critics of the images. By contrast, the video of the BP catastrophe fascinates us because it expresses a paradox: our ultimate irrelevance to technological progress apparently undertaken for our benefit, in our name, and in response to our demand. The facts surrounding the explosion of the floating rig Deepwater Horizon in April, 2010 are mostly familiar.² Less well understood is the spell exerted by the footage and the massive circulation in online and newsmedia networks. In contrast to disasters which are spectacular in both their implications and their imagery, the BP disaster in the Gulf is notable for the caesura or chasm that separates the dire consequences of the disaster from the rather unremarkable images of its unhaltable progress:

A compressed violence literally characterizes these images. Miles beneath the surface of the ocean, the oil occupies a fraction of the cubic space it will upon

rising to the surface. This made it difficult for engineers using velocimetry to precisely measure the quantity of oil gushing from the pipe.³ BP purposefully fed the first ROV images back into a computer in order to lower their resolution. (See, for example, this video from The Guardian for a deliberately imprecise image⁴). The first footage released to the newsmedia had a deliberately smudged and blurry quality that made it impenetrable to experts and less incriminating to BP. BP conveniently circulated a 'compressed' file, one with compromised information that would facilitate its internet circulation.⁵ The confluence of two types of compression, both within and of the image, guaranteed simultaneously the quick circulation of the image and its indistinctness. Its horrifying inscrutability became a part of its mesmerizing appeal.

We are hypnotized by the BP footage because we sense grave consequences to what we are seeing, yet we can't fathom what these consequences may be. The BP images, on the news for three straight months, provide few clues. German poet and playwright Bertolt Brecht once observed that "less than ever does the mere reflection of reality reveal anything about reality. A photograph of the Krupps works or the AEG tells us next to nothing about these institutions. Actual reality has slipped into the functional. The reification of human relations—the factory, say—means that they are no longer explicit" (qtd. in Benjamin 526). Brecht asserts that the reification of human relations has implications for images as much as it does for the commodity. In the same way the commodity conceals all traces of the labor that went into it, a photograph only partially illuminates the true workings of monolithic institutions (the arms manufacturer, Krupps, and the energy giant, AEG). Brecht's point is that though we sense their power, photographs ultimately are powerless to capture, express, or understand the reality forged by massive industrial enterprise. In the footage of BP's Macondo spill Brecht's point is both demonstrated and alarmingly escalated. The BP footage seems to divulge the *dysfunctionality* of industry, the breaking of a reality at home with the equipment of technological progress. It seems very different from Brecht's example of a

photograph of the functioning Krupps plant (an image we can easily imagine circulated by Krupps' PR firm).

We are transfixed by the BP footage because the image excludes us. In the BP footage we witness a crisis from which we ourselves—and any intervention either by our critical awareness or by our government—have been absented and rendered irrelevant. Brecht could not have seen the extent to which reality remains *implicit* in the image of technological breakdown. Much of modern thought proposes that truth emerges when things stop working.⁶ Not only did the footage of the Deepwater Horizon spill not make actual reality more legible to us or more accessible to critique (as hoped for by Brecht's own effort to 'expose the mechanism' of theater) but it retained and even *exceeded* the fascination exercised by functioning industrial technology. The nightly image of oil gushing from a pipe provides an accelerated and perverted version of the hypnosis exerted by the aptly named 'nodding donkey' oil rig movement (the petroleum industry's version of the swinging stopwatch).⁷ Our estrangement from the technologically mediated reality of the BP images is measured by the unarousal with which we register that they are pornographic images. Deeply illicit images that its maker, BP, could not want revealed or reviewed, the footage constitutes a peep show for the machines and for the whole technological apparatus behind global industry and the global environmental crisis, rather than for us. It is clear that we are seeing something we are not meant to see, something violent, and this is exciting. But unlike pornographic images intended for a human audience we do not understand the prohibition, the significance of this imagery or the bodies involved. Even the violence is more theoretical than actual. An interesting split occurred as the live feed continued over the course of three months: on the one hand, audiences staring at the image grew more silent and more inarticulate. Meanwhile the language wrought by the petroleum industry proliferated, devising terms such as 'top kill,' 'top hat' (to cap the well), 'relief well,' 'shot of mud slurry,' and 'blowout preventer.' The technical language intended to reinvoke control over the well became more salient to the image of the crisis than the language of analysis.

Without syntax or escalation, the Macondo footage has an alarmingly generic quality. (A generic image describes the family photograph of a family we do not know, for example). Staring at the live feed we learn little about specific consequences of damage to the environment let alone about the web of human relations that constitute the reality of the oil industry and its relation to us. The footage lacks the direct emotional and formal impact of other iconic images (for example, Nick Ut's 1972 photo of Kim Phúc, running with her arms outstretched, her back burned after a napalm attack during the Vietnam War). Nor does it display the compact narrative trajectory of recent catastrophic images: the twin towers falling on 9/11 or the arc of slowly dissipating smoke following the explosion of the space shuttle Challenger. Lacking these traditional contours of an 'event,' the Macondo footage instantiates a new model for future disasters: one in which we are not sure what is taking place, a disaster without progression and that unfolds on-screen in such a way that it could in fact be looped (rather than live) footage. Part of our fascination derives from our desire to spot a shift, a sign of alteration or a change in rhythm that would satisfy our desire to ascertain whether the situation is worsening or improving, whether it is the same image or a new image that we see.⁸ The footage is time-lapse photography without the lapse. It evokes the monumentally boring insistence of non-narrative experimental cinema. It most closely resembles Andy Warhol's film *Empire*, an immobile eight hour long take on the Empire State Building over the course of a single evening. Both BP and Warhol document *in extremis*, and in the process the object loses its self-evidentiary status and outflanks our stare. The BP footage could aptly be renamed *Empire*.

The generic nature of the image—that something is happening yet nothing on the film appears to be changing—endows the film with a rawness uninterrupted by any conception we may muster to comprehend it. The BP video discloses how the Macondo break effectively suspends time. Many of us experience crisis as a kind of urgent and yet helpless waiting (for BP to do something, to admit its fault, to stop the flow of oil, for the government to intervene). We long for a swift and

photogenic action to stop this image. We want to speed up time to when there is something for us to see, some kind of undersea action that we can comprehend. (It might even be possible that people militantly pressured BP and the government merely to introduce a new rhythm to this image.) This waiting suffuses our horror as we stare at the strange and continuous violence of oil we can extract but not stop. Though it is in the time-based medium of video, the BP footage gives us in fact a truer photograph of the catastrophe, an uncannily still image that captures the painful inertia lurking at the heart of crisis.

But why do we watch it when it—as an image—is no more compelling (at least to the untrained eye) than 'watching paint dry.' Nor is the BP video attractive merely as an index of disaster. Though melting ice caps are the index for an open-ended and undetermined process of global warming, we do not with trepidation watch the ice caps melting.

There are three distinct factors that made the BP footage different, that make these images worthy, and in fact a media event. First, exclusivity and branding: the BP footage was the unmistakable icon for the Gulf disaster. The remote isolation of the crime scene made it inaccessible to journalists and only BP submarine robots could survey the damage. Second, the placement of this footage alongside other less remote and more familiar video footage and visual and media assets, such as images of Tony Hayward and the BP brass, the coast guard, the berms dutifully strung out to protect beaches and defeated oil booms washed ashore. Third, a distance or tension between this footage and other non-reified, 'human' or 'right-sized' videographic attempts to come to terms with the spill. A complex network of images coalesced around the dark gravity of the video footage: ducks battling a miasma of crude, fishermen using their shrimping boats to skim oil off the surface of the water; a group of volunteers gathering tar balls off a beach.

These photos helped us configure something we cannot glean from our ongoing view onto the scene of the crime (a view furnished by the perpetrators): the effects of the

Fig. 2

disaster. These effects are difficult to fathom from the BP footage alone but in their combination provide that image with visual power. Aftermath photos such as dead fish floating in an water the color of chocolate syrup, aerial images of refunctioned shrimp boats skimming oil off the ocean surface, oil soaked pelicans seen first in the water and then scrubbed by technicians, and safety crews strolling incongruously past beachgoers, function as a kind of explanatory debriefing of our protracted stare at the raw footage at the disaster's source.

These three factors add up to a comment on what Brecht called the "functional" reality of the world. The image of the damaged well head spewing oil into the Gulf compels because it reveals what Brecht knew and we all know: that functional reality of massive industry—whether a

Krupps plant or the high-tech oil extraction from the depths of the ocean—has leaped past our consciousness and awareness, and while it is done for us and for our cars and our furnaces, it ultimately excludes us. The BP footage is for video what the National Debt Clock is for number.⁹ The science of the extraction of resources through the oceans from the earth is so cutting edge that it is developed and technically understood essentially by the private group of specialists engaged in its extraction. The government and media's attempt to understand and to deal with the situation, especially insofar as they focused on the 'causes' of the disaster, was at times ironic, at times even comical. CNN's footage shifted between spokespeople for industry, environmental and political pundits, the dangers of oil dependence, threats of lawsuits, the whole complicated apparatus for the

assignment of blame—between BP as owner of the well and oil service contractors Slumberger and Cameron, the mistakes of the Minerals Management Service. The cycle would complete itself with the inevitable return to video of the broken pipe, where despite all the talk the oil continued to spew, apparently without change to the image.

The oil industry literally operating increasingly in regions difficult to access, unexplored and invisible, also operates in part beyond the regulatory eye of the U.S. government and every government. In his book *Private Empire*, Steve Coll suggests that Exxon Mobile, rather than as a corporate ‘citizen,’ conceives of itself as a nation state all to itself (15). The BP footage provides this private empire with its anthem. Exemplified by behemoths like Exxon Mobil and BP, Big Oil have naturally formulated a subjectivity associated more with prices and demand for oil measured by markets than by political groupings and boundaries. This does not mean in any way that Big Oil ignores or disregards the governments with which it cooperates. To the contrary, it is expert at working with them. But as Coll points out, often operating in politically problematic parts of the world, Exxon has seen dictators, political parties, whole nations come and go. Political divisions and borders have been drawn and redrawn, but one thing has not changed: demand for oil. Transnationalism is of course not unique to the oil industry. The financial derivatives-products that nearly brought down the credit system in the fall of 2008 and spring of 2009 have been called ‘weapons of mass destruction’ and the companies that engineered these instruments called ‘too big to fail.’ Nations are dependent on banks as they ‘depend’ and ‘are dependent’ on oil. The regulatory maneuvers of any single nation, even the world’s largest consumer of oil, the United States, are less important to oil producers than the world market for oil as a commodity, which can be influenced by governments or cartels of governments but not controlled, just as the oil spill too is beyond control.

Governments are behind Big Oil because governments are structured politically—by people, rather than

according to the imperatives of a technological or industrial endeavor. This trend, nascent in Brecht’s time has especially since the fall of the Soviet Union become increasingly common and even obvious. Fifty years ago, the space race, the attempt to go where no man has gone before was a competition between Soviet Russia and the United States, a moment for national pride and identity. Today it is not a government but Hollywood’s James Cameron who is exploring the Mariana Trench, the deepest part of the world’s oceans previously unobserved by humankind. Cameron’s objective is to make a movie and he has convinced his private supporters that there is a market demand for images from the deep.¹⁰ Meanwhile the US government has stopped sending the shuttle into orbit and future manned trips to space. If there is to be US-based space technology the plan at this time is that this be conducted by private companies, funded at times by the very rich who see leaving earth as their touristic privilege.¹¹

But it is not the mere privatization of technological advance that is so uncanny about the video of the BP spill; it is the helplessness and indeed irrelevance of ourselves and the United States government to the technological endeavor that sustains us. Unlike political crisis in Sarajevo or Libya a technical crisis like the damaged BP Macondo well supports no sanctions, dialogue, diplomacy, or military action. Oil is extracted by an alliance of technology and capital that while it benefits from the sanction of governments and depends on them for its operational permissions, operates day-to-day with cutting edge instruments and methods that political entities have extraordinary difficulty monitoring and managing. The image of the oil gushing from a broken pipe at the bottom of the Gulf of Mexico is a reminder that we do not comprehend the functioning of a technological infrastructure on which we depend, and which overwhelms and ultimately displaces our subjectivity. Mostly our technologies (phones, computers, automobiles, electricity, the internet, etc.) appear to us to be instruments that we use, control and manage. Oil gushing from a broken pipe in the ocean is fascinating because it suggests that although technology and capital are synthesized in an endeavor

to provide us with resources, the mobilization of these technologies occurs in a manner that we as individual subjects can neither understand nor control. Not only we as individuals but also our representatives—our government—is powerless. The calls from an irate public to politicians to ‘do something’ about the seeping oil make it only more clear that if anything is to be done then it will be done by the private sector, industry. This is an image of neo-liberal governance. The government has authority but without either equipment or expertise this authority is useless. The government cannot intercede to stop the oil spewing into the Gulf. It has no choice other than to rely upon the same engineers that drilled the well. The image of the wellhead spewing oil into the Gulf is as profound a statement as the public has ever seen of the impotence of the governmental body in the face of technological disaster.

The panic underlying our fascination with the BP video accompanies the strange celebrity of the company’s CEO, Tony Hayward. In addition to the camera trained on the well head, the media trains its camera on him, on his head, as if he were a politician or representative of the people. So confusing is this role for the ‘human face’ of the company that he asks famously and pitifully “for his life back” in a widely circulated CNN interview (CNN). And yet, it is not the catastrophe itself that has proved too much for Hayward, so much as that he is thrust into an impossible role of an individual human being made responsible before a technological marvel gone wrong. Hayward is, of course, the scapegoat. He preserves for us the fiction that there is someone in charge, some face responsible and accountable for our condition.

Unlike the films of Warhol which have art and form as an object, the BP film is wrought by a question of what the video might ultimately mean (for us, for the environment). We are restless in the face of the BP footage but unlike for the film *Empire*, we dare not act on our restlessness. During a 1964 projection of Warhol’s *Sleep*, an 8 hour film that features a man sleeping, an audience member driven to impatience ran up to screen and shouted in the character’s ear, “WAKE UP” (Mekas 50). The BP footage provides no agent

toward whom we could address this injunction, no relay station for allowing our screams, even hypothetically, to facilitate submerged consciousness towards the surface. The BP film is not made for us and any restlessness we experience is not owned by us as it is in the Warhol movie. Instead our restlessness is a question of its resolution, of when it will stop. Our restlessness may express a desire to find someone who will explain the image to us, or, alternatively, verify our suspicion that such a person does not exist. One remarkable trajectory of the BP footage is the way it required an audience of experts to be deciphered.¹² Activists who call for more government scrutiny, asking them to “WAKE UP” miss that even if the government were in the possession of all the technical protocols it would still be unable to act.

The BP video can perhaps be described as the clash between two idealized consciousnesses: a political or *explicit* consciousness and an industrial or *implicit* consciousness. Idealized political consciousness is moral. It creates and enforces the social contract. Political consciousness through government provides a stable ethics. It deals with the dilemmas of individual versus social will, with individual liberty and its alignment with society as a whole, with individual liberty, its risks and its limits. But industry and technology are aligned with something else: an *explicit* or human consciousness typically in the form of a human aggregate, as described by total demand or the market. For Martin Heidegger, technology becomes threatening when it “slips away from human control.” This happens when humans fail to “listen” to technology, when thereby technology determines its own truth rather than having that truth “revealed” by humans (Heidegger 17). Perhaps one way to think of this is that technology in itself, in its own revealing does not operate within any ethical sphere, which can only be unknown to it. Human listening is required for that revealing to remain as an instrument of human control. Of course, technological development can be constrained by depriving it of resources (either human or capital) and by its own laws of growth. The BP spill stages the drama of the relative powerlessness of the human or explicit consciousness in the face of the implicit gone wrong. Heidegger claims that

Fig. 3 Edward Burtynsky, *Oil Spill # 13, Mississippi Delta Gulf of Mexico*, 2010

human control over technology depends on how the stored resource (*Gestell*) is utilized, whereby it can be used for “either destructive or peaceful purposes” (15). Accordingly, an unstoppable spouting of an oil well, unable even to become a *Gestell*, is technology divorced from a human means. The imagery of the drama, incomprehensible to anyone other than a board of experts, suggests that oil drilling in the Gulf accesses and defines reality in a way that seems to deny us and our explicit consciousness a role other than as abstract or theoretical victims.

Burtynsky’s Photographs

Edward Burtynsky’s photographs of the Gulf spill orchestrate our awe differently from the BP video. He took these images in early May, 2010. Working within parameters imposed on the news media by the Coast Guard and the Department of Homeland Security, Burtynsky was permitted to document the disaster only beyond 3000 ft above sea-level. Though Burtynsky unlike BP permitted his image to be of the

highest quality, the media ‘ceiling’ ensured that aerial photographs would contain few revelatory details of what was happening. Burtynsky’s photos directly confront the distance separating the photographer (and the viewer) from the event. Like BP’s footage the viewer wants to squint in order to interpret the image. This is to no avail. Burtynsky focusses his lens on scenes in which it is nearly impossible for the eye to distinguish water, boat, sky and cloud. Strange depths seem to open up within the photograph. Burtynsky’s photo of the massively transfigured environment more closely resembles an oil painting than a document of a tiny boat trying desperately to contain a toxic oil plume:

War photographer Robert Capa famously observed, “If your pictures aren’t good enough, you’re not close enough” (qtd. in Whelan 211). Capa proposes not only physical proximity but greater empathy between a photographer and his subject. Though it may apply to photographers in a war environment, Capa’s axiom is of no avail to efforts to document Macondo: images taken from the very source of the disaster by BP are as enigmatic and unresolved as Burtynsky’s images taken from a maximum distance.

Burtynsky’s photos of the Gulf spill are aesthetically balanced, and true to Walter Benjamin’s famous comment that the photograph aestheticizes poverty, these photographs beautify the spill and its aftermath. Though they are active, they do not suggest any particular urgency, efficacy or consequence. It does not seem to matter what these little boats are doing. The photograph is the visual equivalent of Joseph Conrad’s famous comment on colonialism in *Heart of Darkness* of the frigate “firing into a continent” (16). Burtynsky’s images work on us through their limitations and their indifference to traditional documentary function. We greet *Oil Spill #13* with subdued shock not because it meticulously records oil in the gulf but through our realization that the BP disaster has endowed the surface of the earth with the irreality of a canvas. Burtynsky’s photo *Ground Zero* induces similar afterthoughts in the viewer by means of an extreme reduction in scale:

From a helicopter, Burtynsky records something truthful about the predicament at ground/sea level. This truth is not in the image but rather in our impotence in front of it. In *Ground Zero*, Burtynsky photographs the fire on the rig, the floating relief well, and the accompanying ships as if they were rubber toys in a bath tub. Burtynsky’s image miniaturizes the enormous vessels so that they seem like playing pieces in a game whose rules, strategy, and tactics are perhaps obscure to us but presumably understood by the players, figurines in this setting, obviously present but unseen. Burtynsky shows us the strategic effort to address a disaster without making us privy to its logic. From this distance, the exploded rig resembles a camp fire, yet one whose smoke has risen to the level of the helicopter. By giving literally more smoke, Burtynsky activates our curiosity to see more, to ponder the fire.

Burtynsky’s perspective on the Macondo well is informed by his other work on the subject, specifically by *OIL*, his photographic study of the petroleum industry which predates the BP spill by almost a decade. In Burtynsky’s *OIL* we discern what we merely suspect from his images of the BP spill: he makes of environmental disaster an art form. In discussing the inspiration that precipitated his decision to document the industry, Burtynsky describes a sudden awareness of how his early photographic work was utterly indebted to oil. He refers to this moment as his “oil epiphany” (Burtynsky i). An epiphany always transpires at the periphery of the self, to the conscious I. Burtynsky describes this epiphany as both a reckoning with and revoking of his earlier photographic work. Dependent on the road, on his car, on having money for gas, Burtynsky claims to have realized that oil was an essential and enabling agent. He implies that oil even sustained his inner disposition towards the manufactured landscape, his “awe at what we as a species were up to” and, sounding a little like a Chevron representative, his conviction that “our achievements [were] a source of infinite possibilities” (i).

Like the photographs of the BP spill, Burtynsky’s photographs in *OIL* do not celebrate the petroleum industry and monumental grandeur of its products

Fig. 4 Edward Burtynsky, *Ground Zero, Gulf of Mexico*, 2010

but they accept it by situating it in relation to the viewer’s consciousness and understanding. Seeking to withdraw the “awe” channeled through his earlier images, the work in *OIL* asks us to soberly reckon with the petroleum industry. In this sense, despite the large format in which his prints are exhibited in galleries and museums, they are right-sized to human consciousness. Burtynsky’s photographs, including those that document the petroleum industry’s impact on the environment, contain a serene calm of a world perhaps depopulated by people but still ‘beautiful’ and recognizable to us.

Burtynsky in this photograph hands us a grand receipt for our cultural dependency on oil. The image offers us no *terra firma*, in a way that perhaps befits a scene of ecological plunder. Burtynsky gives us a bird’s eye view but without its omniscience. His hovering and vertiginous viewpoints suggest the extinction of this bird whose eye once permitted knowing surveillance. In making his photographs, Burtynsky uses a mechanical crane and helicopter to access the angle from which to explore the

Fig. 5 Edward Burtynsky, *Alberta Oil Sands #9, Fort McMurray, Alberta, Canada, 2007*.

enormity of the petroleum industry: *enormity*, not only in the sense of largeness but in the sense of *enormity of the crime*. His images scrupulously delete anything in the landscape (a human figure, for example) that might help us assess the scale of what he documents.¹³ That is, Burtynsky aims for enormity without, however, being drawn in comparison to either man or his instruments. Appearing in galleries as oversized prints, Burtynsky's images enforce a distinctly strange phenomenological response: they make us squint at what is right in front of us. Our efforts to distinguish road from dirt, oil from water, even a puddle from a lake, seem to evoke the work of a prospector shaking out his pan for something of value. Perhaps Burtynsky wants to show us that there is no valuable outcome to our excavation of this landscape: no detail, no contingency, no surprise, rewards the eye that sifts through it. His work signals a sorry day for the dialectic in which both man and nature, water and waste, have lost their antonyms. The situation in this image evokes an insight by Werner Herzog in his documentary *Lessons of Darkness*, about

the burning oil fields after the first war in Iraq: "The oil is treacherous because it reflects the sky. The oil is trying to disguise itself as water" (Herzog). Unlike chemistry, photography cannot distinguish oil from water. This is another way of remarking the longstanding debt that the photographic medium itself has to oil. 'Bitumen of Judea' is a derivative of bitumen, currently being excavated in the Alberta oil sands. This tar-like substance provided Nicéphore Niépce with the light-sensitive coating used in the making of the first known photograph in 1826, an image of Niépce's backyard that developed after an 8 hour exposure.

Burtynsky's images seem to actively deplete the act of critical excavation in his work and to block any windfall from the extraction process. In this way he tries to maintain the epiphany that occasioned it: he obstructs the viewer's effort to comfortably grasp the proportion of the oil industry (and thereby dismiss it). In the outsized prints of the Socar oil tanks in Azerbaijan, we squint at the items around the tanks to offer us some access to scale.

The tank is braced by the frame of Burtynsky's photograph. Never before, perhaps, have we wanted to so desperately to count the number of steps in a photographed set of stairs, so as to help us measure the scale of the tank. By documenting the tank without such reference points, Burtynsky suggests the hugeness of the tank and yet this hugeness remains abstract. Because it offers only the idea of hugeness, our mind is permitted to shuttle in the opposite direction. The tank seems at once oversized and miniaturized, like the souvenir gas trucks that stations sometimes sell.

Though Burtynsky seeks to purvey enormity without awe, his work sometimes transfers this awe onto the photograph itself. The fields of oil rigs, the way an oil pipe cuts through a swath of forest in Cold Lake, Canada, the innumerable Choppers and Harleys of *Parking Lot at a Kiss Concert*, are recorded with such formal grandeur by Burtynsky's large format camera that these images freeze up in our eyes like symptoms. They block any cultivation of either outrage or critical

afterthought in the spectator. A strange dignity befalls even the lowest subjects of Burtynsky's viewfinder. As one critic notes (seemingly in approval), "As we apprehend the magnitude of environmental degradation captured in Burtynsky's images, we also experience an aesthetic thrill in looking at them" (Pauli 22).

Too often Burtynsky substitutes our response, our 'thrill,' to the image for our sense of the 'environmental degradation' it depicts. Nowhere is this more apparent than in the photograph that punctuates the final page of *OIL*:

Following the images of industrial production, Burtynsky's series of shipbreaking and recycling in Chittagong, Bangladesh introduces the human figure, as if to show that real people in the third world recycle the debris of the first world. Though he only depicts these workers at great distances and always within vast wastelands, Burtynsky does not hesitate to use their footprints filled, almost cast, with oil.

The image concludes the book because it successfully anchors our conceptions to the photograph rather than to the disaster it portends. Burtynsky does not want us to care that his workers, for example, *do not own shoes* while performing their toxic cleanup. Instead, this picture assuages us by filtering an array of images already familiar to us from footprints on the sand in greeting cards to the mark made by man's first step on the moon. Burtynsky creates a successful allegory of photography for our era in which the image of conquest has been reversed: man has made of the earth into something as desolate as the moon and steps not onto firm ground but into leftover crude. The photograph even literalizes the notion of the 'carbon footprint.' The image configures man's legacy, something that can only be bequeathed by a deceased party. As it seems to resemble the first images of a man's hand in the caves of Lascaux, the image also portends man's disappearance. In his celebrated essay "The Ontology of the Photographic Image," André Bazin observes that photographs "preserve the object, as the bodies of insects are preserved intact, out of the distant past, in amber" (14). Burtynsky's image links the

Fig. 6 Edward Burtynsky, *SOCAR Oil Fields #5, Baku, Azerbaijan, 2006*

Fig. 7 Edward Burtynsky, *Recycling #10, Chittagong, Bangladesh, 2001*

medium of photograph not to amber but to something closer to the La Brea Tar Pits. *Recycling* #10 underscores not the preservational capacity of the photograph but rather the extinction of the creature whose trace it records. In this way Burtynsky creates a photograph in the future-perfect tense, where man's footprint will have ensured his destruction, his proleptic fossilization.

This multitude of possible meanings to the image is precisely what makes us miss its content. Much of the work in *OIL* displays notable restraint before suggesting man as the measure of the oil industry. Yet the final image goes beyond this proportionality towards something that is more intimately measured to the human subject: the size of a foot. Burtynsky's image assuages us with a vaguely archaic and anthropological image, leading us to appreciate his photograph instead of sensing the disaster within it.

As an artist, Burtynsky works *on* his medium and not only by means of it. Since his work is intensely about form and divorces scale from our assessment (until this final image), critics frequently claim his photographs evoke the work of other photographers, and even sculptors and painters.¹⁴ The connections are sustained by the abstraction of Burtynsky's work: they are all efforts at interpretation and these interpretations, in turn, encourage us to become art historians. By contrast the footage provided by BP baffles our aesthetic contemplation and questions the relevance of an ethical or human perception. Over the image of oil gushing boundlessly from the Macondo break we do not hallucinate the work of other artists. Rather we superimpose images borne by the generic quality of the BP footage: a smokestack belching fumes, an endlessly blowing lunch whistle, even (with the plankton and floating debris around the wellhead) a kind of infernal snow-globe one might find on the desk of a BP executive. Yet the BP footage also forces us to revoke each of these associations: the smokestack, for example, is an icon drawn from an earlier era of industrialization and has come to signify the triumph of technology over nature (a situation emphatically reversed in the BP footage). We cling to these associations to give some shape to

the generic outlines of a drama we can watch but not evaluate: the endless murmur or scream of oil from the ground. The 'free associations' that we cobble together before the BP footage indicates in fact how the world is being transformed into an ink blot of catastrophic proportions, one that is visible from space. Unlike the traditional Rorschach test, this new one is formed by multiple plumes over the Gulf of Mexico, and does not inform us of our individual psyches, inclinations or private desires. Rather, this new Rorschach is a symptom detailing our dependence on technology and its horrific relation to the natural environment.

Image Notes

Fig. 1 "4:34 PM on 06/03/10." *Oilspillhub.orb*. 2010. Web. August 20, 2012. <<http://oilspillhub.org/video.cfm?video=10>>.

Fig. 2 Top Left: Gardner, Sean (Reuters). "Dead Fish Lie in Oil from the BP Oil Spill." Photograph. *The Guardian*, July 25, 2010.. Web. August 22, 2012. <<http://www.guardian.co.uk/environment/2010/jul/25/bp-oil-spill-sole-blame>>.

Top Right: Ridel, Charlie (AP Photo). "Brown Pelican sits in heavy oil on the beach at East Grand Terre Island along the Louisiana coast Thursday, June 3, 2010." Photograph. *The Big Picture*. Boston. com. Web. August 20, 2012.

Middle Left: Cole, Carolyn (LA Times). "Shrimp Boats Skim Oil from the Water's Surface in the Gulf of Mexico. May 17, 2010." Photograph. *From the Photo Desk*. the star.com, May 18, 2010. Web. August 22, 2012.

Middle Right: Riedel, Charlie (AP Photo). "Erica Miller, left, Heather Nevill, center and Danene Birtell clean a Brown Pelican at the Fort Jackson Wildlife Rehabilitation Center at Buras, La. May 15, 2010." Photograph. *From the Photo Desk*. the star.com, May 18, 2010. Web. August 22, 2012.

Fig. 3 Burtynsky, Edward. *Oil Fields* #13, *Mississippi*

Delta Gulf of Mexico, 2010. Photograph. Edward Burtynsky Photographic Works, 2001. Web. August 20, 2012. <edwardburtynsky.com>. Fig. 4 Burtynsky, Edward. *Ground Zero, Gulf of Mexico*, 2010. Photograph. Edward Burtynsky Photographic Works, 2001. Web. August 20, 2012. <edwardburtynsky.com>.

Fig. 5 Burtynsky, Edward. *Alberta Oil Sands* #9, *Fort McMurray, Alberta, Canada*, 2007. Photograph. Edward Burtynsky Photographic Works, 2001. Web. August 20, 2012. <edwardburtynsky.com>.

Fig. 6 Burtynsky, Edward. *SOCAR Oil Fields* #5, *Baku, Azerbaijan*, 2006. Photograph. Edward Burtynsky Photographic Works, 2001. Web. August 20, 2012. <edwardburtynsky.com>. Fig. 7 Burtynsky, Edward. *Recycling* #10, *Chittagong, Bangladesh*, 2001. Photograph. Edward Burtynsky Photographic Works, 2001. Web. August 20, 2012. <edwardburtynsky.com>.

Works Cited

Baker, Kenneth. "Form Versus Portent: Edward Burtynsky's Endangered Landscapes." *Manufactured Landscapes: The Photographs of Edward Burtynsky*. Ed. Lori Pauli. New Haven: Yale University Press, 2003. 40-45. Print.

Bazin, André. "The Ontology of the Photographic Image." *What is Cinema, Vol. 1*. Trans. Hugh Gray. Berkeley: University of California Press, 1967. 9-16. Print.

Benjamin, Walter, "Little History of Photography." *Selected Writings Volume 2, 1931-1934*. Trans. Rodney Livingstone. Ed. Michael W. Jennings, Howard Eiland, and Gary Smith. Cambridge: Harvard University Press, 1999. 507-530. Print.

Burtynsky, Edward. "Introduction." *OIL*. Göttingen: Steidl, 1999. i. Print.

CNN Wire Staff. "BP Chief to Gulf Residents: I'm Sorry." *CNN International News*, May 31, 2010. Web. August 20, 2012.

Coll, Steve. *Private Empire: Exxon Mobile and American Power*. New York: Penguin, 2012. Print.

Conrad, Joseph. *The Heart of Darkness*. Ed. Cedric Watts. London: Everyman Library, 1995. Print.

Heidegger, Martin. "The Question Concerning Technology." *The Question Concerning Technology and Other Essays*. Trans. William Lovitt. New York: Harper & Row, 1977. 3-35. Print.

Herzog, Werner, dir. *Lessons of Darkness*. Werner Herzog Filmproduktion, 1992. Film.

Mekas, Jonas. "Warhol's Sleep." *The Movies*. Ed. Gilbert Adair. New York: Penguin, 1999. 50-52. Print.

Pauli, Lori. "Seeing the Big Picture." *Manufactured Landscapes: The Photographs of Edward Burtynsky*. Ed. Lori Pauli. New Haven: Yale University Press, 2003. 10-33. Print.

Torosian, Michael. "The Essential Element: An Interview with Edward Burtynsky." *Manufactured Landscapes*. Ed. Lori Pauli. New Haven: Yale University Press, 2003. 46-55. Print.

Whelan, Richard. *Robert Capa: A Biography*. Lincoln: University of Nebraska Press, 1994. Print.

(Endnotes)

1. My thanks go to my colleague Kristina Bross for her helpful comments on an earlier draft of this paper, and for inviting me to participate in an interdisciplinary panel on the BP footage, and to Steven Wereley, Professor of Mechanical Engineering at Purdue University, for his explanations about particle image velocimetry. I also want to thank editors Sheena Wilson and Andrew Pendakis, as well as the two anonymous reviewers, for their insightful suggestions.

"I remember seeing my first Carleton Watkins prints... they were remarkable, with an aliveness in the images that is hard to find in contemporary work...I've often thought that if I had been born in that era that would

have been the kind of photography I would have loved to do. Going out, and bringing back something the world had not seen before. The New West. It must have been an exhilarating time for photography, full of exploration and adventure” (qtd. in Torosian 46).

2. In spring of 2010, the Deepwater Horizon oil rig exploded, killing 11 workers and damaging a wellhead four and a half miles below the surface of the water on the floor of the Gulf of Mexico. Despite various strategies, including the application of a cap, cutting off the pipe, pumping mud into the wellhead “top kill,” BP was unable to stop oil from seeping into the Gulf, and eventually gave up, resorting to depleting the wellhead by drilling a separate “relief” well. In the time it took BP to drill the relief well, almost 5 million gallons of oil was released into Gulf waters, the greatest environmental disaster in US history.

3. Velicometry is the measurement of the velocity of fluids. A frame by frame analysis of the BP footage allowed engineers to calculate the speed of clumps of oil gushing from the well. The BP footage therefore enabled them to estimate the total amount of oil released into the Gulf.

4. <http://www.guardian.co.uk/environment/video/2010/jun/10/eel-deepwater-horizon-oil-leak>

5. The word tabloid also pertains here. This term derives from late 19th century process of compressing medicines into digestible tablet form. This reduction-into-pill form later described popular newspapers that condensed news into sensational headlines. The compressed file is today’s version of the tabloid headline: the former is circulated via technology, in formats that “appeal” to the link between computers rather than word of mouth.

6. In both modern philosophy and psychoanalysis, the emergence of truth depends on access opened when something ceases to work. Heidegger says that only the broken radio shows us how it works (when we stop using it, we inquire into what went wrong: the interruption of functionality opens questioning).

Similarly, Lacan describes how the mechanism of desire invites psychoanalysis once it stops “working” for the patient. The explosion of the Deepwater Horizon rig only increases our fascination: technological dysfunctionality has become inseparable from its functionality.

7. Neither the ubiquity of these rigs nor the fascination they exert have been lost on artists. Artist Josephine Meckseper recently erected mock oil rigs in the garment district of Manhattan:

This sculpture suggests something retrograde about art’s response to the petroleum industry: it can only multiply the functional signs of that industry, suggesting a muted criticism about their ubiquity in our lives. What art hasn’t been able to do is to confront the fascination exerted by the broken oil pipe, the subterranean allure of oil’s disaster.

8. This suspended state of the disaster evokes people’s fascination with trapped miners. Recent mining accidents in Chile (2010) and Peru (2012) initiate an inaccessible and technologically mediated drama that evokes the BP disaster. One might say the drama of these men begins only when they are accessible only by technology, when technology becomes the arbiter of their fate, when

their sequestered state (like the Macondo site) is both mediated and maintained by technology.

9. The National Debt Clock is a constantly updated billboard display showing the current United States gross national debt. The clock is installed on Sixth Avenue in New York City.

10. In a recent interview on NPR Cameron discusses his motivation and his need to convince investors to fund the creation of a vehicle that could handle these extreme depths outfitted with cameras, lights, essentially a hybrid of Captain Nemo’s sub and a Hollywood studio, in order to glean pictures for a film.

11. There is more than one multimillionaire and billionaire involved in space launches. Paypal’s Elon Musk, Amazon’s Jeff Bezos and Virgin’s Richard Branson are among the best known.

12. The Flow Rate Technical Group, comprised of engineers including Steven Wereley of Purdue University, were the first to develop a formula for plume modeling. Using particle image velicometry (using a frame by frame analysis of the video to estimate the size, distance, and rate with which a certain clump of oil would travel), the Flow Rate Technical Group was able to determine the fluid velocity and flow volume. Where BP originally estimated that 1,000 barrels of oil to be spilling out of the pipe daily, Wereley established the figure to be closer to 60,000 barrels daily.

13. Burtynsky documents piles of tires, those accessories to our automobile culture, in a way faintly reminiscent of the piles of human hair shorn from victims of the camps in Alain Resnais’ film *Night and Fog*. Both Resnais and Burtynsky absent the photographic scale, in order to induce a spectatorial realization about the extremity of the crime. Burtynsky writes in his introduction to *OIL* that his work can only suggest the “extended landscape of this thing we call oil,” i.e. something that exceeds his frame (i). With no scale to measure the geometry of what is happening, we in fact are pushed towards relying on a different scale of judgment in our response to it.

14. In his essay “Form Versus Portent: Edward Burtynsky’s Endangered Landscapes,” Kenneth Baker writes, “The grid patterns of coloured squares recall, to anyone who knows them, the chance-ordered grids of colour in abstract paintings by Ellsworth Kelly and Gerhardt Richter. Burtynsky may make unusually frequent acknowledgment of abstract painting because he recognizes photography as a medium that necessarily abstracts” (43). Reviewers have also compared Burtynsky’s work to the sculptures of Richard Serra and the paintings of Jackson Pollock.

Duefahrd, Lance: Lance Duerfahrd is Assistant Professor of Film and Photographic Study in the English Department at Purdue University. He is the author of *The Work of Poverty: Samuel Beckett’s Vagabonds and the Theater of Crisis* (The Ohio State University Press, forthcoming), and articles on actor Klaus Kinski, and directors Joseph Lewis, William Wyler, and Ed Wood. Lance has been interviewed in *The Chicago Tribune* and appeared on National Public Radio, the BBC, and the CBC network to discuss his research in bad film.

Duerfahrd, Lance : Lance Duerfahrd est professeur adjoint de cinéma et d’études photographiques dans le département d’anglais à l’Université Purdue. Il est l’auteur du livre *The Work of Poverty: Samuel Beckett’s Vagabonds and the Theater of Crisis*, à paraître chez *The Ohio State University Press*, et a fait publier des articles au sujet de l’acteur Klaus Kinski, ainsi que sur les metteurs en scène Joseph Lewis, William Wyler, et Ed Wood. Duerfahrd a accordé des entretiens à *The Chicago Tribune*, à la *National Public Radio*, à la *BBC*, et à la *CBC* à propos de ses recherches sur le navet filmique.

Copyright Imre Szeman and Maria Whiteman. This article is licensed under a Creative Commons 3.0 License although certain works referenced herein may be separately licensed, or the author has exercised their right to fair dealing under the Canadian *Copyright Act*.

RESISTANCE IS FUTILE?

ENDURING HEGEMONY DESPITE IDEOLOGICAL CHALLENGE

TRACY LASSITER

Hegemonic discourse often portrays as “normal” or desirable the use of fossil fuels, despite the devastation brought through accessing those fuels. Currently, some of the worst examples of this devastation result from the petroleum industry. However, efforts to challenge its practices—and its hegemonic power—in fact reinforce other forms of hegemonic power. This article examines some of those instances.

This article analyzes filmmaker Joe Berlinger’s 2009 documentary *Crude*. *Crude* features the lawsuit filed by 30,000 Ecuadorian people against Chevron. Ironically, *Crude* shows how Western upper-class privilege is invoked to solve the Ecuadorians’ problems. We can infer their resistance to one hegemonic power—i.e., a multinational petroleum corporation—is only possible through using other hegemonic power like white, male, upper-class privilege. This article draws upon Gayatri Spivak’s canonical text “Can the Subaltern Speak” and Louis Althusser’s concept of ideological apparatuses to support this claim.

Le discours hégémonique décrit l’usage des combustibles fossiles comme « normal » ou même souhaitable, malgré les effets dévastateurs de leur extraction. Actuellement les plus pires exemples proviennent de l’industrie pétrolière. Toutefois les efforts afin de défier ce discours et son pouvoir hégémonique suscitent en réalité d’autres formes d’hégémonie.

Cet article examine quelques-unes de ces instances à travers le documentaire Joe Berlinger, paru en 2009. *Crude* le procès intenté par quelques 30 000 Équatoriens contre Chevron. On peut associer le pouvoir hégémonique contre lequel ceux-ci luttent, c’est-à-dire celui de l’entreprise pétrolière multinationale, avec un autre pouvoir hégémonique : celui du blanc, de l’homme du privilège aristocratique. Ironiquement, le film montre comment les privilèges de l’aristocratie de l’Ouest sont mis de l’avant pour essayer de résoudre les problèmes des Équatoriens. Cet article s’inspire du texte canonique « Can the Subaltern Speak » de Gayatri Spivak, ainsi que du concept des appareils idéologiques de Louis Althusser, afin de soutenir son hypothèse.

Fans of *Star Trek: The Next Generation* will recognize this article title’s allusion to the Borg. For those not familiar with the series or the characters, the Borg are a race of cybernetic beings who subsume the interstellar species they encounter into their vast collective mind. Most living organisms encountering the Borg are doomed; as the Borg forewarn prior to their organic takeover: “Resistance is futile; you will be assimilated.”

I thought of the Borg while I watched filmmaker Joe Berlinger’s 2009 documentary *Crude*, which portrays the circumstances surrounding one of the largest environmental lawsuits in the world. Thirty thousand Ecuadorans, largely those from indigenous populations, filed the suit *Aguinda vs. Chevron* against the oil giant. My mental leap from the documentary to the single-minded entity intent on domination reminded me of the petroleum industry itself, that vast multinational force whose world-wide omnipresence seems as diffuse as the Borgs’ in the galaxy’s Delta Quadrant.

That is, it seems almost impossible to believe a marginalized population could succeed against a global-capitalistic industry with billions of dollars at its disposal. Those oppressed by such power structures often have no choice but to participate in them, akin to being taken over through Borgian transformation. After all, as world-systems theorist Immanuel Wallerstein writes, “[historical capitalism] is that social system in which those who have operated by such rules [of endless accumulation] have had such great impact on the whole as to create conditions wherein the others have been forced to conform to the patterns or to suffer the consequences”, an either/or scenario that all but guarantees capitalistic assimilation (Wallerstein 18). Further, as I watched events unfold throughout the film, it occurred to me that while the Ecuadorans fight petro-capitalism’s hegemonic power, they often are forced to use—and thus reinforce—other hegemonic structures to do so. The question I then considered was whether true resistance to hegemonic power is ever possible for the subaltern figure.

What follows is my attempt to address this question, demonstrated by the film’s events and framed by petro-ideological structures currently in place. In the twenty-first century, it is difficult to name a topic that offers more pressing social, economic, and political concerns than energy. The oil and gas industry has been particularly implicated in matters of human rights, social justice and environmental exploitation in locations the world over. As noted by watch groups, NGOs, academics, and others, petroleum-based corporate power runs largely unchecked, aided by systemic infrastructure reinforcing its neo-liberal interests and agenda. For me, the term ‘systemic infrastructures’ initially calls to mind what Marxist theorist Louis Althusser described as ‘state apparatuses’ that reinforce ideology and hegemony.

Althusser builds upon Karl Marx’s theory that for a social formation to survive, it must reproduce the conditions that allowed its production in the first place. Althusser argues this social formation survives through an ideology promoted through ‘repressive apparatuses’ such as the courts, police, and military, and through ‘state apparatuses’ that reinforce certain behaviors. Ideological state apparatuses include cultural productions like family structures, religious and educational institutions, and the media. Relative to the issue of petrocultures, the media message propounded by the energy industry touts hydrocarbon fuel-use as both desirable and available.¹ It usually downplays ‘green energy’ alternatives while claiming that its rampant exploitative actions are justifiable—as, for example Exxon Mobil claims, in the name of national security.

The localized consequences of such a hegemonic agenda in subaltern contexts frequently go unnoticed by the wealthier nations of the global North who benefit most from this system. For example, while the contaminated rainforest site was on Amazon Watch’s list for years, Clean Up Ecuador advocate Leila Salazar says it is otherwise “virtually impossible for indigenous people in Ecuador to make the American public aware of the crimes committed by U.S. firms in their communities” (Juhász 251). Petro-capitalism renders subaltern figures, like the plaintiffs in the Chevron suit, powerless in and

marginal to its structures. For instance, the indigenous plaintiffs claim that for thirty years Texaco (now Chevron since its 2001 merger) contaminated the air and land of the rainforest where they live.² The oil industry's effects on water may even be more critical than the claims already made about air and land, as the Ecuadorans use local waterways for canoe traveling, drinking, washing and bathing. The Amazonian area overall has experienced rates of cancer, miscarriages, skin diseases, and other ailments comparable to those experienced in the aftermath of Chernobyl. On January 4, 2011, an Ecuadoran appellate court upheld an \$18 billion judgment against Chevron, finding the company liable for the vast contamination it caused. However, this lawsuit remains unsettled and related cases, such as those filed against Joe Berlinger himself, have been brought by Chevron.

While the consequences of rampant petro-power to the global South subaltern often go unnoticed by the global northern viewer, they can come to his/her attention through alternative “image-derived realit[ies]” such as *Crude*. *Crude* and similar documentaries become a site of resistance to petro-ideology; hence, the image serves as an arena where “the real power relations that control society and the ideologies that prevent society from realizing social and political freedom” and those forces opposed to them do battle (Kul-Want and Piero 18). Cultural theorist Slavoj Žižek argues that understanding the existing power relations and ideologies means getting at ‘the truth’ that people are not free (Kul-Want and Piero 22). Given the limitations to social and political power created by these hegemonic structures, we can deduce that one limitation imposed on the subaltern figure is access to voice.

Gayatri Spivak, in her canonical essay “Can the Subaltern Speak?”, is critical of Foucaultian-Deleuzian analyses of power situations. Spivak argues that these analyses, as well as postcolonial critiques, often fail to fully explore such power imbalances, and she proposes that we ask the important question: “On the other side of the international division of labor from socialized capital, inside *and* outside the circuit of the epistemic

violence of imperialist law and education supplementing an earlier economic text, *can the subaltern speak?*” (Spivak 283, original emphasis).

Spivak answers her rhetorical question with an emphatic negative. She states that all too frequently, the subaltern has no means of speaking for herself under colonial and other power structures. Furthermore, Spivak continues, that situation is not ameliorated even by members of the dominant class, like academics, who think they are helping and who believe “they know the ‘other’ and can place it in the context of the narrative of the oppressed” (Maggio 420). Spivak argues the postcolonial scholar/critic assumes a formed solidarity with the subalterns and, believing himself to be so allied with this population, speaks on their behalf instead of allowing them to speak for themselves. When this occurs, the subaltern remains subordinated and the critic maintains a privileged position.

The other danger here, Spivak warns, is that the Western dominant figure frequently conceives of the subaltern as a homogeneous, or essentialized, group. The Subaltern Studies project, a group of historians led by Ranajit Guha, had the “explicit aim of expanding and enriching Gramsci’s notion of the subaltern” by “conced[ing] on the diversity, heterogeneity and overlapping nature of subaltern groups” (Galfarsoro). My interest in raising Guha’s inclusive definition here is that it serves as a way of framing instances of subaltern silencing in *Crude*. In these cases, the subaltern subject shifts. It may be an Ecuadoran or a European woman; it may be a child or an indigenous protester. In each, though, a countervailing hegemonic power is strengthened. After offering an analysis of this pattern in Berlinger’s film, I return to my original question about whether the subaltern figure can ever speak to power without reinforcing its hegemony, and what socio-cultural structures could be required if that is to be possible.

The Subaltern, Interrupted

Crude opens with a Cofán woman explaining what has befallen her people since Texaco’s arrival in their region in the 1970s. In addition to discussing the loss of her

Fig. 1

brothers, she describes the erosion of Cofán cultural identity as the people became ashamed to wear their traditional dress and decorations around company employees. And, she says, most of the tribe’s women no longer sing their traditional songs.

As a message to the film’s viewers, she sings one of those songs. It is part lament and part plea. She asks, “What will happen to the children? What will become of my people?” Overall, she says, her point is “to tell the world so that the world can know what has been done” (*Crude*). The woman is not faceless to viewers, but she does remain nameless. As her song fades, the film cuts to a news clip from a San Francisco television channel. It features Ecuadoran lawyer Pablo Fajardo and his colleague Luis Yanza receiving the 2008 Goldman Environmental Prize.

According to Berlinger’s “Director’s Statement” once posted on the *Crude* website, Fajardo’s rise from humble labourer in the oil fields to lead attorney in the lawsuit to internationally recognized activist made

him a “compelling central character” upon whom to hang the narrative arc. While the woman remains unidentified and her voice is replaced by that of a white, male, American media personality, Fajardo becomes the prominent face and voice of the movement due to his cultural heritage, his activism, and his legal education. Admittedly, logistics dictate that someone must speak on behalf of the 30,000 Ecuadorans—who call themselves *los afectados*, or ‘the affected ones’—as it would be virtually impossible for each member to speak for himself or herself in every venue. Yet, like the Cofán woman, in myriad ways throughout the film the subaltern figure is rendered silent.

Crude frequently exemplifies this tendency even though Berlinger and Steven Donziger, the American environmental lawyer who takes up the Ecuadorans’ cause in the U.S., may not intend this. For example, in his posted article entitled “Crude Realities,” Berlinger says that by making the film he brings “a much-needed portrait of human suffering to a wider audience.” Certainly he does this, and *Crude* won an impressive list

of awards as a result, including the National Board of Review’s “Best Documentary of the Year” and Cinema for Peace’s “International Green Film Award.” *Crude* is a compelling film and it *is* able to bring “an audience into a world they probably have never seen before” (“Statement”). Furthermore, Berlinger explicitly raises Marxist and postcolonial theoretical issues, stating:

There are deeper, more nuanced and complex themes that resonate far beyond this particular case. What are the roles of corporate power, government, the media and big money in cases such as this, with a long history and potentially enormous consequences? What does it take to tackle an environmental and human rights problem of this magnitude? How has the white man’s historically appalling treatment of indigenous people in the Americas over the past five centuries played a role in the history—and outcome—of this case? (ibid.)

Yet as Spivak points out, answering these sorts of questions becomes the subaltern’s burden. Any audience that has not seen the South American context presented by *Crude* is provided a visual, Westernized narrative representation through which to access the Cofán, Secoya or Huaorani culture. Viewers learn of the subalterns’ position as represented by a central figure (Fajardo) through the perspective of an outside figure who is white, male, elite, and American (Berlinger the filmmaker) and groomed for appearance in that society by another white male elite (Donziger, the lawyer). English subtitles not only eliminate the necessity for the Western viewer to speak A’ingae or Spanish (another colonial language) but the film also eradicates any need for Westerners to meet Ecuadoran subjects in their own context. The film not only translates language, but visually reinvents and transposes for a Western media-consuming public the Ecuadoran subject. The voice the audience eventually hears may be that of the subaltern, but only after it is first run through various hegemonic filters.

Of greater concern are the instances where the elite figure replaces the subalterns’ words with his own. Donziger does this a number of times throughout the

film. As an international lawyer, Donziger is captured on film moulding and coaching Ecuadoran subjects to represent themselves in conformity with Western legal conventions and cultural norms, a practice reproduced on the level of the film itself. For example, when preparing two Ecuadorans to testify before a Chevron shareholder meeting, Donziger listens while Emergildo Criollo rehearses in Spanish his brief speech. Criollo ends his discourse with the query, “I want to ask Chevron, are you ever going to clean up or offer compensation to the Amazon?” While Donziger tells Criollo in Spanish, “That was good,” he separately in English tells his assistant, Kevin, “I don’t think his speech was good.” He rattles off a list of ideas and phrases he wants Criollo to present to the shareholders the next day. For example, Donziger anticipates the company will try to quash or interrupt Criollo’s presentation; if that happens he wants Criollo prepared to say, “You spent twenty-eight years in my territory—I can spend three minutes in your territory.” He also includes an appeal to Chevron’s “ethical and moral obligations” to the people lest within a few years the Cofán nation ceases to exist. Donziger tells Kevin, who will work with Criollo to learn these statements, “You have to control this guy and get him up to speed.”

He also reminds Kevin that Criollo “is relying on you. He’s in our land right now.” Donziger’s substitution of Criollo’s words with his own in this instance makes a certain sense. After all, Criollo is confronting a Western hegemonic force on its own turf, and Donziger recognizes Criollo must wield the logic and rhetoric of Western hegemony in order to be effective against it. What makes this situation lamentable is that, as Spivak reminds us, it is incumbent upon the subaltern to speak to power in that power’s language. In the act of resisting a given power, the oppressed must accommodate it, which reinforces that power’s privileged position. At the same time, the hegemonic force itself feels no sense of obligation to hear the subaltern’s voice on the subaltern’s terms. Its power is so great it can dismiss or ignore any other paradigm or ideology.

This is why another instance of Donziger’s assumption of subaltern voice rings as less forgivable. Within a

few hours of Rafael Correa’s inauguration, Donziger strategizes. He says the group needs a plan to bring the new Ecuadoran president to the contaminated region to see it for himself. He, Luis Yanza, and Lupita de Heredia of the Amazon Defense Front argue about this upon leaving the inaugural events. De Heredia tells Donziger they have already contacted Correa’s office to ask about having the president visit the sites. She says the office won’t give them an appointment with Correa; they must go through his ministers. In order to reach the president directly, she tells him, “We need a very clear strategy.” Donziger cannot understand why such a strategy is not already in place, noting Correa was president-elect for nearly two months before his inauguration. “Why don’t you make a plan?” he asks with some exasperation. Yanza counters by saying, “I don’t understand what ‘a plan’ is for the gringos. [...] Your plan is a list of things. Here in Ecuador that’s not a plan. [...] For us a plan is where you discuss, analyze, put people in charge, and set dates, decide how it will be evaluated, the methodology. That’s a plan.” Donziger puts down Yanza’s statement, saying what he describes isn’t a plan but a “bureaucracy” that will allow months to pass with nothing happening. He tells them the time to act is now, and exhorts the others to agree with him, asking, “Am I right or no?” De Heredia answers him with an unequivocal “No.” To his credit, Donziger backs off, asking less forcefully, “Am I a little right?” and de Heredia reluctantly admits he is. But on the whole this exchange demonstrates the clash that ensues from Western hegemony attempting to assert itself on another population. During this disagreement, Donziger at times talks over both Yanza and de Heredia, raising his voice in order to quiet theirs. Yanza tries to explain to him that Donziger’s plan simply to contact Correa directly will not work, saying, “Steve, it’s not like that” in Ecuador, and Donziger does not bother to ask them how it in fact *is*. Instead he devalues Yanza’s knowledge by dismissing the Ecuadoran’s explanation of what constitutes an action plan as “bureaucracy.” The Ecuadoran point of view represents a mélange of cultural, social, legal and economic perspectives. These include, though not exclusively, Western practices and concepts. However, Donziger commits the hegemonic fault of essentializing his colleagues into one large ‘non-

Western’ category; he makes no concession for their cultural differences in his approach to problem solving and strategizing. Last, Donziger insists that he is right, which comports with an imperialist view that asserts its way is the best, and only, way in which to proceed.

However, as mentioned, since Donziger is a member of the dominant class, he knows how to confront hegemonic power. Because he’s adept at this, he is able to accomplish what Salazar says indigenous communities otherwise can’t: make the American public aware of the crimes committed by U.S. firms in those communities. Specifically, Donziger uses the media—a key Althusserian ideological apparatus—to generate that awareness.

It begins with *Crude* itself. According to Berlinger, Donziger approached him in 2005 “looking for a filmmaker to be [the plaintiffs’] advocate with a very singular point of view” (“Realities”). Berlinger admits at first he was reluctant to pursue the project for a variety of reasons, including his artistic ethic of “explor[ing] a situation from all sides without overtly revealing” a particular viewpoint (ibid.). Yet upon taking Donziger’s suggestion to travel to Ecuador and after seeing the “shocking ecological disaster” for himself, he decided to make *Crude*, which subsequently took three years to complete. As a film, television, and commercial director, Berlinger, like Donziger, recognizes media’s power to shape culture. After his initial trip to the Amazon, he felt urged to “shine a light” on the situation. He maintains the film still presents both sides of the story fairly enough for viewers to draw their own conclusion regarding the issue. At the same time, he expresses surprise at the otherwise “scant press coverage this story received in the U.S.”

That changes when the public relations firm Donziger uses tells him the Ecuadorans’ struggle could be a key feature in a forthcoming special issue of *Vanity Fair* dedicated to the environment. Donziger says, “Through the years, we’ve gotten a fair amount of press but we have never broken through to the consciousness of the American people in a significant way” (*Crude*).

Vanity Fair does pursue the story, and the article entitled “Jungle Law” appears in its May 2007 issue. Journalist William Langewiesche nicely details the case’s complexity and addresses the “emotional battle in a makeshift jungle courtroom”. He focuses the story largely on Fajardo, and this triggers a sequence of events that propels Fajardo and the Amazonians’ cause into the international spotlight.

Fajardo becomes the film and lawsuit’s heroic figure for good reason. As the *Vanity Fair* article reports, he worked as a labourer for years, beginning at age fourteen clearing jungle growth with a machete. When he was seventeen, his parents separated and then left, leaving him in charge of caring for his many siblings. At that age, he also helped found a local human-rights group to fight corporate exploitation. Fajardo says the palm-grove company he had been working for sent spies after him, and he was fired as a subversive and labour unionist. He then went to work as a laborer for an oil company while completing his secondary education in night school and his law degree via correspondence. He was supported financially in part by friends and through scholarships arranged by local priests. He had only been a lawyer for a year when a team of settlers and indigenous leaders asked him to take over as their legal advocate for the class-action suit they had filed. It was his first trial (Langewiesche). As Berlinger says of Fajardo, “His humble beginnings and his love of his people—and the love he gets in return—stand in stark contrast to the label of ‘environmental con man’ bestowed upon him by Chevron’s PR department. This gaping chasm in perception in how he is seen by his people and how he is talked about by the oil giant seemed like the seeds of a great drama” (“Realities”). In this case, this discrepancy in perception becomes a key dramatic element of the cinematic narrative Berlinger constructs with *Crude*.

Perhaps it is Fajardo’s rags-to-riches story that makes him so appealing to Western audiences, especially Americans who like a good Horatio Alger-esque up-by-his-bootstraps figure. Or perhaps, as the film mentions several times, it is a “David and Goliath” story. It could also be that Fajardo comes across as genuinely sincere.

He lives humbly despite Chevron’s accusations that he is only in this lawsuit for the payout. He faces such accusations graciously, remarking in the film, “I have never felt inferior to any of the Texaco lawyers because when I say something, they have to think one thousand times to come up with a lie in order to counter my truth” (*Crude*). Even upon seeing the several-page spread in *Vanity Fair*, which features his picture several times, Fajardo is self-effacing. He wishes they would have focused less on him and more on “this one sick family” because “they are the very expression of the problem.”

Yet the light shining on Fajardo sometimes leaves others in the shadows. Luis Yanza shares the 2008 Goldman Environmental Prize with Fajardo because it was his organization that first filed suit against Texaco in 1993 (Goldman). However, Yanza appears only in a few scenes in *Crude*³ and warrants only four sentences in the “Jungle Law” article. While it devotes several pages to Fajardo’s past and history of activism, no such detail emerges about Yanza. Early in the article, however, are some revealing clues as to the reasons for this elision. Langewiesche’s early mention of Fajardo describes him as a “mestizo,” while his first mention of Yanza points out his “features that are purely Inca”. Little is said of what he argues in the judge’s office except that he “bluntly challenged Chevron’s legal tactics”. The privileging of Fajardo’s discourse and role in the trial may represent racially encoded socio-cultural hierarchies linked to the history of colonialism. Thus, even though we have a great many words from the *mestizo* activist, we read none from the one who is explicitly indexed as classically (even paradigmatically), “purely” indigenous. At the end of this section of the article, Langewiesche paraphrases the judge before whom this heated exchange has occurred. He tells the reporter the lawsuit is a fight not just about oil companies in the jungle but about “500 years of South American history”. Unwittingly, and likely as a result of five hundred years of embedded ideology, the colonial mindset still permeates these media forms, silencing a subaltern because of his visible difference from the global northern viewer witnessing this story.⁴

Despite these colonial echoes, the *Vanity Fair* article does succeed in bringing the activists’ cause to a broader international audience. Amazon Watch and Donziger organize a press conference on the steps of San Francisco’s city hall about the lawsuit, bringing Fajardo and another Ecuadoran representative as guest speakers; they capitalize on the *Vanity Fair* article, telling local media outlets of the magazine’s coverage and pitching the story to the local press as “jungle guy comes to big city”. Later, back in Ecuador, President Correa does visit the contaminated sites for himself, and he carries the issue of *Vanity Fair* with him. Viewers are not sure if the organization was able to bring Correa through a successful plan it might have eventually worked out on its own or if the added attention by the magazine convinced him of the situation’s severity. Nonetheless, upon his visit Correa states, “The world needs to know about this.” After all, he rightly points out, this devastation is more damaging than the *Exxon Valdez* spill, yet the latter occurred in the U.S. “so this doesn’t matter”.

As Salazar earlier notes and Correa’s comments reflect, it’s difficult for the global South to make the global North aware of the damage in their area wrought by petroleum corporations. Donziger intends to make northern audiences aware of these injustices, and he intentionally seeks celebrity affiliation to do so. The film depicts him as he heads to London to meet Trudie Styler, wife of musician Sting and co-founder with him of the Rainforest Foundation. Donziger wants Styler to promote the Ecuadorans’ cause and visit the contaminated sites in person; she agrees to do so.

In Ecuador, Styler attends a large meeting of the Cofán; they are trying to determine how much to demand in the lawsuit, although as Donziger admits it is difficult to put a price tag on what has been lost. As he reports, the Cofán population has dwindled in the thirty years since Texaco’s arrival from 15,000 to just a few hundred people. Styler tells the meeting attendees she “stands in solidarity” with them and will take their message back to England and to the U.S. She says she considers their struggle “our fight as well.” Here, Styler eerily epitomizes

Spivak’s argument about the postcolonial figure’s identification with the oppressed members’ cause and subsequent appropriation of their voice.

Styler and Sting’s Rainforest Foundation do provide local community members with large barrels so they can catch rainwater, which Styler acknowledges serves only as a temporary and insufficient solution to a larger problem. Aside from this practical assistance, she telephones Fajardo at his office to inform him she has been “telling [his] story to so many people.” She invites him to New York City to attend the Live Earth concert where her husband will perform with his band. In perhaps the film’s most telling moment of subaltern access to voice, Fajardo admits to one New York interviewer he has never heard of the rock band The Police before, yet says with a grin, “but now I’m with Sting.”

Truth to Power

In various ways—as depicted in *Crude* and through the conditions leading to the lawsuit itself—the subalterns’ power is limited or appropriated. Through the Ecuadorans’ efforts to resist petro-hegemonic power, they must tap other channels of hegemonic power. As the film portrays, this culminates in Fajardo’s association with an internationally renowned, white, affluent Western male. It seems when they try to speak, the Ecuadorans are silenced by various structures that maintain their subordinate position.

Crude therefore is a valuable cultural text because it points out instances where global Northerners reify their hegemonic power even when their purported intention is to do otherwise. They may do so unwittingly, which means that changing these power dynamics requires raising awareness of instances of subaltern quieting. In fact, I must apply such awareness to this very article. That is, while critiquing the forms of subaltern silencing *Crude* depicts, am I in fact speaking for the subalterns? Do they even *want* to speak? Is my defending their voice a form of *meta*-appropriation? Even Spivak admits fault in this regard, saying, “I think it is important to acknowledge our complicity in the muting,

in order precisely to be more effective in the long run” (qtd. in Maggio 428). From this theoretical position, we can begin to question the structures reinforcing the subalterns’ silence and consider some solutions.

We can take a cue from Marx about how next to proceed. Just as he tried to get workers to think of themselves as agents of production and as not victims of capitalism, we should reconsider the subaltern as agent of hegemonic change and not as victim of corporate exploitation. Such a perspective frames the subaltern with *activity*, not *passivity*. Seeing the subaltern as active agents in their own right means letting go of our hegemonic impulse to speak on their behalf.

Yet I am left with more questions than answers. What are we to make, for example, of the Amazon tribes’ successfully using hegemonic structures to win their lawsuit? That they were successful even though silenced? What is the difference between being able to speak and being heard? How can we balance the world’s need to know, the subalterns’ desire to speak, and the hegemon’s duty to listen? Last, how can we benefit from working outside our paradigm? What could we gain by doing so?

Through cultural formations like *Crude* and *Star Trek*, we can see the positive results of being free from paradigmatic structures. In the *Star Trek* series *The Next Generation* and *Voyager*, two Borg figures, Hugh and Seven of Nine respectively, at some point leave the collective mind. Once free of the Borgian mind, these characters realize their individual consciousness. Through it, they discover they have the ability to ask questions and make choices. Hugh chooses to return to the Borg in order to keep his *Next Generation* friends safe, but after he does so the sense of individuality he acquired spreads to others in the collective. As Hugh, Seven of Nine, and other rogue Borgian figures symbolize, resistance to hegemonic structure is possible. And though the Amazonian subalterns reinforced certain forms of hegemonic power while fighting another (petro-capitalism), in the end they claimed an unprecedented \$18 billion victory against multinational power. If all these figures—real and invented—proved successful in their fight against

power structures, then perhaps resistance isn’t utterly futile after all.

Image Notes

Fig. 1 “Crude—Song of the Amazon.” Web. August 31, 2012. <<http://www.youtube.com/watch?v=VcfftXZmDBs>>

Works Cited

Althusser, Louis. “Ideology and Ideological State Apparatuses (Notes towards an Investigation).” *Lenin and Philosophy and Other Essays*. London: New Left Books, 1971. 123-73. Print.

Berlinger, Joe, dir. *Crude*. First Run Features, 2009. DVD

Berlinger, Joe. “About.” *Crude: The Movie*. Web. 3 Feb. 2012.

- - -. “Crude Realities.” *Crude the Movie*. Web. 3 Feb. 2012.

- - -. “Director’s Statement.” *Crude the Movie*. Web. 3 Feb. 2012.

Galfarsoro, Imanol. “The Notion of the Subaltern.” *Critical Stew*. 26 Oct. 2007. Web. 5 June 2012.

Juhasz, Antonia. *The Tyranny of Oil: The World’s Most Powerful Industry—and What We Must Do to Stop It*. New York: Harper Collins, 2008. Print.

Kul-Want, Christopher and Piero. *Introducing Slavoj Zizek: A Graphic Guide*. London: Icon, 2011. Print.

Langewiesche, William. “Jungle Law.” *Vanity Fair*. May 2007. EBSCOHOST. Web. 23 April 2010.

Maggio, J. ““Can the Subaltern Be Heard?” Political Theory, Translation, Representation, and Gayatri Chakravorty Spivak.” *Alternatives: Global, Local, Political* 32 (2007): 419-43. EBSCOHOST. Web. 31 May 2012.

“Pablo Fajardo Mendoza and Luis Yanza.” The Goldman Environmental Prize. *goldmanprize.org*. 2008. Web. 11 Feb. 2012.

Spivak, Gayatri. “Can the Subaltern Speak?” *Marxism and the Interpretation of Culture*. Eds.

Cary Nelson and Lawrence Grossberg. Urbana: U of Illinois P, 1988. 271-313. Print.

Wallerstein, Immanuel. *Historical Capitalism with Capitalist Civilization*. 1995. New York: Verso, 2003. Print.

(Endnotes)

1. See, for example, Shell’s “Let’s Go – 2012” and Exxon Mobil’s “Oil Sands: A Resource for Energy Security and Economic Growth” television commercials, both available on YouTube.
2. These include the Secoya, Siona, Cofan, Huaorani, and Quichua as well as other “colonial settlers” (*Crude*).
3. One of the longer scenes in which Yanza appears features him participating in a “media blitz” day where he appears on various radio stations and television talk shows. As Spivak might say, he speaks in solidarity with other members who are aware of their oppressed condition.
4. Ironically, when Donziger first sees the *Vanity Fair* article while visiting the PR firm’s offices, he calls the pages “paradigm-shifting” (*Crude*).

Lassiter, Tracy: Tracy Lassiter is an ABD English student in Indiana University of Pennsylvania’s Literature and Criticism program. She received her Master’s Degree in Comparative Literature from Indiana University and subsequently taught English for five years at Eastern Arizona College before entering IUP’s PhD program. Currently, she is writing a dissertation on petrofiction.

Lassiter, Tracy : Tracy Lassiter est doctorante en anglais à l’Université de l’Indiana en Pennsylvanie dans le cadre du programme de littérature et critique. Elle a obtenu sa maîtrise en littérature comparée de l’Université de l’Indiana, puis elle a enseigné l’anglais pendant cinq ans au Collège de l’Eastern Arizona avant d’y commencer son doctorat qui porte sur la « pétrofiction ».

Copyright Tracy Lassiter. This article is licensed under a Creative Commons 3.0 License although certain works referenced herein may be separately licensed, or the author has exercised their right to fair dealing under the Canadian *Copyright Act*.

REFRAMING THE CANADIAN OIL SANDS

CURATORIAL ESSAY BY MERLE PATCHETT • PHOTOGRAPHS AND ESSAY BY ANDRIKO LOZOWY

“Reframing the Canadian Oil Sands” is a collaborative exchange between photographer Andriko Lozowy and cultural geographer Merle Patchett that engages photography and photographic theory to evoke a more critical and politically meaningful visual engagement with the world’s largest capital oil project. Since the appearance of Edward Burtynsky’s aerial and abstracted photographic-mappings of the region, capturing the scale of the Oil Sands from ‘on high’ has become the dominant visual imaginary. As a result, the dominant visual culture of Fort McMurray oil production is one of nullification or an erasure of representation. For the past five years Lozowy has been engaged in a photographic project—entitled *Where is Fort McMurray?*—which aims to explore and work with this sense of erasure by attempting to capture the shifting (and shifted) landscapes of the Alberta Oil Sands from the roadside. For this special issue of *Imaginations* on “Sighting Oil”, Patchett and Lozowy have curated a set of Lozowy’s photographs to present an alternative, on-the-ground, view of Oil Sands production sites. Through both Lozowy’s images and Patchett’s framing curatorial essay, they explore the disruptive potential of the image and the capacity of photography to both neutralize and energize political engagement with the Canadian Oil Sands.”

IMAGINATIONS

Cet article est une collaboration entre le photographe Andriko Lozowy et la géographe culturelle Merle Patchett. La photographie et la théorie photographique y sont mises à profit afin de susciter un engagement visuel significatif des points de vue politique et critique avec le plus important projet pétrolier à ce jour. Depuis les photographies aériennes de la région des sables bitumineux par Edward Burtynsky, cette manière de photographier à distance les zones d’exploitation a connu une popularité croissante. Par conséquent la culture visuelle dominante de la production pétrolière de Fort McMurray s’est mise à vouloir invalider ou effacer cette représentation. Il y a cinq ans, Lozowy a entamé un projet intitulé *Where is Fort McMurray?* qui a pour but d’explorer et d’utiliser cette idée d’effacement en essayant de capturer les paysages mobiles (et démobilisés) des sables bitumineux albertains à partir des bords de route. Patchett et Lozowy ont organisé une exposition des photos de Lozowy pour le présent numéro d’*Imaginations*. Cette exposition présente une vue alternative—au niveau du sol—des sites de production pétrolière. À travers les images de Lozowy et les textes de Patchett, on retrouve le potentiel perturbateur de l’image et la capacité de la photographie de neutraliser et de stimuler à la fois l’engagement politique face aux sables bitumineux canadiens.

FROM ON HIGH TO THE ROADSIDE: SCALAR AESTHETICS AND THE CANADIAN OIL SANDS MERLE PATCHETT

Fig. 1 “Mayday Mayday... we’re abandoning the radio room; we’re abandoning the radio room. We can’t talk any more, we’re on fire.”—Mayday Message from the Radio Room before it was engulfed by the fire

From ‘On-High’ to the Roadside: Scalar Aesthetics and the Canadian Oil Sands

Growing up in the Scottish coastal city of Aberdeen—the ‘oil capital of Europe’—I was keenly aware that oil and water can be a volatile mix. Aberdeen became the centre of the European oil industry during the North Sea oil boom of the 1970s. The international oil crisis of the same decade had led to a huge rise in worldwide oil prices and this made extracting oil from the North Sea an attractive opportunity for multi-national oil companies like BP, AMOCO and Shell. Although drilling platforms were stationed 100 miles off the coast in the North Sea, the spectre of oil pervaded the city: from the emergence of Europe’s busiest heliport which supplied the rigs with workers, to the mammoth oil service vessels docked in Aberdeen harbour, to the expansion of the city itself through new housing, offices and schools.

However the spectre of offshore production was rudely and radically illuminated on the night of July 6, 1988. In a series of explosions the Piper Alpha oil rig, located 120 miles offshore, was obliterated in a blaze of fire, killing 165 of the 226 men on board. Two crewmen operating a rescue vessel were also killed, bringing the death toll to 167 men on “the night the sea caught fire” (Matsen 27).

In the disaster’s aftermath the Cullen Inquiry, which began in January 1989 and lasted 13 months, established the causes of the tragedy and made recommendations for future safety regimes offshore. Those affected by the tragedy were left questioning why it took a multi-fatality event for an evaluation of the oil and gas regulatory system to take place and why the rig owner’s—Occidental Petroleum—were yet to be prosecuted. The victims of the disaster set up

IMAGINATIONS

the Piper Alpha Families and Survivors Association to campaign to bring Occidental to justice. Although the Cullen Report (made public on November 12, 1990) was highly critical of Occidental’s safety program on Piper Alpha prior to the disaster, Lord Fraser, the Lord Advocate and Scotland’s chief legal officer, concluded that there was not enough evidence for a conviction. As Lord Advocate for Scotland, his analysis could not be questioned and Occidental suffered no penalty for their negligence in the Piper Alpha disaster.¹ The lack of corporate accountability was a huge blow for the Piper Alpha Families and Survivors Association. In 1991, the association erected a memorial sculpture in Hazlehead Park, Aberdeen to ensure that those who perished, many whose bodies were never recovered, were at least publically and individually accounted for. The park is just a short walk from my family home. Engraved on a pink granite plinth, topped by a larger than life-size bronze sculpture of three oil workers, are the names of the dead. Their ages at death are also given. With the youngest 19 and the eldest 65 the dead span three generations.

Piper Alpha remains the world’s deadliest offshore oil disaster and is an event that woke, not just Aberdonians, but the world itself to the human cost of investing in an oil economy. Revisiting the Piper Alpha memorial as an adult now living in Edmonton, Alberta—Canada’s ‘Oil City’—I am keenly aware that our continued dependency on oil as an energy source guarantees further fatalities and environmental damage because oil exploration, capture, refining and transportation are inherently dangerous and destructive processes. Yet, I am also aware my presence in Alberta is due to the relative economic stability and job security afforded by Alberta’s oil economy. This is the dirty truth any Albertan has to reconcile with. Oil was first discovered in Alberta in 1902, and its production continues to fuel the province: oil and gas royalty revenues make up 30% of the Government of Alberta’s total revenue (Nikiforuk). 1947 saw the drilling of the first successful conventional well at Leduc, just South of Edmonton and overnight Canada went from being “oil poor” to “oil rich” (McRory 82). Today, 1 in 15 Alberta jobs

are related to energy and Alberta’s per capita GDP is higher than all other Canadian provinces and US states (Levant).

Before moving to Edmonton, all I knew about the province was that it was home to the controversial ‘Tar Sands’ project, the largest surfaced-mined reservoir of crude bitumen in the world. Situated North East of Edmonton, roughly centered on the boomtown Fort McMurray, the Athabasca ‘Oil Sands’ is the world’s largest Capital Oil Project, currently producing 1.3 million barrels of oil a day (see Fig. 1).² Commercial production began in 1967 and the total area of exploitable reserves covers 140,000 km²—an area larger than England (Levant 2011). Oils Sands are naturally occurring mixtures of sand, clay, water, and an extremely dense and viscous form of petroleum technically referred to as bitumen. The primary methods of extraction are surface mining or in-situ drilling and the three main operating companies are Suncor Energy, Syncrude and Shell Canada. About two tons of oil sand must be dug up, moved and processed to produce one barrel of synthetic crude oil, and up to 5 barrels of water are consumed for every barrel of oil produced, making the Oil Sands Capital Project the world’s most carbon and water intensive oil production process.³

The Oil Sands Capital Project is also one of the world’s most environmentally destructive industrial projects. For example, in order to surface mine the bitumen large swathes of Canada’s Boreal Forest are being deforested to the point where the project is slated to have the second fastest rate of deforestation on the planet after the Amazon Rainforest Basin (Nikiforuk). The process of turning the oil sand into crude oil also produces numerous toxic byproducts. The water used to strip the bitumen from the sand, for example, is discharged afterwards as contaminated water into “tailings” ponds. The leftover “tailings” are a mixture of dirty water, clay, silt and sand but can also contain copper, zinc, iron, residual bitumen, mercury, arsenic, naphthenic acids and polycyclic aromatic hydrocarbons (PAH). Alberta’s inventory of tailings ponds is now 720 million cubic meters, which cover an area of about 130 square

Fig. 2 Location of the Athabasca, Cold Lake and Peace River oil sands in Alberta. Map.

Fig. 3 Greenpeace activists enter Syncrude’s Aurora North oil sands operation and suspend a banner that reads “World’s Dirtiest Oil: Stop the Tar Sands.”

kilometers. Their contents are highly toxic to all forms of life. This was brought to international attention in April 2008 when some 500 migrating ducks mistook one of these ponds for a hospitable stopover, and, on landing on its oily surface, died. When Greenpeace broke into a Syncrude processing facility and suspended a banner that read “World’s Dirtiest Oil: Stop the Tar Sands” over the pipe discharging tailings, overnight they changed Canada’s historically “green” image to one of “corrupt petro-state” (Monbiot).

Where is Fort McMurray?

The Greenpeace image introduced a worldwide online audience to the environmental hazards associated with Oil Sands mining in Alberta (see Fig. 2). It also introduced the same audience to the dominant aesthetic strategy employed to capture the Oil Sands industry: that of emphasizing the scale of the industry by

photographing it from on high. Since the appearance of Edward Burtynsky’s aerial photographic-mappings of the region in 2007, aerial perspectives of the Canadian Oil Sands—capturing the scale of the oil sands industry from above—has become the dominant photographic approach.⁴ This ‘scalar aesthetic’ is, according to Imre Szeman, “an obvious approach to a site like the Alberta Oil Sands, which are estimated to be the size of Florida and include numerous surface mining sites and vast tailings ponds that permit a direct visualization of environmental destruction” (435-6). Other notable examples of this approach include Peter Essick’s 2009 photographic series that accompanies Robert Kunzig’s National Geographic article “Scraping the Bottom: The Canadian Oil Boom” and aerial photographer Louis Helbig’s 2010 touring exhibition *Beautiful Destruction*. This scalar aesthetic has also been mobilized cinematically in Peter Mettler’s 2009 *Petropolis*, a film that consists entirely of aerial panning shots to emphasize the size and scope of the Oil Sands.

These aerial views of the Oil Sands have helped to shape and polarize perceptions of the world’s most colossal industrial site, including my own. So, when I was presented with an opportunity to visit Fort McMurray and the Tar Sands, I jumped at the chance to see this site with my own eyes. Andriko Lozowy, a colleague at the University of Alberta, had invited me to join him on a planned research trip to the region. Lozowy was engaged in a photographic project led by the provocation “Where is Fort McMurray?” This question was in part a response to the lack of geographical specificity offered by the dominant elevated perspectives that promoted a visual culture of Fort McMurray that stressed nullification or an erasure of representation. For part of this project, Lozowy had invited a group of Fort McMurray high school students to offer their response to this question through the practice of photography. Through a collaborative exchange, Lozowy offered the students the opportunity of learning the basics of photographic techniques while engaging the students to create images that would offer a different visual narrative to the one found in the dominant visual imagery depicting the region. Before elaborating further on this project, it

is pertinent to explore the scalar aesthetic, originating in Edward Burtynsky’s photographs, that the students were attempting to work against.

Death from Above

Burtynsky’s large-scale aerial perspectives of surface mines, refineries, and tailings ponds in his series depicting the Oil Sands industry in Fort McMurray offer disturbingly sublime depictions of a landscape degraded by petroleum production. Equally at home on the office wall of a CEO of an oil company or the campaign materials of environmental lobbyists, his images of the Oil Sands have been critiqued for their aestheticization of the toxic byproducts of oil sands production, like tailings ponds and sulphur pyramids. Jennifer Peebles introduces the concept of the “toxic sublime” as a means of analyzing the tensions arising from visual representations of environmental contamination like those found in Burtynsky’s Oil Sands series, where the beauty of the images “obfuscates the health and environmental risk of the polluted sites they photograph” (Peebles 373). For example, in *Alberta Oil Sands #10* Burtynsky produces an alchemical conversion of toxic tailings ponds into one of sublimity (Fig. 3). Although depicting a tailings pond, the viewer could easily mistake the vista for a river delta or estuary, where the intention of the photographer was to catch the light of a setting sky reflecting off the river channels and pools.

Burtynsky’s painterly preoccupation with composition and light in his Oil Sands images resonates with the aesthetic registers of the picturesque and the sublime. In landscape painting, the sublime has traditionally been defined as the awe or anxiety felt in the face of nature’s power over humankind (Haworth-Booth). Inversely, Burtynsky seeks to provoke the awe felt when witnessing the grandeur and horror of human-altered landscapes by capturing their scale (Burtynsky, *Manufactured Landscapes*). His method of using large-format cameras and reproducing the images as large-format (up to 100cm x 150cm) pictures is an intentional strategy to evoke the Kantian mathematical sublime where sheer scale produces awe. However, Burtynsky’s strategy of capturing the toxic landscapes of the Tar

Fig. 4 Edward Burtynsky, *Alberta Oil Sands #10*, Fort McMurray, Alberta, Canada, 2007.

Sands from on high (usually from the vantage afforded by a helicopter) provoke a crisis of vision, as the aerial perspective flattens the landscape, disorientating any sense of measurable scale. This flattening of the landscape presents a visual argument between foreground and background, magnitude and insignificance, the known and the unknown (Dielh 120). While this strategy makes his images visually and aesthetically compelling, and thus more in tune with Kant’s dynamical sublime, Burtynsky’s aerial mappings have been criticized for evoking the abstraction of remote sensing and setting up an aesthetic encounter of “disinterested contemplation” (Lang 425). By maintaining a studied ambiguity, aesthetic and ideological, about the epic scale and grandeur of bitumen extraction and its waste sites, Burtynsky, according to Mike Crang, “plays around with the balance between questions of beauty (the awe) and questions of ethics (the awful)” (Crang 1094).

Jennifer Peebles argues that the horror of the toxic

sublime—awe at the immensity of human-made environmental degradation—can call into question the personal, social and environmental ethics that allow places of contamination like tailings ponds to exist. However, the scalar aesthetics deployed by Burtynsky in his Oil Sands series can leave one feeling a sense of bewilderment and inertia at the thought of rectifying a problem that exceeds our comprehension. While Burtynsky’s compositional choices render his images fraught with tensions that require thought and contemplation, which can lead to contradictory sensations of horror and wonder, this does not necessarily provide the impetus for attitudinal change. His scalar aesthetic, for example, confronts two major barriers to the impetus necessary to mobilize action on the part of the viewer. First, Burtynsky’s high-angled perspective presents his subject matter of tailings ponds and open pit mines as transcending the scope of the frame, setting up a visual argument between magnitude and insignificance thereby resisting any meaningful visual representation. In other words, while Burtynsky’s perspective indicates the massive scale of production of the Oil Sands, what is not clear is the magnitude of environmental degradation. Second, the high vertical angle summons questions of enormity and thus feelings of impotence, which can leave the viewer “unclear what action one could take, even if one wanted to.” (Szeman 437).

Burtynsky’s own lack of an overt critical positioning on the Oils Sands has left him open to the criticism of being a cosmopolitan privileged viewer who “floats free” from the environmental degradation and human labour depicted (Crang 1098). Furthermore, while Burtynsky has felt free to focus his lens on the human labour behind the landscapes of industrial mega-projects in China and Bangladesh in his 2000 Shipbreaking series, he has chosen to steer away from explicitly depicting the human labour involved in the manufacture of the Alberta Oil Sands. This could be because Burtynsky, aware of the polarization of the Oil Sands in both political and public discourse, feels the power of these images resides in their ambiguity. More cynically, with so many Canadians making a living from, or living

comfortably because of the Oil Sands, perhaps it is also in the ambiguity of the images that they maintain their largest audience and marketplace appeal. Burtynsky’s limited captions describing the images have also been a point of contention for some critics. His captions for his Alberta Oil Sands series merely state the number of the photograph in the series, the location (“Fort McMurray, Alberta, Canada”), and the date. For example, in a photograph from the series which depicts immense acid-yellow sulphur stockpiles with Syncrude’s main processing plant in the background, the caption notes only “Alberta Oil Sands #6 Fort McMurray, Alberta, Canada, 2007.” Burtynsky’s reticence to name operating companies or their toxic by-products, could be a preservation strategy employed in order to ensure his own continued access to the world’s most colossal industrial sites. Yet, by partitioning the Oil Sands operating companies and their environmental contaminants from full view, Burtynsky also represses connections not only between the viewer and viewed, but between the Oil Sands and its broader geopolitical context.

In an article written for *The Walrus*, Burtynsky attempts to dispel some of the uncertainty around his environmental views and particularly his reticence to directly critique resource extraction in his own country (Burtynsky, “Extraction”). In the article, he calls for the Canadian government to mandate sustainable practices in the extraction and sale of Canada’s natural resources, including the Alberta Oil Sands. However, his detractors see this as mere tokenism: a letter to the editor sharply noted that, despite his undisputed talent as a master photographer, “Alas, as an environmental activist, he is a failure” (Vincent). As one commentator summed up, “while Burtynsky’s photographs of Canadian industry make for great art, they operate within the Canadian political mainstream and do little to shake up the consciousness of a public content to keep looking away from the social and environmental degradation that is taking place in its own backyard” (Nickerson).

Fig. 5 Six images from the series *Where is Fort McMurray?*.

Reclamation

Andriko Lozowy has not had the luxury of being able to look away from the ‘dark specter’ of oil production actually taking place in his backyard. Lozowy grew up in Sherwood Park, Edmonton, in the shadow of ‘Refinery Row’, industrial home to the largest oil refinery facilities in Western Canada. Since a teenager, Lozowy has found photography a useful tool for investigating and making sense of the built environment of oil production that has dominated his neighbourhood skyline. Although fenced in and highly patrolled, the camera’s zoom offered a means of interloping into industrial sites deemed out of bounds. Of course, pushing the boundaries or railing against the establishment is the prerogative of the teenager, something Lozowy recognized later in life when engaging the group of Fort McMurray youth to respond to the question “Where is Fort McMurray?” Teaching the students the techniques of digital photography, Lozowy hoped to empower them by equipping them with the tools to create an alternative view of their own backyard. While Burtynsky’s images have certainly helped to bring the Oil Sands and Fort McMurray international attention, the reproduction of his scalar aesthetic has meant that the dominant optics in this case has become one of partitioning the Oil Sands as an active and place-based industrial site from view. By asking “Where is Fort McMurray?”, Lozowy seeks to address this loss of geographical specificity and dislocation by bringing us back down to earth, or rather in this case bitumen. Through the project, Lozowy and his student participants therefore sought to overturn the dominant scopic regime by offering a point of view in, rather than on Fort McMurray.

A series of images from the venture was collaboratively curated by Lozowy and the student participants to form an online exhibit also entitled *Where is Fort McMurray?* (Lozowy, *Where*). The images offer a perspective of Fort McMurray from the vantage point of local youth: the regular repeated lines of suburban rooftops, the blur of a fast car, the overgrown tracks of a disused railway line, the lush greenery framing a winding river valley, and the cramped yet colourfully-decorated confines of a shared bedroom (see Fig. 4). These are windows into Fort McMurray at the human scale.

Lozowy has similarly taken a more on-the-ground approach in his own photographic practice when responding to the provocation “Where is Fort McMurray?”. In contrast to Burtynsky’s aerial mappings of immense ungraspable scenes, Lozowy’s approach is more modest: to see what you can document of the world’s largest industrial site from the public access roads running through it.

What answers do they offer to the question “Where is Fort McMurray?” Where his students, by nature of their age, were limited to directing their lenses on the town site of Fort McMurray, Lozowy was compelled to follow the 24/7 circular flow traffic heading north on Highway 63 to the town’s industrial heart: the Oil Sands. Highway 63 passes through the Oil Sands between Fort McMurray and Fort MacKay and offers a ‘public’ point of view for the committed (some may say foolhardy) photographer onto the private sites of industrial production. I say committed since stopping or merely slowing down on this highway—one of the most dangerous roads in Canada—is a risky endeavour. This is something I discovered when accompanying Lozowy on one of his photographic field trips.

Touring the Tar Sands

Until 1970, Highway 63 did not even appear on a map. Since then the 240-kilometre-long, two-lane highway has become the critical artery in and out of Fort McMurray (see Fig. 5). Drivers in the know call it “Hell’s Highway,” or the “Highway of Death”. When Lozowy and I drove north to Fort McMurray from Edmonton along Highway 63, it was not hard to imagine why it had earned these monikers. On any given day, thousands of logging trucks, SUVs, semi-trailers, buses and tanker trucks form a frantic parade to and from Fort McMurray and the Oil Sands bitumen mine sites. Often a dozen different convoys of extra-wide loads carrying tires, turbines, and cockers the size of houses completely dominate the ridiculously inadequate two lane highway. Known as one of the provinces deadliest highways, forty-six people died in crashes on the road between 2005 and 2009, with another 310 people injured in the same period. On the day that we traveled Highway 63 it was

Fig. 6 Andriko Lozowy, Highway 63

mid-winter, making the already hazardous conditions seriously treacherous, a fact evidenced by the recurrent appearance of wrecked and abandoned vehicles along the hard shoulder of the highway. The four and a half hour drive north to ‘Fort Mac’ was the longest, most drawn-out white-knuckle ride of my life.

After such a journey, the sight of ‘Fort Mac’ does little to convince that it was worth the risks. Of course, for those working at the Oil Sands the economic rewards to be had there far outweigh the dangers of the drive and the numbing dullness of the town itself. To the tourist, Fort McMurray appears makeshift: a ramshackle grid

of functional building blocks that define a boomtown: a place to sleep and eat. Yet the town itself never sleeps. As the urban service centre for the region, it serves the 24/7 production of the Oil Sands. The constant hum of traffic and the repetitive approach, stop, idle and depart at the chartered bus stops which run workers back and forth to the mines make Fort Mac a difficult place to get some sleep for the uninitiated.

The next morning, bleary-eyed Lozowy and I joined the procession heading across the reinforced bridge above the Athabasca River north to the Oil Sands. Two oil-town kids, we shared an interest in exploring the oil

Fig. 7 Humphrey Lloyd Hime, *The Prairie, Looking South*.

landscapes that were ever-present, yet eluded us in our youth. Our intention was to document what we could of the private spheres of Oil Sands production from the roadside—Lozowy with his camera, and me with my sound recorder.⁵ With Lozowy driving, I was free to take in the sights. Yet from the car window, with boreal forest cleared and land flattened, the view is not unlike that of the Prairies: a featureless and flat topography dominated by sky.

Historically, artists have encountered difficulties in depicting the Prairie landscape, primarily because of the Prairie's lack of geographical features that would contribute to a 'view'. Surveyor and photographer Humphrey Lloyd Hime famously captured the Prairie's flat and featureless topography in the 1858 photograph: *The Prairie, Looking South* (Fig. 6). A "monument to treelessness", this stark image reduces the Prairie landscape "to what Canadian novelist W. O. Mitchell has called 'the least common denominator of nature': earth and sky" (Schwartz 968). However, to view Hime's image as empty or desolate would be a misreading. Hime, as Schwartz records, was a surveyor for the

Canadian Assiniboine and Saskatchewan Expeditions whose purpose was to determine the possibilities of westward expansion (968). While treelessness had once been an indicator of aridity and sterility, advances in agricultural technology meant the vast ocean of Prairie photographed by Hime was no longer viewed as an arid desert but rather as a fertile, untouched territory receptive to settlement, agriculture and westward expansion. While Hime's vision was promoted by the Canadian government, it was not necessarily shared by those people already living on and from the land at the time, like the First Nations and Metis. Viewed in these terms, according to Schwartz, Hime's "quintessential portrait of the prairie, so bereft of content, can be seen as a geographical imagining, one which reflects the economic hopes and political dreams of Canadian expansionists and British imperialists" (969).

Understanding the active role photography has played in the processes by which people have come to articulate their assumptions about land and land use in Canada, Lozowy has recognized the power of displacing Hime's 'prairie aesthetic' to the flattened and cleared lands north of Fort McMurray on the roads cutting through the Oil Sands mining sites. Here treelessness becomes a monument to the significant clearing of Boreal forest it takes to access Oil Sands deposits and the resulting disturbance this has on the animal species and aboriginal communities that depend upon this ecosystem. Thus, instead of surveying an empty stage for the projections/imaginings of Canadian expansionists, Lozowy documents the actual landscapings of what some have called "modern Canadian imperialism" (Nikiforuk 68).

Amidst The Detour and Delay

The smoking chimneys of a Suncor refinery offered the first visual indication of mining operations north of the bridge crossing the Athabasca River. As we drove towards them, the air in the car grew thick with the aroma of hydrocarbons. Some have compared the smell of mined bitumen to that of heated sea coal, which is why the Oil Sands were historically known colloquially as 'Tar Sands' due to tar's similar appearance, odor, and colour. Having driven this miasmic stretch of Highway

63 many times on his photographic field trips, Lozowy acted as a tour guide to me as passenger-seat tourist. To the left he pointed out Crane Lake Reclamation Area: reclaimed wetland habitat from a former mining site. A giant roadside metal Crane sculpture invited us to make our first roadside stop and potential 'Kodak moment'. The form of roadside photographic touring practiced by Lozowy on Highway 63 is not unlike how one is encouraged to visually consume picturesque Canadian landscapes like the Rockies, either out of the car window or at the designated 'picture stops' that pepper the highway. Susan Sontag has famously argued that photography enables a touristification of the world, where "every subject is depreciated into an article of consumption, promoted as an item for aesthetic appreciation" (Sontag 110). However, while the 'romantic tourist gaze' seeks to reproduce static and unrealistic visions of untouched 'wilderness', Lozowy seeks to capture the contingencies the romantic tourist gaze seeks to edit out (Urry 139).

The traditional assumption is that photography is an inert form of visual representation that freezes and captures discreet moments in time and space. Having made many return visits to this area, Lozowy's aim is to document the changeable nature of this manufactured landscape. Trees are felled, tons of soil and sands are dug up and moved, tailings ponds fill and are then drained, filled in, contoured, and planted. This landscape is far from static. Of course, the traditional tourist snapshot can be thought of as technology dealing only in the 'frozen moment' (Henning 138). For example, Burtynsky's framed aerial snap-shots of the Athabasca Oil Sands, touring worldwide as part of his *OIL* exhibition, offer audiences a vision of this industrial landscape in aspic. Although taken several years ago, the ideological authority of Burtynsky's mappings presents a static understanding of the landscapes of Oil Sands production, resonating with Barthes' notion of the camera's ability to "embalm" the living world (Barthes 14). Furthermore, within the context of *OIL*, which narrates the story of oil from extraction and refinement to transportation and the end of oil, the Alberta Oil Sands become buried within the scale of

oil that Burtynsky seeks to emphasize. Ranging from NASCAR rallies in the United States, to gigantic parking lots of Volkswagen cars in China, to fields of abandoned oil derricks in Baku, Burtynsky's *OIL* images underline the global permeations of oil on humanity and the environment. Yet, by doing so they also work to further erase the Oil Sands from view as they become enmeshed within an even greater scalar aesthetic.

Lozowy, by comparison, seeks to explore this sense of the Oil Sands industry falling away from view. Moreover, by working with rather than against this sense of erasure, he also seeks to resist the inertia and stasis found in Burtynsky's images in order to capture the shifting (and shifted) nature of the Oil Sands. It is Debbie Lisle's view that, far from being static, there is inherent mobility in photography and by extension the photograph, and this has an important antecedent at the level of production. Lisle's point is that the action of clicking the camera's shutter is never an isolated moment: "rather, it is punctured by all the previous clicks and moments leading up to it" (Lisle 3). As such, the photographer's contact sheet or computer file becomes a "visual travelogue of discrete moments that bleed into one another." (3) This is certainly the case in Lozowy's series *Looking Left* at Syncrude, a digital archive of photographs Lozowy took from his car window while driving around one of Syncrude's tailings ponds (Lozowy, "Looking Left").

Taken at close intervals, the photographs contained in this online archive act almost as a praxioscope: one image bleeds into the next, capturing the fluctuations of land, sky and dust the moving car affords around the perimeter of the pond (see Fig. 7). Here, it becomes clear that it was Lozowy's movement prior to clicking the camera's shutter that shaped and determined the photograph's content. Lisle goes one step further than this to argue that all photographs, no matter what they depict, are saturated with "the potential mobility of the world's materials" and so in this sense are never still: "indeed, the world of flux out of which the image is extracted includes the image itself, and in this sense, an image can never be isolated from the world in which it was derived" (Lisle 4). Following this, Lisle argues

Fig. 8 Andriko Lozowy, Image 19

that a photograph should be read counter-intuitively, “not as an arrest of movement or a freezing of time, but as a collection of signs that is always potentially mobile”. This relates to Gilles Deleuze’s notion of the movement-image, where the movement-image reflects a commitment “to show or create the kind of space of movement that is prior to the representation of static objects” (Thrift and Dewsbury 417).

While Lozowy’s approach to photographing the Oil Sands from the roadside may seem similar to that of the roadside tourist in search of the perfect ‘Kodak moment’, Highway 63 disallows for the leisurely composition-time usually expected for this type of image-making. His

method of taking photographs on-the-move, often out the window of a moving or idling car, underlines the fact that one is not encouraged to stop and take in the view on the roads that intersect and frame Oil Sands production areas. For example, beyond the Crane Lake Reclamation Area stop, which is marketed as a Nature Reserve with a designated car park and connecting nature trails, there are no more parking stops between it and the Oil Sands mining sites. Attempting to stop your car along this stretch of Highway 63 is a dangerous business, as I found out when Lozowy stopped on the hard shoulder during our road trip. As soon as Lozowy stopped the car, the gargantuan trucks buffeting past us honked their horns in protest to our slowing their

beeline to the mines and refineries. On the passenger side, I learnt very quickly that opening the door had to be timed carefully to coincide with a break in the traffic, as the almost constant stream of over-sized vehicles stopped for no one.

By comparison, I found Lozowy to be quite the expert in roadside stealth. Even when a newly erected fence occluded a previously open view onto one of the tailings ponds, Lozowy climbed atop the stationary station-wagon (from the starting position of his car seat) and managed to take several shots, even though both he and the wagon were being buffeted by the force of the trucks driving past. As such, Lozowy’s method produces a seeing body that is able to respond to contingencies and accidents *en route* (Dubow 268). For Walter Benjamin, it is only amidst the detour and delay that critical practice can begin. Following Benjamin, one could argue that Lozowy’s detours from the expected drive opened us up to experiencing particular types of encounters—the unplanned, the contingent, and the unforeseen. Coupled with this for Lozowy is a resistance to integration or closure: the ‘delay’ and ‘detour’ are characteristic of an in-between spatio-temporal frame, a moment of contemplation, a ‘working through’ of the creative process rather than a conceptual context aimed at fixing the objects of landscape in time and space.

Working in this way, Lozowy produces an alternative view, one that encounters the contingent as it folds in and out of the path of observation. By taking us with him on his tour amidst the detour and delay through the Oil Sands epicenter, we become his passenger and the car window our frame. This strategy, of offering a point of view in, rather than on the Oil Sands, reconnects the viewer with the viewed and relocates the Oil Sands in placed-based experience. This rescaling of the Oil Sands makes them seem more approachable physically, politically, and representationally. However, Lozowy is not simply restoring representation. By taking his photographs on the move and by making return visits, he also emphasizes the strangeness of the momentary and the material of a landscape in flux. If, as viewers, we break with the view that the photograph presents

a “vision-as-semblance” and instead pay close attention to its affective intensities, it becomes possible to recover these “contingencies the gaze edits out” (Dubow 268). In Lozowy’s photographic series that follows this essay, it is the fleeting flashes of affective detail that jump out and grab us: orange scarecrows warn of potential toxicity and harm to health, clouds of dust signify unsettled earth, ringed water marks document disappearance, a newly erected fence yet to soften into its surroundings has something to hide, and worker camps are reminiscent of the Gulag.

Affective Aesthetics

The function of a photograph cannot be simply reversed from freezing a moment in time to animating a moment in time. Rather, Lozowy’s images set in motion “feelings of absence in the present (i.e. ‘it is not there’) and present imaginings of the past (i.e. ‘but it has been there’)” (Lisle 4). This argument is in tune with Benjamin’s concept of the dialectic image, where “what has been comes together with the now” to constitute what Benjamin calls “dialectics at standstill” (Benjamin 463). Yet, rather than read Benjamin’s concept of standstill as turning the world to stone, Lisle promotes an understanding of Benjamin’s conception of stillness as “something fizzing and pulsating with ‘political electricity’” (Buck-Morss qtd in Lisle 219).⁶ Photographs for Lisle, just like the dialectic image, are charged with an “affective punch” that is fizzing with political electricity (219).

Here, Lisle extends agency to the photograph by arguing that it is the photograph itself that shapes the emotive and affective experience of the viewer: i.e. it is the image that demands something of the viewer, rather than the other way round. She bases this understanding on Deleuze’s dispersed account of agency in the act of perception:

For Deleuze, a work of art—for our purposes, a photograph—is not an inert or still document, but rather a ‘block of sensations’ (Deleuze 31). It is not a finished object produced by an autonomous viewer; rather, it is a combination of percepts (initial perceptions) and affects (physical intensities) that

passes through all subjects at the point of visual perception. This kind of relational encounter with an image not only deconstructs Modernity’s foundational distinction between the subject and the object, it also opens up an affective connection between all subjects engaged in the act of looking; in this case, the photographer, the subjects and objects within the photograph and the viewer. (Lisle 5)

It is, therefore, Lisle’s contention that taking account of the affective level of perception (i.e. the pre-interpretive moment when images reach out to grab us) changes our traditional understanding of how a photograph ‘moves’ us.

The “affective punch” of Lozowy’s images resides in their ability to conjure the past and present together in a flash. Take, for example, Lozowy’s image of an Oil Sands refinery at night (Fig. 8). For me, this photograph initiates an awakening to the burning rays of a past light that lit up the North Sea on the night of July 6, 1988. That night my dad, a BBC cameraman, had taken me and my sister to the swimming baths, but before we got into the pool my dad was paged and asked to cover a news story: the Piper Alpha oil platform was on fire. With the aid of a helicopter, my dad was the first news cameraman to the scene and the first to capture the towering inferno that had engulfed the rig, its crew and lit up the surrounding sea.

In Benjamin’s terminology, this is the shock effect of the dialectic “at a standstill” : the sudden spark, the profane flash that lights up a dark thought and allows it to make itself felt in the present (Benjamin 462). The image for me lights up a night when a culture that kept the oil flowing at all costs set the scene for the destruction of an oil platform and the deaths of 167 men. It also portends that this volatile scene, now displaced, is poised to spark again. History will repeat itself, as the Deepwater Horizon oil spill evidences, because oil exploration, capture, refining and transportation are inherently dangerous and destructive.

Not long after the Deepwater Horizon oil spill, Burtynsky was unsurprisingly back in his helicopter, taking aerial

photographs to capture the scale of the spill, 50 miles off the Louisiana coastline in the Gulf of Mexico. Many of Burtynsky’s pictures from this day are aesthetic masterpieces.⁷ His aerial vistas depicting the lustrous and painterly gestures of oil slicks emulsifying into the cobalt blue gulf, much like his images of Oil Sands tailings ponds, produce a toxic sublime. The aesthetic pleasure to be found when encountering these images is impossible to forestall, the context notwithstanding. This again underlines the risks of invoking the toxic sublime. The beauty of Burtynsky’s images “obfuscates the health and environmental risk of the polluted sites they photograph”, which in this case happens to be an oil spill of epic proportions (Peeples 373).⁸ Similarly, his use of an aerial perspective to capture the epic proportions of the spill reproduces the same problems associated with the scalar aesthetics deployed in his Oil Sands series. The view from on-high summons questions of omnipotence and thus feelings of impotence, leaving one feeling a sense of bewilderment and inertia at the thought of rectifying a problem that exceeds both the frame and comprehension. While Burtynsky’s compositional choices render his images fraught with tensions that elicit contradictory sensations of attraction and repulsion, his images ultimately, to my mind, do not provide the impetus for attitudinal, never mind behavioural, change.

To conclude, Burtynsky’s scalar aesthetic has trained us to see and aestheticize the Canadian Oil Sands in limited and troubling ways. By offering the viewer a point of view in, rather than on the Oil Sands, Lozowy’s photographic project *Where is Fort McMurray?* disrupts the dominant obfuscatory aerial imaginaries, enabling a more critical and politically meaningful photographic engagement with this oil project. Similarly, by reworking the Prairie aesthetic to reflect modern times, Lozowy is able to relocate the Alberta Oil Sands in place-based experience. Thus even for those of you who have not, and may never, visit the Oil Sands, or who never grew up with landscapes of oil production in your backyard, living in a time of peak oil, its dark spectre will permeate your lives. This is why Lozowy’s following tour of the Alberta Oil Sands may provoke emotive and affective experiences to awaken *your* attention to its crude realities.

FRAMES
ANDRIKO LOZOWY

In this exhibit, Merle Patchett, a geographer, interprets and contextualized my photographs and my photographic practice that is informed by the discipline of sociology. Together, Sociology and Geography are taken up here as a point of reference towards thinking critically about limitations and potentials for the emergence of combined thinking in creative ways. Patchett asked me

why I photograph? I replied that I do it to document crude realism, to engage in a categorization of sorts, to perform active engagement with people and landscape, to create a physical and material artefacts, to challenge structures of power, and as an aspiration of being part of a great documentarian practices of which all forms of photography are initiates.

In my hands the camera becomes active, an apparatus of production, creating objects of a certain order: images. As such, I consider the etymology of ‘image’, which comes from the French *image* (c.1200), or artificial representation and *imagier* (late 1300s), meaning “to form a mental picture.” Imagination, as a noun follows to refer to “a faculty of the mind that forms and manipulates images” (*OED*).

I also consider the production of images and photography itself in a manner that is similar to Vilem Flusser’s (1920-1991), although transposed into a contemporary twenty-first century context. In *Towards a Philosophy of Photography*, Flusser argued that images signify material elements in time and space that are made comprehensible to us as abstractions, a reduction of dimensions (8). In order to render images out of space and time, the precondition of imagination must be in play so that we may encode phenomena into two dimensional symbols and be able to read these symbols (*ibid*). Flusser illustrates a kind of underpainting of normalized image uses. In order to read images, we apply our collected and collective knowledge as we gaze.

Working in the early 1980s, Flusser followed his publication of *Towards a Philosophy of Photography* with *Into the Universe of Technical Images*, where many of the undertones of the initial text are taken up and ordered into a linear and pragmatic approach. Flusser insists on a dialogical system logic. Like Innis, Barthes, McLuhan, and Baudrillard, Flusser is often categorized as a media theorist concerned with the interdependence and relationships of humans as social actors in relation to technology. In Flusser’s view, contemporary societies need to embrace the visual’s multi-dimensionality and relinquish long-held linear texts of reductive abstraction. Flusser passed away in 1991, and if we may appropriate his thinking to the present day then we can think into the ways in which information exerts a decisive influence

on our lives, images as flowing streams;; photographs, films, videos, computers, all operating in a profoundly different way than linear writing. Images have mutated our modes of behavior, our perceptions, our values (Flusser 5) and as such Flusser makes the point that what it means to publish is “to put a subjective observation into the symbols of a social code” (2011, 1985: 12).

Perhaps this is precisely the point at which fate has brought together the geographer and the sociologist. On the one hand, we can think of these two disciplines as each occupying a clearly defined epistemological position and establish an approximate stance on how macro or micro, or how small or large the scale and scope of vision ought to be. Indeed, both approaches seem to align their trajectories, at least as broadly defined, around an impetus to broad vision, and it seems to us, that in each case, the depth of vision is often pursued by the sub-disciplines, those seeking some manner of spatial or cultural specificity from which one could gain insight.

If we consider Max Weber and the aim of sociology, then we should note that the goal is clearly outlined as concerned with understanding the cultural conditions and meanings of society (Weber qtd in Burri 46). Regula Valerie Burri keenly points out, that classical sociologists have mostly neglected the understanding that such analysis must include “the visual” (Burri 46). Geography, although an historically ‘visual’ discipline has been criticized for not properly theorizing how and why it is visual and what kind of power relations are at play until Gilliam Rose’s famous intervention in 2003.

The work of Flusser and Burri both emphasize the importance of considered and critical analysis of the scope of the visual. On the one hand, Burri works to persuade her audience that “the visual,” is a kind of matter in which we live (Jenks). On the other hand,

Flusser insists that we must take note of the cultural mutation afoot, from linear text to another kind of image world entirely. Burri and Flusser press upon us that we ought to consider the ways in which three dimensions, plus time, are working as interdependent systems, in dialogue, interacting, reflecting, refracting, and all the while we need to be diligent as scholars to take note of the ways in which humans interact, change the dimensions, and are shaped by them.

In short, the geographer and the sociologist emerge as social-geographers, cultural geographers, human-geographers. Through collaboration Patchett and I stand to resist the notion that text alone is the beholder of an “objective” truth (Daston and Galison). The goal here, by publishing, writing, editing, and thereby shaping the now muddied waters of a given discipline, is to press upon the thinking faculties of our dear readers to apply self-analysis of individual notions of how ideas, images,

myths, become known, how they work to change thought, and how thought is transmitted as imaginaries.

Frames for Reading the Image Series

Whatever the aesthetic merits, every representation of landscape is also a record of human values and actions imposed on the land over time. What stake do landscape photographers have in constructing such representations? A large one, I believe.

Whatever the photographer’s claims, landscapes as subject matter in photography can be analyzed as documents extending beyond the formally aesthetic or personally expressive. Even formal and personal choices do not emerge *sui generis*, but instead reflect collective interests and influences, whether philosophical, political, economic, or otherwise. (Deborah Bright 126)

Camera in hand I consider the ways in which photography as action, as process, as performance, can be an embodied manipulation towards a synthesis of specific techno-logical and scientific/mathematical constraints. The camera compresses, reduces, takes note of light, and fuses together all manner of the photographer’s aesthetic, cultural, social, sign+signified concepts and, in a flash, captures a reduced form of a world ‘out there.’ Out there, becomes, here, and here, quickly turns to join again with out there.

My methods are syncopatic, and tangential, in order to approach a given subject I find that immersion, and fresh eyes lead me towards planes of vision requesting their capture. I follow black-top thorough fares and laneways towards zones beyond my usual traversals. In the region of Wood Buffalo that contains the municipality of Fort McMurray, there are many fences and signs that clearly mark spaces as private, no trespassing allowed. In Calgary, at the tops of office towers, neos signs bearing the names of ‘Suncor’ and ‘Syncrude’ beam brightly,

whereas in Fort McMurray these same signifiers rest on humble placards mounted to wooden fence posts. Their message is clear; private property, danger, keep out!

The highway resembles a long stage, automobiles press their rubber tires into the surface. The highway provides a false sense of security. Highway 63 serves a primary purpose, to guide workers to the Oil Sands operations. The highway is public, but on either side is private property—it is bordered on all sides by the subject, objects of order in space.

To me, Highway 63 represents an access route to visit places that magnify the views of oil refineries near my birthplace in Edmonton, Alberta. In other words, visiting the Oil Sands is like coming to the well.

So why come and photograph? I travel as an explorer, a researcher, a photographer - these are my points of reference. This triad of actions is a process, a motif, a way of seeing the world. Photography underscores and supports my larger research project that is academically based and geographically rooted in the town of Fort

McMurray. As traveller, I move from Edmonton to Fort McMurray and beyond in order to work with others, and what exists outside, out there.

As a photographer, I engage with photography from the point of view of public lands as points/spaces of access that allow me to direct my gaze and camera at—or into—or upon private sites of production. Images speak as evidence of the strangeness, the sublime, the uncanny topographical features that arise in a place where boreal forests stood untouched by human force just a short time ago.

Even before I visited this landscape, I knew that I needed to go and see for myself. At first gaze I was struck with a sense of horror and a deep sense of loss and tragedy. Two terms to help describe the psychological perplexities and emotions that arise: One is *Saudade*, which is a deep longing for that which is gone and may never return. This sense of loss developed as a form of *Solistalgia* (Albrecht), which is the loss felt by environmental change, the feeling one may have when returning to a place after a long time has passed—like New Orleans after Katrina. Following on these two terms, *Saudade* and *Solistalgia*, the question of why photograph can be

answered by a single word: duty, a service to memory, to public perception, to landscape changes. It is a duty to document, to provide evidence and artefacts for hard dialogues and discussions.

Since 2009, I continue to return, to travel, to ask with a researcher’s critical eye, and to bring into focus using a camera as production apparatus and creator of representation.

Even if the images are just for myself, I find value in this endeavor as an active process. More recently I have been asked to share—colleagues and friends say, “you’ve been there, can we see your photographs?”. And in these instances the duty becomes clear. My responsibility is to share these photographic images that compress and obscure time and space.

I work to express photographically the imaginary of subject as place. In this instance, the imaginary is the

story of place transformed through the distribution of photograph as objects and artefacts. Rather than obscure the relationship between image and object, my mode has been to re-enter the image of place: photograph again and again, and establish a visual dialogue of communication that intends to move beyond the rigid constraints of singularity. I ask, what would the land, and the landscape itself reveal if it was shown the objects of our perusal?

Image Notes:

Figures that are unmarked, Reproduced with Permission of Photographer. Lozowy, Andriko.

Fig. 1 Image of the Piper Alpha ablaze taken by a crew member operating one of the rewsolve vessels. Image © Cardiff University Engineering Department.

Fig. 2 “Location of the Athabasca, Cold Lake and Peace River Oil Sands in Alberta.” *Alberta Oil Sands*. Alberta Geological Survey, May 9, 2012. Web. August 20, 2012. Image ©Energy Resource Conservation Board.

Fig. 3 Guy, Karen. *Greenpeace Activists Enter Syncrude’s Aurora North Oil Sands Operation and Suspend a Banner that Reads “World’s Dirtiest Oil: Stop the Tar Sands.”* Photograph. *Latest Photos*. Greenpeace, July 23, 2008. Web. August 20, 2012. <<http://www.greenpeace.org/canada/en/photos-and-video/latest/braving-toxic-fumes-and-the-sa/>>.

Fig. 4 Burtynsky, Edward. *Alberta Oil Sands #10* (Fort McMurray, Alberta, Canada). 2007. Photograph. Edward Burtynsky Photographic Works. Web. August 20, 2012. <edwardburtynsky.com>.

Fig. 5 Riordon, Nathalie. Untitled. 2009. Where is Fort McMurray? Web. August 20, 2012. <whereisfortmcmurray.com>. Gonzales, Priscilla. Untitled. 2009. Where is Fort McMurray? Web. August 20, 2012. <whereisfortmcmurray.com>. Loutitt, Paula. Untitled. 2010. Where is Fort McMurray? Web. August 20, 2012. <whereisfortmcmurray.com>. Chen, Yicun. Untitled. 2009. Where is Fort McMurray? Web. August 20, 2012. <whereisfortmcmurray.com>. Desai, Milauni. Untitled. 2009. Where is

Fort McMurray? Web. August 20, 2012. <whereisfortmcmurray.com>. Hachem, Amani. Untitled. 2009. Where is Fort McMurray? Web. August 20, 2012. <whereisfortmcmurray.com>.

Fig. 6 Lozowy, Andriko. *Highway 63*. 2011 Unpublished. Reproduced with Permission of Photographer.

Fig. 7 Hime, Humphrey Lloyd. *The Prairie, Looking South*. 1858. Photograph. 1936-273/C-018694. Library and Archives Canada , Ottawa.

Fig. 8 Lozowy, Andriko. Image 19. 2011 Unpublished. Reproduced with Permission of the Photographer.

Works Cited

PATCHETT

Adorno, Theodor. *Prisms*. Cambridge: MIT Press, 1997. Print.

Barthes, Roland. *Camera Lucida*. London: Vintage, 1981. Print.

Benjamin, Walter. “Theses on the Philosophy of History.” *Illuminations*. Ed. Arendt, Hannah. London: Fontana, 1992. 245-255. Print.

Benjamin, Walter. *The Arcades Project*. Cambridge, MA: Harvard University Press, 1999. Print.

Buck-Morss, Susan. *The Dialectics of Seeing: Walter Benjamin and the Arcades Project*. Cambridge, MA: MIT Press, 1989. Print.

Burtynsky, Edward. *Manufactured Landscapes: The Photographs of Edward Burtynsky*. Ed. Lori Pauli. New Haven: Yale University Press, 2003. Print.

Burtynsky, Edward. *Extraction. The Walrus*, July/August, 2007. Web. August 20, 2012.

Burtynsky, Edward. *Oil*. London: Steidl, 2001. Print..

Crang, Mike. “The Death of Great Ships: Photography, Politics and Waste in the Global Imaginary.” *Environment and Planning A* 42.5 (2010): 1084-1102. Print.

Deleuze, Gilles. *Francis Bacon: The logic of Sensations*. London: Continuum, 2003. Print.

Dielh, Carol. “The Toxic Sublime.” *Art in America* February, 2006: 188-123. Print.

Dubow, Jessica. “Outside of Place and Other than Optical: Walter Benjamin and the Geography of Critical Thought.” *Journal of Visual Culture* 3 (2004): 259-274. Print.

Dubow, Jessica. “Case Interrupted: Benjamin, Sebald and the Dialectical Image.” *Critical Inquiry* 33.4 (2007): 820-836. Print.

“EnerFAQs 12: Oil Sands.” *Energy Resource Conservation Board* (Alberta). n.d. Web. August 20, 2012. < <http://www.ercb.ca/learn-about-energy/enerfaqs/enerfaqs12>>.

Henning, Michelle. “Skins of the Real: Taxidermy and Photography.” *Nanoq: Flatout and Bluesome*. Ed. B. Snaebjörnsdóttir and M. Wilson. Spike Island: Blackdog Publishing, 2006. 136-147. Print.

Haworth-Booth, Mark. “Edward Burtynsky: Traditions and Affinities.” *Manufactured Landscapes*. Ed. Lori Paul. New Haven: Yale University Press, 2003. 34-39. Print.

Lang, Karen. “The Dialectics of Decay: Rereading the Kantian Subject.” *The Art Bulletin* 79.3 (September 1997): 413-439. Print.

Levant, Ezra. *Ethical Oil: The Case for Canada’s Oil Sands*. Toronto: McClellan and Stewart, 2011. Print.

Lisle, Debbie. “The ‘Potential Mobilities’ of Photography.” *M/C Journal* 12.1 (2009). n. pag. Web. August 20, 2012. .

Lozowy, Andriko. “Looking Left at Syncrude.” *Flickr*. April 20, 2011. Web. August 20, 2012.

Lozowy, Andriko. *Where is Fort McMurray: Youth Picturing Place*. February, 2012. Web. August 20, 2012. <whereisfortmcmurray.com>.

Matsen, Brad. *Death and Oil: A True Story of the Piper Alpha Disaster on the North Sea*. London: Pantheon, 2011. Print..

Mettler, Peter, dir. *Petropolis: Aerial Perspectives on the Alberta Tar Sands*. Greenpeace Canada, 2009. DVD.

McRory, Robert. *Energy Heritage: Oil Sands and Heavy Oils of Alberta*. Edmonton: Alberta Energy and Natural Resources, 1982. Print..

Monbiot, George. “Canada’s Image Lies in Tatters. It is Now to Climate what Japan is to Whaling.” *The Guardian*, 30 November 2009. Web. 29 Apr. 2012.

Nickerson, Sylvia. “Sublime Tar Sands? Edward Burtynsky’s Photography and Canada’s Extractive Industries.” *The Dominion* 48 (2007). Web. August 20, 2012.

Nikiforuk, Andrew. *Tar Sands: Dirty Oil and the Future of a Continent*. Toronto: Greystone Books, 2010. Print..

Peebles, Jennifer. “Toxic Sublime: Imaging Contemporary Landscapes.” *Environmental Communication: A Journal of Nature and Culture* 5.4(2011): 373-392. Print.

Schwartz, Joan. “Photographic Reflections: Nature, Landscape, and Environment.” *Environmental History* 12.4(2007): 966-993. Print..

Sontag, Susan. *On Photography*, Harmondsworth: Penguin, 1979. Print.

Szeman, Imre. “Crude Aesthetics: the Politics of Oil Documentaries.” *Journal of American Studies* 46.2(2012): 423-439. Print.

Thrift, Nigel and JD Dewsbury. “Dead Geographies – and How to Make Them Live.” *Environment and Planning D: Society and Space* 18 (2000): 411-432. Web. August 20, 2012.

Urry, John. *The Tourist Gaze: Leisure and Travel in Contemporary Society*. London: Sage, 1990. Print.

Vincent, Gerald. “Letters to the Editor.” *The Walrus*, October, 2007. Web. August 20, 2012.

Sociology of Images.” *Current Sociology* 60.1: 45-60. Print.

Flusser, Vilém. *The Freedom of the Migrant: Objections to Nationalism*. Chicago: University of Illinois Press, 2003. Print.

Flusser, Vilém. *Towards a Philosophy of Photography*. London: Reaktion Books, 2007. Print.

Flusser, Vilém. *Into the Universe of Technical Images*. Minneapolis: University of Minnesota Press, 2011. Print.

Jenks Chris, ed. *Visual Culture*. London and New York: Routledge, 1995. Print.

Rose, Gillian. “On the Need to Ask How, Exactly, is Geography ‘Visual’?” *Antipode* 35.2 (2003): 212-221. Print.

See, Anik. *Saudade: The Possibilities of Place*. Toronto: Coach House Books, 2008. Print.

(Endnotes)

1. While Lord Fraser stated that “public interest would not be served by a prosecution,” this attitude was the very opposite of the public interest at the time. This attitude may have reflected Lord Fraser’s own interests, however. Fraser served as Scotland’s minister of energy and also had a number of ties to Big Oil: Fraser served the oil industry in a variety of capacities including: 1) Nonexecutive chairman, JKK Oil and Gas plc, an oil and gas exploration and production company with license interests in the Ukraine, the United States, Italy, and the Caspian Sea. 2) Nonexecutive chairman of “theoilsite.com,” which specializes in e-tendering solutions for the oil and gas industry worldwide. 3) Nonexecutive director, International Petroleum Exchange, Europe’s largest energy market, best known for its futures contracts in North Sea Brent crude oil. 4) Nonexecutive director of Ram-energy Ltd, an independent exploration and production company that operates primarily in the United States. 5) Nonexecutive director of TotalFina

Elf Upstream UK Ltd, one of the world’s largest oil conglomerates.

2. Oil companies have reverted to using the geological classification of “oil sands” over “tar sands” in a bid to move away from the ‘dirty oil’ smear suggested by tar sands. I will be referring to the Athabasca Oil Sands as the “Oil Sands” to encompass its status as the world’s largest Capital Project.

3. Production of bitumen continues to grow in Alberta, accounting for more than 72 per cent of Alberta’s total crude oil and raw bitumen output. Total bitumen production in Alberta is about 544 million barrels (86.4 million cubic metres), of which 55 per cent is from mining operations and the remainder is from in situ methods. The ERCB expects Alberta’s annual bitumen production to increase to around 1 billion barrels (160 million cubic meters) by 2019: http://ercb.ca/portal/server.pt/gateway/PTARGS_0_0_303_263_0_43/http://ercbContent/publishedcontent/publish/ercb_home/public_zone/ercb_process/enerfaqs/enerfaqs12.aspx

4. Other high profile photography series include Peter Essick’s National Geographic photos (<http://ngm.nationalgeographic.com/2009/03/canadian-oil-sands/essick-photography>) and Louis Helbig’s “Beautiful Destruction” exhibit (www.beautifuldestruction.ca/ottawacityhallea.html). Documentary films following this visual trope include: *Petropolis* (2009) a Greenpeace film by Peter Mettler and *Rethink Alberta* (2010), produced by Corporate Ethics International.

5. To view the outcomes of this trip, both photographic and sound recording go to: <http://changeableplaces.wordpress.com/2011/03/17/sights-and-sounds-of-bitumen-extraction-in-alberta-canada/>

6. Theodore Adorno has famously interpreted benjamin’s concept of stillness as turning the world to stone (see Adorno 227-42).

7. These photographs are available through his website, edwardburtynsky.com; the Oil Spill Series is collected

under the title “Gulf of Mexico,” in his “Water” works.

8. The leak amounted to about 4.9 million barrels (780,000 m3) of oil, exceeding the 1989 Exxon Valdez oil spill as the largest ever to originate in U.S. controlled waters and the 1979 Ixtoc I oil spill as the largest spill in the Gulf of Mexico.

Copyright Merle Patchett and Andriko Lozowy. This article is licensed under a Creative Commons 3.0 License although certain works referenced herein may be separately licensed, or the author has exercised their right to fair dealing under the Canadian *Copyright Act*.

Patchett, Merle: Merle Patchett is Lecturer in Cultural Geography at the School of Geographical Sciences at the University of Bristol. Her research broadly investigates interactions between people and the material world and the ways in which these interactions are imagined and practiced in science, art and everyday life. Merle has published her research widely and in a range of formats. Interested in expanding the conceptions of research output, Merle has also curated material culture exhibitions to national and international acclaim. Her most recent curatorial productions have included the urban design competition *Strip Appeal: Reinventing the Strip Mall* (www.strip-appeal.com) and the museum exhibition *Fashioning Feathers: Dead Birds, Millinery Crafts, and the Plumage Trade* (www.fashioningfeathers.com). These exhibitions were completed during her time as a Postdoctoral Fellow at the University of Alberta, a time which also inspired her current research interest in the aestheticization of landscapes of oil production.

Patchett, Merle : Merle Patchett est maître de conférences en géographie culturelle à l’École des sciences géographiques de l’Université de Bristol. Le but de sa recherche est d’investiguer les interactions entre les gens et le monde matériel ainsi que les manières selon lesquelles ces interactions sont perçues et pratiquées dans les domaines de la science, de l’art et de la vie quotidienne. Merle a plusieurs publications à son actif; celles-ci sont de formats très variés puisqu’elle s’intéresse aussi à l’élargissement de nos conceptions de la production scientifique. Elle a organisé des expositions sur la culture matérielle qui ont été acclamées aux échelles nationale et internationale. Le concours en design urbain « Strip Appeal: Reinventing the Strip Mall » (www.strip-appeal.com) et l’exposition muséale « Fashioning Feathers: Dead Birds, Millinery Crafts, and the Plumage Trade » (www.fashioningfeathers.com) sont deux exemples de projets récents qui ont été mis au point pendant sa recherche postdoctorale à l’Université de l’Alberta, où elle a trouvé l’inspiration pour ses travaux actuels sur l’esthétisation des paysages de la production pétrolière.

Lozowy, Andriko: Andriko Lozowy’s current research considers the Canadian Oil Sands through a sociology of images, photo-methodologies, and collaborative youth practices of resistance. As a doctoral student at the University of Alberta, Andriko has been fortunate to be stationed at the Northern gateway. Edmonton is marked as a place of flow, and serves as a zone of secondary oil sands industry, as well as being the major city that services Fort McMurray with commuting workers, and industrial tools. His work is currently in multiple stages, as a dissertation: *Photographing Alberta’s Oil Industry Landscape: Prom Practice to Collaboration*, as well as parsed out as a series of connected articles: Lozowy, Shields & Dorow, “Cameras Creating Community” *Canadian Journal of Sociology* (Forthcoming, 2012); Shields and Lozowy, “Mashups, Youth Culture”, *Environment and Planning: Society and Space* (Under Review). “Mega-Haulers,” *Encyclopedia of Consumption and Waste* (2012); “Picturing Industrial Landscapes” *Space & Culture* (Under Review).

Lozowy, Andriko : La recherche actuelle d’Andriko Lozowy consiste à analyser les sables bitumineux canadiens à travers une sociologie des images, les méthodologies liées à la photographie, et les pratiques collaboratives de résistance de la jeunesse. Andriko peut compter sur une proximité avec le nord pétrolier pour son étude doctorale à l’Université de l’Alberta puisque Edmonton, étant une zone secondaire de l’industrie des sables bitumineux, est considérée comme un endroit de haute circulation ainsi que comme la ville principale d’approvisionnement pour les services et les outils industriels qui sont acheminés vers Fort McMurray. Son travail est divisé en plusieurs parties, y compris sa thèse, *Photographing Alberta’s Oil Industry Landscape: Prom Practice to Collaboration*, et divers articles : « Cameras Creating Community », Lozowy, Shields et Dorow, (*Canadian Journal of Sociology*, à paraître en 2012), « Mashups, Youth Culture », Shields et Lozowy, (*Environment and Planning: Society and Space*, en évaluation), « Mega-Haulers » (*Encyclopedia of Consumption and Waste*, 2012), « Picturing Industrial Landscapes » (*Space & Culture*, en évaluation).

RETHINKING BITUMEN: FROM “BULLSHIT” TO A “MATTER OF CONCERN”

JONATHAN GORDON

What is the current state of discourse about bitumen and how might it be changed? Philosopher Harry Frankfurt defines “bullshit” as any attempt at persuasion that is “unconnected to a concern with the truth” (Frankfurt). By looking at a variety of recent examples from the debates over bitumen extraction, “Rethinking Bitumen” argues that these debates have many of the characteristics that Frankfurt ascribes to “bullshit.” It is argued further that the debate’s disconnect from a concern with truth is rooted in what Bruno Latour calls “matters of fact” (“Critique” 226). Attempts to persuade are built on “matters of fact”—which can be debunked by both sides as ideological—when they should be founded on the ecological consciousness of what Latour calls “matters of concern” (ibid.) Literature offers one means of effecting this transition from “matters of fact” to “matters of concern.” This article considers Marc Prescott’s play *Fort Mac* as one example of a literary text that creates an opportunity for engaging in ecological thinking about bitumen and for deploying affect and sensation to change the prevailing values about it, to see bitumen as a “matter of concern.”

Quel est le discours actuel sur le bitume et comment pourrait-il être changé? Le philosophe Harry Frankfurt définit comme « connerie » toute tentative de persuader qui « n’a aucun lien à la vérité » [Notre Traduction] (Frankfurt). Dans cet article, je soutiens que les débats récents sur l’extraction du bitume ont beaucoup à voir avec ce que Frankfurt associe aux « conneries ». De plus, j’entends montrer que la rupture de ces débats avec la question de la vérité trouve son origine dans ce que Bruno Latour appelle des « états de fait » [Notre Traduction] (« Critique » 226). Des tentatives de persuader se construisent sur ces « états de fait » —on peut déboulonner celles-ci comme idéologiques sur tous les fronts—, alors que c’est la conscience écologique de ce que Latour appelle des « états d’inquiétude » qui devrait constituer le fondement de l’argument. Cet article examine la pièce de théâtre *Fort Mac* de Marc Prescott comme exemple d’une œuvre littéraire qui crée l’occasion de comprendre le bitume du point de vue écologique afin de partager des inquiétudes liées à cette dimension, puis de changer les valeurs en jeu et parvenir enfin à concevoir le bitume comme un « états d’inquiétude ».

Fig. 1

Introduction: Reframing the Debate

In 2010 a coalition of activist environmental groups working under the banner Rethink Alberta, a group ostensibly concerned with adding ‘facts’ to the debate about the so-called ‘oil sands,’ launched a multimedia ad campaign. The goal was to dissuade international tourists from visiting Alberta by presenting images of the industrial extraction of oil from the bituminous sands around Fort McMurray. Referring to bitumen extraction as the “other oil disaster” (Fig. 1), on par with the 2010 Deepwater Horizon explosion and resulting spill into the Gulf of Mexico, and juxtaposing images of oil-soaked pelicans with oil-soaked ducks, seeks to provoke an emotional response to bitumen and oil in general. Both images are negative and disturbing: they are employed to push the viewer away. The combination

of the images with the title—“Alberta: the Other Oil Disaster”—functions as a metonymy, with the oil-soaked duck standing in for Alberta as a whole. The viewer is not just repelled by the images, but by Alberta itself, or so the campaign intends. As part of this campaign, the group produced the billboard shown below, a Facebook page, and a video, which generated responses in newspapers, on television, and online.

Among the dozens of virulent responses posted on YouTube to the video, asing940 writes, “You don’t think that this US group has a bias too? Let’s see—worst oil disaster EVER just happened in the US. This is an ad campaign, but it isn’t designed to trigger interest, it is designed to point the finger somewhere else.” In direct response to such anti-bitumen campaigns, the website

Fig. 2

ethicaloil.org was launched to highlight the differences between “conflict oil” from Venezuela, Libya, Sudan, the Middle East, etc. and “ethical oil” from Canada. It focuses on the ways in which bitumen extraction creates good jobs and promotes social justice within a Canadian regime of environmental responsibility. While Figure 1 juxtaposes oil soaked birds to equate bitumen extraction with the Gulf oil spill, Figure 2 uses the same visual strategy of side-by-side photos to establish a clear moral hierarchy. While the caption of the left-hand picture—“Sudan’s Oil Fields: Indigenous Peoples Killed”—implies that the bones in the foreground are those of an indigenous person, the right-hand picture offers the smiling, optimistic face of, presumably, an Aboriginal woman. Rather than equating two negatives, as with the Rethink Alberta campaign, Ethical Oil contrasts a negative image with a positive one. Want to stop conflict oil (the red background to the left-hand title says)? Go with ethical (even green) oil from Canada.

The public debate about bitumen occurs within a highly polarized context in which it often seems there is no common ground. This article considers how approaching bitumen as what Bruno Latour calls a “matter of concern” can interrupt the rhetorical warfare being engaged in by all sides, and, in that temporary interruption, provide a shift in perspective.

Latour proposes “an entirely different attitude than the critical one, [...] a multifarious inquiry launched with the tools of anthropology, philosophy, metaphysics, history, sociology to detect how many participants are gathered in a thing to make it exist and to maintain its existence” (Latour, “Critique” 245). Literature also has a role to play. As Travis Mason has noted in a reading of Don McKay’s poetry, “That Latour neglects to include poetry, or the arts for that matter, in his project of bringing the sciences into democracy, speaks volumes of the continuing need for sharing ecological consciousness in social spheres that are plural: both public and private, both literary and scientific, both

linguistic and kinetic” (Mason). Though literature too, like any other discourse, may be debunked and dismissed as rhetorical, I argue that it is harder to do this for literature than for the Rethink Alberta video or the Ethical Oil campaign because literature, as such, can not so easily be dismissed as “interested.” Of course, propagandist literature exists, but that does not mean literature as such can be reduced to propaganda. Jean-Luc Nancy claims that literature creates a “circulation [that] goes in all directions at once”, and it is in this sense that I want to use the term (3). Literature does not push us towards any of the options in an impossible choice, does not seek to persuade, is something more than rhetoric. It allows us to dwell, temporarily, in a present impossibility, the impossibility of choosing between forms of sacrifice. Dianne Chisholm argues in “The Art of Ecological Thinking” that, “there is an art of ecological thinking which is distinct from ecological science. Science may recognize ecology as a discipline but it does not therefore follow that ecological thinking is properly scientific” (570). There is, she argues, thinking particular to “literary ecology” and, in the example she addresses—Ellen Meloy’s *The Last Cheater’s Waltz*—this thinking “deploys affect and sensation in expressive refrains to enact a transvaluation of values” (572). This article will consider Marc Prescott’s play *Fort Mac* as one example of a literary text that creates an opportunity for recognizing the impossible choice presented by bitumen, an opportunity for engaging in ecological thinking, and for deploying affect and sensation to change the prevailing values about bitumen, to see it as a “matter of concern.”

Ethicaloil.org, by contrast to the play, claims that we have a clear choice to make between sources of oil: when the choice is framed as one between a place that kills indigenous peoples and a place that employs them, it seems straightforward. However, if it is framed as one between oil-soaked pelicans and oil-soaked ducks, as in the Rethink Alberta billboard, the choice is less obvious. Ezra Levant claims, in his book *Ethical Oil*, which inspired the website, that “The question is not whether we should use oil sands oil instead of some perfect fantasy fuel that hasn’t been invented yet [...] the

question is whether we should use oil from the oil sands or oil from the other places in the world that pump it” (7). Let us put aside for the moment debates about alternative energy sources and accept Levant’s premise that the world needs oil. If the question is about deciding where that oil comes from, that does not mean there is a simple answer (as Levant’s framing of the question implies). Reading bitumen as a matter of concern can help bring the complexity, even the impossibility, of an answer into focus.¹

Latour defines a matter of concern as “what happens to a matter of fact when you add to it its whole scenography, much like you would do by shifting your attention from the stage to the whole machinery of a theater” (“What is the Style?” 39). In attempting to follow Latour’s suggestion, this article shifts between the text of Franco-Manitoban Marc Prescott’s 2007 play *Fort Mac*, statements made by various participants in debates over bitumen, and theories of discourse and rhetoric. While it is impossible in an article such as this to focus one’s attention on all of the factors involved in the discourse surrounding bitumen, just as it would be impossible to focus on the whole machinery of a theatre at one time, this essay presents one attempt at contextualizing the shortcomings of the current debate about bitumen and pointing towards the (im)possibility of an alternative conversation, a conversation that might consider the ecological view that we need, in Meloy’s phrase, to “try to live here [Fort McMurray, Alberta, Canada, Earth] as if there is no other place and it must last forever” (qtd. in Chisholm 586).

‘Just the Facts, Please’: Objectivity, Control, and “Bullshit”

In Prescott’s play, Jaypee, his girlfriend Mimi, and her sister Kiki head to northern Alberta from Quebec in a dilapidated camper to find the land where it rains jobs. Jaypee is unable to find work because, even though he can fix engines—in his words he “connais ça des moteurs” (24)²—he is not a certified mechanic, and, when he runs afoul of Murdock, a local tough, things quickly become very complicated. Mimi takes a job as an exotic dancer even as she tries to keep her

pregnancy a secret from Jaypee. As their need for money approaches a climax, she is unable to make it to work when the truck breaks down. Jaypee becomes addicted to drugs and decides to set up a meth lab to earn enough money to pay off his own drug debts but is unable to buy all the necessary items as the authorities track large purchases of the ingredients for meth: “parce qu’ils font attention à ce que t’achètes” (65).³ Although Kiki—simple-minded, religious, kind-hearted—tries to help, her best intentions cannot prevent the destructive forces at work. The play presents characters working to change the circumstances they find themselves in, circumstances only partly of their own making and only partly within their control. By contrast, the ongoing rhetorical debate over bitumen suggests, in its emphasis on clear choices, a situation that we do control.

This position of control has been stated recently in an open letter published in *The Globe and Mail* for 9 January 2012, where Natural Resources Minister Joe Oliver writes, in the context of the National Energy Board opening hearings into Enbridge’s proposed Northern Gateway pipeline from Fort McMurray to Kitimat, British Columbia, “We know that increasing trade will help ensure the financial security of Canadians and their families.” We can exercise control over our future by building this pipeline. However, Oliver goes to say, despite what “we know,”

there are environmental and other radical groups that would seek to block this opportunity to diversify our trade. Their goal is to stop any major project no matter what the cost to Canadian families in lost jobs and economic growth.

No forestry. No mining. No oil. No gas. No more hydro-electric dams.

These groups threaten to hijack our regulatory system to achieve their radical ideological agenda. They seek to exploit any loophole they can find, stacking public hearings with bodies to ensure that delays kill good projects. They use funding from foreign special interest groups to undermine Canada’s national economic interest.

The issue, as in the Ethical Oil campaign, is a black and white choice between those who would help build

future prosperity and those who, for their own political reasons, want to prevent this. Oliver concludes, “Our regulatory system must be fair, independent, consider different viewpoints including those of Aboriginal communities, review the evidence dispassionately and then make an objective determination. It must be based on science and the facts.” Nathan Lemphers, Oilsands Technical and Policy Analyst for the Pembina Institute, writes in response to Oliver’s call for a regulatory system that is fair, independent and based on science and facts, “We couldn’t agree more, and can’t help but point out the troubling disconnect between the minister’s call for a ‘dispassionate’ and ‘objective’ approach and his government’s blatant political interference in the process. Remember the BP oil spill in the Gulf of Mexico last summer? *The fact is*, such a disastrous spill could easily happen here, too” (“Open for Business” emphasis added). While agreeing with Oliver about the need to base decisions on science, Lemphers then shifts his appeal to the threat of an oil spill, a “fact” that Oliver would surely dispute.

Such exchanges are precisely the problem with the debate currently occurring around bitumen: all sides lay claim to the ‘objective facts’ and defend their positions based on these claims. Change in the debate, let alone government policy or industry actions, will not proceed from more or better facts; we cannot expect some pronouncement from on high that will chart the way forward. Despite what Joe Oliver or Ezra Levant or David Schindler or Andrew Nikiforuk knows, any particular statement of ‘fact’ exists within the context of an ongoing discourse where the various participants are already more or less dogmatic adherents to their positions. Indeed, every attempted truth-claim generates a flurry of opposition activity to debunk it and perpetuate relativist doubt. This doubt serves the status quo. Shifting the debate from facts to concern does not mean abandoning facts or accepting relativism, but putting the facts in a larger context, a context in which the facts appear differently, from which we judge them differently.

For philosopher Harry Frankfurt, “bullshit” is characterized by a whole conversation that is “not

germane to the enterprise of describing reality” (“On Bullshit”). Much of the response to Rethink Alberta has been precisely focused on showing how their facts and statistics do not describe reality. While Rethink Alberta points out “The Tar Sands are the largest contributor to the growth of greenhouse gas emissions in Canada” (Rethink Alberta), Levant, for instance, replies “The oil sands combined emit just 5 percent of Canada’s total greenhouse gases—less than, for example, the emissions from all of Canada’s cattle and pigs” (6). While Nikiforuk argues “Bitumen development [...] will eventually destroy or industrialize a forest the size of Florida” (4), Levant replies, “The oil sands do cover an area the size of Florida. But only 2 per cent of that area will ever be mined” (4). As far as I can tell, all of these claims are true. However, they point in very different directions. Various individuals and groups would chart a course of action for bitumen based on the ‘truth,’ but others dismiss these truths as just so much “bullshit” and chart different courses based on different truths.

Slavoj Žižek argues that in the dominant ideological formation today, “a ‘politics of truth’ [is] dismissed as totalitarian” because, in the postmodern world, truth is unknowable (*Defense* 340). However, believing that truth is unknowable serves the interests of the status quo. As William Corlett writes in interpreting Derrida, “[i]n a world where everything is neutralized, the status quo wins” (197). This, perhaps paradoxically, seems to be the result of increasingly partisan, divisive, and extremist rhetoric: increasing the volume of the debate allows extraction to continue apace while a media battle provides a diverting spectacle. While both extremes in the debate I’m exploring make claims to truth, these claims only have purchase for those who already accept them, and can be dismissed by opponents regardless of whether their positions are more ‘truthful.’ Therefore, despite the fact that certain claims about resource extraction have purchase for me, are persuasive to me, I do not believe that my making an argument based on those claims will necessarily have purchase for others. Here, I am focused on describing the debate as I see it and suggesting how literature might change that debate by adding to an understanding of bitumen as a matter of concern.⁴

In developing the concept of matters of concern, Latour quotes a Republican strategist from a *New York Times* piece regarding the debate over climate change: “Should the public come to believe that the scientific issues are settled,” the Republican writes, “their views about global warming will change accordingly. Therefore, you need to continue to make the lack of scientific certainty a primary issue” (“Critique” 226). This leads Latour to worry:

I myself have spent some time in the past trying to show “the lack of scientific certainty” inherent in the construction of facts. I too made it a “primary issue.” [...] Was I foolishly mistaken? Have things changed so fast? In which case the danger would no longer be coming from an excessive confidence in ideological arguments posturing as matters of fact—as we have learned to combat so efficiently in the past—but from an excessive distrust of good matters of fact disguised as bad ideological biases! (“Critique” 227)

Things are a little more complicated with bitumen as, on the one hand, this strategy of creating distrust of facts is employed for any negative science, but, on the other, scientific certainty is asserted about the potential for continuous improvements in extraction processes. Levant provides examples of both of these strategies: he writes, for the first, “It’s true, there is oil seeping into the rivers north of Fort McMurray and sometimes the air smells like sulphur and the water is bitter. And that’s how it’s been for millennia” (4), and, for the second, “Oil sands technology continues to improve—to produce one barrel of oil sands oil takes 38 percent less [Greenhouse Gas] emissions now than it did in 1990” (6). In this way any doubts about the negatives that remain after the industry spin-machine is finished with them are deferred into a utopian future. With matters of concern, though,

It is the same world, and yet, everything looks different. Matters of fact were indisputable, obstinate, simply there; matters of concern are disputable, and their obstinacy seems to be of an entirely different sort: they move, they carry you away, and, yet, they too *matter*. The amazing thing with matters of fact was that, although they were material, they did not matter a bit, even though they were immediately used to enter into some sort of polemic. (Latour, “What is the Style?” 39)

The NEB hearings into Northern Gateway should, ideally, provide one opportunity for a conversation that moves beyond the polemic of matters of fact, but it is also in danger of being hijacked by paternalistic claims to transparent access to universal Truth by government and industry, and, indeed, by environmentalists as well. If we accept that the starting point for debate is “science and the facts,” as Joe Oliver asserts and Nathan Lemphers accepts, then the terms of that debate are dangerously narrowed (“Open Letter”).

In “Canada and Postcolonialism: Questions, Inventories, Futures,” Diana Brydon argues that postcolonialism depends on recognition of the following:

all truths are complicated and contingent; while there may be many truths rather than a single Truth, that does not absolve an individual or a community from distinguishing among them nor from establishing priorities, nor indeed from seeking consensus through discussion and compromise; and that Eurocentric forms of truth have masqueraded as the universal under a hijacked form of humanism; but that it remains necessary to search for ways to create a renewed definition of the human, beyond the commodification of identity under capitalism. (73)

When Oliver writes that the regulatory process must “consider different viewpoints including those of Aboriginal communities,” but then asserts that, “It must be based on science and the facts,” while clearly implying that the pipeline should be built, he repeats a colonialist disavowal of Indigenous knowledge and concerns. A conversation about the various complicated and contingent truths at play in bitumen development and what the communal priorities should be is the one that we are struggling to have in Alberta, in Canada, and internationally.

If we consider bitumen, and the ecosystem of which it is a part, a “matter of concern,” rather than a substance about which we just need to establish scientific facts, then the process of seeking consensus through discussion and compromise, of establishing priorities, becomes meaningful—more difficult, yes—but also more democratic: a process that does not privilege Eurocentric

models of knowledge over every other includes more truths about bitumen and the boreal forest. In “Why Has Critique Run Out of Steam? From Matters of Fact to Matters of Concern,” Latour claims

Archimedes spoke for a whole tradition when he exclaimed: ‘Give me one fixed point and I will move the Earth,’ but am I not speaking for another, much less prestigious but maybe as respectable tradition, if I exclaim in turn ‘Give me one matter of concern and I will show you the whole earth and heavens that have to be gathered to hold it firmly in place?’ For me it makes no sense to reserve the realist vocabulary for the first one only. The critic is not the one who debunks, but the one who assembles. (“Critique” 246)

A critique of assembly is desperately needed in the debate over bitumen development. While various participants struggle to establish fixed points by which they can move the world’s understanding of bitumen and debunk opponents’ claims, this strategy has not succeeded in changing the status quo. As water ecologist David Schindler, and others, have pointed out, there has been, and continues to be, a tremendous lack of environmental monitoring in the region, and what monitoring does occur is largely done by industry⁵. Further, the critique of debunking is so firmly entrenched that it is very difficult to know which points are truly fixed. Thus, when 99kokanee writes in response to Rethink Alberta, “do you deny *the fact* that the oil is naturally seeping into the river causing the toxins. do [sic] you deny *the fact* that water sampling and testing has shown no increase in toxins in the last 50 years” (emphasis added), it is impossible, at least for most ordinary citizens, to definitively dispute this claim. Despite Schindler’s research, published in the prestigious *Proceedings of the National Academy of Sciences*, which shows that “not all toxic metals in the river are from natural sources”, and federal and provincial government promises to increase monitoring, the conflicting narratives about the impacts of bitumen extraction have so far preserved the status quo, which privileges development over conservation (Brooymans B4). Schindler’s facts have not gained more traction than those of industry or government. If it is a fixed point that industry is depositing deleterious

substances into the Athabasca River, in contravention of the Fisheries Act, this has not changed industry practices or reframed the debate.⁶ While Schindler does receive media attention, and his views are taken seriously by some, he remains one voice among many. His warnings about current pollution and future dangers have not punctured industry’s balloon, inflated by jobs, taxes, funding for arts and culture, and promises of continued prosperity and improved environmental performance.

If the goal is to change the debate, then a strategy to explore is not only to search out more or better facts but to assemble the various voices that enable the status quo as a way of trying to see how they operate together. TheMountainDude8, who writes in the same vein as 99kokanee, states, “The oil companies in Alberta are smart enough to do something about it. They are investing millions in research and working with local research[r]s at the Universities to find better ways of extracting the oil, minimizing the footprint, and sequestering CO2 in old depleted wells.” An opponent may well respond that the open pit mining by which the vast majority of bitumen is currently being extracted does not use wells, that in situ extraction still requires huge amounts of water and fragments habitats, that carbon capture and sequestration is not being done on a commercial scale anywhere, that serious doubts about its feasibility remain, and that the technology is unsuitable for use in the bitumen region.⁷ My main interest in 99kokanee’s statement is the rhetorical effect of the ambiguous pronoun “it.” He or she does not say explicitly what the oil companies are smart enough to do something about. The sentence that follows suggests that “it” is the environmental damage wrought by bitumen extraction, but we might also read “it” as the *perception* that bitumen extraction is environmentally destructive: the oil companies are smart enough to do something about the negative perceptions associated with their industry. A cynic might suggest that all of the efforts 99kokanee lists are targeted toward this perception as much as, or more than, the destruction. As Schindler himself put it, “I guess what really rankles me is we have this foolish propaganda going on to make people think everything is OK and therefore support

the tarsands,” but “If people know what’s really going on and they still support the tarsands, well, I can grit my teeth, but that’s democracy. What’s going on now is not democracy” (McLean and Brooymans A2). The challenge for a position like Schindler’s, though, is dealing with the counter-rhetorical pincer move of dismissing such a claim to know “what’s really going on” as totalitarian on the one hand and falling back on industry’s ‘objective claims’ to improvement on the other. We need to supplement efforts to describe what’s “really going on.”

Propaganda and an Attentive, Affective Alternative

We can see the type of propaganda Schindler criticizes at work in a piece Dave Collyer, president of the Canadian Association of Petroleum Producers (CAPP), wrote for the *Edmonton Journal* on 11 August 2011 titled “Oil, gas industry is making environmental progress.” He writes that, “The Canadian oil and gas industry [...] is focused on the three ‘E’s’—energy security and reliability, economic growth and environmental performance”. This would seem to indicate that these can all be focused on at the same time, that a balance can be achieved. Collyer articulates precisely a “need” for “balanced solutions—responsibly developing Alberta’s valuable resources within a reasonable regulatory framework that recognizes economic benefits and the need for practical environmental protection.” Further, “In addition to focusing on environmental performance improvement, we must continue to improve our engagement and communication with customers and the Canadian public,” but “Unfortunately, we also understand responsible environmental performance and objective communications won’t satisfy the activists who oppose oilsands development.”

This type of ad hominem attack has been extended in the federal government intervention in the debate over the proposed Northern Gateway pipeline. Joe Oliver’s attack on “radical” environmentalists and “jet-setting celebrities” who seek to “undermine Canada’s national economic interest” attempts to marginalize anyone with doubts over the project. Oliver has also stated in an interview that, “There have been very few

pipelines indeed that have ever been rejected by the National Energy Board. I think there have only been two out of tens of thousands” (O’Neil A5). While Collyer and Oliver are targeting groups like Greenpeace and Corporate Ethics International, the coalition of organizations behind the Rethink Alberta campaign encouraging tourists not to visit Alberta, one can assume that they would also take issue with Prescott’s *Fort Mac*, which suggests, according to one review, that the boomtown lifestyle “will steal your soul” (The National Arts Centre). However, Prescott’s play presents a series of events that cannot simply be refuted with a set of statistics. We might think of these events within what Chisholm calls “the art of ecological thinking” or what Adam Dickenson has theorized as “lyric ethics,” which is understood as “a kind of attention that is not reducible to linguistic code or description, a form of listening, perhaps, that might serve to hear the imperative of the other, human and nonhuman” (Dickenson 48). In short, literature pays attention to ecology, recognizes it as a “matter of concern,” in ways that science and politics do not.

In *Fort Mac*, Jaypee, Kiki, and Mimi arrive in Alberta to make their pile and get out; they have come to, as Jaypee says, “faire du *cash* [...] faire le gros motton” (20).⁸ Commissioned by Daniel Cournoyer for Edmonton’s French-language L’Unithéâtre at the height of the last boom, the play went on to run at the National Arts Centre in Ottawa. Alexandre Gauthier wrote, in reviewing the play, that the interest of the piece is in the characters, as they are thrown into a world governed by money:

Et c’est là l’intérêt de la pièce. *Fort Mac* n’est pas qu’une fable écologique qui s’emploie à dénoncer l’exploitation des sables bitumineux. Ce n’est pas non plus qu’une pièce politique, revendicatrice d’une position anticapitaliste claire et précise. Il s’agit tout simplement d’une pièce sur l’humain—l’homme, la femme—qui, vouant un culte à l’argent et à la prospérité, entrent dans un tourbillon sans jamais pouvoir en ressortir. Les personnages dévoilent peu à peu, directement au public, des fragments de leur humanité, humanité qui s’effrite tout au long de la pièce.⁹ (Gauthier)

It is the humanity of the characters that makes it impossible to discount the play as a piece of rhetorical propaganda. As Cournoyer describes them, “to forget the past and reinvent themselves. [...] Crawling out of your old self: That’s a story everyone understands” (Nicholls). The way that the play catalogues the failure of the characters to achieve this re-creation in Fort McMurray, the failure of Fort McMurray to enable this re-creation, casts doubts on Joe Oliver’s certainty in bitumen development and pipeline building to generate a better future.

Canadian conservative philosopher and critic of technological society, George Grant states that “the retirement of many from the public realm [...] raises questions about the heart of liberalism: whether the omnipresence of contract in the public realm produces a world so arid that most human beings are unable to inhabit it, except for dashes in followed by dashes out” (12). Fort McMurray is often seen as a place people dash in to, profit from, and dash out of again. In the play this seems, indeed, to be a necessary survival strategy. As Gauthier notes, Kiki is the only character to believe in something other than money—“Kiki, en vierge Marie des temps modernes, prie, en vain. Elle est bien la seule à croire en autre chose qu’en l’argent”¹⁰—and, because no one else shares this belief, she dies in the end.

Kiki begins the play “sur un pont” (9)¹¹ contemplating suicide, but decides not to kill herself because she feels her death will not have any meaning: “Si je meurs maintenant ma mort aurait pas de sens”¹² (14). Instead she attempts to build a life of mutual benefit for herself and those around her, trying to help in any way, however ineffectual, whenever she can. She says, after finding work at Tim Hortons, that making people happy is her reason for being: “J’ai trouvé ma raison d’être. Je vas rendre les gens heureux”¹³ (35). Ultimately, even though she offers herself as a sacrifice to pay the debts of those she cares for, it seems unlikely that she has made anyone happy. Gauthier describes how Kiki represents the dangers of human greed: “Kiki est la seule à reconnaître les dangers de l’exploitation des sables bitumineux, invoquant souvent Dame Nature. Mais elle

représente surtout les dangers humains liés à l’appât du gain.”¹⁴ While one might dismiss the invocation of Mother Nature as an appeal to a sentimental construct, it is important, in my view, if we are to establish bitumen as a matter of concern, that we not categorically dismiss such appeals: sentiment may provide access to a truth, one that is marginalized within Eurocentric rationalist discourse, but one that may usefully be redeployed.¹⁵ The selfishness of others leads to Kiki’s tragic death, and if her death is more meaningful at the end of the play than it would have been at the beginning it will be because of the audience’s recognition of the dangers to human and non-human nature that come with greed, that come with all people acting only in their own self-interest. This ending is meant to evoke an emotional response from the audience, certainly, and that response enables a change in perspective, a change to a perspective that recognizes relations that exceed the contractual. Daniel Coleman has argued that “reading a thing that is truly admirable [...] reminds us what it is like to be open and undefended.” And “We need this reminder, [...] because it opens us to the Other” (37). Being open to otherness, I would suggest, is a requisite step in moving from matters of fact, and the polemical rhetoric and “bullshit” that they generate, to matters of concern, where the beauty of otherness is recognized as good for its own sake. Admirable texts may come from many realms but there is something about how we read fiction that can facilitate this openness. Recognition of beautiful otherness does not absolve us of the hard work of establishing priorities that Brydon outlines, indeed it shows us how important that work is when we recognize the other as beautiful and at risk.

If, as Ian Angus, argues, “the concept of community refers,” on one hand, “to the human community within which the individual lives and works” but also, on the other, to “the natural environment that surrounds and sustains human life” (84), ecological and communal consequences arise when it becomes impossible to imagine both living and working in a single location, impossible to imagine living with the consequences of your work. Kiki dies as a result of prostituting herself in a work camp in an attempt to earn enough

money to pay off Jaypee’s debts. Her death illustrates a breakdown of the sustaining human and non-human community in Fort McMurray. In the first “Intermède,” Kiki asserts an etymological connection between “nature” and “naissance” before arguing, “Si Dame Nature voyait ce qui se passait ici à *Fort McMurray*, elle pleurerait son océan de larmes. Mais là que j’y pense... Elle n’a pas besoin de le voir—elle le sent, elle le sait. Mon Dieu... Elle doit le sentir” (16).¹⁶ The breakdown of that sustaining surround leads to her death. Despite the help of the well-intentioned Maurice, the franco-Albertan from Plamondon who has come to Fort McMurray to escape the small town pity and gossip that followed his wife leaving him, Kiki is not able to create community in Fort McMurray.

The Rhetoric of Bitumen Extraction and its Limits

The representation of Kiki’s sacrifice pushes beyond the rhetorical battle, the “war of words” (A15), as CAPP president Dave Collyer has characterized it, in which, while there may be some fixed point somewhere that the committed citizen can uncover if given the resources, for the average observer it all comes to resemble so much “bullshit.” That is, all participants seem to be concerned with is persuasion “unconnected to a concern with the truth”; the whole conversation is “not germane to the enterprise of describing reality” (Frankfurt). Regardless of the intentions of the sender of the message, which are more or less unknowable, this is how it appears to the receiver. Revealingly, numerous posters declare that the Rethink Alberta video is “bullshit.” Indeed, many posters then instruct others to “get educated” about bitumen development and turn to “facts,” such as KakeC13, who writes, “Do some research and you will find out that the Province counter acts [sic] everything, they take down trees, we plant them.” The ambiguous pronouns *they* and *we* create an interesting opposition, since the oil companies are responsible both for taking down the trees and planting new ones. KakeC13’s us vs. them dichotomy makes industry both us and them, appropriately both self and other since all Albertans, Canadians, North Americans are implicated in the environmental degradation required to extract bitumen

and the costs of its regeneration. Frankfurt argues that, “Bullshit is unavoidable whenever circumstances require someone to talk without knowing what he is talking about. Thus the production of bullshit is stimulated whenever a person’s obligations or opportunities to speak about some topic are more excessive than his knowledge of the facts that are relevant to that topic.” I don’t mean to demonize the YouTube posters, or simply expose their ignorance. Talking about bitumen, perhaps talking about the environment in any capacity, requires talking without knowing what we are talking about (we are not omniscient and this is one reason perpetuating doubt proves such an effective strategy). There is, certainly, good reason to take issue with the manipulative way that “facts” are used in both the Rethink Alberta video and the Ethical Oil campaign, as I have tried to suggest above. My point, rather, is that despite the proliferation of statistics marshaled by all sides in the debate, there is a lack of fixed points about the consequences of bitumen development, and this is the situation that we need to come to terms with, the circumstance we need to learn to live within. We do not and cannot know what the results will be. In such a situation, rather than trying to exclude everything that does not provide an indisputable matter of fact from the conversation, as Oliver claims we must, we can “follow the poets in their quest for reality” (Latour, “What is the Style?” 23), which I take to mean that poetic (or literary) descriptions of reality get beyond matters of fact.¹⁷

While environmentalists target counter-discursive rhetoric at government and industry propaganda, bitumen continues to be extracted because the public is deceiving itself about the impossible choices involved in that extraction. Bitumen production occurs because a majority of citizens want to believe it can satisfy our appetites without any permanent sacrifices, that reclamation can return the land to its pre-development state, and that pollution is compensated for by jobs, taxes, and increasing prosperity. Underlying these beliefs is a dominant cultural enthymeme—a syllogism in which some premises remain unspoken and that the audience must supply. Aristotle saw the enthymeme as the most important rhetorical form (78).

When some premises are suppressed or assumed by both sides in a debate, appeals to *logos* reach a limit. As Aristotle notes, in situations “where precision is impossible and two views can be maintained,” the logical appeal must give way to the ethical—the perceived character of the speaker—as we “sooner believe reasonable men [sic]” (75). This helps explain why responses to criticism about bitumen development have focused so heavily on public relations, and perhaps suggests the opportunity that the current debate over Northern Gateway offers.

The Alberta Government, for example, famously took out an advertisement in New York’s Times Square, which stated that, “a good neighbour lends you a cup of sugar. A great neighbour provides you with 1.4 million barrels of oil per day.” The tagline for the campaign was “Tell it like it is.” This line asks the reader to fill in the premises and, thereby, cooperate in creating its persuasive effect. Reading this line with one set of premises would give, ‘Tell bitumen’s story accurately (not as environmentalists tell it): it is being done properly by a neighbour of strong moral character and is beneficial for all.’ The ambiguity of the pronoun referent—the “it” of the tagline—creates space for counter-discursive responses as well, but the effectiveness of such responses depends on recognition of what Slavoj Žižek (following Donald Rumsfeld) has called “unknown knowns,” the “disavowed beliefs and suppositions we are not aware of adhering to ourselves [... which] in the case of ecology [...] prevent us from really believing in the possibility of a disaster” (*Defense* 457). The ambiguity of the pronoun referent—the “it” of the tagline—creates space for counter-discursive responses, such as Chris Turner’s “Paradigm Shift,” a letter to the next Premier of Alberta, which claims that the reality is that “The tarsands will be a curse if not managed properly. It can also be a great gift to Canada and Alberta” (32). The government’s approach tends to be effective nonetheless, because, in asking readers to fill in the blanks, it appeals to the cultural dominant and reestablishes the status quo. Literature, by contrast, though it calls on readers to create the meaning of texts in similar ways, can interrupt the operation of that status quo, at least temporarily.

Kenneth Burke describes the “characteristic invitation to rhetoric” this way: when partners “collaborate in an enterprise [...] who is to say [...] just where ‘cooperation’ ends and one partner’s ‘exploitation’ of the other begins?” (25). Alternatives to the status quo emerge when we recognize the beliefs whose disavowal allows us to represent our exploitation of nature as cooperation. The heavy-handed intervention of the federal government in the Northern Gateway debate may enable this recognition through its failure to appeal to the ethos of those who do not consider themselves ‘radical environmentalists’ and yet have doubts about running a pipeline through one of the world’s largest intact temperate rainforests or about tanker traffic off the treacherous B.C. coast. Campaigns such as Rethink Alberta and Ethical Oil are so polarizing though, that they only reinforce the positions of those who already hold them. They fill in the premises of the syllogism with a predetermined script: bitumen development is either a disaster or an ethical good. There is no middle ground. I would not suggest that literature seeks such a middle ground, but it can present an alternative view of reality, one that people with various views might recognize as having a place in the conversation.

This recognition can help to counter the general lack of fixed points. Indeed, among the specifications Latour offers for a project based in matters of concern is that they “have to be *liked*” (“Style” 47). This suggests that, for one, in making decisions about bitumen development or pipeline building we should listen carefully to the people who live in, and like, the places affected. This may be difficult for Joe Oliver who seems to think the land holding the bitumen deposits, “is uninhabitable... uh... by human beings. So, you know, no community is being disrupted” (Paris). It is shocking that the colonialist view of *terra nullius* could be maintained by anyone, let alone a government minister, today, and not even to describe the past but to describe the present situation in Northern Alberta. This may offer an example where critical debunking still has a role to play. Nevertheless, by considering *Fort Mac* we can see how moving out of the realm of facts temporarily, and into that of the values that language can only intimate, might

help us change our minds about what our relationship to bitumen should be.

Kiki explains her difficulty in understanding how men can dominate nature when recognition of the beautiful otherness of nature makes us human:

J’ai jamais compris le besoin qu’ont les hommes de vouloir détruire ce qui est beau. Je comprends juste pas. Peut-être ils voient pas la beauté qui les entoure—mais je refuse de croire que ces hommes peuvent pas voir la beauté parce que c’est ça ce qui nous rend humain. Pis je crois pas que ces hommes sont pas humains. Ils se sentent peut-être à part—détachés ou supérieurs à la nature. La nature est seulement une force à dompter—à dominer—à exploiter.¹⁸ (67) Jaypee shows himself to be precisely such an exploiter as he encourages Mimi to take a job as an exotic dancer, convinces her to prostitute herself to Murdock, and, as soon as Mimi has left to try to save Jaypee from Murdock, he tries to force himself on Kiki. When she asks him what he wants from her—“Qu’est-ce que tu veux de moi?”¹⁹—he states, “Je veux ton innocence. Ta lumière. Ta beauté. Ta bonté”²⁰ (98). However, when she does not resist, saying, “Si tu me veux, prends-moi,”²¹ he is unable to rape her, saying under his breath, “(*Fuck... Je peux pas fourrer la Sainte Vierge, estie!*)”²² (98). Those like Jaypee—and the more malevolent, and successful, Murdock (who never appears on stage)—who see all forms of otherness as potential to dominate and profit from—are certain in their own knowledge regardless of any evidence to the contrary. Throughout the play, whenever Jaypee requires support for some claim he is making he will say, “J’ai raison, j’ai pas raison?”²³ and then he will wait for Mimi or Kiki to reply “T’as raison”²⁴ before concluding with “J’ai raison, çertain”²⁵ (22). As the play moves on, however, and he gets further in debt and more drug-addled, the support from others is no longer forthcoming, but this does not cause him to question his certainty in his own reason. He simply waits a moment before declaring, as usual, “J’ai raison, çertain” (97). Jaypee’s certainty in his own reason is easy to dismiss as flawed. There is very little appeal in his *ethos* to come to his defense when the limits of his reason are reached.

When Patrick Moore, co-founder of Greenpeace, however, campaigns for CAPP on behalf of Northern Gateway, describing post-mining restoration as “the best reclamation I’ve seen,” his *ethos* provides more support. In a recent op-ed, Moore wrote, “the world needs oil now and we’ll need it for the foreseeable future—so it matters greatly where that oil comes from. If any oil is to be labeled ‘dirty,’ shouldn’t it be the oil coming from dictatorial regimes [...]?” (A19). However, despite such efforts to show the superiority of bitumen, both *logos* and *ethos* reach their limits in moments when particular horrors cannot be repressed, dismissed, or marginalized. It does matter greatly where oil comes from; we may even decide that bitumen is the best source of oil; but the extraction of bitumen does require moments of sacrifice that cannot be compensated for.²⁶ The conclusion to Prescott’s play offers one such moment, as does the death of the ducks that Rethink Alberta attempted to capitalize on. Such moments do not prescribe a course of action or attempt to chart a way forward, their value is in the way they raise the question of what should be done, of whether anything will be done in response to such tragedy. Continuing with the status quo is a possibility, probably the most likely possibility, but Kiki’s death makes us either choose the status quo again or choose something else.

Conclusion: Choosing to Pay Attention to Ambiguity

In the final Intermède, Maurice describes the abuse of nature by humans: “Dame nature est fatiguée, aussi. Elle s’est offerte a nous avec toutes ses bontés pis on la remercie en profitant d’elle. On prend avantage d’elle, on l’abuse... On la viole”²⁷ (114). We can read Kiki as a representative of nature. Maurice stands on the stage waiting for recognition of her sacrifice—“pour marquer son départ, sa souffrance, son sacrifice”²⁸ (114)—but a sign is not forthcoming from nature and he must mark her departure himself: before the stage goes dark, “Il lance des pétales de roses en bas du pont”²⁹ (115). It may be a literary-critical commonplace to point out that the ambiguity of this conclusion leaves the possible truths of the play open to the interpretations of the audience members. Nevertheless, that openness is important and the type of response it requires—debate, discussion,

and compromise—to make whatever sense it will make needs to be extended to the conversation about bitumen in general. Such a debate, one that considers all of the competing truths before establishing a set of priorities through a process of discussion and compromise, would characterize an understanding of bitumen as a matter of concern.

Today, however, instead of engaging in the type of collaborative debate required for textual analysis, battle lines are being drawn. As mentioned, the federal government has taken an aggressive line against foreign influence in the anti-pipeline movement and has taken steps in its budget implementation bill to restrict the opportunities for charities to undertake political activities. The editorial in *The Edmonton Journal* of 10 January 2012 questions this tactic:

by using assaults on the legitimacy and credibility of opponents instead of engaging with adult politeness, the government has given a clear signal which way it is leaning before the independent panel gives the first formal testimony a respectful hearing. Even worse, it has undermined its credibility by being inconsistent, if not outright hypocritical, on the subject of foreign participation in the debate. After all, the foreign money being poured into the anti-pipeline fight is pocket change compared to the billions that French, American, Norwegian, and Chinese business people have invested in the oilsands. (“Foreign Influence” A12)

The editorial concludes by declaring that “name-calling isn’t how you win this argument; on the contrary it’s a surefire way of getting your opponents even more committed to doing battle” (A12). Indeed, rather than helping to win, name-calling might help to create the conditions for losing the argument if it helps to undermine the pro-bitumen side’s *ethos*. If we “sooner believe reasonable men,” continued evidence that defenders of the status quo are not more reasonable than their interlocutors might create the conditions for change. As Žižek argues, “Words are never ‘only words’; they matter because they define the contours of what we can do” (*First as Tragedy* 109). Literature is one place where the definitions of words can be changed, where

the contours of what we can do can be changed. In *Fort Mac*, Prescott’s attention to the multiple sacrifices required by bitumen extraction, and the connection between human and non-human sacrifice in the character of Kiki, provide one opportunity to change the debate from one that currently starts and ends with scientific facts into something broader. It is easier in a play to argue at a remove from immediate factuality and necessity, and that remove enables a type of assessment that is not valid in other realms, that might simply be dismissed as sentimentalism or utopianism or parochialism. And, of course, these charges can be leveled at literature too. However, after recognition of the supplement literature provides to social discourse (Angenot 219), our view of that social discourse may change; we may read the social discourse differently. When a country’s federal government engages in schoolyard name-calling regarding a review process that approves over 99% of applications, their purported focus on scientific facts begins to seem like an attempt at persuasion unconnected from a concern with the truth; it suggests that what we have heard up to now has been mostly “bullshit” and it is time to talk about matters of concern.

Works Cited

Angenot, Marc. “.What Can Literature Do? From Literary Sociocriticism to a Critique of Social Discourse.” *Yale Journal of Criticism* 17.2 (Fall 2004): 217-31. Print.

Angus, Ian. *Emergent Publics: An Essay on Social Movements and Democracy*. Winnipeg: Arbeiter Ring Publishers, 2001. Print.

Aristotle. *The Art of Rhetoric*. Trans. Hugh Lawson-Tancred. Toronto: Penguin, 1991. Print.

Brooymans, Hanneke. “Heavy Metal Warning for Fort Chip Residents.” *The Edmonton Journal* May 5, 2010: B4. Print.

Brydon, Diana. “Canada and Postcolonialism: Questions, Inventories, Futures.” *Is Canada*

Postcolonial? Unsettling Canadian Literature. Ed. Laura Moss. Waterloo, ON: Wilfred Laurier UP, 2003. 49-77. Print.

Chisholm, Dianne. “The Art of Ecological Thinking: Literary Ecology.” *ISLE: Interdisciplinary Studies in Literature and the Environment* 18.3 (Summer 2011): 569-593. Print.

Coleman, Daniel. *In Bed with the Word: Reading, Spirituality, and Cultural Politics*. Edmonton: U of Alberta P, 2009. Print.

Collyer, Dave. “Oil, Gas Industry is Making Environmental Progress.” *The Edmonton Journal* August 11, 2010: A15. Print.

Corlett, William. *Community Without Unity: A Politics of Derridian Extravagance*. Durham: Duke UP, 1993. Print.

De Souza, Mike. “Budget Cuts Could Threaten Oilsands, Coal Monitoring.” *The Edmonton Journal* June 13, 2012: A13. Print.

Dickenson, Adam. “Lyric Ethics: Ecocriticism, Material Metaphoricity, and the Poetics of Don McKay and Jan Zwicky.” *Canadian Poetry* 55 (Fall/Winter 2004): 34-52. Web. 22 Sept. 2009.

EthicalOil.org. Ethical Oil.. Web. August 1, 2011.

“Foreign Influence Foolish Target.” Editorial. *The Edmonton Journal* Jan. 10, 2012. A12. Print.

Frankfurt, Harry. “On Bullshit.” *GwinNet Daily Online*. Web. August 10, 2010.

Gauthier, Alexandre. “L’illusion bitumineuse.” *Canadian Literature* 207 (Winter 2010): 164. Web. Jan. 14, 2012.

Gordon, Jon. “Displacing Oil: Towards ‘Lyric’ Representations of the Alberta Oil Sands.” *Countering Displacements: The Creativity and Resilience of Indigenous and Refugee-ed Peoples*. Ed. Daniel Coleman, Erin Goheen-Glanville, Wafaa Hasan,

and Agnes Kramer-Hamstra. Edmonton, AB: U of Alberta P, 2012. 1-30. Print.

Grant, George. *Technology & Justice*. Toronto: Anansi, 1986. Print.

---. *English-Speaking Justice*. 1974. Toronto: Anansi, 1998. Print.

Grant, Jennifer, Simon Dyer, and Dan Woynillowicz. "Fact or Fiction: Oil Sands Reclamation." *The Pembina Institute*. The Pembina Institute. May 2008. Web. May 29, 2008.

Kaye, Frances W. *Good Lands: A Meditation and History on the Great Plains*. Edmonton, AB: Athabasca UP, 2011. Print.

Latour, Bruno. "Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern." *Critical Inquiry* 30:2. Print.

---. "What is the Style of Matters of Concern?" 2005 Spinoza Lectures. Department of Philosophy University of Amsterdam. VanGorcum, 2008. Print.

Lemphers, Nathan. "Open for Business, Closed to Criticism." *The Mark: The People and Ideas Behind the Headlines*. <http://www.themarknews.com/articles/7986-open-for-business-closed-to-criticism>. Web. Jan. 11, 2012.

Levant, Ezra. *Ethical Oil: The Case for Canada's Oil Sands*. Toronto: McLelland and Stewart, 2010. Print.

Marsden, William. *Stupid to the Last Drop*. Toronto: Knopf, 2007. Print.

Mason, Travis. "Listening at the Edge: Homage and Ohmage in Don McKay and Ken Babstock." *Studies in Canadian Literature*. 33:1 (2008): 77-96. Web.

Moore, Dr. Patrick. "Attacking oilsands a 'dirty' trick: Canada far ahead of other oil-exporting nations on social and environmental fronts." *The Edmonton Journal* Dec. 8, 2011: A19. Print.

Nancy, Jean-Luc. *Being Singular Plural*. Trans. Robert D. Richardson and Anne E. O'Byrne. Stanford: Stanford UP, 2000. Print.

---. "The Unsacrificeable." Trans. Richard Livingstone. *Yale French Studies* 79 (1991): 20-38. Print.

The National Arts Centre/ Centre National des Arts. Web. 28 Aug. 2007. <<http://www.nac-cna.ca/en/nacnews/viewnews.cfm?ID=1441>>.

Nicholls, Liz. "Oil Boom Takes to the Stage." *The Edmonton Journal* April 12, 2007.. Web. Jan. 15, 2012. <http://www.canada.com/story_print.html?id=db42e136-ddaf-4b1e-9a77-eaaa8d773fef>.

Nikiforuk, Andrew. *Tar Sands: Dirty Oil and the Future of a Continent*. Vancouver: Greystone, 2008. Print.

Oliver, Joe. "Open Letter." *The Globe and Mail* January 9, 2012. Web. Jan. 12, 2012.

O'Neil, Peter. "Feds Slam 'Radical' Greens: 'Jet-Setting Celebrities' Trying to Hijack Regulatory System, Resource Minister Says." *The Edmonton Journal* Jan. 9, 2012: A1. Print

Paris, Max. "The Uninhabitability of the Oil Sands Forests." *CBC News*. Sept. 27, 2011. Web. Jan. 15, 2012.

Prescott, Marc. *Fort Mac*. Saint-Boniface, MB: Les Editions du Bl, 2009. Print.

"Rethink Alberta." *YouTube*. Web. Aug. 10, 2010. <http://www.youtube.com/watch?v=_dpOzvmBj8k>.

Sandilands, Catriona. *The Good-Natured Feminist: EcoFeminism and the Quest for Democracy*. Minneapolis: U of Minnesota P, 1999. Print.

Schindler, David et al. "Oil Sands Development Contributes Polycyclic Aromatic Compounds to the Athabasca River and its Tributary." *Proceedings of the National Academy of Sciences USA* 106 (2009): 22346-22351. Print.

Turner, Chris. "Paradigm Shift: Enter the Second Industrial Age." *Alberta Views* (July/Aug. 2011): 30-35. Print.

Žižek, Slavoj. *In Defense of Lost Causes*. New York: Verso, 2008. Print.

---. *First as Tragedy, Then as Farce*. New York: Verso, 2009. Print.

Image Notes:

Fig. 1 Allan, Jord. "The Rethink Alberta Billboard." *cultural dysphoriac*. N.p. September 9, 2010. Web. July 15, 2011.

Fig. 2 "Ethical Oil Poster." EthicalOil.org.; rpt. in "Ethical Oil: Framing a Debate on an Issue." *Flares into Darkness*. Web. July 15, 2011.

Endnotes

1. It means, among other things, asking, first, *if* we should extract oil from bitumen, and then, if we feel we should, asking *how* we should go about that, what we are willing to sacrifice for the oil (rather than assuming that these questions have already been answered). I explore these questions more fully in another article, "What Should We Sacrifice for Bitumen?", not yet published.
2. "knows engines"
3. "because they pay attention to what you buy."
4. Any readers eager to know more of what I think might see "Displacing Oil: Toward 'Lyric' Re-presentations of the Alberta Oil Sands" in *Countering Displacements: The Creativity and Resilience of Indigenous and Refugee-ed Peoples*.
5. Most recently, Bill Van Heyst, associate professor of environmental engineering at the University of Guelph, has warned that cuts included in the federal Conserva-

tive government's 2012 omnibus budget bill C-38 will degrade the quality of environmental monitoring even further (De Souza A13).

6. Indeed, since the time of writing, the federal Conservative government has included as part of Bill C-38 changes to the Fisheries Act, which seem to weaken protection for fish habitat.

7. See, for instance, Grant, Dyer, and Woynillowicz "Fact or Fiction: Oil Sands Reclamation."

8. "to make cash [...] to make the big piece"

9. And that's interest of the piece. *Fort Mac* is not an ecological fable that works to expose the oilsands. This is not a political play, claiming a clear and precise anticapitalist position. This is simply a human piece—the man, the woman—who, through sincere devotion to a cult of money and prosperity, get caught in a whirlwind without the power to get out. The characters reveal, directly to the audience, fragments of their humanity bit by bit, humanity crumbling throughout the play.

10. "Kiki, a modern day Virgin Mary, prays, in vain. She is the only one to believe in something other than money"

11. "on a bridge"

12. "if I die now my death will not have any meaning"

13. "I have found my reason for being. I am going to make people happy."

14. "Kiki is alone in recognizing the dangers of the oil sands, often invoking Mother Nature. But she especially represents the dangers associated with human greed."

15. See Chisholm's reading of Ellen Meloy's *The Last Cheater's Waltz* in "The Art of Ecological Thinking," where she argues that Meloy "treats ecological upheaval as inexplicably affective, not as positive, measurable, factual, and fixable. Affect is key to Meloy's art of

composing a vision of what is otherwise imperceptible and unthinkable” (572). In my reading of *Fort Mac* the use of “Dame Nature” works to generate affect, despite the problematic associations of that phrase.

16. “If Mother Nature saw what was happening here in Fort McMurray, she would cry an ocean of tears. But now that I think of it ... She does not need to see it—she feels it, she knows it. My God ... She must feel it.”

17. Given more time I would like to connect Chisholm’s reading of Meloy’s vision of the desert—“Such a vision deterritorializes the State’s deterritorialization of the desert as void or as so ‘empty’ of natural and human resources as to be ideal for atomic bombing without consequence (29)” (583)—with a history of viewing the North American prairie as empty and deficient and, therefore, ripe for industrialization (see Frances W. Kaye’s *Good Lands: A Meditation and History on the Great Plains* for an elaboration of this view), which, following settlement and the development of an industrial agricultural economy is pushed northward onto the bituminous sands and boreal forest, which are similarly constructed as deficient, empty and available for industrial development. Meloy’s vision of the desert connects with the history of bitumen extraction via Project Plowshare and plans, never enacted, to detonate nuclear bombs in order to extract oil from sand (see Marsden, *Stupid to the Last Drop* and Nikiforuk, *Tar Sands* for versions of this story).

18. I never understood the need of men to want to destroy what is beautiful. I just do not understand. Maybe they do not see the beauty that surrounds them—but I refuse to believe that these men can not see beauty because that’s what makes us human. Worse I don’t believe that these men are not human. They feel perhaps set-apart—detached or superior to nature. Nature is only a force to subdue, to dominate, to exploit.

19. “what is it that you want from me?”

20. “I want your innocence. Your light. Your beauty. Your benevolence.”

21. “If you want me, take me”

22. “Fuck... I cannot fuck the Holy Virgin, estie!”

23. “I have reason. Do I not have reason?”

24. “You have reason”

25. “I certainly have reason”

26. See Nancy, “The Unsacrificeable.”

27. Mother Nature is tired, too. She has provided us with all her bounty, and we thank her by profiting from her. We take advantage of her, abuse her ... We violate her.” Some ecofeminists criticize the anthropomorphism involved in the construction “Mother Nature.” I do not have space to outline this debate here, but will simply suggest that despite flaws and limitations it still has capacity to help recontextualize an objectivist approach to environmental issues. Catriona Sandilands has described a goal for ecofeminism as being to “understand the ways in which nature and gender are wielded as discursive constructs, to investigate the ways in which the oppression of women and the domination of nature are imbricated in a whole host of destructive relations and practices, and to create an oppositional framework capable of addressing their interrelations” (xvi). Deployment of “Mother Nature” as a discursive construct could serve the ends of domination in some contexts or operate as part of the oppositional framework in others. My contention is that in *Fort Mac* it operates to address the interrelations between the oppression of women and the domination of nature through the character of Kiki.

28. “to mark her departure, her suffering, her sacrifice”

29. “He throws the rose petals below the bridge”

Gordon, Jonathan: Jonathan Gordon has taught in English and Film Studies and at the University of Alberta and Writing Studies at Maskwachees Cultural College. He currently teaches Writing Studies in the Office of Interdisciplinary Studies at the University of Alberta. His dissertation, *Belonging and Homelessness in ‘Post-Modern’ Alberta Literature: Community at the Limits of Discourse*, examines the cultural signifying practices that constitute community in Alberta and critiques their various complicities with the homogenizing narrative of capitalism. He has published on hog production—“‘Bent to the Shape of Wordlessness’: Home, Hogs, and Community at the Limits of Discourse”—mountaineering literature—“Means and Motives: The Mystification of Mountaineering Discourse”—and bitumen—“Displacing Oil: Towards ‘Lyric’ Representations of the Alberta Oil Sands.” His current project, *Unsustainable Rhetoric: Liberalism, Ecology, and Industrial Mega-projects*, of which the article in this journal is a part, goes beyond purely literary analysis to study advertising and media representations of various mega-projects: industrialized agriculture, hydroelectric dams, and oil extraction.

Copyright Jonathan Gordon. This article is licensed under a Creative Commons 3.0 License although certain works referenced herein may be separately licensed, or the author has exercised their right to fair dealing under the Canadian *Copyright Act*.

Gordon, Jonathan : Jonathan Gordon (B.A. Alberta, M.A. Western, Ph.D. Alberta) a enseigné l’anglais et les études cinématographiques à l’Université de l’Alberta, ainsi que les techniques de rédaction au Collège culturel de Maskwachees. Il est aujourd’hui de retour à l’Université de l’Alberta, où il enseigne les techniques de rédaction pour le compte du Bureau des études interdisciplinaires. Sa thèse, *Belonging and Homelessness in ‘Post-Modern’ Alberta Literature: Community at the Limits of Discourse*, est une analyse des pratiques culturelles constitutives de la communauté de l’Alberta, et une critique de leurs diverses accointances avec le récit homogénéisateur du capitalisme. Il a publié au sujet de l’élevage des porcs : « ‘Bent to the Shape of Wordlessness’: Home, Hogs, and Community at the Limits of Discourse », de l’alpinisme : « Means and Motives: The Mystification of Mountaineering Discourse », et du bitume : « Displacing Oil: Towards ‘Lyric’ Re-presentations of the Alberta Oil Sands ». Son projet actuel, *Unsustainable Rhetoric: Liberalism, Ecology, and Industrial Mega-projects*, dont fait partie cet article, dépasse les frontières de l’analyse littéraire pour s’étendre au domaine de l’étude de la publicité et des représentations médiatiques de divers mégaprojets : l’agriculture industrialisée, les barrages hydroélectriques, et l’extraction du pétrole.

THE NEW TOPOGRAPHICS

DARK ECOLOGY, AND THE ENERGY INFRASTRUCTURE OF NATIONS: CONSIDERING AGENCY IN THE PHOTOGRAPHS OF EDWARD BURTYNSKY AND MITCH EPSTEIN FROM A POST-ANARCHIST PERSPECTIVE

MICHAEL TRUSCELLO

Edward Burtynsky’s aesthetic and the New Topographic aesthetic from which it derives, I argue, should not be seen as apolitical but rather as traces of an empire in ruins and a sociality to come; that is, by employing a post-anarchist analysis, I demonstrate how Burtynsky’s photographs in his recent collection *Oil*, and Mitch Epstein’s images from *American Power*, produce an aesthetic of what Yves Abrioux calls “intensive landscaping,” or “landscaping as style, as the promise of a social spacing yet to come” (264). What Burtynsky and Epstein accomplish in their photographs related to energy in particular is “to invent relations, rather than assert ideological or cultural control” (ibid.); the place of energy extraction and transport becomes not a self-contained striation of ecological degradation, but a “place of passage,” to use Deleuze and Guattari’s terminology, a depiction of wildness and civilization in contact, assembled and reformulating the landscape into something other. The aesthetic under consideration has much in common with Timothy Morton’s “dark ecology” and Stephanie LeManager’s “feeling ecological,” theories that attempt to understand the affective connections between the infrastructure of oil capitalism and ecology (“Petro-Melancholia” 27).

Je propose dans cet article que l’esthétique d’Edward Burtynsky, de même que la nouvelle esthétique topographique dont elle est issue, sont les traces d’un empire en ruines qui invite à un nouveau type de sociabilité plutôt qu’à une lecture apolitique. À l’aide d’une approche analytique post-anarchiste, je démontre la manière dont son récent recueil de photos *Oil*, de même que les images de Mitch Epstein dans *American Power*, produisent une esthétique de ce qu’Yves Abrioux appelle « l’aménagement paysager intensif », c’est-à-dire « l’aménagement paysager comme style, comme plan d’espace social de l’avenir » [Notre Traduction] (264). Burtynsky et Epstein réussissent ainsi à « inventer des relations, au lieu d’affirmer un contrôle idéologique ou culturel » [Notre Traduction]. Par conséquent, l’importance de l’extraction énergétique et du transport se trouve dans leur capacité d’être des « endroits du passage » (terme emprunté à Deleuze et Guattari), les endroits d’une rencontre entre la sauvagerie et la civilisation qui transforment le paysage en quelque chose d’autre. L’esthétique que j’emploie ici a beaucoup à voir avec les théories de « l’écologie obscure » de Timothy Morton et avec le « sentiment écologique » de Stephanie LeManager. En effet les deux tentent de comprendre les connections affectives entre l’infrastructure du capitalisme pétrolier et l’écologie (“Petro-Melancholia” 27).

[I]t is certain that the state itself needs a hydraulic science... But it needs it in a very different form, because the State needs to subordinate hydraulic force to conduits, pipes, embankments, which prevent turbulence, which constrain movement to go from one point to another, and space itself to be striated and measured, which makes the fluid depend on the solid, and flows proceed by parallel, laminar layers. (Deleuze and Guattari 363)

Empires have a way of coming to an end, leaving behind their landscapes as relics and ruins. (Mitchell 19)

The New Topographics

The New Topographics movement in photography—made famous by the *New Topographics: Photographs of a Man-Altered Landscape* exhibit at the International Museum of Photography at George Eastman House in Rochester, New York in October 1975—broke with the traditional landscape photography of Ansel Adams and Eliot Porter to frame the post-war industrialization of America in aesthetic terms “marked by repetition and isolation,” the disappearance of community “in an atmosphere of vacant alienation” defined by suburban sprawl, and a “celebration of directness, emotional remove, and attentiveness to humanity’s shaping of the land” (Rohrbach xiv). Curator William Jenkins included in the famous exhibit (reproduced in 2009) photographers Robert Adams, Lewis Baltz, Bernd and Hilla Becher, Joe Deal, Frank Gohlke, Nicholas Nixon, John Schott, Stephen Shore, and Henry Wessel, Jr.. Decades after the seminal exhibit, the New Topographics aesthetic is being reassessed by scholars, and the aesthetic itself remains relevant; for example, the Museum of Contemporary Photography in Chicago hosted an exhibit called “Public Works,” which examined contemporary built infrastructure, in the summer of 2011. Above all, and perhaps concomitant with post-1968 cultural theorists who emphasized the micropolitics of everyday life, the New Topographics photographers demonstrated an appreciation for “the altered environments of daily life,” something Finis Dunaway sees as “contributing to ecological citizenship by encouraging viewers to form attachments to a broader continuum of sites” (Dunaway 42).

Contrary to earlier forms of landscape photography that situated nature as pristine and untouched by human development, the New Topographics engaged American landscapes as the scarred and decaying byproducts of capitalist exploitation, often vacant spaces for automobility such as parking lots, highways, or gas stations, as in the work of Robert Adams, indicating “the new West’s utter dependence upon petroleum and private transportation” (Dunaway 27). The Rochester exhibit’s “juxtaposition of abandoned, new, and incomplete structures instills the human-altered landscape with a sense of built-in obsolescence and distinguishes its rapid growth from the natural environment in which it is situated” (Foster-Rice 53). Whether borrowing aesthetic inspiration from commercial real estate photography (Salvesen 81) or aerial photography (Sichel 87), the New Topographics was a photographic style commonly interpreted as apolitical, due to its “flatness, dehumanization, and deception of scale” (Sichel 94). The same complaint has been levied against Canadian photographer Edward Burtynsky, whose manufactured landscapes seem to avoid explicit commentary on the industrial alterations they depict, and often seem to beautify industrial waste and human devastation.

In her review of Burtynsky’s *Manufactured Landscapes*, Nadia Bozak writes, “Because Burtynsky systematically aestheticizes industrial civilization’s environmental incursions, his images are marked with an almost insentient detachment and lack of critical positioning that can be troubling” (68). Jonathan Bordo asks, “Does such beautification sooth irremediable loss by making human interventions appear like inevitable natural facts?” (94). This essential tension between ecological catastrophe and aesthetic beauty becomes the central dilemma for most viewers of Burtynsky’s photographs, what Bordo characterizes as “an ambiguous situation of pondering pictures of ecological devastation while beholding dazzling visual surfaces” (91). Burtynsky’s aesthetic and the New Topographic aesthetic from which it derives, I argue, should not be seen as apolitical, but rather as traces of an empire in ruins and a sociality to come; that is, by employing a post-anarchist analysis, I demonstrate how Burtynsky’s photographs in his

recent collection *OIL*, and Mitch Epstein’s images from *American Power*, produce an aesthetic of what Yves Abrioux calls “intensive landscaping,” or “landscaping as style, as the promise of a social spacing yet to come” (264). What Burtynsky and Epstein accomplish in their photographs related to energy in particular is “to invent relations, rather than assert ideological or cultural control” (Abrioux 264). In Burtynsky specifically, the place of energy extraction and transport becomes not a self-contained striation of ecological degradation, but a “place of passage,” to use Deleuze and Guattari’s terminology, a depiction of wildness and civilization in contact, assembled and reformulating the landscape into something other. Burtynsky himself described the ambivalence of his images:

I think that’s the duality. I think that’s what makes the images unstable. I think that’s what makes them interesting that they’re not kind of used as indictments. . . . Their meaning is not fixed and I think in most really interesting art which does touch upon political bends or whatever. Fixing the meaning then also takes that work and locates it directly in a particular time and so it really doesn’t migrate very well into the future once that is considered no longer a threat or an issue, so dies the work. (“Thoughts on Oil”)

It is obvious to observers of Burtynsky’s photographs that they catalogue ecological devastation. What is often perceived as a beautification of this devastation might also be considered a rhizomatic depiction of an always-incomplete process of becoming post-empire, post-capital, and post-natural; the industrial revolution, after all, “fuelled by coal, oil and gas has resulted in a level of landscape change that is—in both its nature and magnitude—unprecedented in the history of humankind” (Nada and van der Horst 144). The ambivalence provoked by these photos signifies the death of conventional landscape photography and its ossified understanding of nature as a static, pristine construct, a representational form passing into something else. Burtynsky and Epstein depict a post-anarchist associationalism in place of State modalities

of capture and striation, while foregrounding the energy relationships that shape landscapes as the sun sets on the suicidal State.

What is especially compelling about Burtynsky’s vision of State capture and striation is that it perceives this passage from the “distant vision” of a State, unlike some “environmentalist” framing of ecological devastation, which often sees “apparatuses of capture” from the vantage of what Deleuze and Guattari call the “close-range” (492) vision of smooth space. That is, Burtynsky’s photographs see State modalities “like a State,” like the cadastral maps that produced the “synoptic view of the state” (Scott 39), and this perspective is unnerving for many viewers, especially those who do not identify with the optical space of the State. Absent are the intimate portraits of oil-soaked birds, dislocated indigenous communities, or tattered corpses that normally signify in the visual register of the social justice jeremiad the criminal machinations of Big Oil. Instead of witnessing industrial evisceration from the intimate space of the indignant observer, Burtynsky complicates the observer’s relationship to agency in the Age of Oil by foregrounding the scale, technological complexity, and almost mythical ubiquity of petroculture. Absent is the bilateralism of earnest environmental portraiture, the simplistic agential dualism that pits ‘people’ against Big Oil. Instead, Burtynsky offers a vision of a distributed agency, in which the “unstable cascade” (Bennett 457) of intentionalities resists a linear cause and effect in favour of depicting objects produced by flows of energy, material combinations, and “the conjoined effect of a variety of kinds of bodies” (454), an ontological reality that seems particularly noteworthy for industrial nations built on vast and complex technological infrastructures with extensive historical, political and environmental legacies.

State Infrastructure

The modern State form co-evolved with the material capacities of infrastructure, massive hydraulic processes that could generate and transfer electricity, excavate waste, and couple mobility with communication. “Between 1880 and 1950 modern nation states emerged

as great territorial ‘containers’ with growing powers over many domains,” note Graham and Marvin (73). Within this context, infrastructure was widely perceived as the cohesive assemblage for a sense of national identity, and “infrastructure policies were the central way in which national states engaged in shaping capitalist territorial organization” (74). Some of the most notable infrastructure projects of this period include “the Nazis’ *Autobahn* network, the electrification of the Ukraine and the Soviet Union, the New Deal regional projects of the Tennessee Valley and the national highway programme in the United States” (77). These historical touchstones conform to Deleuze and Guattari’s definition of State territorialization:

One of the fundamental tasks of the State is to striate the space over which it reigns, or to utilize smooth spaces as a means of communication in the service of striated space. It is a vital concern of every State not only to vanquish nomadism but to control migrations and, more generally, to establish a zone of rights over an entire “exterior,” over all the flows traversing the ecumenon. If it can help it, the State does not dissociate itself from a process of capture of flows of all kinds, populations, commodities or commerce, money or capital, etc. There is still a need for fixed paths in well-defined directions, which restrict speed, regulate circulation, relativise movement, and measure in detail the relative movements of subjects and objects. (Deleuze and Guattari 385-386)

James C. Scott traces this striation of space in early modern Europe primarily in the form of cadastral maps used for the segregation and taxation of land, among other State functions, in his book *Seeing Like A State*. Beginning with German scientific forestry, in which the “uniform forest was intended to facilitate management and extraction” (18), Scott demonstrates the translation of the State’s synoptic vision from forestry to other forms of striation including taxation.

For the purposes of taxation and conscription, and in conjunction with the emergence of the modern State, cadastral maps translated the complexity of phenomenal

flows into simplistic abstractions, becoming, to use Mark Halsey’s phrase from another context, “a machine of axiomisation,” something that “expunges the world of pre-formed things, the world of haecceities, the world composed only of rhythms and of bodies without organs, and in its place substitutes the certainties of Royal science and (il)logics of capital” (Halsey para. 12). Scott writes:

The crowning artifact of this almighty simplification is the cadastral map. Created by trained surveyors and mapped to a given scale, the cadastral map is a more or less complete and accurate survey of all landholdings.... The cadastral map and property register are to the taxation of land as the maps of tables of the scientific forester were to the fiscal exploitation of the forest. (Scott 36)

The cadastral map, this “machine of axiomisation” or modality of State capture, not only “ignored anything lying outside its sharply defined field of vision” (Scott 47), it also produced a specific aesthetic: “The visual sign of the well-managed forest, in Germany and in the many settings where German scientific forestry took hold, came to be the regularity and neatness of its appearance” (18). Similar to the symmetry and synthetic appearance of the managed forest, landscapes under the synoptic vision of cadastral maps exhibit a quilted calculus primarily visible from an elevated vantage, “a God’s-eye view, or the view of an absolute ruler” (57). The reconstruction of Paris by Baron Haussmann from 1853 to 1869 exhibited the same logic as the scientific management of old-growth forests, and in the city “the aboveground order... facilitates its underground order in the layout of water pipes, storm drains, sewers, electric cables, natural gas lines, and subways—an order no less important to the administration of a city” (56-57). Thus, submersed infrastructure functions as a supplementary force of relations with ‘aboveground’ striations, the repressed material strata of the *flanêur*.

Edward Burtynsky’s OIL

I began to think about oil itself: as both the source of energy that makes everything possible, and as a

Fig. 1 Edward Burtynsky, *Oil Fields #22, Cold Lake, Alberta, Canada, 2001*

source of dread, for its ongoing endangerment of our habitat. (Burtynsky, *OIL*)

“The cadastral map is very much like a still photograph of the current in a river,” writes Scott (46), using a simile that effectively expresses the paradox of Burtynsky’s photography about oil. The cadastral map captures innumerable social processes in a state of becoming and occludes their very transitive properties for the administrative logic of the State. Burtynsky’s photographs often provide a sense of stasis where enormous sociotechnical apparatuses are operating in conjunctural tension. A perfect example of this is *Oil Fields #22* (Fig. 1), taken near Cold Lake, Alberta. The image, which opens his *OIL* collection, captures pipelines parsing a forest in a nondescript patch of wilderness. The aboveground pipelines travel from outside the left frame to beyond the horizon near the centre of the image, in a winding path that evokes the natural contours of a river rather than the mechanical

Fig. 2 Edward Burtynsky, *Oil Fields #27, Bakersfield, California, USA, 2004*

trajectory of something constructed. And yet this river of oil is still, the trees are erect as if there is no wind, and, typical of Burtynsky and the New Topographics, no human activity is visible. Despite an enormous flow of oil across the landscape, we detect no motion at all. The effect resembles what Shannon and Smets suggest should be the architectural ambition of infrastructure, a blending of landscape and infrastructure: “Once married with architecture, mobility, and landscape, infrastructure can more meaningfully integrate territories, reduce marginalization and segregation, and stimulate new forms of interaction. It can then truly become ‘landscape’” (Shannon and Smets 9). Their understanding of the future of infrastructure is not to reduce the amount of it, but rather to integrate it with landscape in such a way that the two become a newly marked assemblage of ‘landscape’ proper; Burtynsky’s *Oil Fields #27* (Fig. 2) accomplishes something like this effect, in which the latticework of oil infrastructure is

scarcely discernible from the rolling hills of Bakersfield, California.

To “reduce marginalization and segregation” sounds equally egalitarian and possessed of the same sameness that drives the administering arm of the synoptic State. “Landscape and infrastructure merge and movement corridors are (re)worked as new vessels of collective life,” in the words of Shanon and Smets (9). An image such as *Oil Fields #22* seems to take this approach to the oil pipelines, at least in the absence of more obvious indicators of critique, and one could therefore imagine this picture on the wall of an oil industry executive’s office, as easy as one could imagine it hanging in the same room as the most ardent Greenpeace activists.

The stasis of the oil delivery apparatus and its river-like curvature connote ambivalence about *what is really happening*, an ambivalence registered above by the reviewers of Burtynsky’s work. We could note, for example, that the more than 370,000 km of pipelines in Alberta present a number of significant threats to the provincial environment: potential contamination of land and water from spills; loss and fragmentation of wildlife habitat and natural vegetation; loss and compaction of soils; reduced availability of agricultural, prairie and forested areas; loss of historical resources such as archeological sites; and stream sedimentation (Government of Alberta). At the same time, oil is implicated in a host of social benefits (medical advances, certain forms of mobility, warmth, agricultural production, etc.) and devastation (militarism, pollution, toxification of water and soil, agriculture—again, etc.), and complex, distributed forms of agency make it difficult to create a binary division of sinners and saints, malevolent demand and benevolent supply, those who are solely responsible for the petrocultural apparatus and those stand entirely outside of it. Most notably absent from Burtynsky’s oil images, and yet most aggressively affected by capitalist resource extraction, are the First Nations communities of Northern Alberta. This absence contributes to the ambivalent tone of his photographs, by visually displacing the most obviously aggrieved subjects of oil capitalism; their presence would make it easier for

viewers to identify a political trajectory of accusation. But such a trajectory would also ignore the distribution of complicity with the atrocities of oil capitalism. By expanding our understanding of distributed human and non-human agencies in “petromodernity” (LeManager, “The Aesthetics of Petroleum” 60), we can better recognize the shifting intensities of petrocultural assemblages.

The juxtaposition of the forest and the pipelines in *Oil Fields #22* recalls what Deleuze and Guattari famously described as the rhizomatic multiplicity that contrasted with the hierarchical structure of the tree, associated with what they called arborescent thought—“thought, which like a tree, judges the world from one fixed point (roots, Cartesian rationality), or requires that thinking proceed in only one direction (scientifically, dialectically)” (Halsey para. 1). Burtynsky’s collection *OIL* thus begins with an image of trees, a metaphor used by Deleuze and Guattari to describe arborescent thought. However, the structure of the pipeline system has also been compared with a tree:

The pipeline system is organized like a tree. Small collector pipelines in the oil field, called flow lines, are the fine roots of the system. They gather crude oil from many wells and bring it to the field processing station. Somewhat larger pipes carry the oil to the terminus of a main-line pipeline, which supplies refineries hundreds of miles away; this is the trunk of the tree. The products of the refinery are then distributed through another system of main-line pipes, which divide into smaller and smaller branches until they reach distribution depots—the leaves of the tree. (Hayes 162)

The entire apparatus of oil extraction, refinement, and distribution perfectly encapsulates the hydraulic science of the State, its hierarchical, arborescent thought that captures flows in a constant struggle with rhizomatic, open multiplicities. Burtynsky’s *OIL* begins not with an image of oil extraction or combustion, but with an image of trees and a tree-like system of pipelines, the image of Royal science, arborescent thought.

Fig. 3 Edward Burtynsky, *Oil Fields #19a, Belridge, California, USA, 2003*

The rows of “nodding donkey” oil wells in Belridge, California, depicted from an oblique angle in Burtynsky’s *Oil Fields #19a* (Fig. 3), could easily be mistaken for an abandoned oil patch, if not for the two devices in the foreground visibly blurred because they are operating. Much like the pipelines in *Oil Fields #22*, the wells depicted in *Oil Fields #19a* encode the ambiguous agencies of modern industrial infrastructure. The oblique angle separates the image from the conventional geometry of the cadastral map, but only the two wells in the foreground appear to be moving. No humans are visible. Is this a dried up oil patch, or the beating heart of the industrial society? Burtynsky allows the viewer to contemplate the space of passage between the two, between the dying empire and the vision of sociality to come, by isolating the materiality of petroculture from a detached and distant perspective. Instead of bisecting a forest, which might commonly connote forms of biodiversity, the wells depicted here are located in the desert, a landscape frequently associated with hostility to

life, and, in the context of oil, with the crude oil deposits of the Middle East. A combination of elements in this image suggests psychological tension and alienation: the oblique angle, god’s-eye view, desert setting, and absence of human activity. Burtynsky’s familiar use of the horizon intimates a mythological scale of production. But where are the people who use the oil, and to what ends do they use it? Is this particular striation of oil wells and transformers, pipes and storage tanks, the beginning or the end of agency, the source of combustible mobility, long distance communication, and petroleum-based cultural products, or the mechanical moans and sighs of an empire reaching exhaustion? Burtynsky does not tell us. Burtynsky described this picture to the CBC, in terms that reflect the associationalist perspective for which I have been arguing: “It’s a mosquito drawing blood. It’s like we have these pipes into the ground sucking it out and we never really get a chance to see very much of the material itself, but each one of us is almost using it every day” (“Thoughts on Oil”).

To understand the materiality of agency in Burtynsky’s photography, we can summon the observations of the ‘new materialisms’ of political theorists such as Jane Bennett, Diana Coole, and Timothy W. Luke, and of critical urbanists including Stephen Graham and Simon Marvin. Prominent strands of materialist cultural studies and urban studies employ the concept of “assemblage” (Anderson and McFarlane 2011; Deleuze and Guattari 1987; McFarlane 2011) in order to understand the distributed agency of urban infrastructure, which is often obscured either by its relative invisibility or by the anthropocentrism of cultural theory. As Jane Bennett writes, “There was never a time when human agency was anything other than an interfolding network of humanity and nonhumanity. What is perhaps different today is that the higher degree of infrastructural and technological complexity has rendered this harder to deny” (463). Oil pipeline or well assemblages, in this context, should not be studied as just the material product of oil company intentions, nor should their construction be understood as either the victory of an oil company or the loss of community resistance (the popular media framing of pipeline debates). Rather,

Fig. 4 Edward Burtynsky, *Oil Refineries #34, Houston, Texas, USA, 2004*

cultural critics need to examine the “unstable cascade” (Bennett 457) of intentionalities, flows of energy, material combinations, and “the conjoined effect of a variety of kinds of bodies” (454) that are contained within the mass structures of petrocultural landscapes. Assessing the distributed agency of petrocultural assemblages is not an act of becoming an apologist for environmental degradation or colonial racism, but instead recognizes that individuals are “simply incapable of bearing *full* responsibility for their effects” (463). Burtynsky’s photography, I wish to suggest, is particularly useful for encouraging a discussion of agency in this manner.

Oil pipelines are but one aspect of oil extraction, transport and use, but they connect the environmental, cultural and health impacts of oil exploration, drilling and extraction with the assemblages of oil transport, refining, and consumption. The spillage of oil is not always the most devastating effect of this process: “The physical alteration of environments from exploration,

drilling, and extraction can be greater than from a large oil spill” (O’Rourke and Connolly 594). Oil refineries, such as the one from Texas depicted in Burtynsky’s *Oil Refineries #34* (Fig. 4), “produce huge volumes of air, water, solid, and hazardous waste, including toxic substances such as benzene, heavy metals, hydrogen sulfide, acid gases, mercury, and dioxin” (603). The oil and gas industry in the United States creates more solid and liquid waste “than all other categories of municipal, agricultural, mining, and industrial wastes combined” (594). The transport of oil from its place of extraction occurs by supertankers, barges, trucks, and pipelines; there are now “more miles of oil pipelines in the world than railroads” (598). Typically, these pipelines have “caused disproportionate impacts on low-income and minority communities in the United States and been connected to human rights violations around the world” (602). In other words, perhaps we could view what often lies within Burtynsky’s frame as an invitation to contemplate the many associations beyond the frame; in the case of his photographs about oil, the pipelines, wells, and refineries represent passages, associations, transfers of energy beyond the frame. Burtynsky’s images do not neglect social, psychological and environmental devastation, so much as they invite consideration of an agency that is multiple and beyond arborescent capture.

Therefore, when we see an image such as *Highway #5* (Figure 5), we might see in this image an aesthetic parallel with *Oil Fields #22*.

In *Highway #5*, tributary lanes of traffic converge into a river of asphalt that extends to the horizon in a seemingly endless bisection of the frame and the built landscape. Like the pipelines in *Oil Fields #22*, the highway bends casually as it drifts toward the horizon; this curvature, again a feature of undomesticated objects, contrasts with the cadastral strips of habitation on either side. In the foreground is a highway that runs parallel with the frame, and in the background lie rolling hills. While the foreground and background portray conventional contrasts of striated and smooth space, the centre of the image features a provocative strip of highway that destabilizes our topographic expectations. The horizon

Fig. 5 Edward Burtynsky, *Highway #5, Los Angeles, California, USA, 2009.*

once again gives the impression that the built landscape continues forever, the hills standing like phantasms on the edge of a dream.

Burtynsky’s *OIL* collection is organized to emphasize the ubiquity of oil and, I would argue, the distribution of agency. It is telling that the image of a pipeline opens the collection, and not an image of the point of extraction, refinement, or use; this is a collection about the places of passage. Without that epigraphic image of the pipeline, the rest of the collection would unfold in a more conventional way: the section titles progress from “Extraction and Refinement” to “Transportation & Motor Culture” and “The End of Oil.” The last image in the collection, *Recycling #10*, is that of oily footprints in the earth, taken at Chittagong, Bangladesh. The last section of the collection depicts abandoned oil wells, scrap yards with discarded jets and bombers, cars and tires, and the shipbreaking yards in Bangladesh where oil tankers go to die. Obviously, there is a conventional

message here: the culture of oil leaves a footprint, and it is massive and destructive. But the image of the pipelines in the forest that opens the collection suggests we should not read the processes of petroculture as unidirectional and linear, as the obvious passage from extraction to deposit. Instead, consider the absence of human activity in the first and last images of *OIL*. Burtynsky’s vision is distinctly materialist, with human activity reduced to a relatively minor presence (in the few photographs devoted to “Motor Culture” and later to “Shipbreaking” and “Recycling”). The diminution of human actors reveals at least two ways in which Burtynsky’s photography is consonant with the “materialist turn” in cultural studies: first, his cadastral vision articulates what Patrick Joyce and Tony Bennett call the “muteness” of infrastructural power, the ways in which “infrastructure is a good location for understanding how material powers can to varying extents operate outside human consciousness and language,” the durable power of “objects and processes,” “this capacity to be left to operate by themselves” (10); and second, Burtynsky’s relative resistance to the “close range” of smooth space suggests the primary concern of his photographs about oil is “less the ways in which objects become effective by being integrated into the subjective world of human consciousness, and more the difference they make in their own right as a consequence of their specific material properties considered relationally” (Joyce and Bennett 5).

Mitch Epstein’s American Power

I wanted to photograph the relationship between American society and the American landscape, and energy was the linchpin.... Energy—how it was made, how it got used, and the ramifications of both—would therefore be my focus. (Epstein, “Afterword”)

While Edward Burtynsky tells us he had his “oil epiphany” in 1997, American photographer Mitch Epstein embarked on a form of what he calls “energy tourism” in 2003 after witnessing the evacuation of an Ohio town from environmental contamination. For five years, Epstein catalogued the various forms of

Fig. 6 Mitch Epstein, *Amos Coal Power Plant, Raymond City, West Virginia 2004*

American energy production and their consequences. His comments in the Afterword of *American Power* reflect a realization about energy that emphasizes the current moment as one of passage:

About a year into making this series of pictures, I realized that power was like a Russian nesting doll. Each time I opened one kind of power, I found another kind inside.... But now—while America teeters between collapse and transformation—I see it differently: as an artist, I sit outside, but also within, exerting my own power.

Epstein’s photographs share in common with Burtynsky’s this sense of living between a dying empire and the sociality to come. They also share an understanding of being implicated as artists in what Imre Szeman calls “oil capitalism” (Szeman 806). Many of Epstein’s images, such as *Amos Coal Power Plant* above (Fig. 6), juxtapose the settings of the New Topographics, in documentary form, with the types of energy that either

Fig. 7 Mitch Epstein, *BP Carson Refinery, California 2007.*

make habitation possible or constitute the industry for that locale. In *Amos Coal Power Plant*, a lower-middle-class habitat shares the frame with an apparitional power plant; the connection of everyday life with what in Burtynsky’s images is often a distant and secluded phenomenon—the production of energy—foregrounds the associative ethos of Epstein’s photo, and the lush, saturated conceptualism of the habitat makes the power plant seem even more discordant by contrast. Epstein’s documentary proficiency and almost surreal conceptualism creates an effect much like the ambiguity of Burtynsky’s cadastral images: something either banal or deeply corrosive acquires an aesthetic sheen that troubles the viewer’s desire to condemn in simple binarisms the social and environmental causes and effects that produced this scene. Whereas Burtynsky prefers the cadastral spatiality of the distant view and the frequently unseen materials of petroculture infrastructure, Epstein visits many of the everyday spaces and architectures typical of the New Topographics. Epstein captures the associative qualities of energy production and transfer

Fig. 8 Mitch Epstein, *Poca High School and Amos Coal Power Plant, West Virginia 2004*

not by gesturing beyond the frame, as Burtynsky often does, but by filling the frame with uncommon objects within this transfer: the perforated American flag that adorns the refinery in *BP Carson Refinery* (Fig. 7), for example, or the belching stacks of the Amos coal power plant observing a high school football practice in *Poca High School and Amos Coal Power Plant* (Fig. 8).

Alien Capitalism and the Dark Ecology of Burtynsky and Epstein

The content of Burtynsky and Epstein's photographs invites an associationalist perspective on the relationships between energy and landscapes. More specifically, Burtynsky and Epstein evoke some of the implications of Timothy Morton's "dark ecology": in the way they "linger in the shadowy world of irony and difference" (Morton, *The Ecological Thought* 17), in the way their images are "dark but not suicidal" (100), and in the way they foreground what Morton calls "hyperobjects," materials that will "far outlast current

social and biological forms" (130). In *Ecology Without Nature*, Morton declares that his work is "about an 'ecology to come,' not about no ecology at all" (6). The idea of 'nature', so explicitly foregrounded in the photography of Ansel Adams and reconfigured in the New Topographics, "will have to wither away in an 'ecological' state of human society," says Morton (1). "Substantialist images of a palpable, distinct 'nature' embodied in at least one actually existing phenomenon (a particular species, a particular figure)," claims Morton, "generate authoritarian forms of collective organization" (17). Morton's project is to deconstruct "nature" to the point it no longer registers, resulting in what he calls "the ecological thought," the "thinking of interconnectedness" and a form of thinking "that is ecological" (*The Ecological Thought* 7).

The concept of dark ecology is a "melancholy ethics" (*Ecology Without Nature* 186) that "preserves the dark, depressive quality of life in the shadow of ecological catastrophe" (187). Morton believes "we can't mourn for the environment because we are so deeply attached to it—we *are* it" (186); instead, deep ecology is "saturated with unrequited longing," "a politicized version of deconstructive hesitation or aporia" (186). In this article, I have suggested repeatedly that Burtynsky and Epstein represent this kind of ambivalence in their photographs, even in the face of certain catastrophe; however, some might challenge this reading of the photographs, perhaps not seeing the same ambivalence or irony. To this objection, I would promote dark ecology as a more ethical response to these photographs than the perspective that sees only arborescent capture; in other words, as Morton writes, "We should be finding ways to stick around with the sticky mess that we're in and that we are, making thinking dirtier, identifying with ugliness, practicing 'hauntology' (Derrida's phrase) rather than ontology" (188). Burtynsky's *SOCAR Oil Fields #4* (Fig. 9) exemplifies "the sticky mess that we're in," pausing at an abandoned oil field in Baku, Azerbaijan, to see its haunted reflection in a pool of dirt and oil, proof that not only does rust never sleep, it also has nightmares. Dark ecology also promotes lines of flight that interrupt the intersection of *nation*

and *nature*, cadastral map and the ecological thought. "Later in the modern period," Morton writes in *Ecology Without Nature*, "the idea of the nation-state emerged as a way of going beyond the authority of the monarch. The nation all too often depends upon the very same list that evokes the idea of nature" (15). Deconstructing the synoptic view of the State conjoins with the ecological thought, when contemplating and practicing the ecology to come.

Nowhere in these collections of photographs does one find an image that intimates a possible return to some form of pristine natural world; instead, viewers must confront the toxic future of oil refineries, hundreds of thousands of kilometres of pipelines, and other hyperobjects of petromodernity. Morton compares these hyperobjects, such as the plutonium waste from nuclear reactors, to the "acidic blood of the Alien in Ridley Scott's film" (130). Indeed, in conjunction with Rob Nixon's concept of "slow violence," Morton's hyperobjects begin to articulate what I would call *alien capitalism*, an economic system whose materiality kills while dying, unleashes almost unimaginable toxicity even as its purpose or functionality wanes. In this sense, *the sociality to come* is always already toxic. Certainly, Burtynsky and Epstein do not try to avoid the *toxicity to come* in their haunted images.

In addition to Timothy Morton, the work of Stephanie LeManager speaks to the aesthetics of ecology and energy in the work of Burtynsky and Epstein. Burtynsky and Epstein provide an aesthetic experience of energy infrastructure that presents some of its associations with landscape but does not impose a solution to the problem of environmental degradation (there are no images of wind farms juxtaposed with oil refineries, for example). There are, however, several impressions of everyday life under oil capitalism: a high school football team practicing, a busy freeway, the Talladega Speedway, a McDonald's, a gas station. LeManager rightly identifies the relationship between "ecological narrative" ("Petro-Melancholia" 26) and the embodied memories of life under petromodernity, moving forward:

Fig. 9 Edward Burtynsky, *SOCAR Oil Fields #4, Baku, Azerbaijan, 2006*

The petroleum infrastructure has become embodied memory and habitus for modern humans, insofar as everyday events such as driving or feeling the summer heat of asphalt on the soles of one's feet are incorporating practices, in Paul Connerton's term for the repeated performances that become encoded in the body. Decoupling human corporeal memory from the infrastructures that have sustained it may be the primary challenge for ecological narrative in the service of human species survival beyond the twenty-first century. ("Petro-Melancholia" 26)

One way to decouple "human corporeal memory from the infrastructures that have sustained it" is, as Epstein does, to depict explicit conjunctions of energy production and everyday life, such as a coal-fired power plant looming over a lower-middle-class home and yard, or that same power plant spectating at a high school football practice. The juxtaposition of toxic energy production and everyday life performs a kind

of defamiliarization that disrupts the quotidian affect associated with petromodernity. Burtynsky often isolates energy production from human cultures; however, his images of energy production, as noted above, depict the “sticky mess” we are in, what LeManager calls the “humiliating desire and dependency of the human visa-vis non-human actors” (“Petro-Melancholia” 27). LeManager, in a nod to Morton, calls this “feeling ecological,” and it “need not be pleasant” (27).

Conclusion: Post-Anarchist Ecology and the Synoptic View

The photography of Edward Burtynsky and Mitch Epstein provides a series of cultural objects with which to consider relationships between agency and energy in oil capitalism. As demonstrated above by reference to the (largely Marxist) ‘material turn’ in cultural studies and the poststructuralist associationalism of Deleuze and Guattari, the foregrounding of infrastructure in the context of oil capitalism in the photographs of Burtynsky and Epstein offers an occasion and a visual lexicon for interrogating the “cascade of intentionalities” often unseen in everyday life. Agency, once explored through a materialist and associationalist lens, appears distributed among human and non-human actors, and the images of oil wells, pipelines and power plants represent temporary stabilizations of agency observable from the cadastral perspective of the State. After close readings of various photographs, I now wish to explore some of the consequences of this theory of agency; in particular, I advocate for a *post-anarchist ecology*, in which distributed agency is one component.

Post-anarchism is the term given to forms of poststructuralist and postmodern anarchism. Most of these ideas and practices emerged from the May 1968 uprisings in France, and were given new public visibility in the context of the post-Seattle anarchist milieu. As Süreyya Evren writes in the introduction to *Post-Anarchism: A Reader*, “post-anarchism is better understood as an anarchist theory first and foremost rather than a post-structuralist theory. At the end of the day, it is an anarchism, it is not a new kind of post-structuralism” (Evren 10). In particular what Deleuze

and Guattari call ‘geophilosophy’—described by Patrick Hayden as an “attempt to formulate a mode of thinking in association with, and as the affirmation of, the diversity and multiplicity of the continuous becomings of a fluctuating natural reality” (29)—represents a post-anarchist form of ecology that is anti-essentialist, anti-humanist, and decentralist. The basic question of geophilosophy, for the current moment of ecological crises brought on primarily by oil capitalism, is the following: “How do Deleuze and Guattari help us rethink our ecological crises beyond the impasses of State-sanctioned resource exploitation and reactive environmentalism?” (Chisholm para. 1). This impasse is, I think, a source of ambivalence commonly found in critiques of Burtynsky’s work.

As Bernd Herzogenrath explains,

As a conceptualizing machine, [Deleuzian philosophy] can provide ecology with concepts that complement its scientific prospects or ‘reprocess’ its inherited philosophical notions. Deleuzian concepts are ‘ecological’ in the sense that they do not address the essences of things, but the dynamics of events and the becomings that go through them” (“Introduction” 4).

The philosophy of becoming advocated by Deleuze (and Guattari) allows for the “active, unfinalized flux of constantly circulating relations, interactive encounters, and shared transformations” among the Earth’s “natural-social habitats” (Hayden 31), while simultaneously it offers political ecology a consideration of “which concepts, practices, and values best promote the collective life and interests of the diverse modes of existence inhabiting the planet” (34). In this sense, a post-anarchist ecology works against the systematizing and categorizing of conventional imperialist science.

Deleuze and Guattari are unique in post-structuralist circles by their promotion of a form of naturalism. “Deleuze’s naturalism is not an essentialist theory,” notes Hayden, “nostalgically seeking to return to some pristine nature that is an object apart from human existence, conceptualization, and intervention” (35).

Instead, Deleuze promotes “a type of naturalism that highlights the diverse interconnections between human and nonhuman modes of life, in such a way as to provide some overlooked philosophical resources for integrating ethical and political considerations with ecological concerns, while resisting the reductive temptation to turn nature into a static metaphysical foundation” (24). This form of naturalism, what I am calling a post-anarchist ecology, stands in contrast to some prominent thinkers in the anarchist tradition because it rejects both “a static metaphysical foundation” (including a static understanding of “human nature”) and forms of speciesism that have contaminated Left thinking, as Steven Best writes, “from Kropotkin and Marx to Bookchin and beyond” (Best 190).

A post-anarchist ecology emphasizes the micropolitical over the macropolitical, but not to the exclusion of the macropolitical. Hayden argues that “for ecopolitical activism to engage itself effectively, it must steer clear of universalized abstractions and carefully study the specific needs and alternative possibilities within localized situations” (34). The global scale of the ecological crisis has led some to demand a global solution; however, “while existing ecological problems undoubtedly present a danger to the entire planet, a micropolitical focus on the particular needs and interests of diverse local habitats and inhabitants in light of the available knowledge of ecological conditions will perhaps better contribute to the creation of effective ecopolitical interventions than will a focus solely from a unitary, large-scale framework” (35). This mode of thought is also consistent with the anarchist preference for direct action and aversion to bureaucratic and institutional structures. Any global response to environmental crises is more likely to produce arborescent power structures than it is to produce open multiplicities. Deleuzian micropolitics “is about critical emancipation, not necessarily *from* systems, but *towards* other types of open systems” (Cato and Hillier 11). For centuries, state capitalism has killed indigenous ways of existing and non-human species, to the point of mass extinction in which we now live. The prolonged emancipation from this rule of arborescent thought will require an

unprecedented proliferation of “open systems” attuned to “diverse local habitats and inhabitants,” not a one world order of resistance.

Finally, a post-anarchist ecology could embrace Deleuze and Guattari’s concept of machinic assemblages, not only for the epistemological and ontological advantages of a process philosophy that emphasizes relations over essences, but also to avoid the limitations of debates over what kinds of technology are appropriate for an anarchist politics (for a brief discussion of anarchism and technology, see Truscello 2011). Herzogenrath summarizes the advantage of the concept of the “machine” in Deleuze and Guattari, which concerns connections rather than essences: “Their model [of machines] also affords a single mode of articulating developmental, environmental, and evolutionary relations within ecological systems, and makes room for a conceptualization of a general, non-anthropomorphic affectivity within dynamic systems” (“Nature|Geophilo sophy|Machinics|Ecosophy” 4). From this perspective, a post-anarchist ecology concerns itself with “resonances, alliances and feedback loops between various regimes, signifying and non-signifying, human and non-human, natural and cultural, material and representational” (5). The resulting philosophy avoids outmoded invocations of the technology “neutrality” thesis and Manichean compartmentalizations of “good” and “bad” technology:

[Deleuze and Guattari’s] “machinism” avoids both technophilia and technophobia, its guiding principle being that of the invention of possibilities of life. For Deleuze and Guattari values are perspectival, and hence unavoidably allied to what deep ecologists might deem “speciesism.” However, Deleuze and Guattari’s problematization of the concept of the human ensures that their perspectivism is not anthropocentric, at least in the conventional sense of the term. (10)

Instead, as Mark Halsey notes, the “function of machines” in Deleuze and Guattari “is to break and redirect flows—flows of capital, wood, metal, genes, friendship, knowledge, work and so forth” (Halsey 40).

In other words, the machinic assemblages of Deleuze and Guattari refer to the “*processes* which give to the earth its discursive qualities and quantities (the effects levied by abstract machines of coding) and which, on occasion, implode the logic underpinning such qualities and quantities (the effects levied by abstract machines of absolute decoding)” (40). How machines connect flows of desire and produce habit-forming potentials is never simply a question of *doing the right thing* for the environment, obviously, and something always escapes machinic encoding. But at least Deleuze and Guattari offer a perspective that always seeks to proliferate the “invention of possibilities of life.”

Halsey argues that this perspective forces the “critical question: what would it mean to cease mapping the earth? Alternatively, what might it mean to map earth according to, for instance, a becoming-eagle, a becoming-fish, a becoming-redwood, a becoming-worm, or a becoming-river? This is what Deleuze and Guattari demand of us—that we move beyond the bodies, lexicons and modes of envisioning traditionally associated with late capitalist subjectivities in order to develop and inhabit the worlds of others” (45). Burtynsky reminds us of the cadastral legacy of the synoptic State, but as a place of passage. As Halsey concludes, “What else are environmental problems other than the visible and audible result of attempts to constitute various portions of earth as a unity in spite of its being a multiplicity? The challenge, it would seem, is to develop a lexicon which does the least violence to the nuances of each (socio-ecological) event” (51). In this context, the photographs of Burtynsky and Epstein effectively invite viewers to see oil infrastructure and human interaction with it as a multiplicity with distributed agency. Rather than depict alternatives to oil capitalism, Burtynsky and Epstein show us places of passage in the infrastructural web of human and non-human actors; they foreground the transitional, associative, and conjunctive debris of petroculture. They show us we are becoming something other, but do not dictate the terms on which this passage shall be accomplished or its destination.

The transition from post-empire to the *sociality to come*

has, as a result of the material infrastructure of the petromodern State form, more than simply ideological possibilities: the gathering storms of climate crises, toxic hyperobjects, and rapid resource depletion, all intimately connected to the infrastructure of petrodmodernity, represent an assemblage of material conditions that threaten the survival of the human species. Unlike liberal and progressive responses to oil capitalism, which often propose technological fixes or global institutional arrangements, a post-anarchist ecology is better equipped to describe and respond to the *longue durée* of petromodern infrastructure, the ‘slow violence’ of its principal assemblages, and the suicidal State form of hydraulic sciences that are slowly but surely striating the escape routes.

Works Cited

Abrioux, Yves. “Intensive Landscaping.” *Deleuze/ Guattari & Ecology*. Ed. Bernd Herzogenrath. London: Palgrave Macmillan, 2009. 251-265. Print.

Bennett, Jane. “The Agency of Assemblages and the North American Blackout.” *Public Culture* 17.3 (2005): 445-465. Print.

Best, Steven. “Rethinking Revolution: Total Liberation, Alliance Politics, and a Prolegomena to Resistance Movements in the Twenty-First Century.” *Contemporary Anarchist Studies: An Introductory Anthology of Anarchy in the Academy*. Ed. Randall Amster, Abraham DeLeon, Luis A. Fernandez, Anthony J. Nocella, III, and Deric Shannon. New York: Routledge, 2009. 189-199. Print.

Bordo, Jonathan. “The Wasteland—An Essay on *Manufactured Landscapes*.” *Material Culture Review* 63 (Spring 2006): 89-95. Print.

Bozak, Nadia. “Manufactured Landscapes.” *Film Quarterly* 62.2 (Winter 2008/2009): 68-72. Print.

Burtynsky, Edward. *OIL*. London: Steidl, 2011. Print.

---. “Thoughts on Oil.” CBC. Web. August 11, 2012.

<http://www.cbc.ca/nl/features/burtynskyoil/thoughts_on_oil.html>.

Cato, Molly Scott, and Jean Hillier. “How Could We Study Climate-Related Social Innovation? Applying Deleuzian Philosophy to the Transition Towns.” *Environmental Politics* 19.6 (2010): 869-887. Print.

Chisholm, Dianne. “Rhizome, Ecology, Geophilosophy (A Map to This Issue).” *Rhizomes* 15 (Winter 2007). Web. July 24, 2012.

Coole, Diana. “Rethinking Agency: A Phenomenological Approach to Embodiment and Agentic Capacities.” *Political Studies* 53.1 (2005): 124-142. Print.

Coole, Diana H., and Samantha Frost. *New Materialisms: Ontology, Agency, and Politics*. London: Duke University Press, 2010. Print.

Deleuze, Gilles, and Felix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis: University of Minnesota Press, 1987. Print.

Dryansky, Larisa. “Images of Thought: The Films of Antonioni and Godard, and the New Topographics Movement.” *Reframing The New Topographics*. Ed. Greg Foster-Rice and John Rohrbach. Chicago: The Center for American Places at Columbia College, 2010. 107-120. Print.

Dunaway, Finis. “Beyond Wilderness: Robert Adams, *New Topographics*, and the Aesthetics of Ecological Citizenship.” *Reframing The New Topographics*. Ed. Greg Foster-Rice and John Rohrbach. Chicago: The Center for American Places at Columbia College, 2010. 13-44. Print.

Epstein, Mitch. “Afterword.” *American Power*. Ed. Susan Bell and Ryan Spencer. Gottingen: Steidl Publishers, 2009. n.pag. Print.

Evren, Sureyyya. “Introduction.” *Post-Anarchism: A Reader*. Ed. Sureyyya Evren and Duane Rousselle. London: Pluto Press, 2011. 1-11. Print.

Foster-Rice, Greg. “‘Systems Everywhere’: *New Topographics*, and the Art of the 1970s.” *Reframing The New Topographics*. Ed. Greg Foster-Rice and John Rohrbach. Chicago: The Center for American Places at Columbia College, 2010. 45-70. Print.

Foster-Rice, Greg, and John Rohrbach, eds. *Reframing The New Topographics*. Chicago: The Center for American Places at Columbia College, 2010. Print.

Government of Alberta. “Pipelines.” *Alberta Environment and Sustainable Resource Development*. Web. March 3, 2012. <<http://environment.alberta.ca/02260.html>>.

Graham, Stephen, and Simon Marvin. *Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition*. New York: Routledge, 2001. Print.

Halsey, Mark. “Deleuze/Guattari and the Ada Tree.” *Rhizomes* 15 (Winter 2007). Web. July 25, 2012.

Halsey, Mark. “Ecology and Machinic Thought: Nietzsche, Deleuze, Guattari.” *Angelaki* 10.3 (December 2005): 33-54. Print.

Hayden, Patrick. “Gilles Deleuze and Naturalism: A Convergence with Ecological Theory and Politics.” *An [Un]Likely Alliance: Thinking Environment[s] with Deleuze/Guattari*. Ed. Bernd Herzogenrath. Newcastle: Cambridge Scholars Publishing, 2008. 23-45. Print.

Hayes, Brian. *Infrastructure: A Field Guide to the Industrial Landscape*. New York: W.W. Norton & Co., 2005. Print.

Herzogenrath, Bernd. “Introduction.” *An [Un]Likely Alliance: Thinking Environment[s] with Deleuze/ Guattari*. Ed. Bernd Herzogenrath. Newcastle:

Cambridge Scholars Publishing, 2008. 1-22. Print.

---. "Nature|Geophilosophy|Machinics|Ecosophy." *Deleuze/Guattari & Ecology*. Ed. Bernd Herzogenrath. London: Palgrave Macmillan, 2009. 1-22. Print.

Joyce, Patrick, and Tony Bennett. "Material powers: Introduction." *Material Powers: Cultural Studies, History and the Material Turn*. Ed. Tony Bennett and Patrick Joyce. New York: Routledge, 2010. 1-22. Print.

LeManager, Stephanie. "The Aesthetics of Petroleum, after Oil!" *American Literary History* 24.1 (Spring 2012): 59-86. Print.

---. "Petro-Melancholia: The BP Blowout and the Arts of Grief." *Qui Parle* 19.2 (Spring/Summer 2011): 25-56. Print.

Mitchell, W.J.T. "Imperial Landscape." *Landscape and Power*. 2nd ed. Chicago: University of Chicago Press, 2002. 5-34. Print.

McFarlane, Colin. "Assemblage and Critical Urban Praxis: Part One." *City* 15.2 (2011): 204-224. Print.

Morton, Timothy. *Ecology Without Nature: Rethinking Environmental Aesthetics*. Cambridge, MA: Harvard University Press, 2009. Print.

---. *The Ecological Thought*. Cambridge, MA: Harvard University Press, 2012. Print.

Nada , Alain, and Dan van der Horst. "Introduction: Landscapes of energies." *Landscape Research* 35.2 (2010): 143-155. Print.

Nixon, Rob. *Slow Violence and the Environmentalism of the Poor*. Cambridge, MA: Harvard University Press, 2011. Print.

O'Rourke, Dara, and Sarah Connolly. "Just Oil? The Distribution of Environmental and Social Impacts of Oil Production and Consumption." *Annual Review of Environment and Resources* 28 (2003): 587-617. Print.

Rohrbach, John. "Introduction." *Reframing The New Topographics*. Ed. Greg Foster-Rice and John Rohrbach. Chicago: The Center for American Places at Columbia College, 2010. 1-12. Print.

Salvesen, Britt. "'Real Estate Opportunities': Commercial Photography as Conceptual Source in *New Topographics*." *Reframing The New Topographics*. Ed. Greg Foster-Rice and John Rohrbach. Chicago: The Center for American Places at Columbia College, 2010. 71-86. Print.

Scott, James C. *Seeing Like A State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale University Press, 1998. Print.

Sichel, Kim. "Deadpan Geometries: Mapping, Aerial Photography, and the American Landscape." *Reframing The New Topographics*. Ed. Greg Foster-Rice and John Rohrbach. Chicago: The Center for American Places at Columbia College, 2010. 87-106. Print.

Szeman, Imre. "System Failure: Oil, Futurity, and the Anticipation of Disaster." *South Atlantic Quarterly* 106.4 (Fall 2007): 805-823. Print.

Truscello, Michael. "Imperfect Necessity and the Mechanical Continuation of Everyday Life: A Post-Anarchist Politics of Technology." *Post-Anarchism: A Reader*. London: Pluto Press, 2011. 250-260. Print.

Image Notes

Fig. 1 Burtynsky, Edward. *Oil Fields #22, Cold Lake, Alberta, Canada, 2001*. Photograph. Edward Burtynsky Photographic Works. Web. August 14, 2012. <edwardburtynsky.com>.

Fig. 2 Burtynsky, Edward. *Oil Fields #27, Bakersfield, California, USA, 2004*. Photograph. Edward Burtynsky Photographic Works. Web. August 14, 2012. <edwardburtynsky.com>.

Fig. 3 Burtynsky, Edward. *Oil Fields #19a, Belridge, California, USA, 2003*. Photograph. Edward Burtynsky Photographic Works. Web. August 14, 2012. <edwardburtynsky.com>.

Fig. 4 Burtynsky, Edward. *Oil Refineries #34, Houston, Texas, USA, 2004*. Photograph. Edward Burtynsky Photographic Works. Web. August 14, 2012. <edwardburtynsky.com>.

Fig. 5 Burtynsky, Edward. *Highway #5, Los Angeles, California, USA, 2009*. Photograph. Edward Burtynsky Photographic Works. Web. August 14, 2012. <edwardburtynsky.com>.

Fig. 6 Epstein, Mitch. *Amos Coal Power Plant, Raymond City, West Virginia, 2004*. *American Power*. Gottingen: Steidl Publishers, 2009. 1. Print.

Fig. 7 Epstein, Mitch. *BP Carson Refinery, California 2007*. *American Power*. Gottingen: Steidl Publishers, 2009. 2. Print.

Fig. 8 Epstein, Mitch. *Poca High School and Amos Coal Power Plant, West Virginia 2004*. *American Power*. Gottingen: Steidl Publishers, 2009. 3. Print.

Fig. 9 Burtynsky, Edward. *SOCAR Oil Fields #4, Baku, Azerbaijan, 2006*. Photograph. Edward Burtynsky Photographic Works. Web. August 14, 2012. <edwardburtynsky.com>

Truscello, Michael: Michael Truscello is Assistant Professor of English and General Education at Mount Royal University in Calgary, Alberta. His publications have appeared in journals such as *Postmodern Culture and Affinities*, and recently in anthologies such as *Transgression 2.0: Media, Culture, and the Politics of a Digital Age* (Continuum, 2011) and *Hit The Road, Jack: Essays on the Culture of the American Road* (McGill-Queen's UP, forthcoming). He is currently working on a book about technology in the anarchist tradition, and a second book about art, infrastructure, and the new materialism.

Truscello, Michael : Michael Truscello est professeur adjoint d'anglais et de formation générale à l'Université Mount Royal à Calgary, en Alberta. Il a publié dans *Postmodern Culture and Affinities* et, plus récemment, dans des anthologies parmi lesquelles *Transgression 2.0: Media, Culture, and the Politics of a Digital Age* (Continuum, 2011) et *Hit The Road, Jack: Essays on the Culture of the American Road* (McGill-Queen's UP, à paraître). Ses projets actuels comportent un livre sur la technologie dans la tradition anarchiste, et un second ouvrage sur l'art, l'infrastructure et le nouveau matérialisme.

Copyright Michael Truscello . This article is licensed under a Creative Commons 3.0 License although certain works referenced herein may be separately licensed, or the author has exercised their right to fair dealing under the Canadian *Copyright Act*.

Reza Negarestani, *Cyclonopedia: Complicity with Anonymous Materials*. Melbourne: Re.Press, 2008. 244pp.

REVIEW BY TIM KAPOSY

The category of narrative is widely understood as affirming the world’s appearances, in part, by giving them coherence with a logical order and a communicable form. Though radical experimentation is standard in all narrative forms, standard narratives remain a linguistic and cultural category tied to acts of memory, intimate self-knowledge and the pretext for judicious History. Narrative theorists from Aristotle to Clarice Lispector have argued that without narrative one ceases to be human.

Archeologist Hamid Parsani, the central character of Reza Negarestani’s genre-defying text *Cyclonopedia*, narrates his findings with an alternative purpose in mind. In Parsani’s studies of the Cross of Akht, Persian dynastic coins, the myth of Gog-Magog, Wahhabism, and Middle Eastern languages, he queries how being coherently human is made possible by the geopolitics of oil. “Whatever Parsani encounters,” writes Negarestani, “is immediately traced back to only one thing, Petroleum” (42). Parsani’s *idée fixe* fissures its way through all he encounters in the Middle East. His obsession builds to a notion that narrative allows for a better understanding of humanity, but only insofar as it helps one anticipate the demise of the species (i.e., relics yield unheeded lessons). Without narrative one is prone to affirm appearances, and most appearances today present one with the idea that sustainability, communication and redemption are always collectively attainable. Parsani makes a valuable counter claim that “oil is...a vehicle of epic narratives,” (69) and it is crucial to know the vehicles of narrative, rather than to speculate on how they might be transcended. Petroleum, too, is a relic with much to say about humanity’s epic trajectory.

As animist as this may sound, oil is deposited too deep and spread too wide to have talking points of its own. Therefore, oil requires vigilant interpretation. Narratives

from Parsani’s research surface in *Cyclonopedia* as if unannounced from the soil and with an unpredictability that might prove too hectic for minds more familiar with, say, oil industry journalism. Whereas journalists critique oil orthodoxy in remote dependency or with the help of the odd dispatch from wars taking place elsewhere, Negarestani’s narrative explains the historical mythos within vast petroleum fields and his sentences emit the stench of its exhaust. The desertified ground of Parsani’s fieldwork is comprised of holes, dust, bitumen and critters that sink, shift and linger with an incalculable long-term effect on the archeologist’s senses. Geologic formations thus seem to Parsani as sentient and responsive as any scenario above the soil. He recounts in his journal that “[b]urrowing sounds may be heard from within the earth. Once they have finished infesting the earth’s solid part, the larvae will cut breathing holes and press their headless tails against the surface for air” (67). Very little “happens” in *Cyclonopedia* in the traditional sense of imparting a plot. The text consists of a series of exegeses of Parsani’s thoughts, primarily from his lifework *Defacing the Ancient Persia*. The effect of reading Parsani within a Negarestani’s text is disquieting and it causes one to question how fact, fiction, fantasy and theory coexist in contemporary accounts of oil culture.

Without a firm sensory footing, why assume that the value of narrative has its basis in stock-still and clear-eyed composition? What’s more, the surfaces of Negarestani’s oil rich terrains are charred, slurry-ridden and militarized for a more predictable rate of extraction and steady refinement. Unheeded lessons? Who has time to interpret relics? Who has the peace of mind or protection to interpret oil further than its use?

Aside from Parsani and an animated cast of mythic petroleum figures, Negarestani’s *dramatis personae* consists of the largely anonymous “global war machine.” Far away in networked office buildings, operatives are poised to hail rockets down upon those *exceedingly* attuned to oil. That is: beware to those who are defiant enough to stand their ground, slow things down, and who try to provide readers with coherent details of

petroleum’s past. A surprising number of people die from petroleum wars every day. Parsani’s paranoia is, apparently, merited; or, is not paranoia one of oil’s narrative vehicles?

The overall aesthetic of *Cyclonopedia* verges on breakdown. Like many of the characters written into existence by Georges Bataille and H.P. Lovecraft nearly a century earlier, Negarestani’s Parsani is elusive because he is summoned from ‘below’ and not from ‘on high.’ Lost deities, hidden numbers and script, the sun’s detritus, corpses, generational layers of decay—Negarestani pulls the reader across the contours of Parsani’s enervated narrative to exhume the sounds from this infested source of energy.

Kaposy, Tim: Tim Kaposy is Assistant Professor of English and Communications at Niagara College. He is co-editor, with Imre Szeman, of *Cultural Theory: An Anthology* (Wiley-Blackwell, 2010) and the author of *Documentary in the Age of Global Capital* (currently, as of 2012, under review with University of Toronto Press).

Kaposy, Tim : Tim Kaposy est professeur adjoint d’anglais et de communications au Collège Niagara. Il est coéditeur de *Cultural Theory: An Anthology* (Wiley-Blackwell, 2010), pour lequel il a collaboré avec Imre Szeman, et auteur de *Documentary in the Age of Global Capital* (2012, en évaluation chez *University of Toronto Press*).

Nadia Bozak. *The Cinematic Footprint: Lights, Camera, Natural Resources*. New Brunswick, NJ: Rutgers University Press, 2012. 241 pp. Paper \$26.95. ISBN: 978-0813551388

REVIEW BY GEORGIANA BANITA

Over the past few years, the conflation of energy and culture has yielded a dynamic research field whose freshness and enthusiasm are at once its glory and its bane. While work towards a reorientation of literature around energy logics and reading protocols continues apace, Canadian novelist and scholar Nadia Bozak has produced a book that makes manifest the under-excavated entanglements of *cinema* and energy as a way of complicating the dyad of analogue and digital filmmaking that dominates the field. What do we expect from such a study? A damning investigation into the wasteful mechanics of film production, or a subtle unveiling of the more ethereal energies of the cinematic as a medium of power, consumption, and the pleasurable excretion of material and imaginative waste?

Bozak’s study offers both, and is nothing short of a revelation. *The Cinematic Footprint* is an environmentally conscious, conceptually persuasive account of, firstly, how to frame the current absence of an energy discourse within film (and more broadly visual) studies, and in a second step, how to proceed *back* from the assumed imbrication of film and the “hydrocarbon imagination” (12) to reconfigure the production, circulation, and aesthetic of cinema. On this two-lane track, Bozak provides both an impressive overview of resource media and close readings to shore up her central argument that “cinema is intricately woven into industrial culture and the energy economy that sustains it” (1). The author is certainly aware of the abundant material her questions force into view, and shrewdly limits her terrain to documentary and experimental films, Third and Fourth Cinema, photography and installation art.

My quibbles with this book are minimal and can be quickly summarized. Because Bozak unearths an understudied energy consciousness in cinema, the questions she asks are sometimes awkwardly linked and their phrasing is often disorienting: how does peak oil affect the movie picture industry? In what ways is the image not only biophysically grounded, but also a key pedagogical tool of the environmental movement? If cinema is connected with unsustainable energy systems, how does cinematic resource consumption differ from the energy feedback loops of, say, the car manufacturing industry? Obviously, a key dimension of cinema’s entwinement with hydrocarbon culture is cinema’s own obsession with energy production and consumption, and it is in sections where this formal and thematic ‘energy imaginary’ comes to light that the book shines most brightly. Indeed for me, its highest metabolic temperature isn’t reached until the central conceit of what Bozak calls “resource image” (2) takes clear shape. If energy consumption is, by the author’s own admission, mostly intangible and invisible, how do we conceptualize a resource image? What energies are deployed to visualize resource power, and what aesthetic forms does this transformation ultimately (and concretely) fuel? At its most provocative, the book asks how cinema circulates, emplots, and envisions energy in specifically cinematic ways, whether mechanical or auratic.

The book’s brilliant observations are many and can be found in each of the five economically headlined chapters: “Energy,” “Resource,” “Extraction,” “Excess,” and “Waste.” Bozak seeks to articulate not only a taxonomy of cinema practices from the viewpoint of their carbon footprint, but also a usable grammar for a cinematic energy discourse. “Energy” delineates a capacious and quite striking notion of the cinematic image as “fossilized sun” (18). Bozak uses the Bazinian concept of temporal fossilization to analyze the “carbon dating” procedures of films such as Chris Marker’s *La Jetée* and *Sans Soleil* in order to distil the outlines of a carbon-neutral cinema not merely as one dedicated to neutralizing its carbon emissions, but also to an aesthetic and ephemeral neutrality whose binary implication of luminosity

and darkness Bozak traces back to the constitution of the image—from early photography to impressionist painting to Michael Haneke and Lars von Trier—through capturing and refining the power and imprint of light. It’s an important chapter that grounds the question of cinematic energy in the history of photographic practice and cinema kinetics, although it lacks a sense of a causal genealogy and the examples, though apposite, don’t fully cohere into a narrative of the kind that the image of solar fossilization seems to promise. In reading Werner Herzog’s *Lessons of Darkness* and Deborah Scranton’s *The War Tapes*, “Resource” more precisely establishes how cinematic energy circuits enfold ideological and geopolitical tensions. To highlight only one key moment in this chapter: Bozak discusses CNN’s live and on-demand news channel referred to as Pipeline and opened in 2005 at the height of the Iraq war. She writes: “Not only does the term describe news and information as resources, it also ironically aligns CNN’s live images of Iraqi horrors—the dominant source of the service’s content—with the same petroleum politics that were the rationale for the U.S. invasion” (64). “Extraction” is worth reading for its exhaustive analysis of Edward Burtynsky’s photographic portraits of hydrocarbon culture’s industrial wastelands. “Excess” is, I think, the strongest section for its inspired argument that uncovering the obscured dimension of energy adds new scope to our views of classic cinematic techniques and tropes, such as the long take, seen here by way of Andy Warhol’s *Empire* and Georges Bataille as “a gratuity, an opulence of choice and an indulgence in materials, as well as in space, time, and energy” (122). What Bozak says about resource-conscious films “displaying a lack of energy in order to reveal energy’s totalizing presence in culture at large” (137) resonates deeply with a panoply of cinematic styles and will certainly spark other incisive readings in the same vein. Revolving around what Bozak calls “secondhand cinema” in a gesture that aligns Agnes Varda’s randomized digital cinema with documentary accounts of Hurricane Katrina, the section titled “Waste” innovatively links cinematic detritus (the residual waste of production equipment and so on) with a “biopolitics of expendability” (178) that foregrounds the disposable human subject. The book concludes

with a critical response to the Harper government’s oil-motivated interest in the Canadian North and its unfortunate nomenclature (*Operation Nanook*), which Bozak unpacks—with recourse to Robert J. Flaherty’s silent documentary *Nanook of the North* (1922)—as obscuring “what the Inuit can teach us about surviving in a post-hydrocarbon world” (202).

The Cinematic Footprint eloquently widens the horizons within which film production, cinematic image, and film time may be understood as biophysical resources. While far from encyclopaedic, the wealth of material gathered here should encourage scholars to not only catalogue the traces of fuel consumption in the global visual imaginary, but also become more attuned to cinema’s petrochemical origins and of the necessity to position the resource image not merely as a bottomless archive of energy’s visual avatars (although Bozak cites countless useful examples of energy-oriented works), but especially as an aesthetic strategy and a way of seeing. For everyone with an interest in the origins and futures of energy cultures, this book is indispensable reading.

Banita, Georgiana: Dr. Georgiana Banita is an assistant professor of North American literature and media at the University of Bamberg and Honorary Research Fellow at the United States Studies Centre, University of Sydney. She is the author of *Plotting Justice: Narrative Ethics and Literary Culture after 9/11* (Nebraska 2012) as well as several recent essays on petrofiction and globalization since 9/11, American petroleum history on film, and the aesthetics of oil in films by Michelangelo Antonioni and Bernardo Bertolucci.

Banita, Georgiana : Dr. Georgiana Banita est professeure adjointe de littérature et médias nord-américains à l’Université de Bamberg. Elle a obtenu le titre de chercheure honoraire de l’Université de Sydney dans le cadre du Centre des études étatsuniennes. Elle est l’auteure du livre *Plotting Justice: Narrative Ethics and Literary Culture after 9/11* (Nebraska 2012), et elle a beaucoup publié sur la petrofiction et sur la globalisation après le 11 septembre, ainsi que sur l’histoire pétrolière américaine et l’esthétique du pétrole dans les films de Michelangelo Antonioni et de Bernardo Bertolucci.

Mitchell, Timothy. *Carbon Democracy: Political Power in the Age of Oil*. London: Verso, 2011. 278 pp. \$33.50 CAN. ISBN-13: 978-1-84467-745-0.

REVIEW BY MARK SIMPSON

Ezra Levant, the foremost proponent of the idea of ethical oil, depicts Alberta’s bitumen industry in utopian terms: “the oil sands are proof of the great good fortune that a huge amount of energy, in the right hands, can deliver to a staggering number of people” (224-5). Levant’s account encapsulates and epitomizes the narratives of social and petrocultural smoothness that underpin prevailing defenses of bitumen extraction in the contemporary moment. Smooth oil and smooth society enable one another, to the enrichment of all, now and forever – or so the story goes.

Timothy Mitchell’s *Carbon Democracy* manages, among its many bracing interventions, to demolish the smooth oil story. Over the course of an introduction, eight chapters, and a conclusion, the book historicizes and critiques the aims and ends, origins and outcomes, of smooth oil’s narratives. In so doing, it affords new and incisive insight into modernity’s politics of mobility.

“But what if,” Mitchell wonders, “democracies are not carbon copies but carbon-based? What if they are tied in specific ways to the history of carbon fuels? Can we follow the carbon itself, the oil, so as to connect the problem afflicting oil-producing states to other limits of democracy?” (5-6). His project’s key concept, *carbon democracy*, issues from these questions. Rendering inextricable energy from politics as modes of power, it presupposes democracy in two senses: “ways of making effective claims for a more just and egalitarian common world,” or else “a means of limiting claims for greater equality and justice by dividing up the common world” (9). Mitchell connects the first of these senses to coal, the fuel source that petroleum would come to supplant. Coal matters to his argument in the significance it holds for capitalist industry and democratic possibility together. Since access to coal – the preeminent form of

energy in mid- to late-nineteenth century industrial life – hinged on the labor power and technical expertise of miners, their ability to disrupt the extraction and distribution of the resource afforded them tremendous leverage in demanding and asserting democratic rights. Such vulnerability, intolerable to the sovereign powers of industrial modernity, was as Mitchell makes clear a prime spur in the shift away from coal toward petroleum – and so toward democracy in his second sense. From the outset, the oil network was a distended one, with refinement occurring far from the scene of extraction, and distribution managed by pipeline and tanker more than by rail. Against the model of coal, in other words, oil production and circulation displaced and diminished the agency of workers – and thereby the energy vulnerability of the ruling order. Concomitantly, oil expertise became increasingly the province of the engineer and the economist, complementary figures whose combined knowledge could serve to complicate the meanings of petrocarbon fuels, and so occlude mass or everyday understandings of them. Thus rendered a nearly magical resource, oil could supply the name, in social narrative or ideology, for democratic freedom, abundance, and opportunity, yet also undermine, in social practice, the very conditions of possibility for mass democratic life.

Mitchell’s analysis manages to demonstrate, compellingly, the intimate inextricability not antinomy between authoritarian oil states in the Middle East and liberal democracies in Europe and North America. In the age of oil, the former constitute something like the latter’s necessary supplement – what Mitchell pithily terms “McJihad” – as dynamics of the oil system fuel resilient kinds of imperial control while checking democratic potentiality everywhere. Petroculture’s carbon democracy impels the continuing support, by Euroamerican governments and corporations, of repressive regimes globally; the productive yet contradictory – or productive because contradictory? – association of oil with plenitude and crisis; the rise of an arms industry serving chiefly to recycle petro-profit; and the invention of “the market” as a mode of future-oriented common-sense hiving off broad dimensions of

social life from democratic contestation. As Mitchell makes clear, carbon democracy in the age of oil cannot do without the problematic of abundance and scarcity – of petro-plenitude and petro-precariousness – that it aggressively puts into circulation, and that it repeatedly (and increasingly) fails to be able to control. Hence the uncertainty and anxiety that, in the contemporary moment, attend the looming exhaustion of oil reserves: a whole biopolitical order, not just a form of fuel, is very much in play and at stake.

Mitchell’s study compounds its accomplishment in theorizing and historicizing the dynamics of carbon democracy by refusing to propose any straightforward alternative or solution to the passing of the age of oil. That said, *Carbon Democracy* clearly empowers its readers, both by advancing such a stimulating account of the interrelation of energy to politics in the modern era and by identifying, in the very uncertainty of the present moment, the conditions of possibility for new political potentialities to emerge. Anyone concerned with the genealogy and futurity of energy politics – as for that matter of democratic energies – needs to read this remarkable book.

Works cited:
Levant, Ezra. *Ethical Oil: The Case for Canada’s Oil Sands*. Toronto: McClelland & Stewart, 2010.

Simpson, Mark: Mark Simpson is an associate professor in the Department of English and Film Studies at the University of Alberta. His research takes up issues of mobility, circulation, and collectivity in US culture. He has published *Trafficking Subjects: The Politics of Mobility in Nineteenth-Century America* with the University of Minnesota Press (2005), and articles and chapters in *English Studies in Canada*, *Nineteenth-Century Prose*, *Cultural Critique*, and the recent Oxford UP collection *US Popular Print Culture 1860-1920*, among other venues. Current projects include a study of postcard culture circa 1900, and a study of taxidermy and animal conservation.

Simpson, Mark : Mark Simpson est professeur agrégé dans le département d’anglais et d’études cinématographiques à l’Université de l’Alberta. Ses recherches portent sur la mobilité, la circulation, et la collectivité dans la culture étatsunienne. Il a publié le livre *Trafficking Subjects: The Politics of Mobility in Nineteenth-Century America* (University of Minnesota Press, 2005), ainsi que des articles et des chapitres dans *English Studies in Canada*, *Nineteenth-Century Prose*, *Cultural Critique*, et plus récemment dans le recueil *US Popular Print Culture 1860-1920* (Oxford University Press). Ses projets actuels comprennent une étude de la culture des cartes postales autour de 1900, ainsi qu’une étude de la taxidermie et de la conservation animale.

Call for papers

Imaginations invites academic articles that discuss the historical inheritances of 20th century discourses on and between images as they are in dialogue with and articulated in 21st century cultural contexts. Potential contributions should innovatively reflect on the image. Points of departure could include new technologies, interactions between text and image, text as image, image and the self, dynamic and static images, omnipresence of screens (big and small), thinkers of the image, image across the disciplines and forms of thought (visuality, medicine, science, urban studies, political studies, gender studies, queer studies, etc.). We are also seeking, on an ongoing basis, one review essay per issue that compares three or four books on the image. Each issue of the journal will also feature one artist, and an interview with the invited/selected artist to contextualize his/her artistic contribution(s). If you are interested in conducting an interview with a specific artist, please send a proposal; if you are an artist who would like to be considered as the feature artist, please send sample work with some indication of what type of artistic contribution you would like to feature in the journal's online format. We accept papers in English and French on an ongoing basis.

La revue en ligne *Imaginations* est à la recherche d'articles proposant une réflexion sur la manière dont l'histoire a laissé son empreinte sur les discours dédiés à l'image, et plus spécifiquement sur les discours ancrés dans le XXe siècle. Nous nous intéressons également à la manière dont les images ont été pensées et produites, en interrelation les unes avec les autres, dans le temps et en lien avec les nouveaux contextes culturels du XXIe siècle. Les propositions de contribution devront faire montre d'une réflexion innovatrice sur le sujet. Sont bienvenues toutes propositions portant par exemple sur : le rôle de l'image dans les transferts culturels, l'intégration des nouvelles technologies, les interactions entre texte et image, le texte en tant qu'image, les liens entre image, identité et représentations, les images dynamiques et statiques, l'omniprésence de l'écran (« petit écran » et « grand écran ») dans notre monde contemporains, les penseurs de l'image, la pénétration par l'image de disciplines telles que la médecine, la science, les études urbaines ou politiques, etc. Les textes soumis peuvent être rédigés en anglais ou en français.

imagination@ualberta.ca
www.csj.ualberta.ca/imagination/

Andriko Lozowy, 'Highway 63' 2009.