TECHNOLOGY & WORLDVIEWS: Virilio / Innis, Dromology / Drones, can Indigenous ontologies illuminate an exit out?

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imagination
time
resources
equity
speed
violence
weapons
& light

this very
next horizon
just sitting
there waiting

idle
& wild

~ Postcommodity

In *Drone Warfare: Twenty First Century Empire and Communications*, authour Kevin Howley

describes the stuff of cultural theorist Paul Virilio's nightmares. Writing on what he refers to as

the "new American sublime" (Howley, 2016: 59) Howley schools the reader in the barbarity of

drone technology as it is currently being used, by the American military, at locations in the

Middle East, Central Asia and the Horn of Africa. Howley sees this moment as proceeding from

what the historian of technology, David E. Nye, refers to as the "dynamic sublime," (Howley,

2016: 47) the time between the World Wars when America was developing the atomic bomb.

Opting to continue travelling on a trajectory of mass destruction, the United States has now

become the endo-colonizer Virilio warned of (Kellner, 1999: 108). In 2013, Edward Snowden

informed American citizens that they were being watched, not by an external enemy, but by

their own government. Technologies that allow for data mining give the US Government's

intelligence agencies the capacity to surveil their citizens. In a 2013 interview with The

Guardian, Snowden details the following:

> Originally we saw that focus very narrowingly tailored as foreign intelligence gathered
> overseas. Now increasingly we see that it's happening domestically and to do that the
> NSA [National Security Agency] specifically targets the communications of everyone. It
> ingests them by default. It collects them in its system and it filters them and it analyzes
> them and it measures them and it stores them for periods of time simply because that's
> the easiest, most efficient and most valuable way to achieve these ends. So while they
> may be intending to target someone associated with a foreign government or someone
> that they suspect of terrorism they are collecting your communications to do so. Any
> analyst at anytime can target anyone. (Greenwald, MacAskill, and Poitras, 2013)

The "vectors of communication," (Kellner, 1999: 105) as Virilio describes the technologies that

allow for movement of information through cities, are now the way in which the State can most

efficiently spy on its citizens, and in a way so unobtrusive the data mining goes unnoticed.

Surveillance intelligence is integrated into the banality of urban life. The citizen can be tracked

and monitored via their communication devices while enroute on foot, on public transit or

through private networked transportation services like Uber. Rather than an external enemy that

the city's vectors can slow down, there is an internal enemy whose speed is so swift it is immediate and in real-time, yet invisible.

Along with domestic surveillance, bases for unmanned drones have been built overseas in places like the Republic of Seychelles, a country remote to the American imagination, not unlike other base locations. Howley notes that in 2011 there were approximately 60 spread across the continent of Africa. (Howley, 2016: 49)

> Like earlier empires that built transportation and communication infrastructures for the purpose of administration and control over vast territories, these postcolonial outposts enable the United States to project force across the globe, albeit with little public knowledge at home. (Howley, 2016: 49)

As the endo-colonizer perfects its tactics clandestinely from the inside it acquires knowledge as to how to rapidly spread, stealthlike, to the outside. Via these "outposts" drone warfare can be managed from the safety and comfort of home, back in America. Howley describes how a drone is operated at a distance, removed from the zone of conflict:

> Housing an array of sensors, actuators, antennae and cameras, this section of the aircraft not only allows pilots to fly these aircraft from halfway across the world, but also gives these vehicles an unprecedented ability to combine long duration intelligence, surveillance, and reconnaissance (ISR) missions with the capacity to take lethal action. Specifically, these operations include launch and recovery units using line-of sight C-band radio signals operating in or nearby the aircraft's theatre of operation in the skies above Afghanistan, Iraq, Pakistan, Yemen, and Somalia. Once airborne, a ground control station in the United States assumes control of the vehicle using Ku-band satellite signals. Data and images collected by these unmanned planes are processed at the US Air Force base in Ramstein, Germany and subsequently relayed across the Atlantic Ocean to the United States via fiber optic cables. (Howley, 2016: 48)

The theatre of war is no longer about human agents battling it out at a precise location. The war of the new American sublime has become decentralized; Virilio's 'pure war' looms from some unlocatable site (Kellner), like a fibromyalgic state, vague and indiscernible as to where the dis/ease is coming from.

Tangled in the observations of both Virilio and Innis are the wicked problems caused by the idea of the sublime and its roots in Western philosophy. While the sublime induces feelings of awe, it also provokes a complex emotional mixture of fear, humiliation and powerlessness. In the face of stuff so big the experience of the sublime represses one's impulse to take action, to a throw a wrench into the machine. The legacy of the sublime, from Edmund Burke to present, has been the entangling of Western ontology with the ontologies of those it colonizes. In the 21st Century expression of Manifest Destiny, drones become the guns of the settler expansion Westward, now moving East. The sublime offers justification. In others words, it is 'the will of God' to wipe out the non-believers of god/of capitalism/of the imperative of the marketplace. This time, rather than wagons carrying white bodies armed with weapons, the delivery is a unmanned drone sparing American lives from perishing. As Howley states:

> in the American imagination, the technological sublime represents progress, ingenuity, and unrivaled mastery over the natural world. (Howley, 2016: 58)

Yet, interwoven into this worldview is the same nihilism that underscores Virilio's pronouncements of the end of times. The "American imagination" thus becomes an oxymoron as it has produced no vision beyond a military invasion to provide a pathway out of its post-human predicament.

Using the principles of Harold Innis' "space-time dialectic to examine the rise of drone warfare" (Howley, 2016: 46) Howley demonstrates how America arrived at its present state. Like Virilio, Innis lived under the threat of the Cold War and observed the world growing smaller and more networked as atomic then nuclear technologies enabled the expansion of the American Empire, the legacy of which we now see. Howley writes:

> according to Innis, communication technologies manifest and express certain tendencies—what he called biases—that enable or constrain the ability of organizations,

institutions, and empires to control space (territory) and time (continuity). (Howley, 2016: 46)

Much like Virilio's warning that dromology has created an era where the "instruments" that allow for increased speed also allow for the expansion of power of those who possess them (Kellner, 1999: 105) Innis claimed that Western societies were able to rapidly expand and control territory due to the favouring of communication technologies that historically have been space biased. As well, Innis claimed that this led to the destabilizing of the American Empire. Innes, as articulated by Howley, hypothesized that "the written word, followed by print and later electronic communication, emphasize[d] the spatial extension of social organization, thereby facilitating territorial growth and administrative control over enormous expanses." (Howley, 2016: 46)

Howley continues:

> This expansionist tendency deeply troubled Innis. According to James Carey, Innis "placed the 'tragedy of modern culture' in America and Europe upon the intrinsic tendencies of both printing press and electronic media to reduce space and time to the service of a calculus of commercialism and expansionism" (Howley, 2016: 46)

Also like Virilio, Innis believed that this reduction of space and time, and the move towards technologies that allow for actions that are instantaneous, removed time from the equation of deliberation plus consensus (Howley, 2016) (Kellner, 1999: 105) They both shared the observation that the increase of the instantaneous pulls the State away from the social pulse necessary for imperative reflection in times of crisis and conflict. Howley argues that in the case of America vs Islam a "shoot first and ask questions later" (Howley, 2016: 54) policy becomes naturalized under a culture of Islamophobia. Innis, who died in 1952, did not live to witness his observations come to pass in the horror that Virilio, still alive, has witnessed since the First Gulf War. Perhaps Virilio can be forgiven for his technological determinist viewpoint along with his

accompanying technophobia. ([Kellner](#)) Although Innis' theories could also be labelled as technologically deterministic (Howley, 2016: 57) Howley suggests:

> Innis understood full well that the balance he sought was not a matter of technological innovation, but rather of politics and culture. (Acland 2006). (Howley, 2016: 57)

For Innis, the imbalance in American, as well as European societies, was due to the extreme pendulum swing that was the legacy of the Gutenberg Press. The impact the ensuing paradigm shift had on Western culture was massive but Howley also notes that Innis observed that "conversely, elements of civil society exercise power and influence policy through all manner of discursive practices—investigative reporting, whistleblowing, street protests, and graphic arts, to name a few." We witness evidence of this in the actions of the #Occupy movement, #WikiLeaks as well as in the actions of one of the most wanted whistleblowers of our time, #Snowden. It is exactly this agency, as demonstrated by citizens throwing a wrench into the mechanics of the State, that Virilio somehow overlooks.

Unlike Virilio's prophecy of a technological apocalypse, Innis' warning at least came with a way out. His "historical analysis reveals how speech and the oral tradition emphasize the temporal duration of social organization, thereby facilitating the establishment of long-lasting and sustainable communities." (Howley, 2016: 57) The barbarity of what we are witnessing now is the pace of a space-biased expansion amped up in a way that was technologically impossible in the eras of previous Empires. Innis' assertion of the importance of the influence of time-biased cultures as a stabilizer may offer the necessary remedy when faced with the possibility of technology as a totalizing political force. (Kellner, 1999: 104) It has been the American military complex that has designed much of the vectors by which we communicate (and they capture data) as well as the technology by which we coordinate (and they track) our ordinary everyday movements through urban spaces and the landscapes that lie between them. The paradox of

these endo-colonizing technologies of the new American sublime though, and its stillbirth in the American imagination, is that when translated through other ontologies, for example the visions of Indigenous futurisms, a means by which to counter them is delivered.

In *Decolonizing geographies of power: indigenous digital counter-mapping practices on turtle Island*, authours Dallas Hunt and Shaun A. Stevenson describe projects that have utilized digital technologies to actively assert presence over land that has been broken, carved and divided by the discipline of cartography as imported by those whose colonial expansion came to occupy the space. These projects provide examples of processes that can be strategies that work against the agendas of the State. Although Virilio is not incorrect in his assertion that "totalitarianism is latent in technology" (Kellner, 1999: 104) technology, as any tool a human being has designed, also has the capacity to assert other forms of influence. In their article, Hunt and Stevenson shine a light on how counter-mapping initiatives are capable of unwinding the power of endo/colonization.

The City University of New York's (CUNY) New Media Lab defines counter-mapping as "the map-making process whereby communities appropriate the state's techniques of formal mapping and make their own maps as alternatives to those used by government (Nancy Peluso, 1995). (Manoff, 2010) For this reason:

> counter-maps become tools in the broader strategy for advocacy as they articulate community claims for rights over land. In addition to representing geographic information, counter-maps negotiate between central social, cultural and historical notions. (Manoff, 2010)

In the case of Indigenous counter-mapping the re-articulations of the land become a strategy by which sovereign nations counter theft of the land. As well, counter-mapping becomes a way to

fuse back together that which colonial Empires sought to break, slice, and apportion. While "technologies offered by Google and other GIS platforms alter the ways in which we view and use modern 'cartography', they also allow the potential for these cartographies to be re-purposed for different interests." (Hunt and Stevenson, 2016: 383) In a sense, these technologies allow for the expression of relationships that colonial cartography could not, or rather, would not convey. The counter-mapping projects may also combine oral expressions of culture or in the words, Innis' time-based communications and technologies, to read the landscape, speaking to the land as well as to those physically sustained by it. An example of one such project is *Ogimaa Mikana.* The initiatives of *Ogimaa Mikana* include the insertion of Anishinaabemowin into urban spaces to expose settler, new immigrant and urban Indigenous people to a decolonized reading of the space. The actions of the collective, comprised of founders Susan Blight and Hayden King, are then digitally archived on a Tumblr blog. At various artist talks, panels, and podcasts the oral impact of storytelling becomes another strategy for which to present a counter-reading of the space. For Blight, "asserting our presence in the city is important." She shares on CBC Radio's *Unreserved* that "particularly in Toronto, Anishinaabeg presence and Haudenosaunee presence isn't reflected back to what is actually a pretty sizeable Indigenous population in this city." (Deerchild, 2016) The initial O*gimaa Mikana* project in the city was about "asserting ourselves, our presence here, also reminding people of the 15000 year history, Indigenous history, here in Toronto." Blight states that their counter-mapping projects "affirm our relationship to our language, to Anishinaabemowin, which is part of our spiritual presence, our political presence, our government, our health." (Deerchild, 2016) Through their work, the history of Toronto as the traditional territory of the Anishinaabe, as well as an area covered under the Dish with One Spoon treaty between the Anishinaabe and

Haudenosaunee, becomes pronounced in a way that post-contact readings of the territory silenced.

O*gimaa Mikana* is only one of many Indigenous counter-mapping projects. For O*gimaa Mikana,* emphasis is placed on the experience of the project in physical spaces then digitally archiving. Other counter-mapping projects may rely more on privileging experiences in cyberspaces*.* Hunt and Stevenson point out, no matter the technological tools utilized, "to expose the complex entanglements of these processes through counter-mapping can be a powerful mode of articulating Indigenous geographies and asserting Indigenous presence." (Hunt and Stevenson, 2016: 387)

It would seem Innis' was on to something. When Indigenous cultures leverage digital technologies to combine them with the pacing of time-biased ontologies, the outcome seems capable of splitting from the momentum of the dromosphere. The vectors may be the same but rather than assimilate and bow to the dread of the sublime there is a re/surgence. It would be of interest to know how Innis might have evaluated this particular moment. His perceptive analysis of time and space-biased cultures provided a metric by which to forecast the direction the West was/is moving towards. Perhaps Innis could be seen as the visionary to Virilio's prophet of the end times indicating that if we look in another direction towards ontologies stabilized through oral traditions we may indeed discover a pathway out.

that we
could bring
ourselves
together

they
knew
there
would   *that we*
come   *would*
a   *not hesitate*
day

                                        they knew

they knew
we would
remain
& that
we would
gather   *that our rhythm*
together   *would come*
as one people   *from our drums*
to remake   *& bone whistles*
this nation   *once again*
in our image
& in the image
of our ancestors'
words

~ Postcommodity

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