CODED TERRITORIES:
TRACING INDIGENOUS PATHWAYS
IN NEW MEDIA ART
Edited by Steven Loft and Kerry Swanson

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Cheryl L'Hirondelle

My interest in, and use of, technology is at once a metaphor and an imperative. Growing up in a household with a Native mother and a non-Native European immigrant father, I noticed that there were always many languages simultaneously being spoken. As a child I had to learn to compile these different world views to find my uniqueness and to make sense of my place in the world. Later, when I started working with computers, I realized they too were always compiling languages to execute a command and be a useful tool for creativity and communication.

Cheryl L'Hirondelle is an Alberta-born mixed-blood multi- and interdisciplinary artist and singer-songwriter whose creative practice is an investigation of the junction of a Cree world view (*nêhiyawin*) in contemporary time/space. Since the early 1980s, L'Hirondelle has created, performed, and presented work in a variety of artistic disciplines, including music, performance art, theatre, spoken word, storytelling, pirate radio, and new media. In the early 1990s, she began a parallel career as an arts consultant/advisor and programmer, cultural strategist/activist, and director/producer. L'Hirondelle's various activities have also found her working in the Canadian independent music industry, national artist-run centres, educational institutions, the Canadian prison system, First Nations bands, tribal councils, and governmental funding agencies at the municipal, provincial, and federal levels.

L'Hirondelle's performance work is featured in *Caught in the Act: An Anthology of Performance Art by Canadian Women* (2001) and *Making a*

Noise: Aboriginal Perspectives on Art, Art History, Critical Writing and Community (2006) and in addition is discussed in a variety of exhibition publications, periodicals, and doctorate theses. In 2004, L'Hirondelle was invited to present her work at DAK'ART Lab, at the 6th Edition of the Dakar Biennale for Contemporary African Art, Senegal. In both 2005 and 2006, L'Hirondelle was the recipient of the imagineNATIVE New Media Award for her online net.art projects: *treatycard*, *17:TELL* and *wêpinâsowina*. Her 2008/9 project *nikamon ohci askiy* (songs because of the land) was recognized as an Official Honoree of the 13th Annual Webby Awards in the NetArt category. L'Hirondelle's previous musical efforts have also garnered her critical acclaim with two Canadian Aboriginal Music Awards (2006, 2007) and a nomination for a KM Hunter Music Award in 2011. She is a member of the Indigenous Advisory Council and teaches in the Integrated Media Department at OCAD University.

Bear Witness, artist. *Passing By*, 2011. From the exhibit SOS3 (Signals of Survival), curated by Cheryl L'Hirondelle. A Space Gallery, Toronto. Photograph by Felina Whittaker.

Screen capture from website Prayer of Thanksgiving by Melanie Printup Hope, [http://www.artinjun.ca/printup_hope]. From Codetalkers of the Digital Divide, A Space Gallery, Toronto. Image courtesy of the artist.

Dene/Cree ElderSpeak: Tales from the Heart and Spirit

kiskêyihtamâsowin (Wisdom) Part 1

kiskêyihtamâsowin (Wisdom) Part 1

Jonas Lariviere
Nêhiyawêwin (Cree)

1. "I am Jonas Larivierre. I have not always been from Apâsihk (Canoe Narrows). My parents

1. Jonas Lariviere niya, namôya kâkikê ôta nôh-ayân wapâsihk. tâpitawê nikî-

About Stories Elders Dene Cree Nations Credits Links

Screen capture from v1.0 of website Dene/Cree ElderSpeak: Tales of the Heart and Spirit, [http://www.horizonzero.ca/elderspeak]. Image courtesy of the artistic director/producer.

Jordan Bennett, artist. *Turning Tables*, 2010. from the exhibit RE:counting coup, curated by Cheryl L'Hirondelle. A Space Gallery, Toronto. Photography by Felina Whittaker.

6 Codetalkers Recounting Signals of Survival

CHERYL L'HIRONDELLE

KAYÂS MÂNA KAYAS (A LONG TIME AGO)

Following the 1994 international Indigenous think tank at the Banff Centre for the Arts entitled *Drumbeats to Drumbytes*, the late Ahasiw Maskegon-Iskwew noted:

> To govern ourselves means to govern our stories and our ways of telling stories. It means that the rhythm of the drumbeat, the language of smoke signals and our moccasin telegraph can be transformed to the airwaves and modems of our times. We can determine our use of the new technologies to support, strengthen and enrich our cultural communities.[1]

As a participant and contributor during that event, I would add that to be truly *free*[2] and self-governing, we must also acknowledge and be aware of our pre-contact ingenuity as inventors and technologists — experts in new media and avatars of innovation. And we must use, publish, distribute, and disseminate this information in keeping with our modus operandi of *pimâtisiwin*,[3] in order to sustain life and ensure our world views continue to be accessible and viable survival tools for future generations.

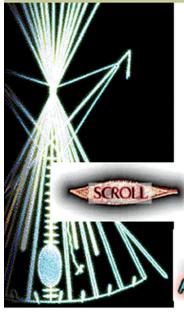(facing page) Julie Nagam, artist. *white pines lay over the water*, 2008–2011. From the exhibit SOS3 (Signals of Survival), curated by Cheryl L'Hirondelle. A Space Gallery, Toronto. Photograph by Felina Whittaker.

Cree language is built on root concepts of metaphor and metonymy, so it is appropriate to start out with some analogous terminologies with which to identify my role and the intent of this essay. I do not invent or claim to be the *creator*[4] of the information contained here. I am like a compiler who assembles information collected from other sources in order to produce something — this essay is one such result. A compiler, though, is also a computer program that transforms code written in one language into another to translate and transform the original source code to both create an executable program and/or to parse data that may become meaningful. This essay, hopefully, then also operates as a computer program, both to effectuate the imagination by parsing the data contained herein and to provide insight on cosmologies and the work of many contemporary Aboriginal artists working with digital and new media.

Like most of my work, this is an homage to the many codetalkers, pathfinders, and cultural compilers who have come before me; the many others with whom I have been fortunate to communicate, confer, and debate; and to those still to come. It is a direct homage to Ahasiw's contribution to this ongoing compilation pertaining to the field of knowledge of Indigenous media production. The essay is, simultaneously, my own recounted documentation and contribution to this ever-burgeoning field.

Though it is true, *namôya mistahi ê-kiskêyihtamân!*[5] (I do not know very much), Ahasiw frequently reminded me that the five years I dedicated to working with elders as a co-storyteller-in-residence with Joseph Naytowhow for nine Cree and Dene First Nation communities in northern Saskatchewan was my bush-style master's degree. Those years were spent compiling (via historical recounts, personal accounts, sacred stories, and my own personal insights) aspects of a cosmology which, though a gift from my mother embedded into my very genetic makeup, was largely inaccessible living in the city. Previous participation in community, cultural, and family events; one-on-one meetings with role mod-

els and elders; and the many Native books being published were pieces of a puzzle that I dutifully pieced together and that fortuitously, finally, led me north. My time living with *kêhtê-ayak* (Old Ones), attending ceremonies, and being on the land was the key to deciphering and cracking the veneer between contemporary urban concerns and the deep knowledge and relationship between language and land. First-hand, I was given the gift to learn from their stories, watch their subtle hand movements ("an alphabet of gestures"),[6] and witness their ability to shift between several languages while multitasking amidst their own large families — all in one conversation.[7] This access to source and its ancient semiotics was more in sync with my thoughts, feelings, and intuition and taught me to heed my dreams and make meaningful connections to what I was experiencing in the world around me — *tâpwê* (truly) an indisputable tool for survival.

Two of my previous mentors would always tell me to "do things for the healing of mother earth and all her beings" and "to come up with at least two solutions instead of just being aware of the problem."[8] So it was serendipitous when an opportunity arose that would both meaningfully employ my skills plus fulfill a desire to learn my mother's language by immersing myself in the ways of her land base[9] by accepting an invitation to work with both Wapimon Artist's Centre[10] and later, in 1995, the Meadow Lake Tribal Council. This move, importantly, allowed me to live amongst elders and Cree speakers. Sitting at the kitchen tables and in their living rooms provided me with another vital survival skill — the ability to think critically and act compassionately from within *nêhiyawin* (a Cree world view).[11] Like my ancestor before me, I had returned.[12]

In 1996, Joseph and I once again joined Ahasiw and a group of other artists he had assembled at The Banff Centre to collaborate and create the seminal website *Isi-pîkiskwêwin-Ayapihkêsîsak* (Speaking the Language of Spiders).[13] This all coincided with the burgeoning of the World Wide Web: the public distribution of web browser software such as Netscape, early search engines such

as Inktomi[14] and the Canadian government's awareness to create opportunities in remote and rural communities via their Community Access Program (CAP).[15] By 1998, I was ready to take the challenge and run with these new ways to publish our stories using this new delivery platform with its own many layers of codes. This time I invited Ahasiw to come to the north and work on our first cultural web project: Dene/Cree ElderSpeak: Tales of the Heart and Spirit.[16]

We continued to use every opportunity to introduce this new media to northern community members and to utilize it in a variety of projects that included print publications, community Internet workshops for elders, youth video training projects, and reserve radio transmissions. A transformative and perceptible shift came one day when a group of youth, taking turns being the audio person on a shoot interviewing an elder in their community, realized their flashy gym clothes, incessant gum-chewing, and background chatter was being picked up by the shotgun microphone. This caused them to become very still and quiet, which in turn meant they began listening closely to what was being recorded. The Old People involved quickly understood the implications of this shift as we listened and noted the stillness in the room. We all became conscious of the power the technology had in effecting positive change. Technology immediately established itself as a useful tool for survival.

CODETALKERS OF THE DIGITAL DIVIDE

Aboriginal people have been, since time immemorial, making things our own and, certainly since the 1960s, finding our own "indigenous aesthetic in digital storytelling."[17] This is proven in the vast array of film and video, radio, and new media programmed every year at artist-run galleries, media centres, festivals, and independent radio stations across this land now called Canada and beyond.

Now, information is propelled through time and space as packets, bits, and bytes via wireless and satellite signals. We now readily

use this technology as the imperative of our continued survival. However, as we are bombarded with popular dominant culture, new trends, and the glut of global information, it is important to return home to our source, reflect on our history, and pay homage to the agency and ingenuity of our pathfinders.

Choctaw, Navajo, Cherokee, Lakota, Meskwaki, and Comanche soldiers fluent in their languages were used by the American military for codetalking during both world wars, showing the world how our languages and world views are inherently relevant in common goals and the pursuit of freedom and liberty. Our modern-day codetalkers utilize government funding to disseminate Indigenous intellectual property transposed on top of, and integrated into, technological platforms to assert our presence in the World Wide Web and other immersive and documentary technologies. These warriors have similarly dedicated their lives to bridging digital, cultural, linguistic, and geographic divides.

A "divide" evokes many different concepts and images. It is at once the opposite or taking away of multiplication, and it is the colonial tactic of gaining and maintaining power also known as a strategy of "divide and conquer." However, to many Native people a "divide" also refers to the beautiful vistas and intricate landscapes of the geological term that connotes watersheds, ridges of land between two drainage basins, and/or that of the grandiosity of a continental divide.

My memory immediately wormholes or shortcuts through the space-time continuum and transports me back to the (historically incorrect) black-and-white Hollywood westerns of cowboys and Indians and the beautiful panoramas of Apache, Pueblo, Navajo, and Hopi territory. The ridges, mesas, escarpments, and cliffs of this terrain provide good vantage points and line of sight. Geological outcroppings that still symbolize and embody traces of our tricksters and giants are also home to our "books" — milestones of petroglyphs and pictographs depicting creation stories and histories. Deep flat lowlands and valleys provide for both sneak-up and

swift passage, for setting up camp, and a rich abundance of flora and fauna. For Native people, a divide therefore is not a binary, an either/or — it is rich with variety and the means of our sustenance and continued survival.

Our connection to the land is what makes us Indigenous, and yet as we move forward into virtual domains we too are sneaking up and setting up camp — making this virtual and technologically mediated domain our own. However, we stake a claim here too as being an intrinsic part of this place — the very roots, or more appropriately *routes*. So let's use our collective Indigenous unconscious to remember our contributions and the physical beginnings that were pivotal in how this virtual reality was constructed.

(WHY WE DIDN'T BECOME "ROADKILL ON THE INFORMATION SUPERHIGHWAY")[18]

ARPAnet, born in 1969, was a U.S. Department of Defense project that, although at the time an "intranet" system, "employed what is called packet-switching whereby data is broken into small packets that are routed over the network separately, and then reassembled on their arrival."[19] Though this type of data transmission is how the Internet would initially be implemented using the telephone lines that crisscross this land, what is forgotten is the history of the location of the extended physical network itself. If one traces the location of these thoroughfares back to the very beginning, we quickly understand how a long, long time ago, our ancestors moved across "this land now known as Canada"[20] to seasonally hunt and gather, conduct ceremonies for visioning and purification, and, when necessary, to sneak up to raid and engage in skirmishes with enemies.

Many of the routes passed through challenging terrain that had been revealed by our ancestor's predecessors who, similarly, tracked prey to water sources and sanctuary.[21] Over time, these very animal paths became well-known trails to and from multiseasonal

campsites. Vine Deloria asserts that "over the generations, different tribes learned to coordinate their activities with the forces and entities of the natural world, and they produced an amazing knowledge of how the larger world functioned . . . [and] had an intimate knowledge of the flora over a 500- to 600-mile radius."[22]

Later yet, these paths became trade routes between bands and territories as we established networks and trade languages and built a knowledge base around what we knew about each other. So when the first Europeans came to "explore" the land, our ancestors naturally led them along these well-established paths, which, over time, as the newcomers settled, became roadways and thoroughfares. With the advent of the telegraph and the telephone, wire was hung along these thoroughfares that literally became the beginnings of the physical network that now allows more and more packets of information to move as freely as our ancestors.[23]

Besides being at the root of the actual location of the network, these trade routes embodied the intent of the current global network. The late Rodney Bobiwash explains:

> The importance of the trade network was not only in the procurement of goods from other areas but in the establishment of relationship with other peoples, in the exchange of information, and in the apprehension of knowledge about people and places far beyond their immediate environs.[24]

Native people want to know who is out there. We enjoy visiting, bartering, trading, sharing with neighbours and relatives, and, when necessary, battling with competitors and enemies. The World Wide Web continues to be a place where we act out age-old ways and protocols as much embedded in that source code as in our own genetic makeup.

Many years ago, I had the opportunity to experience one of these early trade routes first-hand. During a visit with the late Mr. Jonas

Larivierre, the *kêhtêyiniw* (Old One) related a story about how as a younger man he had travelled by canoe between Northern and Central Saskatchewan along several river systems, portaging when necessary. I listened with great intent, and because I was not fully fluent in the Cree language (and I was focussing on stringing together the words and concepts I could grasp), I did not get to ask him questions afterwards, such as how he knew where to get out along a lake or river to cross land to the next water system. Mr. Larivierre seemed to have read my mind, however, and later that night as I entered the dream world, he was there ready to answer my questions and show me the signs. There in the remoteness of the forest, he pointed out various outcroppings of distinct land features; showed me how to detect differences in types of shores — grassy, rocky, sandy, etc.; taught me how to feel the direction of the wind, the scent of different types of flora, and the sonics of the land. He instructed me about the length and direction of shadows the sun cast by day, and under a night sky he instructed me in the ways the stars moved in the sky. The destination we arrived at was the morning and I awoke with immense gratitude for the commitment and compassion the old man had in teaching me these ways along his familiar lifelong route. I awoke refreshed with yet one more bit of knowledge, one more survival skill to use for my own journey still to come.

Rereading his eloquent story,[25] I realize he also taught me that night that as I was living in the north and listening to and resonating with the Old People's stories, I was repeatedly "returning home" to myself and renewing my intrinsic understanding of *nêhiyawin* (a Cree world view). Neal McLeod explains:

> In a sense, "coming home" is an exercise in physical and spiritual cartography. It is trying to locate the place of understanding and culture. It is the attempt to link two disparate narrative locations, and to find a place of speaking wherein the experiences of the present can be understood as a function of the past. At the same

time, culture is a living organism, with many layers and levels, and there will always be manifold interpretations.[26]

RE:COUNTING COUP

I was once told that an early term for "computer" in Cree language was *akihcikêwikamikos* or "little counting shack" (because it is a little building or enclosure that contains the process of counting). With this concept, and because, as Native people, we are from a "gift economy," I started to become cognizant that there was something extremely vital to the relationship between processes, objects, and the data they hold. This, in itself, is an important part of the process of how new expressions are formed. It allows the world view to read or flex around an object or an event to continue to evolve and be relevant.

Historically, many objects were created and utilized as a method for counting, recounting, and accounting. This history of creating physical objects served many purposes. It was at once proof of an experience, an interchange and/or an exchange of a journey or of life cycles, a tool to store the data to aid in the recounting/remembering, and a multifaceted new media object — and sure evidence of the intimacy and cleverness our ancestors had in keeping this information.

Also, the importance of *numbers* and *counting* amongst Indigenous peoples cannot be underestimated. There has always been a criticality in the data we collect and know about ourselves, crucial to our continued survival. As Chippewa writer Louise Erdrich explains, "[m]athematics wasn't abstract. It was intimate. Dividing and multiplying and factoring were concerns of the body, and of *survival*."[27] Historically, many forms of counting, accounting, and recounting were equally relevant and essential within most Indigenous world views. A central aspect of these practices was either to create a physical object or to create a likeness as proof, and to store the data to aid in its recounting.

One such example was the winter count in Plains tradition, a multimedia method of documenting the histories of a tribe by creating pictorial calendars — paintings and drawings on tipis and skins (and later using other materials) to record and document the historical data of the camp. "The images served as mnemonic devices for community members and for the winter count keeper, who was responsible for recording and remembering events."[28] The drawing would be added to for a series of years and, in some instances, took on the form of a map, which acknowledged, through time and space, the exploits and seasonal history of the tribe.

Similarly, *count coup* acknowledged, for many plains tribes, prowess and victories in skirmishes and raiding parties, leading to stories that chronicled the events upon return to the camp. *Coup sticks* would be notched to denote how many enemies had been "touched" or "tagged" as proof for recalling the encounter. Off the battlefield, the value of tracking accomplishments was equally vital: "[w]hen a woman made marks on her awl handle to record the hides and lodge covers she had completed, she was participating in a tradition of keeping careful track of personal accomplishments and displaying the record for all to see."[29] Information encoded in other examples of women's work such as quillwork, weaving, and later beadwork confirm similar concepts of counting and of the importance of keeping detailed accounts. "It was women . . . who were responsible for beginning Ojibwe mathematical calculations. They began because they had to be concerned with their own cycles, had to count the days so that they would know when they would be fertile."[30]

On the Plains, our ancestors' profound knowledge of numbering systems, such as the *Fibonacci sequence*, is evident in the lodges they survived long winters in — tipis constructed on the patterns of life itself.[31] "[E]ach number after the pair of initial 1s is the sum of the two that comes before"[32] is a key characteristic of the number system. For me, this definition bears a striking resemblance to the adage: *if you know who and where you are from, then you will*

know where you are going.[33] We are part of an array, sequence, or formula in process and "continually in flux"[34] as Leroy Little Bear would say.

The very act of erecting a tipi is a ceremony, and the relationship and interplay between every element (the poles and the directions in which they are placed, the rope/ligature that is wound around sun-wise, the skin/covering that drapes over and completes the structure, and, in particular, the ground it lives atop) is all steeped in the sacred mystery of the cycles of life and various realms of existence. Thus it is for most Indigenous world views that our continued knowledge of numbering systems are still embedded in the ceremonies or *âtayôhkêwina* (sacred stories) of societies and clans.

In essence, a *mîkiwahp* (lodge) further amplifies the central Cree concept of *pimâtisiwin* (life) by continuing what is evident in the budding of plant life, the unfurling of shoots, the constant spiralling of life. The relationship then between numbers and objects finds a home here — literally and figuratively. The lodge is where life was created, nurtured, lived with the covering skins themselves, and where winters were counted — life and death accounted for.

What these historical Indigenous practices and knowledge of numbers and counting suggest is our ability to take account of vital information with the creation of a physical object and move beyond what has been oversimplified as solely orally centred transmission processes. The "object" is charged and embodies the interplay of processes between the oral and the written (notched/drawn) used to aid in its own retelling. The combination of the oral testimony and the interaction with the object created becomes multimedia and/or an event. The object then, from the perspective of many Indigenous world views, literally becomes *animate* and alive. The process of witnessing further animates these "things" and imbues them with spirit — or a sacred power supply. No batteries needed.

Of equal importance in these processes of counting is the dynamic relationship between the physical creation, the narrator, the narrative itself, the act of narrating, and the audience. The

performance event could even be viewed as an *object*, and it and the audience/participants become part of a larger "*transactive memory device*,"[35] whereby their memory of the event becomes part of a matrix to verify and cross-reference the information being offered. As the audience moves from participant to co-author, the object/narrative/event/memory is then immersive and moves away from being static to something integrated and performed. This brings us to what constitutes successful new media — participation, engagement, interactivity, and an enthusiastic sense of inventive wonderment.

Since the shift from stand-alone computer terminals to that of an entry point to a worldwide environment and matrix of users and interaction, Cree speakers are now using a newer Cree term: *mamâhtâwi-âpacihcikan*. Translated, the definition is that of a "magical and useful device"[36] or as Neal McLeod defines it, "the machine which taps into the mystery of life."[37] Norval Morrisseau also makes mention of this connection we have to computing objects in recalling powerful dreams he had showing him his connection to his own prolific creative inspiration: "I go to the inner planes. I go to the source. I even dare to say I go to the source where all the inventors of mankind go . . . to the House of Invention."[38]

S-O-S3 (SIGNALS OF SURVIVAL)[39]

A repeating signal is not always a plea for help. Transmissions can, in fact, state something else. The English poet and mythographer Robert Graves suggests this in his treatise on the relationship between language and the spirit of nature herself, in the poignant refrain, "Where? Where? Where is my love gone? Where are my companions?,"[40] as in a bird song.

Blackfoot philosopher Dr. Leroy Little Bear reminds us:

> The [Blackfoot] notion of sustainability, the notion of renewal is
> something that stays in that flux that exists, there are regular
> patterns we search out for. Those regular patterns make for our

continuing existence. We search for regular patterns in that flux and it's those regular patterns that we want to be able to use as reference points, something to hang our hats on to say, hey, this is what gives us life.[41]

I think back to Ahasiw's reminder and the useful and elegant nuances of signals made from clouds of smoke rising into the ether on the horizon or the distinct rhythmic thunder of distant drums as the wind may have pushed and pulled it from earshot. My imagination immediately transports me once again to tracking prophetically painted and etched pictographs and petroglyphs echoing from natural outcroppings of rocks throughout this land — deliberate repeating signals that our ancestors produced as a means to send and receive invaluable information. Not that long ago, these cloud patterns in the sky, changing with the wind's direction, and images carved or painted into stone, would have been heeded, decoded, and understood like the rising and setting of the sun — a lexicon of meaning forged by the elements themselves and directly related to the seasonal cycles of moving across the land. These were our signals of survival.

Encoded deep in our genes is the memory of survival methods, originating as impulses that over time and with repetition became encoded into designs, stories, dances, songs, and language. The land and elements, also witness to this, are simultaneously transmitter and receiver. Songs are composed on the rise and fall of the horizon line, sung for the benefit of clouds, to growing crops, to enchant prey. "Land is also one of the tenets of the Native paradigm, the land is so sacred, it is the creator of life."[42]

An instruction of how to backtrack to sneak up on prey is later rendered as a geometric design; the sound of a spiritual entity existing in nature over time is concretized into an image, an uttered sound-cum-word or phrase. It seems that to consider this connection, to source and to derive a distinctly Indigenous aesthetic, is also an inner journey along a dendrite to a muscle, tendon, or tissue that holds the memory of a design, the crux of a story, the

imperative of a dance, and the refrain of a song. We trace and re-trace, backtrack, look for signs, and find meaning in flux.

With the advent of Western science's awareness of quantum mechanics, scientists, physicists, philosophers, and academics are increasingly meeting with our elders and thinkers. The Western world is finally coming to understand how our ancestors embedded and encoded our ceremonies, languages, world views, and metanarratives as complex algorithms that refer back to the very creation of the universe.[43]

We all now live in a world where new media and digital technology are deeply embedded in our daily transactions — they are our "tools for survival" — and for Indigenous artists working with new media there is an imperative to adapt to these tools and to adopt new modes of communication. Though the means have changed, the message remains consistently unrelenting and unending. These calls continue to assert our unique and distinct world views. These are the patterns we retrace that are encrypted in the broad strokes of our art. They are our transmissions past, present, and future to all within earshot and line of sight. This is not some "feral nostalgia . . . [it is as] urgent as the blueness of sky."[44]

Victor Masayesva reminds us:

> How often have we heard time and space described as recurring cycles? This is a Native reality, and the representation of storytelling . . . provides a pure distillation of the concept. These choices, these aesthetics, could only derive from Indigenous people, who take changes in their way of life, such as technology, and shape them to their own values, purposes, enjoyment, always aware that the past continues to be ever present.[45]

SONGLINES

Sounds rise and fall, cascading over the edge of the horizon line and into every nook and cranny.[46] The land is not experienced as a

concrete material but as a living being in flux, and so movement, action, reaction, and interaction with the land grows and creates a bond, the shift from thought to the sonic proof of a relationship — a promise uttered, an infinite refrain.

My initial interest in the World Wide Web, computing technology, and new media was as a singer. I was keenly interested in these tools that would allow my keyboard to talk to my computer and notate my compositions.[47] Musical icons such as Buffy Sainte-Marie and Jane Siberry further enticed me when I heard them talk about recording their albums using their Apple computers while communicating and working over long distances with musicians and producers.

Even more so, as the daughter of a road-allowance[48] woman and being from a large musical family, I was intrigued with the new virtual domain of cyberspace. Using echolocation, I wanted to know how one's voice could be heard, how could it be amplified, and what objects were here for my voice to resonate against, be measured by, or be received by. I also wanted to know the edges of the territory I was allowed to inhabit or if it was truly as infinite as was suggested, and I truly wanted to find meaningful friendship there. In short, how and where and by whom would I be found here?

So, we are all collectively echolocating ourselves in this ever-expanding virtual landscape. Perhaps this is the gift the artist gives the world, continually in process and along the way creating signposts of where we've been, what terrain we've traversed, and what it has taught us. This is also the gift that the singer and the songbird share — the chorus that is both question and answer and ever-repeating, "What am I? What am I? I, the song, I walk here."[49]

* * *

Returning to the first three poles of the *mîkiwahp*[50] or *tipi* (as this infers the dynamic and well-placed beginnings of a larger structure), I offer this thought: they are a metaphor of a tripod that is

draped over with the triptych-like narrative elaboration of triangulation and hence trace an Indigenous new media practice in contemporary time and space.

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NOTE

Parts of this essay were taken from the curatorial texts accompanying three inaugural new media exhibitions curated for the imagineNATIVE Film + Media Festival between 2009 and 2011. The work of nineteen Indigenous artists was presented and contextualized under the three exhibition themes, as denoted in the essay's subtitles. The artists are:

Codetalkers of the Digital Divide (or why we didn't become "roadkill on the information superhighway"):
Alanis Obomsawin, Buffy Sainte-Marie, Ahasiw Maskegon-Iskwew, Melanie Printup Hope, Mike MacDonald, Jimmie Durham, Jackson 2bears, Jennifer Wemigwans, ISUMA (Igloolik Isuma Productions)

RE:counting coup:
    KC Adams, Jordan Bennett, James Luna, Archer Pechawis, Lisa Reihana
S-O-S3 (signals of survival):
    Raven Chacon, Jason Baerg, Jason Lujan, Julie Nagam, Bear Witness

NOTES

1 Ahasiw Maskegon-Iskwew, "Drumbeats to Drumbytes: Origins — 1994," http://drumbytes.org/about/origins-1994.php (accessed June 21, 2009).

2 "*tipêyimisow* — s/he controls him/herself, s/he governs him/herself, s/he owns him/herself; s/he is in charge of him/herself, s/he is on his/her own, s/he is free . . ." Arok Wolvengrey, *Nêhiyawêwin: itwêwina (Cree: words)*, vol. 1, *Cree-English* (Regina: Canadian Plains Research Centre, 2001), 225.

3 *Nêhiyawin* (Cree world view) modus operandi that translates to mean "life," though most would add the prefix *miyo* to denote "good."

4 I am most definitely a dedicated contributor and participant in this field of knowledge.

5 This simple phrase is important in understanding Cree narrative memory. People did not believe they had power over the narrative, or owned it; rather they believed that they were conduits, that there was a balance between the individual and tradition. When the play between individual and collective is taken into account, it becomes evident that no understanding can ever be complete, because there could always be more interpretations. Paul Ricoeur's notion of a "surplus of meaning" complements this point. Neal McLeod, *Cree Narrative Memory: From Treaties to Contemporary Times* (Saskatoon: Purich, 2007), 16.

6 Klyde Broox, conversation with Cheryl L'Hirondelle, 2012. Broox is a Hamilton-based dub poet. Our conversation was regarding "things that are encoded to us through history."

7 This encoded layering of subtle and definitive actions much later made me realize they too exemplified the task of compilers and that I was now being mentored by them to pass this on.

8 Maliseet poet, visual artist, and activist Shirley Bear and dub poet and activist Lillian Allen were my two mentors from Minquon Panchayat, where from 1992 to 1993 I had been the co-conference coordinator of ANNPAC/RACA's *It's a Cultural Thing* and animation coordinator of the national caucus/coalition movement to assist the artist-run centre movement in this land to become more open to Aboriginal artists and artists of colour.

9 My mother's family spent many years in the Lac La Biche / Kikino Metis Settlement region of northern Alberta, which the Beaver River also ran

through. In 1995, I located myself in northern Saskatchewan on the La Plonge Reserve just outside of the Beauval Metis town ship along the same river system.

10   Wapimon was the northern artist collective that resulted in Circle Vision Arts Corporation decentralizing and becoming three distinct regional entities (Tribe Inc was the Saskatoon-based central group and Sâkêwêwak artists' collective was the Regina-based southern entity).

11   Willie Ermine offers this insight into this way of learning: "The manner by which I found myself 'coming to knowing' as we sat and talked at the Old People's home was through the process of dialogue. . . . Paulo Friere defined dialogue in his book *Pedagogy of the Oppressed* as the 'encounter between men, mediated by the world, in order to name the world.' The tenets of dialogue, according to Freire, are the reflection for understanding and the commitment to act on the understanding. In hindsight, the evenings with the Old People were actually a continuing process of naming the world . . . for understanding and [a] commitment to act." Willie Ermine, "Pedagogy from the Ethos: An Interview with Elder Ermine on Language," in *As We See . . . Aboriginal Pedagogy*, ed. Lenore A. Stiffarm (Saskatoon: University Extension Press, 1998), 11; Paolo Freire, *Pedagogy of the Oppressed* (New York: Herder and Herder, 1970), 76.

12   My ancestor's Indian name is "*wâyinohtêw*," which refers to one who is returning.

13   I was commissioned in 2012 by grunt gallery to revisit the project, where I added the original audio that never was included in Ahasiw's exhibited version. http://www.spiderlanguage.net.

14   An early search engine whose name was derived from the Lakota spider-trickster Iktomi. "Inktomi," http://en.wikipedia.org/wiki/Inktomi (accessed April 1, 2012).

15   "Since 1995, the Community Access Program has brought computer and Internet technologies to Canadians across the country and . . . federal funding . . . ended on March 31, 2012." Industry Canada, "Community Access Program," *Industry Canada*, http://www.ic.gc.ca/eic/site/cap-pac.nsf/eng/home (accessed February 22, 2012).

16   The original site is still on the Internet but has many broken links and much outdated code. In 2004, while I was the guest of the artistic director of Horizon Zero's issue on Aboriginal digital storytelling, I was able to have the site remade. http://www.horizonzero.ca/elderspeak.

17   Candice Hopkins, "Making Things Our Own," *Horizon Zero, Tell: 17* (2004), http://www.horizonzero.ca/textsite/tell.php?is=17&file=4&tlang=0 (accessed June 21, 2009).

18 The early work of Cherokee technologist Randy Ross and Osage academic George Baldwin in their contribution towards the creation of IndianNet — one of the first Indigenous bulletin board systems created in the early 1990s — used this as their motto in convincing Native people to take up this new communications system by saying that we shouldn't be left behind and become "roadkill on the information superhighway."

19 Glyn Moody discusses ARPAnet, Unix, Delivermail, Sendmail, and "the creation of a network that would eventually become the Internet" in Glyn Moody, *Rebel Code: Linux and the Open Source Revolution* (London: Penguin, 2001), 120.

20 Though I am known for using this phrase when presenting, Janice previously wrote, "During the early history of this developing nation now known as Canada . . ." Janice Acoose, *Iskwewak: Kah'Ki Yaw Ni Wahkomakanak / Neither Indian Princesses Nor Easy Squaws* (Toronto: Women's Press, 1995),≈40.

21 "The animals, plants, waters and the sky participated in teaching the people how to read signs accurately as a means of survival." Ida Swan, "Modeling: An Aboriginal Approach," in *As We See . . . Aboriginal Pedagogy*, ed. Lenore A. Stiffarm (Saskatoon: University Extension Press, 1998), 49.

22 Vine Deloria Jr., *The World We Used to Live In: Remembering the Powers of the Medicine Men* (Golden: Fulcrum, 2006), 125.

23 My retelling of this is both a subversive act, or a sneak-up, and a natural assertion of my freedom, my ability to own myself. In Cree language, one term to refer to the misnomer of being without "treaty" (hence not having an Indian agent) is "*ka-tipêyimisohcik*" — it roughly translates to "they have ownership of themselves."

24 Rodney Bobiwash, "The History of Native People in the Toronto Area," in *The Meeting Place: Aboriginal Life in Toronto*, ed. Frances Sanderson and Heather Howard-Bobiwash (Toronto: Native Canadian Centre of Toronto, 1997), 9.

25 Jonas Larivierre refers to his family's choice in distinguishing between being considered Métis or Cree, inferring that by following the world view as opposed to treaty status is the grounds for the distinction. Jonas Larivierre, "Elderspeak — Wisdom," *Horizon Zero Tell*: 17 (2004), http://www.horizonzero.ca/elderspeak/stories/wisdom.html (accessed March 25, 2012).

26 McLeod, *Cree Narrative Memory*, 70.

27 Louise Erdrich, *Books and Island in Ojibwe Country* (Washington, DC: National Geographic Society, 2003), 62.

28 Christina E. Burke, "Waniyetu Wówapi: An Introduction to the Lakota Winter Count Tradition," in *The Years the Stars Fell: Lakota Winter Counts at the*

Smithsonian, ed. Candace S. Greene and Russell Thornton (Washington, DC: Smithsonian Institution, 2007), 2.

29 Linea Sundstrom, *Storied Stone: Indian Rock Art in the Black Hills Country* (Norman: University of Oklahoma Press, 2004), 99.

30 Erdrich, *Books and Island*, 62.

31 "Fibonacci numbers . . . are intimately connected with the golden ratio.. . . Applications include computer algorithms such as the Fibonacci search technique and the Fibonacci heap data structure.. . . They also appear in biological settings, such as branching in trees, arrangement of leaves on a stem, the fruit spouts of a pineapple, the flowering of artichoke, an uncurling fern and the arrangement of a pine cone." "Fibonacci number," *Wikipedia*, http://en.wikipedia.org/wiki/Fibonacci_number (accessed March 25, 2012).

32 Peter M. Higgins, *Numbers: A Very Short Introduction* (New York: Oxford University Press, 2011), 59.

33 Also phrased, "if you don't know who you are, how will you know where you're going?".

34 Leory Little Bear, Talk at Banff Centre artist's residency, *Towards Language*, February 2010.

35 Daniel M. Wegner, "A Computer Network Model of Human Transactive Memory," *Social Cognition* 13, no. 3 (1995): 319–39.

36 Joseph Naytowhow, translation source.

37 McLeod, *Cree Narrative Memory*, 30.

38 Norval Morriseau, *Return to the House of Invention* (Toronto: Key Porter, 2005), 94. Earlier in the book (14–15), he relates a longer story about one such trip to the House of Invention that had computer keyboards and screens.

39 The superscript refers to a dimensional amplification of the resounding nature of the repeating signal. It is to the power of three, mathematically speaking.

40 Robert Graves, *The White Goddess: A Historical Grammar of Poetic Myth* (New York: Farrar, Strauss and Giroux, 1948), 251.

41 Dr. Leroy Little Bear, "Native Science and Western Science: Possibilities for a Powerful Collaboration," lecture delivered at Simon Ortiz and Labriola Center Lecture on Indigenous Land, Culture and Community, 2011, http://www.youtube.com/watch?v=ycQtQZ9y3lc (accessed May 16, 2011).

42 Ibid.

43 The documentary video entitled *The Language of Spirituality*, directed by Anthony DellaFlora, as well as the book *Blackfoot Physics*, by F. David Pea, discuss the influence that Dr. Leroy Little Bear and other Native thinkers and elders had on David Bohm and his contemporaries in furthering their concepts of quantum physics.

44 Hakim Bey, "Chaos," *T.A.Z.: The Temporary Autonomous Zone*, *Ontological Anarchy*, *Poetic Terrorism* (Brooklyn: Autonomedia, 1985), 4.

45 Victor Masayesva, "Indigenous Experimentalism," in *Magnetic North*, ed. Jenny Lion (Minneapolis: University of Minnesota Press, 2000), 232.

46 Like many of my Indigenous contemporaries internationally, I utilize an age-old musical and mapping songwriting methodology of "singing the land" by following via line of sight the contours of the horizon line plus noting the rhythms inherent in a landscape to inform the shape of a melody and the meaning of the lyric.

47 My first computer was an Atari 1020 that had MIDI sequencing capabilities. This very quickly turned me from a Luddite into a zealot due to the amount of time saved in hand notating or scoring compositions.

48 "In the settlement period (1896–1929), many . . . Métis persisted as squatters on Crown land and were known as "Road Allowance People." Warren Carriou, "Metis Communities," in *The Encyclopedia of Saskatchewan: A Living Legacy*, http://esask.uregina.ca/entry/metis_communities.html (accessed March 25, 2012).

49 Excerpt from Modoc Dream Song, Alfred L. Kroeber, trans., *The Sacred Path: Spells, Prayers and Power Songs of the American Indians*, ed. John Bierhorst (New York: William Morrow, 1983), 87.

50 I have made many works that are using the values ascribed to each of the fifteen tipi poles of a Cree lodge. The first three are the tripod that is erected on which to rest the remaining poles against. For a list and explanation of the values, see my net.art project, http://vancouversonglines.ca. An audio version and a longer textual version from Elder Mary Lee can be found at http://www.fourdirectionsteachings.com/transcripts/cree.html (accessed June 21, 2009).