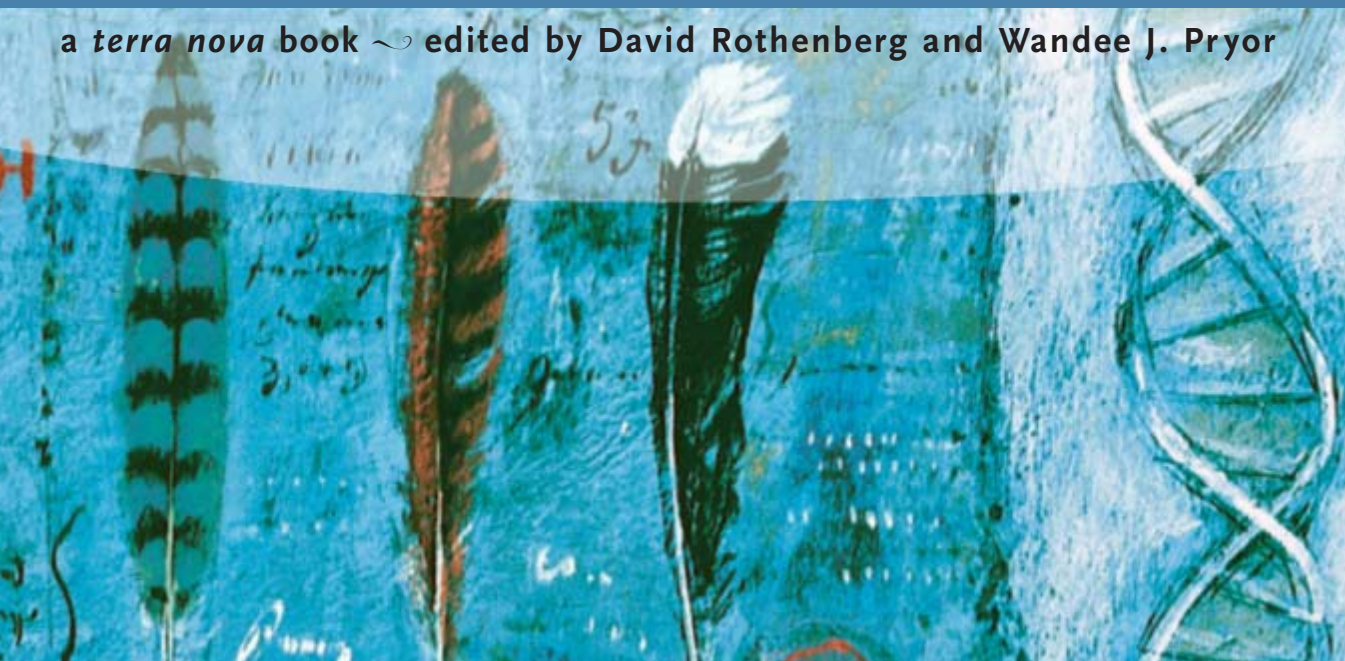




writing the *future*  
progress and evolution

a *terra nova* book ~ edited by David Rothenberg and Wande J. Pryor





Judy Johnson-Williams, *Zone of Turbulence* (detail), 2001

## The Man Who Spoke to Stones

*Stephen Miles Uzzo*

### *The Secret Life of Stone: Enhancement*

The sky quickly turns from pale to blue as the sun vaults over the New England heavens. Late August air invites the sun to shower the Earth with light. This small planet replies, sending back colors from the rich soil, the forest canopy, the river's moving waters. They fade only in the occasional plumes of dust, which rise from the powwow grounds as cars fill the parking field. "Powwow dust is good dust," I think as I walk toward a line of dilapidated trailers along the wood's edge near the Connecticut River. My eyes fix on an elderly man holding something fluorescent yellow, flopping back and forth in his hands. He sees me and waves. As I approach, I recognize him as LaVan Martineau. Meeting with him is my reason for attending the Connecticut River powwow. I soon realize that the glowing object is a pair of Apache-style moccasins, the extraordinary color coming from the pollen used to dye them.

LaVan has an entry in the tipi competition. If he wins, he will be able to buy enough gas to drive his family back to Arizona, where they live. I show him a petroglyph I photographed in Ontario that is unfamiliar to me. As he explains what it means, he plays a tape of a Hopi funeral ceremony, in which participants spend days recounting their origin from a swamp reed. As each generation passes, the story is recited by the survivors so they remember to pass it on to the next generation. But I'm not meeting with LaVan to discuss oral history. Instead, I'm here to talk about his progress in decoding petroglyphs of the American West and the relationship they have to Indian sign language. While LaVan was completing some

fieldwork in Arizona, I'd been planning a trip to the Gaspé Peninsula in northern Québec to research the Mi'kmaq (pronounced ME-kmog) pictography, the "Rosetta Stone" for which is a Bible, translated by seventeenth-century missionaries into Mi'kmaq. I have a lead in Restigouche, a sleepy little town on the southern coast of the Gaspé where the native cultural center is located. This Bible is a word-for-word translation from French to the Mi'kmaq pictographic symbols and could be key to understanding the relationship that Mi'kmaq symbols have to symbols used elsewhere in North America.

We begin going over LaVan's fieldwork, and he pauses, midsentence, to hand me a stack of photographs. They are of one of the panels (which is what a series of petroglyphs on the same stone face are called) he is studying. We lay them out on a lawn chair and bend over them. LaVan traces every line with his ancient furrowed fingers, the texture of which mimics the sandstone in the pictures. His hands are like continents, moving tectonically over fading stories left by ancient strangers. It is almost as if he is aging with the rocks, becoming timeless, becoming the sandstone itself.

I soon realize what he is describing. This ancient panel is essentially a map of the southern portion of North America. I hardly breathe as he points out the geographical features and symbolic descriptions. Clearly, it was not Erich Von Daniken's aliens who recorded these images, but highly aware and cosmopolitan people with a deep sense of place, extensive and sophisticated communication capabilities, and an intricate understanding of the geography of America.

We then begin discussing the final project, which is to be an electronic dictionary of North American pictographs—their variants, contexts, and meanings. He drags out his old Mac Plus in which he just installed a bigger hard drive and shows me his progress in developing the database. He has not gotten very far. Most of his information is still in enormous three-ring binders, which consist of tens of thousands of pages of handwritten field notes, sketches, and photographs from the panels he's investigated.

The urgency of this project cannot be underestimated. As LaVan sees it, most people fail to appreciate that before speech-based writing systems, there were writing systems based on sign language with the capacity for nearly universal communication. The medium of choice was stone. This was the language of the Ice Age: a time of rapid climate change and the need for a durable and flexible way to communicate among many nomadic groups. With the migration of modern humans throughout the world, the rocks bear this language on every continent except Antarctica. We are haunted by images left by these Ice Age people wherever we go.

Preserving and documenting these sites is increasingly eclipsed by a hunger in us to dominate and manipulate the landscape. The very impulse and adaptability that sent us on these journeys, molding the land wherever we went, is now systematically erasing these pictographic documents. The destruction of these records is eradicating the history of indigenous peoples. Such pictographic documents store the daily culture, the epic migrations, the sacred traditions, the stories, the poems, the very humanity of all that preceded the pantheon of modern world cultures that now converge on North America to claim it as home. This cyberdictionary would definitively proclaim to the world that a universe of people as advanced intellectually, culturally, and socially as any other in the Western world thrived for thousands of years before European exploration. It would also lay the foundation for recovering and coherently piecing together this history so that it could be preserved before its extinction.

Although pictographies rely on sign language rather than speech, they are no less capable of expressing complex, abstract ideas. But they do require a different approach to being read than the written word, and they must be read, not just viewed. Writing is a linear “trail” of words. To understand a sentence, one must start at the beginning and end at the appropriate punctuation, as with the “flowing creek of speech” it represents. The written word is essentially a form of speech recording; temporal in nature, it must be moving forward to be understood. All modern languages are written this way. As with speech, the written word is very effective for telling a story as a sequence of events, but is cumbersome at describing spatial information, such as appearance and location. This information must be inferred from the reader’s experience when reading a description provided by the writer. If the reader’s frame of reference varies too greatly from that of the writer, then the imagery invoked may be confusing. Likewise, the emotion and context of the original environment cannot be captured, so it must be explained or summoned somehow by the author through the writing itself. This is the craft of storytelling. When we write, we always know what we mean to say, but the reader does not, so we must explain it in a language that we hope most others can understand. This is a problem faced constantly by writers. Even Plato complained to Phaedrus that the written word was useless unless the writer was present to defend and explain her or his work. The other problem is that writing is bound to speech. It is therefore unintelligible by those who do not speak the same language.

Conversely, petroglyphs are spatially distributed. There is meaning in the location of symbols, the way they are drawn, and their relationship to each other: they cannot be read in a linear fashion like a book. Thus, a panel is “read” more the way

we view a picture. Our eyes must view the whole scene and wander from object to object to form an understanding of what is being described. The important difference between a petroglyph and a picture is that there is meaning in the way the various symbols are juxtaposed; their size, the thickness and shape of lines, and even the surface of the stone are used as part of the story in a panel or series of petroglyphs. There is nothing arbitrary included in these panels, since the intent is strictly to communicate, not to embellish. They can even depict the feelings of the writer toward the subject. Since all of this information is viewable at once, the gestalt of the story being told is available immediately and unfolds simultaneously, similar to viewing a picture, albeit a heavily annotated one.

The way LaVan Martineau works is by taking the whole panel into his visual field, then examining the detail in each stroke—the proportions, size, and relationship between figures at constantly changing scales. Then begins the work of comparing symbols in a particular panel with those from other locations. He has spent much of his adult life transferring the cryptanalytic skills he learned in the Korean War into this spatial reading technique.

### *No Word for Time: Obsolescence*

Before this linear versus spatial communication was studied in great detail, Marshall McLuhan (well known for his research on the relationship between media and society and originator of the phrase, “The medium is the message”) used a theory of acoustic and visual space to describe the effect of technologies on culture. Visual space is defined as linear, procedural, and single threaded, like reading a book. Acoustical space, in contrast, is considered spatial, multithreaded, and simultaneous, similar to the way we might hear a symphony. Although the labels for this dichotomy are somewhat misleading, the concepts behind it turn out to be important to understanding how information affects human perception. “Tribal” culture, as McLuhan called it, relates to its environment spatially, relying more on intelligence received directly from the environment to govern behavior and less on the linear narrative that time and duration impose on nature through writing. “Literate” culture relies on duration and relates to its environment in just such a linear fashion. It imposes a narrative on nature. Time for “literate man,” as McLuhan calls us in the West, is of paramount importance. Events are timed and analyzed. Life is logged and punctuated by the calendar and the clock. For Westerners, the hands of time are always present. But the Mi’kmaq have no word for time.

In my own experience, this conflict arose in a longstanding interest I've had in the relationship the Labrador Coast Inuit have with the Torngat Mountains (pronounced "toong-aught" in Inuktitut), a range of ancient and ragged uplands covering the northern half of the province of Labrador. I wanted to conduct some interviews with the Inuit to better understand their traditions and perspectives on these rugged peaks. At the time, the eastern slopes of the Torngats (where the Labrador Coast Inuit hunted) were being considered for a national park or nickel mining claims. I had tried, in vain, over a period of months to contact key individuals in the community and determine the best path of research. Finally, I dropped in on a Canadian journalist I knew for advice. Although he did not have much experience with the Labrador Coast Inuit, he had extensive experience with those of eastern Ungava Bay, on the western slopes of the Torngats. As we talked, he looked down at my bare wrist and asked me for the time. I replied that I wasn't sure, since I never wore a watch, to which he observed, "Well, you're off to a good start." He suggested that I go to Nain (one of the more northern communities in Labrador, near the southern edge of the Torngat Mountains) and live in a tent on the edge of town for a few months with no particular plan, except to spend some time in the bush. Eventually, curious children would come by and start asking questions; then adults would follow. Apparently, it would also help if I got into trouble in the bush, such as falling and getting injured, requiring rescue by an Inuit hunting party. In our entire conversation, all activities required to come into contact with these people involved relating to them spatially: not through writing, not through scheduling meetings, but simply through existing in their "acoustic space." As far as my day-to-day experience with linear time and visual space, although I don't wear a watch, if I lose my date book, it's a pretty serious crisis. Let's just leave it at that.

LaVan and I had to cut our conversation short so he could go make final adjustments to his tipi before the judging was to begin. One crucial aspect of tipi construction is the configuration of the gap at the bottom, which allows smoke to rise efficiently through the vent in the top. Aside from the obvious practical function, this has an important spiritual function as well. The rising of smoke is a way of communicating with the sky world, just as the church steeple is an antenna toward heaven. In spirit-to-real-world connections, the effectiveness of this communication might ultimately affect how well the people are heard. Authenticity is more important to LaVan than fancy design, so he wants to get it exact. He suggests we meet again after the dance competition, which is about to begin. On

my way over to the dance platform, I stop at the vendor tent to look for out-of-print books. By the time I arrive at the dance venue, people are crowding in quickly, making it impossible to move until it's over.

During the dance, I realize that I've forgotten where LaVan and I are supposed to meet later that afternoon. It would be impossible for me to get to him or for him to hear me over the noise. I spot him on the other side of the platform and catch his attention, giving him the sign for location. He returns the sign with detailed directions to our meeting place without any electronic or verbal form of communication.

So how did such a practical, rich form of communication like the Indian sign language become limited to a few insiders? How did the resulting pictography grow extinct so quickly? As with all other forms of cultural archaeology, no one knows for certain, but everyone is certain they know. Urbanization and agriculture are the likely suspects. There were compelling reasons for humans to urbanize. Humans are ingenious yet frail, descended from small arboreal ancestors: not the hunters, but the hunted. According to evolutionary theorist Steven M. Stanley, as the climate changed and forests disappeared during the Ice Age, humans were cast into a grassland filled with lions and hyenas.<sup>1</sup> One can only vaguely imagine the predicament of these earliest "proto-people." Flocking behavior is a natural response of prey animals stuck on the ground, but with a constantly changing climate, nomadicism would have been necessary for finding shifting food sources. There was likely a strong desire to conserve energy, to find a place to settle permanently and call home, but as food ran out, seasons changed, and glaciers moved, so did the people. Smaller groups would have been more sustainable, since they could have taken advantage of sparser resources and been more flexible about when and how to move. A very large group would be less vulnerable to predation, but would have had a harder time finding enough food for all, and would have taken much longer to pack up their belongings when it was time to move on.

With a warmer, more settled climate and more plentiful resources, flocking behavior would have compelled groups to settle, increase in numbers, and quite naturally rely more intensely on speech. The problems of isolation no longer inhibited communication. The problem of having enough to feed a growing population was eventually solved by agriculture, a codependent response to mutually assured survival since we guarantee the success of those plants and animals we grow in order to have successful populations ourselves.

With urbanization, the problem shifted from "how do small groups who move around a lot and speak different tongues communicate and remember what's



where the next time they pass a particular place” to “how do we keep track of whose sheep belong to whom, who said what about whom, who is in charge, how do we make rules that everyone will follow . . .”—in other words, how do we get along together and share resources, skills, and so forth? The pictographs were obsolesced as representing ideas and reused to represent speech. Society shifted from living in acoustic to visual space. This transition affected more than just writing; it affected the way people saw their place in the world. The importance of time, distance, order, control, sequence, dominates over simultaneity, holism, gestalt, synthesis, and creativity.

Arguably, the urban, literate mind-set has also prevented us from living sustainably. A dream come true can turn out to be the worst nightmare. The human brain, molded by ice with a fierce determination to find and exploit resources, figure out creative ways to use and manipulate those resources, and procreate as often as possible, never anticipated how the world would change once it could actually achieve these goals. The forager mind humans were equipped with, as intelligent as it was, does not act as if it ever intended to deal with problems of urban societies, specialization, population growth, and the technological complexity that evolved. Some researchers, such as Julian Jaynes, speculate that consciousness (as we know it) may have arisen from the confusion and chaos brought about by urbanization and intense human interaction.<sup>2</sup> One thing is for certain: speech-based writing, environmental and health problems, urbanization, formal agriculture, and even possibly consciousness all arose together over a period of a few thousand years as the glaciers receded and the climate stabilized. Since that time, nomadicism and pictographic writing have been systematically abandoned. The last vestiges may remain in a few isolated aboriginal Australian societies, which are under constant pressure to Westernize.

### ***Blood and Television: Retrieval***

The intense focus on the linear and analytical has led to an explosion in technological innovation and miniaturization in order to virtually eliminate traditional dangers such as lions and hyenas. Humans have created many of the problems associated with visual space: alienation from nature and each other, nervousness in dealing with the increasing rush of information technology, ethnocentricity and world wars, environmental devastation, monoculturalism, and unsustainability—to name a few. Technology highlights these problems, creating a dualism between the way we behave and the way we intellectualize our place in nature. We yearn

for integration, we want to be needed, to feel part of a community, to feel at home, to be part of something bigger than ourselves, yet we pick nature apart and impose precision and intense specialization. We look at our history, but do we really see it? The increasing speed we are moving at is tearing us apart, yet we look back only to admire the patterns.

There is increasing evidence that perhaps the direction and intensity of technological development (in particular, information technologies) are devolving away from the linear thinking that created it. Just as magically as we supplanted the sign language and pictographs with writing in our urban and agricultural centers, we may now be abandoning the printed word for images in the “global village.” The twentieth century was the bloodiest in history, but red was not the only color we saw. Visualization and visual communication came to dominate early on with the development and proliferation of images in television, film, and publishing. We not only experienced the bloodshed; we recorded it in vivid, colorful detail. Arguably, civil rights and the environmental and antiwar movements of the 1960s were propelled forward through television and print. Perhaps this is because the entire planet is beginning to look like the same anthill. We run into more conflicts over the same resources and differences of opinion as to how to use them. Thus, it may have more to do with how technology has brought us into increasing contact with one another and these resources.

The twentieth century came to a close with the use of sophisticated visualization in nearly every form of inquiry, analysis, and design. Networks of remote sensing satellites cast a nearly unblinking eye on the planet, just as we paradoxically obscured our view of the heavens with the light and smoke from our cities. In that century, we took 50 billion photographs a year, and the Web gave us a way to share them with everyone on Earth. Image manipulation through programs like Photoshop allowed us to manipulate image content to tell stories the way we wanted to rather than allowing them to remain a snapshot. The medium was not only the message, but became the way of life: the lens through which we perceived ourselves and the world around us.

### ***Why Johnny Doesn't Read: Reversal***

Teachers lament that kids don't read much anymore, but the reality is that neither do adults. It is not uncommon to come across a household without a single book or magazine yet a television in every room. The rest of the time seems to be spent

surfing the Web. Images are increasingly used to portray ideas from the simplest computer icon to the most complex scientific data set. In the digital world, text supports the images rather than images supporting the text. As digital television, digital photography, and broadband data communications get increased market penetration, perhaps the need for text in everyday communication will eventually cease. Images will be manipulated with such ease that today's photographs will seem as primitive as petroglyphs. (How crude and barbaric, after all, is capturing gelatin and dye images for which we must boil the skin and bones of animals and impregnate the resulting goo with toxic chemicals.) Teachers will stop asking why kids don't read anymore and start asking what the meaning is for the way they choose to juxtapose imagery in a specific way. Perhaps then the literate West will be ready to read the rocks, will understand why this intricate form of communication was used, and its value in understanding the history they hold. But by then, most of the petroglyphs will be gone and, with them, their stories.

As the Earth has moved into a new millennium, literate man clings to time, scarcely pausing to look at the now or the historic. "Digital man" may care even less about casting aside his legacy. But while we may not care about history, nature does not let us forget the past. Even as digital beings, or perhaps because of it, we will still have the brain of the nomad. The interplay of memory and the senses that allowed us to survive the Ice Age and populate the planet will compel us with a desire to see, hear, taste, smell, and touch even our own synthetic worlds. Only now we are the geologic force that rapidly changes the climate and shapes the landscape, demanding a flexible, universal way to communicate. The durability of this new language lies only in its verisimilitude and integration into our individual realities as its real form is carried away by the pipe smoke of anonymity.

We have molded the stones into new rocks that speak: the personal computer, the telephone, the television, the fax machine. Perhaps McLuhan's observation was correct that our "electric networks" are an effort to return us to those tribal roots, returning to the rocks, in which we will peck and paint our histories. When LaVan and I were trying to find an effective way of portraying petroglyphs on computers, we failed to observe that perhaps the purpose of these images would translate on its own. Perhaps this ancient visual language is being recapitulated in the World Wide Web and other electronic media.

The ephemeral networked nature of the Web represents our culture spatially, through images at the expense of the written word, allowing its rapid extinction in pursuit of change. Web pages come and go quickly, many of them scarcely exist,

and then, “Not found. The requested URL was not found on this server” appears. Electronic networks rely heavily on the social networks that support them and provide their content. Likewise, no one would have bothered to peck away at sandstone or press text into a page if it was never going to be read. But the nature of computer-based imagery is that it must be reconstructed in its environment for each viewing. It is purely allographic. The technology “performs” the piece precisely the same way each time it is asked. Computer technology is obsolesced in a matter of years, sandstone in millennia.

Where will this lead? The human impulse to communicate and create has propelled us into a world of increasingly complex electronic and social networks, but as other cultures come to dominate us, will this sophistication be forgotten? Will we miss the opportunity to use this new acoustic space to transcend linear thinking? Will we be understood as a bunch of primitives who crowded into cities, laid waste to paradise, and wiled their lives away worshiping glowing stones, advertising slogans, and consumerism? Or will those who analyze our culture, methodically document our images, and slowly decrypt them understand us as sacrificing everything to build networks in a search for truth and meaning, to build a global civil society? Perhaps our images will simply evolve into icons that will be strung together into a new literate culture, which will evolve in visual space to abandon nature once again—to abandon the tribal, spatial roots, and begin a new age of “enlightenment.”

But for now, the rocks continue to be weathered, blasted, bulldozed, and buried; the written page is browned, cracked, burned, and landfilled; Web pages are deleted, corrupted, moved, and unlinked—as the sky turns from pale to blue to pale of dusk, as the Earth turns, as powwows come and go, leaving empty fields punctuated only by a few overflowing trashcans. Dust swirls around in the late summer wind until rain turns dust to mud, flowing into the river, flowing away from the powwow grounds. Now it is a silent place, where a man who talked to stones once held a pair of Apache moccasins glowing in the sunlight, glowing in the eyes of a traveler.

### *Afterword: Eulogy*

After the powwow, LaVan and I continued working together, building a library of existing knowledge. As he continued his ambitious decryption and fieldwork, I sought out and recorded these mysterious symbols where I could and requested

funding from government and private foundations to further LaVan's work. But LaVan Martineau was a free agent, not affiliated with any university. Most foundations found it difficult to understand his work. My pleas for support went largely unheeded.

To me, the most frightening prospect was that of losing this important knowledge without a "backup" copy anywhere, whether through the continued destruction of petroglyph sites around the countryside or a mishap in LaVan's library resulting in the destruction of his precious loose-leaf binders. And worst of all would be the loss of the mind that held this knowledge. Every furrow, age spot, gray hair, clearing of his throat reminded me of black arrows creeping inexorably across the clock face. I imagined the death of LaVan Martineau as the burning of the library at Alexandria.

Within a few years, which seemed to me like seconds, these arrows caught up with him. At the turn of a new millennium, the man who spoke to stones and carried their stories lay in a casket in the Shivwits Tribal School as friends paid tribute with the Bird Dance. "Fly away, fly away, fly away home," they sang as they danced birdlike around LaVan Martineau's coffin, surrounded by his belongings to accompany him on his journey.

The rocks have fallen silent once again. Others will have to take up LaVan's torch and carry it into the cave, to read the rocks once more, to see where ancient strangers pecked figures or touched ochre to stone. At LaVan Martineau's funeral, no one asked why kids don't read anymore. Transformed from the wise elder to a winged spirit, free of suffering, LaVan took some of our history with him as he began to navigate among the constellations. On that day, the construction crews that were building the highways, the subdivisions, the mines and dams must have paused, even if just for a breath. It is not possible that such a passing does not cause our grip to loosen on the tools that worry away the past. But with just as much certainty they must have resumed, compelled forward: nomads traveling ceaselessly through the pristine wilderness of time.

## Notes

1. Steven M. Stanley, *Children of the Ice Age: How Global Catastrophe Allowed Humans to Evolve* (Harmony Books: New York, 1996).
2. Julian Jaynes, *The Origin of Consciousness in the Breakdown of the Bicameral Mind* (Houghton Mifflin Company: New York, 1976).