

"The ultimate hymn to walking." — Carl Honoré

Born to Walk



The Transformative Power
of a Pedestrian Act

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For Maggie, Daisy and Lisa: My reasons to believe

FOREWORD

by Kevin Patterson

The Anthropocene era is a consequence of technology. Humans have marked the world and prevail upon it because of our tricks: the toggle-headed harpoon and the internal combustion engine and the electrical grid. These tools have allowed us to become the next asteroid. The changes they have permitted us to make upon the planet seem as unstoppable as a mass of space rock headed right for us. And they are, so long as we remain on this path, motionless and oblivious.

Motion is the subject of this book. Move, and everything changes, Dan Rubinstein writes: the way people think, how we fear, and how we understand ourselves.

A short while ago I walked along the shore of Hudson Bay. The ice had not come in yet and I watched the tundra carefully. Polar bears had come into town the week before. The reason I felt safe was that the man I was walking with carried a rifle and a GPS. People cannot outrun polar bears and we do not have the internal guidance systems of snow geese. This is the standard construction: we are the weakest animals in nature, but to compensate we have created these technologies to make ourselves formidable. And so we subdue the frontiers — because they frighten us and because we can

It's all wrong. Humans are magnificent large mammals, as wondrous as the 200-year-old bowhead whales in Hudson Bay, or the bears, or cheetahs. What those animals are to the deep dive, to strength and the sprint, we are to the fast walk. Even if we forget it, humans are defined by our ability to walk. Our bipedalism, that is, our anatomy, not our tools, makes us uniquely efficient and fast. My grandfather claimed that over middle and long distances he could walk down a deer, so long as he could follow the track. Fresh snow in the morning meant venison by nightfall on his Peace River depression-era farm. And not a bullet need be wasted.

Hominids spent a million years on the Serengeti walking in the grass. Bruce Chatwin wrote that our bodies, from our brains to the structure of our big toes, are formed for one mission: long journeys on foot. And so long as we made them, humans understood our own capacity. But our tools have made it possible to not do the thing our bodies are optimized for. And so we forget how good we are at it, and we reach the worst possible conclusion: we are weak, unless we depend on tricks.

The Inuit on the shore of Arctic Ocean were among the last of the great walking cultures to settle. When they came into the little towns built by the government they ceased the relentless walking that permitted them to pull a living from a land without trees or even vegetation for all but a couple months of the year. The Thule people walked from Alaska to Greenland a thousand years ago, and until Dylan went electric there were still families moving constantly between hunting sites, watching the horizon and listening to the sound of boots in the snow.

The elders who remember that life do not romanticize it. But they knew then that if they hunted as hard as they could and scoured the land and sea for food, they could keep most of their children alive. It was a dangerous life and many died of hunger and predation and cold, but they were not afraid of the land itself. There are no families living self-sufficiently on the tundra now and there probably aren't any who could. There are no people walking here or anywhere on this planet who can just keep going. And because we do not walk upon the land like that anymore we cannot know it the way we did. We certainly do not feel it. Which allows us to treat it the way we do.

When we stop walking we treat the land — that is, everything — badly, and we do not spare ourselves. ~~Twenty years ago there were no Inuit with obesity-related diabetes in the towns I worked in along the west coast of Hudson Bay.~~ Now diabetes is exploding along with waistlines and the Inuit are quickly coming to resemble all the sedentary people everywhere. Social nets are fraying and diabetes and suicide have become the new white bears, but with far sharper claws and larger appetites.

This is what Dan Rubinstein has written his book about: the beauty of humans walking, and what is lost when we stop. It's a gorgeous reaffirmation of our place on the planet and among our fellow creatures. He shows that, as devastating as the consequences of immobility have been, movement, and all that it brings, metabolically and philosophically, can be recaptured so easily. Just stand up and walk outside. Go. And keep going.

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PROLOGUE

“Perhaps walking is best imagined as an ‘indicator species,’ to use an ecologist’s term. An indicator species signifies the health of an ecosystem, and its endangerment or diminishment can be an early warning sign of systemic trouble.”

— *Rebecca Solnit, Wanderlust: A History of Walking*

“I walk in order to somatically medicate myself against the psychosis of contemporary urban living.”

— *Will Self, New York Times*

The wind whipped across the frozen lake. Wet snow stung my face. It had been falling steadily since dawn, weighing down the scraggly branches of the black spruce and balsam fir that crowded the blurry shoreline. Now mid-afternoon, the flat February light was fading.

Chin tucked into jacket collar, wool toque pulled low over forehead, I shielded my eyes by studying my borrowed snowshoes, glancing up every few strides to gauge my bearings. It was a tedious way to move forward, more shackled than Shackleton. But it gave me plenty of time to think.

Lurching around the park down the street from my semi-suburban bungalow for an hour, I realized, might not have been sufficient preparation. My back ached from pulling a cheap plastic sled laden with 50 pounds of warm clothing and camping gear. I was sweaty, which can beget trouble on a winter expedition. I was thirsty: more trouble. There was chafing. And it was only the first day of a two-and-a-half-week trek. We had another 220 miles to cover.

The distance was daunting, but more so the prospect of travelling through the forest and sleeping in the snow with 60 strangers, all of whom were either Aboriginal or francophone, or both. As a unilingual Anglo urbanite accustomed to solo summer hikes and car camping, I was apprehensive about such close quarters. In fact, this whole trip charted unfamiliar turf. I knew where I was (roughly) and where we were going (vaguely), but I wasn’t convinced I could get there. And, perhaps most worrisome, I had lost track of why I was trying.

There was only one certainty: it was too late to go back.

A search for direction sent me on that winter journey. The world was spinning too quickly. I needed to recalibrate. To slow down.

So I turned to an old habit.

Walking.

Until the previous year, I had followed a conventional trajectory: a happy childhood; a loving marriage; two beautiful daughters; a comfortable house; holidays on the beach; a small cushion in the bank. My career also tacked a standard path, from sports writing and newspaper reporting to a decade as a magazine editor, cresting at the top post at a respected publication. My biggest fears — environmental apocalypse, global economic collapse, runaway technology, retirement savings — were abstractions. With solid First World footing, I was confident I could muddle through, just like everyone else.

Trouble at the office catalyzed my sea change, although the restlessness was already brewing. Financial turmoil threatened to swamp the magazine industry. The non-profit where I worked responded by creating “independent and objective” content in partnership with corporate and

government backers. In a business with countless shades of grey, I saw black and white. A watchdog opening the gate for wolves.

My dream job, which I had moved across the country to take, became a nightmare. Our sponsors were determined to ramp up either public support or profits, and I was aiding and abetting their newspeak. Unhinged from a sense of purpose, I felt the dissonance between what I believed in and what I was doing to pay the bills grow deafening. Energy and optimism ebbed. Simple pleasures (a homemade meal, sunset at the park) lost significance. My family soon tired of my quixotic complaints. I was trumped, rightly so, by more pressing concerns: the leaky toilet, grocery shopping, flu season.

Marooned at my desk, I swivelled round and round, drowning in digital static, a miasma of mediated boredom that, as technology critic Evgeny Morozov writes, “produces a craving for more information in order to suppress it.” For months, I managed the stress by checking my email every three minutes and by taking long lunch-hour runs. Then I tore the meniscus of my right knee, painful albeit comically, by sitting down on the ground awkwardly at a folk-music festival. The joint locked at a right angle, and after my wife helped me stand, I passed out and fell flat on the grass. It was noon. I had not been drinking (yet). On the cusp of 40, I saw this as a sign of aging. Clearly, it was time for a different approach.

A month later, trailed by an entourage of cameras, His Royal Highness Haji Al-Muhtadee Billah, the handsome crown prince of Brunei, one of the world’s richest men, strode into the Carleton University Sports Medicine Clinic for a photo op as I was receiving physiotherapy. He made a beeline for my bedside and asked how I got hurt. Lying back on a mattress with interferential currents zapping my knee, surrounded by flash bulbs and zoom lenses, I did not know how to respond.

“I ... I sat down wrong.”

His Royal Highness looked at me quizzically. “In my country,” he beamed, “we play a lot of badminton.”

Unable to recuperate through racquet sports or running, I self-medicated with long walks whenever possible, following desire lines — paths formed by foot traffic — across railroad corridors and reedy streams. To dampen my causticity, I skipped sessions at conferences to roam around foreign cities, and assigned myself travel articles anchored by hikes. In Reno, Nevada, sweating at the spectre of another panel discussion on the ascendancy of tourism apps, I took a taxi to the trail I could see from my hotel-room window and snaked along Hunter Creek from the high desert scrublands that flank the Truckee valley to the cool Ponderosa pine meadows of Sunflower Mountain. In the rolling, frost-covered hills of Quebec’s Charlevoix region, I hiked from hut to hut for four days with a group of retirees, our age and language differences irrelevant from the start. At home in Ottawa, when my daughters were in bed, I grabbed a water bottle and picked random destinations (a bridge, say, or a downtown monument), navigating by topographic feel and relishing the freedom of going with the flow. I had long been obsessed with walking, both to get from point A to point B and as a way of engaging with the world, but this was different. My habit was metastasizing. Instead of ranting about work, I ranted about walking and refused to use our beige minivan unless absolutely necessary.

Infatuated by transects people seldom experience slowly, I walked from my childhood bedroom in Toronto to my parents’ off-the-grid cottage, spending four days on a commute that takes three hours in a car. It was an attempt to honour the cabin’s ragged spirit, to better understand the well-worn yet never static relationship between city and countryside, between my family and me. One night two, blistered and hobbling, I was saved by the proprietor of a B&B in a reborn brick church. She drew a hot bath and handed me a cold beer. “The world is a book,” she had written in jaunty white

letters on a chalkboard in the kitchen, quoting St. Augustine, “and those who do not travel read only a page.”

Regardless of the destination, at some point during each walk, *everything* would seem better. (Though not when I pulled up lame at a boat launch 20 kilometres shy of the cottage and borrowed a cellphone to call for a ride, giving my father the wrong coordinates, an error he never tired of mentioning.) The harmonic feeling would descend while I was in motion, and sometimes lingered — “a state in which the mind, the body, and the world are aligned,” as Rebecca Solnit writes in *Wanderlust*, “as though they were three characters finally in conversation together, three notes suddenly making a chord.” A chord that was still ringing in the recesses of my brain when, back at my computer, easily distracted from the tasks on my to-do lists, I began tripping over reams of fresh research into the physiological and psychological virtues of walking. The social, economic and creative possibilities too. Was this a frequency illusion, triggered by my obsession? Or a prescription for change?

Whether for transportation or recreation, walking bestows the gift of time. Done by choice, untethered from the market and wireless contraptions, it can be an act of defiance. At its most pure, walking connects us to the people and places where we are *right now*. Also, to ourselves. In the early decades of the 21st century, an era of climactic convulsions, rapacious profiteering, crushing debt, deadly “lifestyle” diseases and the attenuation of non-virtual community, these are precious commodities. They might pay tremendous dividends.

The French have a term for those who view the world through the lens of their vocation, at the expense of a broader perspective: *déformation professionnelle*. After more than 20 years as a journalist, I saw everything, foremost, as a story. Could I apply this condition to walking?

“So, what would you say,” I asked Lisa, my wife, as we did the dishes one evening, “if I made walking my job? For a while?”

She bit her lip. Rinsed a wineglass. Lisa had recently traded freelance writing for stable employment, anticipating my flight of fancy.

“You’d be a walker,” she said. “Or a wolker.”

I took that as a yes.

Seeking specialists who also suspected that something so humble could have a profound impact on our lives, or at least enablers who were willing to listen, I contacted the people whose work I had been reading about. The epidemiologist in Glasgow investigating the links between walking and depression. The criminologist in Philadelphia assessing the impact of police officers on foot patrol. The physiological anthropologist in Japan analyzing how a walk in the woods alters our bodies at a molecular level. The ex-transportation engineer in New York City walking every street of every borough. The scientists in Toronto using a one-of-a-kind laboratory to help people remain mobile. The Brit who walked across the Middle East and Central Asia, then went home and campaigned for a seat in Parliament by tramping around his rural constituency. Admittedly, I was scratching a mid-life itch, escaping as much as approaching. But these women and men, and a couple dozen others, were rigorous and esteemed. And they agreed to share their discoveries.

This book is about the transformative properties of walking. About fissures that anyone can explore. It is the outcome of an experiment both personal and journalistic, an attempt to understand my addiction, to see how much repair might be within range.

I have tried to structure it in a logical way, exploring one main benefit of walking in each

chapter. This is a problematic construction: the anecdotes, statistics and conclusions overlap and magnify one another. There are also geographic boundaries to stumble over. While I touch down in Asia, Africa and Latin America, the focus is on the United States, the United Kingdom and Canada. The cultural and economic forces that have shaped the Anglosphere (our cities and habits, our health and happiness) have incubated a distinct set of challenges.

Maturity, we are told, means accepting that the world is broken. Yet, what if some simple patches were possible? All of the people I spoke to or spent time with, outstanding in diverse fields, have demonstrated, in one way or another, that a renewed emphasis on walking, even in communities facing stacked odds, could be a small step toward somewhere better. That my fix just might be a fix.

Generations of writers have gone down this road. Wordsworth, Thoreau, Solnit, Chatwin and scores of others have crafted lyrical poems, essays and books about the power of walking. I bow their feet. These classics are more relevant now than ever, and they have kindled a resurgence. In 2011 alone, French philosopher Frédéric Gros published a manifesto about the subversive ability of walking to mine the “mystery of presence”; British author Nick Hunt retraced the 80-year-old footsteps of scholar Patrick Leigh Fermor across Europe on a quest to find what remains of the kindness of strangers; historian Matthew Algeo looked back at an era when competitive walking was America’s most popular spectator sport; and naturalist Trevor Herriot embarked on a prairie pilgrimage, wielding “a metaphysics of hope against the dogma that we are aimless wanderers in a world whose chaotic surface is the sum total of reality.” This indispensable paper trail gave my ideas shape and scope.

One of the first guides I talked to was a doctor named Stanley Vollant, the first Aboriginal surgeon from Quebec. A son of the Innu nation, Vollant was striving to inspire hope among Canada’s indigenous peoples by leading group hikes hundreds of miles long, reviving the routes and rhythms of his ancestors. There was a walk coming up. He invited me to tag along.

At the time, I was bogged down by work and domestic responsibilities. But our conversation continued to resonate. “When you begin a journey, you don’t know why,” Vollant had said sagely. “The trail will show you the way.”

My employer held its annual gala a month before Christmas. The country’s corporate and political elite congregated in the grand hall of a museum amid towering totem poles and an arcing wall of floor-to-ceiling windows that frame a view of the federal government’s Gothic revival fortress on the far side of the river. Making small talk with big people is a smart way to climb ladders. But I missed the party. Earlier that day, an orthopedic surgeon had performed an arthroscopy on my injured knee, trimming a torn flap of cartilaginous tissue from the crescent-shaped pad that gives the joint structural integrity.

After three weeks of rest and rehab, I quit my job and assembled a pulk for hauling gear. Then I went walking.

BODY

"Each step we take is an arrested plunge, a collapse averted, a disaster braked... . We perform it daily: a two-beat miracle — an iambic teetering, a holding on and letting go."

— Paul Salopek, *National Geographic*

"Do not judge your neighbour until you walk two moons in his moccasins."

— Cheyenne proverb

Dr. Stanley Vollant was desperate for sleep. He flew to Rotorua, New Zealand, for an indigenous health conference in October 2007, landing drained and depressed after a full day of travel. His second wife had just left him, taking their toddler son. Despite stellar credentials, including a term as president of the Quebec Medical Association, he was overwhelmed by shifts in the operating room, clinics in remote communities and his duties as director of the University of Ottawa's Aboriginal medicine program. Vollant, a charismatic role model with modest roots, had recently put a gun in his mouth and come close to pulling the trigger.

At his hotel in Rotorua, a friend recommended going for a short run to ease the jet lag.

"I'm so tired," Vollant protested.

"You're a marathon runner, Stan. Go for maybe 15, 20 minutes."

"I don't have any strength. I don't feel good."

"Go."

Too weak to argue, Vollant laced up his shoes and jogged into the volcanic valley on the outskirts of town. The primordial landscape, a paradise of geysers and hot springs and bubbling mud pools, was energizing. He had the sensation that he was flying.

During the run, which stretched into three effortless hours, Vollant had a vivid daydream. He was walking in a faraway place. He did not know where.

One night after returning home, back in his rut, he turned on the television. A man was talking about El Camino de Santiago, the popular Christian pilgrimage in Spain. Vollant, who believed in the values but not the hierarchies of Catholicism, looked at his bedside table. On top sat a book, bought five years earlier and pushed aside unread: *The Pilgrimage*, by Paulo Coelho, a novel inspired by the author's experiences on the Camino. The Aboriginal part of Vollant's brain pulled rank on his Cartesian training. He knew what to do next.

The following spring, still squeezed for time, Vollant set out to complete the Camino at an ambitious pace — 26 miles a day for 18 days. Most people take nearly twice as long. "I'm a marathon runner," he told his girlfriend before departing. "I can do this."

She lifted his 45-pound red backpack. An avid long-distance hiker, she never carried more than 20 pounds. "Stan," she warned, "you're going to feel every ounce of this."

"Honey, I'm a strong man. For me, 45 pounds is nothing."

After his first day in the Spanish Pyrenees, Vollant had a half-dozen blisters. With each step, he felt every *fucking* ounce of his pack.

Stubbornly, he continued without shedding any gear, even though there was too much snow to use his tent, forcing him to bunk in communal *albergues*. After 12 days, shivering uncontrollably, he stumbled toward a small-town hotel, fainting twice before reaching the front desk. A long bath and a restaurant meal restored some strength. He pared down his pack in the morning and, ignoring the festering blisters, walked for another two days. Excruciating pain in his toes and an expanding red spot on his shin finally convinced him to take a train to León, where he went straight to the hospital. Doctors diagnosed the infection — fasciitis, a precursor to flesh-eating disease — and pumped intravenous antibiotics into his blood for five days. “Go back to Canada,” he was instructed at discharge. Instead, because doctors do make the worst patients, he returned to the Camino. Which is where the second vision came.

In a barnlike refuge, with the mountain wind blowing bursts of rain in through gaps around the doors, Vollant had a dream as clear as HDTV, right down to his red backpack. This time, he was walking in a familiar forest with Aboriginal youth and elders. They were abstaining from alcohol and drugs, eating healthy food, talking about their cultures, healing bodies, minds and spirits.

When he awoke, covered in sweat, Vollant described what he had seen to a fellow pilgrim. “What am I supposed to do?” he asked. “Why? How?”

“Your people believe that dreams have meaning,” André, a Frenchman, reminded him. “They are the call of destiny.”

Vollant came home from Spain wondering whether he was crazy. Walking across a chunk of Canada was an intriguing idea. Maybe when he retired. When he had more time and money. When his children, a pair of daughters from his first marriage, and his young son, Xavier, didn’t need him around so much. The journey in his dream would require the better part of a year. He could take time off work to attend medical conferences. But not for this.

Nonetheless, friends and relatives encouraged Vollant. Like him, they saw an escalating need for the type of project he had in mind. Not in the future. Now. Thus divined, bolstered by a compelling creation myth, the Innu Meshkenu — Innu Road — took shape. A six-year, 3,800-mile series of walks, in all seasons, between every Aboriginal community in Quebec and Labrador, and a few in Ontario and New Brunswick. Vollant wanted to demonstrate the power of believing in yourself. That any change was possible, as long as you approached it with perseverance. And that walking, at its core a physical tonic, was an ideal way to start.

Canada’s 1.4 million Aboriginal people are a diverse group. Urban and rural, rich and poor, digitally savvy and subsistence hunters, doctors and dropouts, in harmony with the earth and struggling into the gale, there are vast differences within and between southern First Nations, northern Inuit, mixed-race Métis and the 16,000 or so eastern Innu. Demographically, however, when you compare them to the country’s non-Aboriginal population, the statistics reveal an alarming truth: many endure health challenges on par with people in the developing world, despite living in one of the wealthiest nations on the planet.

Aboriginal men and women die an average of seven years earlier than other Canadians. The infant mortality rate is 1.5 times higher. (Among Inuit, life expectancy is 15 years lower than the national average and the infant mortality rate is four times higher.) Aboriginal people are 1.5 times more likely to have at least one chronic medical condition, such as diabetes, high blood pressure or arthritis. Fifty-six percent of First Nations children between the ages of two and 17 on reserves are overweight or obese, compared to 26 percent of non-Aboriginal children, the Public Health Agency of Canada reported in 2009. A year later, in a report called “A Perfect Storm,” Canada’s Heart and Stroke

Foundation issued a warning about heart disease, citing skyrocketing national rates of high blood pressure (a 77 percent jump), diabetes (45 percent) and obesity (18 percent) between 1994 and 2005. Unless something changes, cardiovascular emergencies will overload the country's health-care system. Aboriginal people, the foundation declared, are already experiencing "a full-blown crisis."

Statistics on alcoholism, substance abuse, incarceration (4 percent of the population, 25 percent of inmates) and suicide — the most common cause of death for Aboriginals aged 44 and under — show the severity of this crisis. And there are signs that it will deepen. Canada's Aboriginal population is the youngest and fastest-growing demographic group in the country, increasing by 20 percent between 2006 and 2011, versus 5.2 percent among non-Aboriginals. The median age is 28, compared to 41 in the rest of the country, and almost half of all Aboriginals are 24 or younger. These numbers have dire implications. If today's health inequalities are not addressed, the social and financial costs will balloon out of control.

Centuries of economic and educational apartheid, and the lost generations abused by Church and State at residential schools — the persistent echoes of colonization — have led us here. Acute concerns abound: decrepit housing, domestic violence, toxic water. Triage is required in many of the communities that Innu Meshkenu passes through. And while the project emphasizes the importance of mental and spiritual strength, and the need to re-establish a connection to the land, to tradition and to one another, as any physician will tell you, it's tough to go far without a healthy body.

Vollant's first walk, in October 2010, was a 385-mile solo hike west along the St. Lawrence River, from the Innu reserve in Natashquan, Quebec, to Baie-Comeau, the city closest to Pessamit, the village where he is from, about 370 miles northeast of Montreal. Flying to the starting point in a small plane, he stared down at the terrain he would soon be travelling, questioning once more his sanity. On a map, 18 miles per day seemed reasonable. From 15,000 feet, it looked deadly. Maybe if he went to the nursing station in Natashquan he would be put in a straitjacket and locked away? But then he landed and saw cardboard signs written in Montagnais, his language, welcoming him home. Route 138, the paved highway that extends east from Montreal, terminates just past Natashquan. White people call this the end of the road. To Innu, it is the beginning.

Vollant's momentum has snowballed since he walked to Baie-Comeau in 23 days, with supporters literally coming out of the woods to set up tents and cook meals of moose and salmon. He completed seven more walks in 2011 and 2012, most lasting two to three weeks, distances ranging from 200 to 450 miles. A couple were short excursions, such as the two-day march from Wôlinak to Odanak in southern Quebec in September 2012 for the opening of an Aboriginal college, a trek that drew 150 participants. Even the long walks have been getting more crowded. In some ways, they're similar to *Survivor*, I would discover, only the goal is to get more people *onto* the island.

The winter 2013 leg began in Manawan, an Atikamekw reserve at the end of an icy 55-mile-long gravel road, a four-hour drive north of Montreal. Three months after my knee surgery, I got a ride there with a pair of Québécois walkers, and after I insisted we take a shortcut where the snowbanks soon reached the roof of our hatchback, we retreated to the plowed route and arrived a little late, although not too late for the feast in the elementary school gymnasium. The festivities would begin on "Indian time."

This can be a derogatory term, used to connote an aversion to schedules. But re-appropriated by Aboriginals, ingrained within a long history of adhering to the seasons or the weather or the migratory patterns of animals, not the confines of calendar and clock, it is really, in the words of Ojibwe author Drew Hayden Taylor, "an enigmatic idea based on a uniquely cultural relationship

with time. Simply put, things happen when they happen... . The universe has its own heartbeat, and who are we to speed it up or slow it down?" As I watched a slideshow of photos from previous Innu Meshkenu walks while listening to seven men pound a drum and chant, European time already felt off of whack.

Vollant was still in transit on the eve of the expedition, en route from the Université de Montréal, where he lectures at the medical school when not working as a locum — or stand-in — surgeon throughout the province. The logistics were in the calm, calloused hands of his project manager, Jean-Charles Fortin, an outdoor recreation and adventure tourism instructor at Université de Québec à Chicoutimi. "I grew up in the Mohawk community of Kanasatake, Quebec," he told the group when we gathered on folding chairs in the gym for the first of many circles, confiding to me later that this introduction is mostly a "social lubricant" — he *might* have some Métis blood. Fortin, with his shoulder-length dark hair and shiny dark eyes, does have a problem-solving, those-are-not-my-rules attitude. A diehard mountain biker, he knows all the backwoods trails around Kanasatake. During the month-long armed standoff between the Canadian army and Mohawk warriors over the expansion of a golf course on tribal land in 1990, before the proliferation of cellphones and digital cameras, he ferried rolls of film and notepads around police barricades for reporters, charging \$100 per trip. At the end of the conflict, he had enough cash for a new car.

Fortin found spare rooms in a local's basement for my Québécois companions and me — beds and breakfast from a family without much to spare — and we reconvened outside the school in the morning. My pulk was packed and secured to a padded waist belt with nylon rope fed through cross-hatched aluminum poles. About 300 people came out for the ceremonial departure. There was only one problem: no Vollant. He was making a presentation to students in the gym, a cornerstone of every Innu Meshkenu stop. We stood around and waited, stamping our feet to stay warm. This turned out to be a blessing, because there was in fact a second problem. Fat snowflakes were accumulating and melting on my stuff sacks; my bedding and clothing were getting soaked. Everyone else had a plastic tarp, cinched tight with bungee cords, to keep their gear dry. Despite weeks of planning and provisioning, despite the shelf of tarps in my garage, despite Lisa's suggestion that a waterproof cover might come in handy, I did not bring one.

My aluminum poles clanged like the bell at a railroad crossing as I ran down the hill to Manawan's gas station/general store, the only retailer in town. Rushing up and down the aisles, which were thick with shoppers on a weekday morning, I saw no tarps. Trying not to panic, I broke out my broken French.

"*Je cherche pour un ... tarp,*" I said to a young employee, extending my arms wide to compensate for my woeful pronunciation and Grade 9 vocabulary. "*Un grand tarp plastique. Pour un bateau?*"

He shook his head. Maybe because boating season was months away. Maybe because the short, sweaty guy in front of him clearly required the type of assistance that a general store cannot provide.

Outside, a man wearing a hunting cap was admiring the sleek lines of my baby-blue \$20 sled (purchased at a Canadian Tire outlet with a bountiful selection of tarps). "*Le marcher avec le docteur,*" I mumbled, then repeated my "*plastique, bateau*" appeal. Amazingly, he nodded. After a series of hand gestures, I understood that Mario would meet me at the school with a tarp. Or that I was a fool, and he sincerely wished I would not freeze to death in the bush. Not long after I got back to the staging area, Mario appeared with a grey-green tarp large enough to gift-wrap a rowboat. I gave him a \$20 bill, shook his large hand with both of mine and managed to cover my gear by the time Vollant

arrived.

Sweet grass and sage were burned, elders recited prayers in Atikamekw (an Algonquian language) and French, and then the doctor addressed the crowd. Six feet tall and a little over his running weight at 195 pounds, Vollant had light brown skin, a broad Roman nose and kind eyes. With his long, greying hair tucked away in a bun, the 48-year-old looked like a cross between Kobe Bryant and Mario Lemieux. “My ancestors walked on this land for thousands of years. I am doing as they did,” he said in English with a warm, rich French accent, like narrator Roch Carrier in the National Film Board’s classic animated film *The Sweater*. “These walks are all about individual and community empowerment. People start to believe in their own dreams and become more of a presence in their own lives.” Old and young, women and men nodded, several with tears in their eyes. In an airport hotel banquet room, these words might sound cheap. On the rez, they had left.

Well-wishers lined both sides of the path and showered us with handclasps and high-fives as we walked single-file into the woods. I stuck close to Vollant. He told me about his feverish vision on the Camino. Then the trail narrowed and I fell behind.

Innu Meshkenu participants are supposed to be autonomous. The route is discussed in advance, and signs are planted in the snow to indicate how far you have travelled and where to turn. You carry enough water and food for the day, and Fortin’s logisticians rumble back and forth on snowmobiles to make sure nobody is in danger. “Our job,” one told me, “is to keep you alive.” We were starting soft: an 11-mile kickoff, with backcountry cabins for cooking and eating the first two nights. I was warm, my knee was fine. Still, the pulk and snowshoes were cumbersome, and by afternoon I was weakening.

The wind intensified as I walked atop a meandering river and onto the icy expanse of Lac Mazana. Clumps of snow froze in my beard. Alone in a squall, embarking on my first winter camping trip, away from my daughters for the longest span of their short lives, I wondered whether my search was a fantasy. What on earth would I find?

And then I spotted smoke wafting skyward. Even better: bear hugs from brawny guys I had met only that morning. Welcome to camp one.

With help from the 15-person support crew, men were setting up small galvanized-steel wood stoves inside canvas tents and fitting together sections of chimney pipe. Women spread fir and cedar boughs over the snow for bedding. Evergreen needles and burning hardwood scented the air. The tea and soup were ready, Fortin told me, though I was advised not to take too much. Turkey fajitas were on the menu for supper.

A wiry grey-haired man from Manawan beckoned me into one of the cabins. I hung my waders by the fire, donned down pants and a puffy blue parka that Lisa calls “Fleischman” (the anxiety-riddled Jewish doctor from Manhattan who moves to an Alaskan outpost in the TV show *Northern Exposure*), and followed Jean-Alfred Flamand back out. The 53-year-old moved and spoke slowly at the send-off feast. He seemed tired, frail. Here, after setting a fast pace across the lake, the guy everybody called Napech — “youngest of the elders” in Atikamekw — was downing dead trees with chainsaw and splitting rounds of wood with one hand.

The 45 walkers ranged in age from 13 to 67, and two-thirds were women. Most were from the Atikamekw nation. For centuries, their ancestors were semi-nomadic hunter-gatherers in Quebec’s upper Saint-Maurice River basin. Manawan did not get year-round road access until 1973. Another main village, Wemotaci, only became a permanent settlement in the 1970s. Atikamekw culture remains strong: children learn their mother tongue before French, and hunting is a common activity. But growing up on the reserve presents challenges, including an above-average risk of obesity and

diabetes, and myriad ailments associated with a sedentary lifestyle, poor diet and poverty.

——— Vollant used to drive his SUV or fly into isolated communities to talk to children about the virtues of physical activity, and dreams, but his message wasn't getting through. His way of life appeared out of reach. Now he approaches on foot, taking days or weeks to get there, and kids are more likely to listen. "We want walking to become, again, a social norm in native communities," Fortin had said to me in Manawan. "We want people who take their ATVs 300 metres to go to the grocery store to look stupid. Right now, it's the opposite."

Today, in much of the world, especially North America, we don't walk nearly as much as we used to. Lisa and I may be part of the first generation in 1,000 years to raise children with shorter life expectancies than their parents. Obesity and inactivity are the main culprits. In the U.S., where sidewalks are often the domain of immigrants, the elderly and the poor, people walk less than in any other industrialized nation. "Americans are in the habit of never walking," the Duke of Orléans and future king of France, Louis Philippe, said in 1798, "if they can ride." More recently, a pedometer study showed that Australian adults average about 9,700 steps each day, Swiss 9,650, Japanese 7,150, Canadians 6,700 and Americans 5,100. In Manchester, Kentucky, a town in the Appalachian foothills where 52 percent of adults are obese, double the national average, the *Washington Post* photographed a 12-year-old girl getting a ride to the school bus stop at the end of her driveway.

"The decline of walking," Tom Vanderbilt writes in *Traffic: Why We Drive the Way We Do (and What It Says About Us)*, "has become a full-blown public health nightmare." In this regard at least, 125 years after the massacre at Wounded Knee, Americans and Canadians are on common ground with the people whose land we stole.

After day one's slog, historical wrongs and pedometer counts are the last thing on my mind. All I want is a place to stow my pack. "Take a space in the reporters' tent," says Fortin, nodding toward an open flap. Inside, sitting beside the stove, Mathieu-Robert Sauvé, a fit, bespectacled 50-something writer and videographer from Montreal, is rubbing Vaseline on his feet, a veteran manoeuvre. He completed the previous winter's walk and has been writing about Vollant in French for five years already. Smiling wearily, he shoves his duffel bag into the corner to make room.

"Who else is in here?" I ask, relieved to be bunking with somebody fluently bilingual, even if he is my rival (and has home snow advantage).

"Stanley will be there," says Sauvé, pointing to a pile of gear, including the red backpack, now stuffed with medical supplies. "And his cousin" — police officer Éric Hervieux — "against the far wall." I move Vollant's backpack and unfurl my Therm-a-Rest. Journalists are told not to sleep with their subjects, but nobody has ever cautioned me about sleeping *beside* someone.

Hervieux — stocky, stoic and unintentionally intimidating — ducks into the tent, greets me with a silent nod and lies down for a nap. He lives and works in Pessamit and arrived in Manawan with Vollant in the middle of the night. Our chief is not in camp right now. Vollant took a *motoneige* back to town to prepare for a phone call with the Canada Revenue Agency. Since starting Innu Meshkenu, he has been trading shifts as a surgeon for time on the trail, and his salary has plummeted. This has made it difficult to pay his bills. He is so far behind on support payments to his ex-wives, both doctors, that his passport was taken away — the kind of concern that tends to fade in the forest.

Broiling inside Fleischman, I leave the tent to seek out a chore. It doesn't matter what kind of shape you're in or how tired you are — even if it's frying bannock or mending moccasins, Fortin's orientation talk had made it clear that when you get to camp, you work.

After taking a few ineffectual swipes at a log with a large axe, I settle into my five-foot-four city-slicker niche: carrying branches to the women and distributing kindling to the men. The

more I move, the more energy I feel. Around me, everyone is busy. All of this bustle demonstrates a counterintuitive truth: one of the best treatments for fatigue is moderate activity. Especially if it doesn't feel like exercise.

In 1950, London physiologist Richard Doll published a paper in the *British Medical Journal* illuminating the link between cigarettes and lung cancer. A pioneer in the use of medical statistics, Doll had suspected that road tar or occupational factors might be behind the rising incidence of the disease in the U.K. since the 1930s. But after he and several colleagues completed research projects, they found the smoking gun. It wasn't until 1954 that British health minister Iain Macleod endorsed the findings at a press conference — while chain-smoking at the podium. Kowtowing to the tobacco lobby, only decades later did governments around the world begin their campaigns to curb cigarette use. Big Tobacco buried the truth. Billions of dollars were at risk.

Doll played a behind-the-scenes role in this drama. One of his contemporaries, London doctor Jerry Morris, has an equally hidden historical profile. Which is a shame, because at the same time that we were slowly awakening to the dangers of cigarettes, we had no idea how closely physical activity and health were connected. And judging by the glut of proprietary dieting programs, body-altering surgeries and other commercial cures, we are still in denial.

After serving as a military doctor in India during World War II, Liverpool-born, Glasgow-raised Morris returned to London. Alongside lung cancer, incidence of heart attacks had been increasing, and nobody could figure out why. Morris had a hunch that occupation could be a factor. He led a large study looking at heart-attack rates among Londoners in a variety of professions: transportation workers, teachers, letter carriers and others. The transportation data was ready first, in 1949, and revealed a marked difference between bus drivers and conductors, men from the same social class. Drivers, who sat all day, had more heart attacks; conductors climbed up and down the stairs on double-decker buses. Morris waited nervously for the rest of the data. When it landed, he compared mailmen to clerks. The results confirmed his hypothesis. “Coronary Heart-Disease and Physical Activity of Work,” published in the *Lancet* in 1953, was the first major scientific paper to assert that “regular physical exercise could be one of the ‘ways of life’ that promote health.” Morris has been called “the man who invented exercise.”

In a society where physical toil was rapidly being stripped from the daily routines of white-collar city dwellers, it took a number-crunching doctor to assert a truth that now seems preposterously self-evident. Swayed by Doll's work and his own studies, Morris quit smoking and started jogging. “Exercise normalizes the workings of the body,” he told a reporter in 2009, still regularly doing research out of his office at the London School of Hygiene & Tropical Medicine. “Humans were meant to keep active.” He died two months later at the age of 99.

To commemorate Morris, please stand. Push off with one of your feet and swing that leg forward. When your heel strikes the ground, roll your foot until the toes make contact. Now do the same thing with the other leg. And repeat. A few more times. Sounds simple, if you're able-bodied. It isn't.

Upright ambulation began long before our ancestors evolved into *Homo sapiens* some 200,000 years ago. Anthropologists are not sure exactly when and why the early hominins that predated *Homo erectus* and Neanderthals developed bipedalism. Fossils and skulls found over the past few decades have indicated that we started walking on two feet around 6 million years ago and became mostly bipedal around 4 million years ago. When East Africa's grasslands began to spread, roughly 2 million years ago, we became fully bipedal — the only species of primate to make this leap.

Our bodies adapted to help us navigate the savannah. The prehensile feet that clung to trees in prehistoric forests were last season's model. We had to cover large, open spaces to find food and escape predators. Standing upright also helped us reach fruits on low branches. In *The Descent of Man* Charles Darwin wrote that we needed to free up our hands and arms, which "could hardly have become perfect enough to have manufactured weapons, or to have hurled stones and spears with a true aim, as long as they were habitually used for locomotion." Kent State University anthropologist C. Owen Lovejoy expanded on Darwin's ideas and linked bipedalism to monogamy. Males needed their hands to carry food back to females who were taking care of babies; they became sole providers. Other theories, that we began walking upright to see over tall grasses, or to minimize exposure to the sun, or to facilitate male phallic display, have been largely discredited.

To move efficiently, our ape ancestors developed an inverted pendulum stride, a feat of balance and coordination. "Using a stiff leg as a point of support, the body swings up and over it in an arc," Jennifer Ackerman explains in *National Geographic*, "so that the potential energy gained in the rise roughly equals the kinetic energy generated in the descent. By this trick the body stores and recovers so much of the energy used with each stride that it reduces its own workload by as much as 65 percent." We lacked speed and strength, but this gait gave us stamina, and an edge over other species.

Around 60,000 years ago, our forebears trickled north out of Africa. After loitering around the Middle East for a while, some hung a left toward Europe (my kin), while others fanned out across Asia (Vollant's people). To help us process all the new information we were encountering as we spread around the globe, our brains grew. The great migration reached the Bering Land Bridge about 20,000 years ago, and the Americas experienced their first real estate boom. But nobody stayed put for long. Seasonal foraging and overland trading did not cease, and famines, war and persecution continued to trigger massive waves of exodus. We may have harnessed the power of horses, trains and cars, but walking is survival. When the going gets tough, we get going.

Neuroscientists have a pretty good picture of what happens inside our heads to make us walk. *The Brain from Top to Bottom*, a website produced by Montreal's McGill University, offers a thorough description. Voluntary movement starts in the motor cortex, at the rear of the brain's frontal lobe. The motor cortex communicates with other parts of the brain, including the visual cortex and cerebellum, and the vestibular system, the balancing apparatus in our inner ear — a feedback loop of electrochemical information about the body's position in space, the goal to be attained, an appropriate strategy for attaining it and memories of past strategies. The cerebellum, tucked beneath the back of the brain, is like an air-traffic controller, regulating the details of each motion. Neurons in the motor cortex have long extensions, or axons, that descend into the spinal cord. As we evolved from quadrupeds into an upright species, our bodies realigned into a column, with the long, forward-tilting primate pelvis taking on the squat, vertical form it has today. The skull also changed; the foramen magnum, the hole through which the motor cortex axons connect to the spinal cord, shifted from the back of the skull to the bottom. These axons transit information to motor neurons in the spinal cord via connecting synapses, and the motor neurons send impulses to our muscles, causing them to contract. In total, about 100 million neurons fire, and your foot — an intricate structure with 26 bones, 33 articulations, 111 ligaments and more than 20 muscles — begins to lift.

Coordinated movements are largely the result of patterns, which are easier for the brain to retain and retrieve than individual actions. After babies learn to walk — a progression that requires sufficient strength, balance, practice and brain development — the behaviour eventually becomes automatic because we follow the same process millions of times. (Narrow birth canals were another

by-product of evolution, giving us unique brains that grow dramatically outside the womb, to minimize the risk of getting stuck during labour. As a result, we need more care than other primates. newborns, and our immature brains need more time to master the complexities of self-directed movement.)

Once we're mobile and toddle across the living room a few hundred times, the motor cortex can tune out. "A lot of basic movements never make it to your brain," says Harvard biologist and locomotion expert Daniel Lieberman. "A runner doesn't have to tell her legs what to do each time she takes a step, because there are basic reflexes that tell the legs what to do." When the brain does kick in, it needs only 5 to 10 milliseconds to sense a stimulus, such as a slip on a patch of ice, and another 30 or so milliseconds to make our muscles react.

This automation, argue Australian father-son researchers Rick and Mac Shine, an evolutionary biologist and a neuroscientist respectively, frees up the brain to concentrate on more complex matters. Walking upright, they theorize in a 2014 paper, made our species smarter. When we started to stand on two legs, "our brains were overwhelmed with the complicated challenge of keeping our balance," says Mac, "and the best kind of brain to have was one that didn't waste its most powerful functions on controlling routine tasks... . So, humans are smart because we have automated the routine tasks, and thus, can devote our most potent mental faculties to deal with new, unpredictable challenges."

The human brain may be our most sophisticated feature, but it is only a small part of the planet's most complex machine. Thousands more internal mechanisms keep us walking. My favourite with a nod to my sitting injury, is synovial fluid. When you move, the yolk-like liquid in your knees and other common joints (hips, ankles, shoulders) gets warmer and thinner, and more easily absorbed by cartilage. This "human motor oil" does more than act as a lubricant. It supplies oxygen and nutrients to the cells that maintain a healthy cartilaginous matrix. Once infused with the liquid, cartilage swells like a sponge, cushioning against compression. When squeezed, fluid and metabolic wastes are discharged. Without this cycle, the cartilage deteriorates, and the joint doesn't operate as smoothly as it should.

Your heart also needs exercise to remain healthy. Through regular exertion, it grows larger, stronger and more efficient, pumping out a greater volume of blood with each beat. This blood carries vital oxygen to your muscles. Your body fuels this activity by consuming stored carbohydrates and fat, preventing plaque buildup in your arteries and burning calories that would otherwise add weight. Clear arteries and a lean physique allow the heart to pump at a lower pressure, which reduces the strain on the organ. All this work raises your temperature slightly, which releases hormones such as epinephrine and glucagon, helping muscles absorb energy. Endorphins flow into your brain, blocking pain signals and producing feelings of pleasure. Levels of insulin, which makes the body absorb glucose from blood, drop. Most people, if they remain hydrated and eat right, can walk for hours with virtually no wear and tear.

Evolutionary compromises have left us in the lurch in some respects. The vertebral column, originally an arch, developed a pair of S curves, in the lower and upper back. These help us maintain balance while walking but aren't so great at bearing weight. Delicate vertebral disks can slip or squish together. More than 15 million Americans go to the doctor with back pain every year. Bipedalism also imposes forces equal to several multiples of our body weight on the knee and foot, says physical anthropologist Bruce Latimer, resulting in injuries. Meniscus tears and arthritic knees are commonplace. A flat foot can lead to fatigue fractures; too much of an arch can inflame ligaments or cause plantar fasciitis. "We have a desire to see the story of bipedalism as a linear, progressive

thing, one model improving on another, all evolving toward perfection in *Homo sapiens*,” says paleontologist Will Harcourt-Smith. “But evolution doesn’t evolve toward anything. It’s a messy affair, full of diversity and dead ends.”

Bad backs and blown knees notwithstanding, the therapeutic properties of travelling around on your feet are powerful. By using our bioelectrical, biochemical, respiratory, muscular, cardiovascular and skeletal systems in such a controlled manner, our body gets the workout it needs to function optimally. This measured exertion protects people from obesity, coronary disease, heart attacks, strokes and Type 2 diabetes, which is a leading cause of vision loss, kidney failure and limb amputation. Walking builds bone mass, strengthens the muscles in your arms and legs, and gives your joints better range of motion. It enhances your balance, preventing falls, and eases back pain (most of the time, anyway). It lowers the risk of glaucoma by reducing intraocular pressure. Tests on mice have shown that brisk walking may slow the death of light-sensitive retinal cells by stimulating production of a protein called BDNF, a discovery that could help prevent macular degeneration, the leading cause of blindness among the elderly.

The take-away: walking keeps you healthy and helps you live longer. Or, as Hippocrates said, “walking is man’s best medicine.”

The internet is flooded with academic papers that support this ancient aphorism. Rather than deconstruct the corporeal rewards of walking from head to toe, let’s focus on a pair of survey studies. In 2008, two scientists from University College London did a meta-analysis of walking research published between 1970 and 2007 in English-language, peer-reviewed journals. They looked at almost 4,300 articles and concentrated on 18. These studies, which investigated the well-being and walking habits of about 460,000 people, lasted an average of 11.3 years. A comprehensive range of health characteristics and events were considered: age, smoking, alcohol use, heart attack, heart failure, coronary artery bypass surgery, stroke and death. The analysis, as summarized by Harvard Medical School, determined that walking “reduced the risk of cardiovascular events by 31 percent, and it cut the risk of dying during the study period by 32 percent. These benefits were equally robust in men and women. Protection was evident even at distances of just five-and-a-half miles per week and at a pace as casual as about two miles per hour.”

Average adult walking speed is approximately three miles an hour. Your body benefits as much from walking a mile as running a mile — it just takes longer. (“Anywhere is walking distance,” quipped comedian Steven Wright, “if you’ve got the time.”) The important thing is that you’re not sitting still, which was the focus of a second British survey report, led by Emma Wilmot of the University of Leicester’s diabetes research group. Her paper, published in 2012, analyzed 18 studies and the lives of nearly 800,000 participants, and led headline writers to roll out a phrase we’re likely to hear a lot more of in the years ahead, one that harkens back to the work of Richard Doll and Jerry Morris: sitting is the new smoking.

Wilmot’s team compared the disease rates of active and inactive adults, and found that people who sit much of the day had a 147 percent greater risk of heart attack or stroke, a 112 percent greater chance of developing diabetes, a 90 percent greater risk of dying from a heart attack and a 49 percent greater risk of premature death. “These are sobering numbers,” wrote *Globe and Mail* health reporter André Picard. “The average Canadian adult spends 50 to 70 percent of their daily lives sitting and roughly 30 percent sleeping. Do the math, and you quickly realize that between sitting in our cars, sitting at our desks at work, sitting in front of the TV, sitting in front of our games consoles, sitting to eat, sitting in school, we hardly move any more.” People who sit most of the day, says Mayo Clinic cardiologist Martha Grogan, have about the same risk of a heart attack as a smoker.

Toronto physician Michael Evans has done the math. Exploring novel ways to speak directly to patients, he made a whiteboard video called *23 and ½ Hours* that has nearly 4.5 million views on YouTube. Evans wanted to tackle the sitting-disease epidemic. He started with a question: even if you are inactive for all but half an hour each day, what's the single most constructive thing you can do for your health in those remaining 30 minutes? Eating more fibre, oral hygiene, regular checkups — there are many options. But the biggest return on investment, he decided, comes from exercise. Mostly, to be practical, from walking.

That's not a message one hears frequently in our siloed medical system, or from the commercial industries that have developed around obesity, diabetes and heart disease, with the quest for cures often driven by studies financed by pharmaceutical companies. Moreover, funders who donate millions of dollars to hospitals want to buy "fancy new machines," says Evans, not support workaday initiatives to get people moving. "I would do a walking intervention before anything else. Programs that get people active give you more bang for your buck.

"I want to start a movement," he adds. "How can we make our days harder? We need to create a Ministry of Habit."

The medical system is "woefully out of touch," agrees Halifax psychologist Michael Vallis, a professor at Dalhousie University and head of the Orwellian-sounding Behaviour Change Institute (BCI), which teaches health-care providers how to alter their patients' conduct. "It's geared toward acute problems, but lifestyle diseases are overwhelming the system." So many people will be so sick, hospitals and health-care workers won't be able to keep up, and governments won't be able to handle the bills. Forget peak oil — peak Medicare might cripple us first.

Globally, the number of overweight and obese people soared from 857 million to 2.1 billion between 1980 and 2013, according to an article in the *Lancet*. The study, which looked at data from 188 countries, recorded a 28 percent increase among adults and a 47 percent increase in children. Numbers rose in both developed and developing nations. The global economic downturn was a factor. Tough times make people choose food based on price, not nutritional quality, says the Organisation for Economic Co-operation and Development. As unemployment spiked in the U.S. in 2008 and 2009, the consumption of fruits and vegetables declined.

The BCI is focused on healthy eating, physical activity and managing the stresses and strains of daily life. Changing our habits around these core activities is extremely difficult. Often, we are prisoners of the patterns we establish, or the patterns circumstances impose. For years, says Vallis, doctors have said "move more" to sedentary people. Some go so far as to write prescriptions instructing patients to go for a hike. But this approach, like telling smokers to butt out, has limited effectiveness. "This is a complicated problem," says Vallis, "that requires a complicated solution."

When Stanley Vollant holds clinics in Pessamit and other Aboriginal villages, patients often ask him for pills or an operation to remedy their ailments. Regardless of the problem, they don't want to put in the effort themselves. For many, the chasm between who we are and who we want to become is wide, and a reimagined future can feel out of reach. Which is why Vollant says, "You always have to concentrate on the next step, the next hill you're going to climb."

He tells me this as we pull our sleds up a slope on a snow-covered logging road on day three of the expedition. By myself most of yesterday on a 14-mile-long snowmobile trail in the bush, several times I wished I was back home. In the sun, resting briefly, sipping from a thermos of tea, I heard chickadees and spotted fox tracks, and was content. But then the clouds and wind returned. I was tired, cold, alone. So today I hustle to catch up to Vollant.

“Where are we camping tonight?” I ask, uneasy about our first stop without cabins.

Between the road and a small lake, he tells me, a site scouted by Fortin.

“Do you need a permit?”

“Why would we need a permit?” he says, stopping for a swig of water and a bite of moose jerky. “It’s our land.”

As befits a man with feet in two worlds, Vollant wears Merino wool and Gore-Tex layers under a hand-stitched jacket made from canvas, a technological revolution for the Innu when it was introduced by Europeans in the 1850s. It allowed them to travel light. His gear, wrapped under a blue tarp on a wooden toboggan like the one his grandfather used on hunting trips, includes the bulging red knapsack. Inside are bandages, sterile scissors, cortisone, tensor wraps, moleskin. He lances blisters during morning bush clinics and dispenses Motrin in the middle of the road. Stretching, meditation and traditional knowledge will take you only so far. Sometimes you need modern meds to keep moving.

Vollant did not want to become a doctor. He was going to be a hunter and fisherman like his grandfather, Xavier. Born in Quebec City in 1965, Vollant was put up for adoption by his young single mother, Clarisse, who had been sexually abused at residential school and smothered the pain with alcohol. Xavier got an advance from the Hudson’s Bay Company for the next season’s furs, flew to the provincial capital and brought four-day-old Stanley back to Pessamit, at the time a village of about 1,500. His mother visited about once a month until she died, too young, on the streets of Montreal. Vollant fished for salmon with his grandfather all summer and hunted for caribou, moose and other game in the fall, sleeping in prospector tents like the ones used by Innu Meshkenu. He went away to high school in Wendake, a reserve in Quebec City, living with a relative but returning home every spring. He wanted to stay in Pessamit, but Xavier, before being killed by a drunk driver in 1982, insisted that his grandson go to university. Afraid not only of blood but also dead bodies, Vollant was set on engineering. He wanted to build dams and roads — “to make a difference in my community.” But then, at age 17, he had a bizarre encounter while trying to sneak into a bar with some friends after they had shared a six-pack on the beach.

Phillip, a Pessamit drunk, grabbed Stanley by the hand at the door.

“I want to talk to you,” he slurred, spitting in Vollant’s face, wobbling unsteadily.

“I don’t have time, Phillip.”

“I have something very important to tell you.”

“Okay, but be quick.”

“I heard that you are going to become a doctor.”

“No.”

“Yes, Stanley.”

“No.”

“Yes.”

To abbreviate the conversation, to catch up with his friends, Vollant agreed.

“I’m so proud of you,” said Phillip.

“Okay.”

“My parents are proud of you.”

“Sure, sure.”

“You’re going to be the first doctor from the village.”

“Sure, okay. Just let me go.”

Phillip must have misheard something, Vollant figured the next morning. Still, he couldn’t

shake the idea, even weeks later, and he applied to the Université de Montréal medical school. Although he fainted before his first dissection session, and fainted again during a clinical immersion in a small Quebec town, his hands were steady and precise from butchering game, and he graduated at age 24, determined to become a surgeon. Only later did he learn that his grandmother, Marianna, had been one of Pessamit's last shamans. She spent time alone with him, and not with other grandchildren. An inheritance he blends seamlessly with Western science.

It's natural for Vollant, one minute, to be talking about serotonin and dopamine, the pleasure chemicals your body secretes when you are active. Alongside endorphins, they diminish pain. The less pain you feel, the less you will reinforce the neural pathways that carry pain signals between the brain and the body. So take Tylenol if you need it, he advises. Then the next minute, he'll morph from medic to mystic and say, "Don't fight with pain. You have to feel some pain to know the meaning of a journey. But if there's too much pain, if you're stuck in the past, the bad memories will keep coming back. It's okay to have memories, to learn from them, but if you're too focused on the pain it's going to get worse."

For some of the walkers — suicidal teenagers, victims of violence, overweight diabetics — this is critical advice. Feel the pain, understand it, let it go. For me, it means accepting that my body and will broke down on a pair of previous multi-day hikes. Prior to the aborted trek to my parents' cottage, I tried to complete Alberta's 200-mile-long Waskahegan Trail in a week. By the second afternoon, my knees and I were done.

Heeding Vollant's counsel, I review the mistakes I made on those two forays into the miles: poor prep, bad boots, heavy loads. Hubris. Haste. I mentally scan my Achilles' heels (post-op right knee: fine; left knee: sore; feet: blister-free; nerves: not bad). Then I will my attention to the rolling road ahead.

Éric Hervieux, 38, who has walked shotgun with Vollant on all but the first trek, is at the front of the pack, as usual. Wearing wraparound shades and top-of-the-line ski gear, he blazes ahead to the next camp, ensuring there is a warm and comfortable tent ready for his cousin. *Policier* as protector.

Not far behind is Nathalie Dubé, a petite and athletic 47-year-old from Manawan. Dubé started drinking heavily while living with her abusive husband. Now separated and on her second Inn Meshkenu walk, she is sober and 100 pounds lighter. She swapped red meat for fish, nuts and tofu, and walks to and from her job as a receptionist at the elementary school, plus a recreational stroll every evening. Her daily walks average around seven miles, and she looks at least twice that many years younger than her age. "I realized that life is simple," Dubé would tell me, through a translator, a few days later. "I realized that life is beautiful."

Alexandra Awashish, 38, a former band council adviser from Wemotaci, is near the back of the group. She has four kids and lives on social assistance. Her physique is far from sporty. Her feet hurt, her body aches, each hill is a mountain, but in her head, Awashish says, "everything is going into the right place." She wears a Superman cape when she walks and plans to run for chief.

We know that walking can help us live longer, yet we're only starting to understand that where we walk also makes a difference. Roughly 80 percent of Americans live in urban areas with at least 2,500 people, nearly 60 percent in cities of 200,000 or more. One hundred years ago the urban-rural split was 50-50. The numbers are comparable in Canada. Globally, half of the population had become urban by 2008, a leap from 10 percent a century ago. Densely inhabited cities — walkable cities — are one way to reduce our carbon footprint, and to help us get to know our neighbours. (I'll address these subjects

in subsequent chapters.) But beyond exercise, there are other physical benefits associated with getting out of town for a walk. And though the research of Japanese physiological anthropologist Yoshifumi Miyazaki is preliminary, he is doing the same thing as Jerry Morris: trying to substantiate a link that is hidden in plain sight.

Miyazaki, vice-director of the Centre for Environment, Health and Field Sciences at Chiba University, east of Tokyo, is the world's leading expert on "forest bathing." *Shinrin-yoku*, a term introduced by Japan's Ministry of Agriculture, Forestry and Fisheries in 1982, is said to be able to do everything from lowering stress and blood pressure to preventing cancer. These benefits are partially attributed to the presence of phytoncides — the essential-oil-like scents swirling around trees, anti-microbial volatile organic compounds emitted to protect against rotting and insects. Scientists have been looking into their potential medicinal properties since the 1990s. One Japanese study found that mice kept in a fragrant environment enriched with a phytoncide called α -pinene showed reduced melanoma growth.

There are 48 official forest-therapy routes in Japan, and *shinrin-yoku* research has spread to South Korea and Finland, where nascent forest-therapy centres are spending hundreds of thousands of dollars on trails and testing. Miyazaki and his colleagues use hormone analysis, brain imaging and simple measures such as pulse rate and blood-pressure readings to study what happens at a molecular level while people walk in the woods and when they stop. Comparing forest walks with urban walks among more than 600 subjects in his seminal study, Miyazaki concluded that nature yields "a 12.4 percent decrease in the stress hormone cortisol, a seven percent decrease in sympathetic nerve activity, a 1.4 percent decrease in blood pressure, and a 5.8 percent decrease in heart rate." The sympathetic nervous system activates our "fight or flight" response (more on this next chapter). The drop in cortisol levels is significant because cortisol is released as a reaction to stress, and because it inhibits the functioning of our immune system. *Shinrin-yoku*, says Miyazaki, is an "effective and beneficial treatment for people of all ages and backgrounds."

One of his collaborators, Qing Li, an immunologist at Tokyo's Nippon Medical School, is focused on the impact of forest bathing on our natural killer, or NK, cells. These cells attack tumours and help contain bacterial and viral infections. Middle-aged Japanese businessmen who went into the forest for walks experienced NK cell count increases of 40 percent, Li found in one experiment. A month after the trip, levels were still up 15 percent. There was no change among control-group subjects who walked on city streets, although a suburban park will provide an NK boost. In another experiment, Li exposed people to vaporized stem oil from the Hinoki cypress tree in hotel rooms, spurring a 20 percent increase in NK cell counts after three nights compared to the control group. "It's like a miracle drug," he said to *Outside* magazine writer Florence Williams.

But perhaps we shouldn't be surprised. After all, we have lived in a natural environment for 99.99 percent of the past 5 million years, Miyazaki and his team wrote in the *Journal of Physiological Anthropology*: "All human physiological functions have evolved in and adapted to the natural environment ... the physiological functions of the human are made for the forest."

Li considers forest bathing a preventative medicine, an alternative therapy that encourages relaxation and stress reduction as a way to lower the risk of certain diseases, including cancer. Its tenets are more accepted in Japan than in North America. But things are shifting on this side of the Pacific, and the research being done by Miyazaki, Li and their peers is essential, "a Rosetta stone," naturopathic physician Alan C. Logan, the co-author of *Your Brain on Nature*, said to Williams. "We have to validate the ideas scientifically ... or we're still stuck at Walden Pond."

Back in Quebec's boreal forest, the barometer is falling. It's night five of the walk, and a storm is coming.

Twice a day, after breakfast and before supper, we form a circle and hold hands. There are prayers, technical briefings, and then, finally, Vollant speaks. "We are bonding," he says each time, "like a big family."

Coming into this trek, I had never sung "Kumbaya." Never went to summer camp. Never said grace. Never gave props to the Creator. Last time I was in a synagogue, it was for a classmate's bar mitzvah, nearly 30 years ago. I was not called to that bar. Spirituality has never been a ritualized practice for me. But here in an earthy temple, gloved fingers entwined with those of a pair of middle-aged women one day, two teenaged boys the next, I have felt it: the kinship of a shared journey. "*Il n'y a pas de culture sans culte*," Sauv , who shares my secularism, tells me, quoting French-Canadian writer Jean-Paul Desbiens. There is no culture without cult.

In the 1960s, American psychologist Bruce Tuckman mapped out four stages of group development: forming, storming, norming and performing. We are hitting stage two, and at this evening's circle Vollant calls us out sternly. There's been some bickering among the logisticians, and many of us, including a certain branch schlepper, are not lending a hand as quickly as before. It is taking too long to set up and tear down camp, and wet snow has been falling all day, again, which has made the firewood and tents (and walkers) soggy. Last winter's Innu Meshkenu expedition to Manawan almost broke apart on the fifth day, says Vollant, his voice rising. "You're tired of yourself and we're tired of each other," he says. "But remember: we are one big family."

Yes, take care of your own needs, but do not rest until everyone else is warm and comfortable. That is how Aboriginal Canadians — all Canadians — used to live. And that is why his grandfather would be rolling over in his grave if he saw how greed and apathy had supplanted the ethos of sharing and resilience among his people today.

"Your toboggan is an important symbol!" thunders Vollant, a preacher on the pulpit. He wants walkers to stop asking logisticians to shuttle their sleds. "Your ancestors pulled 200 pounds in their toboggans. Without them, they would have died. Even if you only carry your water bottle in your sled, take it! We are proud people. We don't want snowmobilers passing by and saying, 'Look at those Indians. They're letting machines do their work.'"

The trouble is, as psychologist Michael Vallis points out, we are hardwired to let machines do our heavy lifting. Western society has "advanced" to the point where the brain's operating system does not serve our best interests. To successfully adapt to our largely urban environment, we need to override three of the basic rules that govern our behaviour. To save calories, we are programmed to choose the path of least resistance. This made sense when we were struggling to survive on the savannah. Today, it's the reason we stand still on escalators, park close to the doors at the mall and purchase the iRobot Roomba 880 to vacuum our floors. Second, we are prisoners of the pleasure principle: avoid pain, seek pleasure. Our choices used to be "run or get eaten by a bear" and "eat some berries or starve." Now we can sit on the La-Z-Boy gorging on jelly doughnuts without fear of being attacked by so much as a mosquito. Finally, we go for instant gratification. We watch TV while shovelling in potato chips, instead of asking, "How will I feel tomorrow if I take a walk today?"

Vallis and his colleagues at the Behaviour Change Institute equip health-care workers with knowledge and techniques they can use to encourage people to get fit and eat healthy — for example, helping people develop "distress tolerance," so they can suck it up during the demoralizing early stages of an exercise regime. Simple measures, like getting off the bus a few stops early, or taking the stairs instead of the escalator, can be effective. Clients in his obesity program get passes for a parking

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