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Skiing on Copper and Coal

With heavy hearts, five friends explore land scheduled for “fracking” and open-pit mining

John Gioia

It would be madness for the sake of a single mine of modest potential to compromise a place that could one day be as important to the world as Banff, Jasper, Yosemite, the Grand Canyon of the Colorado, or the mountains of Tibet.

—*Wade Davis*, *The Sacred Headwaters: The Fight to Save the Stikine, Skeena, and Nass*



DURING WINTER 2012, FOUR FRIENDS AND I TRAVELED TO THE remote woods and mountains of northwest British Columbia for two months in search of true wilderness adventure. Living among and interacting with the native Tahltan and traveling within the alternately gentle and harsh solitude of the Sacred Headwaters, our lives were profoundly changed. In early February, our journey began from Colorado as we embarked for Iskut, British Columbia, nearly 2,500 miles north. As we drove, we accumulated gear and food and pushed the car (and ourselves) to the brink. With dry bags strapped to the roof two rows high, gear sleds fully loaded resting on our laps, a trailer-hitch luggage carrier perilously supported by rope stays, 45 days' worth of rations, eight pairs of skis, winter camping gear, and camera equipment bulging out of every corner of the trusty vehicle, we barely made it to our final snowy destination ten days later. With the support of a *National Geographic* Young Explorers grant, we left our jobs, homes, and family. We succumbed to the lure of first descents, expedition, and the northern lights. We looked for answers to the Tahltans' questions: Who would protect the Sacred Headwaters? Within days, our vocabulary had been reduced to a few basic terms: "This is so amazing," "Yes!," and "I'm never going home!" Within a couple of weeks, we had to create our own words and phrases to convey our ecstatic feelings.

Our crew had visited the area on a backpacking expedition to the Spatsizi Plateau Wilderness Provincial Park in summer 2010. While in the area following our backpacking expedition, local residents indulged us with stories of Tahltan history and culture, of Spatsizi, and of the Sacred Headwaters. What began as reminiscences of times past soon grew into lamentations of the current issues facing the Tahltan, and the Sacred Headwaters, a vast wilderness encompassing the headwater lakes and streams of three of Canada's greatest salmon-bearing rivers. Wade Davis, anthropologist and *National Geographic* Explorer-in-Residence (our host), and his friend Jim Bourquin, an expat from Oregon who lives in Iskut (one of three Tahltan towns), explained over a campfire and moose stew that natural gas, anthracite coal, copper, and gold were the primary focuses of major development projects that currently exist in the exploratory phases. Thickly bearded and indeed a sturdy man after 40 years spent in the north woods, Bourquin explained that Mount Klappan and its surrounding valleys were to be the site of hydraulic fracturing (also known

The author's four companions on a ridge in the Sacred Headwaters of northern British Columbia, where mining interests could threaten the water's purity. JOHN GIOIA

as fracking) containing several thousand wells on behalf of Royal Dutch Shell, as well as Fortune Minerals' anthracite coal mine. Davis, wildly charismatic and quick to pounce on any opportunity for a story, spoke of the magnificent lake chain and valleys below Todagin Mountain, home to North America's largest herd of stone sheep, and a sacred Tahltan hunting ground. Together as old friends recalling the good old days, they built up the beauty and wonder of the massif, describing in colorful detail legendary stories of Tahltan elders hunting on its windswept slopes and frigid plateau summit. They further explained that Todagin Mountain is endowed with vast deposits of copper and gold, and that Imperial Metals was considering the potential to locate an open-pit copper and gold mine directly on its summit. Our hosts' stories soon returned to the more joyful epic tales of wilderness travel in Spatsizi, but the message of development had permeated deeply within our minds. We knew we wanted to go back.

Although Shell has since withdrawn its plans and the Canadian government has sanctioned a permanent moratorium on natural gas exploration in the Sacred Headwaters, the anthracite coal, copper, and gold mines remain in the developing stages and pose serious threats to the land and watersheds within the Sacred Headwaters. Home to the birthplace of three of Canada's largest and most important salmon-bearing rivers—the Skeena, the Stikine, and the Nass—the Sacred Headwaters lie within Tahltan First Nation territory, land that has never been ceded to the Canadian government. Mount Klappan sits at the heart of the Sacred Headwaters in the Klappan Highlands and is surrounded by the headwater lakes, muskegs, and tributary streams of these three magnificent rivers. The Sacred Headwaters, these three watersheds and rivers (atop British Columbia's Most Endangered Rivers of 2012¹), and the Tahltan are in imminent danger of losing to mineral mining the pristine and untrammelled wilderness that year after year produces massive amounts of clean and pure water.

The size and condition of the wilderness surrounding the Sacred Headwaters is staggering. As Davis says, it is a “wild horizon where Canada could hide England, and the English would never find it.”² Indeed, the area holds wolf packs 25 large that feast on moose, leaving the remains to

¹McCall, Jeremy. “Sacred Headwaters and Kokish River Jointly Top BC's Most Endangered Rivers List for 2012.” Outdoor Recreation Council of British Columbia, March 12, 2012. Web: May 20, 2012. orcbc.ca/index.html

be scavenged by lone lynx and wolverines. Grizzly bears gorge themselves on the annual salmon runs. With a 3,000-head herd of Osborn caribou on the Spatsizi Plateau, stone sheep on Todagin Mountain, and mountain goats deep in the Grand Canyon of the Stikine, the Sacred Headwaters, or as the Tahltan refer to it, Klabona, is one of the largest unspoiled wildernesses in North America.

The mountain ranges within Klabona are complex; steep imposing peaks, wind-scoured and jagged at their apex, give way to rolling and awe-inspiring glacier-capped massifs. BC Rail leveled a railroad grade in the 1970s but abandoned the project before a single track was laid; now a road, it is one of few traces of humanity in this vast wilderness. The grade cuts through the valleys of the Klappan Highlands, crossing over the headwaters of the Stikine and Skeena and just to the east of Mount Klappan itself. The grade is now a right-of-way road for Fortune Minerals (which is exploring placing an anthracite coal mine on top of Mount Klappan) to access the area. In 2005 and 2006, a group of courageous Tahltan elders led residents in a blockade of Ealue Road (which eventually intersects with the rail grade) at its turnoff from the Stewart–Cassiar Highway. Oscar Dennis, a key figure in the blockade and a resident of Iskut (“Is-koot”), remembers Tahltan elders telling the Shell representatives that they depended on the Sacred Headwaters for food. “This is our kitchen box. Stay out of it. This is who we are.”³ Although Shell’s efforts were eventually thwarted, major concern still exists pertaining to the proposed mining projects. Imperial Minerals’ Red Chris Copper and Gold mine will operate for nearly 30 years atop Todagin Mountain, a traditional stone sheep hunting ground for the Tahltan and home to the world’s largest herds of that species. Exploratory camps have already taken a toll on the stone sheep population. As Tahltan elder Jerry Quock of Iskut explained, “There used to be a lot of rams Since that mine camp moved in there, they moved out. Too much noise. The animals don’t like noise.”⁴

The peaks and glaciers of the Skeena range provide the headwater deposits of the Stikine, Skeena, and Nass rivers. The valleys and grasslands below

³Davis, Wade. *The Sacred Headwaters*. Vancouver, British Columbia, Canada: Greystone Books, 2011.

³Dennis, Oscar. Personal Interview, April 2, 2012.

⁴Quock, Jerry. Personal Interview, April 2, 2012.

define Klabona as the “headwaters of the grasslands,” according to Dennis. Although Klabona has become known as the Sacred Headwaters, for the Tahltan, it simply has been home. These three rivers are the lifeblood of Tahltan tradition and their ceaseless free-flowing supply of clean water sustains annual salmon runs that nourish and sustain ecosystems and downstream communities, human and wild.⁵

The lure of the wilderness had already sunk its talons yet again before we had even departed from our backpacking trip. Given their locations within the Sacred Headwaters and the threat of fracking and open-pit mining, Mounts Klappan and Todagin served as perfect locations for our next adventure.

WE TURNED TO BOURQUIN AS WE PLANNED OUR RETURN TRIP, communicating frequently in the months leading up to our trip north. Despite our meeting him and regaling the wonders of Spatsizi over the campfire a couple years prior, we were unsure what to expect this time because our ambitions reached beyond the realm of pure adventure. The Bourquins live in the town of Iskut, one of three towns populated by the remaining Tahltan, and the closest to the Sacred Headwaters. Bourquin, always quick to offer a welcoming smile, is a semi-retired conservation advisor, husband to Tahltan native Erma Bourquin, father, and grandfather. His expedition guidance as well as advice and knowledge concerning Shell’s and Fortune Minerals’ Mount Klappan projects and Imperial Metals’ Todagin project was invaluable. He explained that Imperial Metals’ plans to locate its tailings impoundment area, responsible for slowing the release of toxic chemicals from rock waste, “right at a divide in such a way that the mine could be polluting a couple different watersheds.”⁶ The divide is home to Black Lake, a headwater lake of both Todagin Creek and the Klappan River, both major tributaries of the Iskut River, which itself is the largest tributary of the Stikine. The tailings “pond” would make a three-dam reservoir out of a magnificent valley system and would lack any liner, be it a concrete basin or a water treatment facility. This would inevitably lead to toxins leaching into the headwaters of the Stikine River. In the words of Davis, “To place [a copper mine] on Todagin, given its location and the extraordinary economic significance and beauty of the headwater lake district that it anchors, is like drilling for oil in

⁵McPhail, Shannon. Personal Interview, February 18, 2012.

⁶Bourquin, Jim. Personal Interview, April 2, 2012.

the Sistine Chapel.”⁷ Upon arrival in Iskut, Bourquin proposed we follow a system of marked historical trapping routes in the wilderness surrounding Todagin Mountain with the goal of reaching Black Lake and then follow the lake chain along the edge of Todagin back to the Stewart–Cassiar Highway. He emphasized the importance of this trip in that it might encourage local recreation among the Tahltan, lead them back to their ancestral and sacred hunting grounds, and allow them to rediscover trapping routes and ancient artifacts.

The first two weeks of our stay in Iskut and at Davis’s home on Ealue Lake were spent planning for and then carrying out the circumnavigation of Todagin Mountain. For six days and seven nights, we bushwhacked on powder skis across frozen creek beds, muskegs, and lakes following a traditional Tahltan trapping route to access Black Lake and document the wild and frigid beauty of the area. By 8 o’clock every night, the temperature had plummeted to minus 10 degrees Fahrenheit. Having dug several feet into the snowpack for our two-person tents, we would huddle around the stove (and each other) while dinner cooked, haphazardly hang our food, excitedly shoot a game of rock-paper-scissors to see who would have the privilege of getting into bed first (through one small door per tent), and ultimately devote nearly every ounce of energy and thought to staying warm.

On the third day, we were rewarded with a sweeping view of Black Lake, frozen solid and blanketed in deep snow that sparkled in concert with the setting sun over Todagin Mountain’s windswept slopes. While we gazed in profound awe at Black Lake, proposed site of the Red Chris mine’s tailings impoundment area, we strained to disregard the low machine hum coming from the direction of Todagin Mountain. Despite being days from the Stewart–Cassiar Highway and deep into what we had imagined would be an immaculate wilderness, we were in fact in the backyard of Imperial Metals’ exploratory mining camp. The incessant drone from what we presumed to be a generator served as a constant reminder that the Red Chris mine will soon be a reality. Environmental activist Bill McKibben bluntly relates in his book, *Eaarth* (St. Martin’s Griffin, 2010), that the effects of climate change are no longer possible or probable; they are real and current. Likewise, the Red Chris mine is no longer a possibility or a probability, but a reality. Many local

⁷Davis, Wade. *The Sacred Headwaters*. Vancouver, British Columbia, Canada: Greystone Books, 2011.

Tahltan remain vigilant in their opposition to the mine and hold out hope that development can be thwarted in a court case.

Bundled in my thick sleeping bag (along with camera gear, other electronics, a hot water bottle, and ski boot liners) pressed against my tent mate for warmth at our campsite along the frozen shores of Black Lake, I contemplated the fate of Todagin Mountain and the river system below. There have been numerous advances in environmental respect, regulation, and safety since Rachel Carson's *Silent Spring* (Houghton Mifflin, 1962), yet exploitive and harmful practices still exist. Copper is an essential metal, but at what cost? Does our dependency upon it require us to sacrifice the health and biodiversity of the Stikine River and the Todagin plateau? Is there a firm understanding of how a headwater tailings impoundment area without a liner will affect environmental and human health downstream? While the Canadian government prohibits hunting stone sheep on Todagin Mountain (except among Tahltan), why is an open-pit mine permitted to destroy the very habitat that gained such protection? Many Tahltan adamantly oppose this mine, yet they will bear the brunt of its destruction and remain long after the mine is gone. Troubled by these thoughts, I drifted off to sleep, lulled into my dreams by the low machine hum, out of sight from our snowy campsite at Black Lake, but never out of mind.

THE DAY AFTER RETURNING TO ISKUT FOLLOWING OUR VISIT TO TODAGIN, we set our sights on Mount Klappan. From a conservation standpoint, Bourquin was particularly enthusiastic about this next expedition. He believes that the future of young Tahltan men and women could be in guide outfitting, employing traditional methods rooted in sustainable land use in conjunction with new-age technology and equipment. Year-round, Tahltan guides could lead backpacking, canoeing, rafting, hunting, trapping, snowmobiling, and skiing trips in the Sacred Headwaters, thus providing a more sustainable, localized economy with little environmental impact in contrast to the proposed development. Bourquin told us that traditionally, "Hunting, trapping, and fishing have always been done in a sustainable manner using traditional methods that haven't wiped out any wildlife populations . . . based on the traditional wisdom of the elders that's passed down through generations." Directing this knowledge toward a structured guiding operation could be the key to maintaining the Sacred Headwaters in its current state. Jim's son David and David's brother-in-law Rory are currently in the process of surveying the landscape during the summer and winter for its guiding



The adventurers gaze in awe at Black Lake, proposed site of the Red Chris mine's tailings impoundment area. In the background a machine hums from the direction of Todagin Mountain—the sound of an exploratory mining camp. JOHN GIOIA

potential. They offered tips on traveling to Mount Klappan and where we might find good snow based on their surveys. We planned to reach the base of Mount Klappan, set up a base camp, and explore the area's potential for skiing. We had no idea what to expect in terms of terrain or snowpack. To reach the mountain we would ski along the rail grade nearly 100 kilometers from Ealue Lake (at kilometer 12), pulling our gear in sleds and a snowmobile skimmer. We expected the expedition to last twenty days with ten to twelve days reserved for the push along the rail grade to and from Mount Klappan. On March 14, with our sleds packed full of food, backpacks, down jackets and sleeping bags, repair gear, medical kits, and a multitude of other winter camping and skiing gear, we set out with nothing but the open wilderness ahead.

It took six exhausting days to reach kilometer 109 on the rail grade. With Mount Klappan in the foreground and seemingly endless possibilities for skiing in the area, we couldn't have hoped for a better location for a base camp. Having completed the pilgrimage, we had finally arrived at the mecca of the Sacred Headwaters, deep powder snow and towering peaks glistening in late-afternoon alpenglow surrounding us, and not a soul within more than 100 kilometers. We spent hours digging into the snow until reaching solid ground upon which we pitched our tent. Behind the tentsite, we dug out



Exhausted after nine days of skiing, the travelers watched the neon glow of the aurora borealis over Ealue Lake. JOHN GIOIA

a snow cave complete with benches, two chimneys, a kitchen area with shelving, and overhead lighting via battery-powered lantern. A couple hundred meters away, a small headwater stream of the Little Klappan (Stikine tributary) requiring an ice ax to break through to the liquid would be our water source. We called this snowy and frigid paradise home for the next nine days. Our only objective: find the ski lines.

We found pure bliss in every line that we skied. Poring over the maps in the morning with hot cereal, too much coffee, and (on the luckiest of mornings) bacon in our bellies, we would discuss where to find the best snow coupled with the most intriguing tour. The snow was deep, but not too deep. The air was cold, but the day's intense sun (and a steady stream of chocolate, peanut butter, and beef jerky) gave us the energy necessary to sustain our warmth. Snow fell the first five days we were there, dropping three to four nightly inches of fresh powder. After three days skiing the area near our base camp, we set out for Mount Klappan, just a couple more kilometers up the rail grade. The Mount Klappan massif has many summits, not one that towers over the rest. Its trapezoidal appearance with cavernous bowls and sharp exposed ridges emanates an imposing impression. The alpine zone on Mount Klappan is accessed via an exploratory mining road that intersects with the

rail grade. In four days exploring and skiing the slopes of Mount Klappan, to Bourquin's knowledge a mountain that had never been descended on skis before our expedition, we made three descents from its many summits and found several more powdery and finely spaced tree runs. Our questions had been answered: there exists within the Sacred Headwaters a wealth of thrilling and breathtaking wilderness skiing.

When we finally took our last turns on the lower slopes of Mount Klappan to a backdrop of an amber gold sun setting over the headwaters of the Nass River, we had covered the entire north face of the mountain. With the government-sanctioned moratorium nearing its expiration, we couldn't help but wonder whether fracking would soon be a term forever linked to the Sacred Headwaters. Major projects at the headwaters would irreparably alter the landscape, wildlife, and water of the Klappan Highlands and downstream. Indeed, proposed methods have never been evaluated for their impact on salmon populations, as Shannon McPhail of the Skeena Watershed Conservation Coalition explained, "The Sacred Headwaters is where the Skeena, Stikine, and Nass are all born and they are three of North America's greatest watersheds. Do you really want our wild salmon to be the lab rat?"⁸ As Carson warned in *Silent Spring*, we must prudently and deliberately choose where to locate projects that carry the possibility of toxic input to waterways. In the words of Bourquin, "Long after the coal, copper, or coalbed methane is gone, people are still going to need water and it would be a terrible shame to lose the good, clean, drinkable water to industrial pollution right at the very headwaters."

We returned to base camp after dark following our ninth and final day of skiing. Exhausted, we piled into the snow cave, prepared dinner, and initiated the mental transition back to life on the rail grade. Enormous bands of shimmering light pulsed across the dark sky, shifting from a supernatural neon green to pink, orange, and yellow. Fleeting in its performance, the aurora borealis subsided, yet the neon glow of this powerful *cirque des lumières* lasted for hours, gently dancing over the most distant ridge tops. The return trip was lighter, faster, and (very gradually) downhill compared with the slog in. Despite its relative ease, the long stretches of open rail grade upon which we dragged our sleds offered plenty of time for reflection. Our visit to the Sacred Headwaters brought us even closer together as friends, and we learned much about the Sacred Headwaters, the challenges facing the Tahltan, and

⁸McPhail, Shannon. Personal Interview, February 18, 2012.

how we can lend a hand. On the final day, Mother Nature offered a last glimpse into just how remote and special the area is. A lone lynx crossed the road ahead of us, stepping its way down to the frozen Klappan River, slowly and freely moving along the snow-covered ice, finally leaping back onto the embankment, gripping the roots of a spruce, and disappearing into the forest once again. Two wolves stopped us in our tracks at dusk, protecting a fresh moose kill, and soon alerted the rest of their pack, thus engaging a cacophony of howling and barking from all directions, obliging us intruders to hurry along out of their territory.

You see all those mountains? Our minds are in every mountain. Our memories are in every valley. Our children are in every river and stream that flows here. That's where we belong.

—*Rita Louie, Tahltan native*

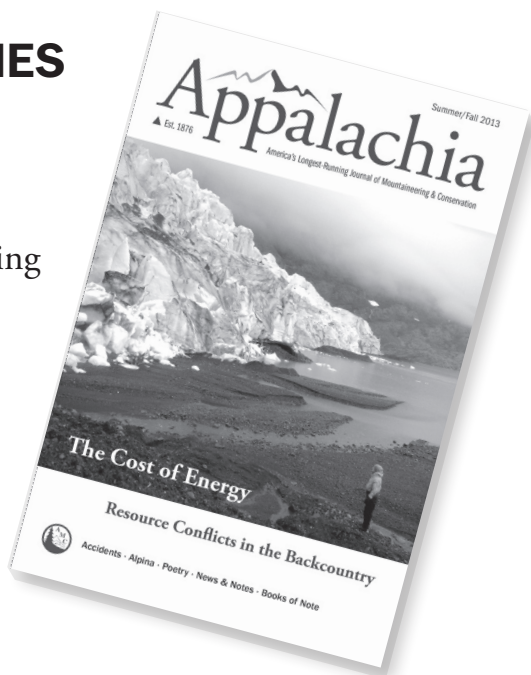
JOHN GIOIA, a native of Brookline, Massachusetts, graduated in 2010 from Colorado College. He gained a sense for adventure and exploration while hiking and canoeing through Maine's North Woods, and later backpacking, skiing, and studying biology and environmental science in Colorado's Rocky Mountains. He moves between Massachusetts and Colorado for seasonal work and blogs about adventure and exploration at johngioiaphotography.com.

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