# RELOCATING NEWTOK

*A Yup'ik village determined to preserve its cultural identity faces a costly move to higher ground*

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PHOTOGRAPHS BY BRIAN ADAMS

STEPPING OUT of a bush plane in late winter onto a gravel landing strip near the shore of the Ninglick River, you peer through a blizzard raging across the flat, treeless tundra all around you. Barely visible on the horizon is a cluster of sagging shacks. That's Newtok, Alaska, a village of 340 Yup'ik people living a tough but culturally fulfilling life near the shores of Baird Inlet. As you trudge head down through blinding sleet, up to your thighs in wet snow, you wonder why anyone would want to live here, and why anyone who did would not want to leave at the earliest opportunity. Three days later you know why. It's the children who instruct you.

I FIND MY WAY to the Newtok village school, where I am to sleep, and enter through the gym. There are about a dozen seven- or eight-year-olds playing dodge ball inside the only solid-looking structure in the village. The minute I appear they stop their game and gather around me. Their friendly, curious faces and soft voices provide a welcome refuge from the storm outside.

"What's your name?" they ask.

"Mark."

"Mark, do you have children?"

"Yes."

"What are their names?"

ABOVE: Target shooting with 22 caliber rifles in Newtok, Alaska.

OPPOSITE: Newtok elder Peter John spoke of a time when his elders warned that change was coming to Newtok.

BELOW: Map of Newtok in the village pastor's home.

OPPOSITE: Lucy tends to her laundry in Newtok, Alaska.


I name them slowly. They repeat every name.

"And what is your wife's name . . . and your brother, your sister, mother, father?"

And that's all they really want to know. They don't ask why I am there or where I'm from. But my family is vital information, perhaps the only thing that really matters about me.

After that first encounter, every time I walk through the village I hear my name called out. I turn to find one of the children asking me if I have spoken to my wife and children since I arrived. Family, I soon realize, is the core of Yup'ik culture. And to the elders of Newtok the only way to preserve culture is to preserve family. And the only way to do that is to keep this tiny native community intact.

But Newtok is falling into the river. The land it's rested on for centuries, first as a nomadic hunter's seasonal camp, and then, since the 1950s, as a permanent settlement, is washing out to sea. The permafrost under Newtok is no longer permanent, and the thick winter ice that once sheltered the village from increasingly violent storm surges thaws and breaks up a little earlier every year. The consequence is devastating. The village could be completely gone in ten years.

Newtok lost nearly eighty feet of shoreline last year, and seventy the year before. "It gets a little worse every year," tribal administrator Stanley Tom tells me as we wing our way a few hundred feet above the ninety-four roadless miles of tundra between the city of Bethel and his village. As miles of bleak, white flatness scroll out beneath us, he describes every attempt that has been made to protect the village, most recently an elaborate network of boardwalks built above the permafrost. For most of the summer the boardwalks float and sway on spongy mud. Some have even sunk into the tundra, along with at least one corner of almost every house. Some of the village's structures, poised perilously at water's edge, have already been abandoned. Except for the recently constructed school, there are no level structures or surfaces left in Newtok.

ON AN UNUSUALLY CLEAR DAY during my visit, Stanley Tom walks me through the village, where we are greeted now and then by friendly children and not-so-friendly dogs. From the edge of a crumbling riverbank, Tom points across the frozen Baird Inlet to a snow-covered rise on Nelson Island, about nine miles away as the raven flies. "That's where we're moving," he says, as if it were an absolute certainty, which it isn't. But this man, although shy, slight, and soft spoken, is nothing if not confident. "Over there we'll be safe from erosion and flooding," he says. "It's higher, solid ground." A large well full of sweet, drinkable water has been drilled on the island. So the elders have named the new site Mertarvik, which in Yup'ik means "getting water from the spring"—an appropriate name since well water in Newtok has become increasingly salty, in fact undrinkable, and life-threatening pathogens thrive in every puddle, the result of raw human waste washing back into the village from the small streams where "honey buckets" were once safely emptied.

"But when we're settled in there, we'll probably rename it Newtok," Tom says. "Of course, like all our other big decisions, the elders will make that one." In Newtok there are about twenty elders who meet regularly to form and guide the broad policy of the village. At present, the big decision they face is exactly how to move to Mertarvik. They're in a race against time, with two, perhaps three, years left to figure it out, at which point erosion will have claimed most of the existing village.

There are four other villages on Nelson Island—Tununak, Chefornak, Toksook Bay, and Nightmute—with whom the Yup'ik of Newtok share bloodlines and tradition. Natives of the five communities call themselves Qaluyaarmiut, or "dip net people," and have a very deep history in the region.

Ancestors of the Yup'ik first arrived on the Alaska coast about eleven thousand years ago, as part of the third and final migration from Siberia. Not so long ago they were still a seminomadic, migratory tribe. During hunting and fishing season the coastal Yup'ik would wander along the Bering shorelines in search of berries, walrus, seal, and salmon. When they found a reliable source of protein, they would settle temporarily in sod-roofed houses framed with driftwood and whalebone to harvest, smoke, and bury their food in hand-dug caves and cellars. Newtok was one of many coastal settlements where they would often overwinter. But when spring arrived in late June and the ice began to

break up, they would pack up their dog sleds and set out to find another hunting ground or berry camp.

That migratory lifestyle came to an end when the federal Bureau of Indian Affairs (BIA) forced the Yup'ik to either build their own schools or send their children to BIA schools as far away as Anchorage and the lower 48. Two full generations have now lived year-round in Newtok, which is serviced in summer by barge traffic and, in clement weather, almost daily by air freight through the winter. Yet due to melting permafrost, thinning sea ice, and intensifying storm surges, the Yup'ik of Newtok have no alternative but to migrate once again.

I ask Yup'ik leader Mike Williams, former chairman of the Alaska Inter-Tribal Council, if the vulnerable siting of some of these villages wasn't as great a factor as climate change in the destruction of infrastructure. "Yes, location is often a factor," he admits. "Because a lot of the coastal villages are located at points where the BIA could conveniently drop barge loads of material to build schools, with no other factors considered, some villages are more vulnerable to weather conditions than others. But before the permafrost began to melt and the winter ice, our natural storm break, became too thin to hold back winter storms, all the village locations were stable."

Nearly two hundred Native Alaskan villages have already begun having problems with flooding and erosion, the majority of them located on the coast. Some residents are escaping climate chaos by moving to the cities, but, like the people of Newtok, the majority seem determined to weather the storms, remaining as close as possible to their traditional lands and food sources. They would like to build new, greener, more modern, sanitary, and comfortable settlements in places where their entire community can settle alone and intact. "Only that way," says Mike Williams, "can family and community remain to protect food security, spiritual connection to land, quietness, and culture."

ABOVE: The first three new homes in Mertarvik, where the residents of Newtok will be relocating.

OPPOSITE: Children playing on land eroding land near the shore in Newtok.

FOLLOWING PAGE: More children of Newtok.

MOVING AN ENTIRE community, even a relatively small and simple village like Newtok, and only nine miles, is a complicated and expensive venture. Cost estimates range from $80 to $130 million (about $380,000 per person); and while Newtok faces the most immediate crisis, it is competing for relocation funding with several other Alaskan villages.

Shishmaref, an Inupiat settlement of six hundred that has existed on the Chukchi seacoast for four thousand years, needs $150 to $180 million to move seven miles away to a place called Tin Creek. Seven years ago Shishmaref's heating oil tank farm was three hundred feet from a seaside cliff; it is now less than thirty feet from the edge. The natural ice cellars where food was once stored for the winter have melted. There is no remaining alternative to migration.

One hundred thirty miles north of Shishmaref, the coastal village of Kivalina is facing a similar fate but has chosen a different strategy for funding its relocation. Kivalina is suing nine oil companies, fourteen power companies, and one coal company for $400 million, arguing that collectively those corporations have caused the global climate conditions that led directly to the crisis being faced by the village. Filed in February 2008 in the U.S. District Court in San Francisco, *Native Village of Kivalina v. ExxonMobil Corp., et al.* was dismissed in September 2009. The case, which also alleges that the energy corporations conspired to create a misinformation campaign "to deceive the public about the science of global warming," is now under appeal.

Over the past sixty years, Alaska's annual temperature has risen four degrees Fahrenheit, which is double the global average. Some

predict that by 2100 the state could warm an additional nine to eighteen degrees. Already, rippling permafrost has begun damaging the structural integrity not only of homes and schools in Newtok and other nearby villages, but of roads, airstrips, pipelines, and utilities throughout the state. The Institute of Social and Economic Research estimates that the cost of global warming to public infrastructure in Alaska will be between $3.6 and $6.1 billion by 2030.

Larry Hartig, Alaska's commissioner for the environment, keeps the governor appraised of the situation. According to a recent report by the U.S. Government Accountability Office, 184 of Alaska's 213 native villages are threatened by erosion, thirty-one of them in imminent danger of total collapse. And those numbers grow every year. Not all of the threatened villages will need to be relocated, but many of those that won't will soon require

expensive engineering to protect them from unprecedented storm surges featuring winds in excess of ninety-five miles per hour—winter hurricanes that can blow all the snow off the land, leaving ice and bare tundra, which are virtually impossible to traverse by dog sled or snow machine.

THERE ARE TWENTY government agencies directly involved in the relocation of Newtok, as well as five regional NGOs. Coordinating the project is Sally Russell Cox, a state planner in the Alaska Department of Commerce, Community and Economic Development. The state has already built a new barge landing on Nelson Island, funded in part by a federal grant of $800,000, and the Army Corps of Engineers helped to build a road from it to the village site. The military's Innovative Readiness Training Program, which funds military units to work on civilian projects, has sent Marines to Nelson Island for the past two summers to work on the road and lay down other basic infrastructure for the new settlement.

Three prefab houses have been built at the new site and an evacuation center is due to be built next summer, in case a storm surge drives the people of Newtok out of their village before they are ready to move. That building will be converted to a community center once Newtok relocates to Mertarvik. The new village will host a museum of traditional culture, not for tourism but simply to preserve traditional knowledge. A new sewage lagoon will be built a thousand meters from the village, a vast improvement over the honey-bucket system.

As money becomes available, structures that can be moved will be hauled across Baird Inlet on huge sleds during the winter, which the Yup'ik call "freeze up," and on barges in the summer. Six houses, currently poised to fall into the inlet, are designated to be moved first. This is not an entirely new way of moving large items in the Arctic. In 1950 a small church in Newtok was hauled across the snow from a nearby village on a sled pulled by every dog in the village. But there are much larger challenges, such as the school and a brand-new, two-story, multiton sewage treatment plant. These will have to be barged across the inlet and hauled on massive rollers by Caterpillars up to new ground.

Because of the considerable cost and logistical challenges involved in resettlement, some people in both federal and state governments have tried to persuade threatened villagers to move to affordable housing projects in the fast-growing native neighborhoods of Fairbanks or Anchorage. And a few have done so. But village elders and parents know the risks to their children in urban cultures, where drug and alcohol abuse, violence, and suicide are pandemic. Tony Weyiouanna, a civic leader in Shishmaref, put it this way: "If we don't get assistance for relocation, then we face elimination by dissemination and dispersal. People will be forced to relocate by themselves, as individuals or families, not as a community of people. If that happens we lose our culture and traditions."

Another alternative that has been proposed by government officials is "co-locating" with another village. That is also unacceptable to Newtok elders, who tell me that it would have a devastating effect on their culture and identity. "We would forget who we are," Grant Kashatok, principal of the Newtok school, told me. "The word hurts my heart."

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## Ode to the Fish

Nights, when I can't sleep, I listen to the sea lions
barking from the rocks off the lighthouse.
I look out the black window into the black night
and think about the fish stirring the ocean.
Muscular tuna, their lunge and thrash
churning the water to froth,
whipping up a squall, storm of hunger.
Herring cruising, river of silver in the sea,
wide as a lit city. And all the small breaths:
pulse of frilled jellyfish, thrust of squid,
frenzy of krill, transparent skin glowing
green with the glass shells of diatoms.
Billions swarming up the water column each night,
gliding down at dawn. They're the greased motor
that powers the world, whirring
Mixmaster folding the planet's batter.
Shipping heat to the Arctic, hauling cold
to the tropics, currents unspooling around the globe.
My room is so still, the bureau lifeless,
and on it, inert, the paraphernalia of humans:
keys, coins, shells that once rocked in the tides—
opalescent abalone, pearl earrings.
Only the clock's sea green numerals
register their small changes. And shadows
the moon casts—fan of maple branches—
tick across the room. But beyond the cliffs
a blue whale sounds and surfaces, cosmic
ladle scooping the icy depths. An artery so wide,
I could swim through into its thousand-pound heart.

*—Ellen Bass*