

A deep desire to cry. The hanging, haunting chant of Gordon Comes at Night, waves of sweat crystallizing on the skin, loosened joints, unfolded from the lodge into the cold night air. Wiped clean, nothing to say. Reach inside for a voice, a meaning, the distance between the earth and the moon in its fullness. Which orbits which? For a year I sat in the only seat that was not part of the circle. "Me" is still a long way off. Each stanza seems a step in a different direction. For predictive value I wear my lapis necklace, just now Blackfeet-blessed. Gil will become a soulmate but for the time being he is just there. The one I adore I can barely speak to, can barely reach, although he is the nexus of my system. Letting go is a skill. But for all the growth, movement, experience—for all that, I learn, there is loss. Dances and costumes and heart-pounding drumbeats of the powwow hold the mind in temporary suspense. Men of the tribal council give away blankets, toys, dollar bills, scarcely affordable tokens of an amicable nature. I am at peace, but I feel raw, the agony of a first love and an ideal whose flaws I can never know. There is garbage everywhere on the reservation, but people leave an offering of tobacco when they pick sage or sweetgrass—a love and a hate of the land where I expected only love. I gather refuse wherever I go because work is the only sure way to avoid long awkward pauses. This fear—perhaps it is inherited, perhaps it just rubbed off on me, but it is a legacy of my mother. Pause is earned, the awe of an eagle feather pressed into the hands, the return for the playground we build. Gil works just as hard and so we work side by side, joined in this practice of leaving a record behind. Community has many meanings. Even now I know that the real beauty, the real friendship, will come later, when words can supplant presence. But I am still here, you know, extracting something and leaving something behind. If I rub my necklace I can sense the continuity with no center.

*Practice of
leaving
a record behind*

The possibility of a recipe. Our Ahtna friends cook a feast of fresh salmon and banok, fry bread. On every river there are fish wheels, powered by the rush of water, taking a few salmon here or there. Even with a life jacket one drowns in the Copper River in six minutes, that's how much the silt sticks to you. This place is so different, otherworldly. "In wildness is the preservation of the world," although I have not entirely figured this out yet. I am taming myself within the confines of my notebook because I'm still here, you know, and someone *will* read it. Some things cannot be said. I still love him, but if you ask me I will lie—no more poetry of setting suns and lost loves. I burrow into my bedding, cover my head with a pillow, as if that could make a different sun rise at midnight. It is uncanny how little darkness I find here. Words are too fluid for this constancy, anyway. Change is marked by the purple fireweed whose flowers bloom from the bottom up, and at the top it will be fall, the lower flowers dead already. For all that I learn, there is loss, something irretrievable. I weary of this practice of leaving. A record behind the memories is as permanent as it gets, I suppose. Homes in Alaska must be adjusted with shims to accommodate the shifting earth, the result of freezings and thawings whose nature lends little for predictive value. If I were not so easily swayed I would not feel this need to omit. It's inherited, perhaps. Maybe I will write a version unaltered someday. Seventeen is tender, but I feel raw, in need of caulking, redistribution. Hunter-gatherer societies are almost egalitarian, governed by tacit laws of who gives and who gets. What if I take something away? Happiness, for instance, is not a commodity. There are no rules on a glacier, except the imagined microcosmos in perfect crystalline formation. There is a story here in these layers of rock and ice. Silent, for up on that mountain was the only quiet I have ever heard, watching wild sheep grazing. I'll write it for Gil to read, because I will read what he writes, because I may never find another friend. It's a mutual dependence.

*All that I learn
there is loss*

Always a center of commerce, the respirations of people coming and going. This was once New Amsterdam. A netherland. Identity, perhaps, lies in its very fluidity. Alone in my transient room I watch bolts of lightning, crisp, flailing, strike tall rooftops. This magic the most awesome sight of the city. If there is one spot everyone can locate, can point to on a map, it is this. But I do not know this place. Under here are cemeteries, fragments of clay, arrowheads, sweat from the practice of leaving a record behind. Loss is the distance between my feet and the ground, although I walk all over. Or drift, evolve. In the mindless rush I want to yell "I'm still here, you know!" as if I am crazy, although I have never been so sane. True nature cannot be managed. Even my partial cubicle at the Environmental Defense Fund has too much climate control. I shiver as I read the doom that could be, too much carbon dioxide in the breath of these lives. I cannot adapt to change as fast as my words can. Culture has no genes. But the ability to assimilate these newnesses—it's inherited, perhaps. Gil is married now, we can never again be for each other the sole spirit of understanding, and we have so much more to learn. I want to write but I can't, not in this community of one. There is beauty and wonder but not love, polish and glimmer but I feel raw. What is good and what is not, must we be told? There is wildness to be had but it does not fill in the holes. I reach for my ephemeral friendships because that is the way to survive, to become a part of something. I wonder how this will all play out. Climate science wants for predictive value, but this country is particularly obstinate in ignoring the possible impacts. It's all connected. Maybe that is why I have run out of words in this existence; all that I find here, all that I learn there, is loss. Or confusion. I wonder where I am, here, in what I know to be a jungle.

*For predictive
value*

The passion of a flamenco chord. Thoughts so big they can only exist in the moment. It is hard to write such feelings. Against a landscape of cyclical change. On the first day of research there are wild geraniums blooming under the newly greened canopy of tree. I can tell you this story in the land. Shane takes me to the sacred spring where Metacom fell, unsuccessful in his effort to oust the Europeans. We talk of jazz and life and where this is all going. Context gives something for predictive value, but perhaps my variable nature

transcends the barriers. We speak of partitioning the variance so that we can see what is genetic, what environmental. I am learning to design the experiment I call life. But I feel raw, sometimes, not harmonized. This land was a pasture fifty years ago, not back in equilibrium yet. If that even exists. Shane is becoming a real friend, and ambivalence is not ubiquitous. At times like this I can burrow into my transient task with fervor and dream of all that may come. Desire or anticipation validates the now, and for once I live in the present; it melds into the future as it should, because I'm still here, you know. As this land will forever be the secret meeting place of a Wompanoag, although before that it was a glacier and after that it was a carnival ground and the farm of a rich brewer and the research site of a university. But some things change, and this summer is drier than ever. In all that I learn there is loss—loss of the objective and the wild. It tempers the passion. I should write before it is too late. It's inherited, perhaps, this practice of leaving a record behind.

*I'm still here
you know*

Glue for the interstices—it's still in the R&D phase. But even a mobius strip has a hole. I will look down when I see someone I know, though that person may mean the world to me. One must build barriers in order to transcend. We control the experiment to isolate an effect. Although in the wild these variables interact, and all creativity stems from something prior. You think it's inherited, perhaps, but language is Lamarckian. Writers take, but what do they give back? Love is a mutualism, although it may not be known as such. Unless I have completely misjudged the situation. Uncovering the unknown is the driver, even as one wants to keep the mystery. For all that I learn there is loss, I find. But I'm still here, you know, the future has not happened yet, even if it seems imminent. Shane is my mentor in this experiment. We can only hypothesize about the results, the adaptations that may or may not be. As if in self-preservation, I turn to this practice, this practice of leaving a record behind. Leaves falling from the trees mark an invisible trail in their wake, chaotic, fragile. It is not winter yet, but I feel raw, bared in my emotions. Something burns through the exterior, begs for another layer. Nolan wears t-shirts with flowers on them, something wild, a shared passion. We await flowering time, which signals some development, another trait to be measured. One can be affected in more than one way, by the parental environment, for instance. The romance of their 20s and the stories they have carried into their 50s makes me seek something more, the romance of dreams and the dreams of romance. Something in print, meaningful results, new thoughts, continuity, exotic places, and a love waiting to be requited. But the whole and the sum of the parts are not the same. Something is undeveloped, unspoken, and what I cannot say makes me a liar. Hope for some outcome. I am looking for predictive value, dialogue. If that exists. In all of this, what will remain unsaid, unwritten, unproved, unpreserved?

*It's inherited
perhaps*

Early morning fog. The slow separation of real and imagined, of certitude and dream. This panorama may only exist in sleep, in a nebula of "if," evidence itself that my heart says "when." Looping instinct leads to the familiar, the unexplored: the Karoo of South Africa, arid solitude, inspiration. Although daily beauty reminds me that I'm still here, you know that I live in the future, that I have perhaps learned nothing although I have learned a great deal. For instance this dream, this nightmare, this practice of leaving a record behind. Ink of culture and molecules. Ethnography, such as I read of the Blackfeet, but for all that I learn there is loss. Words and the world are fluid and fixed, both. "I like to write" does not mean scientific papers, although people cannot seem to grasp this. Friends are a rare thing. Nolan somehow keeps my mind in this place, his gift that I cherish, that I will have to let go of "if" I go. Why I need to cross the world for inspiration—it's inherited, perhaps, but not genetic. I expect maternal effects. Even as I measure my plants in the greenhouse, testing the hypothesis, I am in Paulshoek, Namaqualand, where desertification is not just a possibility. Preservation of diversity requires preservation of the whole ecosystem. Simplicity and complexity are as one. A harmony I realized in the shadow of Mt. Drum. I am astonished by how much I already knew then. Nothing is so simple as a dream, but I feel raw, still, to my relief, not in equilibrium. I do not need New York to be overwhelmed. The possibilities of present and past and future stretch beyond any attempts to isolate. "No" is the toughest word I am learning to say. A perfect circle offers little for predictive value, anyway, because you can never go back, not exactly. I may not return to Haffenreffer before I am graduated from that place. But already I am propelled, trying to let go and retain. Succulents, like those of the Karoo, are supreme at collecting, sequestering, storing, and letting go of water, drop by drop. I want to say that some things are worth preserving. With results. It will mean something in the end, maybe.

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Notes

Selection, evolution, the landscape, is in part determined by local **ecology**. Ecology is the study of the interactions of organisms with their physical environment and with each other as well as the results of these interactions. Ecology, ecosystems, are composed of communities. A **community** is all of the populations of organisms inhabiting a common environment and interacting with one another.

Organisms and populations can interact in many different ways. Competition, predation, symbiosis. One key symbiosis is **mutualism**, an intimate and protracted association between two or more organisms of different species in which the association is beneficial to both organisms. The opposite of mutualism is parasitism, in which only one organism benefits while the other suffers.

Ecological factors, the environment, can affect the phenotype of an organism—the way it looks, acts, behaves. A population is said to have **phenotypic variance**, a range of phenotypes exhibited. The phenotypes differ for two

reasons. First, there is genetic variance in a population; not every individual has the same genetic makeup. Second, there is environmental variance. Two individuals of the same genotype will look different in two different environments. If a great deal of the phenotypic variance is due to the environment, selection will not have much effect on the population; selection acts on phenotypes, but the effect is to change the genotypes.

Another crucial influence on an organism's phenotype is the maternal environment. If a mother is undernourished, the offspring may start life at a disadvantage, a disadvantage that may continue through the offspring's life. Such **maternal effects**—the way in which the mother affects the offspring in non-genetic ways—can also be adaptive.

I am studying maternal effects in plants. I have reason to hypothesize that a mother plant will adapt to the stress of a drought and that her offspring will be pre-adapted to any drought stress it might experience. This may sound like **Lamarck's** theory that acquired characteristics and adaptations can be inherited. But maternal effects are environmental, not genetic; the mother's environment can affect the offspring's phenotype, but not its genotype.

Ecology is all about adapting to the local environment, changing it, and changing with it.