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Arts Lab

Paradox, Sunrise, and a Thirsty Place

An artist ponders climate crisis and solastalgia through multiple landscapes.

Nina Elder

This essay traces the complexities of living and making art in an era of climate disruption, using the format of the scientific article as a frame for exploring these concepts. The text reflects the author's research in the U.S. Southwest, a recent residency at the Montello Foundation in northern Nevada, and her ongoing engagement with the changing landscape of Alaska.

I wander off and leave my glass filled with filtered rainwater on the porch. Days later, I return to find that I am sharing this glass of water. Incremental lines of dried minerals mark the sides, a measure of each sip taken by this thirsty place. One fence crosses my view, no windshields mirror the Sun, no dust is stirred by foot or hoof or rubber tread. My roof is the one rectangle interrupting this rumpled and ravined land. The big Nevada sky meets the ground in a blustering horizon line. Moving air whistles through endless sagebrush leaves, causing billions of small percussions, a never-ending ovation of silver green. The dogs wake from their dusty dreaming, huff and keen at the sky, warning of a wind that will bend the grasses, take a gulp from my glass, and move on. This is not a place of eddying winds or lingering dust devils. This is a place of linear winds. I am the only thing without roots that lingers here.

Go outside. Do it. Now. Trust me. Get in the elevator and go to ground level, get off your couch and go into the yard, wheel your wheelchair out the door. However you do it, go outside. Now turn to the east. Imagine where the Sun will rise tomorrow. Make a circle with your fingers and thumb and place it on the horizon. Imagine the Sun rising into the small tunnel you have made. For now, you can look, or imagine looking, into the spot that would blind you at sunrise. You are looking into tomorrow. You are saluting the future. You are creating a gesture of hope. Thank you for joining me in this choreography.

If the sun did not rise tomorrow, would you reach out in the darkness to the person closest to you? Would the acrid sweet smell of sage not wake me? Would the dawn-heralding song of the hermit thrush be stuck in her throat like a ball of grief? If scientific truth were disrupted, we would have our relationships and we would have beauty. The absence of birdsong is terribly haunting.

You believe that the Sun will rise tomorrow. It will warm the plants, bring light to your eyes, pull songs from the throats of birds. You have acknowledged the place where you are. You have affirmed that light will shine on you and that a shadow will stretch behind you. Looking through the circle of your thumb and fingers, you have marked your own perspective. You have created a singular, unprecedented vision. You have imagined your tomorrow.

Solastalgia is a premonition of longing for the present moment from an anticipated future. It is cherishing the places we live as we know them now, and at the same time feeling anxiety about what is happening to those places and what is to come. Environmental philosopher Glenn Albrecht, who coined the term, describes it in a 2005 paper in *Philosophy Activism Nature* as "an intense desire for the place where one is a resident to be maintained in a state that continues to give comfort or solace." It is homesickness before leaving home. "You can't step in the same river twice" says something about time. What might be more accurate is to remind ourselves that the banks of the river are eroding, the sunlight is moving across our faces, and our perspectives are shifting. Solastalgia is often described as the psychological condition of climate change. It is a complex sensation, akin to a child watching a parent develop Alzheimer's, the bittersweetness of young love and inevitable loss, or seeing the bright yellowing of autumn leaves before the darkness of winter. In this early moment of the Anthropocene, a time increasingly defined by precariousness and unthinkable futures, solastalgia is palpable.

I always thought that the past was the earthen part of the coastline, and that the future was the ocean. The past seemed immutable, solid, giving form to the future. The future seemed wild, unpredictable, capable of sea changes and mighty storms.

Now I think the past is the wild thing, the untamable ocean. The carbon that humans have released into the atmosphere, the plague of plastics we have unleashed, the cultural destruction of colonialism, the disruptions we have caused to all ecological systems—this anthropogenic storm will continue eroding the future, violently buffeting every moment that will come.

A glacier, by definition, is always moving and falling. There is no angle of repose.

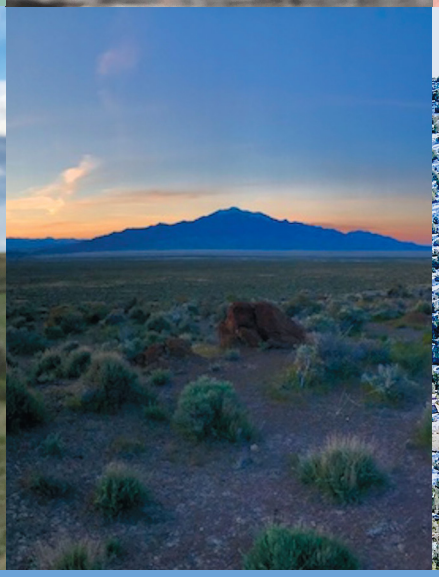
> **errare** (Latin) – *v.i.* 1. to wander, to roam, to ramble; 2. to err, to be wrong, to be mistaken

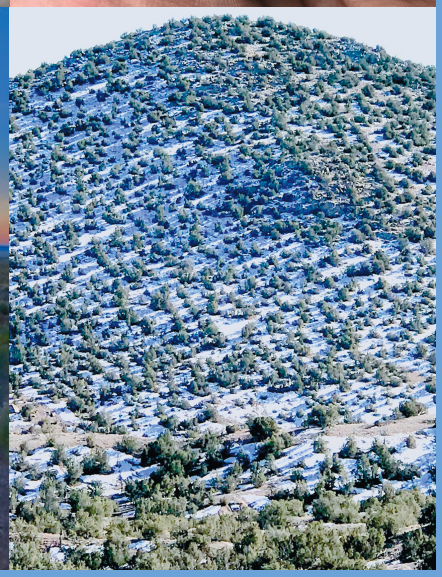
Artist and researcher Nina Elder creates projects that reveal humanity's dependence on, and interruption of, the natural world. Often collaborating with scientists and larger research institutions, she explores geologic time, the Anthropocene, and deep futures. Her drawings, installations, and public works have been featured in Art in America, *in* VICE Magazine, *and on PBS. Email: nina@ninaelder.com*

Paradox of Hope:

Hope means something different to each person. In this time of incredible change and instability, hope might mean that everything will stay the same. Some might hope that things will get better. Hope could be for prevailing social harmony, or for technology that will save us, or for new possible futures revealed by ecological adaptation. Underlying all this is a scientific truth, a fact, the deepest form of hope—that the future will happen. The Sun will rise.

Clockwise from upper left: clouds, Elko County, Nevada; an erratic, Bomber Pass, Alaska; Stairway Icefall, Root Glacier, Alaska; rocks collected by Cynthia Hendel, held by the author, Wrangell–Saint Elias Wilderness, Alaska; a sage-covered hillside, Ortiz Mountains, New Mexico; sunrise, Tetzlaff Peak, Utah; author's hand at sunrise, Montello Foundation, Elko County, Nevada; water glass, Montello Foundation, Elko County, Nevada.





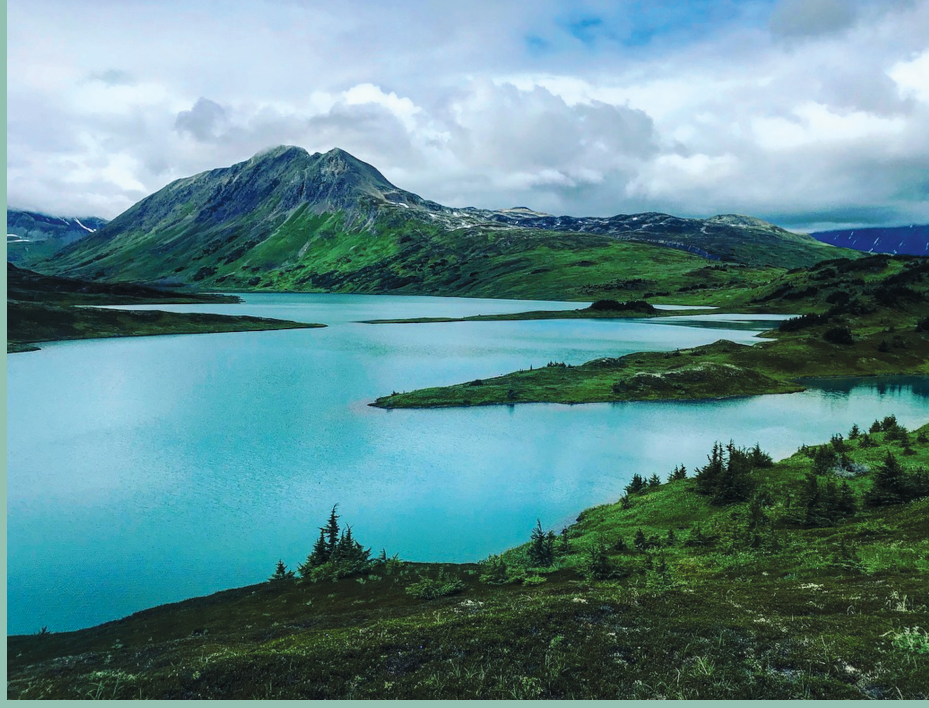
Nina Elder

Coastline Paradox #1

If you were to measure the coastline of Alaska in linear kilometers, you would get an entirely different result than if you measured it in millimeters. With smaller increments of measure, accuracy becomes infinitesimal, and measured distances become exponentially longer. In other words, coastlines are fractals. This phenomenon was first observed by Lewis Fry Richardson in the late 1940s. For those of us who want to reflect on the world, we must choose the measure that is accurate for our desired outcome.

Coastline Paradox #2

Coastlines are not actual lines, but fleeting phenomena. They are where the ocean touches land in a very unstable relationship. The movement of the Moon, the wobbly spinning of the Earth, the melting of ice caps, all contribute to these constantly shifting lines. Coastlines are zones of fluctuation and adaptation—tidal pools replenishing, trees that can withstand salty sea spray, bluffs and dunes that soon will rest at the bottom of the ocean. The measure of a coastline, right now, will be inaccurate in two seconds, 20 minutes, and five years. Maps are imaginary moments in time.



The coastline of Lost Lake, in Chugach National Forest near Seward, Alaska, shows the intricate curves and turns of a landscape formed by glaciers. Elder's photography book *Erratic* (2018) collects her notes and letters, as well as her photos and drawings of glacial landscapes and *erratics*, rocks carried from one place to another by glaciers.

An *erratic* is a rock that has been transported by a glacier and is expelled once the glacier melts. It signifies the time and place where the glacier originated—often kilometers and thousands of years distant. Erratics are pieces of the parent bedrock that tell of the path the glacier traveled and the process of deposition. They are time travelers, treasure troves, reliquaries, rubble.

What are we creating that will get swept forward, borne along in the destructive path of time, to wash ashore in the future? What truths of our time will tumble along, resilient and intact, into another era? What are the unintended results of our actions? It will be those outliers, the monsters and mysteries and miracles, that define us, much more than the smoothly polished contributions we intend to withstand the test of time.

As an artist, I ponder what I am carrying within myself and what evidence my life will leave. I explore geologic and social displacements and the voids they cause. What remains when the relics of these displacements are carried away? What am I responsible for carrying? I explore the echoing hollow that is left when we don't allow for paradox or for complexity.

We are all creating archives of solastalgia. As artists, cryospherologists, poets, welders, dancers, mothers, students, astrophysicists, farmers, and architects, we are trying to pause time. We create reliquaries, map coastlines, fill time capsules, and document now. In the passage of time, we endeavor to hold the fleeting present in a place where it can be read, smelled, touched, caressed, cared for, explored, understood, and validated. We are awash in histories, futures, loss, change, and impermanence, yet we are now.

What cannot be archived? What allows us to look into blindingly bright beauty, to feel ourselves on the changing coastline, to revere the complexity of now?

The smell of sagebrush in the morning
The song of a hermit thrush
A thirsty wind
A sunrise
Hope

Nina Elder

Paradox of Now

Time is split into the past and the future. We think we live in the moment called now. Yet the phenomenon of now is a coastline between two forces. It is fleeting and changing and unmeasurable. When we snap a photo or check a temperature gauge or measure a coastline, that information is immediately outdated by the new now. Everything has changed. In this moment, you think you are reading this article, but everything you have read up until now is in the past.

Icebergs float in Portage Lake on the Kenai Peninsula, Alaska, 2018.

Art + Science Paradox

Art and science are often considered opposites, yet both are experimental processes that help humans understand their place in the world. They use different languages, economies, materials, and metabolisms, yet a desire to illuminate something unprecedented unifies these fields. Art and science both create reliquaries. Both allow us to understand what was, and to consider what might be. Like science, art is a reflection of the time in which it was made, and can illuminate the potential of humanity. Artists and scientists share the belief that what they do is important now and will be valuable in the future. They share a nimble foothold on the coastline of now.

The Sun rises over the Knik Arm on the summer solstice, Anchorage, Alaska, 2018. Elder's project in progress, the Solastalgic Archive, holds materials that contextualize and give breadth to how we are living and making in this time of accelerated change. She asks people to contribute an object to the archive in response to the questions, "What helps you feel the present? What connects you with your ancestors? How are you creating the future? Where is your time? When are you?" Materials in the collection thus far include poems, photographs, zines, seeds, rocks, mixtapes, manifestoes, coffee cups, recipes, and diagrams.

Glacier Paradox

Glaciers are destructive and sensitive. They carve the world into mountains and valleys, moving vast amounts of material in their ice. Yet they have become the shrinking measuring stick of climate disruption. As they become smaller, their measure yields not ever-vaster distances, but the immense magnitude of human impact. A receding glacier reveals not only an ice-sculpted landscape. In the absence of these geologic relics—pieces of frozen history, hallmarks of slowness, archives of winters past—the future rushes in. Disappearance is devastating.

Glaciers have left their mark on the landscape near McCarthy, Alaska, 2017.

A slideshow with audio is available online.

Nina Elder