weathering change

AN ART ANTHOLOGY IN RESPONSE TO CLIMATE CHANGE
Perhaps the greatest difficulty for people disturbed by the changing environment is unearthing a kind of answer to the question What am I supposed to do now? So many people have started to alter their lifestyles in some way or another in order to lessen our demands on the world, in order to use her resources more mindfully (perhaps they take public transit when they once drove; maybe they eat less meat than they use to; maybe they donate money or volunteer, etc.); nevertheless it is wretchedly hard, in spite of the vast good will and wonderful efforts of thousands on thousands, not to feel like the cause has already been lost...

The art in this small volume evinces humanity’s commitment and ingenuity in searching for such an answer to What am I supposed to do now? As I helped to assemble this anthology, I had the happiness of being reminded of how many extraordinary people there are in this community – in particular Colin Durrant and Katie Hammer of Harvard’s Office for Sustainability – who are committed, in the profoundest sense of the word, to doing everything they can to meet the staggering issue of climate change.

Inundating these pages is the gamut of reactions from this moment in time: nostalgia, despair, rage, analysis, stoicism, wonder, humility – the list goes on. My hope is that in coming together and speaking through such a medium, students, staff, and faculty may begin to change the climate of how we think about, discuss, and work with climate change. My hope is that, rather than drowning in despair or letting ourselves become charred with anger, we begin to unearth some kind of answer by asking the question together.

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INTRODUCTION

Climate change is the existential issue of the 21st century. Hallmarks of this time we live in—the Anthropocene—including inexorably rising temperatures, ever-expanding seas, anomalously furious hurricanes, the onset of the sixth mass-extinction in Earth’s history, and transboundary movements of unprecedented numbers of refugees fleeing wars sparked over diminishing arable land, freshwater, or clean air. For those of us born before 1970, we think we remember a time when the climate wasn’t changing—or at least nowhere near as rapidly or disorientingly as it is now—while for those of us born more recently, the accelerating pace of climate change seems as normal as the increasing rate of app upgrades on the smartphones we turn over every year or two.

Across these generations, however, responses to climate change most often take on three familiar guises, all of which are foregrounded in this anthology: rage, resistance, and resignation. We burn with anger at our ancestors for setting us on this path of unrelenting change and swallow the bitter pill of world leaders trading our future for voluntary platitudes masking political expediency. We resist change and long for a return to the climatic stability promised by an atmospheric concentration of carbon dioxide equal to 350 parts per million—nearly 20 percent lower than it is today, but still nearly 30 percent higher than it was prior to the Industrial Revolution. And finally, finding comfort in the idea that we humans are little different from moths before flames, we resign ourselves to the inevitability of climate change and the disintegration of all that we hold dear.

A rarer response is resilience. The mutability of life, the suppleness of water, and the regeneration of soil from fallen trees all bring hope from despair. An autumnal walk in a New England forest, fall colors blazing against a clear-as-sapphire sky, majestic beeches, oaks, and maples densely shading stone walls erected by European colonists more than 200 years ago to demarcate pastures once thriving with sheep, reminds us that the greatest environmental restoration project in the world—the reforestation of the New England landscape—was unplanned, unmanaged and unexpected. The New England farmers abandoned their homesteads, left the keys on the table, headed west to the prairies or east to the cities, and, unplanted, the forests grew back.

In the face of change, Nature has been, is, and will be, resilient. Can we learn to be resilient, too?

Aaron M. Ellison
Royalston, Massachusetts
18 October 2017
We ravage
Until replete
And then repeat
Explain ourselves away with eloquent
Arrogance.

Before that dawn that may never be
And we watch.
[UNTITLED]
Jina Choi

bright, seductive flames
foolish moths risk everything
are we not the same?
II. water
white fur engulfed by icy
water sways delicate
wavy to accompany her body
she treds
swims a floating
head bobs in frigid
currents her home
is packed down layers
of snow she knows
when the weakness
of floorboards splinter
there is evacuation
resting place dissolves
her endless
months to follow
are for worn muscle
unswerved movement
Like his father and grandfather before him, Maake Tamati, 68, has raised his family on a remote outer island in the Pacific Island nation of Kiribati.

At low tide, his home island resembles an intergalactic oasis: a sudden patch of palms on a pearly moonscape. At high tide, this mudflat fills with water, leaving the island’s trees—and 101 villagers—dangerously close to the sea level.

Maake is deeply concerned about coastal erosion, which has been responsible for the loss of three plots of land near his home since the late-1950s, and storm surges that will intensify with climate change.

Last year, when a storm surge hit Tebikerai, Maake and his family had nowhere to escape. They stayed on their kiakia (a traditional raised hut), watching the waters churn below them. The salinized water killed all of the breadfruit trees on the island last year, bar one. Despite intensifying climate change impacts, Make expressed a resolute desire to remain on his land: “No, no, no, I’m not going to sell my land! Because my forefathers lived on this land, are buried on this land, where else can I go? I love it. I don’t want to leave it.”

Maake Tamati, village elder from Tebikerai, Kiribati, fears that his family land will be eroded by the sea. In 2015, Maake Tamati’s family had to relocate their home 70 meters inland after Cyclone Pam’s storm surge.
A community plants mangroves in the Republic of Kiribati, attempting to curb the force of storm surges and sea rise.

VATNAJÖKULL
Kathleen Ong

I lagged behind and dimly saw your receding back and the nearing glacier

Springing over crevasses, you flew with the invisible wings earned by praying to be mythical Me? I—

Moulins. I stared into its depths and dissolved and became the meltwater streaming down sliding roughly swerving; passing glacial caverns down down until I saw the volcano beneath and wished to be vomited out to sea but I reacted with the elements and ossified; nugatory fragment, silently screaming for the rest of history while you still stand there, terrible and sublime.
IN THE EYE OF
Amanda Gorman

a hurricane ripens / like an iris / gasping clumps / of air, heat /
coiling thick / like a dirge / soon enough / a basket brimming /
with destruction / swoops across ocean / and country one wind /
bleeding into / wet earth / i tell you / i see / cows bobbing /
odies drowned pale as damp / paper and / electricity nowhere /
to be found / sky heavy / with deaths and thunder / laughing
bitterly / at its drunken / self when / will they learn these disasters
aren’t natural

PIPES
George Clark
WHEN I THINK
Christian Schatz

When I think
of the passing wind in chaotic
dance moves a single hair
of my head, moves the ocean,
pushing it up against continents
and my head
till finally it takes a breath
and all is released in
unpredictable hurricanes in
predictable cycles that
make the earth warmer
until the wind becomes rain
washing away what it
once did to me, this
drop of sweat rolls
down my face.

NOTHING IS IMPORTANT EXCEPT...
Neiel Israel

Venus transfixed in the mouth of the night sky
almost blinding, pretending to be the moon,
the waves announce themselves as cargo for the ocean
coming to soothe hearts, there is a cemetery where a ghost
plays that no one ever sees, but it is present in the breeze some say.

Whitewashed foam is tossed like strands of hair on the shoulders of a black sea,
sensitive to the gentle touch of the current, to watch this dance is to hear the air
crooning the question “Do you love me?” to the shore, the answer is always
“Yes.”

The wet wind fills the void like floating shadows casting mutable memories
of living images sensing the darkness, and everything from the deep world
is tirelessly dipping back, folding and returning to itself.
CONTESTED LANDSCAPE
Aaron Ellison

Blue-bottles stream in on the hot north wind
windrows drift in Hi-lux treads
fetid bladders snap underfoot

The roaring surf drowns out
the diesels thrumming down
the beach and across the dunes
while the dingoes echo
a faint Butchulla dream

Sand streams from the shores of K’gari
World Heritage disappearing
grain
by
grain

Photography by Aaron Ellison
THERE IS NO CERTAINTY IN ANY PULSE
Martine Thomas

this news slices the heart so thin this

news disintegrates into the heave of a thousand

breaths this news smokes

out tiny white butterflies (wild winged pieces of the moon)—oh

to roam the ocean unflinching as a hubcap

silver flank swelling buxom

in salt. there is no certainty in any pulse.
IV. land
This is what I saw in the village of Kaktovik:

Painted houses on the edge of the sea;
Boats, trucks, snow machines parked;
Men, women, children;
Sled dogs chained to stakes waiting for snow:
Caribou skins, wolverine pelts, geese;
A bone yard of bowhead whale skulls, vertebrae, and ribs;
White bears swimming to shore;
White bears walking toward the bone yard;
White Bears standing among bones,
    licking bones, becoming bones.

This is what I saw outside the village of Kaktovik:

Snowy owl draped in fog, yellow eyes burning,
She is standing on a tussock.
The fog thins – a forest of crosses is revealed,
Large white crosses of Inupiak elders
    stand behind her –
    and behind them, the Brooks Range.

It was not a mirage.

This is what I remember from the village of Kaktovik:

Three gunshots heard at night is a warning: a polar bear is in the village.
Three gunshots heard at night: a polar bear is in the village walking.
Three gunshots heard at night -- I remember looking out the window.
This is what haunts me from the village of Kaktovik:

I met a woman named Marie. Marie was dancing in the village
twirling-twirling-twirling – making circles in the middle of the road
like a whirling dervish focused on the sky – spinning -- she collapsed.

She got up and kept twirling – and then, she began singing. Later she
told me her family’s fishing camp had fallen into the sea.

There is no sanctuary from the rising seas or the warming Earth,
It hardly matters what we believe – There is only weather
I was told
‘You’ll know why the whole world fights over it
It’s so beautiful’
They did not lie.
Dew kissing silver-bottomed leaves
Cacti drinking rain, thirsty from sun
Clouds caught pink between horizons
And mountaintops reign
Soft and spawning.
The earth smells new-born
Jasmine carried into dusk air
Pomegranate trees pregnant with juice
Olive trees unassuming and ancient
Trunk mottled and roots deep
Their oil dark as dirt
And the lemons
Like teardrops pulled downwards
Their wax the very stuff of summer
I pulled off a few
On the land where my father was born
Where his village once stood.
The lemons were slippery
Rain had magnified their pores
And a paper coffee cup
Filled with earth
Clumped with vitality
I’ll take it back to him
Like a womb bearing life
I’ll take it back to him
Past the walls and checkpoints
The river to the sea
The lemons in my right hand
The earth from which it grew in the left
And justice in the chasm in between

So that he might see
What flesh, blood and bone cannot conceal
When memory holds fast to memory
Deeper than him or me
It was so beautiful.
Different
From anywhere I had been
As if another world,
Made for the angels
And the prophets and the elders
A world made to be earned
To be loved and caressed
Just as the sun strokes the salt of those seas
Like the backs of hands to soft cheeks
To be loved and caressed
Like the people
Who could never have been anywhere else
Skin brown, wrinkled and worthy
There was no milk
There was no honey
The water sweet
The fresh almonds bitter
The night cool
A paradise of sorts
A paradise of sorrows
For those who can see
The woods from the olive trees
KAATERSKILL FALLS
Sarah Toomey

Gold comes up. Sooner or later, it all does—you think you see the cranes coming down from New America, or the loose-skinned fish beating back those two tiers like copper dowsing rods, everything looking for a paltry bite to eat, or a grandiose place to begin. Concord is here, and hiding—somewhere behind the sheet algae,
a pair of workman’s boots, the pressure of a penny being pressed into the forehead of the hillside, the industrious sun waking and walking his funny rope back home.

But gold comes up, and other suggestions blasted out in yellow, too, and soon red is the whole front, building steadily. Soon, the belly of the valley shaves out its flat sides and the birds like contented nameless blots feed with that hot iron expectation, and the fish swoon in their pockets, sifting through the minute, the rupture, the good gold exit.

CITY OF SAND AND CHROME
Caroline Silber
I grew up as an only child in a remote area on several acres of land. Our home had a large natural pond in the front yard, which, by the time I was in kindergarten, became one of my leading sources of exploration and entertainment. I would spend hours at the water's edge, exploring the abundant array of life that existed in and around the pond, the wildlife ranging from large snapping turtles, to catfish, to small tadpoles hiding in the shadows of lily pads. The seasons brought numerous pairs of migratory ducks and geese that would stop by so often enough over the years that they would readily approach me to take pieces of bread from my hand. Great white egrets, grey herons, and kingfishers frequented our pond almost daily each spring and fall to hunt for fish and feast at pond’s edge in our front yard. Through all these firsthand interactions with the environment in my front yard, I developed a profound interest in and respect for nature.

During the early fall of my junior year in high school, the weather was unusually hot and humid, which resulted in our pond becoming covered in a thick slimy green algae known as “duckweed.” This aquatic plant usually covers the surface of bodies of water like ponds and is typically spread between different bodies of water by waterfowl. While duckweed is a common problem for many ponds in our area, our pond was never noticeably afflicted before. Not only was the pond unattractive looking now that it was covered in duckweed, but it became clear that duckweed was also affecting the ecosystem within the pond. The duckweed affected the pond by preventing sunlight from entering into the water, and as the duckweed died-off it fell to the bottom of the pond where it began decaying. The bacteria that then broke down the duckweed were using up much of the oxygen in the water, creating hypoxic conditions.

By happenchance, concurrently in my Environmental Science class, we were discussing algae blooms in the Gulf of Mexico that were caused from fertilizer runoff. A light bulb went off in my head. I realized that it was possible that our unusual scummy green pond could be the result of a neighbor’s fertilizer running into it. At that time, a new house had just been built at the top of the hill behind our house and the property around it was regraded and landscaped. Thus, a probable cause of our green pond was this uphill neighbor’s use of fertilizer, which, during the heavy spring rain, travelled downhill towards our pond. All of the groundwater and runoff from the land on the hill above my family’s house is channeled into a subterranean moat-system that funnels groundwater around our house and directly into our pond. Therefore, my theory was a reasonable hypothesis.

I relayed this possible scenario to my parents who were also confused by the excessive bloom of duckweed on the pond. They had an environmental scientist from our town’s Wetlands and Waterways Department test our pond water to assess the cause of the algae bloom. The scientist found that our pond water had higher than normal amounts of nitrogen in the water and that it was likely from excessive fertilizer use by our neighbors. While my family had identified why our pond was covered in heavy green duckweed, we wanted to find a solution to get rid of it. We first considered requesting that the town enact a regulation restricting the use of fertilizer on properties whose ground waters flow into ponds and streams.
However, we were informed that we would be wasting our time due to the power of the real estate sector in our town. (Our town prides itself on its robust real estate sector, and large green lawns on multiple-acre properties are prized by several residents.)

To keep their lawns green throughout the year, these residents often install elaborate sprinkler systems and lavishly apply pesticides and fertilizers to their yards as our uphill neighbor had done.

We next considered treating the pond with a herbicide. However, our town prohibits the use of such products in bodies of water within the town borders. Additionally, our pond was subject to even tighter regulations because it feeds directly into a nearby reservoir that is used as a source of town drinking water. Consequently, my family only had two options to get rid of the duckweed:

The first option was to remove the duckweed by hand through a labor-intensive skimming process;

Our second option was to bring our case before the town’s Department of Wetlands and Waterways to seek either an exception to the regulations prohibiting the use of herbicides for our pond or request that the regulations be amended.

After researching the process and potential for an exception or amendment to the residential pond regulations before our town’s Department of Wetlands and Waterways, we learned that it would be a lengthy bureaucratic nightmare with a slim chance of success.

Ultimately, we opted to skim our pond clean. Since then we have continued to aerate the water and remove any duckweed as soon as it starts to grow in order to prevent it from overtaking the pond.

This was my first memorable experience with an undesirable environmental condition that was caused by human activity as well as my first awareness that there were governmental regulations that applied to private property and a bureaucracy that accompanies them.

ORZECH FARMS
Sarah Toomey

In the blue barn, a ripe thing grows cold.
The road works up eastward, land-trust territory and a bell is light prophesied. Embankment down, you have to dig your feet in sideways to get to the spot where the algae stream delegates jade orders to snow and the melt has always just begun. No Spring, they say, just fixtures of the new world and the other world in heat. There is a steeple over that blue barn, there must be in order for the young cows to produce milk. It goes this way for monks and nuns, those times when it is easiest to want for nothing, these times when it is even selfish to put the sliver of another ancient moon in slow green ice cycling somewhere over Vienna or Roxbury, Connecticut for an old sow to regard when she feeds.
MARCH AT 407.18 PPM

Lily Gabaree

The seedlings are in their pen so early to bloom,
you ask the trees if it is true
and the trees see only blue and angled light.

The sea grass that had been fooled into standing in Radcliffe Yard
has squashed into round mounds, like snow-mud after a rain.
Like dead animals with pressed fur.

The fake grass within is standing tall and true
to the thing it was supposed to be
and not is, because it is too good at it.

Now the plastic reeds rattle (rattle!)
The seedlings push new feet through the wet.

Have they missed their spring?
They ask the trees and wait.

FOR THE HARDEST DAYS*

Clint Smith

Some evenings, after days when the world feels
like it has poured all of its despair onto me,
when I am awash with burdens that rest atop
my body like a burlap of jostling shadows,

I find a place to watch the sun set. I dig
my feet into a soil that has rebirthed itself
a millions times over. I listen to the sound
of leaves as they decide whether or not

it is time to descend from their branches.
It is hard to describe the comfort one feels
in sitting with something you trust will always be
there, something you can count on to remain

familiar when all else seems awry. How remarkable
it is to know that so many have watched the same
sun set before you. How the wind can carry
pollen and drop it somewhere it has never been.
How the leaves have always become the soil

that then become the leaves again. How maybe
we are not so different from the leaves.
How maybe we are also always being reborn
to be something more than we once were.

How maybe that’s what waking up each morning is.
A reminder that we are born
of the same atoms as every plant, and bird,
and mountain, and ocean around us.

*Originally published in Counting Descent
STILLNESS
Laura Krueger
Zena Agha is a Palestinian-Iraqi writer, poet, and activist from London. Her work explores identity, immigration, gender, and life in the diaspora. She graduated with a master’s degree in Middle Eastern Studies from Harvard University in 2017, having been awarded the prestigious Kennedy Scholarship. Zena’s master’s thesis examined Israeli spatial practices in Palestine-Israel.

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George E. Clark has been a librarian at Harvard since 2001. Before that, he worked for the MIT Libraries and for the United States Environmental Protection Agency. In 1998, he and colleagues at the George Perkins Marsh Institute published a frequently cited article - perhaps the first to assess the socioeconomic vulnerability of a community to climate change - titled “Assessing the Vulnerability of Coastal Communities to Extreme Storms: The Case of Revere, MA, USA.”

Aaron M. Ellison is the Senior Research Fellow in Ecology in Harvard’s Department of Organismic and Evolutionary Biology and Senior Ecologist at the Harvard Forest, and a semi-professional photographer and writer. He studies the disintegration and reassembly of ecosystems following natural and anthropogenic disturbances and is the author of *A Primer of Ecological Statistics* (2004) and *A Field Guide to the Ants of New England* (2012).

Lily Gabaree recently graduated from the Harvard Graduate School of Education with a master’s degree in technology, innovation, and education.

Philip Gerstein is both a Harvard alumnus and a member of the Harvard Library staff. He has an MA from Harvard in Art History and does Reference for the Science Library. Philip is also an accomplished professional artist, exhibiting frequently around Boston; his second solo show in New York City took place in November 2017.

Amanda Gorman, College ’20, is the first Youth Poet Laureate of the United States. She has served as a United Nations Youth Delegate in New York City, was awarded an Outstanding Community Service award by the city of Los Angeles, and is the author of *The One For Whom Food Is Not Enough*.

Neiel Israel is a poet, performance artist, and arts educator. Her time as a librarian at Harvard University has increased her interest in comparative literature, love of poetry, and appreciation of Widener Library. She is a seven-time National Poetry Slam Team Member (2011-2017), Individual World Poetry Slam representative of the Boston Poetry Slam as the World Qualifier winner (2016), and Women of the World Poetry Slam representative of the Lizard Lounge (2011). She is presently Poet-in-Residence for America SCORES Boston.

Mary Kocol has been on staff at Harvard for 14 years and is now a fine art photographer at the Harvard Art Museums. Her work has been exhibited in museums and galleries in Massachusetts and the United States, and her art photographs are represented by Gallery NAGA in Boston, where she had a new exhibit in September 2017. She has received a Guggenheim Fellowship for photography.

Laura Krueger is a recent graduate of Harvard Divinity School, where she received her MTS and concentrated in religion, literature, and culture. Her photography has been featured in several journals and publications and on the Humans of HDS blog, which she helped co-found.
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