IT'S STILL DOOMSDAY

Tom Litster

"Apocalypse Becomes the New Normal" was a recent editorial headline. This is not new at all in the world as I've known it.

I ENTERED THE WORLD after its bloodiest war, the one ending with Japanese cities annihilated with atomic bombs named Little Boy and Fat Man, that in turn became collectively understood as the Bomb, bigger and plentiful, that suggested we might collectively extinguish ourselves from the universe. Many believed we would. But I never imagined it would *always* be doomsday.

Concepts of doomsday change. You can know a lot from how we imagine it will arrive, the spectacles of disaster, and how we imagine the central question — who will survive*?* Rather than the blankness of empty space and no future, we prefer to imagine someone survives — maybe a lot, maybe a few — in a future world that is similar to our own, but probably better. That's an old story.

It seems to be a condition of thinking about the future that we believe our own doom is importantly different from our predecessors. Our crisis is more certain, more truthful, more worrying and interesting. Maybe it's simply privilege to think no one felt as we do today, and that we are at the end of one epoch and in another one more fateful and terminal. Yet global warming may be no more terrifying than hydrogen bomb tests vaporizing small islands in the Pacific, and that no more terrifying than expecting the appearance of armies from Heaven in judgement.

It seems apocalyptic anxiety attaches itself to the means available. Stories and images change apart from confidence in the remarkableness of the crisis.

MOTHER AND CHILD SEEK REFUGE FROM A MASSIVE WILDFIRE IN AUSTRALIA
(PHOTOGRAPH: ANDREW QUILTY)

Spectacles of Disaster

> *The disaster of disaster is that disaster is everywhere, all the time: while on the one hand it appears obvious that disaster should be the exception that proves the rule of a generally non-disastrous world, in actuality no non-disastrous moment arrives.*
> — Timothy Morton, *Dark Ecology*

THE WHOLE WORLD WATCHES. The heat is excruciating. Wildfires are burning across Australia in a fiery dystopia like nothing anyone has seen before. A single inferno in just one of the burning landscapes is the size of Manhattan. Plumes of smoke and ash darken the skies. A man in a small town sends a New Year's Day message to friends elsewhere, "We need more able people to defend the town as we are in for bad heat again on Friday." A government spokesperson says "This isn't a wildfire, it's an Atomic Bomb," confirming the Bomb is still the gold standard of modern apocalypse. Military assets are deployed at a scale not seen since World War II. "It's like armageddon, end of the world stuff," says an evacuee of a town where residents are trapped on a beach.

A newspaper headline in America screams "The Australian fires are a harbinger of things to come. Don't ignore their warning!" I see images, they are all in orange.

I think of Susan Sontag's notable essay, "The Imagination of Disaster," in which she remarked: "Ours is indeed an age of extremity. For we live under continual threat of two equally fearful, but seemingly opposed, destinies: unremitting banality and inconceivable terror." She was reflecting on the 1950s science fiction films, those grainy black and white movies film historian Andrew Dowdy recalled: "Every Saturday night we witnessed the latest hostile surprise created by an environment more capriciously malignant than anything Joe McCarthy promised in his most lunatic moment."

The spectacles of disaster were unlike anything popularly imagined before nuclear weapons of science fiction appeared in the actual world as Little Boy and Fat Man, and before the Cold War promised mutually assured destruction if they appeared again. I watched tentacled Martians in metal canisters shot to Earth to destroy our cities with powerful rays, turning the sky red and orange. There is wide-spread panic and mass evacuations. Creatures awakened from the depths of somewhere by atomic bomb tests rampage through cities, more panic. A handsome alien accompanied by a tall robot comes to Earth to implore us to rid ourselves of atomic bombs immediately or his kind will take action.

I watched the 1959 science fiction movie *On the Beach* — Australians wait on beaches for clouds of radiation that cannot be stopped. They tell each other this was an utterly unnecessary act of man. "You remember when we first met? It was on the beach. I thought you were everything I'd always wanted," says the husband. "I thought you were underfed. It's all over now isn't it?" says the wife. "Yes. It's all over," answers the husband.

I see pictures of New Zealanders on a beach as a plume of wildfire smoke crosses the Tasman Sea. The orange sky of Australia is now their sky. "Apocalyptic orange," says a headline. "Proper apocalyptic," says a man in Auckland.

The proper apocalypse, at least for those of us who think of ourselves as two thousand years of western civilization, is the grandaddy of apocalypse — Genesis to Revelation. It was to be a purposeful End to a world overseen by God, and with us in mind. Yet millenarian prophets foretold its arrival as wars, bodies lying in streets, calamities and disasters, earthquakes and floods, and even a climate so deranged the seasons will no longer make sense. All before God comes to burn the world. My father kept an issue of *Reader's Diges*t on our bookshelf, next to the Encyclopedia Brittanica, in which the principal article was a challenge to the nation: "The Road Ahead in the Light of the H-Bomb." The road to salvation is a pilgrimage of the spirit up the Lord's mountain, the article counseled. On this road

we must "toil through rough realities, with the hydrogen bomb our companion, and peace our compulsion."

Nuclear apocalypse, a purposeless end initiated in bunkers, and the purposeful End directed from heaven, had merged. The grownups had decided to move forward with the Bomb in one hand and the cross in the other. This confused me. I was instructed to anticipate an apocalyptic transformation without reluctance, and that the afterlife would not interfere much with the present. But I doubted these bombs could be precisely targeted to spare me and take the wicked, and I was scared.

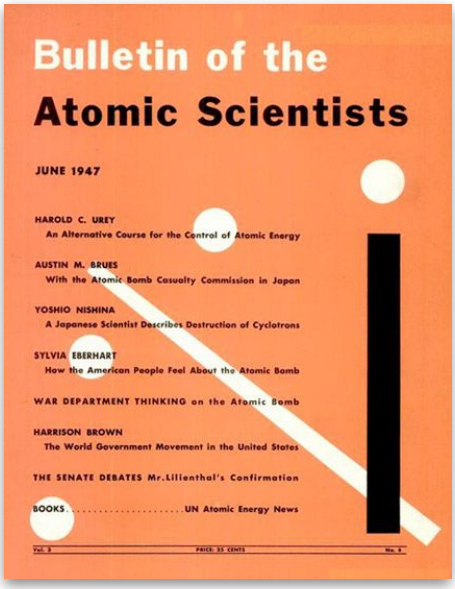
As for any fuss at all over an apocalypse, some might say it's a way of addressing the central problem of life — it will end. It's a projection of our fear of death into a mythic and hopefully transformative end — psychologists, anthropologists and mythologists are among those who have said so. Some say if nurture is proper, the mother does a good job and the father is stable, a child will realize that fears of death and the end of the world are manageable. Short of that comfort a child may prove to be a philosopher or an existentialist. That may or may not be true.

I can assure you this much *is* true. Just as sure as we now understand the meaning of unprecedented heat and storms and floods, and that they can appear in any landscape, and rising seas at any shore, a potential nuclear holocaust was suddenly in the nature of the world. We understood the colors of a fireball in any sky, a mushroom cloud over any landscape, darkening everything until the black rain of its own weather system falls on whatever is left below, poisoning it to death. Seeing oneself in a blasting, annihilating light not of our own lasts a lifetime.

Two years after Little Boy and Fat Man, the Russians proudly announced their own atomic bomb test. A newspaper headline asked *Who Will Survive?* Yet another proclaimed *Doomsday!* The Cold War was on, with hydrogen bombs 500 times more powerful than Little Boy accumulating toward the many thousands in America — in defense of capitalism — and in Russia — in defense of socialism. Between us, atmospheric nuclear tests would eventually number a thousand.

The *Bulletin of the Atomic Scientists* published its first addition with an abstract clock face in dots and thick lines is on the cover: the Doomsday Clock. It showed a 15-minute range approaching the doom of midnight, when the next world war might end everything. The diagram of the atom — electrons ringed around a nucleus — symbolized a mysterious power to transform the world, or end it. No scientists were as awesome and mysterious as "atomic scientists."

The clock became a timepiece for human anxiety about life's grim future. People were trying to get a grip on what was happening. They worried about what might happen if we didn't show restraint with the atom, while also staying vigilant, "as we must," in our defenses. We had an answer — Hiroshima. We didn't need to say more to conjure a story belonging to the world. The national mood was a narrative of consequences. Time was running out.



The government made films for schools about how to survive an atomic attack, also in black and white. Children walking to school drop their books as they have been told to do and run for shelter when they see a bright flash. Inside school classrooms, children ducked under desks. Two men in coats and ties speak in somber tones and nod in agreement as they instruct us to stay put in our cities when the bombers come. Families should rebuild immediately, to flee would be unpatriotic. We saw diagrams of the flight paths of Russian bombers coming over the horizon, and the concentric circles of a single bomb's destruction in a single city.

No matter where you go or what you do, always try to remember what to do if the atom bomb explodes right then … older people will help us as they always do. But there might not be any grown-ups around when the bomb explodes. Then, you're on your own.

— *Duck and Cover*, US Federal Civil Defense Administration film

We saw magazine photos and newsreels of actual hydrogen bomb tests far out in the Pacific, meant to assure us the government was doing all it could to keep us safe from communism. The best things we could do were show no unwarranted alarm, learn the meaning of democracy and prepare for an uncertain future. The fireballs wider than Manhattan were as awesome as the face of God, vaporizing small islands was incomprehensible. It was the nuclear sublime. Most people stopped preparing to do anything. There was nothing to be done against something 500 times more powerful than Little Boy and Fat Man.

Reverend Billy Graham bellowed "God is giving us a desperate choice!" This was apparently his affirmation of those rough realities of the *Reader's Digest* article, and he was quite specific. He told us the sites of the next Soviet nuclear bomb tests would be "New York! Secondly, Chicago! And thirdly the City of Los Angeles!"

Metro-Goldwyn-Mayer released an animated cartoon film, *Goodwill to Men*. Mice in the ruins of a church sing a strange version of "Hark! The Herald Angels Sing" and wonder about wishing goodwill. "What are men?" asks a young one. The oldest mouse explains they killed themselves off by building more and more destructive weapons. Even Russians chimed in: "The use of nuclear weapons will result in the extermination of entire human race," they wrote in *Pravda*.

These were stories everyone still understood when John F. Kennedy addressed the United Nations in 1961: "Every inhabitant of the planet must contemplate the day when this planet may no longer be habitable … The weapons of war must be abolished before they abolish us." They were understood in 1964 when Lyndon Johnson told us there were enough nuclear weapons in the world to essentially make each of us a small, personal bomb. He ran a TV campaign ad showing a little girl unwittingly counting down to nuclear holocaust by pulling petals off a daisy.

Sontag again: "The trauma suffered was that from now on to the end of human history, every person would spend his individual life under the threat of not only of individual death, which is certain, but of something almost insupportable psychologically — collective incineration and extinction that could come at any time." But Sontag got something wrong. We weren't just imagining disaster in the movies she considers "collective nightmares … too close to our reality." Survival was nearly always a feature, usually of a select few. It was the Judeo-Christian myth of transformative apocalypse by way of the Bomb, and told us stories of personal redemption through love, and beginning the world anew, only better.

When an interviewer asked Ingmar Bergman if his 1956 film *The Seventh Seal* was about nuclear apocalypse, he answered, "That's why I made it." The interviewer failed to ask about the final act of the knight sacrificing himself so one family could survive — personal redemption and beginning anew.

I SURVIVED, and like every other boy and girl in town I went to high school. I had nearly forgotten the Civil Defense films. We thought we had dodged the nuclear bullet when the Cuban missile crisis didn't end in holocaust. But to play it safe, the Strategic Air Command kept planes with nuclear bombs flying 24 hours a day. As Thomas Merton, American Trappist monk and poet put it, "Right on time the SAC plane flies low over the hills, ponderously, yet lightly like a shark in water making the wide turn in relative quiet, pretending we are God knows what city in Russia or whatever else it is they pretend."

The summer before high school I saw Stanley Kubrick's film, *Dr. Strangelove: Or How I Learned to Stopped Worrying and Love the Bomb*. It came to our small town movie house well past its first run release. In the final moments a Russian doomsday device meant to ensure mutual destruction in case of a surprise attack by America is triggered by an attack launched by rogue general. The American president is as surprised as the Russians. Crippled Dr. Strangelove rises from his wheelchair and deliciously suggests to the war room survivors that they retreat into deep mine shafts with nubile young women, where "animals could be bred and slaughtered."

The whole point of the doomsday machine is lost if you keep it a secret! Why didn't you tell the world?
— Dr. Strangelove

At the end of the movie mushroom clouds dance on-screen in a surreal ballet, accompanied by the World War II song "We'll Meet Again." The destruction of the world was already running in our heads.

Dr. Strangelove was more possibility than fantasy. John F. Kennedy was surprised to learn, soon after taking office, that "a subordinate commander faced with a substantial military action could start the thermonuclear holocaust on his own initiative if he could not reach you." It was just as well we didn't know that.

It was four more years until I read Allen Ginsberg's "Howl." He had recited it for the first time in a former auto repair shop in San Francisco, the same year Billy Graham told us what our choice was, and the animated film *Goodwill to Men* was released, and my father put the *Reader's Digest* on our family bookshelf. "I saw the best minds of my generation destroyed by madness, starving hysterical naked, / dragging themselves through the negro streets at dawn looking for an angry fix, / angelheaded hipsters burning for the ancient heavenly connection to the starry dynamo in the machinery of night," Ginsberg recited.

That year he wrote his poem was the year James Dean starred in *Rebel Without a Cause*, which I, the severely younger brother, was adjudged too young to see when it came to the movie theater. Jim Stark demands of his father, "How can a guy grow up in a circus like this?" He "chickie races" a stolen car toward a cliff.

Brando's Johnny, in *The Wild One,* answers the question of what he is rebelling against, "Whadda ya got?"

It was already a century of horrors — the Turkish slaughter of Armenians, the rape of Nanking, Stalin killing a million of his own people and starving to death another ten million in Russia and Ukraine, a hundred million dead in world wars, Auschwitz, Hiroshima and Nagasaki — and we weren't done yet. There was a feeling that had been there all along in America's postwar kids. More than weariness, it was the feeling of having been used, being reduced and pushed up against the wall of oneself, of being raw. It was a nakedness of mind and soul. The possibility of a push-button war as the end of all life had been a big part of it. I didn't trust the government or the grownups, and no one I knew as friend did.

CHILDREN IN A FAMILY BOMB SHELTER, SOME WHERE IN BROOKLYN,1952
((BETTMANN ARCHIVE VIA GETTY IMAGES)

The Shape of Things to Come

IF YOU REMEMBER BEING A CHILD, you will remember it is mostly a problem of entering the external world. In an inner world of your own, sometimes in chaos, you try to take it in: confusing causes and effects, power relationships, awareness of the fragility of your body, life and death, and the possibility of eternity. We want to do this as a hero, not so much a firefighter, doctor and nurse for the most

afflicted, or an astronaut — though maybe these as well — rather as a cosmic hero projecting ourself outward through self-expression toward the meaning of life. We want to know where the problem lies, and reasons for it, and who is to blame.

In my own consciousness, I was not a child. I was determined that everyone's will would not be stronger than mine as I made my entry into the world. I would not rely on my parents, my far removed siblings or any grown ups to explain the central problem of the world. I would defeat their stories with my own, which was the perfectly childlike thing to do.

What I remember before the Bomb are my imaginary friends, Bubby and Shrashary (I can't explain the origin of those names). They affirmed whatever I thought and sometimes offered what I took to be advice. We believed ourselves to be magical, the three of us. Our cries would summon comfort for distress and food for hunger, and attention was focused on our desires. There is a hazard in such magic: anything can happen to anyone. Bubby and Shrashary never said anything about the end of the world. Who would expect imaginary friends to speak of such things? We could not imagine that life could disappear forever, or where it might go, or that I might be the last of human history. History, apocalypse and our sense of ourselves exist on the assumption that our past, present, and future are connected by a continuity of human experience.

Once again we are trying to get a grip on what is happening. We sent out our detectives, scientist mostly, and they've reported back that they found the culprit — it is us. It's a straightforward report: heat from the sun arrives on the planet, not enough of it bounces back toward space because we've mucked up the atmosphere by digging up long-dead plants and animals and burning them to fuel our carbon economy. As with the atom, the question is what will happen if we do not learn to keep our desires and our carbon in check? There is a simple answer — catastrophe is probable and extinction is possible. There is a closed circle of imagery for the spectacles disaster — massive hurricanes photographed from satellites, frightened people carrying dogs and children through floodwaters, soils withered and cracked by droughts, helpless firefighters silhouetted against a wildfire inferno, or a million dead sea birds floating in gigantic oceanic patches of our garbage.

While I watched the horizon for mushroom clouds, the unnatural power of human society and technology was growing so great that, as Dipesh Chakrabarty notes, it has come full circle to become natural again: a force of nature comparable to the earth's orbital permutations, plate tectonics, or the impact of a massive asteroid. That's a new story for what it means to be human as both unnatural self-created

creatures and a natural force at the same moment in the longue durée of geological time. As acts of our geological agency we have changed the climate, probably for centuries to come, and terraformed Earth with 12,000 years of agriculture. We never meant for it to happen, we just stumbled into it. As a final point to our story, a thin layer of radioactive material lies around the whole planet, fallout from a thousand nuclear weapons tests.

We have more questions. How bad will it get? We want to ask experts from climate scientists to risk analysts about the possibility of our societies collapsing due to climate change in coming years and decades. Will it be some societies or all societies, and when? Where will it start, and will all societies go at once? How long will the collapse take? We have an emerging science of society's collapse. I'm told it's an interdisciplinary science taking into account the interconnected natural systems of the Earth System and their interaction with the social, political, economic, and cultural systems of the Human System. It's a nascent field, but it has already told us — once again — time is running out.

Jonathan Franzen, an American novelist, thinks we should focus on survival. He wrote an essay for the New Yorker titled, "What If We Stopped Pretending?" His argument: "The climate apocalypse is coming. To prepare for it, we need to admit that we can't prevent it ... All-out war on climate change made sense only as long as it was winnable." He urges us to focus on what is possible — "a more balanced portfolio of hopes, some of them longer-term, most of them shorter" rather than what's impossible — and worry about "disaster preparedness, and smaller-scale goals like helping animals suffer less right now, and the most vulnerable people suffer less in the future. "It's already too late," he says. Jonathan pissed off some people, which he is known to do.

Kate Marvel, a climate scientist at NASA and Columbia University, was among the pissed off. She doesn't think Franzen is who should get to do the talking, so she wrote in her blog for the *Scientific American*, "Shut Up, Franzen." Her argument: "Since we understand the driver of potential doom, it's a choice, not a foregone conclusion." She promises "we are not doomed, no matter what Jonathan Franzen says. We could be, of course, if we decided we really wanted to ... there are times when the certainty of inevitability seems comforting. Fighting is exhausting; fighting when victory seems uncertain or unlikely even more so. It's tempting to retreat to a special place — a cozy nook, a mountaintop, a summer garden—wait for the apocalypse to run its course, and hope it will be gentle." The thing that really frightens her about global warming and climate change is not going extinct. It's how it will change the way we treat each other.

It will not be romantic, like movies Sontag misunderstood as only about disaster, where a handful of survivors are either savages or romantic couples in the sunlight of a new world, or American frontiersmen in a world shorn of corrupt cities. It will not be moviegoers from New York to London to Tokyo who left theaters stunned and weeping after seeing *On the Beach,* a visual narrative of people who passively accept the gradual approach of "the time" and try to carry on with ordinary things of life while military officers insist on doing their duty. An American submarine commander falls in love before sailing away to "die at home" while the people left on the beach, including the beautiful Ava Gardner, go home to take suicide pills. In the end there are only empty, windy streets with no sign of a fight.

EXTINCTION REBELLION is in the streets, and they *will* put up a fight. Mostly they are our children, some of them in costumes and warrior's face paint. They tell us time is running out while we quibble over timelines and how bad it will be, and document new spectacles of climate disaster and each new advance toward the Sixth Mass Extinction. "We're going to see massive climate crisis around the world. It's overwhelming and terrifying," says one. They hold up banners proclaiming "Roses are red, violets are blue, our Earth is burning and soon we will too." They are frightened.

COURTESY OF EXTINCTION REBELLION

A small Swedish girl with the gift of Asperger's says, "the politicians have failed us, old people have failed us and the government has failed to protect us."

For our children it's still a problem of entering the world and a desire for heroism (it always is). They see a central problem of all life — a collective end, or at least a diminishment. We, the older ones, feared life and its possible shortness — the siren, the sudden flash, how to live those last days on a beach — more than the future. They fear the future, and see a darkness where the future should be. A parent asks how to talk to his kids about the consequences of human activity, "My daughter was just six when she came to me and said: 'Daddy, are we winning the war against climate change?' I was just flummoxed by that question." Imagination and creativity are needed more than ever to share the experience.

I was at reading in my neighborhood bookstore. A woman, a parent, my age (an "old person") told us her story of hometown racism in 1950s. She went off message to say, "Oh that little Greta Thunberg, she's such a hero." But I don't imagine a modern day young prince who comes to pull the sword from the stone. Children live in their own heroism, not as *our* heroes.

The writer Rebecca Solnit, born just under the wire to be a "baby boomer," writes essays telling me if we are to survive we must follow the demands and examples of the next generation. Greta has come to help save us, she says, when everything is upside down and the children are mature and too many old people are juvenile. I don't imagine being saved by Greta Thunberg, or quote her as some friends do.

I imagine something else altogether. What I imagine is an invitation to those rebels in the streets (even if they never hear it), something we can do together as uneasy children holding each other's hand. We'll bring our imaginary friends and go to a forest, a place always foreboding and magical to us children in folk tales, where we are certain to encounter the non-human — wolves, bears, frogs, snakes, birds. We will cartwheel among them and see what we see, upside down, then right side up, not sure if they are us or we are them. It will all level out. We'll make up a folk tale as they have always been told and retold, the ones that reveal the conditions of the society that left children in the forest when the fathers failed to protect them. We will outwit those who would do us harm, those who lost their souls and their humanity. We will make a demand, "Tell the truth!"

Where did the children go? The ones who followed the Pied Piper, the mysterious force that none of the adults, not the mayor, not the merchants, understood and were powerless or unwilling to protect their children in the first place. Did they go merrily to their annihilation? To a redemption? To another country? Maybe when we emerge from the forest the grown ups will think we are them.

The grown ups will still be in their "climate crisis," their information robust, their actions not, and trying not to lose heart. We'll tell them *the way in is the way out*, and hope they will begin to understand. We'll say, *give up privilege and coexist generously among all that is the actual world*. This will be our heroism, not the recovery of an old world order shining on a hill in the sunlight. It will be the ability to survive and transform our fate. But older ones can be hard to convince. They mistake that for wisdom.

Our folk tale won't the be the last. It will be a tale told and retold and changed until it will be remembered in a substantially altered world by some imagined

humans (or equivalent) far off in the future who are curious about us and our tales. We won't be remembered like the small-brained dinosaurs, placid and lumbering or instinctively aggressive on doomsday, or as the most destructive species in all of Earth's biological history, who damaged everything around them and changed the climate for centuries, or the ones who dropped the Bomb again.

Otherwise, how will the end of the world be reported? Hardly anyone expects a ballet of fireballs and mushroom clouds like the end of *Dr. Strangelove* (though I think we should not be too quick to discount that possibility). The *Washington Post* published an article with the headline "Everything Is Not Going to Be Okay: How to Live With Constant Reminders That the Earth Is in Trouble." It's almost lyrical as the author wonders how it feels to live with a looming and predictable tragedy. We know what's happening and why. What does it mean to chat about the weather, run errands and pay mortgages, pick up the kids from school and pull a plastic bag from the roll at the grocery story when extinction is no longer speculative fiction? It's an entirely new existential calculus when we are afraid of ourselves rather than nuclear-tipped enemies behind an iron curtain.

The *Post* article ran in the Style section. The world ends not in Judgement Day, not with flashes of light brighter than the sun and a bang, but with banal activities and us facing the consequences of our behavior — people on a beach after all. In a substantially altered world we will be remembered through our own extensive data documenting our collapse.

FUTURES ARE A CONCEPT OF HOPE, and a rupture with something significant about the past. We Americans are more enthralled with the future than anyone. We are a nation of futurists, ready to explore alternatives and imagine plausibilities for what might be. New technologies are no less carriers of meaning than ballet or poetry. We adjusted the parameters when things change and reposition ourselves in a new future, four or five times in the last century alone. Now we are all futurists every time we talk about remarkable weather, or feel discouraged by the barrage of negative information and downward trends in curbing our carbon, or feel despair over how overwhelming the ecological breakdown seems to be.

Our modern future — yours and mine and the children in the streets around the world — is haunted by specters, disbelief from chasms of illusion, geopolitics beyond our reach, demographics, marketing and appearance. We don't need to imagine survival through science fiction or computer-generated imagery. We had

Hiroshima and the hibakusha (those who survived, at least for awhile) though we never could grasp what it all actually meant. We know refugees are migrating not only away from violence and oppression, but away from adverse weather patterns, poor soil quality and failure of their crops. We know the glaciers of the Himalayas store water for 47 percent of the world's population and are rapidly disappearing. There may have been irreversible developments, now utterly beyond our control.

Only slowly have we realized the greatest victims are plants and animals and people far away from us, beyond what we used to call horizons before the world lost its horizons to ICMBs with nuclear warheads and global warming. Some will be hunkered down and living on whatever patch of land might sustain them. In Thomas Cole's nineteenth-century paintings a magnificent white city arises out wilderness only to collapse in the flames of war, leaving broken columns covered with resurgent wilderness. New meanings have crept into the idea of extinction.

We have a new story belonging to the world. Whether we fear the Bomb or global warming we live in a time both of our own making and one entirely outside our memory of human history. The Doomsday Clock scientists — sixteen of them Nobel laureates — recognizing both existential threats have set their clock for at 100 seconds before midnight, closer than ever.

"ASH FLOWER" — ANSELM KIEFER