

We the People



Stories, essays, poems and pictures for the Climate Classroom

John Slade

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**America was once
the most innovative nation on Earth.
We need to do it again.**

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Table of Contents

Introduction	5
We Are Your Grandchildren	9
The Global Climate Team	30
A Soldier Comes Home	39
California Girl	45
An Auspicious Gathering in Independence Hall	52
I Am a River	69
Imagine How Lovely	72
Seeds Long Dormant	75
When Did Love Begin?	77
Thoughts in a World at the Brink Of Both Nuclear War and Climate Catastrophe	81
The World Was Made For Love: Ten Poems	86
And God said, “Let there be life.”	88
Your Soul Remembers	91
Star Dust	93
Sunlight Glitters on the Dark Water	95
Once There Was an Egg	97
She Would Like to Speak with You	99
All the Dogs and Cats	102
The Parliament of Veterans	104
I Want a Purpose	107
The World Was Made For Love	109
Five Posters	110

Introduction

You see, it doesn't have to be this way.

There is no law, no religion, and nothing in your genes, that says that young people must grow up so deeply worried about your future.

No Commandment in any Scripture states that you must live with a deep, dark, heavy sense of dread every day . . . because the Climate Crisis is going to destroy your world.

No destiny ever declared that your generation is doomed to live in quiet but constant fear of nuclear weapons.

No curse was ever placed upon your generation, declaring that "Thou must live and die in war upon war upon war upon war unto eternity."

You were born as perfect little packages of exuberant life. Before you could speak, you could smile. You were engineered so that without any special training, you could lie on your back and kick your feet; and then you could roll over and crawl; and then you, with a bit of help from your mother's and your father's outstretched hands, could begin to walk; and soon in your funny, bumpy way, you could run.

And then—there was no stopping you—you showed the world that you could dance! By the time you were a teenager, you were a Dancing Phenomenon.

Without any special effort, you began to speak, at first with simple words, and then with sentences of growing complexity. By the time you were a teenager, you were Super Cool, ready to take on the world.

You were more than just a kid growing up. You had these hidden treasures inside you, called Talent. Each kid had different talents. Some could run faster than anybody else. Some could sing better than anybody else. Some always got an A in mathematics class, while the rest of us stumbled and bumbled through algebra.

Some could speak in front of the class with a voice so clear and compelling that you understood something, crystal clear, that you had never even thought about before.

Some were so gentle, so thoughtful, so caring about other people, that you found yourself beginning to care a little bit more about the people who maybe needed some help.

Yes, by the time you were a teenager, you were blossoming with multiple talents, and wearing just the sort of clothes that suited you, and . . . without any special effort on your part, you were ready to fall in love.

Your first dance together was . . . magical. Your first real conversation made you so deeply happy because you could actually really *talk* with each other. And your first kiss . . . well, you would remember that forever.

So, who on earth has the right to come crashing into your world with the Insane News that the planet is so polluted that the oceans are dying and the glaciers are melting and the tundra is warming and the permafrost is thawing and massive amounts of ancient methane—from before the last ice age—are about to rise into the atmosphere as *The Most Hideous Greenhouse Gasses Ever?* Planet Earth now warms at an accelerating rate, getting hotter and hotter every year, so that by the time you graduate from college and get your first job and marry the Love of Your Life and bring your own perfect little package of life into the world . . . farms are parched by drought, agriculture collapses, climate refugees roam every continent in search of water and food, the Climate Wars slaughter people by the millions, and whatever survivors are left become victims of a global plague.

Who on earth has the right to come crashing into your world with nuclear weapons from the 20th century, the bloodiest century in all of human history?

Who on earth has the right to come crashing into your young life—you are just getting started—with the racism and the greed and the corruption and the violence and the sexual arrogance which they have clung to for centuries?

Who are these Old Bastards who poison us with their small-minded hatred for everyone on the planet who doesn't wave their puny little flag?

You see, it doesn't have to be this way.

We do not need to destroy planet Earth, the only Cradle of Life in our corner of the universe.

We don't need to keep paying massive subsidies to the oil industries year after year, while they build their palaces and poison our planet.

We do not need to sacrifice a hundred thousand young lives on a devastated battleground so that some Macho Politician can keep his fancy office.

We do not need to cling to this notion that women—who bring new life into the world—are somehow deserving of our scorn.

We do not need, at the age of eighteen or twenty-one or twenty-five . . . to stop believing in ourselves.

Every teenager, bursting with energy, filled with dreams, is a miracle that should be able to flourish in a healthy and peaceful world.

* * *

So how do we change the course of our long human journey toward a far better future?

The good news is that we have already begun. Teachers and students around the world are working together to develop vibrant new courses that prepare young people to tackle the great challenges of the 21st Century. Clean energy companies are advancing rapidly in the transition from coal and oil to the sun and the wind. A new green spirit grows stronger every year.

But we are moving too slowly. Young people around the world are not nearly as engaged as they could be. The endless wars divert our attention from the work that we *should* be doing. Many of us still hope that the problems will simply go away.

As a teacher of many years, I believe that young people—who will live their lives in the 21st Century—must not wait any longer, but must *determine for themselves* what sort of education they need in their schools. They must determine what sort of careers, some of them in entirely new fields, they will pursue. They must reach out to their fellow students—and soon their fellow colleagues—around the world, so that they form the First Global Generation in Human History. They must work together to formulate a final goal, which they will reach within 25 years: 100% clean energy, so that the Earth can begin to cool before climate catastrophes overwhelm us.

Every cathedral, every mosque, every temple, every shrine, built centuries ago, began with a *blueprint*, a plan for building something which had never been built before. We need to do the same now, with a *blueprint for a Global Green Grid* which will wrap around planet Earth and bring clean energy to every city, every village, every farm, every child.

Young people must of course work with clean energy engineers, forming a team with an urgent mission. Climate scientists will be part of the team. Green lawyers will be part of the team, as well as green economists. Indigenous peoples from around the world will be an essential part of the team.

In all of human history, we have never had such a team. Here is the foundation for a Renaissance in the 21st Century.

We need to think about the Big Picture. What sort of schools do we need in the 21st Century? What sort of *purpose* do we want in our lives? Are we responsible for protecting *life* on planet Earth? How do we free ourselves from the curse of war?

How do we enable ourselves to look back at the ripe old age of 80 and say, “I lived my life in the best way possible. And I feel great about that.”

This short book presents stories, essays, poems and pictures as *springboards* for thinking about the Big Picture. What can we accomplish, in our minds and in our hearts? Who shall we be in fifty years?

Jacqueline is waiting to meet you.

* * * * *

We Are Your Grandchildren

Prologue

My name is Jacqueline. My grandmother never called me Jacky, nor did she allow anyone else to call me Jacky. When I was a little girl, my grandmother told me that the world expected great things of me, and therefore my name was Jacqueline. She named me after Jacqueline Kennedy, who was the strongest and the brightest and the most beautiful woman when my grandmother was a teenager, like me, but a long, long time ago.

Yes, my grandmother told me many times as I was growing up, “the world expects great things of you.” She *still* tells me that, and she wrote it on my birthday card when I was sixteen last April. But, I ask her, what sort of world can expect anything of me, when the world itself seems to be collapsing around us. We learn in high school about the Climate Crisis, from the warming Arctic to the dying oceans to the wildfires in California and Australia and even Siberia. I wrote a paper for biology class called “Our Planet Is On Fire.” My teacher gave me an A for research and an A+ for “excellent, clear writing.” But still, I wake up in the middle of the night and wonder why I was born when the fools are destroying our world.

And then, of course, came the Corona Crisis, which overwhelmed the hospitals in New York City with victims of a plague that seemed to come out of nowhere. Here in Brooklyn, the usual traffic disappeared, so that ambulances could race through the empty streets, filling the days and the nights with their sirens.

How, I ask you, does a teenager do “great things” in a world that is both burning and dying?

And then, like the rising of an old plague that never really went away, the racism in this sick country—especially the killing of African Americans who are out jogging, driving home from work, walking down the street, or even sleeping in their beds—finally triggered a huge uprising across the country. People who never before in their lives had joined any sort of demonstration are now out in the streets with signs that proclaim, Black Lives Matter. My grandmother says that Martin Luther King, who was the “strongest and bravest and wisest” man in the world when she was a teenager, would be appalled if he could see the “hatred today.”

And then, of course, the government calls in the federal Army to battle with the peaceful demonstrators, and people start talking about a possible “civil war” that

could spread across the country. Portland, Oregon had always been so peaceful that here in Brooklyn, we hardly ever heard about it. But now it's a war zone, with military monsters out of some horror movie attacking mothers and children in their own neighborhoods.

So, even though my name is Jacqueline, and even though I come from a big, strong, loving family with roots going back to the island of St. Croix in the Caribbean, and beyond that back to powerful, eternal Africa, how am I in this burning, sick world filled with racism that never goes away, and wars that never end . . . supposed to do “great things”?

And then, something happened at New Amsterdam High School in Brooklyn, on a normal Monday morning in the middle of September. That was the day when the “Guests” came to visit the “Students”, and taught us that we did not have to stay trapped in a nightmare. And that *we* were the ones who could end that nightmare, and build an entirely different world. Yes, our Guests taught us that we—every kid in our school—could do “great things”. We would put out the fires. We would bring both people and planet back to health. We would even stop the wars, and never, never, never allow them to start again.

I will do my best to share that day in September with you. But you have got to be ready to feel, to *feel* more deeply in your heart than you have ever felt before.

And you have got to be ready to believe in yourself—in all of us—as creatures worthy of a genuine future.

* * *

Chapter One

On that historic Monday morning in the middle of September, I walked with a backpack filled with books and a laptop from my apartment building to the school yard on a day of bright sunshine. I wished, as every kid in September wishes, that we were back in the months of summer vacation and that my friends and I could ride our bikes around Prospect Park.

But September it was, and Monday morning it was, and the first class at eight o'clock sharp was World History. Uuuff.

The moment I walked into the schoolyard, with a basketball court at one end and the swings of a nearby grade school at the other, I noticed a group of new kids, twenty-five or so, standing in a cluster near the bike racks. I could see right away that somehow they were different. Like the students of New Amsterdam High School, they were teenagers of every ethnic background, as if from a nearby neighborhood in Brooklyn. But . . . they were taller, on the average, than we were. And very fit; yes, they were slim, with a bit of muscle in their shoulders, even the girls.

The haircuts were different. The clothing was different. These kids had no backpacks, and carried no books or laptops. Nobody even held a cell phone.

They might have been a group of teenagers from . . . Paris. Or Russia. Or maybe Brazil?

Rather than walk straight toward the school door, framed with white woodwork in the center of the four-story brick building, I veered to the right to get a closer look. They were a healthy bunch, with a suntan on their faces. Some of them had a certain smile—a gentle smile—and a look of confidence. They gave the curious students passing by a friendly nod, and watched us, as if curious to know who *we* were.

Their eyes were sharp, looking at us from face to face, but not as if they were wary of any danger. It was as if they had some sort of plan, and we were definitely a part of that plan.

I was a little frightened, especially when—as I walked directly toward the big open door—I noticed that the group of visitors was now following close behind.

I spotted a friend, Michelle, and walked beside her up the steps and through the door. While we waited inside to step through the metal detector, she glanced back, then whispered to me, “Nice looking guys.”

“Hmmm,” I said, increasingly nervous, for the visitors were now coming in through the door. They waited in the lobby for their turn to walk through the metal

detector. Never before at this school had I seen a group of strangers just walk in through the front door. Nor did I see our principal, or any teacher, standing nearby to welcome them. They seemed to be completely on their own.

Michelle and I stepped through the metal detector, as we had done every day for two years and two weeks, but then, instead of heading down the corridor to our first period class with Mrs. Kirkpatrick, we paused to see if our visitors would be allowed to enter the building.

One of them, a handsome boy with copper skin and a bushy Afro, wearing what might have been a blue denim shirt and blue jeans—but both the shirt and the jeans were dark green—stepped forward and said to the security guard monitoring the metal detector, “We are guests.”

The security guard already had his hand on the radio attached to his belt. He asked, “Guests of whom? Who invited you?”

With a confident smile, the spokesman said, “Ah. Our grandparents.”

When the security guard began pushing buttons on his radio, our “guest” raised his hand as if to say, “Stop.” But he did not speak.

The guard seemed to freeze. He was like a wax figure in a museum. Then the group of guests walked with confidence through the metal detector without setting off any alarms. Clearly they carried no knives or firearms.

Michelle and I, aware that something very different was happening, turned and walked down the corridor toward World History, Room 116. I whispered to Michelle, “Maybe they are the grandkids of grandparents who went to this school way back when.”

She whispered back, “Yeah, maybe the old folks will show up later. It might be a special Alumni Day.”

When we entered our classroom, we saw Mrs. Kirkpatrick standing behind her big desk at the front of the room, watching with concern as our guests accompanied the normal students into the room, and then stood along the back wall and now the two side walls—one with big windows looking out on the school yard—while we students sat at our desks.

By the time the bell rang at eight o’clock, I had counted twenty-six students, our usual number, with no one absent, and twenty-six guests, quiet and attentive, wrapped in a horseshoe around us.

Clearly, there was some sort of plan.

I looked at Mrs. Kirkpatrick, our young teacher just starting her first year at New Amsterdam High School. Even after only two weeks of classes, the students had come to like her. With her Scottish red hair, and her gentle words of encouragement, she fit right in with our Brooklyn mix of kids.

But she was worried now. Clearly our guests were unexpected, not part of some sort of Alumni Day, or a school-to-school exchange program. Our teacher tried to use her cell phone, probably to call the head office, but she frowned. The phone did not work. She laid it back on her desk.

Looking around the room, she said with a cordial smile to our visitors, “Good morning. May I ask who you are, and why you have joined us today?”

A girl standing in front of a tall window—a girl of perhaps Puerto Rican background—stepped forward and stated, “Either you go forward in time, or you vanish.”

A boy standing on the other side of the room—a dark-haired white boy, maybe Jewish—stated with equal vehemence, “If you want to go backwards, to the old ways, you vanish.”

Now a girl at the back of the classroom—with the look of an immigrant from Ethiopia—stated, “If you are unwilling to begin the great journey toward who you *could* be, you vanish.”

They spoke, one, two, three, Boom! Boom! Boom!, as if they were well rehearsed. They were more than just visitors. I began to feel their presence—their powerful presence—in the classroom.

“But what do you mean,” asked Mrs. Kirkpatrick, her voice a bit stern, “that we will vanish?”

I felt a stab of fear. Who were these strangers? And was I about to vanish?

Just then, the classroom door opened at the front corner and Mr. Lewis, our principal, strode into the room with a nod to Mrs. Kirkpatrick that he would take care of this disturbance. He stood beside her desk with his clipboard, scanned the group of uninvited intruders as if some gang of hoodlums from the Bronx had managed to barge through the security gates, then he told them, “Either you leave immediately, or the police will escort you off the premises of this school.”

A boy in a back corner responded with equal authority, “We have come to discuss with you your curriculum.”

Mr. Lewis snapped back, “Our curriculum?” He glared at the boy in the back corner, then at the entire group of potential criminals. “Listen, we have rules in this

school. And a carefully planned curriculum, which has served our students well for many years now. We certainly do not need your—”

A girl standing near the still-open classroom door stepped forward and raised her hand as if to say “Stop”, though she did not speak.

Mr. Lewis seemed to freeze in mid-sentence. Silent, he became increasingly pale and wispy, a mere ghost of himself . . . and then he vanished.

The girl closed the door. We all heard the click of the latch.

Our guests turned their attention to Mrs. Kirkpatrick, still standing behind her desk, clearly confronted with a situation for which her Masters in Education had not prepared her.

A boy standing between a window and the left edge of the blackboard said with a gentle voice, “Do not be afraid of us. Be afraid—be terrified—of the deeply sick world that you live in. But do not be afraid of us.”

A girl at the back of the room added, “We are here to help you.”

Another girl said, “We are here to help you be who you *could* be.”

The girl at the door said, “With a new curriculum. And with a new belief in who you are.”

Then they were quiet, and the room was filled with a long silence.

Who I *could* be? These kids sounded like my grandmother, telling me that “the world expected great things of me.”

Mrs. Kirkpatrick now asked the question that all of us wanted to ask, “Who are you?”

Voices responded from around the sides and the back of the classroom.

“We are your grandchildren.”

“We have come from the year 2070, because, you see, your generation is not going to make it that far.”

“And your children may well die before *they* have children.”

“In which case, we would not exist.”

“But,” the question popped out of my mouth, “why would our children die?”

“Because you give them a dying planet to live on.”

I protested, “We didn’t pollute the planet for two hundred years. This mess is not *our* fault.”

A Black girl who might well have been my granddaughter—I saw my mother’s eyes in her eyes—told me, “Ain’ nobody else goin’ to fix this mess, Sister. That’s why we come to ask about your *purpose*.”

“My purpose?” That was a question I had never been asked before. “Well, I’ve thought about maybe becoming a doctor. My uncle—”

She cut me off. “I’m not asking about your job. I am asking about your *purpose*.”

A boy stepped toward Anton, my almost boyfriend, seated at his desk. He asked Anton, “How old will you be in ten years?”

Anton stared at the stern boy. Even from across the room, I could see the unmistakable resemblance. They could have been Puerto Rican cousins. Or brothers. Or grandfather and grandson.

Anton said, “Twenty-six.”

“And at the age of twenty-six, what will be your purpose in life?”

“Um, I’m not sure. Maybe something in I.T.”

“Eye tee?”

“Information technology. Computers. I thought about designing security software for the banking industry. That’s a lucrative field, and, well, my purpose would be to financially help my family.”

The boy who stood in front of Anton’s desk laughed with disbelief.

Then he said, “Your daughter, my mother, will die from starvation when drought—year after year of unrelenting drought—causes the collapse of agriculture.”

With outrage in his eyes, the boy paused for a moment, then he said with scorn, “Thank you for your contribution to the family.”

Anton turned in his seat and looked across the room at me. He was bewildered, and frightened. And I understood in that moment—yes, I understood very clearly—that though we were just friends—we had gone together to a movie once—I might well become the mother of his daughter.

The girl who stood beside the closed door now looked at Mrs. Kirkpatrick and raised her hand, as if asking for permission to speak.

Our teacher nodded, no longer worried, but now intrigued. “Yes, you have a question?”

The girl shook her head. “No, a suggestion.”

She walked to the front of the classroom and stood in front of the blackboard. Behind her we could read the title of Mrs. Kirkpatrick’s now-forgotten history lesson, “The Libraries of Timbuktu.” The girl—with her round face and blond hair, she might have been Polish-American—addressed the students. “When you go to school, you should not just sit at your desk and listen to your teacher, read the book, and take

the exam. That's the old one, two, three. You are passive. You are stagnant. You are *dead*."

Mrs. Kirkpatrick, whose position as teacher had clearly been usurped, began to protest, but she was cut off by a boy who now stood at the end of her desk near the windows. "You, the students," he said, sweeping his hand toward all twenty-six of us, "have got to ask the Big Questions. And you've got to do your own research, far beyond what is in yesterday's textbook."

"Yes," called a voice from the back of the room, "and you must reach out to other students in other schools around the world, so that your generation, *together*, can share your Big Questions, can share your research. So that you are not just sitting here in this one little room. Together, you build a *global* classroom."

Mrs. Kirkpatrick clapped her hands, as if applauding. Looking toward her, we saw the most radiant smile on her face that we had ever seen. "Wonderful," she said, as she reached her clapping hands toward our guests around the room. "Oh, how perfectly wonderful."

Our guests continued, "And your *purpose*—the purpose of *the first global generation in human history*—is to design and build a far better world than the collapsing catastrophe you live in today."

"And when you build that bold and innovative world, a world which enables you to become all that you *could* be, you create a magnificent gift to give to your children. And to your grandchildren, who will thank you."

Our twenty-six guests now bowed with gratitude to the twenty-six students and their delighted teacher.

Anton looked at me again, with eyes no longer frightened. Here was something new, something that awakened his spirit of adventure.

Now the girl at the blackboard said to us, "If you could only know how clean and peaceful and healthy and good the world could be, in 2070."

"Or 2050."

"Or 2030."

"Or even tomorrow."

My granddaughter asked, "Why do you poison your world with oil, when the sun and the wind are waiting to go to work with you?"

Anton's grandson asked, "Why for decades have you based your global economy on oil, one of the major causes of war?"

Other guests spoke impatiently from around the room.

“You people, you live in a world in which wars are accepted as totally normal.”

“Whereas we would never call your civilization civilized.”

“How can you live in a world poisoned by oil?”

“How can you live in a world poisoned by weapons?”

“*Why* do you live in a world poisoned by weapons?”

“Ask the Big Questions. Do your own research. And then become Architects of Peace.”

Now our guests were quiet . . . until one girl whispered into our very souls, “Architects of Peace.”

As if on a signal imperceptible to the students, our guests left the walls where they had been standing, and walked into the center of the room until each one stood facing a student seated at a desk, with the desk between them.

The girl who stood facing me—looking at me with my mother’s eyes—said to me, said to all of us, with my grandmother’s encouraging voice, “Would you like to experience how good it feels, every day in 2070, to know that you are part of a world that makes sense?”

“That you are part of a healthy world that blesses you with a real future?”

“And maybe even, that you are part of a world which has a divine purpose? We are the protectors of life. Of *sacred* life. Yes, we are the children of our Creator. And that . . . makes me deeply happy.”

My granddaughter, standing in front of my desk with my books and laptop on it, turned and beckoned to Mrs. Kirkpatrick. “Please come and join us.”

Our teacher walked around her big desk, walked down the aisle between the student desks, then stood beside my granddaughter, who reached out one hand to me and one hand to our teacher.

All around the room, grandchildren reached with both beckoning hands to their grandparents, who reached across the twenty-six desks and shared a strong double grip.

“Now,” said my granddaughter with a voice that was almost singing, “you will feel—you will *feel*—how we feel every day in a healthy world. How we feel every day in a peaceful world. How we feel every day . . .”

Another voice finished her sentence, “If you will enable us to be alive in 2070.”

And then . . . a powerful mix of feelings surged from guest to student, so that I was filled with a profound peacefulness. And with the vibrant energy of being alive.

With a confidence that I could stride into the most challenging future, and be able to rise up to every challenge. With a sense of purpose—perhaps even divine purpose—for I was a protector of life. And with a joy which transcended every happiness I had ever known.

Tears were running down my granddaughter's cheeks. And my cheeks as well. And . . . so I made my promise, with a squeeze of my hand, that yes, I would give to her—to *all* the children of the world—the future they deserved.

* * *

Chapter Two

And then they let go. Our guests released their grip and withdrew their hands.

Like the diminishing light of the sun as it descends beneath the horizon, those powerful feelings from a world where life could flourish . . . rapidly faded, leaving me back in the familiar world of diminished hopes, inescapable fears, a faint tiredness that never went away, a deep feeling of gray heavy dread, and an emptiness that . . . held no purpose.

That, I immediately decided, was no way for a young person to feel.

“Now,” said Anton’s grandson, “if you students would please leave your desks and stand around the four walls, we would like to introduce you to your choice: Either . . . Or.”

The twenty-six students stood up from their desks and walked—our teacher walked with us—to the four walls of the room, where we now stood and watched our guests as they sat down at our desks. Anton and I stood together at the front of the room, where he took hold of my hand and gave me a look which said, Whatever is happening, we’re going to do this together.

Mrs. Kirkpatrick stood with her students at the back of the room. No longer at her desk, she had joined us. We were in this together.

“Now,” said the boy with beautiful copper skin and a fluffy Afro, “we would like to show you your classroom twenty-five years from now, when you . . . could have been parents of teenagers like yourselves. Thus, you will visit your classroom when your own children . . . could have been here.”

Our guests, and the desks as well, now vanished, and in their place we saw what looked like a hospital emergency room, with three hospital beds surrounded by medical equipment—tables with surgical instruments, monitors with a multitude of cables, some sort of breathing apparatus, and overhead lamps—but everything was dirty and dusty and long abandoned. Around the sides of the room, so close to us that we could have reached out and touched them, were other hospital beds, with blood on the filthy sheets, blood that had turned almost black.

“Here,” said the voice of one of our invisible guests, “was one of Brooklyn’s makeshift hospitals when civil war devastated the city.”

“The wounded were brought here, until there were no more wounded, and no one to bring them.”

“If you look out the windows, you will see unburied caskets in the school yard.”

Dreading what we might see, the twenty-six students looked out the big windows at what had once been our boisterous school yard. There was saw a hundred or more caskets which were not dignified coffins, but homemade boxes made with boards and scraps of boards, stacked three high in the basketball court.

“Please note the bones to the left, where the corpses were heaped in a pile.”

Yes, there was a hideous mound of bones and tatters of clothing, heaped near the swings and teeter-totters of the grade school.

Anton squeezed my hand.

“Those who survived the civil wars in the cities along the Atlantic coast soon perished in the heat and droughts that parched the North American continent. Only in scattered patches around the Great Lakes, where water could still be found, did clusters of survivors plant corn and beans and squash, while snipers guarded their territories with guns.”

Now I—now *all* of the twenty-six students—felt a surge of powerful feelings that made me want to turn to the wall and shriek with despair. Grief—black, overwhelming grief—for the end of humanity, grief for the end of the Earth herself. Outrage that life could be squandered in such an ugly way. And regret—a sledgehammer of regret—that we had let this happen.

“Now,” said the voice of one of our invisible guests, “we would like to show you your classroom fifty years from now, in 2070, when we, your grandchildren, *could* have lived, but did not. Because . . .”

The filthy, abandoned hospital room vanished, and we now saw, where once we had sat at our desks, a group of ragged, emaciated, sickly teenagers, skinning and cooking over a small wood fire the tiny red bodies of rats. The smoke from the fire drifted out through the broken windows. They were clearly a band of survivors who had found sanctuary in our school. They had no young children. There were no adults among them. They were kids, like us, surviving at the black ragged edge of extinction.

“And outside the windows . . .” said a voice.

Reluctantly, we looked through the broken panes of glass at a school yard filled with water, dirty water, where an empty rowboat floated.

“The seas in 2070,” said the voice, “are rising.”

I wanted to vomit. I looked again at the last remnants of humanity, roasting their rats over a fire fueled with chopped remnants of coffins. One of the teenagers, a girl so thin that her face was little more than skin stretched over a skull, stared at me with eyes

that blazed with accusation. She raised her hand and pointed a stick-thin finger at me as she shouted weakly, “You! You did this to us.” Then she dropped her hand as if too weak to hold it up any longer, and turned back to the rat on the end of a stick where we—yes we today—might toast a marshmallow.

“Anton,” I said.

“Jacqueline,” he said.

And that was all we could say.

“Enough?” asked a voice.

“Maybe you would like to visit the war zone along the border to Canada?”

“Maybe you would like to visit eight hundred million corpses from an epidemic in India?”

“Maybe you would like to visit the ashes of the Amazon rainforest?”

“No, enough! Enough!” I wailed.

“Ah, but we have not yet visited the nuclear devastation in Texas that resulted from missiles launched by rivals in Washington.”

“Nor have we yet visited the Arctic Ocean, where the ice cap has completely melted, enabling the sun to warm the seas which carry that warmth to the rest of the planet.”

“Nor have we visited the thawing permafrost, which long ago released planetary amounts of methane into your atmosphere, blanketing your charred planet like a funeral shroud.”

“Nor have we visited the dead oceans, putrid with the rotting remnants of life.”

“Nor have we visited—”

“Enough!” I shrieked. I felt like a dead person begging to be alive again.

“All right then. You have done a bit of research. Perhaps now you are ready to ask the Big Questions.”

And then they were back again, our guests sitting at the twenty-six desks. They looked at us with appraising eyes, as if they wondered whether we were worth the effort.

* * *

Chapter Three

I wanted to look at the classroom clock, to see if this class in World History was nearly over, but the clock on the wall above the blackboard at the front of the room was right above me, and thus as I stood close to the blackboard, I could not see it.

I wanted to pick up a piece of chalk and write “Help! Get us out of here!”

But who would read my message?

Who would ever come to our rescue?

They shouted three questions at us, as if astonished that we allowed ourselves to be so stupid.

“Why do you let this disaster happen?”

“Why don’t you believe in yourselves?”

“Why don’t you believe in the Earth?”

Then, all together, as if on a signal, they stood up from the desks and stepped to one side of the chairs.

“Come,” said the boy with the bushy Afro, their spokesman. “Sit at your desks, and let the lesson begin.”

I turned to Anton and told him, “I want to sit up front.”

“Me too,” he said, and so we walked to the first row of seats and sat down, front and center. My granddaughter, standing beside me, placed her hand on my shoulder with a firm grip.

Soon, twenty-six students sat at twenty-six desks, with twenty-six guests standing beside them, their hands placed on our shoulders with a firm grip.

Mrs. Kirkpatrick sat behind her big desk, attentive. She had become the twenty-seventh student.

“Now,” said the spokesman from the back of the room, “we shall ask a very important Big Question. One that every teenager in the world should be asking. In every classroom, in every school, in every country. Because you need to be a team.”

“A team,” said my granddaughter, with a squeeze of her hand.

“A team,” said Anton’s grandson.

“A team,” said twenty-six voices, speaking from fifty years into the future.

The spokesman continued, “What sort of economic engine shall power the Twenty-First Century?”

Well, that was certainly not a question which I had ever considered. I was not even sure what an “economic engine” was.

I did not have my notebook with me. My books and laptop were at my usual desk. In front of me was someone else’s book bag. I could not take notes. I could only listen.

“Oil,” said a voice that filled the room, “fueled the economic engine of supply and demand throughout the Twentieth Century. The bloodiest century in all of human history. A very small number of people controlled the price of oil, and thus the price fluctuated unpredictably, decade after decade, according to the whims of Oil Tycoons, dictators speaking a dozen different languages, and the secretive Oligarchs. In 1973, Saudi Arabia’s oil embargo devastated the global economy. In 1979, revolution in Iran again devastated national budgets around the world. The price of oil shot up and down as unpredictably as next year’s weather, until in 2020, something so small that we cannot even see it, the corona virus, dropped the price of oil so low that the entire industry all but collapsed.”

The voice paused, then added, “This, my friends, is not the way to build a stable, healthy, sustainable global economy. This is not the way to provide schools and health care for our children. This is not the way to develop flourishing farms around the world.

“The economic engine based on oil produced massive poverty, pockets of wealth, and unrelenting wars. War and oil are so tightly interwoven that we in the 2070s, looking back on your Dark Ages, call them the Evil Twins. If you do not believe me, do your own research.”

“Do your own research,” echoed voices around the room.

“So the time has come, don’t you think, to break free from the shackles of the Twentieth Century. The time has come to harness a new system of fuels which will not only enable our Earth to become healthy again . . . but will encourage us to think in entirely new ways about who we are, and whom we might become.”

Once again, Mrs. Kirkpatrick, seated at her desk, was quietly clapping.

My granddaughter spoke. “The sun shines down on every uplifted face, equally. The winds blow across the seas of the world, waiting for us, *waiting* for us, to beat the blades of our swords into the blades of wind turbines. Let us bring the sun and the wind into the classrooms of the world, so that we can best consider the Big Question: How can we, together, build a network of energy around the planet which produces

energy, transports energy, and provides that energy to *every* child, peacefully and equally?”

She paused, then she said again, “To every child, peacefully and equally.”

Anton’s grandson spoke. “As we answer that question, we look with fresh eyes at our economic systems, at our legal systems, at our educational systems. And we look with fresh eyes at each other, no longer as adversaries, but as colleagues, who must respond to planetary problems with planetary solutions.”

An entirely new future began to open up for me. I began to understand that I would be going to school not so that I could get a job in the world as it was: a job as a doctor working in a hospital overwhelmed with corona patients, a job as a doctor trying to save the life of a Black brother shot by the police, a job as a doctor in a world dying of a deadly fever. No, instead I would be going to school so that I could get a job that would enable me to change the world itself.

Nobody, *nobody*, had ever told me that I could be an Architect of Peace.

Nobody had ever suggested that I reach out to other students in other schools around the world. So that we could build a global classroom. So that we could become the first global generation in human history. So that together, we could design and build a far better world than the collapsing catastrophe we lived in today.

Design and build. Now there was a future for Jacqueline.

And to think in entirely new ways about who we are, and whom we might become.

We would be a team. We would weave our schools together. We would ask the Big Questions. We would share our research. Share our outrage. Share our tireless determination to build a new economic engine. Based on the sun and the wind, and on justice.

Oh, think of building a world based on justice.

Now there was a future for Jacqueline.

Suddenly it all fit together. My grandmother’s encouragement, my own young energy and dreams, and this beautiful Earth itself. What more did we need?

I raised my hand and asked, to one and all in our classroom, “Would you tell us, please, more about the *team*, in every classroom, in every school, in every country around the world.”

“What if,” said one of our guests, “you organized a match-making service, but instead of guys looking for girls, and girls looking for guys, this match-making service would enable students at a school near the wildfires in California to locate students

near the wildfires in Australia and Indonesia and Central Africa and Portugal and Greece and way out in Siberia, where huge fires are burning on the tundra above the Arctic Circle, fires which you will never read about in your local newspaper. All of these students, once they locate each other through your online match-making service, can now share their own research, their own pictures, their own ideas for how to respond to these monster fires.”

“Yes,” said another guest, “and students can link together so they can learn from each other about the heat and the droughts that are parching their farmland.”

“About the coral reefs that are dying.”

“About the ice that is melting and the rivers that are drying up.”

“About the animals that are dying.”

“And the diseases that are creeping north.”

“And as you learn from each other—as you share your research and your pictures and your poems and your music and your dreams with each other—students working together become *colleagues* working together. You start when you are sixteen years old—or even fourteen or twelve or ten—and you build up your network of colleagues year after year, so that by the time you graduate . . . the first global generation in human history is ready for *real* jobs, real careers, because you have a real purpose.”

“And nobody is going to stop you. Nobody is going to tell you to hate each other. Nobody is going to tell you to march off to some war. Nobody is going to tell you to burn another forest, or plunder another ocean, or drill another oil well in the Arctic.”

“And as you build your team, you are becoming all that you *could* be. You are using your talents. You are learning to reach with your minds around the entire planet, and to reach with your minds to the end of the 21st Century, at least.”

“And you are learning to love this world, this beautiful, magnificent world.”

“And you are learning to love each other. Something as simple as that.”

Now there was a future for Jacqueline.

And there was a gift—an extraordinary gift—which she could give to her children. And to her grandchildren. Anything less was . . . unacceptable.

One of our guests now told us, “You can add to this tapestry of young people which you are weaving around the world. Several thousand climate scientists, who have been working with the United Nations Intergovernmental Panel on Climate

Change, the IPCC, have been struggling for forty years to get the politicians to listen to them. They would be thrilled if a billion young people around the world invited them to be on their team.”

“Yes,” added another guest, “and the indigenous peoples of the world, who have lived in the rainforest, and in the desert, and on the tiny islands, and on the tundra, and who know from centuries of experience the workings of their biospheres . . . Yes, the indigenous peoples would be deeply glad if a billion young people around the world invited them to be on their team.”

“You can also invite the visionaries who are already harnessing the sun and harnessing the wind, who are harnessing the currents in the oceans, who are harnessing the untapped power of hydrogen, to join your team. Despite the Oil Boys and despite the dreary politicians, clean energy corporations around the world have already launched a Renaissance. They are building the economic engine of the 21st Century, and they would be profoundly glad if a billion young people invited them to be on their team.”

Now there was a team for Jacqueline. Sixteen years old now, twenty-six by the time I finished my doctorate in . . . marine biology, with a network of teammates around the entire planet, I could fulfill my grandmother’s dream.

I looked at Anton. He was already looking at me. I looked up at his grandson, standing beside him, and at my granddaughter, standing beside me, their hands with a firm grip on our shoulders.

Yes, here were the makings of an unprecedented family.

Here were the makings of an unprecedented world.

* * *

Chapter Four

“But,” I asked, “how can just twenty-six high school students organize a global team?”

A guest stated the obvious, “Every student in the world has potentially at least one grandchild.” Then he repeated, “*Potentially.*”

Yes, the kids at New Amsterdam High School were not the only ones who were going to live their lives in the 21st Century.

Mrs. Kirkpatrick asked, “What about the curriculum? I believe that we began our discussion this morning with the suggestion of a new curriculum.”

“Ah, yes,” said a guest. “Not only a new curriculum. You shall need two entirely new courses. In grade school, high school, college, and university, you need two entirely new courses which every student must take—we recommend—as a requirement for graduation.”

“The teacher and students, working *together*, shall develop a comprehensive and challenging course during the autumn semester on **The Climate Crisis Around the Planet**. And you shall develop a full and challenging course during the spring semester on **The Clean Energy Renaissance**. The problem, and the solution.”

“The teacher will offer lectures and guidance. But much of the work in these courses is based on the students’ own research. You will learn *how* to learn. And you will learn how to share your research in oral reports and short written essays with your fellow students . . . around the world.”

“As you organize your match-making service, weaving together the schools of the world, so you develop an online Climate Library, in a growing number of languages, where you share your own research, as well as professional research which you found useful. Any student in any school can explore this growing library, and thus find the most up-to-date information. All at no expense to the students.”

“Students sharing with students become colleagues working with colleagues. You develop a generation of extremely well educated voters. At the age of eighteen, before you have your first job, you begin to exert a major influence on your elected governments around the world. The Oil Boys are no longer in charge.”

“You will invite a broad range of guests—not just your grandchildren—to visit you in your classrooms. Farmers, fishermen, medical experts, climate experts, veterans from wars, refugees from wars, solar energy engineers, wind energy engineers, legal experts on human rights, legal experts on biosphere rights, indigenous

peoples who are no longer your silent neighbors, innovative economists, and even your town mayor. Invite these people to speak in your classrooms, and to discuss with you their ideas for the future of life on your devastated planet.”

“You may, of course, have an exam at the end of each semester. But your *real* exam will be the next sixty years of your lives.”

“We recommend,” said the spokesman as he walked up to the blackboard, “an electronic book in two volumes called **The Climate Classroom.**” Picking up a piece of chalk, he wrote the title . . . beside the title of Mrs. Kirkpatrick’s planned lecture, The Libraries of Timbuktu. “**Volume One, The Climate Crisis,** will guide you through the autumn semester. **Volume Two, The Clean Energy Renaissance,** will guide you through the spring semester. When you begin your studies, you will be a kid in a local classroom. When you finish these two courses, you will be a citizen of the world.”

“And who is the author of **The Climate Classroom?**” asked Mrs. Kirkpatrick.

The spokesman with his bushy Afro hesitated. “I can’t remember his name. Some obscure fellow who spent his career as a teacher, and who believes,” he swept his arm toward the twenty-six students, “*deeply* believes, in you.”

“Well,” said Mrs. Kirkpatrick, “I propose that we modify the goal of our class in World History. Perhaps rather than look toward the past, we should be looking toward the future. Perhaps our goal might be, ‘Changing the Course of Human History.’”

She looked at us . . . as if she too deeply believed in us. “All in favor?”

Twenty-six hands went up.

“All right, then,” said our teacher with conviction. “And if the Board of Education gives us any problems, we’ll take another vote. An educated vote.”

My granddaughter gave me a squeeze with her hand on my shoulder. I looked up at her, and said, “But I don’t even know your name.”

She smiled. “Didn’t your grandmother name you Jacqueline?”

“Yes.”

“Then maybe when the time comes, you will give your granddaughter her name.”

Yes, I nodded, maybe when the time comes, I would do that.

* * *

“We must go now,” said the spokesman. “We wish you well.”

Our twenty-six guests released their grip on our twenty-six shoulders, then they silently walked toward the front of the classroom. One of them opened the door. They walked out without looking back. The last guest closed the door, and we all heard the click of the latch.

We looked at Mrs. Kirkpatrick, seated behind her big desk. She stood up, walked around her desk and said to us, "I'm proud of you. And I think we have a very exciting year ahead of us."

Just then, Michelle called out to the rest of us, "Look out the windows!"

We looked out the big windows at our school yard, where we had recently seen coffins and a heap of bones and the water of rising seas. Now we saw not only our twenty-six guests, who turned and waved to us, but several hundred other guests who, as we later learned, had visited all the other students in New Amsterdam High School.

We were not just twenty-six. We were well over five hundred students, who that morning had met our grandchildren.

And, as we further learned over the next several days, we were not the only school. Beginning at the International Date Line in the Pacific Ocean, at eight in the morning when schools on scattered islands began their Monday classes, and then, moving west through twenty-four time zones all the way around the planet, every sixth through eighth grade, every high school, every college, and every university in the world . . . had been visited at eight in the morning by grandchildren.

Yes, we had our team.

Now it was up to us.

Our guests departed from the school yard, leaving the basketball court and the teeter-totters and swings empty in the morning sunshine. Everything looked so normal once again.

"Well," said Mrs. Kirkpatrick with a clap of her hands, "shall we begin?"

* * * * *

The Global Climate Team

Chapter One

Young people around the world will live their lives during the next sixty years in **a world battered by irreversible climate catastrophes**, unless . . . they learn, *urgently* learn, **what they need to do to avoid the Climate Nightmare**.

They need to design their own courses. They need to do their own research. They need to reach out to their own generation around the planet, so that they work as **a global team**. They need to turn their fear and their anger and their despair into a professional effort—a vibrant, lifelong professional effort—as green engineers, green lawyers, green economists, who are able to bring our present madness to a halt . . . and replace it with a cooling planet on which their grandchildren can live, and flourish.

To begin, the students in every grade school, every high school, every college and university around the planet **can do their own research**: How much electricity does their school use per year? Where does the electricity come from? What do we need to do to provide 100% of that electricity from the sun, and from the wind, with solar panels on the roof, and a wind turbine standing beside the football field?

Now the students reach out to clean energy experts, so that together they can explore solutions. Already the team is growing. Students are learning not only about megawatts, but about a potential lifelong profession. They devote an entire day, or a full week, to green energy seminars, with energy experts and climate experts in the classroom ready to answer questions. This is research, this is education. The students are gathering a growing network of colleagues and friends who genuinely care about our collective future.

The next step: How do we pay for a system which will power our school with 100% clean energy? Now the students become economists, meeting with potential investors as they develop an economic strategy.

Yesterday they were scattered students. Today they are part of a growing team.

Meanwhile, a group of students does their own research on an entirely different project: What about that lake at the edge of town which has been polluted for decades from agricultural runoff? No one can swim there in the summer. The fish are dead, the birds have vanished. Students meet with local politicians, they meet with farmers, they meet with a freshwater biologist, and they ask a multitude of questions.

Can the students turn the polluted lake into a wildlife sanctuary? Are there laws which could stop the pollution? Are there laws which would protect a sanctuary? Are there **laws which need to be written**, laws which protect the rights of Mother Nature? Now we need to invite a green lawyer to our seminars.

Of course, the students set up a website to document their progress in providing their school with 100% green energy.

And of course, the students set up a website to document, with photographs and videos and a three-page essay, their progress in creating a healthy, legally protected wildlife sanctuary, with a wildflower garden for butterflies and bees, and a wetland for frogs, and a camouflaged bird-watching tower for people with binoculars.

And of course, the protected lake, once it is clean of pollution, will have a pier so that everyone can go swimming in the summer with the turtles and the tadpoles and the bluegills and the crayfish and the red-spotted newts.

Schools reach out with their websites to other schools in the county, in the state, in another country, on another continent. Schools in other biospheres respond with their own websites, their own pictures, their own music, their own poems.

The team is growing.

* * *

This is student research, a skill which will benefit the students for the rest of their lives.

This is education, the sort of education which kindles the spirit and awakens the soul of every student, even the Bad Boys who have been sitting in the back row in the classroom, bored to death.

This is education which provides a growing number of students with **a purpose in life**. It may begin with planting a grove of baby oaks on a plot of unused farmland. For the next fifty years, the kids who planted those 500 trees, none of them yet knee-high, can watch the saplings grow. They can walk on paths through the forest that rises taller every year. They can bring their own kids to a picnic table by a stream. They can walk with their grandkids through a forest of healthy oaks with green leaves fluttering in a summer breeze . . . and they can proudly declare, "I planted these oaks!"

That deed is but the seed of a hundred other ventures in the course of fifty years.

* * *

Do you see, that once they get started—once a bunch of teenagers meet clean energy engineers who agree to be a **Contact** on a kid’s cluttered cell phone—the dark clouds of despair begin to disperse. Once a green attorney—a bright young woman fresh out of law school—tells the students in their classroom about an entirely new profession—“Mother Nature needs a good lawyer.”—the anger and the outrage become determination.

Never mind the final exam. The real final exam is what you do with your life for the next sixty years.

* * * * *

Chapter Two

Now we are ready to take the next step.

The students are engaged in turning their school into a showcase of 100% green energy. They are meeting a broad range of professional experts, and they are pondering a broad range of questions. They are learning to speak, and they are learning to listen. They are learning that each step in their research leads to further steps, as they put together, piece by piece, the Big Picture.

At the same time, the students are working on a project *outdoors*, turning a patch of long-neglected terrain into a showcase of flourishing habitat filled with indigenous wildlife. They are meeting with a broad range of professional experts, and they are pondering a broad range of questions. Their research project, on prairie wildflowers, on spring peepers, on red-winged blackbirds, and thus on weather patterns, jet stream fluctuations, and shifting seasons, and thus on the melting of the Arctic ice cap, the warming of the Siberian tundra, and levels of methane in the atmosphere . . . yes, their research project keeps growing and growing.

Once the students have calculated how much electricity their school uses, and have set up their first rack of solar panels in one corner of the playground, they can now ask the question: How much electricity does *the entire town* use? Where does that electricity come from? How much pollution does their town create every year?

What have other towns done, in Sweden, in Denmark, in the Netherlands, in Germany, where the people have decided to power their town with their own wind turbines spinning on the surrounding farms?

How much are farmers paid to have a dozen wind turbines spinning in their cornfields? How much electricity can be produced by solar panels on the roof of a large factory, or a parking garage, or a sport stadium?

What about small wind turbines along the sides of major highways? What about tapping into the heat in the Earth, as people do in Iceland?

Now the research truly goes global. Students are reaching with their minds around the entire planet, and to the end of the 21st Century, at least.

The price of oil has always fluctuated, depending on wars in some faraway country, and the whims of dictators, and the secret deals made by greedy oligarchs and greedy tycoons. What if we based our economy on a far more stable source of energy,

like the sun that rises every morning? Like the winds that are always blowing somewhere out at sea. Like the tides that flow in and out each day. And soon, like the fuels which we can build from little green hydrogen, produced from sea water by electricity from offshore wind turbines.

If we replace an economy driven by fuels with constantly fluctuating—and thus unpredictable—prices, with an economy driven by fuels and storage batteries which are stable and predictable, might not our entire economic system become far *more efficient*?

If we replace an economy driven by fuels which are owned by a very small number of people who make enormous profits, with an economy driven by the sun which shines on every city and village and farm on planet Earth, might not our entire economic system become far *more democratic*?

If the electricity produced by giant offshore wind turbines can be carried by a grid which wraps as a network around the planet, then today my electricity benefits you, and tomorrow your electricity benefits me. While we are reducing the pollution in our atmosphere, a benefit shared by everyone, so are we also reducing the number of oil wars which have plagued us for over a century. Might that Global Green Grid provide us with not only dependable megawatts, but also *a shared and long-lasting peace*?

It all begins with your school, and your town.

It all begins with the most precious gift that you could ever give to your children. As we share an end to the fear, the anger, the hopelessness, the dread, and the despair, so we share a healthy Earth . . . which we appreciate so much more because we almost lost it.

As we wrap a web of clean energy around our planet, so we wrap a growing quilt of sanctuaries around our planet. We start with one lake, one patch of unused farmland, and then we quite naturally begin to look for other possibilities. We learn that rather than plunder Mother Nature, we must provide for Mother Nature. We learn to share this small Cradle of Life, the only one we know in our corner of the universe.

We learn to “Honor the Creator by honoring the creation.”

* * *

Have we mentioned “jobs” yet? All of those students hope to find a job when they graduate. They hope to find a meaningful lifelong career.

Instead of thinking vaguely, “Maybe I’ll go into I.T.,” students are getting experience in a half-dozen different fields, and they are able to speak to the experts in those fields. They are reading research articles, many of them online, written by scientists and economists and engineers from around the world. They are reading success stories based in China, Viet Nam, Brazil, Costa Rica, Iceland, New Zealand, and Japan, and thus they already begin to envision a career which will enable them to travel.

There is also the added job benefit that they could become part of the **First Global Generation in Human History**, working with a global team of young people toward the shared goal of Building a Better World. Yes, a person could become a green lawyer, a green economist, a green engineer, a green journalist, or a green business manager, who would be able, at the ripe old age of eighty, to look back at an enormously productive career—filled with accomplishments which truly benefited a great many people, as well as the Earth herself.

“By golly, we did it!”

And to cap it all, the modern, flourishing civilization which you have helped to build, on a healthy, flourishing planet . . . is at peace.

No greater gift could you give to those who come after us.

No greater work could you do, in the eyes of the Creator who once called out to the vast expanse of celestial emptiness, “Let there be life.”

* * * * *

Chapter Three

Now we are ready, absolutely ready, to take the third and biggest step.

If we are going to build something large and complex, we need a blueprint.

We need a detailed plan, so that we can see—or at least envision—the final product, and so that we can develop a strategy for reaching that goal.

So the great question is: How do we power not just our school, not just our town, not just our own particular country, but all of the various civilizations which wrap around planet Earth, with 100% clean energy?

And how do we accomplish that unprecedented task *soon enough*, that we are able to reverse the steady climb of carbon in our atmosphere, and thus to bring our planet back to health again?

At the pace of our efforts today, we are doomed.

A trade war with China; drilling for oil in the Arctic; loading submarines with nuclear missiles; escaping into the seductive world of sci-fi fantasy; dropping bombs on hospitals . . . these are all our popular forms of madness today.

We do not have time for more wars. We need a generation which *demand*s twenty-five years of peace so that they can get the job done.

We do not have the resources to spend billions of dollars on oil subsidies, and trillions of dollars for new aircraft carriers and bombers and tanks and drones and expendable armies. We need a generation which *demand*s twenty-five years of intelligent investments, so that they can get the job done.

Right now, today, at this moment, enormous amounts of money and human talent are being squandered at *the southwest corner* of Russia, as war devastates the brave people of Ukraine . . . while in *the northeast corner* of Russia, above the Arctic Circle, temperatures are rising four times as fast as average global temperatures, the tundra is warming, the permafrost is thawing at an accelerating rate, and ancient carbon dioxide and methane—both of them greenhouse gasses—are already rising through the rotting permafrost ice into our atmosphere.

These rising gasses, especially methane, which *had been trapped* beneath the ice of the last ice age, can more than double the amount of carbon already in our severely polluted atmosphere. The release of Arctic methane along the northern border of Russia, which has already begun, may well be the irreversible tipping point which ultimately results in human extinction.

The methane bomb which may explode as early as next summer . . . is far more powerful than Putin's nukes.

And yet . . . although there are thousands of soldiers in southeast Russia, and within the borders of Ukraine, who are now intent on killing each other, there are *virtually no climate scientists* keeping an eye on the tundra, on the permafrost, on the methane, while the huge clock is ticking.

We should have *hundreds of international climate scientists* throughout the entire Arctic, monitoring every bubble of methane, every crumbling glacier, every starving bear and seal and whale and gull and krill and diatom and little green algae.

We should have Russian scientists working closely with international teams of scientists in a corner of the world where Mother Earth is screaming. We should have shared satellite surveillance, fleets of research ships, drones taking pictures of Arctic lakes, and non-stop working conferences. But instead we are killing each other over the wreckage of some small town in Ukraine where even the rats have fled.

Young people of the world, is this the future that you want?

Global warming and war are the evil twins.

Both have been created by us, and both can be banished by us.

No political doctrine, no divine commandment, ever ruled that generation after generation must make the same appalling mistakes.

Thus we need a blueprint, which guides us on the rapid transition from coal and oil to the sun and the wind. We need to think about the cities which we will build, about the way we will grow our food, about transportation which does not kill the world an increment more with every trip that we take. We need to think about not property rights, but the rights of ecosystems, of biospheres, of sanctuaries of life.

We need a blueprint of the world at 100% clean and green, a blueprint which explains how much offshore wind power we will need, and exactly where. How much solar power, especially in Africa. How much geothermal power, how much ocean current power, and how much green hydrogen power.

Once we have completed a detailed plan, we can work together, all eight billion of us, toward that comprehensive goal. Without a clear goal, without a clear plan, we will continue to bumble and stumble, to bicker and squabble, as we are doing today.

The people who will most benefit from an intelligent plan—the blueprint of a 21st Century global cathedral—are the young people who will live their lives during this historic century. Every wind turbine that they build is a step toward cooling the Earth. Every solar farm that they build is a step toward bringing snow back to the mountain peaks. Every hydrogen electrolysis plant and desalinization plant and hydroponic greenhouse is a step toward Peace.

We have a choice. Either . . . or . . .

Either the greatest endeavor in all of human history, or centuries of chaos.

The sun, that blesses me with richest earthly finery,
Shines no warmer than my hopes upon thee.

* * * * *

A Soldier Comes Home

Tom stood in his desert camouflage behind a barbed wire fence, staring at a vast field of corn, the young green stalks about a foot high. He had been back from Iraq for twelve days, and hadn't yet traded his brown camouflage uniform for his old blue denim shirt and jeans. The soldier wasn't able yet to become a farmer again, because the soldier hadn't yet found a way home.

His father had planted over three hundred acres with corn. His wife and his mother had planted the vegetable garden behind the farmhouse. There wasn't much for Tom to do, except to pull a few weeds. And to play with his young son, who was still getting used to this stranger. And to reassure Rebecca that he was all right, he was all right, and that he was trying his best to come home.

He looked up at the hazy blue sky, cloudless. After twelve days of the sun beating down, a sun almost as hot as the sun in Iraq, he ached for a day of cool blessed rain to soak the earth and water that young corn. His father had told him that the last good rain was eighteen days ago. Corn could go eighteen days without rain. But this heat was unusual so early in the summer, when the roots were just making their way down into the soil.

He unlatched and swung open the old gate in the fence, stepped from the edge of the farmhouse lawn to the plowed soil, reached down between two young stalks and scooped the hot dry earth into his hand. Not a bit of moisture in it. Standing, he smelled the soil, smelled the earth of home. Even so dry that it crumbled into bits, the soil sure smelled better than the dust of Iraq.

"Tom." He heard Rebecca's voice, gentle, cautious, trying to be a bit cheerful. He turned and watched her, coming across the yard with their three-year-old son. "Tommy wants to remind you that you promised to put up a swing."

The little boy wore camouflage, like his daddy. He stood at the open gate, shy, hopeful, with a two-foot board in his hands: the seat of a swing.

"All right," said Tom, tossing down the dirt. "We'll get some rope from the barn, and then," he scanned the lower branches of an ancient oak standing between the garden and the barn, "we'll put up the perfect swing."

Closing the gate, he took the board from Tommy and handed it to Rebecca. The board had a hole at each end, ready for the rope to pass through it. Tom had drilled the holes in the barn's workshop, then his thoughts had drifted off and he had forgotten the swing. He'd do better now.

He lifted the boy over his head so that Tommy sat on Tom's shoulders, camouflage atop camouflage, the place where the boy seemed most at ease with his father.

"Whoooooo!" called Tom. "Way up high!"

"Whooooo," answered Tommy, laughing.

Tom glanced at Rebecca, saw the buoyant strength in her eyes—the strength that had stared at him from a worn photograph for twelve months in Iraq—and he gave her a nod. Then the three of them walked across the farmyard toward the big open door of the old red barn.

Tom leaned an aluminum ladder—spattered with white paint from the time during high school when he had painted the entire farmhouse—against a thick lower branch of the oak tree, about fifteen feet up. With the rope coiled over his shoulder and across his chest, and the plank clamped under one arm, but without a rifle, or a radio, or body armor, he climbed the ladder up to the horizontal branch. Rebecca steadied the ladder below him. Tommy stared up, as silent as his father.

Tom had seen a lot of kids in Iraq, but he had never been able to do something as simple as put up a swing for them. He wrapped his hand over the rough black bark of the branch; even the tree was warm in the hot sun. He pinned the board between his belly and the ladder, lifted the coil of rope over his head, then wrapped one end of the rope three times around the branch, and tied it with four sturdy half-hitches.

Holding the other end of the rope, he let the coils drop. Then he fed the end of the rope through a hole at one end of the board, then through the other hole, so that now he could feed the rope through the first hole and then pull it through the second hole, until he had pulled through about twenty feet of rope.

Looking down at Rebecca, he told her, "Stand back, Sweetheart."

After she and Tommy had stepped away from the foot of the ladder, he dropped the board and rope, keeping hold of the rope's end.

"There. Can you adjust it for Tommy? About a foot and a half off the ground."

Rebecca shifted the rope through the holes until the plank was suspended horizontal at her knees. Tom wrapped the rope three times around the branch, then held the end snug. "All right, Tommy. Give 'er a try."

Under the angle of the ladder, Tommy sat on the plank and bounced to snug the rope. Then he gave a push with his toes in the grass. "Yup," he called up, the same as his grandfather said "Yup".

Tom tied four half-hitches, then he wrapped the last few feet of the rope around the branch and secured it with a single hitch.

When his feet touched the ground at the bottom of the ladder, Tommy was still seated on the swing, waiting to be pushed.

Tom swung the ladder down from the branch and laid it in the grass. As he stood behind his son and gave the boy's small bony back a first push, he wondered how he could ever explain to his family about the thousand bright-eyed kids that he had left behind in a hot squalid war zone, for whom he would never be able to do something as simple as put up a swing.

While Rebecca went inside to make lemonade, Tom pushed his son hard enough that the boy swung up to about six feet off the ground, then seven, then eight feet.

"Higher!" called Tommy.

"No, that's high enough."

From where he stood in the shade under the ancient oak, Tom could see the family cemetery in the back corner of the farmyard: several short rows of gray stones stood behind a white picket fence. Before he had left for Iraq, he stood at that fence and stared at a grassy spot where they would put him, if he came home in a box.

A little family funeral. Maybe some buddies from high school. A devastated widow. A confused little boy.

A lot of other guys in Iraq had gone home in a box.

But here he was, pushing Tommy on a swing. With a brave and bright-eyed girl coming out of the farmhouse in a pink summer dress with a tray of lemonade.

This is real, he told himself. This is real.

Even the nights were warm. He slipped out of bed one night in a sweat, glided down the dark staircase and stepped out the screen door onto the porch, feeling a hint of coolness as he stood there in his shorts. Crickets filled the night; they loved the dry heat.

He was stepping barefoot across the yard toward the vast black field of corn beneath a vast black sky filled with hazy stars, when he heard the screen door shut quietly behind him. He turned and even reached out his hand to her.

Something as simple as holding the hand of a woman who loves you, while her eyes ask a question that she is kind enough not to ask with her voice.

"How about," he said to her, "I push you on the swing?"

Her pale nightgown fluttered as she swung back and forth. He pushed her gently, so that she rose four or five feet, his hands savoring her strong slender back with each push. Maybe going for a year without the woman you love breaks something inside a man, he thought. Maybe staring down at a motionless young woman bleeding on the pavement after a bomb blast in the marketplace . . . breaks something inside a man.

“All right,” she called softly, brushing the grass with her bare feet.

He slowed the swing, until she was able to step off. She faced him, put her hands on his bare shoulders.

“Tom, why is it so hard?”

She had been patient for two weeks, but now she was asking him.

“You know,” he said, wondering how honest he could be, “when my grandfather went off to World War Two, the whole country was behind him. Everybody knew *why* he went, and everybody knew, day after day, that he was out there fighting a *war*.” He glanced over the pale white picket fence at his grandfather’s dark headstone.

The he looked again at Rebecca. “But this country today,” he shrugged, “hardly seems to know that it’s at war. I watch the news on television, I read the DeKalb Chronicle, I spend a Saturday morning shopping in town, and you know . . . for most people, the war just doesn’t exist.”

She said, “For me, it existed. Every moment of every day and every night, it had me by the throat so I couldn’t breathe . . . until you came home.”

He kissed her, to say thank you. He should have kissed her longer, more deeply, but she had asked, and he wasn’t done trying to explain.

“So a soldier begins to wonder, ‘Why?’ Why was I over there? What happened to Home, if Home doesn’t care? What about all those guys who came home in a box? How do I come home to home, if home really doesn’t give a shit?”

He was angry now. He didn’t want to be. But on behalf of a lot of people, who were doing the world’s dirtiest job, and yet who were all but forgotten by the folks back home, he was profoundly angry.

“Sweetheart,” he said, for he could see that she was hurt, “your love is real. Your letters were real. Your voice on the phone was real. The pictures that you sent to me were real. And here you are, brave, beautiful, and real.” He squeezed her waist, her slender beautiful waist. “But what I am talking about is *Home*.”

“Well,” she said, “then I don’t know what more I can do.”

He wanted to say something positive. He wanted to give her some hope that all this would soon end.

“You know,” he said with a hint of happiness in his voice, “it would be so nice if it would just *rain*.”

His father made the announcement at the breakfast table three days later. From behind the DeKalb Chronicle, he said with a whoop, “Hot and sunny today, giving way to *thunderstorms* by late afternoon.” He folded the paper and looked at his son in camouflage, holding a cup of coffee. “The corn is going to get a bath.”

Tom heard the first rustle of leaves in the oak tree. He was helping his mother to stake the tomatoes in her garden, a garden that she watered every evening with a sprinkler. Glancing up at the dusty green leaves that fluttered with a whisper of hope, he stood up and faced west. He felt the slightest touch of coolness on his face in what was clearly a rising breeze. He could see a line of gray along the western horizon: weather coming over the Great Plains, as weather had come for thousands of years.

“Mom,” he said. How many times in his life had he looked at her, to see that she was already looking at him and knew what he was about to say.

She waved her hand from where she knelt, tying up a tomato stalk with a bit of white string. “You go tell that storm that it had better *not* miss us.”

By the time he reached the barbed wire fence and stared across the vast dry field of stunted corn—but corn still green, not yet brown, for corn could endure just about anything—he could smell wet earth on the breeze. Somewhere miles to the west, the rain was already falling and the earth was suddenly fragrant. The air driven ahead of the storm told him that something right—something very, very right—was coming.

He turned and hollered toward the farmhouse, “Rebecca! Tommy!”

They soon stood beside him, facing west. He lifted his son in camouflage up over his head and set him on his shoulders. Then he took his wife’s hand.

He had a flash of sudden memory. Not the flashes that he had at night from Baghdad that made him sit up sweating with a shout . . . This time the memory was of holding her hand as they walked up the church aisle after they had just been married. They were going somewhere, together. They were walking toward their whole life ahead of them. While he walked in his suit and she walked in her white

wedding dress, and the faces of family and friends smiled upon them along both sides of the aisle, he squeezed her hand and she squeezed his.

And so he squeezed her hand now, while the rising breeze cooled their faces as if they were progressing forward toward something very, very good.

She squeezed back, and kept squeezing, while they listened to the first distant rumble of thunder, like a blessing from heaven upon the land.

His mother stood beside him now. His father stood beside Rebecca. The oak tree behind them began to thrash in the first gusts of clean wet wind.

Towering black clouds marched across the land toward them, sweeping a curtain of gray rain across the brown fields. Lightning flashed, followed more and more quickly by a rumbling boom of thunder. Tom knew that they were safe: any bolt that came near would strike the steel tower that held aloft the spinning blades of the old water pump. He could hear the blades rattling as they spun, as if laughing in the wind.

First came the big drops, deliciously cold, sweeping almost horizontal on the driving wind. “Whooooooooo!” cheered Tom, bouncing his son on his shoulders. “Don’t blow away up there!”

“Whooooooooo!” called his son through the first blast of heavy rain, kicking his feet against his father’s chest.

Soon smaller drops came, falling thickly from the black, rumbling sky, washing Tom’s uplifted face, soaking his shirt, while he took deep breaths of the wet soil of home. He let go of Rebecca’s hand, flashed her the first smile that she had seen in aching ages, then stood behind her and wrapped his arms around her beautiful wet body, while the rain poured down upon family and farm and the young growing corn.

* * * * *

California Girl

She played the cello. We were students together at a university in California, class of 1969, during the tumultuous years of the anti-war movement. She was never my girlfriend, because, though I proudly stood at six feet, she was taller than me. Tall and slender, with long blond hair, and with the most vibrant personality I had ever encountered in my life . . . she wasn't interested in settling down with a boyfriend.

Because she played the cello.

We were both pre-medical students, taking four years of endless classes in organic chemistry, vertebrate embryology, and statistical analysis (without ever once visiting a health facility, without ever once speaking with a doctor or a patient), and so we became good friends slogging our way from exam to exam. Sometimes we were lab partners, setting up our titration apparatus with glass beakers and a glass stop-cock, hoping that our potassium permanganate, a deep purple aqueous solution made from black crystals, KMnO_4 , would turn clear as we added, drop by drop, oxalic acid as the reduction agent.

Of course, a friendship in a chemistry lab can go only so far. But that was all right. I had grown up in the corn fields of Illinois, and Mary was from a town on the California coast near San Diego. Just to be her lab partner, sharing our drop by drop measurements, was enough to brighten my entire week.

We both had a second major, because—during that epoch of anti-war marches, the Civil Rights Movement, Women's Liberation, Black Power, the American Indian Movement, and Chicano Power—learning about the molecular structure of benzene rings just wasn't enough to prepare us for a lifetime of building a better world.

I majored in history, while I lived through an unprecedented era in American history. Mary majored in music. She played her cello in the university orchestra. I never missed a concert, always sat in the front row where the sound of her cello, especially when she went down into the deep registers, rumbled against my chest.

Sometimes, on a Saturday evening, a group of friends would gather in the big social room at the dormitory where Mary lived. Some of us brought six-packs of beer to pass around, and some brought a few neatly rolled joints to pass around. As a small-town boy from the farm country of Illinois, I stuck with a beer. One beer was usually enough. While we listened to Janis Joplin singing "Me and Bobby McGee"—the music boomed from big speakers at one end of the room—we grooved on the growing intensity in the singer's voice.

Then one evening, Mary brought her cello out from her dormitory room. She told us to form our chairs into a horseshoe, facing the chair where she sat tuning her four strings. I had just finished a bottle of beer and was wondering if maybe I might pop open a second . . . when Mary's roommate, Eileen, handed me a joint, already lit.

She told me, "Take a puff and pass it on."

And so I did. I didn't cough, I didn't choke, and I held my breath for a good long time. Mary was playing the notes up and down an octave; I watched her fingers working on the strings.

I looked to my left, ready to pass the joint, but Robert was talking with Eugene, so I hyperventilated, as I had watched people do—taking in several deep breaths to fill my blood with oxygen—then I took a second puff from the joint that glowed with a bright orange tip, and held my breath as if I were swimming underwater for as long as I could.

"Hey, Bogie, you gonna hog that joint all night?"

I looked at Robert and smiled as I handed him the joint.

He went back to talking with Eugene.

So I turned my attention to Mary, who was now, as the room grew quiet, playing the opening strains of "Me and Bobby McGee".

I knew the words. I had learned them in California. I would never have done such a thing back in Illinois.

"Busted flat in Baton Rouge, waitin' for a train,
And I's feelin' near as faded as my jeans,
Bobby thumbed a diesel down, just before it rained,
It rode us all the way to New Orleans."

Mary played the music very clearly, as if she were playing from the original score. But when she launched into the second verse, she began to improvise, stretching out some of the notes, playing with a certain subtle emphasis, so that the line, "Windshield wipers slappin' time, I was holdin' Bobby's hand in mine", was not just music, but a voice calling out from deep inside that cello.

That's when I discovered the difference between a cello playing Vivaldi, which I had heard during Mary's university orchestra concerts, and a cello which was now singing, speaking, wailing, as Mary's voice. She wore a blue denim blouse without sleeves, so that we could watch her arms as she ran one hand up and down the strings

while she swept the bow back and forth in a way that I had never before seen anyone play an instrument. She wore blue jeans and sneakers; her long legs hugged the reddish-brown cello while she leaned and swayed, now down in the deep lower registers as she told us, “Freedom’s just another word for nothin’ left to lose . . .” battering my heart for the first time—for the first time—with the word “Freedom.”

I wasn’t listening to the music. I was *in* the music. “From the Kentucky coal mine to the California sun” . . . Yes, I was in the California sun. I had fought with my father to get out of that stagnant shit hole back home where he filled the house with non-stop TV football and Gunsmoke and Have Gun, Will Travel, and all the rest of the unrelenting crap . . . and I had gotten myself out to California where I could sit among friends with tears running down my cheeks while I listened to Mary making me feel truly alive.

She must have played for a full twenty minutes, maybe half an hour, sweeping her bow so gently, playing so quietly, that her song became a prayer. She lifted us up into the highest registers, as if she were singing down to us from the stars. Then she descended through waves of rising and falling music, as if we stood beside the sea, to the lower registers, where her cello ached with longing, “One day up near Salinas, I let him slip away.”

Now she played more and more quietly, and we knew that her heart had told us all she wanted us to know. She drew out one long deep note with trembling vibrato. Then she lifted her bow from the strings and raised her face to look at us—her long blond hair covered one eye and her cheek—and she smiled as we gently, quietly, and so gratefully applauded.

In April of 1968, we learned—as if someone had cracked a whip in our souls—that Martin Luther King had been killed in Memphis, Tennessee. I had been a high school junior when we learned—I was sitting in chemistry class when our principal spoke to us from the speakers in the ceiling of the classroom—that President Kennedy had been shot. Now I was a junior in college when we learned—I was in the library that late afternoon when the news spread around the building—that Martin Luther King, who had taught us about non-violence, had been shot.

Although most classes were cancelled at the university the following day—a day of national mourning—our chemistry teacher insisted on holding class, during which he reviewed inorganic molecules in preparation for an exam which he refused to postpone. I attended class; Mary did not.

That evening in the university chapel, the Black students held a memorial service. They spoke, some with barely controlled anger, some with grief that strangled their words. A choir filled the packed church with the spirituals which had kept their people going through centuries of brutal repression.

They took turns—man, and woman, and man, and woman—reading the words of Martin Luther King, as he had spoken them from the pulpit of a church, as he had spoken them to a vast crowd in Washington, D.C. in August of 1963, when he told his nation, his *American* nation, that he had a dream.

And then . . . one white woman, the only white person invited to be a part of this memorial service, walked onto the stage at the front of the church with her cello. She wore a long black dress, and her blond hair was tied back with a black ribbon. She sat in a chair with a spotlight on her; everything else behind her was dark.

She played a hymn, an old Negro spiritual, to which I did not know the words. She played it through the first time as if she were playing from the score, with measured beats and a reverent tone. I could hear someone behind me in the church singing the hymn as Mary played.

And then . . . she played through the hymn again, stretching out the notes, playing with a vibrato that came from her trembling heart, rising up with a sudden crescendo like a cry to heaven . . . seeking comfort, seeking understanding, seeking justice.

She played through that old hymn five or six times—I didn't count—taking us down into the deep registers where she poured out our grief, our fierce, bewildered, unrelenting grief. She played, twice, two beats, two beats, and one prolonged note, so that we heard, unmistakably, the cello saying his name, Martin . . . Luther . . . King.

And then she brought us up into the middle register and gave us comfort, gave us courage, told us to be proud of the man who had walked with us on the ugly streets of America. She told us to be proud of the man who had taught us to reach inside and find the *best* of who we were. She told us to be proud of the man who had never lost his faith in America, and who had never lost his faith in *us*.

And then . . . I will never forget this moment . . . Mary played on her cello a deep, tender Amen. And then another Amen. She played through perhaps a dozen Amens, each one different, some of them more elaborate, some in a minor key, leading toward one final Amen that bestowed upon us . . . peace in our hearts.

The spotlight vanished. The stage was black.

When the lights came up in the church, Mary was gone.

* * *

I am seventy-one years old now. Mary attended her medical school in San Francisco, while I attended medical school in Boston. She became an obstetrician, bringing newborn life into the world. I became a dermatologist, specializing in conditions of the skin. She pursued her career and raised her family in California, while I, who fell in love with a medical student from Aberdeen, have pursued my career and raised our family in Scotland.

Mary and I have always sent Christmas cards to each other, with pictures of our growing families. One year, she sent to me a CD which she had made with a California orchestra, playing Dvořák's cello concerto. She wrote that she had taken a one-month leave of absence from her duties at the hospital to prepare for the concert. On the afternoon of that Christmas Day in Aberdeen, my wife and I, joined by our teenage son and daughter, sat together in our living room and watched on the television screen this woman who had been my friend at the university in California.

Both the filming and the recording on the CD were excellent, clearly done by a professional crew. When Mary came out on the stage and bowed to the audience, I saw that her hair was much shorter, and that her face had matured. But her blue dress was sleeveless, so that we could see her arms as she sat in a chair and cradled the cello . . . then held her bow, poised.

When she attacked that opening passage with such skill and passion, I realized what an extraordinary gift I had been given, way back when I was a green kid from the corn fields of Illinois.

At some point, when tears were running down my cheeks, my wife Heather touched my wet cheek with her fingertips and told me, "It's all right if you love her a little bit. I would too."

And then this morning, on Tuesday, November 20, 2018, I received an email from Mary's brother informing me that she had died in one of the wildfires that had been raging across northern California. She had been at the hospital helping to evacuate patients, then instead of following the convoy, she had returned home to fetch her two dogs, and no doubt her cello. She spoke with both her brother and her husband on the phone, assuring them that she was fine, she was home, the fire was still some distance away, and that she would phone them again from wherever she would be spending the night.

Then she phoned her husband again—he was on a business trip in Chicago—during the last few frantic minutes when the fire had suddenly appeared, raging through the town, and she knew that she and the dogs were trapped.

Her brother wrote that I had always been “a special friend of Mary’s”, and so he wanted me to know.

I printed the email and showed it to Heather. I couldn’t talk.

Yes, I wondered why the authorities had not evacuated the town much sooner. But then I began to wonder why the authorities, why *all* of us, had not responded to this monster called climate change much sooner. No physician would ever let his patient—as sick as our Earth was sick—continue to deteriorate without emergency medical care. No ship captain would continue to sail his vessel toward a rocky coast, *knowing* that those rocks were there.

And yet we knowingly and willfully continued to live our lives as if this unprecedented monster was still some safe distance away.

Had her husband heard her screams over the telephone at the end? Had he heard the shrieking of the dogs?

I found myself wondering, as a skin doctor, whether she had died of suffocation from smoke, or whether she had burned alive, the most hideous of deaths.

Her cello, of course, would be nothing but ashes.

And I began to think, during the course of this long black day—I am still up now, with Heather, wearing our coats out in the yard on a cold but starry November night in Scotland—about the forty years during which a growing number of scientists had tried to warn us. About the well-funded lies from the oil industry. About the inexcusable public apathy. About a president who seemed utterly determined to lead us to our final destruction.

Yes, and I thought about the indigenous peoples in their rainforest in Brazil, trying somehow to reach, with their tiny voices, the seven billion people on the planet who steadily ignored them.

Who will play a requiem for Mary?

Who will play a requiem for those newborn infants which her skilled hands had brought into the world . . . as they struggle to survive on a dying Earth?

And whatever happened to the spirit of California? How did we evolve from that generation of high spirited visionaries . . . to a world filled with walking cadavers staring down at their tiny telephone screens?

We killed John and Martin and Bobby, voted into office a succession of war profiteers, then guaranteed our own demise by handing the reins of power to a man who would make General Washington spit.

Yes, I had watched it all from Scotland, glad, deeply glad, that my son and my daughter could grow up in a land that wanted no part of all that American violence and hatred. Scotland had become a world leader in the field of clean energy, with the first array of floating wind turbines off its northern coast. Both my daughter and my son now work in the clean energy industry, she as an electrical engineer, he as a marine architect. They are the fulfillment of my California dream for a better world.

But what sort of world will *their* children inherit? The wildfires of California will soon be raging around the entire fevered planet.

I look up at the stars and remember when Mary played so gently in the highest register of her cello, as if she were casting down upon us sprinkles of stardust.

Amen. Amen.

* * * * *

An Auspicious Gathering in Independence Hall

Ben sat on a bench in the park behind Independence Hall, where, in the shade of the oak trees back during that hot summer of 1787, he and the other delegates who were laboring on the new Constitution could breathe a bit of fresh air . . . and talk with each other in private—apart from the full convention in the Assembly Room—about the various components of this unprecedented document.

He had been reading a newspaper—for years he had been the editor of the *Pennsylvania Gazette*, and thus today he had bought for himself a modern newspaper at a nearby newsstand—but the light in the sky on this evening of mid-May was fading, so he folded the newspaper and laid it on the bench beside him.

What he had read about the present President Trump and his administration had made him more than angry. He was outraged. How was it possible that the country had come to this?

Ben looked at the rear façade of the large, red-brick building with its tall windows and stately clock tower. He remembered that day in September of 1787, when, after four months of contentious work inside Independence Hall, the fifty-five delegates had finally emerged with a completed Constitution. They had discussed and debated during those warm months of summer with the windows closed, so that not a word of their deliberations might be heard outside. Not a single delegate had spoken to anyone during the evenings when they returned to their lodgings, for they had sworn an oath of silence. Thus, on that afternoon of September 17, when the delegates emerged from the big white front door, a local reporter was waiting most eagerly for the first news.

The reporter asked Doctor Franklin, “What have you wrought?” Or, in modern parlance, “What have you created?”

Ben had answered, “A republic, if you can keep it.”

But now he understood, after reading the astonishing and disheartening articles in this newspaper with colored pictures, that not only was some bombastic fool named Donald Trump destroying the republic, but that sixty-three million Americans had voted for him so that he could do it.

One particular article especially disturbed Doctor Franklin, who had been perhaps—he would not boast—the greatest American scientist of his age. So many citizens of this modern America now scorned the importance of science, that they had

elected a wealthy man of little learning, who had embarked on a program of tearing down the nation's scientific institutions. One of them was the Environmental Protection Agency, which had struggled for decades to clean up the nation's pollution, and to tackle the great challenges of global warming. But now—Ben seethed with outrage—this fool who had become President was casting aside the evidence gathered by thousands of scientists around the world . . . and instead gave his support to the oil companies who wanted to drill for more oil!

What republic could ever survive the forces of such stupidity and greed?

Yes, he knew about this modern problem called global warming, and the pernicious effects of burning both coal and oil from his own time until the present day, for he had done more than a little reading in preparation for this historic gathering in Philadelphia. The more he read, the more he understood why he and his fellow delegates had been called back to Independence Hall. Their nation, and humanity itself, had great need of their collective wisdom.

Two familiar figures now approached him, a couple whose lifelong love for each other he had always envied. Ben stood up and offered his hand of welcome first to Abigail Adams, and then to John. "I am so glad to see you. You're looking well, both of you."

"Most wonderful Ben," said Abigail with her bright smile, "are you still taming the bolts of lightning?"

"Ha!" he laughed with disgust. "I would like to send a bolt of lightning straight into the skull of this . . ." he pointed at the newspaper and struggled to be polite, "imposture of a President."

"Quite right," said John, shaking his head sadly. "The election, of course, was a complete sham. In our day, we struggled with such determination to cast off the influence of the wealthy aristocracy in London, but now they have put back into power those very same unscrupulous thieves."

"What," asked Ben, "could possibly have led them this far astray?"

A voice called from an approaching figure, "I will tell you. The forces of ignorance have led these good people to their present catastrophe." Ben recognized his old friend Tom Jefferson, tall and slender, walking toward them with his easy gait.

They shook hands all around—Tom bowed gallantly to Abigail as he shook her hand—then Tom continued, "From what I have observed in the past few days, the schools of America are in a woeful state. Yes, the teachers do their valiant best, but

the curriculum is appallingly outdated. Worse, most of the students have no sense of purpose. *Purpose!* Was there any man or woman in America in 1776 without a purpose? We all had our life's work laid out for us. And we did that imperative work, diligently, and with great fervor. Because we *believed* in our cause, and gave our lives to it."

Ben remembered back to when the five of them, himself with John and Tom—as well as Robert Livingston and Roger Sherman—had been chosen by the delegates of the Second Continental Congress, here in this same Independence Hall during the summer of 1776, to write a document declaring the multitude of reasons why the thirteen colonies were determined to break away from Great Britain. Tom, both a man of extensive learning and a felicitous writer, was given the job of writing the draft of the Declaration. Ben and John had later offered their small bits of editing.

Yes, the delegates to that convention, many of whom were lawyers, could write a well deliberated document. But it was Tom Jefferson who dipped his quill into an inkpot . . . in which the ink was infused with something from the divine Creator himself.

"I must say," said John, "that this gathering today in Philadelphia was most unexpected. I do hope that the others are coming as well."

"Have you seen your cousin Samuel?" asked Ben.

"Oh, he'll be here," laughed John. "If there's a rabble to be roused, he'll be here."

"I certainly hope," said Abigail, "that Martha will be coming with her George."

Ben reassured her, "Martha was with her George in the encampment through all seven winters of the war. She brought the General great comfort. I am quite sure that if the Commander in Chief joins us this evening, she will be at his side."

"Hallooo!" called the voice of another figure who approached in the fading light of dusk.

Ben recognized the bright and brash Hamilton, the financial genius who had created the nation's first bank, and yet the man with so many flaws in his personal life. Ben called back, "Alexander, welcome, welcome. It seems that the nation's finances are a bit out of skew, and could use your guiding hand."

"Out of skew!" snapped Hamilton with scorn, though he most cordially shook hands all around. "Even the king and his ministers would laugh at this paltry crew. The present President and his gang of rogues see but one corner of the economic

tapestry: their own deep pockets. Beyond that, they lack not only skill, but any shred of honesty. A most unseemly batch of blackguards, they are. I'd love to have a go at the fat bald one who wears a wig. *There* would be a rollicksome debate."

Ben looked around the wooded park, where a growing number of figures—old friends from Rhode Island, Connecticut, Massachusetts and New Hampshire in the north; New York, New Jersey, Delaware, Maryland, and his own Pennsylvania in the middle; and Virginia, North Carolina, South Carolina, and distant Georgia in the south—came walking toward him from all corners of the park. Many of them, Ben was gratified to see, had brought their wives. Certainly this evening, the wisdom of the women, which had been neglected in 1776, and again in 1787, would now be fully recognized.

When the delegates had assembled in front of the bench on which Ben's folded newspaper still lay, James Madison, delegate from Virginia, accompanied by his wife Dolly, greeted the gathering. "Good evening, good evening! How deeply heartened I am to see you all upon this somber occasion, an occasion encumbered with many painful challenges." He paused for a moment while various delegates returned his greeting with their own "Good evening, sir. Good evening, Mistress Madison."

Then he announced, "General Washington and his good wife Martha await us at the front door. We are to walk around the building," he gestured toward the back corner of Independence Hall. Its red brick walls and clock tower were now lit by spotlights, though the windows were dark, for the tourists had gone home. "We shall then step through that same front door through which we entered and exited so many times before. Once we are all gathered within the Assembly Room, we shall be able, undisturbed, to take up once again the urgent issues of the day."

Ben looked up between the black leafy crowns of the oak trees and saw that the first stars had appeared in the night sky.

He pointed upward as he addressed the delegates, "Honored ladies and worthy gentlemen, the stars peer down as our witnesses tonight. The Creator himself, I am quite sure, peers down as well, to see whether we in our deliberations might take some bold step forward."

Standing up from the bench, he swept his arm with invitation, "Come, we must not keep our General and his good wife waiting."

As Ben led the procession of delegates around the building's front corner, he spotted two familiar figures standing near the large white door: one of them was tall,

with a dignified bearing unmatched by any other delegate here tonight, while the other was much shorter, though she too stood with a firm bearing. A few yards beyond them towered a bronze sculpture of General Washington on a stone pedestal.

Perhaps that was the problem, thought Ben. These modern Americans were left with a sculpture and a building, whereas that early spirit—that belief in their bold enterprise, that belief in *themselves*—was today far less evident in the general population than in the time when every farmer, every merchant, every blacksmith and barrel maker, as well as every farm wife and village wife and mistress of her city home, knew in their beating hearts that they would *demand* their independence, and their liberty, and their chance for themselves and their neighbors to build a far better world. Yes, in his own time, that bold spirit had burned bright in the heart of almost every citizen.

“General Washington,” called Ben, “and your dear Martha. Good evening to you!”

The General, who rarely showed his sentiments, now broadly smiled as he held out both hands to the approaching assemblage. “My hearty good evening to you all!”

Martha called with delight, “Good evening to such good friends!”

General Washington gestured toward the large white door. “Our chairs, I believe, are waiting for us.”

But now a policeman in a blue uniform stepped in front of the door. He stated with great authority, “This facility is closed. The Independence National Historical Park tours begin tomorrow morning at nine a.m. You can purchase your tickets at the Welcome Center.” He pointed toward a building on the other side of Chestnut Avenue.

Then he stood, firmly blocking our way, with his hand on some piece of equipment fastened to his belt.

General Washington stepped forward. “Sir, our country now finds itself in a crisis which grows more dire by the day. We have come, in these unprecedented times, to see if we might find our way toward some revolutionary new manner of thinking. We have, you see, some experience in these matters.”

The policeman regarded General Washington with suspicion. “Revolutionary, you say?”

“Perhaps you have children, who will one day want their own children.”

“Yes, and what about that?”

“We come here tonight,” said the General, and then I heard him use a phrase which he had often used during those difficult years long ago, “on behalf of the unborn millions. Their cause is equal to our own.”

As the policeman looked into our faces, something seemed to stir within him. He took from his belt a ring of keys, found one particular key, set it into the lock and turned it. He gripped the door’s handle, put his thumb on the latch . . . and the two large white doors swung open into a dark hallway.

He stepped inside and switched on the lights.

When he returned to the doorway, he said with a slight bow, “Welcome.”

“Thank you, sir,” said the General, who then swept his arm and bade John and Abigail Adams to be the first to enter.

The clock high above them in the tower tolled nine times as the delegates climbed the steps, passed through the door and walked a short distance along the hallway, then turned left and passed through another door into the Assembly Room, which seemed to welcome them as old friends. Yes, there were the round-backed chairs, the tables with their green tablecloths, the tall white candles in their brass candlesticks, the quills and paper ready for their use . . . even the green curtains on the windows.

And there at the front of the room, elevated on a platform above the main floor, stood the broad desk where General Washington—his labors completed on the bloody battleground of war—had once presided, facing the Congress Assembled, as they deliberated the workings of our Constitution.

Behind that broad desk stood the chair where General Washington had sat during those four arduous months in 1787, saying little, but guiding the delegates with his stern dignity. On the back of that chair, atop the elegant woodwork, was the carved upper half of the sun, with beams radiating above it. The lower half of the sun was hidden beneath the horizon. After the Constitution had been signed—after the great work of argument and counter-argument had been completed—Ben had commented for all to hear that he had many times regarded that sun during the deliberations, wondering whether it was a rising sun, or a setting sun. He declared, now that the Constitution which would guide the unprecedented Republic into the years ahead had become a living document, that the sun was most certainly rising.

The delegates, men and women both, now spread themselves throughout the room—there were chairs enough for everyone—while General Washington took his

seat behind the desk at the front. He gestured to a seat in the front row and said, “Patsy,” as he called his wife, “we welcome your thoughts this evening.”

Ben sat in his wonted seat in the front row, a place of honor because of his age, though this evening he suffered no pain from bladder stones, nor fatigue from his eighty-one years. Quite the contrary, he felt himself in the springtime of his youthful vigor.

“Gentlemen,” called a voice from across the room—it was Tom Jefferson, delegate from Virginia—“I make a motion that we light the candles, for they quite well illuminated our proceedings during those many nights when we worked late.”

And so, finding boxes of matches beside the candlesticks, they lit all the candles around the room—two to a table and some more along the sides—and felt a deep gladness in their hearts at the flickering glow. Someone found the modern light switch and turned off the electric lights. Several other delegates lowered the green curtains and thus covered the three large windows on the right and left sides of the room, so that the city lights outside would not intrude upon their proceedings.

They sat for a prolonged moment of silence in the beneficent glow of their candles, while each woman and man in the room thought quietly—and perhaps said a prayer—about the great work upon which they were to embark. For they now, as they had once done over two centuries ago, would design a new and unprecedented nation, in which modern people in their modern times would be able to flourish.

They opened the discussion with comments from around the room—some of them most heated—regarding all that they found to be *wrong* about America today. Economic policies utterly blind to the desperate needs of people struggling to earn a living. An educational system which barely addressed the urgent challenges in the world today. A political system which failed to represent the common people, but which instead had become a most corrupt system controlled by powerful corporations, whose minions in Congress passed whatever legislation most suited their wealthy overseers. From any of a dozen viewpoints, democracy had become a sham.

It was in the midst of this seemingly endless barrage of complaints, that the delegates heard a loud knock on the front door. General Washington stared in that direction with a look of impatience. Had the policeman come back? Had their meeting run on too long?

James Madison, delegate from Virginia—and the political sage who had written the first draft of a constitution which had served as the admirable foundation for the

final document—rose from his chair and exited the room. They could hear his voice, down the dark hallway to the right, where he stood at the closed door as he asked, “Who is it?”

Now the delegates heard a voice from outside the door, a bit muffled but nevertheless both vibrant and firm, “Four score and seven years ago, our fathers brought forth on this continent, a new nation, conceived in Liberty, and dedicated to the proposition that all men are created equal.”

They all knew, every woman and man in the Assembly Room, despite the three-quarters of a century which had divided them, that Abraham Lincoln now stood at the door to Independence Hall.

And then they heard a second voice, which called to them with deep resonance, “I have a dream that my four little children will one day live in a nation where they will not be judged by the color of their skin but by the content of their character.”

They knew—some of them for a moment even stopped breathing—that Martin Luther King was standing at the door to Independence Hall.

And now they heard a third voice, speaking English with a heavy accent, “I am Tatanka Yotanka, or as you call me, Sitting Bull, of the Hunkpapa Lokata people. I will say to you tonight, as I tried to say to you many years ago, when your ears were deaf . . .” He paused, and then they heard an ancient voice speaking from the plains of an ancient America, “Let us put our minds together and see what life we can make for our children.”

Ben had read in the newspaper that day an article about Native Americans in the state of North Dakota—yes, he remembered that they were Lakota people—who had protested against an oil pipeline that some corporation wanted to lay across their land. The oil company wanted to dig a tunnel beneath a river, then run a pipeline through that tunnel to the other side. The Native Americans were afraid that the pipeline might leak—as other pipelines had leaked in so many other places around America—and thus they and several other tribes had gathered in peaceful protest.

Ben had stared at the colored picture in the newspaper of the line of police who confronted the protestors: the police held enormous guns, wore helmets with visors, and rode in giant military vehicles. Another picture showed clouds of something called “tear gas”, which poisoned people’s eyes and lungs.

He knew, of course, what first the Europeans, and then the settlers heading west, had done to the Indians. That was bad enough. But that such savagery continued in America today!

The third voice now stated with vehement clarity, “Let me remind you, that all three of us standing here were assassinated.”

General Washington stood up from his chair and called, “Let them in. Beckon them in. *Welcome* them in.”

Tom Jefferson was on his feet as well. For though these new guests were from a time much later than his own epoch, he understood—as if he had read about them in a book, or as if the Creator himself had somehow bestowed upon the minds of the delegates an understanding of what was both in the past and in the future—yes, he understood who they were, and how they might contribute to the deliberations this evening . . . about the soul of America.

Jefferson strode toward the door of the Assembly Room. As a southern gentleman who had owned slaves on his plantation, and who well understood the injustices which he himself had perpetrated, he now reached his hand to the tall figure who—as the courageous author in 1863 of the Emancipation Proclamation—had finally freed the slaves. President Lincoln had thus amended the most glaring failure of the Constitution.

“Sir,” said Mister Jefferson to Mister Lincoln, “we are deeply honored by your presence here this evening.”

Lincoln recognized Jefferson from the pictures in his boyhood books. “The honor,” he said, “is distinctly mine.”

Dolly Madison stood up and called with her gracious voice, “Please, Mister Lincoln, come take a chair beside Tom Jefferson’s chair, here in the front row.”

Abraham Lincoln, sixteenth president of the United States, the man who had kept those states united, walked into the room toward the chair which awaited him.

Jefferson, who as the third president of the United States had sent Lewis and Clark on their expedition to explore the American West, now reached his hand toward an American far more native than he, even as a Founding Father, could ever be. “Sir, our ears are no longer deaf. Our hearts are no longer hard. We welcome you, and promise that we shall listen with open minds to the wisdom which you bring.”

Sitting Bull reached his hand and shook with a firm grip the hand of the Great White Father who had penned the words, “All men are created equal.” Sitting Bull held Jefferson’s hand, held it for a long moment, while he stared deep into Jefferson’s eyes, wanting to know—as Jefferson understood—whether or not he could trust him.

Jefferson told him, “You have my promise, sir, my *oath*, as the son of our shared Creator, that your people shall now live where justice dwells upon the land.”

Sitting Bull squeezed Jefferson's hand with the grip of a warrior who had defended his people to the end. "Then let us share with the land herself . . . *her* full measure of justice. For she, like my people, has been severely wounded."

Now General Washington, a warrior who had led his people through eight and a half years of brutal war, called to Sitting Bull, "Please, sir, will you come sit beside Doctor Franklin, here in the front row. I think that you will find him a most cordial companion."

Sitting Bull, with an eagle feather in his hair, walked into the room toward the chair which awaited him.

Jefferson now reached his hand toward a young man whose face was not as etched with cares and hardships . . . as were the faces of the other two guests. He was only thirty-eight years old, and though he was most probably the son of the son of the son of a slave, he smiled the broad, warm smile of someone still in his youth.

"Sir," said Jefferson, "we are in great need of the man who led the marches through the streets of modern America."

"Yes," said Martin, "for I hear that those streets are filled, even today, with the strife which we labored so hard to overcome half a century ago."

Samuel Adams, who in his time had walked the streets of Boston, and who had spoken upon many occasions from the pulpit of the Old South Meeting House—as he organized his people into a body of citizens who demanded justice from those who oppressed them—now stood up and called to the man who had spoken from so many pulpits in America, "Please, sir, I would be most honored if you would sit beside me."

Martin, who had spoken again and again about the sacred Constitution which guaranteed his people their rights, now walked into the room filled with the people who had written that Constitution, and made his way toward the chair which awaited him.

The delegates now took up the subject which had plagued America from its earliest days: racism. The first settlers had felt little hesitation as they aimed their muskets at the savages who occupied the fertile land. And later, especially in the southern colonies, landowners had felt little hesitation as they bought and sold Africans whom they viewed as mere chattel, and then applied the whip to make them work.

With astonishing tenacity, these racist attitudes continued today in America, where, as Ben pointed out, police with military weapons could fire upon the unarmed "water protectors" at Standing Rock. Sitting Bull rose from his chair beside Ben and

addressed the delegates, so that every man and woman in the room clearly understood that Standing Rock was on the sacred land of the Dakota peoples. “The battle which the Americans fight against us today is the *same* battle which they fought against us seven generations ago. Their hatred toward us has never diminished.”

The room was silent. The delegates listened to Sitting Bull with ears that were no longer deaf.

When General Washington asked Martin if he would like to address the delegates, Martin stood up from his chair beside Tom Jefferson . . . but for a long moment he was unable to speak. His face, that young, handsome face, was gripped by anguish and sorrow and bafflement.

Finally he said, “Did we boycott the buses in Montgomery in 1955, and did we march in the streets of Birmingham, where dogs attacked us, in 1963, and did we march across the Edmund Pettus Bridge in Selma in 1965, so that today the police can pull over a black driver on a traffic violation and shoot him dead? Did we sit at lunch counters, and ride the Greyhound buses, and register people to vote, so that today one of every three young black men spends time in our nation’s prisons? Did we abide by the laws of nonviolence, despite the savage attacks of Klansmen with their baseball bats during the day and their rifles in the darkness of night, so that our black men and women could be sent off to fight in yet another war in yet another country, where the people had never, never, *never* done America any harm?”

He paused for a long moment, and then his resonant voice reached out with even greater vehemence, “Did we gather in Washington in August of 1963, in front of the monumental sculpture of,” Martin gestured toward Lincoln, “the Great Liberator who freed us from our chains . . . so that one hundred years later, and now over half a century after that historic day, our children are *still* educated in second-rate schools? Our children still grow up on streets where gunfire is more common than the singing of birds. Our children face a job market which pays a wage that no family can live on. Our children watched the nation’s first black President as he struggled for eight years to surmount the roadblocks and barriers which Congress put in his way, no matter what he tried to do. Yes, our children watch the world around them very carefully, and as their hope ebbs away, their anger becomes more fierce.”

Abraham Lincoln now stood up and walked over to Martin. The lawyer said to the minister, “I fear God’s wrath. For surely, he cannot much longer countenance the evil which they *refuse* to quell within their hearts.”

Then Lincoln turned to the delegates, and they saw the aching sadness, and the exhaustion, in his eyes. “When I, as Commander in Chief,” he turned and nodded to General Washington, “sent young men into battle, knowing that a certain number would surely die before the sun had set that day, I did so in the belief that we were ridding the nation of that pestilence called slavery. I believed, earnestly believed, that with the long sought-after peace . . . might come a deeper sense of brotherhood. If one man no longer owned another, but worked alongside him, might they not come to better know each other? Might they not even find some measure of friendship? Might they not . . . enable America to live up to her promise that,” Lincoln gestured toward Jefferson, “‘All men are created equal.’”

He shook his head, and now the delegates witnessed the grief in that weathered face. “But,” he said, barely able to speak, “I was not allowed to bind up the nation’s wounds. My time was cut short, and men of little vision took up the reins of our country. This tragedy, I see, continues to lay its pall upon us today. We are still far, so incomprehensibly far, from binding up the wounds. And thus we create new wounds, inflicted every day upon our children. Upon our *children*. Yes, I am certain, that we must all fear God’s wrath. For surely He will not abide this evil much longer.”

Abraham Lincoln walked back to his chair.

The room was silent.

The candles had burned more than half way down to the brass candlesticks.

“I would like,” said General Washington, “to take up the subject of the incessant wars which modern America feels compelled to launch against its neighbors in the world.”

He glared toward a curtained window, a window which faced south toward the park with its trees and benches, and far beyond that, toward the nation’s capital which bore his name.

Then he addressed the delegates, “I refer to the war which America launched against the people of a small, humble country called Viet Nam. Suddenly, in the spring of 1965, giant planes began to drop bombs on farmers who were plowing their rice paddies with water buffaloes. To my knowledge, and I have read deeply into this matter, not a single person from Viet Nam had ever so much as cast a stone at any citizen of America.”

He thumped his fist on the desk in front of him, jolting the candlestick; the orange flame wavered. “And then during the 1980s, another president, another,” he spat the words, “Commander in Chief, launched our forces against the people of a small country far to the south of us. To my knowledge, and I have read deeply into this matter, not a single person from Nicaragua ever so much as cast a pebble at any citizen of America.”

General Washington stood up from his chair and walked around his desk so that he could stand at the edge of the platform as he addressed the delegates. “And then in March of 2003, perhaps the most monumentally unqualified Commander in Chief in the history of our nation launched an attack with missiles so powerful, that they could reduce a city the size of Philadelphia to mere rubble. To my knowledge, and I have read deeply into this matter, not a single person from Baghdad ever so much as cast an angry glance at any citizen of America. The boy, the cocky little boy, had to have his war. The utterly unnecessary war in Afghanistan was going so poorly . . . that he would have another try in Iraq.”

The General clenched his fist. “I would like to meet these three Presidents who considered themselves to be some sort of Commander in Chief. I would like to have a good long talk with them. I would like to know whether they have even the slightest understanding of what,” he nearly shouted the word, “*America* . . . stands for in the long history of human progress.”

He looked down at his wife Patsy, who had left their comfortable home in Virginia to be with him at headquarters during each of the seven winters of the war. She nodded to him with encouragement.

Then he scanned the faces of the delegates, who had helped him in this very room to craft a new sort of nation, based on the simple principle, “We the People.”

“I have read,” he told them, “that the cocky little boy had a nickname among his buddies. They called him ‘Dubyah’, after the W which represented his middle name. Well, perhaps they were right. Because that Dubyah, in my estimation, stands for War Criminal.”

The General returned to his chair, where he sat and glowered with outrage, then he thumped his fist with all of his strength, nearly toppling the candle. “War Criminal!”

The room was silent.

The candles burned, lighting the somber faces of the delegates as they saw ever more deeply into the nature of their task.

Ben now tried to take up the subject of global warming, and the need for new programs in the schools, but he was met by a loud guffaw from Roger Sherman, delegate from Connecticut. “Global warming! During the last presidential campaign, the two candidates never even mentioned global warming in their debates. The only candidate who referred again and again to global warming was the supremely qualified candidate from Vermont, Bernie Sanders. But of course, he was never allowed to participate in the debates. The one thing those two hooligans agreed on was that Bernie could have beaten them both.”

“Yes, and as far as ‘new programs in the schools,’” declared William Blount, delegate from North Carolina, “there are multitudes of schools that will prohibit even the mention of ‘climate change’ in their classrooms. Drought will parch the land, and storms will flood entire cities along the seacoast, before our schools finally emerge from the dark ages of denial.”

Ben, who had written countless articles in his newspapers to enlighten the minds of the common people—the congenial wisdom in Poor Richard’s Almanack had reached thousands of his countrymen—now slumped in his chair. “People back then were willing to learn,” he said. “If they could understand the principles of British taxation, they would surely have tackled the challenges of global warming. But today . . . folks don’t seem to have the spirit anymore.”

The candles had burned low, and the spirits of the weary delegates—who had once in this room debated with each other with such vigor, and learned from each other with such earnestness, and who had thus crafted the complex architecture of an entirely new nation—yes, their spirits had ebbed as well to an unprecedented low.

“I’ll tell you what I think of democracy in today’s America,” said Nicholas Gilman, delegate from New Hampshire. He leaned forward from his chair and blew out his candle. “Dark times ahead,” he stated with conviction. “Dark times ahead.”

The delegates, stunned, looked first at the wisp of smoke that rose from the stub of a candle, and then at each other. Was he right?

Jared Ingersoll, delegate from Pennsylvania, leaned forward and blew out his candle.

John Dickinson, delegate from Delaware, leaned forward and blew out his candle.

Abraham Baldwin, delegate from Georgia, leaned forward and blew out his candle.

General Washington stirred in his seat. The delegates watched with grim apprehension. Would the nation's first President blow out the twin candles on his desk? If so, what darkness would fall like a funeral shroud over the nation which they had created and nurtured with such care?

And then . . . they heard a loud knock on the door.

It was Abigail who stood up. She beckoned with her hand to her husband's cousin, Samuel. "Shall we go together?" she asked him.

Abigail had written a letter to her husband, dated March 31, 1776, which she posted from Quincy, Massachusetts to Philadelphia. John, as a member of the Continental Congress, was working with the other delegates on a document which would declare their independence from Great Britain. Equally important, they were at the same time designing a new code of laws for the soon-to-be-born nation. Knowing that John was engaged in these two momentous undertakings, Abigail had written in her letter:

"I long to hear that you have declared an independency. And, by the way, in the new code of laws which I suppose it will be necessary for you to make, I desire you would **remember the ladies** and be more generous and favorable to them than your ancestors. Do not put such unlimited power into the hands of the husbands. Remember, all men would be tyrants if they could. If particular care and attention is not paid to the ladies, **we are determined to foment a rebellion**, and will not hold ourselves bound by any laws in which we have no voice or representation."

Now, as she stood beside her chair in the front row of the Assembly Room, not far from General Washington's desk, she knew that her time had come.

Samuel stood up from his chair. During the decade before the first shot at Lexington in April of 1775, he had talked with the young men on the docks of Boston about the injustice of the British taxation . . . without their proper representation in Parliament. Few had listened to him at first, but during that tumultuous decade leading to the outbreak of war, he had never given up trying to teach the young men that they were not slaves, but citizens. He believed in those young people, believed that they could run their own country, without "help" from the leeches in London who were sucking them dry.

Samuel crossed the front of the room to Abigail, who looked at him with deep gratitude in her eyes. They would answer the knock on the door together.

The delegates watched them leave the room, then they heard the click of the latch. “Well,” said Abigail with surprise in her voice, “we had no idea that you were coming. But of course we should have known.”

Moments later, she and Samuel led a procession of young people—of every possible ethnic background—into the Assembly Room. They were invited—all fifty of them, young women and young men, some of them in their early twenties, some of them teenagers and even younger—to stand across the front of the room, flanking General Washington’s desk. With confidence, with poise, they now faced the delegates. Some of them wore blue jeans; the delegates wore knee breeches. Some of them wore formal suits and dresses; others wore brightly colored t-shirts and shorts. One young woman wore an eagle feather in her hair.

A boy stepped forward. He was African-American, perhaps ten years old. He told the delegates, “I am from Flint, Michigan, where they have poisoned our water. I want to become a doctor in the field of community health.”

A girl stepped forward. She was Latino, perhaps sixteen years old. “Ten years ago, my father was killed in Iraq. I want to know why.”

A young man stepped forward. With his bushy red hair, he was perhaps of Irish descent. “I come from a farm in Nebraska where we harvest the alfalfa with our combines . . . and where we harvest the wind with our turbines. I want to become a clean energy engineer.”

A young woman stepped forward. She gestured with her hand, and fifteen others stepped forward. “We want to go to college, but we cannot possibly afford the tuition.”

A boy in grade school stepped forward. “My father is in prison, and I want to know why.”

The young woman who wore an eagle feather in her hair stepped forward, bowed with deep gratitude to Sitting Bull, then asked her young colleagues at the front of the room, “How many of you want to become lawyers in the field of human rights?”

At least a dozen raised their hands.

Samuel Adams, meanwhile, had located a large number of folding chairs at the back of the room. He also found a box which contained, as he discovered when he opened it, a supply of fresh candles.

As the young delegates unfolded their chairs and sat with their older colleagues at the various tables, General Washington stepped down from the platform and said to his wife, "Patsy, please join me at my desk. You must see this gathering as I see it. For here is truly a moment in history."

He carried her chair to the raised platform and set it beside his own chair behind the desk. The two sat together, watching as the new candles were lit from the old stubs, then inserted into the candlesticks.

The two eagle feathers came together as the young daughter provided the honored father with a fresh candle.

A girl with blue eyes and braided hair brought a fresh candle for Martha.

A boy with dark eyes and an African necklace brought a fresh candle for General Washington.

When all were seated, and the room glowed with fresh candle light, the General stood and declared with solemn dignity, "The Constitutional Congress is now in session. We shall turn our attention to the Bill of Rights."

He paused, savoring the moment, and then he asked, "Good people of America, do you have any suggestions?"

Fifty hands went up.

And so in that room quickened a new spirit, which would take the country into an entirely new epoch, fulfilling the promises made long ago.

* * * * *

When the Founding Fathers wrote, "We the People,"
they meant it.

I Am a River

I am a river. I am the Ganges, born of ancient frozen water in the heights of the Himalaya Mountains.

Downstream from the Himalayan glaciers, I water a thousand gardens. I offer of myself to a maze of irrigation ditches, and thus I nourish a billion people.

Sometimes I flood the land; then, withdrawing, I leave a blanket of minerals from the mountain heights.

I have sustained the many civilizations that once flourished along my banks. I count the centuries as you count the minutes of the day.

Some call me holy; they come to bathe in my waters.

When you—fools in your time of darkness—have melted the glaciers from whence I spring, and have turned the snows to rain, you will bring a greater death upon this fragile world than even your beloved weapons have ever brought.

I am a river. I am the Rhine, born of ancient frozen water in the heights of the Alps.

Downstream from the Alpine glaciers, I water a thousand gardens. I offer of myself to the municipal plumbing, and thus I wash your babies, boil your potatoes, and brew your morning cup of coffee. I carry boats upon my back; some of them were sketched by Rembrandt.

I have sustained the restless kingdoms that once flourished along my banks. I have watched as trade took precedence over warfare. I have witnessed the weaving together of an international community, a patchwork of peoples now at peace.

After centuries of vile treatment, when I served as your sewer, some people upstream and some people downstream have called for the cleaning of my waters.

Fine. But from whence do these waters spring?

Woe unto you poor shabby creatures, when your Rhine has become a ditch of dry mud.

I am a river. I am the Euphrates, born of snow and rain in the mountains of eastern Turkey. There too was born my companion, the Tigris.

Downstream from the winter snows, I water a thousand gardens. I offer of myself to villages and cities in the desert. I open in my delta to a sea of reeds, where people build their boats with reeds, and homes with reeds.

Between the twin rivers, born of snow, the art of agriculture was born. Between the twin rivers, born of snow, the art of writing was born. Between the twin rivers, born of snow, the art of mathematics was born.

Do you know the land of Ur? Do you know the land of Babylon?

When you—great fools in your epoch of darkness—have turned the snow from whence I spring into rain, and then have dried the rains and parched the mountain peaks, you shall bring a greater death upon this sacred corner of the world than even your shabby and eternal wars have ever brought.

I am a river. I am the Colorado, born of ancient frozen water in the heights of the Rocky Mountains.

Downstream from the Rocky Mountain glaciers, I water a thousand gardens. I offer of myself to ranchers and farmers, to towns and to cities, who have a great thirst.

I have carved a wondrous chasm that all the world comes to see. I have laid open Earth's book of time.

Early peoples have known me, people from the north who had crossed great stretches of land, and who then found rest and sustenance along my banks.

Today, so many people tap my waters, that my waters no longer reach the sea.

Wherefore, then, do you threaten my source, when the delta already runs dry?

When you—ungrateful fools overly blessed by this abundant continent—have melted the glaciers from whence I spring, and have turned the snows to rain, then you will have brought both death, and shame, to the fertile land: the sacred gift that you never treasured.

I am a river. I am the Amazon, born of ancient frozen water in the heights of the Andes Mountains of Peru.

Downstream from the Andes glaciers, I water a thousand gardens. I offer of myself to a great forest, and to the peoples who live in that forest. I nourish life in great abundance; I simply flow, and in my moving waters do all manner of life flourish, and multiply, and thrive.

My water is the blood that courses through capillaries and arterioles and arteries across the land. The blood comes, of course, from the ancient heart: frozen ice atop the mountains, melting with a daily heartbeat. The ice is replenished, year after year, by the winter snows.

How long shall the heart keep beating?

When that heart withers, the forest below shall wither as well.

The forest that once breathed and cleaned your filthy air—though less and less as you chain-sawed and burned, and dug for your gold, and raised your beef—shall turn brown and wither and no longer breathe.

No longer shall the forest exhale your oxygen.

When you—grasping fools—have melted the glaciers from which I spring, and have turned the snows to rain, you shall have brought a great wrath upon yourselves.

The last rivers you will see shall be the rivers of your own embattled blood.

* * * * *

Imagine How Lovely

“This world is going to be so glad when we’re gone.”

That was her answer. That was my teacher’s answer when I asked her, “Mrs. Perkins, do you think that human civilization is going to survive all the climate change that’s coming?”

She looked at me for a long time, her eyes filled with a sadness that I had never seen before. Usually in the classroom she marched us through the day’s lesson, answered questions with a ready battery of facts, and—if we still had time—asked *us* one of what she called “the Big Questions”, to get a discussion going.

But today, she looked at me—or at least toward me—while she saw a vision that filled her face with such deep sadness.

But then her eyes brightened, as if she could see *beyond* that vision. That’s when she said, “This world is going to be so glad when we’re gone.”

Ann-Marie asked with a protesting voice from the back of the room, “What do you mean, ‘when we’re gone’? I don’t think people will ever be gone. We’re God’s children.”

Mrs. Perkins looked at Ann-Marie, seemed to hesitate for a moment, then she stated with conviction, “No, we are God’s brats.”

Our teacher, always so encouraging, always so determined to lift us up to a higher realm of thought, just told us that we were a bunch of brats.

The students in the classroom—all twenty-five of us—were silent, uneasy. This was something new.

“Imagine,” said Mrs. Perkins, “how lovely the world will be when multitudes of birds—not just a few scattered sparrows here and there—but *multitudes* of birds fill the woods with their jubilant singing in the spring. Imagine how lovely to see a meadow filled with hundreds of butterflies—yellow and orange and blue—happily fluttering over wildflowers no longer parched by drought.”

Mrs. Perkins walked slowly across the front of the classroom, looking at each of us with her probing eyes. Behind her on the blackboard were her notes about rising carbon dioxide levels in both the atmosphere and the oceans. About rising temperatures in the Arctic. About the loss of bird species in England, in India, in Brazil.

“Imagine how lovely,” she said to us, “when the white blossoms of an apple tree in springtime are caressed by so many bees that their wings glimmer in the sunshine like a golden halo.”

She paused, then she pointed at Ann-Marie and said, “Imagine how lovely when an evening in summertime is filled with the blinking of thousands of lightning bugs, all of them in love.”

She pointed at Bobby Foster. “Imagine how lovely when the whales come back, and the turtles come back, and the seas are filled with life the way they are *supposed* to be.”

She pointed at Carlos Cortez. “Imagine how lovely when the corals are healthy again, and the ancient sanctuary once more flourishes with billowing schools of silver fish glinting in the sunlight. With the wily octopus, which had been almost extinct. With full-grown lobsters, which had been almost extinct. With sinister moray eels, which had been almost extinct.”

Mrs. Perkins pointed at Bassam Abuazez. “Imagine how lovely when we stop shooting elephants. Imagine how lovely when we stop shooting wolves. Imagine how lovely when the guns and the bombs become silent in Palestine.”

Bassam asked, “Because there is no more war?”

Mrs. Perkins replied, “Because there are no more people.”

Bassam, a refugee, scowled at the thought of his homeland empty of people.

“Isn’t that what we want?” asked Mrs. Perkins. “Isn’t that what we’ve been working toward, assiduously”—she used one of our vocabulary words—“for the past seventy years?”

She pointed at the graph on a bulletin board of carbon dioxide emissions into the atmosphere during the past 1,000 years: the line zigzagged up and down during an entire millennium, always below a certain level, then, just before 1950, the line shot straight up as we humans pumped massive amounts of carbon pollution into the air. Today, in 2020, we were on the point of an unrelenting spike.

Mrs. Perkins hammered her finger on that spike. “*Here* is where you are. Here is where you are beginning your adult lives.”

She jabbed her finger straight up toward the ceiling as she announced, “Yes, the brats have been busy.”

Now she moved her finger along the baseline. “By 2030, we trigger a series of major, irreversible tipping points in a multitude of locations around planet Earth. Because of droughts on every continent, agriculture collapses.”

She pointed further into the 21st century. “By 2050, the human population is dropping steadily. As we die from starvation and disease, and from our unrelenting wars, we drop from almost eight billion,” her finger moved along the baseline, “to

four billion, to two billion, to thirty million.” She pointed at 2090. “As we near the end of the 21st century, humans will be reduced to scattered patches of survivors.”

Then she pointed jubilantly at 2100. “But what else is happening? Our production of carbon dioxide steadily diminishes, and the air slowly becomes clean again. We don’t know how long it will take, but at some point, our planet will begin to cool, returning to its natural temperatures. And then . . .”

She looked at us with a smile of triumph. “Perhaps by the middle of the 22nd century, coral reefs are flourishing. Rainforests—with the return of steady rain—are flourishing. Snow falls on mountain peaks around the world, creating beds of snow that one day will become glaciers. Glaciers which will create rivers. Rivers which will water the foothills and the plains. The plains where wildflowers once again bloom, and bees once again buzz, and butterflies—yellow and orange and blue—once again flutter in marvelous abundance.”

Mrs. Perkins clapped her hands with joy. “All around the planet, whales are spouting. Dolphin are leaping. Birds are singing. And peaceful summer evenings are filled with the blinking of thousands of fireflies, drifting and dancing and deeply in love.”

Mrs. Perkins swept her arm toward us. “The brats are gone. And the Earth, with her vibrant land and bountiful seas and crystalline skies, has become . . .” She paused, then she said with reverence, “so lovely.”

She finished, as she always did, right on time, for after a silence of several seconds, the bell rang. It was lunch-time.

As we gathered our books and laptops, and stood up silently from our desks, Mrs. Perkins walked to a classroom window and stared up at the hazy blue sky.

* * * * *

Seeds Long Dormant

Nobody knew, back then, how extraordinary we could become. Now, half a century since the first global generation rose up and roared, we have discovered *who we could really be*, if we only gave ourselves the chance.

From 2020 to 2070, that powerful, visionary generation became parents, and thus they engendered both an entirely new civilization . . . and a second global generation (my generation), determined to consolidate our planetary progress.

The ignorant, arrogant, belligerent men with their guns, back in the Dark Ages, had it all wrong. They were reptiles, really, hissing and slithering and flicking their forked tongues . . . until suddenly they coiled and struck with their fangs, poisoning every human effort to lift ourselves up from the dirt.

But their time is over, and never will it return.

Back in 2020, young people asked the veterans to speak—to speak despite military orders to remain forever silent—and lo, they told us the ugly truth about the insanity of war.

Back in 2020, young people asked the women to speak—to speak despite the threats of men jealous of their power—and lo, the women lifted us up with their understanding of peace as the most fertile of soils.

Back in 2020, young people asked the indigenous nations to speak—to speak to us who had been deaf for centuries—and lo, they spoke about their forests and their islands and their deserts and their mountains and their tundra and their seas while we listened with wondering ears. It was like hearing a kind of music we never knew existed.

More and more, we looked upon the warriors and the profiteers with revulsion and contempt.

Seeds long dormant sprouted in the fertile soil of peace. Architects built cities where nature was welcomed as our neighbor. Modern doctors learned from ancient healers about fruits and flowers and potent roots never mentioned in medical school. Economists added new chapters in business school textbooks. Chapter One now described not the balance between supply and demand, but the balance between respect for planet Earth . . . and survival on planet Earth.

Yes, seeds long dormant, planted by the Creator in our hearts eons ago, now sprouted in a garden without reptiles, without wars, without men who are not really

men at all, but stagnant remnants of ancient battle cries, ancient grievances, and ancient blindness.

Seeds long dormant sprouted in our hearts.

Thus did we cast off the old wreckage. And thus did we discover how extraordinary we could become and become and become.

Would you like to meet our children? Would you like to meet our teenagers? They bear little resemblance to the children in war zones, to the children in refugee camps, to the children who grew up in front of a television blasting gunfire.

Such children, with seeds withering in their hearts, you accepted as part of your “normal world”, not so long ago.

* * * * *

When Did Love Begin?

When did love begin?

And when did a sense of right and wrong begin?

We learned in high school chemistry class that we are all made of star dust.

During the Big Bang, roughly 13.8 billion years ago, electrons and protons, and other bits of matter, were assembled into atoms which we call hydrogen, with one proton and one electron. The Big Bang also created helium atoms, with two of each of the essential components.

These basic building blocks could be combined in various ways to form the more complex elements. Inside the oven of an extremely hot star, three helium atoms combined to form a carbon atom, with six protons and six electrons. Helium and carbon combine to form oxygen, with eight protons and eight electrons.

However, even an extremely hot star cannot create elements heavier than iron, with twenty-six protons and twenty-six electrons.

So where did the other, heavier, elements come from?

All stars live in a state of balance, or equilibrium, between **gravity**, which wants to *shrink* the atoms in a star into a solid core . . . and **fusion**, the combining, or fusing, of hydrogen and helium into the heavier elements, a process which gives off energy. This enormous amount of energy, in the form of heat, wants to *expand* the atoms in a star in a massive explosion. Gravity balances explosion, so that a star hovers as a coherent ball of mass and energy in the emptiness of space, for millions of years.

When a small or medium-sized star becomes old—after it has rendered most of its hydrogen and helium into heavier elements, and thus has nearly run out of fuel—it cools and shrinks until it becomes a white dwarf. Gravity wins.

But if the star is massive—at least five times the size of our sun—the Big Guy shrinks only part way, compressing its atoms into an extremely dense core which becomes even hotter than the original star. It becomes a Red Giant, so hot that energy overcomes gravity and the star explodes. It becomes a Supernova, a Super Star, so hot that it can combine the original twenty-six elements—up to iron with its twenty-six protons and twenty-six electrons—into many of the heavier elements.

The Supernova sends clouds of old and new atoms into the vast expanses of the universe. These clouds may combine with other clouds from other stars. The other

clouds may contain additional heavy elements, depending on how their stars died. Thus elements from one star are mixed with elements from another star, or set of stars.

Slowly, slowly, gravity pulls the atoms of these clouds together into a growing cohesive mass. Spinning clouds form spinning balls of ancient star dust.

Gravity thus fashions another star, perhaps with planets orbiting around it.

Today on planet Earth, we have 118 elements neatly ordered in the Periodic Table, the chart which is usually displayed on the wall of a chemistry classroom.

The American Chemical Society states on its website, “With 118 known elements,” the periodic table “is widely regarded as one of the most significant achievements in science.”

Yes, but perhaps an even greater achievement was the original creation of these highly useful elements.

We who fight our wars and plunder our planet are made from the star dust of perhaps one star, perhaps several stars. Our original hydrogen was created during the Big Bang 13.8 billion years ago. The additional elements, such as the carbon in our beating heart, the iron in our circulating blood, and the oxygen which feeds our thoughtful brain, were created in celestial furnaces that grew and burned and died during life cycles of millions of years.

But something else happened along the way. Roughly 3.5 billion years ago, on our round ball of celestial dust, atoms of various elements gathered into **molecules**, a cohesive collection of these elements. The elements were thus bonded together into a new sort of building block. These building blocks gathered together and formed something that was not inert, not just protons and electrons and neutrons, not just dust, but something that was . . . alive.

Complex molecules formed living cells in the warm, flowing, fairly stable habitat of the sea. Over eons of time, the cells became more complex, able to use the energy from a nearby star to create even more complex molecules, which stored the star’s energy in the form of food. Thus the elements which had come from a star, now used the energy from a different star . . . to sustain life, something absolutely new on our planet.

Over eons of time, the cells began to gather together into increasingly complex colonies of cells, some of which still fed from the energy of the star, some of which

ate other creatures which fed from the energy of the star. All of life, whether plant or animal, whether oceanic or terrestrial, was built from the elements of a star, and fed from the energy of another star.

All of life was part of the universe, and part of the universe was in all of life.

The laws of physics which governed the life cycles of the stars also governed the life cycles of every creature on planet Earth. Inside something alive, and inside something inert, electrons with a negative charge orbited around protons with a positive charge with absolute reliability. The laws were . . . universal.

Why, after their immense journey through the universe, which brought them to an ocean of water warmed by the sun, on a ball of barren rock, did the simple elements combine together to form a cell capable of photosynthesis?

Why did these successful green cells, which could have drifted in the currents of the sea just as they were, blessed by the star every day at dawn . . . combine into increasingly complex forms of life?

Why did they eventually creep out of the sea onto the hostile shores of land?

Why did they continue to evolve until they could look up and admire the beauty of the stars? And even write poems about the stars.

Why did these creatures begin to feel, beyond the unrelenting demands of hunger, beyond the compelling desire to mate, something deeper, which may or may not have accompanied the original elements from the time of their creation?

When did love begin? And why?

Is love somehow woven into those laws of physics? Was love somehow part of an original plan, a plan which reached from the original hydrogen 13.8 billion years ago . . . to our present moment, when, as the Beatles told us, “All you need is love”?

And when did a sense of right and wrong begin? At what point in our human journey did we begin to feel the need for moral guidance?

Finally, we who fight our wars and plunder our planet, might ask, “What happened to our love? What happened to our sense of right and wrong?”

Nothing, during those 13.8 billion years, guaranteed that we would be here today. Exploding stars do not point with any great assurance toward Beethoven in the concert hall. But here we are. Blessed by a star that still rises every day at dawn.

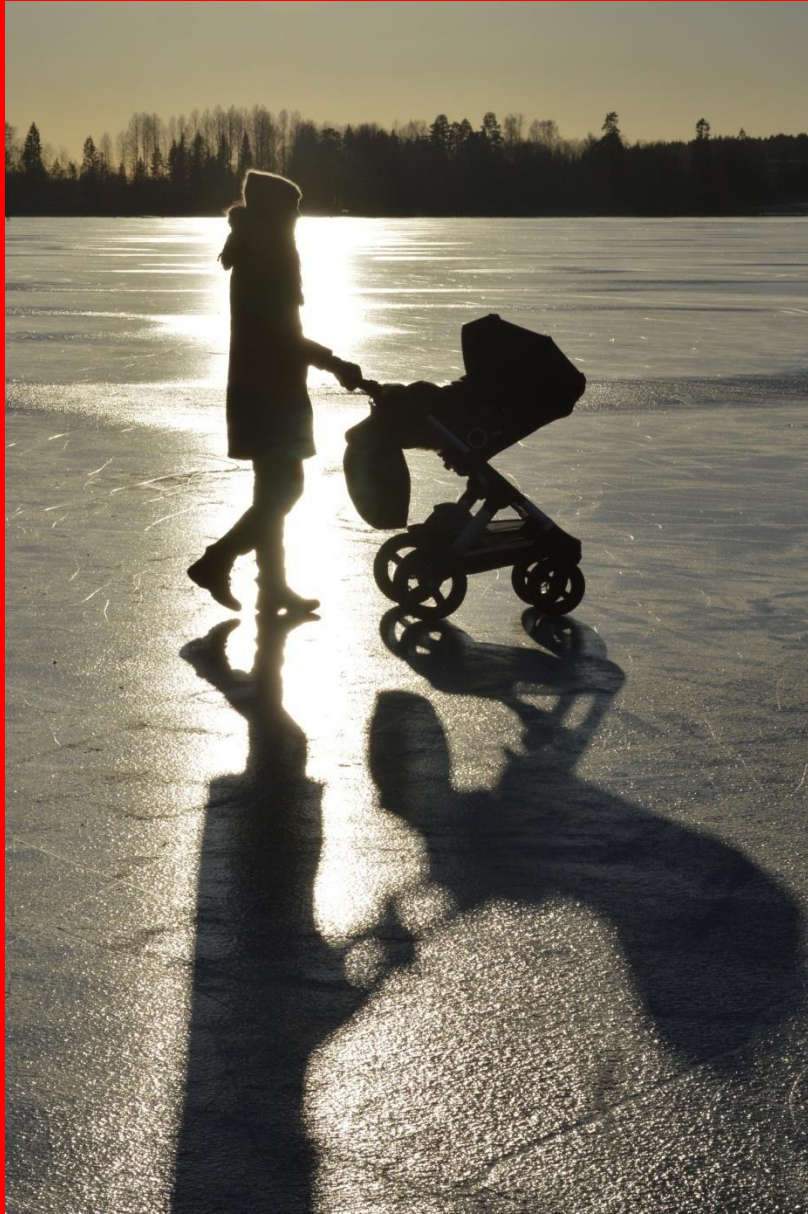
Perhaps a little gratitude might be in order.

* * * * *



One tiny light of human habitation,
embraced by the mountains,
and blessed by the heavens.

(Photograph by Vidar Lysvold)



Precious life on a perfect planet.

Thoughts in a World at the Brink of Both Nuclear War and Climate Catastrophe

We now have the technology to power every country in the world with energy from the sun and the wind. Carbon-free fuels based on green hydrogen, produced by electrolysis, will soon become available on a commercial scale, enabling even planes to fly without leaving trails of pollution across the sky. Experiments with fusion are making steady progress in several countries.

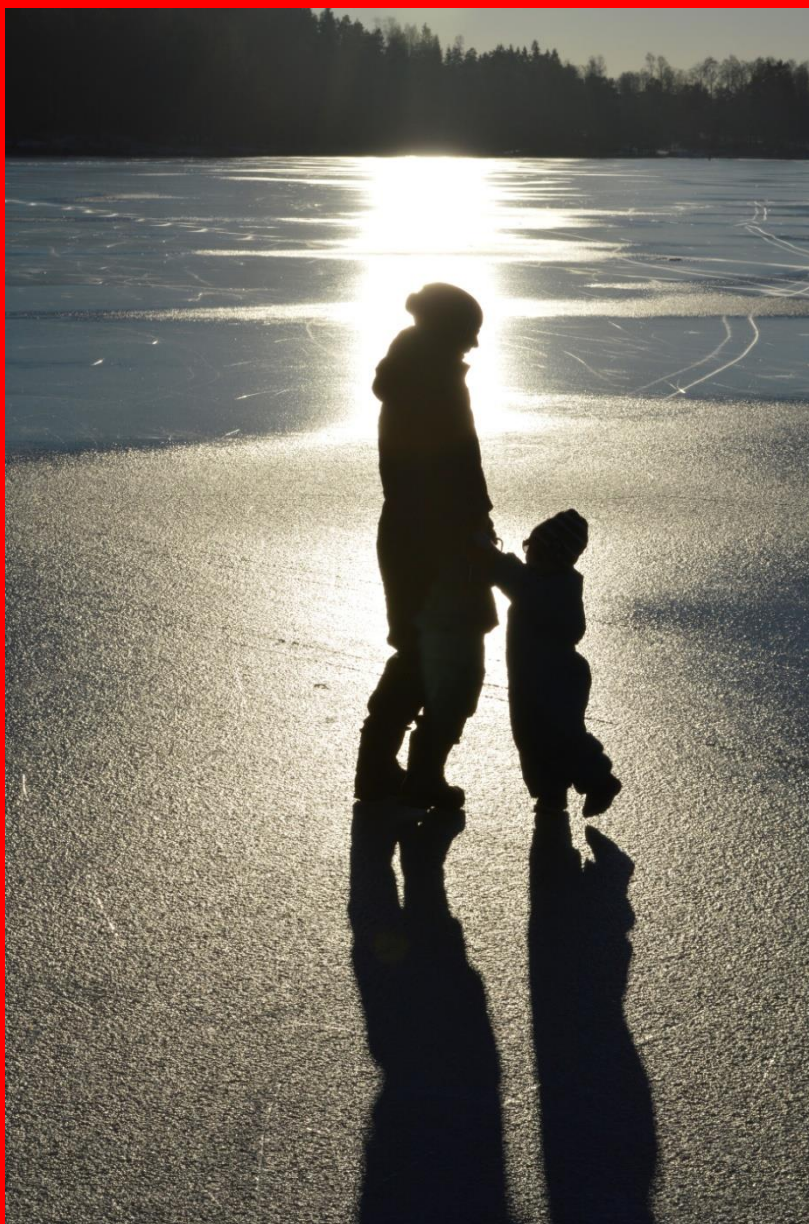
We thus have the opportunity for nations around the world *to work together* as we build a Global Green Grid, a network that would transport clean energy to every child on planet Earth. As we work together, we learn about each other, and we learn that we *can* work together toward a common goal: a healthy, prosperous world in which we live in harmony with each other, and with Mother Earth.

We have the technology, we share the same challenges, and thus we could embrace the extraordinary opportunity . . . to launch a new epoch in human history, an epoch so filled with promise that it might well become the Renaissance of the 21st Century.

However, we are dragging with us into the 21st Century all of our old bad habits. We still hold a nuclear knife at each other's throats. We still plunder and pollute the bounty of Nature without mercy. We still refuse to teach our children what they need to know in 21st Century classrooms.

Thus we stand today, all eight billion of us, at the brink of major planetary tipping points which, once passed, we will never be able to reverse. We are mired in multiple wars, which are part of a never-ending sequence of wars that we accept as normal. Nuclear weapons are ready, all around the planet, to launch within minutes, and we will never be able to call them back again.

Mother Earth is screaming. The refugees are screaming. The ever increasing numbers of dead soldiers are unable to scream.



And God said, "Let there be life."

Before we race any further toward suicidal disasters of our own creation, let us remember . . . that we are the product of three and a half billion years of evolution, evolution which perhaps has some greater purpose than a planet wrapped with methane from the tundra, smoke from the Amazon, and radioactivity from our plutonium warheads.

We can go back even further. As every chemistry teacher will tell you, the elements of life on planet Earth, as well as the ball of dust itself, were created in the heat of an ancient star. We are made of star dust. Over eons of time, that star dust was cast by the exploding star into the vast empty expanse of the universe. The star dust coalesced into a number of small planets orbiting around a young hot star. On one of those planets—orbiting at precisely the right distance from the star—oceans of water wrapped around continents of land. And in those oceans, little green cells—extremely complex little green cells—appeared in the warm, churning, sunlit surface of oceans which were otherwise void of life, on a planet which was otherwise void of life, in a universe where we *still* have not found any sign of life.

Those little green cells could feed on the energy from the nearby star. Equally amazing, they could replicate themselves, so that life could beget life for the next billion generations.

Who are we to doubt the purpose of life?

Who are we to bring our own long human journey to such a pointless end?

Who are we to condemn to wreckage this Cradle of Life?

Today, as we stand at the brink, we are offered—by the nearby star, by the winds that blow around the planet, by the currents in the oceans, by the heat deep in the planet—the opportunity to build, as a global team, a long-awaited Renaissance.

* * * * *



Early steps on the path of light through the universe.

The World Was Made For Love

Ten Poems



And God said, "Let there be life."

On the seventh day, the Creator did more than rest.

Behold, as He passed over the churning seas did he laugh
 When a great whale spouted,
 For whereas other creatures quietly breathed,
 The whales sent up to the sun a plume of silver mist,
 And thus proclaimed their joy that they were alive.

Lo, when He passed over the rolling prairies did he laugh
 To see herds of buffalo flowing like a river from horizon to horizon.
 The great joy of his laughter mixed with the thunder of their hooves.

And lo, when He walked through a forest at dawn
 And heard the twittering joy of the awakening birds,
 He laughed from deep in His heart
 At the beauty and abundance of all that He had created,
 Where before between the stars only emptiness and silence had dwelled.

* * *

Verily I say unto you, that all of creation was not yet accomplished.

With the dust of stars had He fashioned blood
 To flow through a beating heart,
 But with something more than dust did He fashion love to flow
 With unrelenting abundance from every human heart.

With the dust of stars had He fashioned eyes
 To see the beauty of this world,
 Eyes to read the books that poets wrote,
 Eyes to offer compassion or friendship or love.
 But with something more than dust did He fashion wisdom
 From all the eyes had seen,

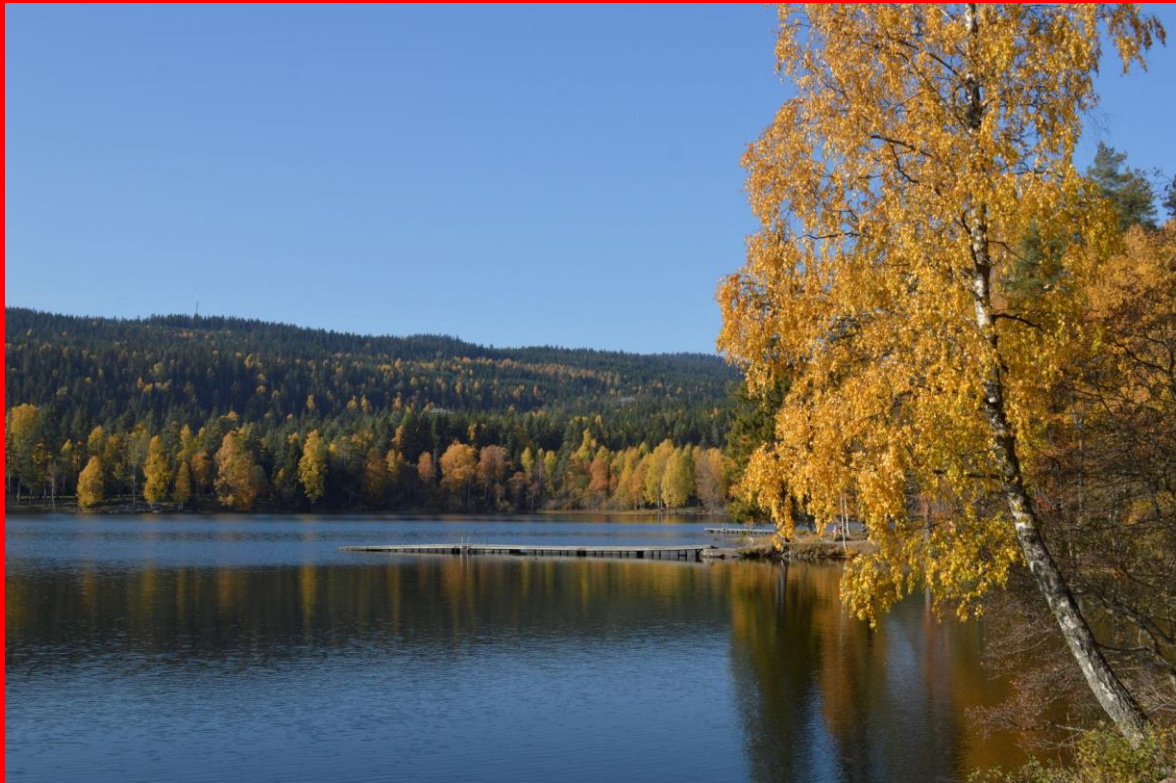
From all the ears had heard,
From all the trails the feet had followed,
So that wisdom might serve as a guide to life.
This gift unto us He gave,
As years passed,
As generations passed,
As centuries passed,
So that we, His favored creatures, might flourish.

In those early days did the Creator laugh
As He watched the first unsteady steps of a child.
In those early days was His laughter rich with enormous hope
For all that He had created to fill the vast expanse of emptiness
And silence between the stars.

In those early days, the Creator had expected our laughter in return,
Our joy at being alive,
Our wonder at the beauty in the heavens, in a garden, in a smile.
Yea, as He created with star dust,
So He created with love,
For such was His covenant with life.

Wherefore then do we now no longer hear the Creator's laughter?
Wherefore then do we now hear, in the emptiness and the silence
Between the stars,
The distant sound of the Creator weeping?

* * * * *



Your Soul Remembers

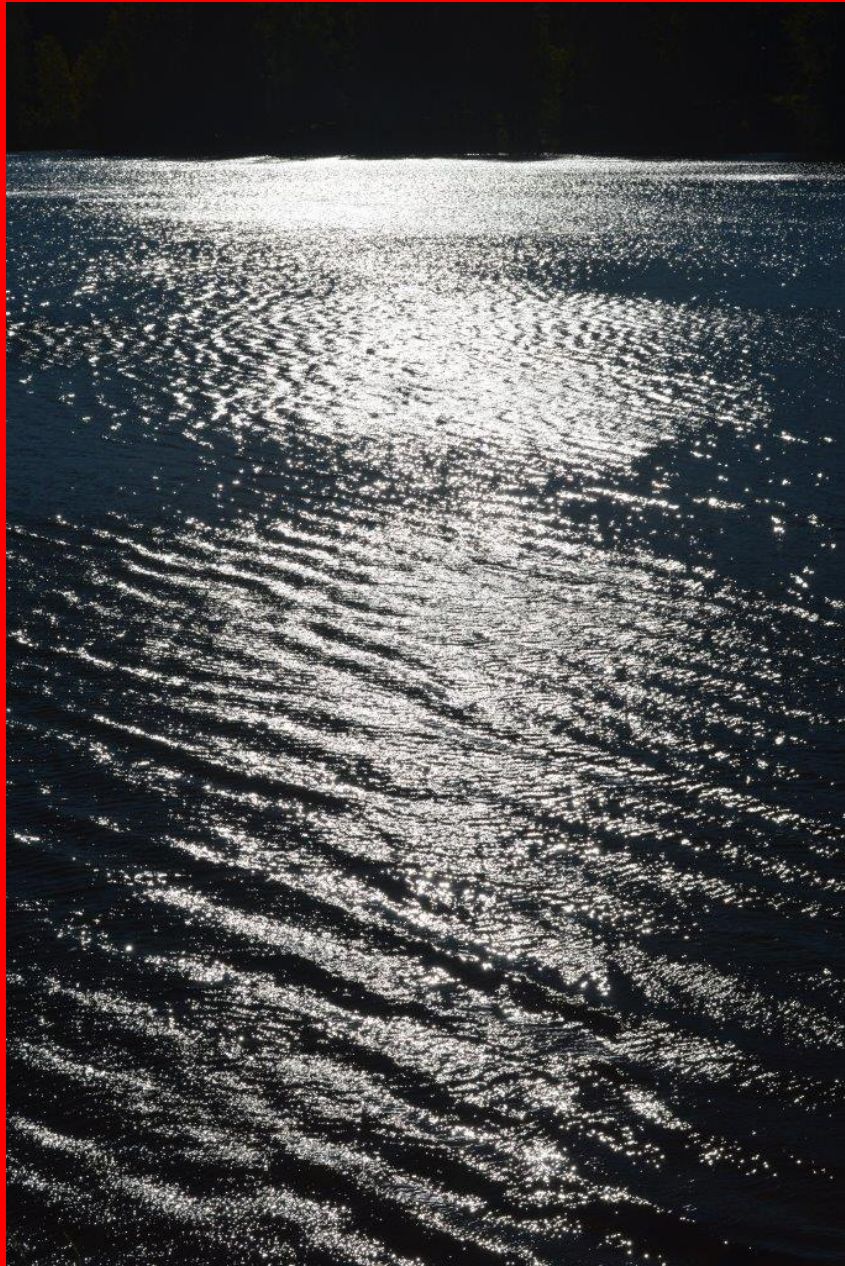
So you awoke this morning with a soul full of sadness.
Your soul is sad because it hungers for the flowers of Eden.
Your soul is sad because it hungers for the pure cool gentle rain
That fell on the meadows of Eden.
Your soul is sad because it hungers for the songs of a thousand birds
Filling a sun-dappled forest,
Whereas today you might hear a bird or two singing
In the lone tree on the lawn.

Your soul aches for the love that once blossomed with every dawn.
Your soul remembers the time when the footsteps of the Creator
Were still printed on the earth.



Star Dust

The slums of the world are one slum.
From the same dust of the same exploded star,
We spun, and slowly gathered into a small ball
Orbiting around a larger hot one.
The dust beneath our feet
Is the same as the feet themselves.
This bread we break or do not break with one another:
Star dust.
This wine in fellowship or sanctity or loneliness partaken,
Once reached in expanding waves of radiant dust across
The universe,
The heavens,
The dark.
Who are we not to share?



Sunlight glitters on the dark water.
The breeze sweeping across the lake plays with sparks of energy
That have just spent eight minutes and twenty seconds traveling from the sun.
Dip your cup and drink from the mystery
That gave you life.



Once There Was an Egg

Once there was an egg. It could not fly.

Then there was a fledgling. It could not fly. It could eat food from its mother and father.

Then there was an adolescent. It could not fly. But it was starting to grow real feathers.

Then there were a few hops. Some awkward flapping. An instinctive urge to . . .

And then the beating wings caught the air beneath them
And lifted up this ever-changing creature,
So that finally, *finally*, it became what it truly could be.

* * * * *

Where are we now, O Peoples of the Earth?



Refugee woman's comb on the beach of Lesbos, Greece.

She Would Like to Speak with You

What is it like to be a refugee?

Start with someone who is a librarian, a nurse, a teacher, a journalist,
 Someone who is also a mother, a wife, her mother's daughter,
 Someone who has brought life into the world, one, two, three times,
 Someone who never raised her hand against anyone,
 Certainly never with a knife, never with a gun. Never with a bomb.

Fire artillery shells at her apartment building,
 Shoot her brother with a sniper's bullet,
 Turn her daughter's school into a prison where her uncle was tortured in the gym.
 Take away her home, her job, her beloved cat, her family pictures, as you
 Toss her into the back of a neighbor's pick-up truck in the middle of the night,
 So that she can ride in the dust with her husband and children toward a border
 Which she knows already is closed.

Let her watch the last of her family's money flow into the hands of smugglers.
 Let her share the last of her family's food with strangers who have none.
 Let her wonder why the nations who have so much money for the endless war
 Are strangely absent while she sleeps on concrete, in mud, beside railroad tracks,
 In the rain.

Let her know the parched heat of a desert,
 Let her know the cold wet wind, the choppy black waves,
 The wail of her terrified child,
 As she crosses the sea at night from an endless hell to hopefully some lesser hell.

Let a stranger in a wetsuit carry her child to the rocky shore.
 Let her lose her woolen scarf as she takes from another stranger's hands
 A dry sweater, a dry coat.

Let her be taken with her family by bus to a nice safe camp where they can
 Eat and sleep and meet briefly with a doctor,
 Before another bus takes them across the island

To a “detention center” which is a prison
Without enough beds,
So they sleep on the concrete, inside a fence, under the same stars
That once shone over her home . . . her home.

What is it like to be a refugee?
She would like to speak with you, so that she could say,
“Once I too was a person.”



All the Dogs and Cats

What happened to all the dogs and cats
Left behind in a war zone
When the family finally had to flee?
The family tried to decide: Should the dogs and cats be left in the apartment
With enough food and water for a few days?
How long until the apartment would be bombed into rubble?
Or should the dogs and cats be left outside in the street
Where at least they could drink from the river?
Maybe someone in a village, or on a farm
Would take care of them?
Until the next wave of soldiers came crashing through.

What happened to all the dogs and cats—
Some still wiggling puppies, some snuggling kittens,
Some old and taking medicine every day,
All of them “a part of the family”—
When the family, those still alive, must flee
With heavy bags in the middle of the night?
The cat was terrified by screaming artillery shells,
The dog trembled at the thunder of approaching bombs.

You stood in the doorway and stared into your best friend’s eyes
One last time,
Then you closed the door and carried your bags and your child
Down the dark stairs,
With guilt like the stab of a knife in your heart,
The stab of a knife that you will feel
In Turkey, in Greece, in a blur of countries,
And finally in Norway,
For the rest of your life.



**Gravestone over a mass grave, 1943,
during the siege of Leningrad.**

The Parliament of Veterans

They gathered from the hospitals, they gathered from the graveyards,
 They gathered from the beds where they tossed and shrieked with nightmares,
 They gathered from yesterday's wars, from World Wars, from Civil Wars,
 From ancient wars,
 Clad in furs and armor and uniforms and bulletproof vests.

They gathered at Troy, they gathered at Waterloo, they gathered at Verdun,
 They gathered at Gettysburg, they gathered at Wounded Knee,
 They gathered at Dien Bien Phu, they gathered in Saigon,
 They gathered in the harsh mountains, they gathered on plains of endless rocks,
 They gathered in Baghdad, they gathered in Kabul, they gathered at Walter Reed,
 So that they could speak, and take a vote.

They understood, each soldier, the words of every speaker, though he spoke
 In Greek or Persian or Latin or German or Russian or Chinese or Arabic or English.
 They understood as well the anguish in the eyes, the exhaustion in the faces,
 The desperate hope in the outstretched hands.

When the last of the soldiers had spoken, with wisdom forged in the fires of war,
 A silence descended upon them,
 As they stood on a thousand battlefields around the world on Veterans Day.
 Until someone asked, "Would you do it again? Would you fight that war again?"

Aye, there were reasons for taking up the spear and the musket and the AK-47:
 Defense of the Motherland, of family and church and way of life.
 But . . . was bleeding to death in the mud on a battlefield really the best way
 To move people forward on their epic journey?
 Were the slaughter at Gettysburg, the slaughter at Wounded Knee,
 The slaughter at Verdun . . . really the best way
 To build a better world for our children?

They took a vote, by a raising of hands:
 "Those who believe that war is inevitable,
 Those who believe that war is forever a part of the character of man,
 Please raise your hands."
 They stood, these multitudes of veterans, with scattered hands raised.

"Those of you who believe that war does *not* belong in the character of man,
 Those of you who believe that war is something we have been taught,

That war is something that has been *forced* upon us;
Aye, those of you who believe that war can be cast forever into the receding past,
Into the garbage heap of wretched history;
Yes, those of you who believe that peace is within the reach of our bloodied hands,
Those of you who believe that all the ancient hatreds shall we bury in war's final grave,
Please raise your hands."

As one by one the hands went up, the look in their eyes became
A glint of desperate hope,
A gaze at a vision of what we might become,
An upward glance of gratitude because a prayer had finally been answered.

They raised their hands, their arms clad in furs and armor and uniforms and
Desert camouflage, desert dust,
They raised their hands, filthy, bloodied, bandaged hands,
And looking around, they saw that the vote was almost unanimous.



I Want a Purpose

I'm tired of exercising my thumbs on my mobile telephone.

I want to harness the wind; I want to harness the sun.

I want to look up all day, not down.

I want my face to be a bit sunburned when the five o'clock whistle blows.

I want a job that requires that I spend my life learning,

Though I was bored to death in high school.

I want to think in terms of jet streams, as their meanderings bring us our weather.

I want to think in terms of ocean currents, snaking like giant rivers around our planet.

I want to think in terms of the next unprecedented century,

The fullness of which I shall not live to see.

But the kids still unborn . . . they will see the next century, and more.

Yes, I want to go back to school, to sit at a desk, to raise my hand with a question.

Somebody told me there's a drought coming.

Somebody told me there are monster hurricanes coming.

Somebody told me that the wildfires in California and Congo and Russia and Greece

Will be in my back yard within a decade.

Somebody told me there's a Renaissance coming.

Somebody told me about a Weaving of Schools around the world,

So that students can share their research and their pictures,

Their music and their poems and their dreams.

Yes, so that a global generation could grow up together, working together

To solve planetary problems with planetary solutions.

Someone told me about jobs,

Designing and building and installing and maintaining

A clean energy web around the world.

Somebody told me about jobs,

As we harness the sun, as we harness the wind,

As we harness the ocean currents and the ocean waves.

Yes, I could use a job,
A job with a *purpose*.
That would be like getting paid twice.

I'm tired of exercising my thumbs.
I'm tired of being afraid of what's coming, and doing nothing about it.
I'm tired of being bored, even though boredom is pretty much all I know.
I'm certainly tired of being poor, or almost poor, with nothing steady, nothing steady.
I'm tired of my life being bits and pieces.

I want to wrestle with the wind.
I want to cup a mirror to the sun.
And when I go to bed at night, I want to lay my head not only on the pillow,
But on the planet as well, for whom I worked all day, on whom I shall rest all night.

When I awake to greet the sun at dawn,
And step out the door to a breeze on my face,
I shall savor a powerful purpose . . . a *purpose* that beckons me.



**The world was made for love,
And if ye love it not,
So much the less ye liveth.**



The Goddess of Clean Energy



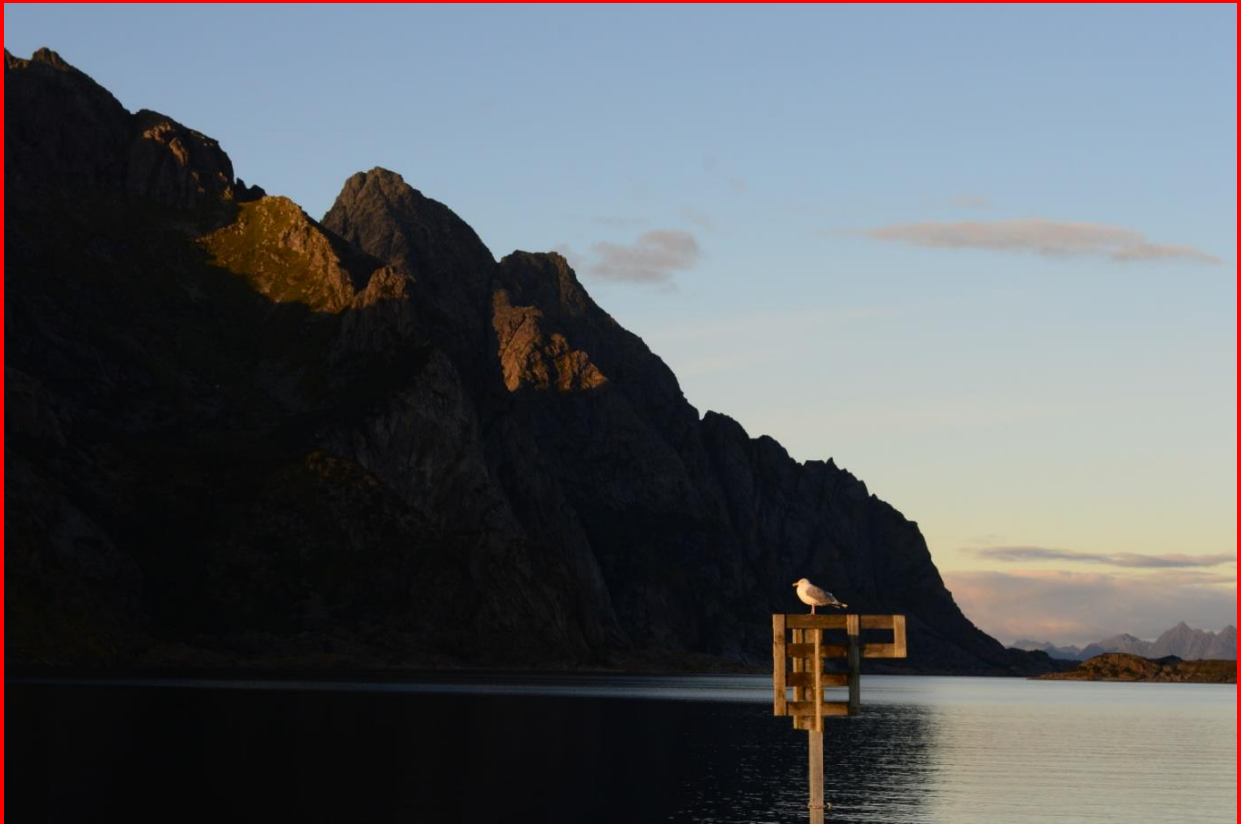
No one ever went to war over a wind turbine.



**Builders of a Renaissance,
Architects of Peace**



**“Mister President, I’m calling to let your know
that a bilion kids are about to change the course of human history.”**



Honor the Creator by honoring the creation.

Books by John Slade

A Dream Seeded in the Earth

Children of the Sun

Dancing with Samuel

A Journey Out of Darkness
(Norwegian: En reise ut av mørke)

Herbert's Mountain

The New St. Petersburg
(Translated to Russian:
Санкт-Петербург—21 век: портрет нового поколения)

Covenant

(Translated to Russian, Завет)

Acid Rain, Acid Snow

Bootmaker to the Nation:
The Story of the American Revolution
Volume I Rebellion
Volume II The Long War
Volume III Victory

Oslo in April

(Norwegian: Oslo i april)

Adirondack Green trilogy

Volume I Adirondack Green
Volume II Global Warming and War
Volume III Architects of Peace

Leif the Believer
(Norwegian: Vikingen som vendte tilbake)

On a Starry Night:
56 Poems Waiting to Go for a Walk

Climate Change and the Oceans

Melting at One End, Bleeding at the Other
(Norwegian: Smelter i en ende, blør i en annen)

Welcome Home, Soldier

Invitation to a Renaissance
(Norwegian: Invitasjon til en renessanse)

The Beginning of the End of the World
(Norwegian: Begynnelsen av verdens ende)

A Letter to the Young People of the World
(Norwegian: Et brev til verdens unge)

Johannes og Kjempefjellet

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The New Saint Petersburg:
Portraits from the First Five Years, 1991-1996
(Photography)

The Climate Classroom
Volume I: The Climate Crisis
Volume II: The Clean Energy Renaissance

Rocking the Cradle of Civilization

Springboard

The World Was Made For Love

Collected Poems

The Cathedrals of the 21st Century

A Letter to the First Global Generation in Human History

(Book One)

The Book of Peace

(Book Two)

You Can Find Me In My Church

We the People

John Slade Bøker

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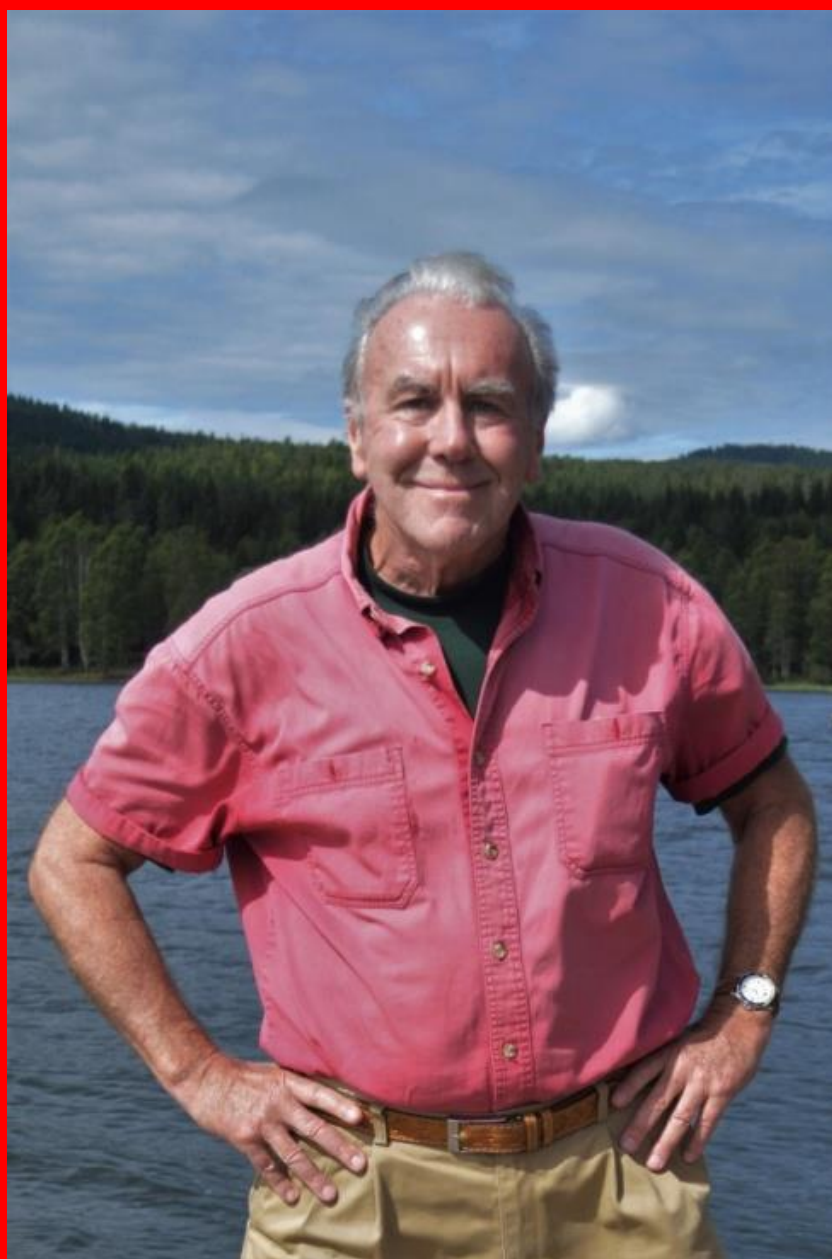
Norwegian website

Books in English, Norwegian, and Russian

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