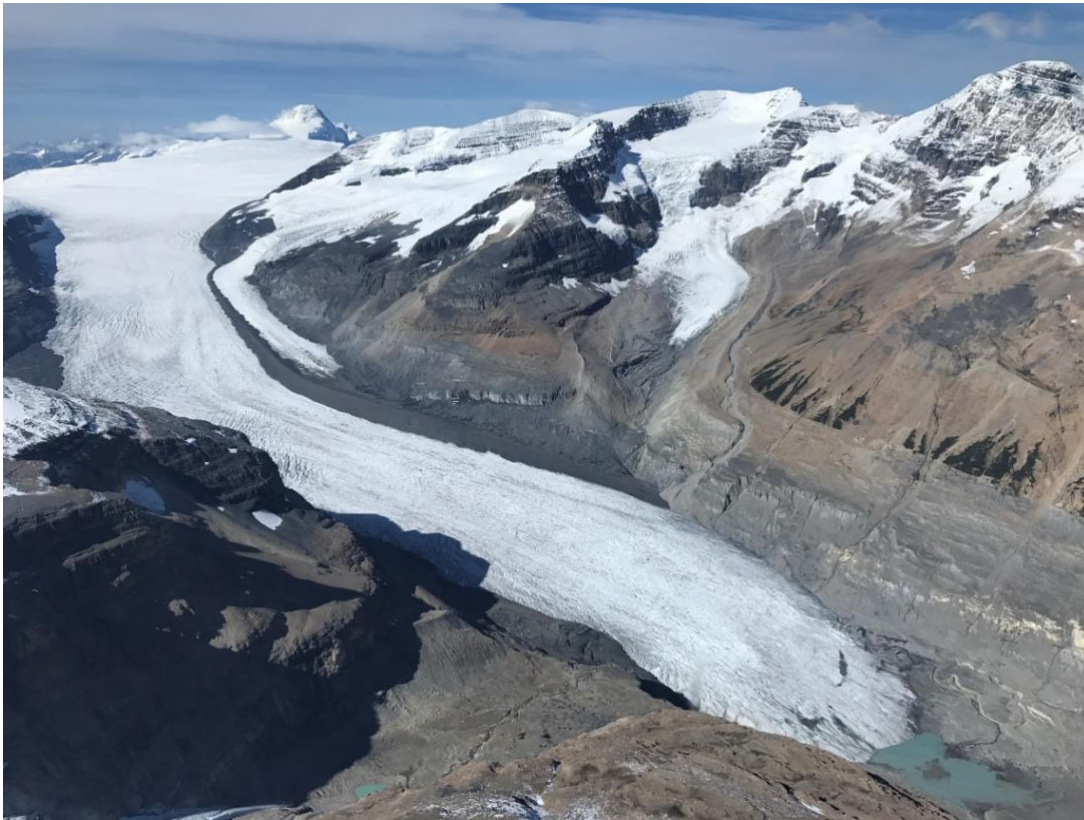




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UNU-INWEH

Why Glaciers Matter



**A Presentation
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February 6th, 2025

Why Glaciers Matter:
A Celebration of the United Nations
International Year of Glaciers' Preservation

Please allow me to begin by extending the very best wishes of the United Nations to all. It is indeed an honour to be invited to speak to the members of this newly formed Canadian Glaciology Network and I thank Dr. Brian Menounos for putting my name forward, and Jeffrey Crompton to making today possible.

I have always held the glaciology community to be remarkable in terms of its courage and commitment in meaningfully and honestly revealing and confronting humanity's climate threats challenges, here and abroad. You are the researchers that inspire in others like me the unrelenting commitment to science's responsibility to do good in, and for, the world.

There is no time in human history when that commitment has mattered as much as it does in these troubled, fractured, unravelling times. It is in the context of the shared goals of the UN and your community that I would like to begin by offering a climate breakdown reality check for the coming year based not on hard science – as this is your domain – but in the context of what the science tells us in our agency about where we stand in terms of political response to what we see as an accelerating global climate emergency. I would then like to introduce to you the UN International Year of Glaciers' Preservation initiative as we have developed it in Canada, with an invitation for you to participate.

This is hard for me. I am afraid there is no other way to say it. There appears to be no analogue in all of human history for circumstances we now face. In barely a generation we have gone from a climate crisis we could have managed had we acted earlier, to a climate emergency that is now on the threshold of becoming a full-blown global climate catastrophe. While I maintain cautious hope in my work in Global Climate Emergency Response, one of my principal roles is to find the most effective ways to put what should be very troubling news before people in the highest political circles who, often, simply do not want to hear it.

Unfortunately, nothing we have been able to do or say, however, has been able to penetrate the hardening shell of the global status quo. In fact, our efforts are now held to be irrelevant by a new and expanding global political movement that maintains that knowledge is subjective and that science is just one narrative among many, just another alternative to truth.

And as troubling is that in an increasingly *we* versus *they* populist world, experts of almost any kind are being dismissed as members of a despised elite like yourselves that must now be reviled even if they have dedicated their entire lives to the betterment of the lives of the very masses who now hold them in such contempt.

I am reminded of the official and unofficial mottos by which we do our best to live by at our UN agency. Take care of the people who take care of you. Do no harm. Leave no one behind.

And the fourth, the unofficial one you I am sure will appreciate: Just when you think things can't possibly get worse, is exactly when they do. Well, they just did. The years of Republican rage farming have paid off. The Americans have just elected to have their country drenched for the next four years in the Agent Orange of populist extremism. We cannot ignore that some of that same hard rain is already falling on us.

The implications of America turning toward Trump's brand of authoritarianism are broad. Autocrats and political extremists everywhere are now emboldened. National climate agendas are re-aligning with America's. The general sense is that if the world's largest polluter isn't in, why should we bother? Commitments to climate action around the world have started falling like dominoes. The Paris Accord is unravelling.

For us at the UN, this, as I am sure for you, has demanded a total recalibration of how we respond. It is now the role of the UN agency with which I work to offer climate reality checks that others are too timid to provide.

So, here is essence is the global climate change reality check we are now offering. Remember when scientists warned that the past can no longer be a guide to the future. We are there now. There is no precedent in human history for what we face. We are in the midst of a cascading societal emergency that is on the threshold of becoming a global catastrophe. So, what do we do? What is necessary at the moment seems like mission impossible.

In order to address existential threats to all of humanity, we have to restore and reform our democracy while we liberate and salvage the United Nations so we can repair a broken geopolitical order; and we have to do so before planetary ecological overshoot and global climate breakdown accelerated by manufactured political divisiveness, increasing inequality, expanding intra- and inter-state conflict, and growing authoritarianism worldwide make it impossible to do so. As you can see, creating the world we want is not going to be easy.

Our goal is not to spread panic or perpetuate the state of shock we are already in, but to pull us out of it. Our goal is to expose magical thinking. To that end, we need to be informed, calm and in control, and be ready to confront the hardest and most strenuously avoided truths that humanity has ever faced. And in this we need help, your on-going help certainly, for science is the foundation of the truth we have to face and they we stand by.

Populism will only deepen this crisis. Still, we are not yet doomed. We may no longer be able to stop climate breakdown but we are still in a position to minimize it so we can manage it. But without the primacy of science, that will not be possible. It seems to me that the commandments of science can be reduced to two: tell the truth and stand up for all humanity and for the planet, now and generations into the future. Good science involves not just the sharing of knowledge about the world, it is a candle we light when we want to see and be warmed by the truth. But we know now that modern science is not the only way of knowing.

We also know that even though it provides a solid foundation, scientific knowledge alone will not be enough to get us through the bottleneck in which we presently find ourselves in the human journey. More than at any time in history we need to braid together all of humanity's ways of knowing and caring.

In the face of this emergency, we need to bring all of humanity's other ways of knowing and caring to bear on the challenge of creating a future we can survive and tolerate.

Fortunately for humanity, science has a number of siblings including science's older sister art. Since the dawn of time art has been a mirror of the mind's journey toward truth, a mirror that illuminates the way for others to follow.

Nietzsche had a point when he offered that art is the means by which we can confront the truth of our time without being turned to stone. The goal of both art and science is to open people's hearts without breaking them.

Now, more than ever, with the planet in peril, we need the combined power art and science and all other ways of knowing and caring about the world to propel our society toward truth and to inspire and guide us toward a future we desire.

That brings us to how we can keep the flame of truth brightly lit so that others can be warmed and see by it. Now that we are feeling the heat, we need to see the light, which takes us to the UN International Year of Glacier's Preservation.

The United Nations University Institute for Water, Environment & Health is proud to be a founding partner, along with the Global Institute for Water Security at the University of Saskatchewan, the University of Northern British Columbia, UVic and many others including Parks Canada, in the 2025 UN International Year of Glaciers' Preservation initiative in Canada.

As the only in-country UN entity working to advance water and water-related climate change policy, this is an unprecedented opportunity for us at UNU-INWEH – also known as the UN Think Tank on Water. Finding the words to meaningfully and unforgettably describe our current planetary situation as it is reflected in the rapidly accelerating loss of our glacial ice, is one of our greatest and most pressing challenges. But we cannot achieve this goal without a great deal of scientific support and help from many others.

We are of the view that the saddest possible outcome of the climate crisis will have been that most Canadians will have never seen what we are losing which glaciers only symbolize. Going! Going! Gone without most Canadians even imagining what that loss was or meant. We aim to help avoid that tragedy to whatever extent we can by way of celebrating our remarkable glacial heritage.

In this coming year, we will celebrate Canadian researchers and institutions studying snow and ice and honour writers, poets, artists and photographers working to help us understand what the loss of glacier ice means.

We will also profile the knowledge and understandings of the land offered by Indigenous peoples, and the intimate perspectives of mountain guides and backcountry dwellers who spend their lives on and near the ice. We also want to reach out intergenerationally to youth.

We need all hands-on deck. As with all the most important endeavors in human history, ours is a task that is at once aesthetic and political – and because of the magnitude of the crisis that besets the planet, it is now freighted with the most pressing moral urgency.

We will begin by showcasing that there is much more to glaciers than just their otherworldly beauty. Where mountains are our water towers, glaciers are water in the bank, so to speak. In addition, however, to ensuring reliable water supply and guaranteeing food security, glaciers are also vaults of deep knowing about the history of our planet. When we open these vaults, we learn that glaciers are the cold fuse that prevents the global climate system from over-heating. Canadian identity is defined by what winter does to water. In its rapid departure, the ice is telling us that without that fuse, global climate warming could get away on us with irreversible heat impacts not just on our winter, but on all life on Earth.

We aim to show that while they remain, glaciers mean majesty, they mean inspiration. In their breathtaking presence, one can be overwhelmed by aesthetic arrest. But there is so much more to the stunning beauty they offer us. They offer mystery. Glaciers are crucibles of time, cold and water.

When we listen to the ice, we are eavesdropping on a conversation the sun, the Earth and its snow and ice have been having for millions of years.

Without the delicate climatic thermo-regulation of the ice, the Earth may never have evolved the rare equilibrium of the Holocene, and the extraordinary profusion of biodiversity of which we are part may never have happened. What the elements of the Earth are trying to tell us now, however, is that the conditions of the past no longer exist. They are telling us that we do not live in the world we did even 30 years ago.

We were still living in the Holocene then, that relatively stable post-glacial climate out of which we and our civilizations emerged. Now we live in the Anthropocene, the dangerous new epoch of ecological overshoot, biodiversity loss and accelerating climate heating. As a result of this heating, we are losing a global heritage. Our high mountains are now warming as fast as the arctic. Glaciers everywhere are disappearing, and fast. The ice is telling us that the planet's pulse is weakening.

We are witnessing a great bonfire of our heritage. If the melting ice tells us anything, it is that things are being lost that have not yet been found. We need to find them before they, and we, are gone. We need to hurry. The ice has so much to tell us. All the water in the world – all the water we will ever have – was once ice. Water has a memory of being ice. When, at last, we slow down and listen to the melting ice, it whispers that our vanishing glaciers are a secret portal between worlds.

The colour of glacial ice is, in itself, a time machine. Each gaping, green-throated crevasse is, in fact, a stairway down to an earlier epoch in the Earth's history. And water will take us there, from one world into another; from the present into the deep time of the Earth's long past.

The lesson that the ice has already taught us is that the only way to survive great loss is to care for what remains with even more heart than before.

That is what we in our UN Institute want the Glacier year to become; the year we started caring for what we still have with even more heart than before. We want this to be the year we drew as close as we can in spirit, if not body, and really listened to the ice.

On one hand, we want the Year to become a portal from our imperilled present into the deep time of the Earth's past. On the other, we want the Year to be a mirror in which we can see ourselves for who we really are, so we can choose the future we need, the future we all want. We want this to be the year we turned sensing that the world is changing into sense-making. To do that, we need to metabolize what we know and find the words for what we are seeing and feeling. What, in effect, the disappearing glaciers are telling us is that we need new stories.

In the epic inter-generational story, we at UNU, in tandem with our many partners, want at the close of this year to be able to tell the world that, we as Canadians, listened for an entire year to what the disappearing ice was trying to tell us.

And during that year, we began to imagine ourselves as actors in a heroic narrative, in which all of humanity saw what the planet's glaciers were trying to warn us of, and responded in time to avoid that peril. To achieve that end, however, there is much that we need to do. At the moment, we face a bonfire of our natural heritage. We need to put that fire out.

The stories we have been telling ourselves no long appear to work for us. What we need more than anything is a fresh dream of who we are – one which tells us how to act; we need compelling new stories about taking care of one another, and what we still have, that drive us to take appropriate action. Right now, finding those stories may be our most urgent collective action. In this, we desperately need your help. As scientist know creating these stories is not easy.

Let me share a story that explains why. In his wonderful book entitled *On Time and Water*, Andri Snær Magnúson tells the story of one Jorgen Jorgensen who came to Iceland from Britain in 1809 and by way of an amazing turn of events involving much intrigue, temporarily seized control of the country.

He declared Iceland independent of Denmark, and offered to govern the country until the people elected a parliamentary assembly and established a republic, promising to step down the moment democratically elected representatives were assembled.

There was one problem.

Icelanders literally did not have the words in their vocabulary, or the concepts in their minds, that would permit them to transcend the brutal and unjust feudal conditions in which they had come to expect to live and embrace democracy. So, it didn't happen, at least not for another hundred years.

The lesson here: it takes a long time for people and history to catch up with revolutionary ideas and to put their lessons into words. What happened in Iceland in 1809 is what is happening now with respect to the threat of global climate disruption. We need to find the words we need to avoid peril and create the world we want. We need that broader lexicon now.

A central task of the Glacier Year initiative, from our perspective then, is to make glaciers the central character in new narrative composed of epic written and oral stories that will be so compelling they will be passed on as legend to future generations.

We want our generation's stories to tell how we, in our time, invited publics to imagine themselves as actors in a heroic narrative, in which humanity saw that the planet's glaciers were trying to warn us of great peril and responded in time to avoid that peril.

We want to explore the power of parable, but not just in the context of dwelling on an idealized past, but in the context of our present dangerous reality. We have had enough bad news.

What we need now are parables of resilience; of the capacity to adapt and rebuild. We want uplifting stories that remind us that change is possible and that change doesn't need to rely on saviorship or fantasy.

In the stories we want to tell, humanity, by exercising its collective voice, rose up to demand of government more responsive and effective climate policies, and in so doing rescued the planet from climate disaster and, on the way, restored confidence in the possibilities of justice, equality and true sustainability through common community.

We want the Glacier Year to be a celebration of regeneration, a year in which we pay the Earth's timeless magic forward. A year, here on the ice, of cold blue benediction, of the blessing of all life.

To be able to tell the stories we want to tell, we need this to be a moment in which we left behind the world of grievance and polarization in which we presently live and created the conditions in which we discover the finest qualities in ourselves and others. To that end, we want this to be the year we all worked together at last to redeem the future by doing all we can, where we can, with what we have and all we know to expand and share our awareness of what the ice is telling us with one another and every visitor we can influence. We want this year to be our finest hour.

To achieve that end, we want this to be a year in which we were able to create cells of cohesion, truth, trust and hope. We want this to be a year in which we facilitated partnerships with one another that create an unforgettable moment in our lives; a moment in which all involved felt pride in being part of something greater than themselves; something more than the titles they have, and the roles they play, in the organizations in which they belong. And we want those cells to perpetuate that moment. You have the most compelling stories to tell; and we want you to tell them. We hope your newly formed network might be one of those cells.

We believe that in this deep listening there is opportunity in the Glacier Year for us to contribute to changing our prevailing global narrative.

Because we listened – really listened – to the ice, we realized that what we are facing demanded that we come to understand and rely on each other on a level and a scale of shared consciousness that has never occurred before. And we did it.

The world is calling upon us together. We are on the threshold again of losing the basis of common humanity and rationality in the larger world. We are on the threshold of losing the world itself. More than ever, we need science to help humanity walk back from this abyss. The UN relies on your help in holding this unravelling world together. In that regard, science is of itself its own nascent United Nations. Be that UN.

We are clearly in this together. It remains clear that, at our best, we aspire to the same values. We hold the same reverence for the incandescent truth about the world we hold in our hands and in our hearts and we strive, each of us every day, to find better words when we fail. We do all we can with what we have, and what we know, and what we believe.

And we never give up.

From one UN to another, I again wish you every possible success in continuing to provide the truths we need to create a better world. The first step in creating that world is preserving the best of the world we already have and I trust you to do just that.

In closing, I invite you to partner with us in helping to find and say the words that will help you better tell your heroic story.

And along the way it wouldn't hurt if all of us together could radiate as much badly needed joy as well as understanding as we possibly can along the way.

On behalf of the world, thank you for listening to the ice. And thank you for listening today.

It is an honour to be in your company.