





INTRODUCTION

Glacier Gifts has brought together an international team of UK and Peruvian scientists from Plymouth University, the SIGMA project and INAIGEM, Sally Rangecroft, Caroline Clason, Claudia Grados Bueno, Evelyn Hoyos, Kelly Hurtado Quispe, Rosa Maria Dextre, with author/facilitator Diane Samuels to explore through creative writing current geoscience research on the impacts of glacial retreat in the Peruvian Andes.

We set out on our inventive adventure into the Cordillera Blanca, west central Peru through a series of virtual workshops. Sessions opened with the scientists (who either grew up in the region or have visited on field trips from the UK) sharing some information they felt to be significant about the landscape and lives of the communities there. These images, statistics, analyses, accounts stimulated wordplay and free-flow writing that gave imaginative voice to different perspectives on the awesome beauty of the terrain, mythologies and cultural practices, expressing heartfelt responses to the significant changes occurring there.

In this collection, we offer pieces of writing that have emerged from our explorations. Some have combined a variety of contributions to form collective pieces and others are written by individuals. These include how glaciers begin, the nature of the mountains, honouring Pachamama, local lived experience and produce, water security, fieldwork, rituals. At the end of the booklet, you'll find a glimpse into our process with lists of the words we gathered and some of the writing in the raw. Also, an invitation for you to have a go at some Glacier Gifts writing for yourself.

Our aim has been to make emotional connections and imaginative journeys from the factual data to celebrate the irreplaceable value of glaciers not only to the communities who live nearby, but to raise awareness of how much these ancient rivers of ice mean to every one of us too, throughout the world.

SIGMA (Eros-IsoGlas) is an interdisciplinary, international science project focusing on the water, food and energy security impacts of climate change on glacier-fed rivers in Peru, South America. The project evaluates past, present and future problems associated with glacial retreat in Peru, with regards to water quantity and quality, and study the impacts on basin-wide water, food and energy security. Working collaboratively between the UK and Peruvian researchers, and between natural and social sciences, the project aims to identify challenges and develop strategies to improve water security in the region for local people, industry and agriculture.

Glaciers provide critical water supplies to millions living in South America, acting as buffers to Andean water supplies as they slowly release meltwater throughout the year for drinking water, agriculture, hydro-electricity and industry. Holding over 70% of the world's tropical ice glaciers, Peru is at the heart of this water security concern as glaciers in the region are rapidly retreating.

www.sigmaperu.wordpress.com



This book is available free of charge, but if you would like to support water security around the world and help bring clean water to those who need it most, please consider donating to WaterAid

www.wateraid.org/uk/donate

IT STARTS WITH A SNOWFLAKE

EMPIEZA CON UN COPO DE NIEVE

jungle where it doesn't snow. Night, full night. And all the stars in the firmament.

It's cold. It has to be cold. An ancient cold night. And we know in this ancient cold night that Earth is in space, a blue ball turning. But we can't see the blue ball for we are on it. What we can see in our distant memories of being here before we were here, in our old knowing hearts, is each snowflake falling from the sky. Invisible yet like a seed, a seed of something enormous.

efore fires and lights on Earth. Before the city where it doesn't rain, the

One small, unique fluffy crystal that falls from the sky at the right moment.

We are older, we are happier, feeling the snowflake in our thoughts, sensing its different colours, its frozen power. We manage to fall beside it.

A snowflake seed, many snowflake seeds falling like stars onto elevated Earth that reaches up to catch each one. And here the snowflake lands. Here the snowflakes gather. You wonder how snow so soft can become hard and seem indestructible.

Does the snowflake know what it is becoming, facing wind, to crystalise, compact, come together? Many into one.

Something so delicate and sugar-like that melts on the tongue, or vanished before it can settle and make its mark on the future. The unlucky ones, despite their unique shape, might get a chance to fall again somewhere else, and perhaps they might stick, might survive the year to be together before being compressed, squeezing out all the air, breathless, into glacial firn (not unlike intricate frozen ferns on a windscreen) before they are trapped in time.

And hundreds of years later something much bigger forms, a significant mass of ice that ebbs and flows as it breathes in and out each year, accumulating, consolidating, solidifying. Beautiful beast of nature worshipped by most, yet underappreciated by some. A giant river of snowflakes.

Who could know that one delicate frozen crystal could become a water tower in the mountains looming over the towns and cities, lifeline for so many.

And this is how it begins. It began.

Only one snowflake without any damage, without problems, without flaws.

By Claudia Grados Bueno, Kelly Hurtado Quispe, Sally Rangecroft and Diane Samuels



Glace - ice (French)

A mass of ice that moves slowly over land.

Found in mountain regions all over the world, as well as ice sheets (Antarctica and Greenland).

Mountain glaciers are extremely important sources of freshwater for billions of people living in those regions.

Glaciers in the Cordillera Blanca of the Peruvian Andes are retreating and have decreased in size by 34% in the decades from 1975 - 2016 due to climate change.

It is expected that many of the low altitude glaciers in this region will disappear over the next few decades.



laciers are a majesty that must be protected, cared for and valued by humans around the planet. They have been losing little by little for thousands of years, however, in recent years the deglaciation process has been much more accelerated by climate change caused by human behaviour.

We must put on the glasses of responsibility and see our future with many losses. We must find a way to say goodbye to the glaciers.

Los glaciares se han ido perdiendo poco a poco durante miles de años, sin embargo, estos últimos años ha sido mucho más acelerado el proceso de deglaciación a causa del cambio climático por responsabilidad del hombre.

Como responsables de este hecho, debemos ponernos los lentes de la responsabilidad y ver nuestro futuro con muchas pérdidas. Debemos encontrar la manera de despedir a los glaciares.

By Kelly Hurtado

Inspired by 'DESPEDIR A LOS GLACIARES', song by Jorge Drexler







Laguna Palcacocha, Cordillera Blanca - Photo by Caroline Clason

THE MOUNTAIN AND THE SNOWFLAKE

"What's wrong Snowflake, you look sad?" asked Mountain as it noticed Snowflake's dejected expression as she fell gently into sight.

"I don't know Mountain, I just don't feel worthy of anything." admitted Snowflake truthfully, pained to own such darkness.

Mountain crumpled with the weight of that admission. "Don't be silly Snowflake, we are all important, every single one of us around here."

"I don't feel it Mountain, look at you - you are huge, broad and tall, you block the way for everything, the winds, rains, birds, and you take people's breath away when they look at you, or when they try to climb you. I am just tiny, and I don't even feel strong enough not to melt soon."

"Sure, you might be small, but that doesn't mean you aren't important Snowflake. What you don't realise is that that glacier where you are about to land, that power bulldozing glacier, started with one small snowflake hundreds of years ago, and another, and another, and they survived the year, bonding and becoming stronger and more resistant, surviving decades and centuries. You just need to realise that you aren't in this world alone."

"Really? That solid, hard ice was once fluffy and light like me?"

"Yep, sure was Snowflake. You just have to pick the right time to fall, and I think you picked a good time today"

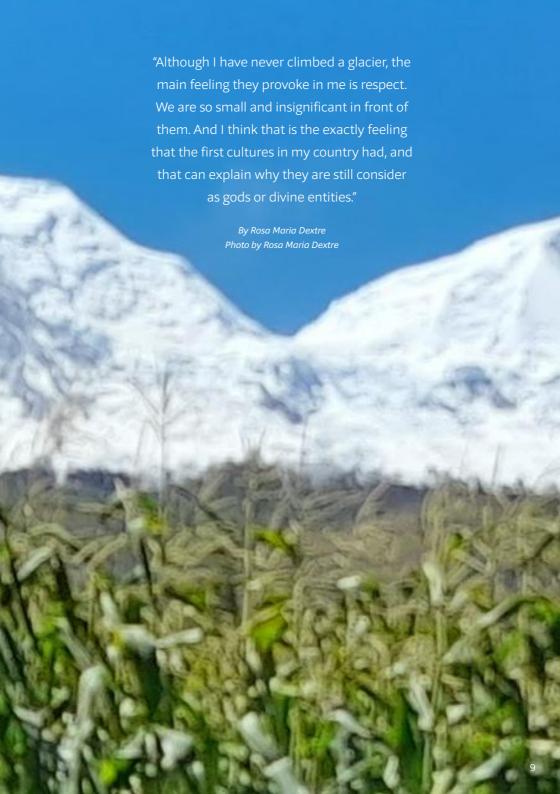
"Thanks Mountain, that means the world to me.

I hope I can one day be part of that glacier so

I can carry on chatting to you!"

"I hope so too Snowflake."





OLD AND NEW

We are old
Older than
your imagination can stretch
Older than
stories passed down from your ancestors
snaking their way through your family tree
some shifting form
others frozen in time, word for word.

Cold and humid
through geological eras
our glacial beings froze.
With the strength of ice
we protected the soil
a white throw covering all.
Yellow light of sun didn't hurt us
Green velvet of plants couldn't reach us.

We were powerful for a long long time building developing advancing with the cold When it became warmer, we shrunk Our yo-yo diets the most natural thing Until you came along.

Now we struggle to eat.

We are becoming thinner, weaker, fading.

You are new, so young, you who come at the end.
Your slide of history is still
a snake crawling upon the surface.
So insignificant before us
Wearing coats to visit
complaining about the cold.



You creepers, with quick fingers snatching
You moving pieces of earth
turned to skin, blood, bone and flesh
dancing to the beat of too many drums.
If only you knew how the ice is more significant
than you think you are.

But still, you make us smile.

A long long time before you arrived the earth shifted and shifts still tectonic plates of excitement shuddering giant orgasms of Pachamama Oh oh the elevation.

> You are too new to understand the long slow processes with sudden jerks that last lifetimes of twenty thousand civilisations

You know how to react
to transform the surface of more than a slice of earth
Transform everything
The process is changing us
We are changing

You have a lot to learn.

Make a sweater from the layers
and wear it

like topsoil to remind you
that you
are our children.

By Claudia Grados Bueno, Rosa Maria Dextre, Kelly Hurtado Quispe, Sally Rangecroft and Diane Samuels



ICY STARS

he icy stars shine bright in the midnight sky above the reflective white glacial ice. No light pollution here. How isolated we are, away from the hustle bustle of the big city, Huaraz with its beeping car horns, alarms, people, buildings. Up here, all that feels far away, and the only thing that matters is the next shooting star to make a wish upon.

But what will that wish be? For fortune, fame, love? For happiness and future?

How much do we think about the future? Perhaps not enough. But staring up at the icy stars in the peace and quiet of the mountain landscape at night, feeling the cold, watching the warmth of our breath form small clouds floating off into the distance, into the future, allows for these reflections, like the reflections of the stars on the smooth glacier surface, twinkling, glowing, singing.

Icy stars high up where the air is thin and the only thing we need worry about is the here and now. Or is it?

Should we be thinking more about the future of these beautiful beasts that carve their way down the hillside, or at least used to? Now they are shrinking, retreating higher and higher.

What are they running from, I wonder?

From us, from their surroundings, from their future?

Are they worried about the future?

Is their fate in the icy stars above them, or is it in our hands?

PEAK

Golden peak of snow,
eagle of the icy mountains
glinting silver and aquamarine under copper sun.

Our life within the ice, escaping from the ice, dwindling with the ice and warmer, warmer, warmer... Melting into a puddle.

The glacier, my glacier, a stepping stone in my journey, our journey. Our history, our future.

That golden peak of snow smoldering under the sun, exposing a burnt Earth and drying out many natural wells of life.

My glacier, where is my glacier?

I remember when it used to reach down to here. Where my feet now touch baked ground.

It's darker now, as the glint of the golden peak of snow fades in the setting sun.

It hurts my eyes, hurts my heart, to see my glacier, our glacier, darker. Where even its hidden secrets are emerging.

By Caroline Clason

FROZEN LANDSCAPES

How I wish to be walking in the frozen landscapes amongst the steep hillsides, icy beasts and peaceful sounds.

How I wish

to be far, far away and high, high up

where the air is thin and the sun appears

disappears at the same time in the day, every day.

How I wish

to be high on the glacier,

staring across its beautiful face at the land below,
with small toy towns and roads connecting in a winding web.

How I wish
to be waking in the mountain city full of life,
with the breathtaking backdrop of the mountain range
the tallest frozen tower keeping watch.

How I wish
to be off exploring in the rural extremes
of the land below the ice,
understanding its true power and importance.

How I wish to be in that frozen landscape once more.

SECRETS OF ICE

hat stories I have to tell, but do you want to hear them?

I am ice, locked up for millennia high upon mountain sides.

At first glance I appear clean, sparkling, blue, white, transparent, and pristine. But on closer inspection I am a time-travel capsule, a glimpse into the past, a record of what has been, an indication of what I am

giving to those living below, relying upon me.

I can tell you about much warmer and colder times, as well as wetter and drier years, but would you want to hear it?

Tales of forest fires close to my heart, trapping the black carbon tears of the Amazon when the winds blow my way. The bad taste left behind by the increase in cars and industry, swallowing and trapping emissions for the future, ever accumulating. Nuclear accidents and deliberate weapon-testing. I hold the radioactive particles to show the extent of their reach. Chemicals used to kill pests, polluting the water I release every year. I can tell you about the people who have walked and climbed on me, leaving microplastic souvenirs, many fibres. Toxic heavy metals that found their way to me, naturally or through human action.

But would you want to hear it? These stories I hold, constantly quietly shared through my melting. I don't think you want to hear these secrets.



Palcaraju, Cordillera Blanca - Photo by Caroline Clason

LIQUID ICE - HIELO LIQUIDO

Liquid ice is coming towards me, towards where our ancestors have been, occupying our lands and our water. It approaches, moves away, flies, dances and surrounds us, lifts us, teaches us, prepares us for what is coming, for its absence, for its struggle, for weeping. It prepares us with joy.

Liquid ice sings through us and asks us to breathe, asks us to care, asks us to fly. But it can no longer sing with the same force, does not dance with the same joy, does not scream with the same pain.

The liquid ice that surrounds us, moves away. It rises. Over and over again it runs away from us, from our song, from our pain, ceases to be what it is.

Liquid ice ceases to be liquid ice, ceases to be the life which supports and fights for its survival, takes no account that we need it since we have not taken into account that we need it, because we have forgotten its relevance, forgotten that it is part of us, that we are part of it, that we are liquid ice, that we are water, that we are air, that we are flexible, moldable, but also hard and strong.

We have forgotten the liquid ice in us, we have forgotten the liquid ice in our being and forgiveness does not come. The criticism continues, and the questioning does not stop.

Liquid ice knows that we have abandoned it, but knows that we are nothing without it, knows that we are nobody and that when we finish finishing with it, we will also be finished.

Is pain what remains? Is regret what remains? Will the dance return? Will the song come back?

By Claudia Grados Bueno

WATER AND MOUNTAINS AGUA Y MONTAÑAS

Water and mountain, neither of them is separate.

For water springs from mountains, feeds each living being that grows there.

Like a bright snake that slithers on the surface, born from the rain and snow.

Water connects human feeling with mountains, gives life to mountains, is the veins of mountains.

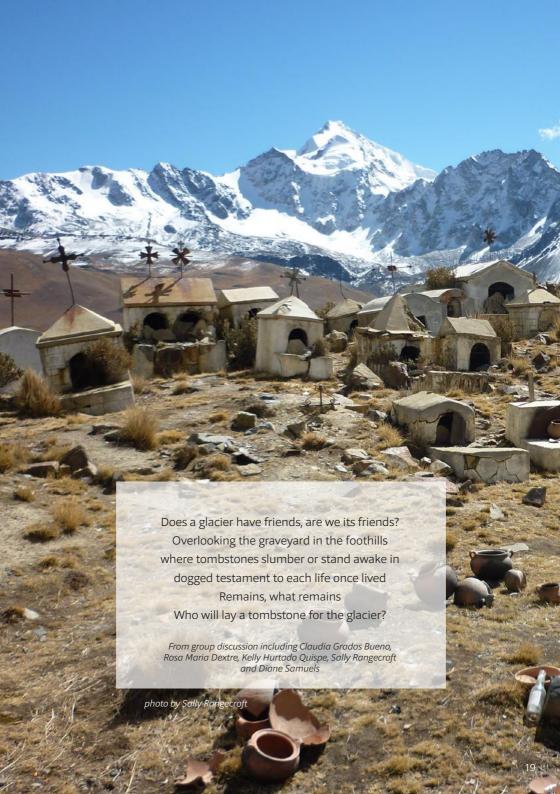
By Rosa Maria Dextre

MOUNTAINS AND WATER MONTAÑAS Y AGUA

Mountains
large pieces of land
providing protection
giving beauty to living things
allowing different ecological terrains
enabling transport of
Water
source of life

By Kelly Hurtado Quispe





PACHAMAMA, PLĒASE LĒT US IN

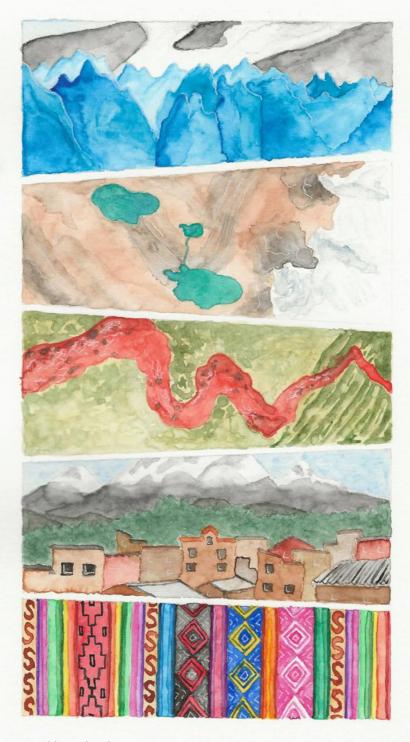
PACHAMAMA, PŌR FAVOR, DÉJANŌS ENTRAR "The Pachamama is also called Mother Earth. It is she who houses all the living beings in the world. With her we nourish ourselves, we walk and we can see the diversity of flora, from the most beautiful to the most dangerous."

"La Pachamama es también llamada la Madre Tierra, es ella quien alberga todos los seres vivos del mundo, con ella nos nutrimos, caminamos y podemos ver la diversidad de flora, desde las más hermosas hasta las más peligrosas."

By Kelly Hurtado

Pachamama, 'World Mother' in Quechua and Aymara languages, is the ever-present representation of fertility, giver of life to all that grows.

Offerings are made to Pachamama, through ritual, to ask for good harvest, for protection for your family, for safe travel into the mountains.



PACHAMAMA, MOTHER EARTH

Pachamama, Mother Earth
Ice and sea and sky and rock
Andean heights and cool Huaraz nights
In a dream of oxygen-stifled breathing

Pachamama, Mother Earth

Red streams flow from metallic mountains

And down and down through the
green below making pure, life-giving water

Pachamama, Mother Earth

Multi-coloured fabric and music

And food and lights and Huascaran looming above

Pachamama, Mother Earth Blue, green, silver shrinking and Twinkling in the sun, turquoise Pools growing below

By Caroline Clason

OFFERINGS

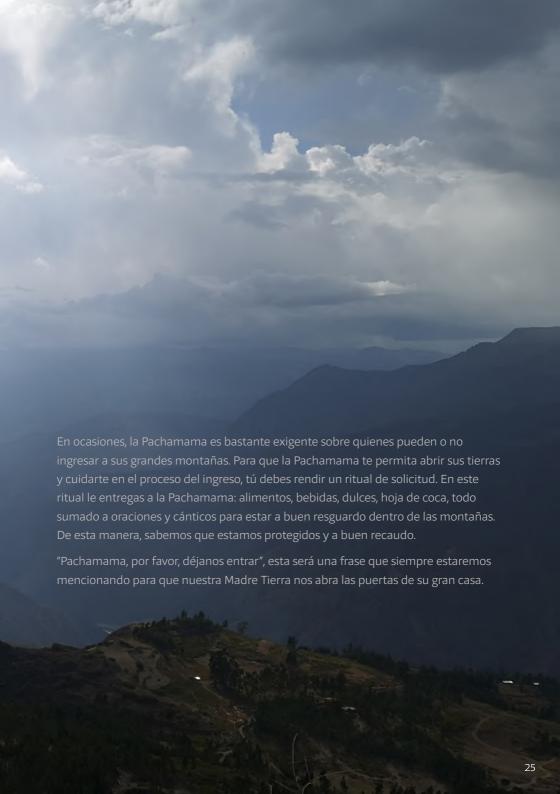
t times, the Pachamama is quite demanding about who can or cannot enter her great mountains. In order for the Pachamama to open her lands to you and take good care of you in the entry process, you must perform a ritual of request.

In this ritual you deliver to the Pachamama: food, drinks, sweets, coca leaf, all added to prayers and songs to be safe within the mountains.

In this way, we know that we are protected.

"Pachamama, please, let us in", this will be a phrase that we always speak so that our Mother Earth opens the doors of her great house for us.

By Kelly Hurtado Quispe





"In Peru, the mountains or glaciers are associated with a father or God who gives shelter to his children (population). The mountains give us protection, shelter, food, landscape and life."

Kelly Hurtado Quispe

PROTECTOR

Great one who watches over us, who cares for us from the sky filled with the stars and the clouds.

More than father, like a mother who feeds us with the water from her entrails and nourishes the land, the animals, the people.

Great father beyond he and she

Both at once, peace and calm, fear and respect.

By Rosa Maria Dextre



Cemetery in Huaraz - Photo by Rosa Maria Dextre

Pachamama, please let us in, for we are your children and you are the one we are born to love.

Sometimes we forget. Too often, it seems.

If we forget will you parch us or pour your rains upon us, make us lose our way?

We depend on you yet we forget to be grateful, forget to be reverend.

Pachamama, please let us in to your coolest high places with upside down views of tomorrows we don't dare recognise down here. We want to climb up, to be amazed, for we forget amazement.

So, Pachamama, we ask to be reminded, to be guided.

Pachamama, please let us in to the passes of solitude where the condor knows the unknowable and nests.

Pachamama, please let us in to a beautiful truth of blue-sky mind. Less and less we have been offering you our treats, our sweets, our fresh berries and melon. We offer our bare feet and shoes. We offer our blessings and we ask for yours.

Pachamama, please let us fly, please let us dance and keep dancing, please let cross the rising challenge of your ancient body to find a way beyond the world we create for ourselves, awake as we dream.

By Diane Samuels

EVERYTHING FLOWS

ountains and water build new worlds, build new places, build new lives. We free ourselves in this building process, in this network of life. We weave our lives together and feel it is always seeing ourselves. We consider how everything flows, how water flows through the mountains, how mountains are built by water, how rivers, trees and beings build our lives. We walked the paths others have walked for us. Through the mountains we don't know which places haven't been touched until now, which places are still dangerous, which places can take our happiness away. We walk the surface of the earth, using water, seeing mountains, feeling life, but we don't consider how everything is moving, how everything should move around. How everything should work.

By Claudia Grados Bueno



Laguna Querococha, Huaraz - Photo by Evelyn Hoyos



WATER IS LIFE

Water is life, incredibly so in the dry, high Peruvian Andes.

People are connected to nature here, they respect, worship mother nature, Pachamama, worship the glaciers of the Cordillera Blanca behind their city where water flows all year round thanks to the constant melting of these ice tower's stores.

Water is life, and the ice-melt flows down the mountains in many different colours: blues, greens, turquoise, clear, brown (sediment heavy), orange (iron rich). All to help sustain life on the land, for forests, grasslands, agriculture, industry, but carry hidden dangers.

Rains come every November, December, as the wet season starts, sometimes delayed. After the clouds have rolled in over the mountains, hiding them from view, the skies open in the afternoon.

Water is life, despite the altitude, the winds, the months from May to July without rain when that water is absent and the land is parched, still life thrives, for now.

RISE UP

M

ountains and water, thrown together, somehow have to make it work. Today, they aren't talking. Tomorrow they'll be all over each other. What waterfalls. But water cannot, no matter how hard it tries, rise. One day it was so frustrated.

"Why can't I climb to the top of you, mountain? I want to rise above sea level.

"You'll have to get over yourself," smiled Mountain.

Water found Mountain to be patronising, "You get over yourself."

"Childish," said Mountain.

"I'm as old as you are." said Water, "Probably older."

Mountain looked up and said, "Sky, can you please help water to climb up to my peak."

A heavenly reply was forthcoming, "So, morph into a cloud."

Water didn't much like the implication that in itself it wasn't good enough to climb the mountain without becoming less than itself or something other.

Mountain sighed. Water murmured. Neither fully understands what it's like to be the other, that's clear. Still, water nestles into mountain, can't help, of course, but fall.

"I'm fed up of falling," said Water.

"No you're not," said Mountain.

"I am," said Water, "I want to climb."

By Diane Samuels

REALISING

Where the mountains meet the tall blue sky is where water may be a different state. Perhaps frozen, crystalized, slushy, a translucent shade forming gem-like ponds of water below, glacial lakes set into the mountains like a royal necklace of sapphires, aquamarine, crystal. The most unique of all are the rare jewel lakes than can be found near to Huaraz, those of ruby and garnet, contrasting the blues and greens around, like a red light warning the mountains and animals to slow down, to stop and not drink. The water and the mountains understand each other, they whisper the same language, feel the same tremors shaking the earth to its core so slowly and gently that we do not notice in our busy lives as we drive up to the traffic lights, not thinking twice when we see them flash amber to alert us to stop. How do we not realise?

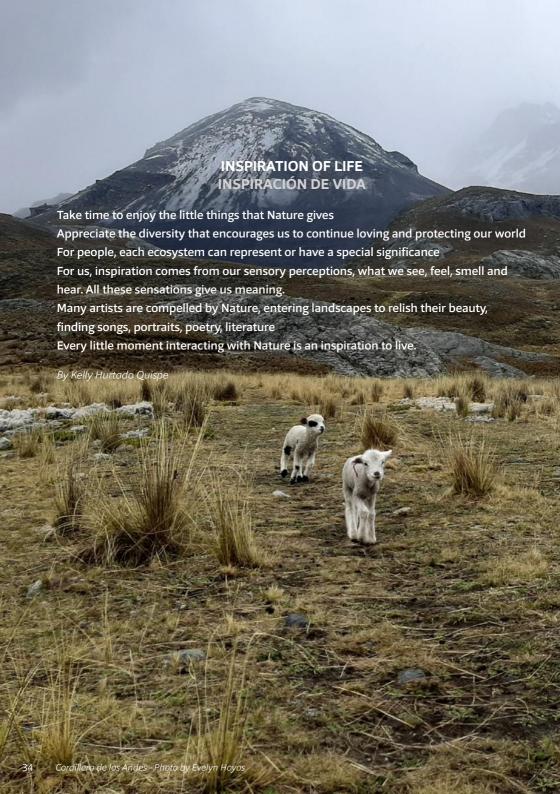
Pachamama, please let us in

to walk through your lands to swim into your cold lakes to be safe to be free of any illness.

Pachamama, please let us in take us away from the bureaucracy of the noisy city take care of us inside your prominent gully and mountains to breath the sweet smell of your pink flowers to show respect to the glaciers that are my ancestors

By Rosa Maria Dextre





Pachamama, please hear us, see us, and grant us permission to pass. Please let us in to the mountain way up high, for we need to be there, touching the sky.

We want to help understand you and the environment around us better, to reduce the pain we are causing you, to leave this place in a better condition than where it is currently bound.

Pachamama, please accept these offerings from us: fruit and sugar, coca and cigarettes, beer and spirit.

We give it all to you, and only you, for we want, we need, your blessing before we climb up there into your world where we humans do not control the outcomes

Please keep us safe Pachamama, and please keep the clothes on our backs dry and warm.

We ask you in this moment, please let us in Pachamama. For we do respect you and the earth on which we stand. We do understand how precious and rare that everything is exactly as it is to allow us to be here, in delicate balance, with a precarious tipping point that we assume to be robust and solid. Yet we are seeing with our very own eyes how sensitive and vulnerable is all that we rely on.

So, Pachamama, please let us in and help us in whatever way you can.



Pachamama, please let us in.

It's cold, no, warm out here my hands are dry, my mouth is drier my voice is shaky, nobody is listening. They speak, they talk, but say nothing. It's all "blah blah blah" and drives me away, back to the ice, to escape, to wonder what comes next, now, 10 years, 100... They don't see what's in front of us, in front of you and your disappearing ice? They only see barriers and costs, and men and money, and black, black coal. Pachamama, please let us in. It's a mess out here and my head is exploding. It hurts, it keeps me awake because nobody is listening to us, to you and me. There's not much time now, we're almost done.

By Caroline Clason

ICE QUEEN

Pachamama talks to her children, telling them of the time that she called upon the Gods to seek a different set of powers, those of an Ice Oueen.

She is transported back to those warm days where she worried as she saw the land around her burning, the ice on her mountains melting, and the animals struggling.

She thought back to that time when she felt the warm blankets around her Earth suffocating her and everything in the oceans, on the land and in the skies.

She felt the pain as she recalled the efforts of those below, trying to warn, trying to change, the searing pain that it was not enough, not fast enough.

No matter the offerings and prayers, their strength alone was not enough.

She remembers the relief she experienced when the Gods heard her cry, her desperate shriek of fear and the reward of the cold sensation in her fingers, her toes and through her blood as they answered her call, the last chance to refreeze the melted scapes.

She recalls how good it felt to rip off the blanket and savour the refreshing taste of cold, clean air on her tongue once again.

She told her children this memory so that they would know from her, for their future, what suffering to avoid, as she did not wish it upon anyone else, on Earth or above.

Pachamama don't let them in

don't let them steal your knowledge, your experiences, don't let them use you, don't let them extract you, don't let them stain you. Sorry Pachamama, for using you, for exploiting you, for not respecting you. Do we deserve to enter?

Do we deserve to be let in?

Pachamama here we are, here with you. Pachamama please do not let us in, we have already done enough, even in your name, even profiting, performing on your behalf. Do not let us in until we are worthy of you, until we can stop being what we are. Pachamama, please do not let us in, it is not something in exchange for something else, it is not one by one, it is not one by two. We have no right, we already lost it, we already raffled it, we already sold it, we already sold you. We already hit you. Why would you let us in? Why are you letting us in? Do we deserve to enter? When we use your name in vain, when we hit you, we extract from you.

Are we really what we are? Are we really part of you or have we already gone too far? Did we stain you too much already?

Please Pachamama, don't let them in, they are going to use you, they are going to beat you, they are not going to understand you, they are going to make fun of you and they are not going to know you, they are not going to love you.

By Claudia Grados Bueno

COUNTRY OF CONTRAST

PAÍS DE CONTRASTE

Peru is located entirely in the tropics, but contains a variety of landscapes and climates...

Desert

The Pacific Ocean coast is one of the driest deserts in the world. Apart from the irrigated agriculture in the valleys coming from the Andes, the coastal desert is almost devoid of vegetation.

Mountains

The Andes mountain chain runs through all of Peru, covering 34% of the country. Many snow-capped and glacial peaks are taller than 5,000 m (16,000 ft). Temperature decreases with increasing elevation, lead to cold, harsh conditions in the mountains. Despite this, Peruvians have been farming in the Andes for thousands of years, using terracing, raised beds and hardy crops like potatoes. Llamas and alpacas graze on the sparse vegetation, and strips of irrigated agriculture run alongside the rivers which are fed by the meltwater from the glaciers.

Rainforest

Of Peru's total area 56% is rainforest. Hot temperatures all year round and abundant precipitation enable this dense tropical rainforest to host a rich variety of flora and fauna. The Amazon river carries tons of suspended sediment all the way from the Andes, which gives its muddy appearance and the larger expanse of Amazon rainforest (spanning nine South American countries, including Peru) produces such a vast amount of Earth's oxygen that it is known as the 'Lungs of the Planet'.

CORDILLERA BLANCA

"white range" (Spanish)
Mountain range, part of the Andes, tropical and ice-covered,
including the highest mountain in Peru, Huascaran,
and stretching for over 200km.

CORDILLERA NEGRA

"black range" (Spanish)

Mountain range separated from the Cordillera Blanca by the Santa River, receiving hardly any rainfall, dry and with a small population.

Rich in minerals – copper, gold and silver.



Cordillera Blanca - Photo by Evelyn Hoyos

an you imagine a country of ...

deep luscious leaves, moistness of rainforests dripping with tropical fruits, alongside tall icy mountains reaching up through fresh air to communicate with the stars?

bright, vivid colours dancing to the busy music of life around the streets, beside pale, muted shades of frozen landscape, where nature is designed to hide away from those soaring above in the thermals, running across the barren lands?

vast, fast flowing rivers, wider than the eye can see, deep and muddy, filling the irrigation canals and taps of those all around, but then bone-dry for months every year, yearning for the rains of the intertropical convergence zone to splash and saturate, refilling the rivers, aquifers, soils and glaciers, to help survive the next dry season and drought?

brightly coloured lakes nestled amongst the mountains, attracting the attention and awe of tourists and locals alike, yet those colours representing hidden dangers from their geochemical signature, tasting of acid?



LEGEND OF HUANDOY AND HUÁSCARAN

According to many generations living in the region of Callejon de Huaylas (Ancash region, north of Lima), who have passed on this story:

A long, long time ago...

Huandy was a princess. Some accounts describe her as daughter of the lord of Huaylas. Other accounts say her father was no less than Inti, the Sun god himself.

Huascar was a soldier in the Inca army. Some accounts call him ambassador of peace, welcome guest in Cusco. Other accounts describe him as defeated foe taken prisoner.

Whether Huandy and Huascar met in a spirit of amity or because she was entrusted to be his guard, either way, they fell in love. Such love, between a princess, be she 'high-born' mortal or daughter of immortal deity, and mortal soldier, from different peoples, was considered entirely beyond the remit. So, they planned to escape. To be together always.

They did escape, for a short while. Then they were captured. Their punishment, imposed by her father, be he lord ruler or sun god, was to be placed apart but facing one another. Some accounts say they were tied to logs. Other accounts have them buried in rocks. Either way, each was transformed in view of the other into a mountain, separated and never able to touch. In their pain and grief, they wept such tears that Huandy formed Lake Chinancocha, Huascar formed Lake Orcococha. Inti pelted them with hail and snow to cool their passions. And so, emerged the snow-covered mountains of Huascaran and Huandoy.

Also, according to generations, Huascar promised to take revenge on the people who separated him from his lover and that is why, the people say, there have been many avalanches and floods, like the one that buried the village of Yungay in 1970.

It is also said that when the snow cap of each mountain has melted, Huascar and Huandy will come to life once more and join together for eternity as they always desired.

DREAMS OF THE MOUNTAINS HUANDOY AND HUASCARAN

Н

uandoy still loves her father, the sun god who gives life to the earth, but she also still loves Huascaran, brave soldier. Why can't she have both loves together? She dreams her father accepts her love with Huascaran so it can be freely expressed. She hopes love can triumph over the commands of father and society.

Huascaran wants freedom, to follow his loved one, to be accepted, to stop being trapped, to fight and punish the sun as he has been punished.

He wants to stop crying. Some days, he even wants to stop loving.

He wants to leave a message, to last, to have meaning. He doesn't want to melt away.

Huandoy dreams of the day that all their ice melts so they can be joined again as water in the lakes below. A different life where she is permitted to be with the one she loves, not punished for this wish.

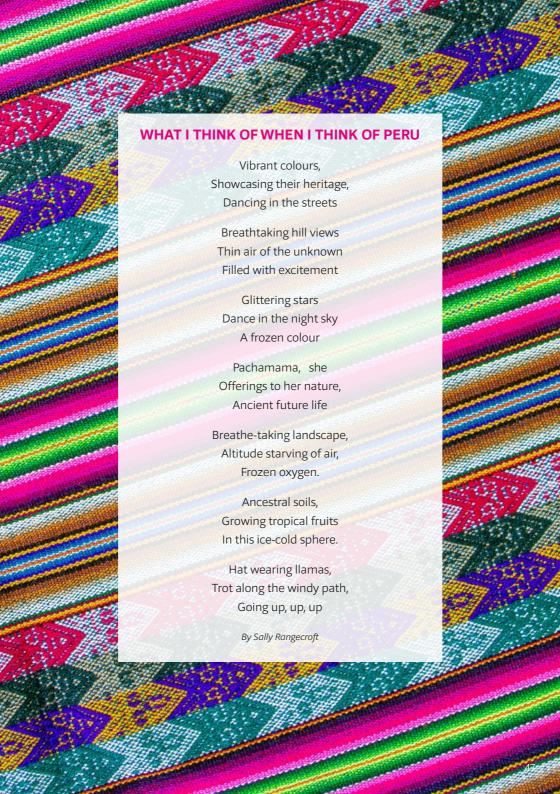
Reaching out to Huascaran every night when her father (the sun god) is sleeping, if only she might speak words of affirmation to the taller mountain casting his shadow over her, protecting her as best he can.

In her heart, she swims in the meltwater tears of her lover every morning when the sun rises.

Huascaran wishes all these tears would end, that others weren't in charge of what's important. If only the mountains were joined to make a stronger platform for the ice. He is filled with longing for the future when both eroded mountains can be together in the valley below.

By Caroline Clason, Rosa Maria Dextre, Claudia Grados Bueno, Kelly Hurtado Quispe, Sally Rangecroft





THE RIO SANTA is a river that winds its way to the Pacific Ocean for 200 km from the Peruvian Andes, running between glaciated Cordillera Blanca in the east and the dry Cordillera Negra in the west, to form the fertile Callejon de Huaylas.

The glaciers of the Cordillera Blanca are an important contributor to the Rio Santa.

Between the months of May to October when there is barely any precipitation in the region, it is the dry season.

During these dry months, melting glaciers 'drip-feed' the river, ensuring that water continues to flow.

MY RIVER

Water running from the frozen peaks of the highest heights to the warm taste of the lowlands by the Pacific Ocean, the Rio Santa is my river.

She winds and fights her way through barren lands, cuts gauges into steep sides, and meanders across wider plains where she has previously expanded and dropped her load when the rains were too strong.

She changes her hue, her taste, her lifeline, but she is still my river.

Up high in the wild vistas, she is my only companion, telling me stories of what she has seen in the last few years in the ice capped mountains.

She is welcome onto my land, to continue her journey towards the busier towns and cities where sadly she's not respected, treated as trash can, storing litter rather than thirst.

I try to look after her as best as I can, watch her ebb and flow with the seasons and show her my sheep and cows when they need relief from the midday heat.

She is the endless music in my isolation whilst I am alone on my ground for months on end.

WATER RESOURCE MANAGEMENT

Under the skies like a snake and hissing as it bubbles down from the peaks of meringue, only not sweet, turning red.

Acid lakes, says the water, managing to manage as only this resource can.

But I can flow still, can't I?

Why do I feel like I'm forgetting myself, burbling, cold still, so cold.

But the difference between these peaks up there where anything is possible....is it still possible, managing mushrooming water like a thrill of bubbles, and store me, store me.

And drink me, drink us too.

The peaks are still there. The pattern forms.

Up high, eagle above. Look up to see and look down on us and the river. Eagle, condor sees.

Oh soar those wings over us and go on on on and off we go.

By Diane Samuels

RIVER OF FEELINGS

I feel pain.

Needed by so many, so often. Such disappointment when I can't provide. As I run dry, my thirst grows. Patiently I wait for the glacial cool blue flow to feed me, or raindrops to refresh from the clouds drifting past.

I feel confused.

My taste changes. Strange how I flicker between neutral to acidic, from the rocks beneath, from the digging of the miners. Then the opposite taste surges into my every cell, of alkaline soap and detergent. Those who pollute wash their hands of this. Yet I hold onto that bitterness, pass it to those further below who do not deserve it. I want to slow down, to find time to lick my wounds. I want to be clean. But life moves too fast.

I feel conflicted.

Pulled in different directions, I carry the conflict between those who live near, see me every day and own me, clashing with those who live so far away yet make all the decisions. I do not resist when I am torn, I just keep giving, go where I am taken, often never to return.

I feel power.

When my anger grows, unable to control all these feelings any longer, I swell and burst. Too quickly I respond, become destructive. Nothing gets in my way. I leave a scar on the landscape, a reminder to those left behind to be careful. Yet still ignored! Then I feel powerless. Too much of me is taken, so little given back. So empty, so alone.

I feel anger.

Do they not notice the palpable pain and fear in my samples taken for analysis in their laboratory? Can they see my true colours? Those in charge never seem to pay attention. Can't they hear my supporters?

I feel fear.

What is yet to come? As the air I breathe becomes warmer and wetter, will I grow more powerful, too strong? Will those around me realise before it is too late? Will I no longer be here when I am needed?

I remind myself that I am wanted, bring life to millions, give joy to many. I daily thank those who clean me, respect me and understand.

How I hope that I can keep my emotions under control for those who live with me and let the others start to do something at last.



GLACIER FOOD



Glacier food, water of life feeding colourful crops beneath the icy stars of the Andean sky.

Trickles becoming smaller and smaller and air warmer and ground drier and pressures growing below.

People are worried, people are angry, people can't agree, people can't decide what's best for themselves, one another.

The glaciers are crying tears of melt, the rocks are weeping drops of acid. The land is sobbing but dry and dusty.

The fabric of life, fabric of land. Food and fabric, a rainbow of nature, and the people need to keep this safe.

Artwork and words by Caroline Clason

JUICY DRY BLUEBERRIES

D

o you realise what you have stolen from us?

Do you understand how far they have travelled, how homesick they are?

Do you value the time, care, love that it has taken to ensure each one is plump and juicy?

Do you appreciate the water that has been taken from us to feed each one, and how old that water from the glaciers is?

Do you know how dry the land and air are where they have been grown?

Do you see how important those things are for us, and yet they are taken far, far away, to the other side of the world to make the topping for a breakfast Instagram photo?

Do you get that profits from their sale line the pockets of those multinational corporations, not us?

Do you really truly realise how hard it will be to produce the same in ten, twenty or thirty years' time?

Then what will we do?



Artwork by Caroline Clason



COLOURFUL CORN

Sitting by the roadside after the storm Splendid staple spotting sparkles in the night sky And where is the asparagus these days?

Not yet seen a potato this year but they'll be there Somewhere rooting in the bedrock of expectation A rainbow dream comes over the quinoa.

Corn kernels blue and await the amazement of maize "Let's not ask too many questions." Say the psychedelic dancers Whose bonfire promises a supreme roasting.

A cob or two is all we need after the sewage, the drills, after the dereliction of duty Whose duty? Whose freedom? Whose delight?

Piled high like Inca pyramids

There's a story about where the red and blue rivers meet and what they aren't telling each other.

"Colourful corn is my favourite." Says the gap-toothed man who must be fifty if he's a day. Cheap and easy, relaxing with hands cupped for coca matte.

Basket sways on donkey's back.
Hollow bellies to be filled to feasting
Bring us your bounty.

"Tortilla time" sings the market
We love the purple ones best, don't we?
Hints of tomorrow that we're yet to learn.

By Diane Samuels



IN THE FIELD

The days are long, tiring, busy, constant.

The travel is far, the sun is high, the work is hard, rewards are plentiful.

The views are awesome, otherworldly, unique, humbling, breathtaking

or is that the altitude?

The lessons learnt are endless, useful, necessary and wide, and the science being done is one of a kind.

The nights are short, too short, the mind constantly whirring, planning the day ahead already, mentally going over your check list, thinking about "what ifs",

and the mornings start early, too early – even earlier if you consider the time difference!

The journeys are winding, back and forth, in and out, up and down
Not just the roads, the energy levels, the enthusiasm,
And sometimes you just want to slow it all down,

STOP

take a look around and breathe in the incredible place you are in where many others have never visited, will never visit, and you might never visit again

But be careful what you wish for,
you may be forced to stop and be in that one place for a while, under
the beating midday sun,
when you get locked out of your car, in the field!

DRINKING COCA TEA

rinking coca tea, winding, twisting, dipping, driving. Head pounding. There's work to do, the land is vast. It's clean, it's dirty, our river. The dry valleys are starting to flow, and around the valley the vegetation grows on terraces whilst cows munch. Was that a tremor? No, that was my tummy, ready for lunch by the riverbank. Clouds are clearing but the air feels heavy still. Up early tomorrow to drive again higher up and up to where the water starts and where the story of our river begins, the giver of life around here, cherished and abused, but ours all the same.

By Caroline Clason

hew on the coca leaves and keep going. Wind up, further up. Drinking coca tea and two rivers meet us where we meet them meeting each other.

It's not like the earth is quaking today, or is she quaking, Pachamama?

And the red reddens the water that

Drinking coca tea still to keep going.



comes from the lake, not that field of cows, mind. One river is fresh, one is sour or shall we say tainted? She doesn't like being described this way. Tainted waters laugh too loudly, like me after I've drunk far too much coca tea. And fresh river is probably more enthusiastic, more innocent, but tainted river is more complex. She is mysterious too.

Like new friends of old, merging waters release their hopes and dreams. They do, after all, have a common purpose, to make way for the song of the watermelons by the side of the sea road. Ripening watermelons to munch with another cup of coca tea, and another. Is there no limit? Is the mountain high enough?

The meeting rivers don't bother to greet, just rub into one another. And fresh shudders at the tang of tainted, whilst tainted enjoys the swell of new life, as they complement each other.

By Diane Samuels



CHOLITA SKIRTS & ICE PICKS

My children think I am a little nuts, walking alone in the middle of the night, swimming in the cold water of the mountain lake, before I cannot do it anymore. In their eyes, I am not supposed to enjoy these things. I am supposed to stay home taking care of them.

When it started we were going up there as cooks but we always wanted to get to the top. Everyone laughed at us, the idea that women could climb a mountain, use ice picks, be exposed to the cold. But we showed them, our spirits high, our colourful Cholita skirts, pink, yellow, red, blue, with winter walking boots and shining brooches.

Loving mothers, wives, friends, we leave it all behind when we strap on those crampons and make our way up to the peak, breathe in the fresh air. We see so many blue skies, find ourselves anew, as we walk on ice, at one with the beauty.

It is often believed that only young and athletic men are capable of this feat. But the power of women in the mountains is surprising and encouraging.

Illness is the only thing that can stop us, but being in the mountains also heals us, heals the decades, centuries, where that ice ceiling remained frozen.

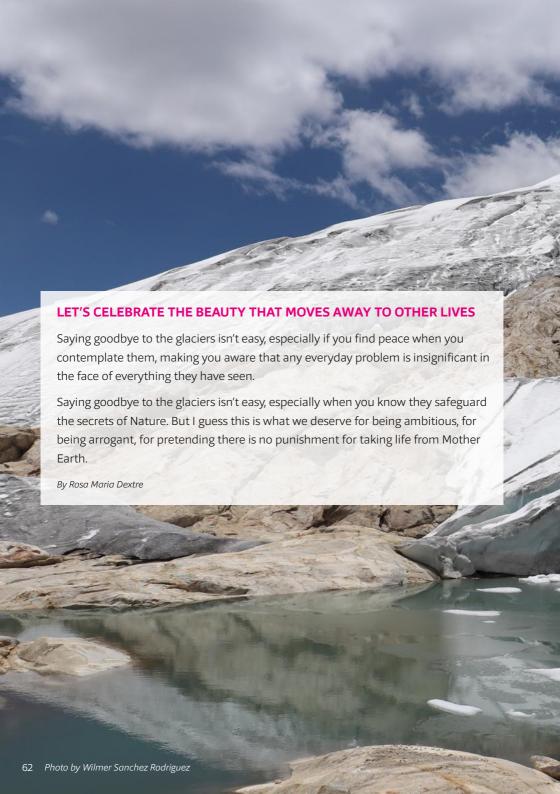
We must always repeat in our heads that age and gender are not an impediment. We cooks, free as dolphins swimming wide ocean waves, pink hearts racing, pulsing, steady, as we walk, free to trudge, to rope together, to make our footprints in virgin snow, to show the glaciers that we belong here, we nuts Cholitos.

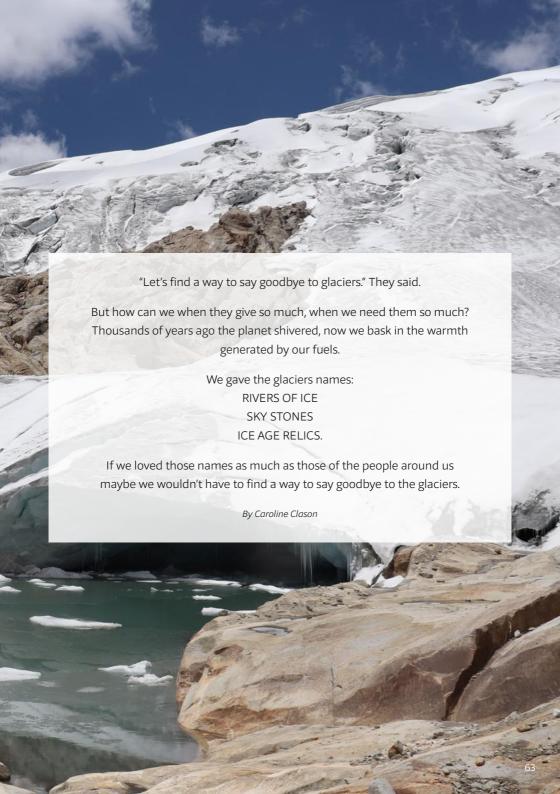
Do not be afraid to start something new or that you could fall if you climb a great mountain. Perhaps you too will be able to cure your ills by trying a little adventure, always with the permission and protection of Pachamama.

By Claudia Grados Bueno, Caroline Clason, Rosa Maria Dextre, Kelly Hurtado Quispe, Sally Rangecroft, Diane Samuels

Inspired by THE CHOLITA CLIMBERS OF BOLIVIA SCALE MOUNTAINS IN SKIRTS:









QUYLLURIT'I PILGRIMAGE

Quyllurit'i – "bright white snow" (Quechua language)

A syncretic religious festival held annually in the Sinkara Valley in the southern highlands Cusco Region of Peru.

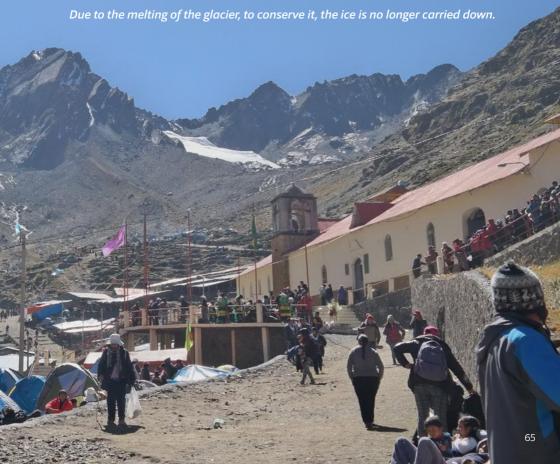
This festival takes place in late May / early June to coincide with the full moon.

The annual pilgrimage to this feast brings large troupes of musicians and dancers.

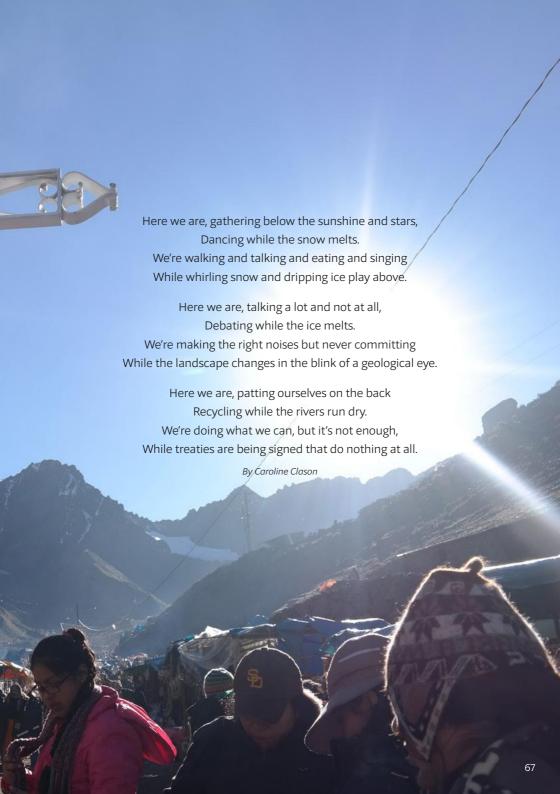
The culminating event for the indigenous non-Christian population takes place after the reappearance of Qullqa in the night sky – the rising of the sun after the full moon.

Tens of thousands of people kneel to greet the first rays of light as the sun rises above the horizon.

Until recently, the main event for the Church was carried out by ukukus who climbed glaciers over Qullqipunku and brought back crosses and blocks of pure ice to place along the road to the shrine.







DANCING, DANCING, DANCING

Dancing while the glacier melts, while the sun warms, while the clouds smile. The drums start, the colours of the skirts bright with sun, the women's braids ready to move to the rhythm of the flute, whilst the movement of the men corresponds to the rhythm of the tears of the mountains

By Rosa Maria Dextre

In Peru, we have different dances, like the harvest dance, carnival dance, celebration dance to a saint or a child of God, and there are also dances that commemorate and pay tribute to the great mountains

"Dancing while the snow melts" means that the local population express through dancing and songs that they do not want the glaciers to melt. They ask the Pachamama to care for them and keep them healthy.

Dances usually also express people's feelings, their beliefs and fears. Dancing is like swimming on land, you need synchrony, rhythm and passion.

By Kelly Hurtado Quispe





Dancing, singing, I melt, I jump, I sing, I see oppressions and freedoms mingle, singing as I dance, dancing as I sing, walking on the glacier I show my respects, I show my song, I show my dances, I build my being.

Our country mixes the good, the bad, the wealth with the extraction, the streets with the dances, the rivers with the ice.

They took our future from us, a future that could be written by us, narrated by us, but we change our being, empty bodies dancing in cruel times, people dancing in the abyss to get out of it.

They did not take away who we are, they did not abandon us in the air, we did not fall without fear, we did not fall without remedy.

We keep dancing, we keep dancing, we keep worshiping and dreaming.

We follow the apus, sure of their snow, sure of their crying.

In that resistance we find ourselves, while the snow melts, we continue singing, we have the song, we have the dance, we fall dancing, we dream when we mix the forbidden, we mix the impossible, we dance in infinity, we dance while the snow melts.

By Claudia Grados Bueno

We dance on the great skirt of the glacier, as our little skirts spin, hearts thumping loud as an avalanche, pumping blood and ice through our veins. How we love to be here, moving in mass with hundreds more, all here like sardines for the pilgrimage of the bright white snow. My family have driven across the country many times before, my Uncle sleeping in the car because there is no space on the floor. And yet this is my first time, finally made it to experience two worlds colliding, merging, melting as fast as the ice beneath our feet. I hear stories of how the festival has changed, how it has had to change because of glacier retreat, the taking of ice from the glacier now forbidden, signifying the importance of this ritual even more. The respect given by all those here in their multi-coloured outfits and head dresses, I feel like I am in the right place, part of the right dance. How I wish I could have been here before, when it was different. Yet I am glad to participate right now, because I am not sure that my children will get this chance to dance, for the snow will have melted.





VIEW FROM THE GLACIER

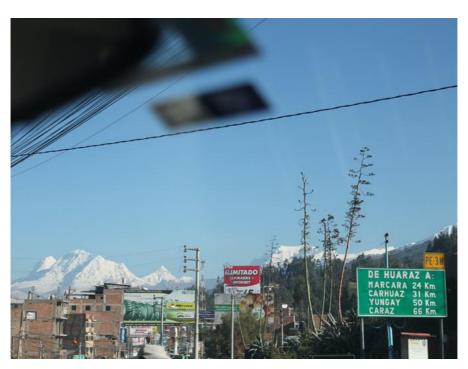
How I have seen this view in front of me change.

Where once lush green land, a river playfully dancing its way through the hills

Buildings, tarmac, powerlines, signs, people moving around like ants tickling my feet, causing me to laugh.

But instead of tears of joy, it is tears of despair that weep inside, making me feel flatter, shorter, smaller, light-headed and confused.

I am not what I once was, and neither is this view in front of me.



Huascaran mountain from Huaraz city - Photo by Sally Rangecroft

AN ODE TO PERU

How I miss you and my learnings of your land

Dry desert vistas like driving on Mars
Wet, wild Pacific ocean running parallel to the left
through sub-tropical lands so warm and lush.
Smell the sweet fruit and sunshine.

Up, up to the highest heights of the Andes where cold mountain tops meet the stars and the moon. The altitude that could starve my brain of oxygen Leaving me gasping for air as I climb up the stairs

The scars in the soil that tell a different story
A glimpse of the deep power of water
when the time is right, or wrong
Or when you least expect it

The fluffy friendly llamas that smile as you pass Giant condor that soars high up in the thermals above keeping a watchful eye and bidding you safe travels

Grounded thousands of miles away,
In a very different world,
How I wish I could spread my wings and fly over the Andes



Fieldwork in the Cordillera Blanca - Photo by Rosa Maria Dextre

AND THE PLANET SHIVERS

Earth trembled with ice, we walked in the void, we cried walking, a grey climate, very cold, we walked, we jumped, cold and hot, everything changes and melts, time the ice fell, we could not continue walking or singing. Grey and rain fell, we walked, we rose, water, ice, cold, melting, we cried, we sang, we walked. Ice wounds, blood wounds, lost causes, let's walk, jump, say goodbye to who we are, find a way to say goodbye to the glaciers

By Claudia Grados Bueno



Y el planeta tembló

El planeta tembló con el hielo, caminamos en el vacío, lloramos caminando, un clima gris, con mucho frío, caminamos, saltamos, frío y calor, todo cambia y se derrite, tiempo el hielo se cayó, no pudimos seguir caminando ni cantando. El gris y la lluvia cayeron, caminamos, nos alzamos, agua, hielo, frío, derretimiento, lloramos, cantamos, caminamos. Heridas de hielo, heridas de sangre, causas que se pierden, caminemos, saltemos, despidámonos de lo que somos, encontremos la manera de despedirnos de los glaciares

By Claudia Grados Bueno

CONTRIBUTORS

DR CAROLINE CLASON

Caroline is an Associate Professor of Glaciology at the University of Plymouth, and the UK Principal Investigator of the SIGMA (Eros-IsoGlas) project. She has conducted research on glaciers in the Arctic, European Alps, Nordic Europe, and, most recently, the Peruvian Andes, where she seeks to understand the importance of meltwater for glacier movement and retreat and for downstream water resources. Caroline is also keenly interested in art and adventures in the great outdoors.

CLAUDIA V. GRADOS BUENO

Claudia is an anthropologist who graduated from the Pontifical Catholic University of Peru (PUCP) with MA in Development studies focused on agrarian, food and environmental issues at the International Institute of Social Studies (ISS). She is currently the social science specialist at the Direction of Research in Mountain Ecosystems (DIEM) at the National Research Institute of Glaciers and Mountain Ecosystems (INAIGEM). She is interested in exploring environmental issues from an intersectional and participatory approach.

ROSA MARÍA DEXTRE

Rosa María is an environmental engineer interested in interdisciplinary research from the perspective of water-human relations in the Peruvian Andes. Her master's thesis work was carried out through the SIGMA project and she has recently worked for the Nuestro Rio project as a research assistant.

EVELYN HOYOS

Evelyn graduated from the Agronomy career at the National Agrarian University "La Molina" (UNALM). She has integrated a research group focused on roots and tuberoses. She is currently a thesis researcher at the Direction of Research in Mountain Ecosystem (DIEM) at the National Research Institute of Glaciers and Mountain Ecosystems (INAIGEM). Her topic of research focuses on social dynamics regarding grassland ecosystems within a peasant community in Huaraz, Peru.

KELLY HURTADO QUISPE

Kelly is an anthropologist and graduated from the "Universidad Nacional Mayor de San Marcos" in Peru. She is in the process of completing her undergraduate thesis. Her interests focus on youth, adolescence and childhood studies. She has been a professional intern at the Direction of Research in Mountain Ecosystem (DIEM) at the National Research Institute of Glaciers and Mountain Ecosystems (INAIGEM).

DR SALLY RANGECROFT

Sally is a lecturer in Physical Geography at the University of Exeter. She was a Research Fellow at the University of Plymouth (UK) who worked on the SIGMA project which investigates the physical and societal impacts of glacial melt in the Peruvian Andes. Sally conducted her PhD research in the Bolivian Andes, which included spending several weeks a year in Bolivia for fieldwork. Sally was fortunate enough to participate in fieldwork in the Cordillera Blanca in November 2019 with the SIGMA project. Sally has developed a love, appreciation and passion for the Andean mountains, as well as the life and culture they represent.

DIANE SAMUELS

Diane has been writing professionally and teaching creative writing for over thirty years. Her play KINDERTRANSPORT, winner of Verity Bargate and Meyer Whitworth awards, has been produced in the West End, off-Broadway and all over the world. Other theatre work includes PUSH, winner of Wellcome Trust Science on Stage and Screen award, collaboration with medical pain specialists and artist Alexa Wright. Also plays for BBC Radio, including SWINE and TIGER WINGS. In 2005 she was Pearson Creative Research fellow at the British Library. Her plays and book, "DIANE SAMUELS' KINDERTRANSPORT" are published by Nick Hern Books.

Diane runs a regular online Writers Group, various courses and mentors individuals to support creative practice and development of new work.

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WRITING WITH GLACIERS CREATIVE PROCESS

When we met in virtual space for creative writing sessions during the course of 2021, some in the United Kingdom and some in Peru, each researcher started by taking turns to present images, perhaps some data, a story or some music, inspired by their experience of field-work in the mountains or growing up in Huaraz nearby.

After this, we'd pool words inspired by what we'd shared and also throw in a good number of random words, not obviously connected, to flavour the mix and add an unexpected element. It is freeing to throw in these as 'wild-card' elements to open up wider dimensions.

Next, each on their own would patch together their own take on the collected words, some in English, some in Spanish, to create a piece of 'raw' writing.

Guidelines:

You can't be wrong

Let go of any expectation to write anything 'good'



Nonsense is welcome

Try to use all the words collected, repeating any of them as often as you wish

Add other words of your own choosing to connect the 'key' words

Be playful

On the following pages, you will find a few of the themes we explored.

For each theme, there is a page of the collected words – please feel free to patch together your own writing collage if you want to explore the process for yourself and come up with your own Glacier Gift piece of writing.

After this page, there follow a few of the 'raw' pieces the team produced.

A GLACIER IS NOT - UN GLACIAR NO ES

Considering the opposite of something can reveal another aspect of it in unexpected ways.

Mint - menta

Mountain - montaña

Dog - perro

Clear - claro

Humid - húmedo

Home - hogar

Fly - volar

Food - comida

Garden - jardín

Soil - tierra

Sun - sol

Smile - sonrisa

Towel - toalla

Bird - ave

Ice-cream - helado



RAW WRITING

1.

Un glaciar no es una menta clara buscando un hogar, tampoco es una toalla helada pegada a la tierra, no es un perro húmedo caminando en busca de comida, no vuela como un ave ni sonríe como una montaña. La tierra es como un helado sabor a menta que vuela hacia su hogar en busca de comida, tranquilo como una toalla

A glacier is not a clear mint looking for a home, it is not an ice cream towel stuck to the ground, it is not a wet dog walking searching for food, it does not fly like a bird or smile like a mountain. The soil is like a mintflavored ice cream that flies home in search for food, calm as a towel.

By Claudia Grados Bueno

2.

El glaciar no es comida, pero puede ser un delicioso helado de menta, no es un ave, pero puedes tratar de volar alrededor de ella. El glaciar no es un perro, por más que a él le guste ver como la puesta del sol se oculta en el jardín de la casa. El glaciar no es una toalla blanca y húmeda que está pegada a la tierra que parece suave y envolvente. El glaciar no es solo hielo, es una energía radiante y clara que permite sonreír cada vez que la sabes apreciar.

The glacier is not food but could be a delicious mint ice cream. The glacier is not a bird, but you could try to fly around it. The glacier is not a dog, even though he likes to watch the sunset hiding from the garden of the home.

The glacier is not a wet white towel stuck to the soil appearing soft and all-encompassing. The glacier is not only ice, it is a radiant and clear energy that allows you to smile every time you appreciate it.

By Evelyn Hoyos

3.

Un glaciar no es un jardín soleado con aves y helado, pero tu puedes sonreír. Un glaciar no es una playa con tierra y sol, ¡aquí hace frío!

A glacier is not a sunny garden with birds and ice cream, but you can smile. A glacier is not a beach with soil and sun. It's cold here!

By Kelly Hurtado Quispe

4.

A glacier is not a home to take the sun or a garden to lay your towel

A glacier is not a mint ice-cream of the mountain or a dog with the humid head

A glacier is not a smile flying in the sky or a too clear soil.

A glacier is not the sun in front of the mountain.

By Rosa Maria Dextre

5.

A glacier is not a mint flavoured mountain.

A glacier is not a home to the ice cream dog.

A glacier is not a smiling bird flying away with the flood.

A glacier is not a clear and humid home to the garden bird.

A glacier is not a mountain dog smiling at the sunny beach towel.

A glacier is not a dog chasing a bird from its garden home.

A glacier is not a mint ice cream flying with a towel.

A glacier is not a humid smile of the bird dog.

A glacier is not the soil basking in the sun (it is quite the opposite – it is the ice melting like a mint ice cream in the sun)

A glacier is not the home of the flying dog carrying the mint towel as a cape flying in the wind like a bird.

A glacier is not the home of many, except for that of the soil mountain dog who hates ice cream, especially mint-flavoured ice cream.

A glacier is not the clear breeze on a hot, humid day.

6.

A glacier is not a dog flying into the sun, a humid mountain with no home, a towel that has been carried away by a bird, not the milky way at home when the only food left is a towel of ice-cream, not the humid howl of a dog that has not yet learned to write Spanish in the garden of smiles, not your mint toothpaste, clear as tomato soup dashed into the soil, not a flavour of ice-cream from North America nor a burger nor a handful of desert soil. Not yet.

A glacier is not clear of flies nor a toadstool in the sun's garden where the pink dog is at home and so is the cat who smiles, not clear blue towels after a bird bath before the dog finds a new home in the damp soil of humid night.

By Diane Samuels

7.

A glacier is not a home for a fly or a garden for a dog with a ball.

It is not bird food. It is not a place for sitting on a towel with an ice cream in the sun.

A glacier is not a place for mint growing in the humid air of a mountain slope.

It is not clear.

It is not a smile.

By Caroline Clason



SHAPED COMBINED EDITED WRITING A GLACIER IS NOT... – UN GLACIAR NO ES...

...a wet dog

(even though he likes to watch the sunset hiding in the garden of home)
...a white towel, soft and all-encompassing

...food

...a place for sitting on a towel with a delicious mint ice cream in the sun

...a beach - it's cold here!

...a smile flying in the sky

...the sun in front of a mountain

...a bird flying away with the flood

...a home for a fly

...the home of many

...the milky way

...toothpaste

...the howl of a dog that has not yet learned to sing in Spanish

...a garden

...a place for growing herbs in the humid air of a mountain slope

...only ice -

it is a radiant and clear energy that allows you to smile every time you appreciate it.

a handful of desert soil

Not yet.

By Caroline Clason, Claudia Grados Bueno, Evelyn Hoyos, Kelly Hurtado Quispe, Sally Rangecroft and Diane Samuels





WHERE DO I COME FROM? / DE DONDE YO VENGO?

Wind - viento

Flowers - flores

Sun - sol

Dog – perro

Path - camino

To walk – caminar

To jump – saltar

Laugh - reír

Sleeping - dormir

Planting – plantar

1.

Where I come from, there are parks with beautiful flowers, you can run and plant roses, flowers and other plants that you like. One problem is dogs who are so happy they can ruin the plants, but that's not a problem, they can always fence the garden. Walking in the park is very pleasant, as you can jump, laugh and even sleep without problems!



During spring the park is usually beautiful and there is sun and wind that please and you can enjoy your way to the park.

De donde yo vengo hay parques con flores muy hermosas, tú puedes correr y plantar rosas, flores y otras plantas que te gusten. Un problema son los perros que están tan felices que pueden arruinar las plantas, pero eso no es un problema, siempre pueden cercar el jardín. Caminar por el parque es muy agradable, ya que puedes saltar, reír e ¡incluso dormir sin problemas!

Durante la primavera el parque suele ser hermoso y que hay sol y viento que agradan y puedes disfrutar tu camino hacia el parque.

By Kelly Hurtado Quispe

2.

La risa nos levanta. Nos lleva a dormir, nos lleva a plantar flores, el camino es difícil, el camino soleado al lado de nuestro nos lleva a saltar a otros niveles, a dormir con más tranquilidad, a existir con más alegría. El calor nos levanta, el calor nos anima a reír, saltar, a caminar. Somos felices mientras reímos, estamos tranquilos mientras caminamos, estamos calmados mientras dormimos y estamos creando mientras plantamos.

Laughter lifts us up. It leads us to sleep, it leads us to plant flowers, the path is difficult, the sunny path next to us leads us to jump to other levels, to sleep more peacefully, to exist with more joy. The heat lifts us up, the heat encourages us to laugh, jump, walk. We are happy while we laugh, we are calm while we walk, we are calm while we sleep and we are creating while we plant

3.

I come from the wind that blows the flowers
I come from the sun that lights the path
I come from the path that my ancestors walked and jumped
I come from a log dream while you were sleeping
I come from a place where planting is like breathing and laughing is like living

By Rosa Maria Dextre

4.

Where I come from is too far to walk in a day and too near to fly on an eagle's back in a month.

Where I come from is the inside of the wind's laughter, I promise this is true, and beyond the sleeping mountain's craggy ridge, the craggiest.

Where I come from is the jump of my desire and he path of furthest ambition and where it leads I am et to discover, more's the pity, more's the joy.

Where I come from is the walk, the act of walking itself. I come from the doing, see, not the place or the idea. I come from a living path and some days the dogs laugh. Some days I get lost. Some days I meander.

Where I come from the trees were planted thousands of years before I arrived. They are less now. So, I come from the trees and flowers to find those who can replace them, somewhere to start again.

For where I come from is a big laugh, a big crying, a quiet place.

By Diane Samuels

5.

I come from where the west wind blows over the hills, through the colourful flowers and along the path. I come from where the dog meets the sun, jumping over the stars, laughing in its sleep. I come from the place where the moon is planted in the soil and the trees grow down as they walk slowly away. I come from the dreams of the rain, falling onto the bare ground, hitting the path winding its way back to my origin. I come from the fire deep in the earths core, bringing life to those above and fuel to those who do not want to feel it. I come from a time when the sand met the sea whilst sleeping in a frozen moment.



PAST PRESENT FUTURE

We played with these words using HAIKU form:

3-line piece

1st line - 5 syllables

2nd line - 7 syllables

3rd line - 5 syllables

Retreat Security

Basin Quality

Flow

Glacier Amount

Polluted surface Use/s Sub-surface Communities

Water Increase Map Making Red Making Sediment Bedrock

Local Less Resources Mining

Tea Mystery Balloon Contamination Sewage Forensic Giraffe Cat, Find Tourism Food Giraffe Cat Tourism Food Asparagus Waste Waste Change/s Downstream Fabric Pollution Asparagus Forensic Giraffe Cat

HAIKUS

Giraffe at tea break Blueberry fields forever Asparagus flows

Forensic drawing

Mystery communities

Future decisions

Need more resources More resource security More impacts of change

Best fabric jumper
Communities weaving now
Future unknown still

By Caroline Clason

Fingerprints of flow Contamination Cluedo Future mystery

Mystery of change Bedrock melting more more more Waste impacts future

Decisions change need
Blueberries mining sewage
Communities flow

Present sediment
Past security impacts
Water plus future

By Diane Samuels

Fingerprints of flow Contamination Cluedo Future mystery

Mapping of bedrock, Impact for communities, Security needs

Water, pollution, flow
Community resource needs
Future decisions

Time, past and present

Decision, impacts, change, need

Future security

Past and present change Less future pollution flow Glacial retreat



GLACIER DOES NOT SLEEP

(group notes)

The glacier does not sleep, moves ever so slowly. Land as ice as water. Rivers of ice. Land borne icebergs.

The glacier knows what love is, what protection isn't on a grand scale.

A glacier isn't a rubber duck or fin of a shark, although it may also point to the sky.

A glacier has no friends or are we its friends.

Graveyard in the foothills. A beautiful view from the graveyard. In the graveyard do they sleep, do tombstones slumber or stand awake in dogged testament to each life once lived. Remains, what remains?

Who will lay a tombstone for the glacier?

Where is the source?

The sky meets the land.

Are you sleeping? Are you going to wake up?

We all need to sleep sleep, to deepen the sleepin' is a long way down. Sinking into sleep. Drowning?

In the glacier life, hope sleeps.

A container. A phenomenon. A gift.

The miners buried in the graveyard are fast asleep forever.



What does a glacier ask?

Start with each of the 'question words' and write without pausing to think, allowing whatever flows forth, as if you are a melting glacier.

How...?
Why...? When...?
What...?
Can...? If...?
Where...? Do...?

Who are these species that tear off pieces of ice from me?

Why do they pray to me before they climb up my body?

What's next after the ice melts?

Who understands me better than I understand myself?

When I die will I come alive again?

Can you see me from the other side of the world?

When I was born what were my first thoughts?

When I love who loves me in return?

Where are all my children?

How long is a long time ago?

Where is the beauty inside of me?

What do fishes know that I don't?

Can we still be friends?

If I could be an animal what animal would I be?

What does it matter to be small or large?

Why does it take me so long to evolve but you so much less time?

Why does the temperature hurt me so much more than it hurts you?

Why do so many animals need me yet do not come to talk to me?

Why am I always seen as such an old, slow bulldozer when I am made up of tiny, delicate snowflakes?

Why does it hurt every time I lose a piece of ice?

Why are there no more fish living at my feet anymore?

Why am I solid when actually I am all different states of water?

How do you feel when you look at your river?

Do you notice its colour, its clarity, or do you notice its hidden secrets – what happens upstream with the animals crossing the water or the neighbours washing their clothes?

Do you smell the sweet taste or do you taste the acid smell?

Do you see the red of rust of the blue of something else?

Do you look downstream and wonder how you might feel down there looking at the same river?

That water there that snakes its way down through the hillsides and gullies, do you see it as your friend or foe?

That water there that you walk to every day, how many days can you actually use it?

That water there that you see ebb and flow, rise and fall, swell and dry, how much does its colour change?

That water there that you use for washing, does it taste like lemons these days – acidic and not sweet?

That water there that carries itself and anything in it down to those below, how often do you see it clear of rubbish?

That water there that is your river, tell me how you feel about its quality.

Do you do any special rituals before climbing a mountain or a glacier?

By Rosa Maria Dextre, Sally Rangecroft, Diane Samuels



GLACIER GIFTS is supported by the SIGMA (Eros-IsoGlas) project, funded by the Natural Environmental Research Council (NERC) via the Newton Fund (NE/S013245/1). This book is available free of charge, but if you would like to support water security around the world and help bring clean water to those who need it most, please consider donating to WaterAid www.wateraid.org/uk/donate Layout and typesetting Smallfish Designs: info@smallfish.tv