

propeller we are the rivers we swim through

So, let's begin...

A hill, a valley. Sitting down and looking.

Every evening the dimming light of the sun brushed silently over the landscape, like a large tide, putting all things back in their place.

There were always birds flying through the air, crisscrossing paths, in and out of each other.

There were so many of them, darting in every possible direction, flying over and under all things. Every time I went to spy on them, I would imagine that the world was held together by the courses they flew through the air.

The impressionist painter Paul Cezanne, who pursued the fleeting changes of light, once wrote: "Things are changing. You have to hurry if you want to see anything. Everything is disappearing"

we are the rivers we swim through

The extinction of a species is a particular kind of disappearance, of loss. We cannot, except in very rare cases, know the actual place and time in which it happens. It cannot be marked, and it is as if it happens somewhere off the coordinates of the real: a kind of non-event, un-earthly, a tragedy without a body or place, that leaves no traces, and therefore that cannot be physically apprehended, remembered, or commemorated.

In the case of an animal, its extinction turns it into a kind of mythological creature, on a par with dragons and unicorns. It is as if it had never existed, except in our minds.

The animal's specific qualities, its skill, the shape and purpose of its anatomy, which evolved over centuries and in a direct relationship to its environment (and vice versa) - all that is suddenly lost. A few images may survive: a photograph, a drawing or a painting. The grainy pixels, a few dashes of yellow and green, the last attempts at holding on to the animal that will remain forever out of reach. There it lies in the book, sitting undisturbed in its environment, unaware of the depths it contains.

Or as Sebald writes:

"It takes just one awful second, I often think, and an entire epoch passes."

1. every cell in her body turns towards him

I knew one breath would let a whole other world in

This followed by that. This leading to that. Something is happening. It has happened. It will happen. There is a story, a flow of consciousness and possibility. Time unfolds into the seams of being. It passes through you, making and shaping.

In the time it takes for somebody to say, 'I cannot change I have always been like this, it is just the way I am' about 50, 000 000 cells have died and been replaced inside the body.

This captures my imagination because it reminds me that anything is possible. There is such a natural urge inside the body towards regeneration and 'constantly reaching out into novelty' that cannot be resisted. Though we may try to resist it and stay stuck in the same familiar and safe patterns it is good to be reminded that there are also many other 'possible worlds'. An infinite number of possibilities.

In his book Hidden Connections, Fritjof Capra speaks of 'self-replication' and 'the continuous generation of new cells.' It is a process called 'autopoiesis' which seems to be a constant and invisible event happening inside of us. A process which takes place silently and involuntarily without our conscious knowledge or awareness.

The weather broke. It rained very much

To be alive and in love, what a great thing, he says.
She looks at him, flinchingly alive, and smiles
His brown bandit eyes glinting,
The creases around his face as he smiles
Every cell in her body turns towards him

Fritjof Capra explains; 'Since its beginning life on earth has been associated with water. Bacteria move in water and the metabolism inside their membranes takes place in a watery environment. In such fluid surroundings a cell could never persist as a distinct entity without a physical barrier against free diffusion. The existence of membranes is therefore an essential condition for the existence of life.'

Membranes are the foundation of cellular identity. A cell is characterized first of all by a boundary which discriminates between the system – the self as it were and its environment.'

The rain was so total they had to listen to it.

Sometimes she doesn't think of what she wants to say to him until he walks out of whatever room they are in. Then she thinks of it. Then she either calls after him or doesn't and he responds or doesn't.

If I stand between a light and a surface I create a shadow

Hey sugar, If you see any shadows of leaves or notice anything about the way light falls will you please make a note of it for me. I am particularly interested in the shadows of leaves or trees. And the way light falls through windows, on water or grass. I want to try to find out why I like them so much. Emma

Hola chica, there is a very good tree shadow that I know and I wanted to do something with it and now you can have it and it's on the corner of where a little street runs down to Stokes croft, if you ask Swen he might know where it is because I think I pointed it out to him once. It is a whole tree shadow thrown onto a whole back wall of a house by the light of a street lamp, and is one of the best I have ever seen. Mary.

So a list of shadows begins that change and fade and flicker slowly. Mostly they seem to exist on walls, the sides of houses, I would like to collect them. For me they represent moments of reverie. Moments for noticing what is there. Moments of being lost in the world and simply looking at it.

The Yupik Eskimos refer to us Westerners 'with apprehension as "the people who change nature."' "

My Dad tells me a story that 10 years ago Michelin had developed tyres that would last a lifetime, but after 3 months of production they realised they were shooting themselves in the foot, that if they continued they would put themselves out of business. Despite it being a solution to the huge problem of discarded tyres, business took precedence.

Throughout the history of Britain there are many times when we've imposed our influence on other countries, from when we first set foot upon the shores of Australia, to fighting in Iraq. In the case of Australia, Britain claimed the country; re-mapping and re-naming the geography. The aboriginal people having mapped the landscape with their own songs and stories for thousands of years previously.

Now in Britain we map our journeys through contemporary landmarks, shopping centres, traffic systems, train stations and airports. Our connection to nature is no longer a part of our everyday existence, it is a leisure activity saved for the weekends. Nature has become a concept we escape to, rather than something we live in, but of course we are always *in* nature.

What is our fascination with wanting to claim something for ourselves? Is it that we have come to measure worth by what we own? Of course there is always more to possess. Since ancient civilisation we have tried to conquer and claim. Even the moon, we claim as our own. We are "the people who change nature" and yet what drives us to change nature to suit our needs. Why do we not listen to spaces and change ourselves to fit the space?

Try as we might to conquer nature, as big as we may feel we have become, any dominance we have as a species is fleeting. Nature will continue regardless. James Lovelock's Gaia theory suggests that nature will be able to deal with all the chemicals we throw at it, but the world we certainly be a very different place. A place which might not have a space for humans.

I say this and yet it doesn't really seem to shock us, as much as it might. Perhaps it is because we have an inbuilt sense of our own mortality and know that we ourselves won't be around when humans become extinct and so, because it won't affect us, we don't worry. We construct our own realities of importance, we believe what we want to believe so as to suit our way of life. The facts are ahead of our appreciation. "...We are oppressed by our inability to imagine..." Knowing that the world will be different is very different from experiencing it with our bodies and beings. It is a failing of our imagination. All we can do is to try and understand...

Scientists monitoring the disappearance of species suggest that we may be at the beginning of the sixth major extinction event in the history of the planet, some argue it has already started. The last being 65 million years ago. Which species will become extinct? In the grand history of time, it seems almost inevitable that as a species we will eventually become extinct, the question is whether climate change is speeding this process, bringing the beginning of the end much closer than it would otherwise be?

I can only really speak about what I know and when I was growing up I remember having weeks of snowball fights at school, making snowmen, sledging down hills. Now we are lucky if we have two days of snow and it falls deeply enough to gather a snowball. The seasons, we can all tell, are definitely skewed. The plants too are confused about the seasons, blackberries that usually aren't seen until September, this year came out in July. Our Tim, who is also a gardener, noticed tadpoles in his front pond should have back legs and be frogs by June and yet even now they still didn't have their back legs. He's noticed all manner of things of appearing earlier or in the wrong season alltogether.

Reducing greenhouse gases, involves complex interactions between climatic, environmental, economic, political, institutional, social and technological processes. It is an overwhelming problem, that can paralyse us into apathy.

We can get tangled up in the questions of whether we can each make a difference. I would like to quote EF Schumacher who articulately has woven together the economic and ecological thinking in his book 'small is beautiful':

"Can we rely on it that a "turning around" will be accomplished by enough people quickly enough to save the modern world? This question is often asked, but no matter what the answer, it will mislead. The answer "Yes" would lead to complacency, the answer "No" to despair. It is desirable to leave these perplexities behind us and get down to work."

2. come, come to Siberia

The meshing of corporate influence and national policy has reached its apex inside the Bush White House. The US government is drawing up plans. In October 2003 the Pentagon received a report entitled "An Abrupt Climate Change Scenario and Its Implications for United States National Security." The authors stress that the possibility of their predictions coming true are very slim, that most scientists would say their scenario is extreme, but nevertheless it is plausible, and the Pentagon should prepare for the possibility. They advise, I'm quoting now, from the report, that "climate change should be elevated beyond a scientific debate to a U.S. national security concern."

The report paints a picture of a changed world twenty years from now, where a fundamental imbalance in the Earth's climate systems produces a dramatic drop in temperature in the Northern hemisphere, by 5 degrees Fahrenheit, while at the same time the Southern hemisphere rises by 4 degrees Fahrenheit. We slip into a landscape of chaos where Europe's climate becomes Siberian, where decade-long droughts and intensive winter storms create a global crisis that is frustrated by the inability to see an end point, a point where the climate will settle. Food and water shortages lead to mass migrations.

The report includes a chart that outlines potential military conflicts resulting from the crisis, including, in 2025, I quote, "[the] EU nears collapse, deteriorates dramatically leading to civil war and border wars." And "Internal struggle in Saudi Arabia brings Chinese and U.S. naval forces to Gulf, in direct confrontation." And the report continues, I quote; "The United States and Australia are likely to build defensive fortresses around their countries because they have the resources and reserves to achieve self-sufficiency. With diverse growing climates, wealth, technology, and abundant resources, the United States could likely survive shortened growing cycles and harsh weather conditions without catastrophic losses." And listen to the language used in this next extract, which I quote word for word. "Borders will be strengthened around the country to hold back unwanted starving immigrants from the Caribbean islands, (an especially severe problem), Mexico, and South America."

So, what do the authors of the report recommend the US government do about this? They make seven recommendations. The first six recommend monitoring other countries and safeguarding the United States. The final recommendation deals with altering the climate. This is what they recommend, "Today, it is easier to warm than to cool the climate, so it might be possible to add various gases, such as hydro fluorocarbons, to the atmosphere to offset the affects of cooling. Such actions, of course, would be studied carefully, as they have the potential to exacerbate conflicts among nations." So their solution is to pump gasses into the atmosphere that will not only increase the temperature of the United States but will possibly contribute to the rising of the global atmosphere. This approach, of stabilizing through

manipulating the climate increases the unnatural concoction of gasses, the number of extreme weather emergencies and rising and falling temperatures. No wonder they highlight the potential for this plan to exacerbate conflicts among nations.

With those conclusions, I started to doubt the whole report, I started to think it was a hoax – but it isn't. Their answer really is to raise the drawbridge, fight back the starving immigrants and release gases into the air to try to raise the temperature. Not one recommendation is designed to address the situation before their scenario develops. The report, delivered to the Pentagon, creates pathways for people to begin planning out future wars, where the threat to life isn't competing ideologies, but a lack of food and water. If we consent to governments preparing for future climate-driven conflicts, we succumb on a primal basis to the impossibility of saving ourselves.

This is a striking example of how governments, industry, journalists and the public aren't doing the simplest thing; they're not making the connections. For the general public we must be aware that a wave of distraction rolls into our lives every morning, into our homes and market places, creating a version of the world which rests on our unthinking addiction to buy and sell. The immense distractions flicker like a flame catching our eye, while in the peripheries uncharted species fall into extinction. There are now very few human acts, very few physical places on the planet and internal spaces of the mind that are not awash in the flood of commerce. It is difficult for the public to find information, to truly know what is happening. Governments and corporations actively suppress public knowledge.

Corporatewatch, an organisation that monitors corporate behaviour, reports that "Oil developments need money as well as the security and backing of western governments and international financial institutions such as the World Bank and [the] International Monetary Fund. Since 1992 the World Bank has provided \$11bn of finance for fossil fuel projects around the world, including \$4bn for oil projects – 82% of which were designed for export to western countries."

A report that recommended a phase-out of fossil fuel funding by 2008 came from *The Extractive Industries Review*, an independent review launched by the World Bank in July 2001. Their brief was to set recommendations to guide the World Bank's future involvement in the fossil fuel industries. In December 2003 they submitted their final report. It's most eye-catching recommendation was, I quote; "The World Bank should phase out investments in oil production by 2008 and devote its scarce resources to investments in renewable energy resource development, emissions-reducing projects, clean energy technology, energy efficiency and conservation, and other efforts that de-link energy use from greenhouse gas emissions. During this phasing out period, World Bank investments in oil should be exceptional, limited only to poor countries with few alternatives."

So, after two and a half years studying the affects of the World Bank's investments in the oil industry, they report back by, essentially saying stop it. Stop funding the oil industry. Its no great surprise to learn that The World Bank Group dismissed the recommendation out of hand, saying that if they don't support the oil production someone else will. In Britain, The Department for International Development also argued against this recommendation.

This leads us to today, to the world pulse beating beyond the door, to a country in which the Education secretary says the point of learning is to create workers, and everybody sees his comments as perfectly reasonable and perfectly true. What is it within us, as living, breathing individuals, to not question and provoke ourselves when the most fundamental basics of life are unravelling?

On the atolls that make up the tiny South Pacific country of Tuvalu, the only hotel has recently been extended to accommodate more tourists, whose money, the people of Tuvalu are hoping,

will help finance the flood defences that are planned as a last ditch effort to fend off the waters that threaten to engulf the country, which, at its highest point, is five metres above sea level. The pressure to extend the hotel led to the gruesome task of exhuming the cemetery of their relatives and placing the remains in a new site. Before the extension less than one thousand tourists a year took the two and a quarter hour flight from Fuji to Funafuti, the largest of the atolls and the site of the airport, hotel, government and administrative buildings. Of these buildings the most significant is the Tuvalu Meteorological Service, which monitors the disappearance of its beachfronts and the collapse of its fresh water sources.

Though they are doing everything possible to save their country, the people of Tuvalu know that within a generation the country will have become uninhabitable. The Diaspora has begun. The government has secured an agreement with New Zealand for 75 people a year to be re-housed in New Zealand territory. This change doesn't simply affect the physical make up of Tuvalu's environment. The psychological and emotional anchoring of a race has been wretched up from under them, scattering them far from home in every possible way. Tuvalu is not alone. Throughout the region, countries consisting of atolls and islands are living through the affects of climate change. This is not an abstract concern for them, this has nothing to do with the future, this is happening now.

The paradox of our place on this earth is there for us to see clearly, every time we look up at the stars or look out to sea, and are overwhelmed by feelings of being small and insignificant. We must remember our awful significance. Humans are the first species in the history of life that have the capacity to destroy most others.

How do we even begin to understand this? To deeply realize the implications of this moment. It's not a question of saving the world; it's a question of seeing ourselves through this time with care and responsibility.

How is it possible to live a life that adds to life?

In our current situation simply living leads to a contribution towards climate change. The reach of commerce needs to be met by a reach of imagination, which connects the many-layered dilemmas we face in our everyday lives with a deep realization that without a secure, sustainable way of being, we are endangering not only the life around us, but everything that makes us, ourselves.

4.5 billion years ago the earth was born. Now we're just going to do a little demonstration to help us understand this vastness of time. From the tip of Emma's left finger to her silver bangle represents the pre Cambrian period. In the space from the bangle to the tip of her right finger tip exists all complex life. On this scale, if I was to take a nail file and run it across Emma's middle finger nail, the time of human history would be erased. We thought about going back in time to the Pre -Cambrian age. 'With no trace of human life, time itself flows differently' .

In 'Excerpts from the Chernobyl Diary' Svetlana Aleksievich writes about the task of rolling away carpets of green lawn, removing the upper layers of contaminated earth and loading it into dumpsters.

'Picture a green lawn with grass, flowers, rootswith beetles... butterflies ...spiders... earthworms... Greens, reds, oranges.... there were thousands of them. Millions. I had never

thought, never understood that there could be so many living beings in the soil. I did not know their names. No name at all.'

The thing would still exist no matter what name it was called. Does a name make something easier to see? If you knew the names of the birds in the trees would you begin to notice them more? If you knew the names of wildflowers in the hedgerow would you value them more?

If it were possible to travel back in time to the Precambrian and exist for a moment in the immense solitude of that vast landscape, all fixed points of reference instantaneously disappear. Not even the ground beneath and the sky above remain. In this space there exists no sequential order of things, no concepts of time or space, no future or past, animals or objects.

Here in this place we may be able to see through time and get a sense of what really is. And if we were able to bring this sense back here into this room today would it then be possible to cross from one nameless state to another to travel back to before the sun rose this morning in, or to make a decision all together for everybody in the room to turn into a giant tiger. Probably not.

3. the word for moonlight is moonlight

At the age of 7, having heard about evolution, I asked my teacher if the monkeys in the zoo would turn into humans.

Around the age of 13 I believed pigeons to have evolved from rats. And I still don't understand how some insects have managed to evolved so as to perfectly resemble twigs or leaves. To this day there remain embarrassing gaps in my knowledge of the world, of how it changes and works, of what it is: this is not my shame, but a lack of understanding that runs through our culture as a whole. Consigned to the domain of experts or acquired by a few willing individuals, basic knowledge of the world does not seem to be a necessity for most people.

We have the knowledge to realise the degree to which the highest object eventually comes to rest at the bottom. It is a well known fact that rock particles from mountain tops find their way into the rivers and into the sea, where they enrich the salt content of water and are then extracted by living things: they contribute to the formation of the fish's bones, the shells of molluscs, and the cups of corals. And all this will eventually find its way back to the top. Inanimate matter participates in the life of animate matter: the soil, which hosts more living beings beneath its surface than above, is essentially rock and water, which we think of as inanimate, lifeless. The patterns of continental drifts show how the earth's crust is as expansive and porous as the texture of our skin. Or, if this seems too removed from our everyday life, it is useful to realise how the landscape has been condensed into our constructions: our TVs, our books, our fridges, our footballs and raincoats did not materialise out of thin air: they too derive from the natural landscape.

It is not an easy task to climb back in time and space and remember how even the most complex construction was once tree, fern, insect, cloud. How every single thing was once something else, and something else before that, and so on.

Looking at the world is an act of remembering, of imagining what lies beyond the surface, and how we may be implicated within it.

This however, as naturalist John Stewart Collis writes, is not an easy task:

"I tried to grasp this reality, this great *fact* of Time. I did not succeed. Once, in the middle of the Atlantic, looking at the horizon, I tried to imagine the space beyond it. For a second I had a true glimpse of that space, and of the space beyond that space. And perhaps for as much as a

second now I saw the reality of a hundred million years...But this knowledge soon slipped from me and became merely intellectual... That is our general trouble. The findings of geology are too recent to be as yet incorporated into our consciousness."

We still perceive objects as if they were flat, finite, separate from their surroundings.

The philosopher Ludwig Wittgenstein notes how "The aspects of things that are most important for us are hidden because of their simplicity and familiarity (one is unable to notice something - because it is always before one's eyes)"

This hidden world, the one the poets call unfathomable, is the one close at hand, at arm's length, or a stone's throw away at the most. It is this here and now, where we walk and what we are made of. Where there is no clear separation between full or empty, activity and rest: a state of continuous frenzy that is invisible to the eye, and hence unrecognized by everyday language.

Whereas things shimmer, fade, split or implode, a name always purports a fictional stillness, an idealized scene, a calm, which is really the calm and reassurance of language itself as it supposedly defines the contour of things. A model world or map, supported by the clarity of the name, has come to replace the object of study. This is what the painter Magritte might have meant with "this is not a pipe". Names are in a sense fictions, crated for the explicit purpose of having a hold on reality; they enable us to identify things, and to orient ourselves. They are what enabled man to crawl to every edge of the world and mark it as his own. There he is, standing tall, looking across a vista and saying: One day, son, all this will be yours.

This ownership becomes so total, so believable, that, as the Italian poet Cesare Pavese writes: "We cannot tolerate that anything might happen by chance, regardless of us, indifferent, outside of the traces we leave."

We cannot stand the idea that language may slip away from the things it names and defines. And we would be considered mad if, looking across a vista, we were to say: this is not the sea, that is not the horizon, those are not the clouds. Nothing belongs to me. The footprints I leave in the sand do not belong to me, for I am not really here, nor anywhere else.

Or as Paul Auster puts it:

He knows now
That if he lives
It is only in what lives
And will continue to live
Without him

"It is the contrast between the pace at which the physical world is changing and the pace at which human society is reacting that constitutes the key environmental fact of our time."

You look at us and you see four people.

You look at us as you see 3 men 1 woman.

You look at us and you see three of us wear glasses.

You look at us and notice the colour of our hair, the colour of our eyes, and you have time to think about which of us you'd like to sleep with.

You look at us and start to think about where we grew up.

If you look at us again you have time to think imagine the life we've led which of us has had children, which of us was bullied at school, who fell in love on the other side of the world,

which of us has Irish blood, who can't handle their drink. You have time to contemplate our appearance. How we 'appear' to you.

As we grow old our faces change shape, mapping our personal histories in their wrinkles and crevasses. Our bodies age. Every 10 years our passport photo has to be renewed so that we can be identified when crossing borders. We all know the amusement and amazement finding a friend's passport photo can bring. Anonymous from the outside, no markings to distinguish yours from mine. Yet these are the official versions of our identity. I was always told not to smile in a passport photograph. Looking at a friend's passport photos, I see a version of them I did not know, a shot of the past. History made manifest in the face of friend. And if I did know them, I still know them as the same person, I wonder if they have changed as much as their outward appearance. To think that in 10 years, the notion of a trendy haircut can change so radically.

Our appearance is an aging echo. Looking back at my passport photo. Removed of a social context with its sterile white background I find it hard to recall that time in my life. The image shows me as a teenager, what I used to look like, but not how I used to be. It is a skin I have long since shed. It leads me to think back to that time and fill the anonymous white background with memories. To think about the changes that have taken place, events that have marked my appearance.

As I get older, the years seem to pass ever more quickly. As I get older my relationship to time changes. When I was five years old a year was 20% of my life. When I will be 50 a year will be just 2% of my life. A year is a year is a year and still lasts 12 months but the years pass ever more quickly.

What do we miss when we live in such a fast paced world? What do we choose to ignore for the sake of ease, speed or comfort. If we travel too fast we can miss the changes. It is similar to how we appreciate different aspects of the landscape whether we travel by foot or by car. The destination may or may not be the important thing, but we are in constant motion and need to find the best way to travel.

Thomas Moore suggests that:

"The most important thing we can do is to slow our individual lives down, but even those of us who are most dedicated to this idea, seem unable to achieve it..."

4. "Imagination rules the world" – Napoleon Bonaparte

Tyrannosaurus, Stegosaurus, Diplodocus, Triceratops, Iguanodon. As we wriggle their bones from the 'protective earth' that surrounds them we are surrounded by fragmented remains and traces of actual journeys and places where these creatures belonged when they roamed the surface of earth.

They were here for longer than us. Very much longer. Walking around. Dinosaurs walked the earth for more than 170 million years. 121 known species of dinosaur roamed the British Isles alone.

In *The Last Dinosaur Book* W.J. Mitchell states; 'We take the bare-bones and begin to flesh them out to imagine colour, texture of the skin. It is a scientific endeavour and also an imaginary one.'

'There are probably more dinosaur's images on the earth now than there were real creatures in ancient times.' 100's of thousands of images, replicas, models, representations.

The very idea of the dinosaur depends on our ability to conceive of deep time an unimaginably distant past measured in hundreds of millions of years. We imagine this in anticipation of an equally distant future when our present will have become the remote past and we will have gone the way of the dinosaurs.'

And who will be there to remember us? Do cockroaches have memories? And does the sky have a memory and do traces and trajectories count as memories? Formless lines, 'mute and anonymous moulds of thought,' which will again take on form and substance' in the processes of life - in the living organisms that remain.

'I remembered the dog that had bitten me, only I had never been bitten by a dog.'
The possibility of encountering memories which are not our own. Walking in the woods amongst ferns, I'm thinking 'I walk through the woods and I am in the woods. I walk through the woods and the woods are in me' but that it not it, that is not it at all. On the side of the path ferns cover the. The path besides is covered with fern on the ground. I see a small plastic tyrannosaurus standing beneath one of the plants, stretching. Lengthening his neck in the cool of the shade.

We walk around in a vast and improbable landscape and remember our prehistoric past; Lichens, Buttercups, Gingko Biloba, Grasses, Dragonflies, Birch tree, Arachnids, Frog, Salamander, Millipedes, Scorpions, Jelly fish, Worms, Ferns.

Ferns; amongst the oldest living plants, around before and during the time when the dinosaurs ruled the earth. Alpine Woodsia. Woodsai alpina. 'One cannot look at this landscape without thinking of the dinosaurs'. (Peggy Phelan)

What did it mean the first time a thinking creature looked deeply into another's eyes? Did it take a hundred thousand years before this happened or was it the first thing they did, transcendingly, the thing that made them higher, more modern, the gaze that demonstrates we are lonely in our souls.

In one of Wittgenstein's notebooks, he makes an entry on the margins: "Let us be human!". The phrase sits to the side of the main body of text, detached, suspended. It is unclear to scholars what the exhortation refers to and what it really means.

We are only at the very beginning of finding out about the lives around us. The way the markings on a caterpillar resemble the blemishes of the leaf it lives on. The way a butterfly can tell the difference between colours.

The writer and butterfly hunter Vladimir Nabokov, when asked to compare the two, speaks of disentangling the life histories of insects, and in finding their position in the scheme of classification, a scheme that is not fixed, and is potentially thrown into disorder upon the discovery of a new species, or, as Nabokov would say it, "can be sometimes pleurably explode in a dazzling display of fireworks when a new discovery upsets the old scheme." From these comments we see Nabokov the scientist as being someone "who isn't going out to prove anything, but is going out to learn something." The artist Bill Viola sees how "All great scientific discoveries are accompanied by this kind of humility, that is experienced when

whatever thoughts, ideas and preconceptions one has had in ones mind are completely blown away by seemingly incongruous and inexplicable behaviors of the natural world."

Here is Nabokov speaking in an interview in 1961:

"Reality is a very subjective affair. I can only define it as a kind of gradual accumulation of information; and as specialization. If we take a lily, for instance, or any other kind of natural object, a lily is more real to a naturalist than it is to an ordinary person. But it is still more real to a botanist. And yet another stage of reality is reached with that botanist who is a specialist in lilies. You can get nearer and nearer, so to speak, to reality; but you never get near enough because reality is an infinite succession of steps, levels of perception, false bottoms, and hence unquenchable, unattainable. You can know more and more about one thing but you can never know everything about one thing: it's hopeless. So that we live surrounded by more or less ghostly objects."

~~Oh, mr oak tree recycling my air, allowing me to breath again. You who sink underground and reach up to the sky. From just one tiny seed, to shelter, shade and strength. Little by little by little. You and your gnarly bark, you who have battled for light and shade and won. You who claim your space, reaching upwards and out wards. You who have provided so many rich metaphors, for mapping families and histories. Go on show me how you photosynthesise baby, how you soak up the water through the process of osmosis. Introduce me to your slow growing processes. Your endless quest to touch the clouds with your branches. Your green branches, like a baby's bones. And the Roman Empire meant nothing to you, that history, I know, means nothing to you...So much time turned to wood in the rings of your trunk. The seasons mapped out on your insides. And now what do we have in store for you? What will your destiny be. From Lumberjack, to truck driver, to yard merchant, to carpenter. Even though you'll be chopped down, you'll live on. The space you leave behind becoming farmland, before desert. And for you? Maybe you'll become a table, mapping your family's dining habits, maybe a fence post to keep livestock, a bench to cradle strangers, or hundreds of wooden spoons stirring hundreds of different dishes.~~

"It has been estimated that roughly 3/4 of a hectare of forestland is now needed to supply each person on the planet with shelter and fuel." Quoting this statistic makes it sound as if the trees soul purpose is to provide humans with shelter and fuel. Of course they are an entire ecosystem themselves, supporting a huge amount of animal and plant life.

When we chop down just one tree of a rainforest we are destroying a living system that has lived there for, hundreds of years. But one and a half acres of rainforest are lost every second. One and a half acres of history erased every second, with every tic, toc ...

We humans can't begin to comprehend time the way a tree does. We don't have the patience. We don't have the time. Our lives are simply too short. We can't begin to comprehend the adventures that tree has seen. The storms that have berated those leaves, the number of monkeys that have swung from those branches, the birds that have nestled high amongst the leaves. The roots that have known those dry dry summers. And that trunk which has remained still while the dust swirled and the wind blew. Through the night, and everyday for a hundred years or more.

The trees are disappearing and the forests are moving. "half a mile a year...is as fast as forests move." As the temperature changes, climatic zones are moving, and so the forests have to move to keep up. Every time they re-germinate their seeds are scattered and thrive in the direction of their climate zone, but now it is thought that the changes might be happening too quickly for the trees to keep up. And of course the trees are home to a whole menagerie of

animals, who will also have to adapt. Animals and environments have always adapted to changes, but these changes take time. Evolutionary time. Little by little by little. The time it take from monkey to man. Their adaptive capacity may not live up to the speed we have set.

5. I don't want calm I want horses

at night I hear the ocean and it terrifies me

In David Williams' recent lecture 'Welcome to paradise' he spoke of oscillating between a state of grace and a state of panic - this feels for me like familiar territory. We are encountering an age where the internalised fear of the loss of all things affects our daily lives in ways immeasurable.

W.J.Mitchell asks questions about the nature of catastrophe; to what extent is a catastrophe a function not of what is happening out there but of the sensitivity of our instruments of detection?

As we look at the world around us we choose what the eye shapes out and sees. Voluntarily and involuntarily we are drawn to give our attention to things. What are the portends of disaster; around us? Incoming data which might warn us of the collapse of the planet's natural infrastructure seems to be difficult for us to perceive. Even if we do perceive it we are somewhat at a loss as to how to respond, our fearfulness lingers under the surface of our lives. We seem to be intellectually stunted in our response.

'A living system maintains the freedom to decide what to notice and what will disturb it. (FC)

Plants are even sentient to orientation and to the future. Indian licorice, or arbus precatorius, is so keenly sensitive to all forms of electrical and magnetic influences it is used as a weather plant. Botanists who first experimented with it in London's Kew Gardens found it a means for predicting cyclones, hurricanes, tornadoes, earthquakes and volcanic eruptions.

Are we human beings able to notice the secret intimations around the edges of our lives. To respond to the world pulse which beats beyond our doors. To read the great secret writing upon wings, clouds, snow, water, stars and in the strange conjectures of chance. And if we are able to notice these things what effect does that engender?

Fritjof Capra suggests "Looking more closely at the world in order to learn from it, to transform not only the way we view nature but also the way we live our lives."

Once upon a time in moominland

A muskrat comes to stay in the little blue house of the moomins. Moominmamma tells Moomintroll and Sniff that he is a philosopher, a wise man who knows about everything 'I only hope' she says 'that there isn't going to be another flood'.

'Who knows,' responds the Muskrat. "There has certainly been something strange in the air lately. I have had vague forebodings and thought more than usual. One thing is certain, that something is going to happen.'

Nobody took any notice of this. Instead they went out onto the ledge and looked at the sea. It

was like a huge grey silk eiderdown with white flowers on it. The flowers were seagulls resting on the water with their heads pointing out to sea.

Suddenly the silk monkey began to laugh 'Look! She said, " Those funny seagulls think they're embroidery. They've just formed themselves into a big star!

'With a tail!' exclaimed Moomintroll.

Sniff began to tremble violently. Then he took to his heels and shot like an arrow all the way back to Moominhouse.

Do you know that things have begun to happen? said Moomintroll

'There are people in the forest making secret signs everywhere- threats or warnings or something. When the silk monkey and I came home a little while ago someone had arranged mamma's jam pears in a pattern that looked like a star with a tail.'

The muskrat brooded silently his forehead creased with wrinkles, 'Do you know what a star with a tail means? he asked at last.

'It's a comet, a glowing star that flashes through the empty black space beyond the sky trailing a fiery tail behind it'.

Moomintroll looked up at the grey sky and thought how everydayish it looked.

'Is there someone who knows a little more about the habits of comets? He said. 'Someone who knows if this one will hit the earth or not?'

There was a long silence.

Then Snufkin said slowly; 'it would be awful if the earth exploded. It is so beautiful.'

~~As I remember it, the late Tommy Cooper described a dream he once had in which he jumps off a cliff into the sea. He lands on the sea floor, and starts walking about. He sees someone else coming towards him, a jogger, wearing sporting clothes. Tommy Cooper greets the man:~~

~~"Hello, what are you doing down here?"~~

~~"I'm jogging. And yourself?"~~

~~"I'm drowning".~~

~~"Only a drowned man can speak of the river" (Edmond Jabes)~~

~~"Now all is silent. The ocean lies pale and sparkling, it can't utter a word. The evening sky offers its eternal show of reds, yellows and greens, it can't utter a word. The small rocks descending into the sea as though to touch the place where we are most alone, can't utter a word. This immense impossibility of communication is beautiful and terrifying." (Nietzsche)~~

This can't go on. No. I need these other things, around me, to make sense of my own life.

I need fields that our cameras are just not interested in, and mountains that no one bothers climbing. I need fish whose colours alone I have never seen, and will never see. I need bears, I need dancing bears and circus bears, white, brown and black, and I need depth, deep blue lakes and deep blue oceans, the eternal darkness underneath that all our stories crave for, I need the myths that swim in the waters and in our minds: fish with legs and a sense of revenge, well mannered Loch Ness monsters ruling the earth and telling us what to do. I don't want calm, I want horses that chew on my neck and tear my head off and gallop back into the darkness out of which all things were made.

Without these little animals, I am lost.

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