

2100

Seeds for Futures



Seeds for Futures

Seeds for Futures

CEMUS

CEMUS 2023

Special Thanks

To Lillian and Derek for creating the assignment which led to this project. To Daniel for the help and guidance in publishing the book. To Vincent for helping us to put the book together. And finally, we would like to thank everyone who contributed their scenarios to the book, and to those of you who trusted us with the editing process. The editing and proofreading process has been a wonderful journey and we are thankful to one another for our dedication and collaboration. We hope you enjoy the book.

Adam, Imogen and Maurine

Seeds for Futures

Uppsala, 2023

Preface by Adam Beswick and Derek Garfield

Anthologies by Adam Beswick, Anja Winkler, Anna Berg-Grimstad, Bryce Chawiya, Cora Cunningham, Dennis Schmuck, Emma Bergeling, Felix Rüsseler, Franziska Johanna Galler, Imogen Cadwaladr-Rimmer, Jasmin Ella Masic, Joakim Kvist, Johanna Askros, Johanna Jeckel, Josefina Marklund, Julia Korten, Livia Rauf, Madison Sherwood-Walter, Manuel Eckert, Margarita Oja Da Silva, Mathieu Varlet, Maurine Luquet, Nahom Kubrom, Rebeca Montes, Sören Gellers, Tina Jahn, Tove Bryntesson, Valery Ndagijimana, Vendla Karlsson, Vincent Edte and Yegana Abbaszade.

Proofreading by Adam Beswick, Imogen Cadwaladr-Rimmer and Maurine Luquet

Editing by Imogen Cadwaladr-Rimmer and Maurine Luquet

Supervisors of references: Imogen Cadwaladr-Rimmer and Maurine Luquet

Book cover: Imogen Cadwaladr-Rimmer and Maurine Luquet using Midjourney and Dall.e

Layout and formatting: Imogen Cadwaladr-Rimmer, Maurine Luquet and Vincent Edte

Lead Outreach Coordinator CEMUS: Daniel Mossberg

Printing: Danagård Litho

Published by CEMUS

Table of Content

Preface	1
<i>Adam Beswick and Derek Garfield</i>	
A Letter From 2100	9
<i>Tina Jahn</i>	
A World Split But Rejoiced	13
<i>Manuel Eckert</i>	
Cassandra	19
<i>Dennis Schmuck</i>	
Deus Ex Machina	25
<i>Joakim Kvist</i>	
Elbmá and Ikká	31
<i>Vincent Edte</i>	
Fighting for Climate Justice	37
<i>Johanna Jekel</i>	
Going Back to Move Forward	41
<i>Margarita Oja Da Silva</i>	
Healing	47
<i>Anna Berg Grimstad</i>	
Hubbub	53
<i>Maurine Luquet</i>	

Memories of Midnight Sky <i>Cora Cunningham</i>	57
Migrations of Mercury <i>Madison Sherwood-Walter</i>	63
Nature's Soldier <i>Rebeca Montes</i>	69
Peacewomen <i>Jasmin Ella Masic</i>	73
(Re)cycling <i>Sören Gellers</i>	79
Reciprocal Acts <i>Imogen Cadwaladr-Rimmer</i>	85
Rights of Nature - Nature Speaks and We Will Listen <i>Tove Brynteson</i>	89
Slow Movement Towards Degrowth <i>Nahom Kubrom</i>	95
Smaller Can Be Beautiful <i>Johanna Askros</i>	99
Somewhere in the Metaverse... <i>Franziska Johanna Galler</i>	103
Strive and Thrive Together <i>Valery Ndagijimana</i>	107
The Beautiful Era of Degrowth <i>Vendla Karlsson</i>	113
The Death of Mrs Kowalczyk <i>Adam Beswick</i>	117
The Limits of Demo(techno)cracy <i>Josefina Marklund</i>	125

Table of Content

The Revolt <i>Julia Korten</i>	131
The Waste(n) Economy <i>Bryce Chawiya</i>	137
Time Travelling to a World of Degrowth <i>Felix Rüsseler</i>	141
Under a Different Sky <i>Emma Bergeling</i>	147
Walking Thoughts <i>Anja Winkler</i>	153
Words of an Ordinary Man <i>Mathieu Varlet</i>	159
You've Got Mail... <i>Yegana Abbaszade and Livia Rauf</i>	165
References	175

Preface - What Could the World Look Like in the Year 2100?

Adam Beswick and Derek Garfield

That is the question at the center of this work, yet we do not seek to provide a definitive answer to it. Instead, we hope to take you on a journey of what the world might look like when considered from a perspective of radical openness and uncertainty. But it isn't just the future that interests us; we want to explore how humans and nature might interact during decades of unprecedented and complex changes in response to the Anthropocene, a new geological age where humans are a dominant force shaping the planet and its inhabitants.

Environmental crises such as climate change, biodiversity loss, deforestation, and others, have very real human causes and effects; effects most often felt disproportionately by those least responsible for them. They often also precipitate each other in reinforcing feedback loops where the effects become the causes leading to ever-increasing negative outcomes. As an example, many of us who have studied or worked with sustainable development fear that we are currently caught in several such vicious

cycles as a result of the ambition to achieve unending economic growth. Even our current strategies to deal with the current negative trends are themselves postulated on the necessity to accommodate and pave the way for further economic growth. For how long is an economy meant to grow? Even classic political economics like John Maynard Keynes imagined economic growth as a means to an end where growth was no longer needed. In contemporary political and development discourse, growth has been warped from a means to an end in and of itself- a taken for granted and unproblematised good. Much of the action suggested by powerful actors and institutions tends to be prosaic while discursively embracing systemic transformation, leading to green washing and wider public cynicism towards mobilisation for sustainability transformations.

We would like to draw attention to quote by Karl H. Dreborg:

“When problems are complex, long-term and incremental change is difficult given that the dominant trends are part of the problem, the question really changes from where we seem to be heading, to a question of where we want to go, and how to get there?”¹

How might we avoid the overwhelmingly negative futures that are projected by current, dominant, global trends and achieve just and sustainable transformations for ourselves and future generations? We start by asking what other futures might be possible if we break those trends.

Over the past several decades, scholars and futurists have developed methods of productively engaging with the future for

¹Dreborg, K. H. (1996) Essence of backcasting

strategic purposes. Thinking about and planning for the future are a natural and daily part of our human experience, yet it isn't very often that we tend to employ specific methods to do so as part of our collective problem-solving processes. This isn't the place to rehash the history or conceptual foundations of futures studies, but suffice it to say that such methodologies have become a critical part of sustainability research and practice, to stimulate key competencies that can enable us to act in the face of uncertainty by applying creative and critical thinking to systemic issues. Imagining alternative and preferred futures is an important part of confronting the overwhelming scale of the current crises of unsustainability; allowing ourselves to critically and reflexively consider our situations and relations within the past, present, and future gives us much needed space to imagine alternatives.

One of the most challenging aspects of working with and studying sustainability is how often you are confronted with negative and dystopian images of the future. Such visions, based on projections of our current unsustainable ways of living, particularly in modern, industrialised economies, often instill a sense of powerlessness and even dread. Addressing multiple systemic issues² that are often framed as global crises doesn't really lend itself to empowering problem-solving. However, it does reinforce the need to imagine new futures and the transformative types of change necessary to achieving sustainability in practice.

The futures in this volume are imaginative. They are not simple projections of dominant global trends or extrapolating the status quo into a distant future. They are intended to explore uncertainty, opportunity, difference, diversity, disruption, and

²Wiek, A., Withycombe, L., and Redman, C. (2011) Key competencies in sustainability: a reference framework for academic program development

more, which are made possible by considering the future as open and complex rather than closed and linear; emphasising change and transformation rather than stability and path dependency. Working under such an assumption allows us to explore how change and transformation can occur in our own societies. Societies are complex and embedded systems that surprise us and force us to adapt as often as they allow us to predict and follow comfortable routines when going about our daily lives. The complicated nature of planning and acting in complex circumstances, without any certainty of outcome, is what makes futures thinking, anticipation, and imagination such critical skills for those interested in finding pathways toward sustainability.

Typically, futures studies methods are used to produce scenarios of probable or possible futures, often in a narrative format. Narratives, or simply stories, are a time-honoured way of communicating complex information in digestible and relatable ways. Narrative analysis is something that we are taught from a young age as we are instructed to find meaning and values in folktales and legends, or to identify structures and patterns within mathematical word problems. Telling stories grounded in shared, lived experiences, whether real or imagined, allows us to internalise and relate to the critical information necessary to reason about causality and predictability, as well as morality and justice. Narratives allow us to engage our own imaginations in filling out the space between the words. We draw our own conclusions about the messages the authors intend to tell and paint them with the palette of our own experience and knowledge.

This investment of ourselves into stories allows us to more consciously relate to the issues found within them and consider their possible impacts, often with ourselves standing in the place of the protagonists (and sometimes antagonists). This empa-

thetic thinking is a critical part of communicating about the ethics of sustainability and the implications of proposed solutions to persistent problems facing society. Narrative scenario development of the kind used in this book is geared towards promoting this type of relational and empathic thinking within the reader. The intention is for the ideas and concepts, as well as lessons and values, portrayed by these stories to take up residence in the mind of the reader and engage them in the effort of rationalising and exploring the ethics and consequences of action (or inaction) for sustainable development.

These particular stories were generated as the culmination of a curriculum for an advanced-level course, *Worldviews and Visions*, at the Centre for Environment and Development Studies (CEMUS), a joint education centre supported by Uppsala University and the Swedish University of Agricultural Sciences. This course is part of the Master's Programme in Sustainable Development, a joint program at the two aforementioned universities, and the authors are students in this programme's 2021-2022 cohort. This is the second volume of short stories from students who have taken this course³.

Throughout the course, the authors of these stories were introduced to different normative and ideological frameworks through which people around the world approach the concept of sustainable living; their worldviews. They were simultaneously introduced to theories about change and transformation in complex systems as well as several approaches to futures studies as a method of critical and imaginative thinking. The authors have attempted to integrate all these ideas into short stories about transformative change and produce radically different futures than what is portrayed in most academic and popular literature -

³The first was published in 2021 as "Dear 2100: A Cli-Fi Anthology."

their visions.

In important ways, these stories reflect a growing genre of climate fiction writing, or Cli-fi, that has developed as part of the environmentalist movement beginning in the 1960s and 1970s. Rachel Carson's influential book *Silent Spring*, in which Carson tells the story of a not-so-distant-future where the then commonly used pesticide DDT has resulted in catastrophic effects on the environment, can be considered a progenitor of the genre. Cli-fi tends to merge more traditional science fiction with climate and sustainability issues as a critique of unsustainable practices. It should be noted that the method used by these students to create a framework for these stories was heavily inspired by a methodology called science fiction prototyping, first developed by Brian David Johnson⁴, and in particular the application of this methodology by Dr. Andrew Merrie and colleagues at the Stockholm Resilience Centre⁵.

Within these stories, you will find diverse arrangements of actors and locales as well as worldviews and prominent scientific concepts. They are equally varied in their literary format and presentation. The ideas of degrowth economics and rights for both humans and nature feature prominently in these narratives. The settings for these futures span the globe - Indonesia, the United States, Brazil, and Sweden, among others. Each portrays complex relationships and experiences that are negotiated by our future heroes and their communities. None are entirely without fear or hope, sadness or joy. They reflect our own complicated experiences negotiating life, offering snapshots into how people

⁴Johnson, B.D. (2009) *Science Fiction Prototypes Or: How I Learned to Stop Worrying about the Future and Love Science Fiction*

⁵A. Merrie, P. Keys, M. Metian, and H. Österblom (2018) *Radical ocean futures-scenario development using science fiction prototyping*

might live in our future world. Eighty years is a lifetime for most and society has experienced immense changes in equally short amounts of time. Consider the difference between the 1870s and the 1950s and from then till now. Or consider how quickly the world changed during the year 2020 and the COVID-19 pandemic. Asked about our future in the year 2018, few of us would have imagined, let alone entertained, a lock-down life during a global pandemic. Thus, these stories may not be as unlikely as they might first appear. Indeed, it is more likely than not that our futures will be radically different than what we are comfortable acknowledging. The value of the scenarios of this book lie not in their predictability, but in their ability to capture our imagination and let us engage in a set of plausible and complex futures.

As you read these stories, we invite you to reflect upon the social and ecological challenges facing our world today and ask yourself how your future might look, and how you might act, if you found yourself standing next to the people in these stories.

A Letter From 2100

Tina Jahn

My dear grandchildren,

I am writing to you from a time where the world has changed so much. I am old now, but things are starting to happen again which are worrying me. So, now, in the year 2101, I write down for you how our world has changed and what is possible when many people fight together for better and do not give up on the good - because I want you to do the same. After all, a good and healthy world with an intact relationship with our nature is hard work; just as every interpersonal relationship is work, don't forget that! This may sound almost spiritual, but it is true.

Back in the 2020s the world was different, but I got to experience it. I was on the streets as a child, fighting for a better future so that you could experience it. Believe me, I considered whether it was even worth having children of my own, but that would have felt like giving up. Our society was at a crossroads that would determine our future. We were exploiting nature, burning coal to produce energy for everything our society thought was needed. We were living well, at least in the Global North, like here in Europe. But our prosperity did not come without a price. We lived at the expense of other people; people who should not have had to live in poverty or in war. We have exploited nature, literally

destroying it. And in the process, we even caused a climate crisis that nearly brought our Earth to collapse.

The road to our current world was not easy. But last year we reached the year 2100, and I'm glad that at some point, we were able to rip the bandaid. Governments finally decided to give in to the pressure of the people and take action. If what happened was the best way, I don't know. But I want to tell you where we are now. Not all countries immediately agreed on major changes back in the 2020s. But measures were agreed at one COP, and as European countries succeeded with stricter targets towards our climate and environment, other countries began to follow globally.

Thanks to the implementation of the New Gross National Happiness Index as a new measuring instrument for real large-scale well-being, the economic system could be transformed so that everybody's basic needs are now fulfilled and our society since then has lived according to the principle of sufficiency. Thanks to this index, free education and healthcare could be offered to everybody which also led to women's empowerment and a focus on living with nature. Citizen involvement, environmental protection and the co-existence with nature were aspects that could be gained due to the new GNH and an according reallocation of finances.

At the same time, trophic rewilding was used to turn around species extinction and to increase the functioning of ecosystems. Ecosystems became more resilient and a focus on natural processes meant that overall, forests thrived again. Better functioning ecosystems and the restoration of degraded soils increased carbon storage, therefore slowing the warming of the climate. It has been so rewarding seeing the nature we fought for as children

finally flourishing.

Also, the fourth agricultural revolution started: Agriculture 4.0. To avoid the heavy impacts of the farming system of that time, new alternative forms of food supply were sought. Our society had the strong belief that technology development would save us, and it certainly still plays a significant role today. With the help of different technologies, concepts like vertical farming in closed systems, aquaponics and circular agriculture replaced classical farming systems, so that we have arrived where we are today. I remember when your father was a boy vertical farms began to be installed on our apartment building - ours was the first building in the city! Insect and algae farms began popping up, and allowed for nutrition-rich diets with minimal environmental impacts. The sustainable development goal of zero hunger was reached worldwide.

Through smart- and microgrids, we achieved a secure energy supply worldwide – decentralised and independent of large energy production corporations. Finally power plants belong to the people and the energy supply works exclusively with renewables. Solar panels, micro wind turbines and batteries in houses are all connected to other homes to buy and sell energy. The smart grids prevent energy waste, and microgrids enable remote areas to benefit from their own electricity and the money created from the production.

Capitalistic power structures became less dominant and finally society became more equitable. The world today is a lot greener, a lot more peaceful, and also a lot more digital. But it is still far from perfect. As you know, last year the association of radical capitalists, consisting of heirs of the former multimillionaire families, have started to buy up important points of food

production through well-organised networks. This group has reached a critical size and they have started to pressure governments to regain the power and influence of their predecessors. In last year's election, a leading member of the group was elected European Chancellor. This is really worrying for me as I have lived through years of these kinds of people being in power.

We need to wake up! I can see that people are getting uneasy at the current political landscape. Our world is still not whole! We must not allow worldwide inequality to increase again, or more conflicts to occur. We must not allow the endangerment of our world and environment again. We must actively fight to prevent this from happening, just as we fought for our climate and the environment back in the day! If we allow this group to push through with their plans and the movement spreads globally, only a small part of humanity will win, acting in the interest of money at the expense of everyone else. Having different worldviews is natural, and we should not assume that our current reality is the only one that is right. But history has shown that capitalist systems only function on the exploitation of others.

My dear grandchildren: we must not rest on yesterday's successes. Rather, we must continuously ensure that we keep living in a way that makes it possible for our next generations to have a future that does not change for the worse, but for the better. Change is important, but not at any price. So, speak up and take responsibility for preserving the good and creating even better values.

Let's not give up!
In love,
Your Grandmother.

A World Split But Rejoiced

Manuel Eckert

This is a story of breaking a curse. The curse of growthism. The curse was not however lifted by some benevolent (white male) hero saving the day, but rather by a chain of unforeseen events. This is not a diary entry but still the story of someone old, trying to write down their last thoughts. History needs to be preserved and that's why I want to write down what happened, for people born after 2101.

I was a worker and an office member for the German New Rural Reconstruction Movement (NRRM) and after I didn't need to campaign anymore, a simple swimming coach. Nothing made me happier than moving through water. While you maybe see this as a downgrade, those last years were the happiest I've ever been, for which I will describe to you this "flow" of events. Forgive me, a swimmer reference. But let's start from the beginning. As you might have guessed, lacklustre COPs and agreements did not save our world, but rather gave bad solutions more time to screw things up. As a result, we damaged nature in some areas beyond recovery. I am still sad that I will never get to see the Amazon rainforest in all its glory. Things were looking bleak. Green efficiency and electric cars didn't do the trick. Sorry Elon. And by then, people had had enough. After floods and other catastrophes spread through even wealthier countries, people

began to realise deeper change was needed. And boy, did things change.

Let's start with the most significant event, somewhat in the past; the passing of President Xi. When I was young, China was antagonised wildly, so writing this still seems foreign to me. President Xi made sure that his power would not be questioned, eliminating all potential successors. But even the supreme leader couldn't escape time. After Xi's passing, a power vacuum persisted for some while. The communist party tried to solve it by presenting some of its chairmen, but all fell short. With the vacuum and the disappointments of capitalism and climate change, the Chinese NRRM movement gained traction. Don't worry if they sound foreign to you, I first thought they were a company when I heard their name. But these degrowthers were the furthest thing from a company. With their ever existing focus on local and rural disadvantages they took the country by storm. This changed everything. China was already on its way to becoming a hegemonic power and countries started to deter from the US and further orient towards China. The new silk road, along with its hopes and dreams for prosperity, was a major factor in this. But as in China, people were unhappy with the systemic problems growthism was causing, climate change being one of the major worries. So, when China declared itself a degrowther, some immediately joined the movement, while others refused to give up their capitalist ways and returned to the US, which was waiting with a welcoming embrace. This also rebalanced the structure of our world. We now see something me and my friends dubbed the split world. One part that is closer aligned to the degrowth hegemon China and the countries in alliance with the hyper capitalistic US, fighting to keep its influence.

But let's focus on what you really want to know. How is my

life now? Like most European countries besides Great Britain, Switzerland and Poland, Germany joined the degrowth wave. Funnily enough, and maybe as a homage to China's communist roots, Germany rebranded itself as the Deutsche Degrowth Republik. Although that name does not mean much to us, as we live in smaller cooperatives under one nation. The original plan of the NRRM was to introduce a Chinese model and establish Chinese values, but this was given up fairly quickly. While we still live in nation states, these borders don't matter to us anymore. Our local collectives are much more important, even if we still love to travel and visit our neighbours. The collectives are an open space with so many different views and people that I couldn't name them all. There were government officials as well as everyday people starting some campaigns, and all were needed. Life became simpler and focused on sustenance rather than economic gain. Most importantly our outlook on life changed. Instead of focusing on GDP, we focused on what made our lives actually better. The myth of trickle-down economics was stopped and we could actually tackle inequalities effectively.

The first thing that happened is that our work time got reduced, especially in the jobs that were exploitative and unsustainable. It liberated us and gave us time for leisure and also just to enjoy life. At the same time, it also gave everyone a shot at work as more jobs became available with the reduced working time. Money also became a thing of the past, at least traditional currencies. We have local currencies that promote local consumption and are time-based. I work one hour and get one hour of work returned, which is good since I dread lawn-mowing. With this monetary sovereignty putting growth behind us was much easier and we began to focus on what really mattered. But as in mind over matter, the way we thought about things and decided

also changed. We engaged much more in dialogue and allowed previously marginalised opinions to resurface which also benefited us. The emotional and spiritual connection to nature, and sustainability practices from indigenous communities resparked our joy in nature and for me especially in earth's waters. Nature and its inhabitants get treated with respect, especially amongst humans themselves. The abolishing of growth led to never-before-seen equality in all joined communities. The exploitation of both workers and other nations was something that dawned upon us. Seeing these previously struggling groups prosper made us feel remorse over our old ways, but even more happy about the future to come.

On the other side of the world, or rather the one aligned with the US, things also changed for the better. Competitive capitalism produced innovations but also remained resource and energy intensive, showing for me personally, that the market alone isn't enough to tackle the issues we faced. Now with this bipolar world you might wonder if there has ever been attempts to take over parts by each side. This really hasn't happened for the reason that people were just satisfied with what they had. As soon as powers tried to establish the old growth-based system people went straight back to our more relaxed ways. You couldn't just make one return to the capitalist ways. While some of the billionaires and capitalists fled when degrowth was decided on, some remained. Some saw that it was better, others became frustrated and left for the US. Most of the workers were sceptical about it. We simply couldn't believe that this was possible. But as our work time was slowly reduced, we quite enjoyed it as you maybe can imagine. Our world is still not fully recovered from our exploitative ways, and it never fully will. But we are turning things around. I truly am happy that I got to live through this.

While I was scared of this journey it still was a nice ride. But this is after all the story of breaking a curse. And oh boy was it broken.

Cassandra

Dennis Schmuck

Note to the reader: *The protagonist's name "Cassandra" was chosen because of its meaning in Greek mythology, referring to one whose prophecies are always true, but never believed. When examining the persistent state of the growth-constrained economic system, considering the scientific evidence of planetary boundaries being exceeded, this seems to have a very fitting symbolic value.*

"As soon as I step outside everything turns dark. It is as if someone turned the light switch, only it is in the middle of the day. Then comes the heat. The fierce wind makes it almost unbearable. I start running, without knowing where. Just away. And that's it."

"That's when you wake up?"

"Yes"

"Well, I must tell you, Cassandra, I don't think you should worry too much about these dreams."

Doctor Áikio takes a few steps towards the window and glances out over the lush garden on the other side of the glass.

"It is a perfectly normal way of dealing with a traumatic experience" he continues.

"I understand. But it's been five years since the fire. Will the dreams ever stop?"

"Everyone takes their own time. The important thing is that

you don't feel that it restricts the way you live your life. How is your communal work going – where are you appointed right now?"

"I'm doing some service work for the communal energy grid, one of the photovoltaic storage units down by the river needs repairing."

"And is it going well?"

"Sure." Cassandra nods unconvincingly. In reality, she can't wait to finish the job and be assigned a different task. Every day she's out working in that area, the pale fields of charred trees remind her of that day when the fire came.

"I'm glad to hear that." Doctor Áikio smiles under his beard.

"And your mother?" he continues. "We talked earlier about how you're processing her passing."

"I think I'm doing better with that."

Her mother had always been a hero for Cassandra. She had come to Sweden alone as a child, just before the revolution. It was a time of uncertainty and imbalance, but also a time of opportunities. At least that is the way she had always described it. Cassandra had always loved hearing her mother's stories about those times. It was called the great deceleration - it started with people protesting what they saw as global injustices. They had had enough of the structural exploitation of people and nature for the profit of just a few. Soon, civil unrest started to put pressure on leaders for change. The final straw was the financial crash, which didn't seem to affect the very people who created it. During the years that followed, times were trying. People had to make do with what they had and help each other. Communities grew strong together by caring about the welfare of people rather than the money in their pockets. Things slowly got better and soon enough; Cassandra was born.

On her way home, Cassandra's mind starts to wander. It is a mild June evening, and the sun is still hovering well above the horizon. She is feeling nostalgic and starts thinking back to her youth. She thinks about how lucky she is to be a part of such a strong community with so many wonderful people. She walks past the town square with the bronze statue of a braided young girl standing proudly in the center. Cassandra's mother used to take her here as a child. She stops and examines the statue for a while. Birds are joyfully chirping in the background. Suddenly, she is interrupted in her thoughts.

"Good evening!"

She turns around, doing her best to hide the fact that she was startled.

"Oh, hello Carson! How are you?"

"Can't complain. You know with weather like this we can soon start producing our own wine like the communities down south do!" Carson smirks and continues: "Are you going to the announcement tomorrow?"

"Of course, will I see you there?"

"You bet!"

Cassandra has looked forward to the announcement with ambivalence. Five years have passed since the fire. It impacted the whole community and not a day has gone past without it being mentioned in the bulletin or during conversations. The inquiry has gone on for what seems like a lifetime. This is the chance to finally leave it in the past and allow people to move on. But there is one concern that she cannot look past. Will justice actually be served? She wonders. What if the people responsible will go unpunished? These thoughts have gnawed on Cassandra's mind for some time, and they continue to do so throughout the rest of her walk home and up until she goes to bed.

Cassandra sleeps surprisingly well that night. She is woken by a single beam of sunlight sipping through her closed curtains. "Here goes nothing" she thinks as she gets up and ready to go to the community court hall. There is a nervous atmosphere among people this morning. You can tell what is on everyone's mind. The fields, normally full of people sowing and reaping, are totally abandoned. As she enters the tribunal, she understands why. It seems as though the entire community has managed to squeeze into the hall, and the usually quite spacious area is now cramped with anxious townsmen and women. Cassandra occupies one of the few vacant seats in the rear row. A door opens and in comes the judge; a tall man with narrow glasses. He sits down behind his desk and stares into the room with a determined expression on his rugged face.

"We are here today to finalize the proceedings in which the enterprise of Herdalia-Timber stands prosecuted of ecocide, having allegedly caused a fire in the Old Hazel woodland, during the summer of 2096." The crowd is totally soundless as the judge glances down in his thick pile of papers.

"After careful consideration, the jury has reached a decision."

Cassandra takes a deep breath as the judge progresses.

"Through a structural pattern of negligence and disrespect for the value of nature, the defendant has triggered the loss of an entire biome, while simultaneously putting the lives of numerous people and the livelihood of the community at stake." The room is soundless.

"The defendant is hereby found guilty on account of ecocide and public endangerment, and is sentenced to trading injunction and liquidation. The responsible individuals will receive their personal sentences separately. I hereby declare this issue finished." A wave of relief sweeps through the hall.

During the night, festivities unfold throughout the community. This was a win for everyone in the community and you can tell what it means to people. Even though the laws aimed at protecting nature as a being with rights have existed for some time, they seldom seem to be put into practice. A green banner with the words Mother Earth – the slogan for an old conservationist activist group - decorates the town square for everyone to see. Cassandra smirks as she rests her eyes upon the cheerful mass. From now on, she will have no more bad dreams.

Deus Ex Machina

Joakim Kvist

Excerpt from the journal of Matthew Carmichael, September 16, 2100

Spent the entire afternoon in the garden today. I find myself doing that more and more often these days, but that's ok. Why wouldn't I? There is nothing for me at the house that I can't get in the garden, barring a hot meal and Julias' mind-numbing nagging, that is. I do enjoy the food, but when faced with the option of yet again confronting her about why I spend so much time in here and so little out there I would sooner opt for a meeting with the fallen angel himself. Why can't she just leave me alone? No matter. I'll come back again tomorrow and take a stroll, maybe sit down by the big oak tree and read for an hour or two. The leaves really do look beautiful in "autumn". Who could have guessed?

Excerpt from the journal of Julia Carmichael, September 17, 2100

Another day of having to do all of the chores around the house by myself. With mother working so hard to help all of the people who lost their homes during the last wave, you would think that Matt would help me out, but no. He spends all of his time in that stupid garden, completely oblivious to what's happening all around the world. I get wanting to escape reality from time to time, but he's taking it to the extreme as of late. Nowadays,

the world seems to be recovering from the famine that plagued the world a few decades ago. Ever since China developed that synthetic protein a while back it really has gotten better, and I hear that we will be getting access to it here in the US as well now that the scientists have deemed it safe. That, combined with the advent of vertical farming will surely turn things around. It's so sad to think about how that last wave destroyed the vertical farm down by the coast. . . I hear they are going to rebuild it however, and in the meantime the plan is to set up a food-supply station in town in order to keep people fed. It will only be VERIT-capsules, but within the next year I'm positive that we will have enough food to sustain ourselves between the synthetic protein and the vertical farms.

Excerpt from the journal of Matthew Carmichael, September 28, 2100

I saw a deer in the fields outside of the garden today. That was new. I've heard they're supposed to be really rare, so I count myself lucky. Of course, it was bound to happen sooner or later given the amount of time I've spent there during the last month or so, but still. Back home, nothing much has changed. Apparently we got one of those new food-supply stations here in Maine sometime in the past few months. About time if you ask me; keeping every mouth fed is becoming harder and harder, what with the crops failing and all. I've heard that these stations only give out VERIT-capsules, those pills that are packed with like a 1,000 calories each. Hopefully they come in beef-flavor. God, it's been so long since I've had a steak that I'm almost looking forward to it, even if Julia will claim that it's just another scam meant to trick us into believing that technology can still save this lump of dirt floating through the cosmos. I may have paraphrased that last part; she would never speak so bluntly about God's "green" Earth.

Excerpt from the journal of Matthew Carmichael, September 30, 2100

I moved into my very own apartment today! Sure, it's a rat infested relic from an era long past, but it's at a safe distance from the shores and that's enough for me. After the last few months I have a feeling that the housing market for apartments with a view of the ocean may not be so hot anymore, especially not in the Jonesport area. That last wave was rough. I made my way down to the food-supply station before coming home, same as everybody else apparently. The line was worse than usual, and still no beef-flavored capsules. Maybe some day. I think I'll celebrate my independence within the walls of this dump with a trip to the garden. I'd rather be there than here right now.

Excerpt from the journal of Julia Carmichael, December 14, 2100

Mother and I volunteered down at the food-supply station today. Well, the whole church did, not just the two of us. I wish that Matt had continued coming to the services with us, but I don't think he's been there in at least ten years at this point. He seems to think we're some group of fanatics that oppose technological advancements, but that's not the case at all. I remember telling him when we were younger that people in the past misused the simple technology available to them, and that's why the Earth is in its current state. He seems to think that statement makes me totally opposed to technology today as well, as if the Vatican itself didn't promote environmentalism through the use of modern technology. If he would use his stupid headband for something else than visiting his "garden" he could even attend the Papal Audience and hear the pope speak of it himself. He tells me I should mind my own business, but I'm just afraid he will end up like those people in New York who withered away in their

homes, stuck in some alternate reality. It's really not as bad here in the real world as he seems to think.

Except from the journal of Julia Carmichael, December 31, 2100

Happy new year! I'm so excited for the coming months: the vertical farms are about to be finished here in Jonesport, and the new Calm Oceans initiative will start construction on massive mangrove plantations along the entirety of the east coast that have been bio-engineered to fit the climate. These mangroves will act as wave breakers and hopefully help the coastal areas recover.

Best of all, the democrats have finally taken the leap and are now the Democratic- Environmentalist Party! Apparently Sofia Laguerta, one of their candidates for the upcoming election, was a key factor in making this possible. She argued that even religious movements all over the world have adopted environmentalism as a key component of their ideologies, and that it is a disgrace that politics is still stuck in its old ways. I admire her; she's not afraid to speak her mind, and I truly do believe that she could unite religion, environmentalism and politics in a way that could help this country back on its feet. I miss Matt. It's been so long since I've seen him. I hope he's alright...

Excerpt from the journal of Matthew Carmichael, January 1, 2101

New year, new problems. Well, for everyone else that is. Me, I've been spending almost every waking minute in the confines of my garden. I only really leave to go down to the food-supply station about once a week, but I've missed some trips as of late. No matter. I'm doing fine on smaller rations, and besides there are people who need it more than I do.

There was another wave last week, a bad one (lucky for me Castle Rat is still a safe distance away from the shoreline, although that seems to be a relative term these days). A lot of people lost their homes, and with the shortage of food I would be surprised if most of those poor souls even make it through the Cold.

I remember Julia telling me when we were younger that the seasons used to change way more often than they do today, like twice as often. I've seen autumn in my garden, and I'm so excited for this "spring" thing. Apparently it's beautiful. I've grown so used to only experiencing the Cold and the Heat that the concept of seasons in between seem very strange, but also very intriguing. I overheard a few people talking while I waited in line for my rations last time I went. They cursed the older generations for not taking better care of the planet, leaving us to suffer the consequences. They talked about tipping points that had been reached, signs that had been ignored and agreements that had failed to be met. That huge savanna down in Brazil or wherever, the Amazon? Apparently that used to be a forest. I can't even imagine a place that big with only trees in it, but they said that losing the Amazon rainforest (whatever a rainforest is) had been real bad.

The real world is too depressing. Not enough food, species dying faster than anyone can keep track of, the waves ravaging the coast up and down the entirety of North America, not just here in Maine.

I'm going back to my garden. I think I might stay a while...

Elbmá and Ikká

Vincent Edte

*As long as we have water, where fish swim
As long as we have lands, where reindeer graze and wander
As long as we have grounds, where wild animals hide
Then we have consolation on this earth
When our homes have been destroyed and our lands devas-
tated
– where will we live?*

- Paulus Utsi⁶

The wind blew in her face, pushing snow and ice into her skin leaving little red marks. The cold left the land shivering under a white blanket. The ground, the trees and the rivers. All were bowing down to the forces of winter. Never had Elbma felt the power of nature as intense as in this moment. Standing in the middle of hundreds of reindeers, forming circles and structures she had never seen before. Standing in the circular fences, along with her family, her community, surrounded by their reindeers. The headlights flooding the enclosure blinded her when she looked up to the sky. It's been weeks since she saw the sunlight for the last time. At this time of the year, the sun was gone and it would

⁶translated by Maragarte Rainey

patiently take its time to come back and greet the people of Sápmi again. But Elbmá had everything she ever wished for. For her it was the perfect harmony. It was her home.

Elbmá woke up in the early morning with the light of her past slowly fading. 80 years had passed since this moment. It was the first thing she remembered each morning, her anchor to the past. Every night she dreamed of standing there, moving back in time to enjoy this moment once more. She hoped to never wake up again. She closed her eyes one more time, trying to cling onto the taste of her history, but it was gone. She stood up and went to the kitchen to make coffee and prepare herself for her everyday walk through the town of Meerke.

Ikká woke up, blinded by the Sunops of the buildings next to her. It was winter, where the sun was gone for weeks on end. However, to make sure the citizens of Kollag could live a normal undisturbed life, the government had built the Sunops, a huge sun-like street light system for the whole town. The government had announced that Kollag should not be held back by darkness anymore. The innovative development of Kollag was praised by all of the citizens and governments around the world. All of the energy came from renewable energy plants outside the town; urban recycling and a zero-waste system were established, making Kollag the most livable city in the world. A century before 2101, nobody ever thought that this would become the economic and civil centre of Sweden, the centre of Scandinavia.

Kollag began as a little town of workers at the newly constructed mine in Kollag. In the next decades, more and more people came. A new town was founded and thanks to the new and more friendly climate in North Sweden, it quickly became the biggest trending city of the world. As more mines were constructed, more cities were founded and the population increased.

The region saw an economic boom. After only four decades, the town reached the bar of a million citizens, attracting more and more companies and people. Now in 2101, the town was still growing rapidly, expanding every day.

Ikká worked for Hultshus. "Pioneer of Green Kollag" was the company's slogan. Ikká loved her work. Every day she got up, went to work, where she spent the whole day with her friends, her colleagues and their projects. For Ikká it was the harmony of a good working environment, balancing infrastructure and sustainability, for her it was everything she ever wished for: it was her home.

Usually Ikká would get up, make herself a coffee and go to work. But today, Ikká took a day off. She wanted to visit her grandmother in Meerke, surprising her not only with a visit, but some special news. So when Ikká left the house, she didn't take the tram to work, but walked to the train station in the city centre instead and took the train North. She passed different districts of Kollag, some of them she even had worked on, each of them unique, innovative, and optimised so people could live a comfortable and sustainable life. The further away she moved from the city centre, the more dark spots she saw, as the Sunops weren't as densely distributed outside the city. After nearly one hour, the light was gone and darkness had imposed itself. No more Sunops here and after five more minutes the train had reached Meerke Central Station.

When Elbmá came home from her walk, she was surprised and excited to see who was sitting in front of her house. After Elbmá's son and Ikká's father, Guivi, passed away, her granddaughter only showed up once a year. It hurt Elbmá as she felt the connection to her breaking away; she felt Ikká losing connection to their family's culture. She was always scared that this

would happen. She could still remember when Guivi told her that he wanted to move to the city and start his family there. For Elbmá it was just another regrettable step towards the loss of her culture. She hated that Guivi moved away, that he didn't want to spend his life in the land of his origin. But at the same time she hated herself, because she understood him. The land of Sápmi wasn't the same anymore when Guivi grew up. First they were forced to move from their home, Elbmá's home, to the newly built village of Meerke, where the government brought together all of the remaining Sámi people that had lived across the land. They said they wanted to reunite the Sámi, as if they were a split folk that needed to be reunited. Everyone knew the government just needed Elbmá and the other Sámi to move away so that they could extend the city. The move hurt Elbmá, but at the same time, it was just another low point in a series of violations against the Sámi. Her homeland was already so different from the picture she has from her childhood memories. The mines, the forestry, Kollag already influenced her home. With the changing climate, the reindeer herding was more difficult than ever and year after year the winters were more complicated. The ground was frozen all winter long, and it took more and more energy and external food to save the reindeer from starving. One winter it was just not possible anymore. The last remaining reindeers were killed and their skins turned into hide. Elbmá still wore her Beaska every day; and every day she had to hold back her tears.

After giving her a warm hug, Ikká followed her grandmother inside. She was happy to see that the house was still looking like she remembered it. Pictures of her grandma's childhood and of her father together with Ikká as a little child. Ikká enjoyed it whenever she came here and saw her grandma, learned about the family's history and felt the Sámi culture. Today was a special

day and it was already time. "Grandma, there is something I want you to see," Ikká said to her grandmother and pulled out her laptop to open a live stream of a governmental announcement. "Today we are happy to announce the newest addition to our green Kollag community", said a woman from the government on the screen. She continued, "Together with the pioneering company Hultshus, we have developed the most sustainable and green district of Kollag, of Sweden, of Scandinavia and of the whole world. The new district will not only give space for thousands of citizens, but will also give space for the people of Meerke to live their traditional Sámi lifestyle, while being included in our community."

"I... I don't quite understand," Elbmá stuttered, "Why should we move there?"

"You don't move there, grandma. The new district will be built here, in Meerke," Ikká answered.

Elbmá's heart skipped a beat. This is it, she thought. The end of her culture. The last stone on the grave of Sápmi.

"But how, how can they do that?!" Elbmá asked, her voice cracking, "This is our land, they already have it, why do they want the rest?"

"It was necessary grandma," Ikká answered, "the population is increasing, we need more space for all the people and this land is perfect to fit this need. And because of my company, the district will be super sustainable and will bring harmony between nature and people."

Elbmá didn't respond.

"They will even build a little area where reindeer will be resettled."

"Why...why would they do that?"

"For the culture of course. To honour the Sámi"

"This is... this ..." Elbmá didn't know what to say. Reindeer

were the only thing people associated with the Sámi and the thought that her own granddaughter was thinking the same, made her feel more sad than ever before. Elbmá wanted to talk, but she could not. She stayed silent, desperately trying to process what was just said.

The silence in the room was broken by the announcement on the television. Virtual maps of the new district were presented, and the mayor was shown standing in front of the parliament holding a speech, reasoning their decision. Elbmá didn't hear everything that was said, but she caught the woman saying "We, the state, will own the land. That is obvious."

Elbmá smirked at the state's audacity, hurt by the fact that no one would challenge this logic. "Why are you smiling?" Ikká asked, assuming Elbmá had started to like the idea of her new home.

*Those who have a state own the land
That is obvious
We who have all of Sápmi don't own the land
That is understandable*

- Inga Ravna Eira⁷

Elbmá closed her eyes. She wanted to hear the hooves of the reindeer again, to see her family, her son, meet her friends, to feel the cold in her face, burning into her skin. But as hard as she tried, there was nothing to hear, nothing to see or to feel, there was only darkness.

⁷translated by Karri Wattne

Fighting for Climate Justice

Johanna Jekel

Today is a great day! Together with the help of an NGO and a group of climate activists, me and some other people from our community, won a lawsuit against several large corporations for using palm oil from illegal plantations in the Rawa Singkil Wildlife Reserve. This place in the Aceh province in northwestern Indonesia has been home to several indigenous communities. But we were evicted from there because the forest was cut down for illegal palm oil plantations. Winning this lawsuit is a great success but I wish this would have happened earlier. I mean, it's still great that we get some justice, but it doesn't change much for us now. I have to think about all the members of our community who lost their entire livelihood, who could not rebuild it elsewhere or had to emigrate. And even those who were able to stay in the country are now often facing other struggles.

I was lucky, my family and I were able to build a new life. We have a nice house, a secure livelihood and a great community. However, we have lost some of our cultural heritage and identity. The compensation payments can be used to rebuild destroyed ecosystems. But it will take decades for them to recover. Our heritage has been destroyed and won't be built back. We won't be able to move back there and continue our life as if nothing has happened. For many of us it is simply too late. Even the

money we get as compensation doesn't help much. What we have lost has little material value and cannot be easily restored. What makes me happy is that the damage they did to us, the injustice we experienced, is being acknowledged. It gives me hope for future generations. Hope that my children and their children and everyone that comes after them will never have to experience anything like this and that they can grow up and live in a more environmentally-friendly and just world than I did.

This isn't the first successful case of climate change litigation - climate activists around the world have sued their governments and major corporations for contributing to climate change in different forms as well as for not doing enough to stop global warming and protect their populations from its consequences. It was recognised that several human rights were increasingly threatened and violated by ongoing global warming and the inaction of states and companies. On this basis, many climate protection measures could be enforced and finally the transformation and the zero-carbon goal could be achieved. Rapid decarbonisation followed in the industrialised countries, with the connected shift from fossil fuels to renewable energies, and therefore to a net-zero carbon society. The goals of the Paris Agreement were met and global warming didn't exceed the 1.5°C limit. The transformation to zero-carbon has not been the only one that countries in the Global North have made in recent years. By moving away from GDP growth, production and consumption in Europe are finally happening within planetary boundaries. European countries now only consume their fair share of energy and resources leading to the relief of ecosystems worldwide. This is something that makes me particularly happy, because it was the high consumption of resources by the industrialised nations, which went hand in hand with the pursuit of economic growth, that destroyed the

homeland of my family, my community, my people.

The other day I saw a documentary on TV where a woman from Germany raved about how great her life in the post-growth society is. Reduced working hours, universal basic income, value for housework and childcare – sounds perfect, doesn't it? In my opinion she romanticised the idea of degrowth a bit too much. I mean, I'm happy for her and I must admit, it really sounds like a nice way of life which I wouldn't mind enjoying as well. But what I didn't like about her presentation of it was her western worldview which she was imposing on other nations. I didn't like how she emphasised how happy she is about German development and how many problems they were able to solve and bla-bla-bla.

What about the problems Europeans have been causing for the last century in other parts of the world? They don't disappear into thin air. Just because you don't see them doesn't mean they don't exist. It has always been like this. Just because everything seems to be so perfect in Europe now doesn't mean that all the problems caused by the pursuit of ever more economic growth have suddenly been solved too. The West has been doing this for too long and they need to recognise that countries in the Global South have to recover from centuries of social and economic inequity as well as environmental problems.

In Indonesia the government decided to move our capital because it was drowning due to sea level rise, and just a week ago on the eastern Indonesian islands of Flores and Adonara heavy rains triggered landslides and flooding. Luckily they had a good warning system which helped save many people's lives but still, some people have died and many others have lost everything. Extreme weather events like this happen from time to time in different parts of the country and Indonesia is still one of the countries with the highest climate risk. Scientists had predicted it would

become even worse. They said there would be an increase in rainfall leading to more flooding and extreme heat and predicted those events to happen more frequently and intensely. Thanks to the relentless fight of climate activists around the world and the Global North finally taking action the worst predictions have not become reality and climate-related risks have not become so bad. But we must not forget that even though global warming has been limited to 1.5°C compared to preindustrial times, the climate has been warming and changing. These changes have been clearly visible and noticeable, especially for people in the Global South. Because it took so long to take these threats seriously, we've crossed some points of irreversible climate change effects. This means that our part of the world will continue to be more affected by environmental and climate events than the Global North.

Fortunately, there are some people, even powerful ones, who share my opinion. Therefore, I am optimistic that things will improve even more for us in the future and that we will find our own way to live in harmony with nature and the environment. We will probably never achieve complete environmental and climate justice. However, the good prospects for the future are that such events will not become more frequent and severe, and that we will become increasingly resilient. With all that, I look into the future with confidence, optimistic that it will get better and better and that it will hold many beautiful things in store.

Going Back to Move Forward

Margarita Oja Da Silva

Hello everyone! Thank you for tuning in with your VR from various parts of the world to this virtual ZED talk held in the metaverse. My name is Isha and I am honoured to be here with all your young brilliant minds to share how I believe it is possible to overcome the geo-political concern that we are facing now in 2101. But first, I will give an overview of how we have reached the current state. Then I will elaborate on the happenings of 2101, how it has affected us and how to move forward from here. Before we start, I just want to point out that if you have any questions, feel free to interrupt at any moment.

Okay, so let's jump back to around 2030 when rural areas or "rural urban" as they were known at the time, started to expand across Europe. People realised how distant they had become from nature and how affected they would be by the deepening food insecurity problem if they continued with business as usual. Then, rural areas had a technological breakthrough through applying regenerative design that created a well-working infrastructure. This attracted a lot of people from the cities to go live in these smaller modern communities. These rural areas were

surrounded by nature and greenery, which made them extremely popular among all age groups. Families with young children wanted their kids to grow up close to nature, as the megacities were extremely overpopulated, polluted, and noisy. Could you believe that people had to commute to work, and people were in traffic which stretched kilometres long at times. Or buses that were so filled that you could not get on! Furthermore, the market prices rose gradually, which made it almost impossible for most people to find affordable housing. People could work an entire lifetime and not afford a house! Young professionals were also driven to these communities because of the innovation labs, quickly turning the rural areas into desirable technology hubs. As working in offices was history, it gave middle-aged people the opportunity to leave the city. Pensioners loved the idea as well, as there were various social activities for them to enjoy, like Saturday knitting or organic gardening courses and simply the idea of living close to their kids and grandkids.

However, it took some time for the rural areas to become the new way of living. The severe food crises of 2060 and 2062 shook the world with their severe droughts and high temperatures - a direct cause of climate change that overloaded the agriculture sector and degraded the soils. But it wasn't until the global economic crisis hit in 2065, that the system was forced to transform. In the following years, vertical farming received immense investments and financial support since it was seen as the most efficient alternative to save the food industry. As rural areas used vertical farming for their food production, they gained more public attention and rapidly spread over Europe, offering a new kind of lifestyle.

Sorry to interrupt, I have a question...what about energy resources? Net-zero emissions were expected to be reached by 2050, why wasn't it

until 2075 when a full shift towards 100% renewable energy and net-zero emissions were reached?

A brilliant question, I was just about to take up this topic. I would say that it was because not enough policies and action was initiated to move towards 100% renewable energy. In Europe, strong governmental support initiated and encouraged people to move into the rural communities that were self-sufficient and used renewable energy sources.

After people had adapted to their new lifestyle close to nature and in smaller communities, consumption lowered rapidly which created a demand-based production system that as a result vastly reduced waste and transportation. Additionally, Europe stopped focusing on GDP and started measuring wellbeing based on the satisfaction index, which helped to make a shift towards lower consumption. Living in rural areas detached society from materialism and emphasised values that are so self-evident to us, like empathy, diversity, uniqueness, etc. My grandmother told me stories of before; how material things were so important, that social acceptance and self-worth were based on something as trivial as a rich brand logo on your t-shirt, or the better the make of your car, can you imagine - ridiculous, isn't it!? Rural areas helped to raise the satisfaction index as people were generally very content with having access to organic fresh food, living with greenery and a lot of social inclusion through community activities.

Okay so now I have covered the story of how we got to this point today, any additional questions from the audience so far?

Yes, it is connected to the last part. I would like to know how smooth the transition was to make the vegan diet widespread. Could you elaborate a bit on that?

This is a very good question, thank you for bringing it up. I think a social tipping point was crossed, a shift in people's mind-sets was made that was connected to values and ethics - torturing animals like they don't have feelings and killing pigs in cold blood and artificially fertilizing cows just to get milk products. It was humanity at its worst; no empathy nor rational thought. But the process took time for the system to adapt and not everyone was satisfied with the new social norm, especially the meat and dairy industry that as we all know would have eventually gone bankrupt if they hadn't shifted their business into something else.

Okay, so now let's look more at the current state and analyse the happenings of this year that was a turning point on a global scale. As you all know, at the beginning of 2101 an asteroid was discovered on a path to hitting central Europe, but as our technology is advanced and comprehensive it was detected in an early stage and we were able to predict exactly where and when it would land. People living in the nearby communities were evacuated days before the asteroid hit and technology developed by the space agencies helped to decrease the speed of the asteroid which minimised the impact on the flora and fauna of the surrounding area. Everything went well, the predictions of AI were exactly right, and the damage was minimal. However, a geopolitical crisis arose shortly after because of the global resource crisis of rare earth elements. China has a strong hold over the global market and want to claim ownership of the asteroid as they have the technological capacity to process the minerals. China's dominance puts Europe in a precarious position, because although here in Europe we have developed a well-working mineral recycling technology, meaning that we can recycle the metals and minerals used in renewable technology and electric vehicles, we are still importing almost all our REEs from China. So now the question

is, how do we move on from here as the crisis is still present? How to come together as humanity after facing this crisis? How do we cooperate or negotiate with China's dominance? Any thoughts or comments on that?

Yes! I think as Europe was ready for this asteroid breaking into Earth's orbit and the response capacity was immense, it enhanced communication and partnership between different communities as before everyone was kind of living in their own community's bubble. Through collective bottom-up approaches, the natural damage was minimized. I would say that overall, this event unites humanity globally as space mining will have a breakthrough in the following years, due to the occurrences, which will help solve the resource crisis.

Thank you for sharing your ideas, I would just add that I have confidence in the future of our communities, that I deeply care about and value. I believe that we can come out stronger from this crisis and rural areas will flourish even more. So, I would end on a positive note. Thank you all for listening and thinking along.

Healing

Anna Berg Grimstad

Twigs and branches were scattered on the path, making it crowded. They were discarded like litter by the great winds gushing through the nervous landscape. The winds were like sighs. Long, helpless cries of despair. Nature was mourning itself, grieving what it had lost. Along the path was a smell of dirt and gravel mixed with sea. The waves contoured the dried and cracked land, hitting like salty whips onto the shore.

They had been searching the same area for weeks without finding the plants they came looking for. Soon the assignment would be broken off. Unless a discovery was made in the following days, they would have to return to base camp and declare another area lost. Knowing this, they moved about quietly.

Before searching a new area, the group created lists suggesting potential species that could be found there, and together they marked old maps, indicating where the various plants were likely to be located. The tools served useful to the group once they moved through the landscape; navigating the nakedness that nature had become. Out on assignments, the days became blurred. Time would pass by in uneven patches, only to be hurried on by their shared sense of impatience. To keep track, some kept calendars for the days when they were out searching. Inéz

had decided long ago to follow the moon instead. Apart from being easy to spot, a full moon usually coincided with her first days of bleeding every month, which meant that she could have a few days of rest back at base camp after returning from a search. Yet now, Inéz was growing weary. She hid it with silence, walked alone during the days, kept her distance to the rest. She knew the rules all too well. Once the group decided upon an area to search, they had one month to locate any species there. Were they unsuccessful, the entire area would become grey listed and abandoned. So far, they had only come across three plants, and all of them were common ones. Inéz knew that the month was coming to its end, and if they didn't find at least one of the healing plants, this would be the third consecutive area to become grey listed. Her body was aching when she finally fell asleep. The pain followed her into her dreams, making them restless and much too vivid. She dreamt of the land she belonged to.

First the fires ate the flowers, then all of their surroundings. Trees and bushes were powerless against the jets of red that hissed at them. Even the tallest of the trees splintered. Sprinkles of showers soothed the land at first, but the weeds that grew back were far too few, and the land became covered in dust.

Inéz had been living with a small group of elders when she learned the truth about nature. Together with those who were born in the early decades of the century, she had listened to stories about plants and creatures, looking at great pictures in the books of what had been lost with time, most of them were gone before the elders were born. Even the people they had known were lost to the great extinction. When Inéz first came to them, her sister had been sick and Inéz had been powerless against the infections that spread like wildfire through her sister's body. Without anywhere else to go, Inéz stayed with the elders.

It was Nikté, one of the elders, who had taught her about the healing power of plants. How they could be used as remedies for diseases. The knowledge of how to stop infections had been passed on from generation to generation by her people. They had inherited the knowledge from nature, and in return, they tried to care for her. Nikté had called it a relationship of trust, similar to the one Inéz had with her sister. But not everyone cared for nature the same way that Nikté and her people had done. There were those who became sick with greed, who saw the gifts of nature as property rather than something to protect. Nikté explained how the greed spread through cities, expanding them, eating the land that she had loved. In search of safety, Nikté had migrated south. When Inéz had met her, Nikté was convinced she was the last of her people.

The land became sick, then the people followed. Forests were cut down, then the land burned. Seas were depleted, then they turned into acid. What was left of nature started decaying and humans with it. Diseases spread faster than new medicines could be developed, and by the time new remedies finally came, life on the planet was disappearing.

This was the story Nikté had told her. Humans had reached such a level of advancement, of dominance, and nature could no longer withstand them. Nikté had called it the revenge of nature. What Inéz had learnt was that earlier, humans had believed they could conquer nature, rule it, and take from it what they thought they needed. Nikté explained that humans and nature are inseparable, which was what people had not understood. When nature was depleted, the diseases that permeated the cities could no longer be cured. When humans wiped out nature, it turned out to be their own extinction.

At first, Inéz did not understand much of the stories Nikté

told her. Growing up she had only known the barren landscape of the South, and therefore the imagery that hid behind the stories she was told felt alien to her. But after Nikté passed away, Inéz decided to dedicate her life to recover the knowledge that was lost with her. Helping to cure her surroundings, hoping to know the true nature of the land she belonged to.

- Inéz! Inéz!

It was Xiadani who was crying her name. When she opened her eyes, it was already bright. She had slept beyond the morning dew. While stretching, she cried back at her friend.

- What is happening?

Why had they not tried to wake her up? As she stood up, she realised that her bleeds had already started. They were not far from the sea, but as Xiadani cried her name once more, Inéz understood there was no time to wash. She walked towards the group who sat crouched on the ground. Only Xiadani was standing up, waving towards her. Xiadani looked like one of the drawings from the old children's books Inéz had seen in the house of the elders, the excitement stretched across her entire face.

What is going on? What is happening?

Xiadani was half-walking, half-jumping towards her.

- Well, we know it's the last day of the search, and we know you said there was no point in looking any further. But, oh Inéz. Her eyes started watering. Inéz felt a lump in her chest, she did not want to jump to any conclusions.

- Oh, oh... Inéz! We think we have found one of the plants, Xiadani said tentatively. I mean, we could be wrong, of course. We checked it several times, that's why we didn't wake you earlier. You see, we checked the maps, the descriptions, and then the scent. We are quite sure.

They crouched down together, and just as Xiadani had said, a

small shrub looked up from the dirt below them. The green leaves were pointy, and it had little yellow flowers. Inéz felt dizzy. Then the lump in her chest burst into a million jolts of joy and she felt her eyes watering.

After they had discussed all the details of the discovery, Inéz took out her notebook and made a new entry.

September 5th 2101

*A shrub has been identified in area 6, a few kilometres North of Mazunte. We believe it to be the specimen called *Turnera diffusa*⁸ based on its length, density, the shape of its leaves, and its yellow flowers. After the initial discovery, another specimen was found. This is the first significant discovery made in the last three months. We are not sure what the discovery means nor what we can expect to find in its surroundings. The decision to extend the search of the area is made.*

⁸*Turnera diffusa* or *damiana* is a known medicinal plant in Mexico which has antibacterial properties (Govea-Salas et al. 2017).

Hubbub

Maurine Luquet

“Yosemite national park” read a rusted sign on the side of the road. I wondered why the city council hadn’t voted for its removal. Now the area looked like anything but a national park. Everything had been paved with concrete years ago, to make up for the lands lost to rising waters. People just needed a place to live. Now, passing this sign, I was driving between skyscrapers to escape the city, the people, and reach the seaside for some fresh air. Luckily the drive wasn’t so long. The car battery would last both ways and I wouldn’t have to stop to charge it - charging stations were so noisy. And it was the perfect time to catch up on my favourite podcast.

“Welcome to Hubbub, a podcast that’s not so quiet. Thank you Mrs Prajghavan for accepting our invitation. You were recently chosen as “Most Inspirational Figure 2101” in a social media vote, following the publishing of your first book entitled *From Development to lopmendeV; What crises have brought us*. Can you introduce yourself and your work?” I turned up the radio to cover the city’s humming.

“Thank you for inviting me. My name is Shreya Prajghavan, and I am researching lopmendeV in Shri Ram College in New Delhi. I recently published a book, which probably makes me an

author as well, haha. I built the book on the historical changes our society has undergone through the last 70 years and how we managed to derive positive outcomes from different crises.” Major changes indeed. Most of them had been precipitated by the failure of the 2030 Agenda for Sustainable Development adopted by the United Nations. Well technically, no politician had called it a failure, rather a delay in reaching our goals. But in the end, we had failed ourselves. And we had suffered the consequences. The worst had been the loss of cities and the disruption of food systems. Worldwide, half a billion people had died of hunger from 2040 to 2050. Positive outcomes, that sounded far from reality.

“By positive outcomes, I am mostly talking about two achievements. First, the creation of the new academic field, lopmendeV, whose name comes from the inversion of the word ‘development’. Second, the 2060 Nature Allowed Human Rights law, the NAHR.

By 2040, the violence of facing system failures everywhere in the world made it clear that the financial system in place, based on the overexploitation of nature and people, was going to collapse in its existing form. Schools, colleges and universities started dismissing economics and development-oriented classes, and scholars gathered to create something to replace it. This something was lopmendeV, a reversed development - it was a needed shift in people’s mindset towards new values and away from infinite exploitation. From the academic discipline grew a movement, promoting degrowth with a comprehensive systemic approach that was based on the inclusion of everyone regardless of gender, race, religion, origin. It discarded money as a central value in society and it was decided to abandon the terminological separation between “developing” and “developed” countries.

The lead was given by the lopmendeV movement and the jus-

tice system followed with the NAHR law, which itself catalysed the system's transformation. The law was not only a step towards giving rights to nature, but also it was a necessary step in acknowledging that nature was giving us rights too. The NAHR law's first purpose was to recognise the value of nature for itself. The second was trickier; a global currency system was created based on the Emergy concept, which is to explain simply, measuring goods and services depending on the solar energy they need to be produced. Today, we have an updated version of currency, the Global Emergy Currency, or GEMs for short. Love that name. Emergy has been developed in a comprehensive system which couples life cycle assessment and social interests. A currency being respectful of each living being seems obvious now but is the result of many long years of change that were hard to live through. The way that the lopmendeve movement reshaped power relationships allowed for this change."

The change had been challenging but still welcomed in many countries. The USA had been harder to convince, I guess the deep roots of capitalism created resistance. Since the implementation of the GEMs, there had been a continuous fight for staying or leaving the NAHR agreement. The newly elected party had been pushing to leave, and they had managed to set a referendum for next week. I loved the theory behind the lopmendeve movement, and how it was organised around local communities, with a fairer distribution of power and the valuation of indigenous knowledge... but here in the US it hadn't been working so well, with so many people around. And around they were, flocking to the seaside which was now within sight.

"... local lopmendeve groups are organised in networks to supply themselves. They are local so they take responsibility for the impact they have on nature. Having large institutions caused

the tragedy of the commons and their degradation before 2060.”

I turned off the radio. I had missed some bits while focusing on the road and needed to find a spot to park amongst all the other cars. So much for some fresh air, it seemed like the hubbub followed me everywhere.

Memories of Midnight Sky

Cora Cunningham

If you had happened to be sitting opposite her, you would have seen nothing more than a well-dressed woman – older, but not elderly – staring pensively out of the train window. You would have seen her cool grey eyes above her silky black facemask, pupils flickering almost imperceptibly back and forth in the way eyes do when following landscapes slipping into one another at ultrahigh speed. You might have been struck by her complete absorption in the diverse topographies that the train sped silently through, from dense forest to desolate fields. Occasionally, her face would be plunged into shadow as the train sped past the industrial parks, the huge production facilities casting shaded tunnels of darkness. Although virtually everyone had visited an industrial park at least once as a child, passing under the towering structures of steel and glass that fed, clothed and provisioned their home city still inspired awe in the hearts of most. You might have wondered what was on her mind as her hand – aged, but not yet wrinkled or leathered – slowly moved up and tucked a strand of white hair behind her ear.

Although in her mid-sixties, the woman is both a mother and a child. Her father had come from the South. His parents had worked the land in Southern Europe like their ancestors before them, but had migrated North with their only child after the

third unsuccessful harvest, fleeing the blistering heat for cooler climates and more stable food systems. "He who works the land", her father had often told her about the meaning of his household name, which he for some reason still insisted on calling a family name, much to his daughter's amusement. "It would have been wrong for me to end up as anything other than a food production serviceman, don't you think?" Her father had been – was still, in fact, she reminded herself – a person who laughed easily, seeing the joy in the smallest of things.

The woman was on her way to the ante-Resting facility where her 105-year-old father had been residing for the past decade, a place she had not visited in many years. Soon, he would be put to Rest. He should have been already, of course. Back in the late 80s, one of the Engineers had made a request, immediately granted, to postpone the resting date of all those born before the year 2000 to the year 2101, regardless of their age. Flashing his white teeth, he had explained his request to voters. "These people are all we have left from the previous millennium. Don't you think we owe it to them to make sure they're the last humans to ever experience living in three different centuries?" As the last days of 2100 were coming to an end, the woman was on her way to see him a final time.

The Centennial Rest Act had been introduced across the states of Europa – then still known, but not for much longer, as the European Union – in April 2055. The timing of the act had become something of a household tale ("old wives' tale", her father used to say, almost asking for her mother to slap him scoldingly, but ever so lightly, on the shoulder). It wasn't a coincidence, people would say. Better to ask people to consider mortality at the height of spring, with the flowers in full bloom, birds singing and the world bathed in light. Whether the seasonal timing played a role

or not, the act had been voted into law by just over three quarters of EU voters. The consensus was that any who had voted against it had roots in other cultures, other traditions.

The last of the global deadly diseases, about which her parents had spoken often before entering their ante-Rest, and the reason she never knew any of her grandparents, had opened a public debate about palliative care and overburdened healthcare systems. By 2055, healthcare had evolved to a point of sophistication and precision that humans could be kept alive semi-indefinitely. Semi, as the patients were alive technically more than practically: their hearts beating and all vitals functional, but only ever fleetingly entering into a state of awareness.

Even the woman, at just twenty years old, had visited enough centennials with her parents as a child to know that voting to approve the Act was the more humane thing to do. She remembered seeing these people, old friends of her late grandparents, hooked up to machines, clear liquids being pumped into their veins. She could still see their hollow cheeks and glassy eyes, open but not there, not really. It was enough to make a child understand the necessity of mortality. "It's time to let them have their Rest" – every person of the woman's age remembered the campaign's slogan. In 2055, it had been trendy to go to the voting centre with friends, and the woman had gone to vote for the Centennial Rest Act with her soon-to-be household partner. "Can you imagine that, children?", the woman liked to say, "Your old grandmother used to cast her vote by writing by hand on a piece of paper!" "No, grandmother", they would answer politely, aged only 8 and 10 but already voting once a month straight from their Private Interface. They could indeed never quite imagine that.

Under her silk mask, the woman smiled to herself, remem-

bering her twenties, an exciting time for democratic change – shortly after the officiation of her partnership, she had voted for the abolition of the arms trade and foreign military intervention. After spending the maximum amount of time at university, she had decided to join the organisational services. For just over forty years, she had contributed to the administration of her homecity. While her education and continuous training during her service time meant she could easily fulfil any administrative services, she selected the same task almost every day. For three hours a day, on the days she felt up for it, she would file Needs and Service Requests. She had always enjoyed the contact the task gave her to people in her district. If an NSR didn't quite make sense, or she wasn't sure how best to meet the request, she could be speaking directly to the applicant over her Private Interface in a matter of seconds. Together, she and the applicant would figure out the best weekly food allocation, what books to order for the month or when a household needed some NSR-level leisure time. Over the course of her years as a serviceperson, she had perfected the art of guiding people towards their needs and sensitively helping them to realise when their requests were sounding more like wants. "She knows what people really need before they even do, this one", her household partner would often say fondly. Few requests were ever denied, and those that were often came from people born pre-2030, whose requests would occasionally still carry traces of the Great Excess.

As the train approached the ante-Rest facility, the moon had already appeared in the clear, pale-blue sky. Soon, the low-orbit satellites of the starlink would come out, the lines of satellites moving slowly and uniformly across the night sky like a dotted web spread across the darkness of the night. Lately, the woman had noticed an increase in the NSRs from near-centennial ap-

plicants to visit one of the few areas in Europa with access to a starlink-free segment of the sky. The woman had never quite understood the appeal: in this deadzone created by the Engineers in the starlink's satellite network, the connection was only around 15%. What for, she couldn't imagine: the woman felt unsettled enough in the few short moments when her Private Interface wasn't fully operational during the occasional daytime system updates. And either way, what could possibly be so interesting about staring up into a huge expanse of black? You might as well request some black paint for your ceiling or ask your homebot to close the shutters, if you want to look up at pure darkness, she had said to one of the first applicants she had connected with to try to make sense of the odd request. The croaky voice of the near-centennial on the other side of the connection must have picked up on the mild impatience in her voice. There had been a silence, before the elderly person chuckled softly. "No, I don't suppose you would understand...", they said, not unkindly. "But place the request, if you care about the last days of a near-centennial approaching their Rest. There's something there I'd like to see one last time before I go."

Migrations of Mercury

Madison Sherwood-Walter

Wrenn held up her arms to flag the pick-up driver over. There was a dusting of snow on the ground covering the weathered murals on the sidewalk. The snow creaked softly as the truck slowly backed up towards the tent and the driver called out to announce that he would be back with a second load of firewood shortly. Despite the sharp wind coming in from the lake, roughly thirty people congregated outside. They had been gathered here for weeks, occupying the park across from city hall. Long gone were the masses of outraged folks who marched up and down the hilly streets surrounding city hall and with them, the mutual aid that supported their families while they held the ground. Nevertheless, Wrenn resolved to stay until those responsible for the unmitigated destruction of the Kawishiwi River watershed were held accountable. Over the slight murmur of the crowd, Wrenn could hear the muffled voice of a news anchor emanating from Linden's phone.

“The grand jury is expected to indict the former CEO after seven months of investigation,” declared the host. “Prosecutors anticipate more charges against other executives in the weeks to follow”. It had been several months since the news broke that the owners and operators of the copper-nickel sulfide mine had knowingly allowed heavy metals to leach into the watershed. It was no

surprise, of course, as no sulfide mine in history avoided polluting its surrounding environment, but the fact it had gone on so long without intervention was unacceptable. Over the years, Wrenn thought many times about the slow but noticeable degradation of the waterways surrounding the North Shore communities. She had dreamed about the Boundary Waters of her childhood and grieved for the generations to come that cannot experience them as she once did.

The Boundary Waters were extraordinary, one of the last untouched lands of the contiguous United States. Hundreds of islands within thousands of lakes were scattered throughout the forested valleys of the wilderness reserve. Within the Boundary Waters, the Kawishiwi River stretched miles, transporting life to each corner of the reserve. Under the 1854 Treaty of La Pointe, the sprawling wilderness area was wholly protected for the use of those indigenous to the land. Anishinaabe people had harvested wild rice on the land for thousands of years but the opening of the sulfide mine nearby debilitated this practice.

Wrenn's first memory of visiting the Boundary Waters was with her parents when she was seven years old. It had been a humid morning in early June when they packed up their car and took off driving north. She could hardly see out of the car windows due to condensation from the air conditioning. By the time they had parked the car, it had been several hours since they had passed another vehicle. They were utterly alone. Wrenn could recall the uneasy feeling she had while watching her parents pull a canoe from the top of their car on the side of the gravel road. It had been one of those years when the cicadas emerged, and Wrenn distinctly remembered how loudly they sang, welcoming them to the forest. The uneasy feeling began to dissipate.

Her first night in the Boundary Waters was unusually warm for June. The crickets were chirping loudly, and shadows of bats periodically passed between the trees. Without a single cloud overhead, Wrenn was able to see the Milky Way stretch across the sky. The waves of a nearby lake lapped rhythmically along the shoreline. It had been a long trip along the river, her parents had paddled half the day in order to reach this clearing. Despite the tiresome journey, Wrenn could not sleep, lying awake for hours to stare up at the stars through the mesh of the tent.

In the morning, the croaking call of a nearby loon startled Wrenn awake. The sheen of the dew on the grass bounced the rays of the rising sun into her eyes as she stepped out of the tent. There was a light breeze that rustled the leaves above and caused the cattails in the water to sway. Her father was already tending to the fire, and Wrenn could smell the sweet aroma of his coffee as it percolated through his moka. Her mother was by the shore skipping stones into the lake, and when she saw Wrenn step out of the tent, she called over to her, pointing to a small mound of flat rocks by her feet.

“The city council members claim we have their support,” Linden assured excitedly, his tone bringing Wrenn back into the moment. “They’ll keep putting pressure on the state”. But Wrenn had seen this play out before, the state was just going through the motions to appease their protests and it was unlikely anyone would face real consequences. Wrenn had watched other countries manage to redefine land ownership and declare legal protections for their natural environment, but nothing so binding prevented the destruction of the Boundary Waters. There had been a semi-successful movement during Wrenn’s childhood to defend the land from the mine, but as the demand for the metals buried beneath the earth grew, the state gave way. They cited the

rising need for energy storage and infrastructure for the incoming residents as an explanation for their actions. Even though she had seen for herself how the physical and monetary resources of the North Shore communities stretched thin in recent decades, Wrenn was convinced there was more at play than the excuses cited by the state.

The mine did not open overnight. It took years for the company to obtain the rights to the land, and years more to wade through bureaucratic hoops and bypass resistance from environmental and Indigenous rights organisations. They harped on the region's strong history as a mining community and cited the ways in which the iron mines had left the watershed unharmed. They claimed that the resulting jobs would uplift the region's economy and attract talent to the North Shore communities. Due to the tripling of the region's population in just a mere twenty years, many were open to the idea, given the condition that the watershed remains untouched. The cries of the water protectors, who had seen this promise broken a thousand times before, were ignored and faces turned away as they were beaten and arrested for trespassing on their own lands.

The results of preliminary geological surveys estimated the mine would only operate for twenty years before completely extracting the economically viable ore. It was only twelve years after production began when water samples in the Kawishiwi River started showing dangerous levels of mercury, indicating signs of acid rock drainage. At the time, it appeared to be an oversight, and operations were momentarily suspended while the mining company internally investigated their practices. The Pollution Control Agency was called upon by Indigenous rights organisations to evaluate the situation, but they allowed the company to resume extraction after four measly months. The intensive

extraction of the copper-nickel ore was complete several years later.

It was not until seven months ago that a final assessment was published, showing the blatant disregard for water protection during the project. The initial outrage of the North Shore communities over the unmitigated pollution placed momentum behind the efforts of local Indigenous bands who had been advocating for the rights of their tribe to steward the land for decades. Within weeks, the state had begun going through the motions to restitute nearly 70,000 acres of land around the Boundary Waters to the tribe.

Wrenn squinted as the overhead sun reflected off the windows of the city hall. It was approaching noon, and the pick-up driver had just left another pile of firewood in the boulevard. She glanced over at Linden, who was standing bundled up tightly next to one of the bonfires. He was gaping at his phone, so she called over to him, but he just stared back at her in disbelief. "They've announced full pardons for the twenty-six water protectors remaining in state custody, citing that protest in defence against resource exploitation is protected under the state's newly passed wild laws," said Linden, still stunned.

"Of course, that's wonderful news, but this provides such little justice for those wrongly incarcerated if the mining executives don't face any consequences themselves for the irreparable damage they caused to the watershed," Wrenn huffed, shuffling over to find refuge under the tent. Despite her exasperated tone, she smiled wryly while lowering herself onto a stool. Nearly one hundred years had passed since Chile introduced the world's first wild laws and she could only hope what their introduction in the States might mean for the future of the North Shore.

Nature's Soldier

Rebeca Montes

March 2100

Open letter of gratitude to Nature Rights and for bringing pacifism back in a military-based world:

My 18th birthday felt like it would never arrive. I watched movies about the army in my room, created strategy games on the computer, read the news, and wondered when it would be my turn to become one of them. It was almost an obsession - while so many kids feared becoming soldiers when they reached that age, that was all I wanted. I must have inherited from my grandfather his desire to explore the world; using our physical and psychological strengths to fight for justice. He was a soldier. I didn't know him, but he was my absolute hero. Back then, I had the idea that guns and wars meant power and that they could save nations from being attacked. How contradictory...

My first few months of army training took place in nature's "beautiful" places. Dozens of weapons, vehicles, buildings, and infrastructure were created, all with the common goal of learning how to keep people alive, even if that meant killing others. On my first expedition in 2055, I remember that our military training area had previously been home to many species of animals and healthy rivers and was close to a small but close-knit commu-

nity. Locals looked at us with terror instead of looking at us with respect. I remember thinking how can it be that we, who have dreamed a lifetime of being willing to leave our countries and fight for our nation, are the "villains"? What about the enemy countries that constantly threatened to bomb us? Ingratitude, I felt.

After a few years as a soldier, my perspective on how "amazing" our work was started to change. The destruction that came hand-in-hand with what we did was no longer a distant idea but a harsh reality, and seeing it up close was far from what I had once idealised. In 2087, the introduction of Nature Rights into international law caused a legal revolution. With a sceptical lens on the subject, I tried to understand the origins of this new law; this new way of commanding the world, philosophy of life, you name it. . . I discovered that countries like Ecuador, India, and Bolivia had been pioneers in considering the Earth in their constitutions. I admit that at the time, I thought: "how can it be that countries in the Global South want to govern how the rest of the world is supposed to work?" Yeah, I was pretty ignorant.

However, the stabilisation of Nature Rights happened especially after the Third World War that took place in 2082 and lasted for three years. This war brought an enormous amount of environmental damage to society. I was unaware of how harmful the army could be to nature. . . shots and explosions reduced cities to rubble, causing air and soil pollution. This pollution also extended to water plants, which directly impacted public health in several countries. Attacks on agricultural fields also drove many people into starvation and poverty. Those were grey days - literally. I discovered in practice how wars generate more wars, in every sense: wars kill people and nature.

However, from the destruction came change and Nature Rights had a significant impact on militarism.

First, eco-centric development was a movement adopted by all nations. This new way of running the world changed how countries related to each other as there was no longer competition over the ownership of natural resources. As Nature Rights were the same for everyone, each nation had equal rights to access oil, gas, water, and metals - resources widely used to create weapons and military bases. It sounds crazy, but in a "magical transition", the world eliminated the anthropogenic mindset for the ecocentric one. This, believe it or not, began to shift natural landscapes to their original states, and eco-centric development was also marked by public involvement in environmental research and restoration projects after the Third World War.

Another impact was the illegalisation of funding projects that violated Nature Rights. Military training area maintenance costs were exorbitant, and in the past, could easily reach trillions of dollars. All that funding was now reined in thanks to new articles in the constitution that - finally - outlawed fundings that purposefully impacted nature negatively, including credit to the purchase of military equipment. Think it through with me: banks get money for loan availability from investors. If this happened back in the day, few investors would care about the purpose of the money they borrowed as long as the rates of return were high. But due to the turn to ecocentrism, banks could no longer invest in ecologically destructive projects and people did not want money generated from the destruction of nature.

Finally, at the height of the integration of Nature Rights into the constitution, society became aware that the separation between nature and human beings is non-existent. It was easy for

me to see this because my work as a soldier was 100% dependent on natural resources. I also could see, with my own eyes, how my actions (and I believe I speak here on behalf of thousands of soldiers) destroyed the biodiversity we were part of. The realization that humans are members of the Earth-Life Community in the same sense as everything else generated respect for nature. The world as it is today gladly acknowledges the circumstances of other creatures as they see their own: we are all vulnerable.

During my teenage years, if someone had told me that after being a soldier I would transition to become an environmental lawyer, I would have laughed. Pacifism and the struggle for nature were never something I would have thought of. I wanted to defend my homeland.

But say hello to the new me. Old soldier, new lawyer.

I finally found a clear relationship and purpose to fight for after living in an eco-centric world that made it illegal to finance unsustainable activities and started to consider human beings as part of nature. Unlike wars that aim to "fight for peace" while killing and destroying ecosystems, I choose to pursue a worldview of a society driven by the well-being of human beings through the preservation of ecosystems. It used to be common that military conflicts emitted more CO₂ gases than many countries combined. The unfairer thing? The most affected were usually the most innocent. But these cross-scale impacts turned into positive outcomes with Nature Rights: social issues were eradicated by eliminating the root of environmental problems, generating more peace, health for the population, and encouraging responsible production methods — the light at the end of the tunnel.

Peacewomen

Jasmin Ella Masic

I close the book 'The Year 2019' and the kids all stare at me, shocked, unsure what to say or even how to grasp a world that could possibly look like that.

"So, you are saying, that the people who were in charge basically just did whatever they wanted, and that the same type of person was running all the countries, and everything was going bad, but no one changed?" Aspen asks me in disbelief.

"Well, it was definitely male dominant during that time, with a lot of issues and not a lot of solutions." I begin explaining, trying not to give my opinion too fast so they can think about how it makes them feel.

"But that isn't even 100 years ago, how could the world look so different?" another one of the kids asks. I don't remember this time either, but I know that my grandparents lived through it and would tell me stories of how it all changed. For the children this seems like a fairy tale with Trump or Putin being the villain.

The school bell rings, and the children gather their things, getting ready to leave.

"Don't forget that tomorrow you have class with Elbma, so dress appropriately as you will be learning more of the day-to-day activities of the Sami outside, ok?" I shout above the noise. There are muted mumbles of agreement, but a look of excitement

flits around the room. Another day of being outside with nature, learning how to survive the winters and mixing information between one another is always looked forward to, even if they do it a few times a week. School systems aren't the same today in the 22nd century as they were in 2019.

I start to gather my things too; I have a meeting with the Peacewomen today and I don't want to be late. I have been working hard to be a part of the Peacewomen organisation and today is the first initiation day. The Peacewomen are the reason the kids don't live in a world where only men are in charge or school is all about history and mostly locked indoors. They began as a group of women who shared knowledge and skills from every part of the world to imagine new ways of living, but it was more than that, they were stopping violence and creating change. They were transformational, inspiring collaboration and cooperation, they led with strength and understanding. There was no competition or assertiveness, they helped and changed the way things were, one area at a time. My grandma always said that she isn't sure of the exact event that caused the uprising, maybe it was the threat of war or another year of only men running for office, but the women had had enough. The breaking of the patriarchal institution began. Women took to the streets, left men at home with the babies, and challenged the stereotypes. They didn't just go for the top positions, but worked their way into every sector, took the seats and made the changes that were necessary. They stopped calling it the government and started calling it Peacewomen. It isn't just a group of women today, but a group of everyone, from every tribe or ethnicity, every gender. They don't work for only equality but more importantly equity. The opportunity is still there for everyone to be able to achieve, and we do so using the knowledge of all groups, allowing us to make changes not only for

us but for the planet too. I can't wait to be a part of this change, to be able to work in what would once have been a government, but now is just a way of being. People helping to create a world that works as one, supporting each other as the climate crisis continues. Although the Peacewomen work hard for the rights of the planet, the temperature reached the tipping point, and the unpredictable changes continue.

As I walk to the grounds where the meeting is held, the sun shines down on me. It's April but it is hot; mid-summer hot. We are lucky, being based in Stockholm, we still get to have summer and winter, but there is no in-between. No warm days with cool evenings, no April showers that make the country smell fresh. It is either hot or cold, storms are extreme, and they seem to last forever. We are doing everything we can to help the planet; carbon dioxide emissions are almost non-existent, everything is recycled, technology has also changed, we have much better drought and flood defences such as efficient water storage and soil management. Slow living is almost always the way of life, overconsumption isn't seen, people learn to use and produce what they can since each country looks after their environment first and supplies others with resources second. Lawns in gardens are now vegetable patches or filled with wildflowers, and are open to everyone. Since we are constantly sharing knowledge with every indigenous group around the world, making sure knowledge is never lost, everyone has the information needed to be self-sufficient, and be aware of the changes that come with the climate crisis. Knowledge is key as the Peacewomen always say.

Peacewomen are situated everywhere, every member gets to choose a local area where they help and work but do rotations within the main hub of their country to make sure that infor-

mation is always circulated first-hand and both experience and opinions can be shared fairly. There isn't really a single place in the world that doesn't have Peacewomen, it makes sure that everyone is fairly educated and informed. Everyone has rights and choices and weirdly enough that stopped the war. When women were given knowledge and possibility, they started to rise, take control of countries' situations, and make changes. The violence then stopped.

As I get to the meeting, the faces around me are lined with worry, the feeling of frustration and angst are heavy in the still air. I see my friends, standing in the corner, a weak smile stretching across their faces as I run up.

"What's wrong, what's happened?" I ask, my eyes darting across their faces, trying to read the room.

"You haven't heard?" Nova replies. I shake my head. "They are back," it comes out as a whisper but each word rings in my ears.

"How can they be back?" I ask. I don't understand, the group of men who decided that there would be no change, that the planet didn't matter, and that self-gain was the number one priority hadn't been in charge and haven't had any power since 2052. Now with the first year of the new century 2101, there had been murmurs that they were back, attempting a political uprising but their numbers were weak. The younger men don't remember what they claim to be 'the good old days'. Even with the fear of the climate, we have food and community, we work together and share all our knowledge to better every single part of the planet. War is at an all time low and everyone seems happy. But clearly that isn't enough.

I can feel it in my bones, a political uprising might be on the brink. When will the people think of the planet first? When will selfishness not be a human instinct? The Peacewomen are

making so many changes, every single day, but how will they stop an uprising without war?

(Re)cycling

Sören Gellers

19-09-2100 10:00 am

Today is my on-site day, so I just arrived at work with my bike. Remote working got popular during the pandemic 80 years ago and none of my colleagues are permanently working in the office. As for my personal preference, I prefer to be here once a week. I am working full-time, which means 25 hours a week and I found my dream job – an engineer in a bicycle company called Bike4Ever. My current level of working hours is a bit above the average but it fits with my wife who is working 16 hours a week. She is working for InfiniteClothes – Germany's biggest clothes recycling company – as the recycling manager and therefore must be at the facility way more often. With this time shift, we share taking care of our three children.

I am happy that it is finally autumn since summers are hot and dry in Hamburg. Climate change hit the region badly, floods and droughts have alternated, and temperature rise reached a point where you could not stand it outside anymore. Fortunately, new technologies prevent the city from floods and give opportunities to harvest food in the countryside. I remember my father complaining about the dirty air and the noise level in the city, but this is something from the past. Transportation changed to

be carbon-free and mainly non-individual; energy generation is solely based on solar, wind, and other green energies, and production is almost carbon-neutral. A magnificent achievement the government made is the ecological tax system. Even though it needed some time to work properly, it now brings incentives for all companies to reduce their emissions to a minimum.

Bike4Ever is producing bikes out of used resources and gives a lifetime warranty. This means you will get your bike fixed whenever you want, and you can even pass it to your children, and they will also be supported. The pricing strategy is usage-based, so you pay upfront a price and then per driven kilometer a specific fee depending on your bike. The bikes are modular, and you can get upgrades if you want to. In case you do not want it anymore, you give it back and Bike4Ever will overhaul and sell it again. This reduces the input materials to almost zero, scrap parts are recycled, and new parts are always designed with a circular understanding.

I am in the development department and every part we are designing is 100% recyclable, so no waste can be produced. Infinite-Clothes has developed an almost energy-free, zero-emissions recycling process for clothes and is trending with their collections in Europe. Europe decoupled from global markets and focused on their local production and consumption. Together with the ecological laws and the Circular Economy approach, Europe went almost self-sufficient and separated from the powerful Chinese influence.

12-11-2100 11:00 am

Today is the first day of our holidays and we are so happy to have some vacations abroad. Since every citizen receives an

emissions budget, most times we spend our holidays nearby or at least travel by emission-free transport. But we saved the last 15 years of emissions and can use them this year for our first flight as a family. Unfortunately, aviation still emits carbon dioxide, even though catapult start, solar wings, and efficient aerodynamics reduced it to a minimum. We are excited to visit for the first time, the most powerful country in the world – China. We have four weeks to discover the economic superpower. Every modern idea, like our ecological tax system and the law to develop only recyclable and reusable products, came from China. My oldest daughter Verna is the most excited person of us since she wants to study Sinology next year and is prepared with all the background facts and history.

09-12-2100 11:30 am

We are currently on our way back from China and it was even more fascinating than expected. Verna has been an amazing guide and taught us so much I had not known before. During the 20s and 30s, China was developing into a real superpower and overtook the positions of the USA and the EU. At first, the Western countries were skeptical regarding the political system and the controversial human rights situation in China. After China was refocusing on its cultural origins and Buddhism, it became a peaceful place and during the 60s China changed into a social and equally wealthy society. The mutual support with their neighbor countries pushed the whole area and made East Asia the superpower they are today. Struggling with smog in the megacities is an issue of the past. Since the consequent zero-emissions policy, the cities are green and a place to work and relax. China was also the first country to introduce the 20-hour week to support families and the general work-life balance. At

first, it was an ambitious concept and many doubted that the necessary economic power could be fulfilled in this way, but in the end, it showed that people are happier, have more time to spend money on valuable goods and services, and take more time to maintain them ecologically. I am proud to have a daughter who is interested in the history and the future of a culture I barely know. She says she wants to study for one semester in China, and I will do my best to support her with the idea.

02-05-2101 5:00 pm

"Breaking news!" Our personal lenses are showing the latest news: China Aerospace Science and Technology Corporation and Elon Moose's joint mission was successfully accomplished in the spaceport of Jiuquan. The first commercial mining of asteroids will potentially change resource availability massively.

30-07-2101 1:00 pm

Not even three months after the first successful space mining mission, China has way more resources than the world needed. Prices are falling for raw materials and business models based on recycling or reusing are stressed to their limits. Bike4Ever's sales volume decreased to a minimum and bikes in-service are no longer used. New bikes often cost less than the required usage fee, which is needed for maintenance. Low production costs bring incentives for higher consumption and emissions are generated. People are happy about the development, they are buying new furniture, electronic components, and even private vehicles like electric cars. I do not trust this development and fear about the time my grandparents were always talking about: the time of extensive consumption, the resulting greenhouse gas emissions, the rapid climate change, and the non-reversible tipping points.

30-09-2101 6:00 pm

Today was my last day at work. Bike4Ever reduced their staff to a minimum and is not sure whether they will survive this year. I am glad that there is still governmental support for childcare and other house duties. My wife and I intensified our gardening to save some money. Luckily the InfiniteClothes' business is still running, and she could extend her working week to 28 hours. Verna is doing a program in Sinology and economics and warning us that the European economy is about to collapse. The former European concentration on local business is not working since newly produced products are oversupplying the national markets.

02-11-2101 8:00 pm

The city has changed so fast, and I do not like to live here anymore. Even though the municipal cleaning is trying its best, people are leaving their used stuff everywhere. Metal packaging became so famous and now you are seeing single-use cups, dishes, bags, and packaging everywhere in the streets. Single-use... just imagine how resource-intensive this concept is. Luckily my wife and I have this small house in the suburbs and are keeping to our small oasis of happiness. InfiniteClothes changed their business model. Instead of doing new clothes out of used clothes, they now shred the clothes and use them for energy generation. I am still looking for a job, but engineers are no longer requested in Europe. The government is thinking about a national space organization to pump the intense trash into the orbit. I could try hiring there, but this is against my ethical concern.

Reciprocal Acts

Imogen Cadwaladr-Rimmer

Life spreads out beneath me. In my roots flows the energy of growth and decay, of ancestors long since returned to the earth, their being now a part of the rich humus. They continue; their memories held in the grass, the leaves, the flowers, carried in the birdsong. Their lives pulsing through my veins in an endless cycle. I remember.

The small child sits at the kitchen table, the smell of breakfast being prepared by loving hands. She half listens to her parents talk as they circle around the room. Snippets of conversation reach her ears as she watches a butterfly, a red admiral, flitting at the window, trying to get outside. The tone of her parents' voices imply they are discussing something serious, but she does not fully understand. The community are gathering in the woods today, what remains of them. She knows there will be a remembrance, like a funeral for someone who died a long time ago. Finishing her last segment of orange she opens the door to go outside, bringing the red admiral with her and releasing them into the warm sun.

Escaping the confines of the house she races through the meadow beside her home. The long reeds of grass are at least half her height and as she runs the green blurs into one and the flowers and reed heads appear as if they are floating around her

mid-air. She thinks of their forest. Before she was born it nearly disappeared. Her grandma used to tell the story well; of shrubs burnt to black, of land scorched and dry, of heavy machinery pulling down tree after tree in search of monetary value. She does not really know what this term means, but her grandma tells her it is not something you find inside trees. She can't think why anyone would go looking for something inside a tree trunk. She decides to go see their neighbour, he often pours her a cup of sweet tea when she visits him and tells her stories of the trees. He says they can talk.

Bare feet make their way across the land. Cold soil between toes, a small child makes their way along a path. It is a well-worn trail – carved into the ground by the accumulation of hundreds of footprints, soft memories of the generations before imprinted in the dirt. The child knows this land, knows this path. We recognise her presence and welcome her. Before she was born we were here. Our memory engrained into the DNA of all things. We are a part of these people, as much as they are a part of us.

A spider is removed from the pot in which she resides. Displeased, she scurries up the wall and watches from a safe distance the man and small girl pad their way around a stove. Though her eyes encounter mostly darkness, small vibrations give away the movements in front of her. Her little pot home is filled with water and placed above a fire. How inconvenient.

The girl settles in front of her cup of sweet tea and listens as her old neighbour recounts stories of the past. Both his, and that of the land. She asks about the remembrance. He tells her that during the fires many people lost their lives. Their little village was almost completely burnt down, and the trees - which were a central part of people's lives - were lost. He says that it was

a devastating time, and that people didn't know if they could recover. But the trees always find a way. They are strong. He tells her of the amazing network of life underneath the forest floor that the trees use to communicate. She learns that they can send each other signals and nutrients. She wonders at the thought of it.

After they finish their tea the girl gets up to head out into the forest for the gathering. But first, she finds a small plant pot which isn't being used and places it in the corner. A new home for a displaced spider.

The earth soaks up the sun's rays. I check in with the trees around me, feeling them through the fungal networks that connect us all. The absence of many trees which once dwelled in this forest still lingers; the limbs of mycorrhizal strands which once carried messages and nutrients between us seem to hang limp in the earth, reaching for life that once was. I focus on what is left, spreading life to the trees which still bloom, and to the new saplings which slowly replace what was lost. Messages along fine strings of fungus that keep the forest alive. Along my journey I encounter the soft decay of bodies in the soil; a reminder of life's cycle. They were once of this place. . . still are, always will be. We hold them, these lives given over to the land. Death is not an ending.

The girl walks barefoot through the forest with the local villagers to the remembrance. She holds her hand above the goldenrod as she walks, the yellow petals brushing her palm. With her other hand she sprinkles some seed for the birds. Along the way, people collect wildflowers and forage for berries, though everyone is mindful to take only what they need and leave the rest. The field mice will thank them later.

Underneath the branches of a large oak tree, people gather. This tree is the largest tree in the forest. Her grandmother always

told her that this was the mother tree. It watched over the forest, and made sure its kin survived. A small ceremony is held in remembrance of all the beings who lost their lives in the forest fires, and to honour those who fought to prevent their complete destruction. Once the ceremony is over, people begin to plant seeds; seeds of native trees and plants which once populated this place. Alongside them, people also place offerings to the earth; some pour tea into the soil; some bury pomegranates for luck; others have made wreaths which they hang in the branches. Although the little girl did not know the forest before, nor does she remember the devastation in the aftermath of the fires, she recognises the forest is a part of the community. It is a feeling, a sense of belonging. They are one.

Though their voices speak in a language we do not understand, their gentle presence transcends the language barrier we face. They do not hear nor understand our voices either. Yet we can communicate in action, in kindness. The love they give is the love we return.

The girl wanders off to a quiet spot. Sunlight warms her freckled cheeks as it filters through the leaves. As she glances around at the undergrowth she spots a red flash, an offering from the forest. She makes her way over and plucks a ripe wild strawberry. In return, she pulls a small acorn from her pocket and presses it into the earth, seeding a future she hopes to be a part of. The oak tree held in the tiny acorn is already there, ready to emerge.

“Thanks,” she whispers to the forest, and places the berry in her mouth. The sweet fruit dissolves into the fluency of reciprocity on her tongue.

Rights of Nature - Nature Speaks and We Will Listen

Tove Brynteson

Year 2100

Walking through the library, she inhaled the scent of books. It smelled of paper and of ink, and she thought that, if knowledge had a scent, it would be this one. It sounded a bit cheesy and she smiled to herself but she couldn't help it: she had always loved the old-school libraries. Sure, she could probably find all of the information she was looking for online, but she had always preferred being surrounded by actual, physical books whilst she worked. She was an environmental activist as well as a history nerd, and the project that she was currently working on was also the one she held closest to her heart: Rights of Nature. As a member of an Indigenous tribe, she had grown up with stories about the relationship between man and nature, and she had always felt strongly that nature needed to be protected. This could hopefully be the case soon since next year, the UN was to decide on whether or not there would be a Universal Declaration of Nature Rights. In the same way that all human rights are protected in the Universal Declaration of Human Rights, this one would protect all of nature worldwide in a set of universally applicable laws. Hypothetically, this would mean that any river,

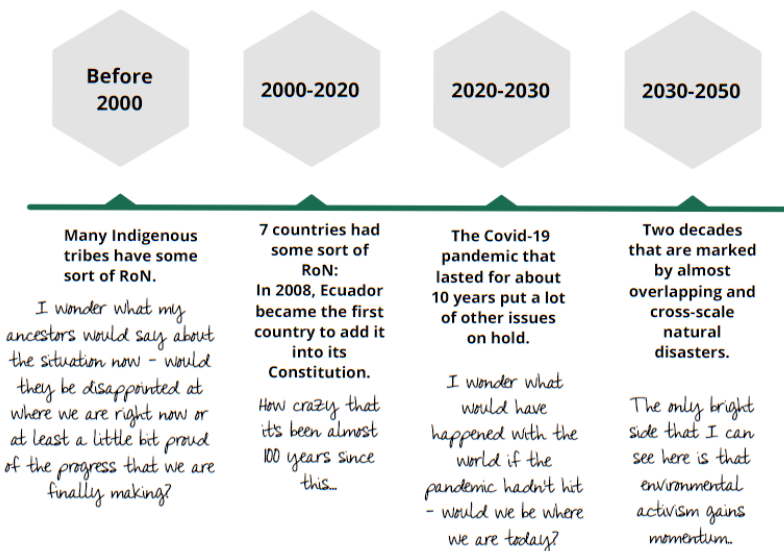
or natural body, would have the right to (with help) defend itself in a court of law against whatever it was that was damaging it.

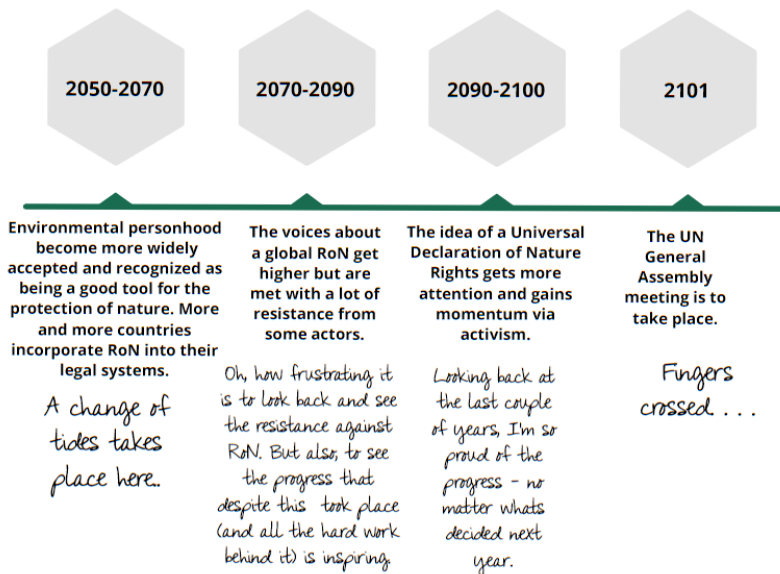
She was one of the activists advocating for this to become reality, and right now, she was in the process of gathering information that she would compile into a compendium. Her hopes were that the compendium could both inform and inspire people, and she believed that, if more people had access to information about the ways in which nature is hurt, the more people would advocate for the need for it to be legally protected. To her, it was pure madness that nature didn't have a legal voice everywhere already, and she couldn't even begin to understand those who said that nature couldn't have a legal voice because it lacked a voice at all. In her upbringing, she had been taught that nature has as many voices as it has living things: it whispers with the sounds of leaves rustling, it sings with the sounds of birds chirping, and sadly, it screams with every forest fire, every flooding, and every other natural disaster there is.

Her grandfather used to say that nature had always spoken but that there had been too few who wanted to listen. She was prone to agree with him but things were looking up. She could almost feel the tides of change; the acceptance of indigenous knowledge, traditions, and ways of living was on the rise, and along with it, there had been a broad shift in beliefs and world-views. The belief that nature should be protected was now shared by many, and she felt hopeful for the future. What she most grieved was that it had taken so long to get here and that so much had been lost already. In some sad ways, this might have been necessary though; we needed to see the enormity of what we had done to nature before we could radically change.

So yes, nature had always had a voice, but what it had been lacking for so long were people who listened, and what more -

people who could translate it in ways to make others listen and understand. She was beyond happy that the tides were changing already, and if she could help in the process by acting as a translator then she would happily do so. With this in mind, she decided to start up with her research again and to continue with the compendium. Right now, she was in the process of creating a timeline following the progress and setbacks of the development of Nature's Rights during the last century. The readings were sort of depressing, but they had helped her better understand why Nature's Rights still hadn't been accepted on a global level. It was only a very rough draft so far, and she had a tendency to doodle and to add her own comments and questions. To get into the spirit of writing, she took a look at the timeline. This was as far as she had gotten. She had much left to do, she knew this, so with her head bent down to the computer and with the scents of the library surrounding her she began to work. . .





Year 2101

One year later, she was entering the same library again. This time, there was a bounce in her step and a smile on her face. There was much to be happy about because today, the UN General Assembly had proclaimed the Universal Declaration of Nature Rights. Finally, there was a universal law! Her happiness was immense; not only did it mean that more issues could be taken to court, but it was also evidence that worldwide beliefs and values had monumentally changed. She, as well as other activists, believed this to be a milestone, and today's outcome was their reward, the proof that all their hard work had paid off.


Sure, some countries had been hard to persuade and they might try to delay or hinder the coming changes, and some big companies might complain about it, but all in all, she believed this to be the best for the earth and for everyone living on it. There was still, of course, a lot that needed to be done: legal aspects that

needed to be clarified, adjustments that needed to be sorted, and some compromises were bound to be needed, but nonetheless; today people, society, and nature had won a major victory.

She really did consider it to be a win for all; from the ones advocating for rainforest conservation in Guyana to the Sami people wanting to strengthen the Sami culture and land, and to everyone in between working to protect nature. It was also a win for the forerunners; for countries such as Ecuador, Bolivia, and New Zealand who had incorporated Nature's Rights into their legal systems decades earlier - finally, the rest of the world had caught up. It was a win for the minorities, the Indigenous people, and the activists, and she knew that many celebrations would take place all over the world today - one of which she was going to be late to. She just had to finish this one thing here in the library and then she would go join the others. Today was a day of history, and she longed to follow the process of Nature's Rights on a global scale. First things first, however, she thought to herself when she sat down at the desk and opened up her computer, she had to do what she came here for. There was a new milestone she had to add to the timeline:



2101



**The Universal
Declaration of
Nature Rights was
proclaimed by the
UN General Assembly**

*Finally Nature speaks
and we will listen*

Slow Movement Towards Degrowth

Nahom Kubrom

In the year 2100, societal organisation and ways of life have completely changed, transforming from an unsustainable growth-centred world towards a more sustainable way of life where economic growth as an objective is not the main goal of our existence. The world functions on less natural resources, and a greater respect towards nature and mankind exists. Rapid decarbonisation has evolved to an extent that renewable energy sources like wind, biomass, and solar power have replaced non-renewable resources. On a global level major advances in technological development and a tax on local, national, and global levels have made it non-beneficial to use power that is causing emissions of carbon dioxide. This was reached through international cooperation and agreements, successively lowering CO₂ emissions. The use of renewable energy is now the norm within all nations. As degrowth is emphasised, the mindset of economic growth by any means is irrelevant. Circular economies have proliferated and are of great importance for efficient resource management within production and consumption levels. There is greater cooperation amongst countries, who share all kinds of equipment to decrease the extraction of virgin resources aimed for production

from nature.

On a local level, humans all over the planet have become more accustomed to sharing their belongings with each other, which has made gaining high amounts of money unnecessary. For example, there is little need to buy a car in a world where sharing cars with each other is the norm. Knowledge of how to repair objects is reducing the amount being thrown away. A philosophy of slow movement is denouncing the once unsustainable and fast-paced world where resources were misused in a linear economy. Slow movement has gained such a popularity within the world that people's lifestyles have changed, and working times are lower. This has created a world where humans no longer seek economic growth as a success symbol, and the meaning of life has instead been centred upon hobbies and socialising, which has increased the overall happiness of the people. We have escaped from a growth orientated world to a world where less is more and respecting planetary boundaries is the norm.

There has historically been opposition against the vision of degrowth on national and global levels. However, early critiques of degrowth, such as a lack of precision and vision have been disproven and there is now a great trust and support for the vision because of the important impact it has had. Furthermore, institutions work to achieve common goals. This is related to the theory of re-structure where humans organise themselves through institutions with laws and agreements that must be followed and that are related to sustainability and degrowth. This use of institutions has created a will to change the society. Degrowth advocates for a redistribution of wealth between the global north and global south which has caused poverty to decline. Global hunger and poverty have not fully been erased, but there is a political will to continue decreasing them. The trend of circular economy has

contributed to a higher degree of material circulation since used objects are being given to those who have a greater need. There has been an acceptance for fair taxations which keep the gaps between rich and poor less extreme on a national level between its citizens.

However, in the year 2101 a growing concern of water shortages in countries near the equator became a reality, causing great damage to the health of the people because of drought. Consequently, political distress emerges amongst countries and creates conflicts impacting international agreements on how to handle water scarcity and the Big Shortage. The Indian subcontinent is among the hardest hit by the water shortage. This puts immense pressure on surface and groundwater in the region. Another major problem is that water flow is trans-boundary, and the high population density challenges the implementation of a fair water supply that reaches the people that need it most. These shortages damage nature due to an increased amount of water-extraction from rivers and lakes. The decreased water levels cause difficulties for biodiversity. On a societal level, humans in this region have been desperate for water and have started using polluted water, increasing deaths caused by cholera and creating frustration towards the governments in the region. The people of India and Pakistan have grown disinterested in degrowth and call for rapid action to access clean water. The clear losers of this crisis are the humans suffering from the water shortage. This has gained international attention since water scarcity has now become a reality for many countries located in warm places on Earth and international organisations have worked together to send help to the people harmed by drought. Those who benefit are the ones within water management that gain opportunities for the growing need for water to decrease the shortage in some

parts of the world. This has been the first major drawback for the vision of degrowth since the question of water security is vital and if the supply cannot be distributed to everyone, advocates for degrowth face criticism.

Smaller Can Be Beautiful

Johanna Askros

As is tradition on New Year's Eve, the community is gathered to celebrate what has been and what is to come. They have all been contributing to the celebration: organising the festivities, preparing the food from the community gardens and local farms, creating table decorations in school, and making sure that every single person in the community knows that they have a seat at one of the tables tonight (as always). With just short of ten minutes left of the year 2101 the community leader rises and starts to speak, their voice strong and clear:

As I was born in the last year of the 20th century, I have been around to experience two millennia and three centuries now. While I am still here to, I would like to share some of my experiences from the last 103 years.

The world as I remember it from my childhood was a happy place. A prosperous place. An ever-growing place. I was born in Sweden where I lived a middle-class suburban life. The world outside of my comfortable life may have been different, but all such threats were peripheral to me. Much has happened since then, of course. I have come to think differently of my experiences during my youth and to question my memories of it. I see now how the prosperous and ever-growing world I thought I was living in was no more than a fantasy. Had anyone asked teenage-me

how I imagined the future, I sure would not have described what we all know now. Indeed, I would have likely imagined a world in continuous development, driven by technological progress and a growing global economy. We would have managed to abandon fossil fuels in my future too, but the transformation would have happened sooner and been driven by countries like my own. But, most importantly, it would have been enough to avoid future climate change, because we managed to significantly reduce our emissions.

When the break-through in solar energy export came in the late 20s, it was initially met with scepticism by the general public. Northern countries had spent decades working on a renewable solution to the world's energy needs, yet countries like Morocco, Algeria, Tunis, and Libya managed to beat us seemingly out of nowhere. I say "us", because back then I myself was involved in a project to transition the Swedish heavy industry to the use of exclusively renewable energy. We did eventually realise the potential of importing solar energy from Africa, but only after concluding that we truly had no other choice. We also realised that while we had been busy concentrating on doing our own thing, projects to make export of solar energy from Africa possible had been going on for years. It was a rather embarrassing experience for me back then. Today I feel mortified knowing I ever discarded the notion of someone being as competent as me based on them being from somewhere else.

Those of you who are close to my age will remember the hope that the success of the African solar energy export project brought to people. Finally, we had that stable, large-scale source of renewable energy that allowed for us to turn our backs on fossil fuels while continuing to develop our society. The threat of climate change could once and for all be left behind, we thought. Yet both

the temperature and the sea level continued to rise. People in badly affected areas left their homes and countries. The climate migrants, as we still called them back then, started crossing the borders of less affected countries in search of somewhere where it would be possible to live and grow. The hope that we so recently had shared about the future shattered as fear for the Earth and from the “others” broke out. Fear for the future also made the economy unstable as the growth in GDP declined. The economic system was on the brink of collapse.

While the 50s and 60s were characterised by turmoil the period also provided food for thought. As so-called “regular people” suddenly had to cope with the type of challenges previously ascribed to “vulnerable people”, demand for change started to build up. We realised that the world we were living in was not sustainable, equal, or fair and that it never would be if we continued to operate it the same way as we had done up until then. Communities much like this one came together to break free from the national, the global, and the large-scale and began to focus on the local and small-scale. We developed our own currencies, supply chains, and ways of doing things. We did not need growth. We did not need consumerism. We needed to care for one another in a way that allowed for our planet to thrive again.

We have much to thank the relocation of the economy for, not least the relocation of society and the way in which we have managed to create strong and inclusive communities with the ability to look after themselves in an unpredictable world. Personally, I doubt that we, people with backgrounds from all around the world, would be sitting here without such a fundamental change in values. I feared that those of you who came here to seek refuge would still be known as “immigrants” and that we would still produce, advertise, and consume for the sake

of it, if not for the reorganisation that followed on the brink of economic and environmental collapse. I also fear what would have happened in the world without the access to energy that we have and the part that it has played in equalising people. While it has allowed for this part of the world to retain certain comfort, it has also provided previously less fortunate communities the ability to reach a much higher standard of living.

Unfortunately, we might once again have to rethink our future after this year's reports on the rapidly diminishing effectiveness of solar energy production in Africa. Because my generation and the generations before me failed to act in time, our children, their children, our community, and the whole world are still haunted by the irreversible consequences of climate change. By now, it is probably safe to say that we will shortly see the effects of this, both in terms of energy supply and a new wave of refugees as the temperature is rising in Africa and elsewhere. I know that some of you have felt scared about this development, and I can only assume that there are more of you who have just not yet voiced your concerns. That is why I chose tonight, of all nights, to remind you of the challenges that we have managed to overcome so far. I ask you: If we can make do with less resources and consumption, why can we not make do with less energy? If we could open our communities for those in need once, why can we not do it again?

The community leader concludes the speech by wishing them all a happy new year and the community members all look concerned. But there is hope in the room too. When they all raise their glasses to welcome the year of 2102, they do so as one.

Somewhere in the Metaverse...

Franziska Johanna Galler

‘Female skin today, what a surprise Jey. Where did your moody, worn-out self go?’ How I hate these anniversary celebrations. ‘What, should I have come as a wandering, smelly trash can?’ Irritated laughter. They seem to be unsure if it was a threat or a joke. Or do they even remember what trash smells like? Blinded materialistic people.

Everyone is bubbling over with excitement. Literally bubbling. This new anniversary update makes all emotions visible as auras. But excitement for what? We failed in our old reality. Yes, people will argue we saved the planet by centralising the energy and resource consumption and reducing overall demand through shifting the materialistic life into virtuality.

People will say we gained freedom.

You can choose your appearance simply by changing the “skin”. No creative boundaries are set, as long as your wallet plays along. There are also no spatial limits. You can do your morning yoga in a Japanese garden, work during the day in the office and city of your choice, and enjoy your dinner with your friends or family with the sun setting over the alpine panorama. Being virtually present

at any place and every event you like. All as you desire and need. Flexibility got a whole new dimension in the metaverse. Food as well. But nothing really has changed. Nobody is interested in your origin anymore, but there are still worlds between peoples' wealth. Old clusters as in the past.

I am walking through a firework of emotions towards this floating event of appetisers. All this hocus pocus, just for the anniversary of this new world. A new, excessively glamorous world of illusions. Taste, touch, smell, sound, appearance, time. Everything illusion. It seems people forgot how it began. Perhaps they just repress it. But for me the period of transition is burned into my memory.

People knew we had to change. We knew what to do! The option to cut back, to renounce and to turn things around - to degrow - was just not as attractive as living a life of high spirits to the limit. YOLO - you only live once. Instead, we became more and more people, and the availability of resources became increasingly scarce. The planetary system got more and more brittle. Markets remained empty, food was rationed, there was only mash anyway, and fuel was limited - nothing worked as I knew it from my childhood. You can imagine in the already unjust world with gaps between rich and poor, the difference of your origin became more and more extreme. It seemed as if we were existentially on the verge of collapse. The planet showed us our boundaries, and all we had in mind was our materialism.

People started to spend more and more time online. Why? Haha, they were driven by their desire of consumption. Lured by an ideal world, without problems, where everything is possible, where you can be whoever you want, consume whatever you want.

What was no longer available in the real world could be found in abundance in the virtual one. You no longer had to worry about any shortcomings. Even the mash they gave us for food, that tasted like nothing, could be transformed into a virtual banquet. What a genius solution, and sooo resource-saving. Politicians loved it. They just had to secure the energy for this parallel reality.

The United Nations bought immense sums of uninhabitable land in the global south - which was available in excess due to climate change - to build a central solar energy plant area. In 2100, the plant was completed and took over the power supply. Almost every company had moved their business to the Metaverse by then. Every second person was already working in it anyway. There was no other way to keep up. But there were also no more real reasons to stay in the physical world. A year later, governments moved their entire ministries to the Metaverse and recognised the virtual currency as official currency. After all, there was really no reason to leave the Metaverse anymore. They celebrated themselves for saving humanity, reaching a new dimension of freedom and creativity. We are still the prisoners of our society and its materialism. Pretending to be someone through excessively consuming all possible sorts of goods, to always be a bit more individual. Demarcation of one's own identity in order to not get lost in the masses.

So, here we are, on however which anniversary, celebrating the failure of humanity. Or celebrating human dominance over nature. That doesn't make it any better. Oooh melancholy makes me hungry. Hmmm, the appetiser tastes w e i r d.

Dark.

Wait, hello?

Nothing, just a black wall.

Where did everyone go? Must be a bug.

Hey, did someone shut down the sun or what is going on right now?

Still nothing.

I trace the wall with my hands to find the door. Enter the hallway that I have not entered since 2101. I check the fuse box. Dead.

How does it look outside?

Heavy breathing. Huh, should have trained for the yearly meta run. The familiar skyscraper craters of my hometown look run down. A breeze brushes my nose. Silence. Sun flashes between the houses. Green squeezes out of all the cracks. An abandoned bicycle, overgrown by vegetation, lies in a passage. Nature seems to have the upper hand again. Flat tires, of course. Well, that will work. I cycle my way to the outskirts of town. Wobbly. Which anniversary did we have this time? It must have been a while since 2101. The house fronts open up. What is this for a world? Wilderness. If you look closely, you can find here and there small, sophisticated cultivated areas, integrated between wild woods, bushes, and fields. That is manmade! Are there still people living outside the Metaverse? There can't be many of them. Perhaps storing the mass of people in the Metaverse recreated a new natural balance. Have a few people managed to return to our evolutionary roots and live as part of nature? But how? As keepers of the Metaverse's infrastructure?

A relieving feeling settles deep in me. Taking a deep breath.

Strive and Thrive Together

Valery Ndagijimana

Good evening and welcome to this “Strive and Thrive Together” conference. Our next guest speaker will be Mr Kalistus Black, a young man from southern California, who will share his story regarding how his family struggled and how they made life go on amidst the difficulties of the environmental racism period. He will also share the greatest dream he ever has in the future, where he gets his motivation from, and the conditions of life today.

Thanks for the opportunity to talk today. Dear ladies and gentlemen, peace and prosperity be to all citizens of our country and the global human community. It is an exciting moment and opportunity to deliver to the audience tonight, 31 December 2100, what we have done to fight environmental racism, injustice and inequality to improve the lives of everyone. I am Kalistus Black. I come from Southern California, 20 miles away from San Diego. It is a place where most of the inhabitants are indigenous, immigrants and low-income minorities, or call them marginalised communities; I am sure there is no harm to say it that way. Moreover, they stay there since that is where they can afford to live and where they don't feel rejected, to be honest.

My family has lived there for a long time and experienced all the infrastructure development, from water facilities and elec-

tricity to other development initiatives until 2070. My mom and dad both worked at Rich White Ltd business, in the polluted working environment, with a monthly salary of \$25 at that time. Rich White Ltd was a wealthy white-owned business from our city, which always had the first say for all development initiatives and policy influence, among other existing companies. My parents used to wake up early in the morning and come back late in the evening. The money they earned was too little, right? But they somehow managed to feed us. So, you understand that life has not always been easy for my family and our community in general.

Despite the hardships, I enjoyed my childhood with simple hobbies, like laying in the sun or swimming in the rivers and lakes. Especially at dusk, I enjoyed sitting on the hilltop, five hundred metres from home, feeling the breeze of the valley and watching the sunset. However, as I grew older I could no longer enjoy that because there was a lot of pollution nearby coming directly from the toxic waste dump site that the city council established. Even my parents monitored my whereabouts for my safety. In reality, there were many interconnected issues behind our gloom. For instance, the toxic waste dump contaminated our air, the river and the aquifers, making it hard to get clean water for drinking. In addition, the coal industry planted one kilometre from our residential area generated emissions with disastrous impacts on our lives. Indeed, having no power to change our misery, our community lived in those complex conditions for a long time. Marginalised communities all over the world face similar injustices.

Then, to my dream. I have always wondered how I could free my community from the unfairness we have been experiencing and a possible means to end the environmental injustice. I always

remember that my grandparents settled in the country a long time ago and worked hard under challenging conditions. The legacy of my ancestors has taught me to fight for my rights until change happens, and I had the drive to fight for a safe environment. So, I dreamed of a place where people treat each other equally, share and benefit from available resources, and carry the burden of environmental risks in the same way. This dream has shaped who I am today.

I remember a horrible social protest in 2080; minority communities from my city got tired of living under polluted environmental conditions and with unequal access to basic resources, which middle class and wealthy citizens enjoyed. There had been the formation of different networks to bring up our problem, but the politicians remained silent, and business went on as usual. Therefore, the young people from my place stood up and attacked buildings in affluent areas of the city. The protest continued for weeks and damaged some 80% of the city's infrastructure, destroying many basic facilities. Was it a good strategy? Not at all, but they opted for it since all other means had come to nothing. Protesters were shouting, "You, leaders, we don't equal waste", and others held posters with words such as "treat us equally" or "equity in economic development". However, this protest was the start of an extended plan of fighting for change across the entire nation and even globally.

It is true that there was a risk of protests turning violent, since they could have enabled gang terrorism but different networks had agreed it was the last option to get things changed. Luckily, to calm the protestors and end the violence, the political leaders finally organised a roundtable with all stakeholders to discuss how to solve the problems communities raised. At the roundtable I gave a speech telling everyone about my dream for the future and

a safe environment for all. Equal rights to basic infrastructures access and solving environmental pollution had to be the start of a new wave of change. This is where the Strive and Thrive Together programme has made a big difference. It has saved our society from total collapse and transformed the way we deal with environmental benefits and hazards. Without it, I would not be giving this talk today.

The programme started with the design of inclusive policies and development planning processes, and was the product of a multi-stakeholder's dialogue so that everyone endorsed it. The policy acknowledges freedom from ecological destruction, mutual respect among peoples, and justice to all, without any discrimination or bias. In addition, the policy demands sustainable use of resources for the interest of the planet, humans and other living beings. The policy recognises universal protection against the disposal of hazardous waste and poisons, and prevents nuclear testing that could threaten the fundamental right to clean air, land, water and food. The framework provides representation rights to marginalised communities in the country's decision-making processes. This regard guarantees the equitable distribution of resources whenever there is a development plan. Thus, the program managed to provide drinking water and electricity to all places in our cities regardless of the economic status of the residents.

In addition, it dictates a prior and ongoing environmental assessment for all industrialisation and development activities such as land expansion, resource extraction, and energy production processes to minimise environmental damage to local communities. It also stipulates compensation for communities affected by environmental hazards and recognises indigenous rights to land. The foundation of Strive and Thrive Together is a

solid monitoring strategy of all ongoing development activities to ensure the execution of the policies it puts forward. So, considering the benefits of the Strive and Thrive Together programme and its ability to fit into all contexts and times, the programme has crossed the borders of our country and has been implemented in fifty countries around the world. I am hopeful for its continued success.

Thank you.

The Beautiful Era of Degrowth

Vendla Karlsson

Juliana, 25 years old, works with the restoration of the Amazon rainforest. June 2100

I pull up the curtains and the sun immediately hurt my eyes. Outside the window the city is still calm, some people are walking with their newly bought bread and fresh fruits. Long ago these streets were full of traffic and the buildings were covered with advertisements, but since the Clean City law was introduced in the country the advertisements are gone. Ever since the government of Brazil in 2070 decided to implement degrowth, the city and country have changed drastically. My workday starts early in the morning, as in the evening I spend time with my horses on the farm I have at the border of the city. My work is located in both Manaus and in the Amazon rainforest where I go every second week.

The inspiration to continue working with the Amazon rainforest is something that has been passed down through the family. My grandmother fought against the Brazilian government, trying to save the rainforest, and my mum was a part of the rewilding revolution. The preservation of wildlife has had tremendous ef-

fects on rainforest restoration. Though there is a long way to go until it is restored to the way it was before deforestation devastated the rainforest. The best part of my work is to see the effects of rewilding as more animals have returned. My work is based on preserving the Amazon wildlife and trying to restore the land that was used for agriculture through rewilding. After work, on my way to my horses, I remember how my grandmother used to tell me how she had to work 8-10 hours a day to be able to survive, while I have the opportunity to work only six hours a day which gives me more free time. As I bike through the city the sun sets and I see streets, now empty of cars, full of people biking or walking.

Maria, 25 years old, works as a tourist guide and lives in Rio de Janeiro. June 2100

I wake up to the sound of dogs barking. After my morning coffee, I take off on my daily run. The route goes down by the beach and then up through the city. It is hard to imagine how big the beach was before now that there's nothing left. My dad told me how he, as a kid, used to spend his Sundays at Copacabana beach, it was famous back in those days. The effects of sea rise are easy to spot in Rio, it is harder to get housing now since a lot of houses have disappeared and some areas are now completely unlivable. This has led to people having to abandon the city.

Ever since Brazil has become a country of degrowth, fewer working hours and more free time has been afforded to the people. After my morning run, I bike through the city which no longer has any cars, to my work office. It is time to plan the new trip for the tourists who will head to the rainforest in the middle of Brazil. The restoration of the Amazon rainforest, using the wildlife method, has been a success story that seems too good

to be true. It has not only helped more animals to return but it has also played a part in preventing warming from going up to more than 1.5°C. My working days are now no longer than six hours and I only work four days a week, meaning I have more time to spend with friends, and pursue interests. On the rooftop of my apartment building, we have an urban garden which is a collective initiative that my neighbors and I have together. After work, I meet my friends in one of the restaurants in mid-town, which is now a city center full of trees and green areas, and tall buildings filled with apartments.

Juliana, February 2101

Waking up with the rain falling outside is now a common occurrence. It has been raining for weeks, as it normally does this time of the year. As I'm getting ready for work, I listen to the radio. They are talking about how the rains are hitting Rio, just before the carnival is due to start. I walk down the stairs of my apartment and due to the heavy rain, it's impossible to bike which makes me walk to work.

It is alarming how much it has been raining in the Amazon, every day hitting a new record. The forest hasn't been able to rehabilitate itself, even with rewilding. There is so much water that it destroys wildlife, and the trees are too weak to handle the flood that is coming.

Suddenly the ground is shaking, and it sounds like someone opens a water tap. I'm looking out and a big amount of water is coming down the Amazon River. The rain keeps pouring down, falling even harder. It is flooding outside. How will I get back home...

Maria, March 2101

Again, I'm sitting here working as I've done for the past three days. The Carnival was canceled this year due to heavy rainfall and flooding the past month. It is the first time since the corona-pandemic back in 2022. All the tourists claim their money back and my extended workdays due to the causes of the weather don't seem to ever come to an end. While working, I have the news on. It shows how the flooding has been causing issues in the Amazon region. Many people have died and more have lost their homes. The rainforest is damaged. It feels like the world we have built up in the past century is now falling apart.

My office is high up, two blocks from the ocean so you can imagine the view. It has been raining for a long time but during our break, the rain suddenly stops and the sun shines in the sky for the first time in a couple of weeks. My colleagues and I take the opportunity to drink our coffee on the rooftop. Outside it is calm, I don't think I have ever experienced Rio this calm. From our rooftop, I can see the damage that the flooding has done to my beautiful city. People living on the hills have been the ones that have been affected most. The houses were destroyed and people who lived on the hillside have been forced to evacuate. I hear my colleagues laughing at a joke while I'm thinking about the mess the rains have done to our beautiful country and how we will fix this catastrophe.

The Death of Mrs Kowalczyk

Adam Beswick

Krzysztof Kapuściński: Using Ambiguity to Further Revolution

The following is an article written by Krzysztof Kapuściński for *Gazeta Polska* in the year 2100. The article proved to be quite a sensation among the Polish public and ruffled feathers within the ruling regime, misleadingly referred to as the Świętej Polskiej Partii Wolności i Równości, or as we know it, the The Holy Polish Freedom and Equality Party. Many of my peers have illuminated how the party neither stands for freedom nor equality. Neither would it be appropriate to call it holy, nor a party. The article went broadly unnoticed to us here in Scandinavia, naturally many of us do not speak Polish afterwall. However, I have translated it here for you by a good friend of mine, a political refugee from Poland.

Seeping through old documents of Krzysztof's relatives, another journalist by the name of Ryszard Kapuściński from the twentieth century springs up. Writing during the Cold War, Ryszard used ambiguity, and non-linear and dialogue-driven storytelling to bypass the censorship of the communist regime at the time. In doing so, Ryszard was able to publish incredibly often unsettling and critical accounts of daily life in communist Poland. The censorship at the time was not able to understand

how the ambiguity in Ryszard's language was able to say one thing on the surface, and another between the lines.

Dare I say that it is an exemplary case of clever subversion, possibly of quiet rebellion? It seems that his descendant Krzysztof seems to think so. The influence of Ryszard is obvious in the following text, and Krzysztof's critique of the patriarchal neo-religious social contract that defines Polish attempts to rediscover our collective interconnections with the soil and our planet.

Walking the line between censorship and a desire for societal transformation is often a treacherous one. I will leave it in the hands of you, the dear reader, to pass judgement whether Krzysztof's linguistic acrobatics constitutes a choreography for those saints who wish to break the monotonous march of systemic oppression.

Erik Stjerna, Aftonbladet 16 March 2101

The Death of Mrs Kowalczyk

There is an air of unease and anticipation permeating the hall. The villagers of Bełk, roughly fifteen minutes by bullet train from Katowice Dworzec, have all gathered. Located between Mr and Mrs Nowak's farmhouse and Mr Rączkowski's solar panel farm lies the old community hall. An old familoki, with red panelled windows and brown brick, used to house miners back when this part of Upper Silesia was dotted with coal mines.

"The last mine closed here in the 40s you see," says Mr Nowak, pouring homemade vodka, infused with ginger from his garden and raspberry from the forest. Above Mr Nowak's kitchen door, next to the Polish eagle emblem and the cross of Jesus Christ, our father and God, lie two pickaxes forming a cross, a reminder of the coal mining days. I remind Mr Nowak that displaying Silesian symbolism is against the law. "My grandfather used to be a Górnik you know, or a miner as you Warsaw people probably know it as" he replies. "If your Warsaw colleagues want to come and get me, you know where to find me." "Take me away from these crazy *dziwkas* you say? Where do I sign up?" he laughs.

The hall hushes as Mrs Ptak enters, whom Mr Nowak believes is the biggest *dziwka* of them all. She is married to Mr. Ptak, who owns twenty cows, one hundred chickens and four horses, more than anyone else in the village.

"That greedy bitch wants everything!" Mr Nowak tells me. "This is the sort of bullshit I would imagine those godless neoliberal communists did. Has she no morality, no sense of dignity?"

The Ptak family reside in an old familoki in and amongst the trees just off Główny Street, a long pedestrian street running

through the centre of Belk. “Can you imagine this was nearly sand when my grandmother moved here?” says Mrs Ptak as she shows me around her garden. Mrs Ptak’s family moved to the village in the 60s, receiving the plot of land from the church.

“My grandparents would tell me stories about Zabrze back in the 60s. Hand to mouth sort of living you know? It was not easy in the blocs back in those days.”

“I am very lucky I am able to grow my own food. Look! I have paprika here, tomatoes there, and over here soon to be my very own, or hopefully our own, little forest” she says, pointing at a bare field she intends to restore.

I am invited by the women of the village into one of the adjacent forests. “I come here to get mushrooms, nuts and berries, even building materials” Ms Rebrow tells me, “But do not tell Mr Nowak!”

Ms Rebrow is unmarried, despite being 24 years old, bewildering as that may seem. “Mrs Ptak speaks for me, for us,” she says as we gather in an area of old brick buildings. I am told a coal mine was active here until the mid 40s. We gather in a hall, no larger than a Warsaw citizen’s allocated growth plot, which hosts their organisation. Above the entrance rests the Polish eagle emblem, a cross of Jesus Christ, our father and God. Across the hall hangs their own banner, KLUB KOBIET in bright red capitalised letters, with their logo, a bright red lighting flash. The women meet here twice a week, after garden maintenance hours on Tuesdays and Fridays. “Despite what the men may have told you,” notes Mrs Ptak in a stern voice, “we have received permission from Father Mateusz to create this organisation.”

“The man has lost his wits” says Mr Nowak, a local forest owner, sipping from his Tyskie Pozytywne Klimat (a popular type of beer). “He is an honourable man, Father Mateusz, and we

could not do without him” interrupts Mr Rączkowski in more Christian tongue, “but somebody has to have a talk with him, this is unacceptable.” The men are drinking in the village pub, Czerwono-Czarni, an old brick building off Główny Road.

“It is for sure a shame what happened to Mrs Kowalczyk” reflects Mr Rączkowski. “She used to be such a friendly, good catholic woman you know.”

“Then six months after going to that fucking club, Women’s Club, or whatever they call it, she changed” remarks Mr Nowak.

“It is good I suppose that they...” Mr Rączkowski starts.

“I do not trust that woman, Mrs Ptak” interjects Mr Nowak, finishing the last of his beer. “I can tell you, if it was not for that club, and that Dziwka, things around here would have been just fine. One day you are focusing on doing your daily duties, and the next day the women lose their fucking minds, start talking about their claim to everything.”

“And on top of that now they are striking or whatever they call it. Us men have had to do twice... nay... three times the work, and we are barely making ends meet. If this shit continues, I am going to take matters into my own hands.” “Mark my words!” Mr Nowak shouts, increasingly worked up over the situation, his cheeks as red as Mr Rączkowski’s raspberry-infused vodka.

“Why can’t women oversee forests, own cattle, own a pig?” responds Mrs Ptak when I ask about their claim that stewardship over husbandry and land ought to be extended to women as well. “We work as hard as the men; we helped restore what was lost. Wasn’t the point to create resilient communities to restore God’s land? We are all God’s children are we not?”

“Instead of spending all our money on gambling, alcohol...”

“And prostitutes!” adds Mrs Nowak.

“We could help rebuild Poland’s soil in God’s name” continues

Mrs Ptak. "What happened to Ewa is unacceptable and shows us that things have to change!"

There is an air of unease and anticipation permeating the hall. The villagers of Bełk have all gathered in the community hall between Mr Dzewior's farmhouse and Mr Rączkowski's solar panel farm. Above the entrance rests the Polish eagle emblem and a cross of Jesus Christ, our father and God. They have been invited by Father Mateusz. Like other village priests, Father Mateusz carries an aura of divine authority, a representative of God among the people. He had been absent the first weeks after Mrs Kowalczyk's death, journeying to Jasna Góra seeking guidance from the archbishop.

"The death of Mrs Kowalczyk was nothing but a tragedy. God may work in mysterious ways, but he has his reasons" he declares to the hall of villagers. Reading from a tablet on the pulpit he continues. "I pride myself in having restored our soils and forests. Our river was but a mere stream when I first came here forty years ago. Today, God's life glides through our waters. God's gift of clean water sustains us, his children."

"I have prided myself in fostering stability for our Bełk!" He pauses. The room is silent. The sun enters through the glass wall, the rays making visible the old dust dancing. As if dancing to a choreography, orderly as a whole, individually unpredictable.

"But in this, I have failed."

"It is the opinion of the archbishop and I that for Bełk and the parish of Czerwionka Lesczyny, from this day forward, women and men are both entitled to stewardship of husbandry, permaculture plots and deserted lands for rejuvenation. It is the word of God that we all must share, man and woman, husband and wife, in our responsibility to God's domain, to the family, the soil to provide life, the rivers to flow, for the trees to teem with life."

The sun now shines brighter than before through the old window. The choreography of the dancing dust transforms through the sunrays. A tear passes down Ms Kowalczyk's cheek. It shimmers in the sun.

"I do miss Mum, but I know that she is now with my grandpa and grandma in heaven" Ms Kowalczyk tells me. "Father Mateusz said this."

Ms Kowalczyk is sixteen years old and attends one of the two local schools in Belk. She has a keen interest in biology and birds. She takes me to an old coalmine mineshaft which her grandfather had repurposed into a bird watching tower. "I usually see storks, eagles... and last week a rare Steller's Elder" she tells me as we look over the patchworks of fields, forests, streams, and meadows. There are three hills to the west, covered in forests, which used to be large piles of coal I am told.

"Mum and Dad often fought, especially over money. On the night of... well, he had been drinking a lot with his friends and Mum yelled at him for spending the day's income they had earned from our pickled cucumbers on booze. What seemed like a normal fight quickly escalated when she said that the other women at Klub Kobiet thought he was useless, and she should be in charge of the finances and our cow. Dad started yelling about how Mrs Ptak was brainwashing her and that it was not a woman's place to handle money and... well, it all started there."

"I ran into my room on the top floor and did not come down until it had been quiet for a while."

"I don't know where Dad went. Mum was just lying there, not moving. I couldn't wake her up."

The wind blows and a lone thrush flies between the yellow, orange and red leaves.

"Sometimes I wish I could be a bird" she says smiling.

“Because they can fly?” I ask.

She shakes her head.

“For they don’t have to endure the hardship of being human.”

The Limits of Demo(techno)cracy

Josefina Marklund

First there was Ziv. Then came Kai. And lastly came, of course, Emery.

Nowhere had anyone yet recovered from Emery. At least not in the North. Half of the forest was lost, towns completely abandoned. It was like no one had anticipated that seven months of fighting forest fires would be followed by the opening of the sky, and the feeling that it would never close again. It did close. But at that time, death tolls and the number of homes and towns completely submerged under water were so high that it didn't help.

More urgencies were expected in the near future, but the United Nations Transition and Security Council did nothing but speculate. "What will the UN name our next urgency? Well, the names with the most votes are Ollie, Rumi and Yael. But is Ollie even a gender-neutral name, critics ask?" Nadja turned off the news. Whilst some were concerned about the neutrality of the names for recurrent weather extremes of combined droughts, rainfall, and storms, she was disturbed by the fact that they even named them at all. Rather than indicating a progression in gen-

der norms, it had more to do with the anthropomorphisation of every aspect of nature, she thought.

“We did this to ourselves. Extreme weather events were not God’s fault, they are man’s,” Essa’s voice breaks her thoughts. Her imitation of Livia, the collective’s oldest leader, was spotless. Nadja smirked. Even though Livia had granted them access to the women’s community of Lávkure, they couldn’t help but mock her all too recurring words of wisdom. But in fact, Livia was their saviour. The village had vastly shrunk to a third of its original size after Ziv, with bogs the only remaining open landscape, and house remnants floating on the lake that nowadays almost enclosed both the mountains of Tjiter and Lauker. In this discarded landscape Livia had created a cluster of small stone atrium cottages with centred pieces for collective healing. Most of the women used them for spiritual practices such as meditating and praying. Nadja, however, didn’t find comfort in such things. Instead, she turned to the words of her mother.

Nadja’s mother was a part of the Swedish Military Crisis and Disaster Relief Unit during the early 2080’s, about 30 years after military conscription had been reinstated in Sweden. During Nadja’s upbringing she was always far away in places that today were nothing but a memory. Her mother stayed with her through short sentences hurriedly written down on paper.

Madrid, 21st of October 2083.

How are you? I thought of you today. We will have to stay here in Spain for a while. The heatwave is closing down the southern parts. I’ll be back soon.

Mom.

Nadja’s mother’s obligation was to run towards burning fields, tornados containing people and belongings, and urban areas

turned into water bodies. Essa's life had been fleeing them.

Nadja met Essa in Stockholm. Essa had come to Sweden as it was one of the only countries with a functioning Expert Council, she said. Sweden was one of the few countries with the remaining fragmented pieces of civil society included in the otherwise scientist and engineer dense council; a representative from the world's last trade union, a representative from the Sámi population, and a women's rights advocate. A holy trinity of previous watchdogs. Above the parliament, whose power was assigned through public voting, was the Expert Council – the highest decision-making institution with ability to introduce and repeal legislation regardless of the parliament's decision.

Nadja had been in Stockholm to protest a motion. The Council's motion would make her and 39,000 other marketing agents jobless, and unemploy a further 350,000 workers in the marketing sectors. Due to the global war on trade unions, they stood without any influence on the labour market to bring their case. Even though the Council had the highest legislative right, their proposals were always turned into motions directed towards the parliament for voting. It was praxis. An important part of democracy.

Motion 2098/2099: 10 871

Abolition of 390,000 climate degradative jobs in the marketing sector.

The abolition of climate degradative jobs has disappeared from the debates forum after 'The Great Green Transition'. However, the question must gain importance and priority for several reasons:

- 1. The Continuation of the Green Transition must be established.*
- 2. Sweden must take responsibility and action to reduce national GHG*

emissions, and further make advancements towards Sweden's achievement of the 2120 Global Security Goals.

Today – in 2099 – climate degradative jobs within the marketing sector are still prevailing. The combined CO₂ emissions of these jobs is measured to 367,000 tons per year. These high emission levels entail that the jobs within the marketing sector are a direct threat to both global and national security. Due to the past 30 years' increased frequency of urgencies, it is incumbent upon the parliament to take extraordinary measures.

Furthermore, the jobs within the marketing sector also indicate that Sweden is not making serious advancements towards achieving national commitments for shrinking the economy. With account to the arguments put forward, the Expert Council suggests an immediate decommissioning of these works. Lost income will be compensated through national basic income.

Stockholm, 25th of January.

The motion passed. And as a result, Nadja and her newfound love moved in search of a meaningful life in the wake of lost employment. Turning up north seemed like the only option. Essa was tired of running from heatwaves and fires. Nadja was tired of diseases introduced on a monthly basis with names inspired by, what felt like, the Musk clan. Boisterous rain seemed ok for the both of them.

Her stomach made noises, bringing her away from her memories. "Not now," Nadja hissed. To fill the abyss inside her, she stuffed her mouth with sugar beets from the community garden. Essa rolled her eyes. Nadja didn't know where she came from, they rarely spoke about it because it simply didn't matter. With political security advancements in the EU towards making Eu-

rope one, heritage was becoming redundant. All Nadja knew was that hunger didn't seem to disturb Essa, but for her, the feeling was terrifying.

It was the same for everyone growing up on the run. Oftentimes the pillowcases of some of the collective's older women were wet from gently squished peas and flattened potatoes, hidden as a token of the times when they were refugees. When Nadja described this as gross, Essa gently reminded her that they had no idea how life had been during the 'Great Green Transition'. Even though Essa herself had been a refugee, she thought that running from drought and fire was one thing, but running from a life you don't recognise was a whole other one.

They helped each other get ready. Essa braided Nadja's hair, Nadja packed their poll cards. They smiled strainedly at each other, and then off they were. Nadja knew their opinions diverged on this matter. Several times the past few days they had fallen into the same tired discussions. "It is time to decide on the future of Swedish democracy." Essa hated when Nadja described it that way. "It's almost three years since the election, and they have yet again failed to form a government. I don't understand why you're defending this, it's an outdated structure. It obviously doesn't work!" Essa said. It had become a self-fulfilling prophecy. Every election year the media joked about it, and every election it happened. It wasn't sustainable.

By voting to remove the parliament, the Expert Council would take its place. Sweden would still have regional councils, but as Nadja saw it, by binding to international and global commitments, Sweden's political path forward was already decided upon. Essa, who was already a fan of many of the council's ideas, had been won over when they allowed everyone to participate in the

referendum, and by their promises of wages for housework. The majority of the population were relying on basic income, and the wages could help smoothen out structural inequalities that, after all, remained.

Was she right? Nadja thought to herself. Despite the increase of urgencies, they were better equipped now. It was as if the Council considered every component of society. All responsibility laid with the Council, that compensated for every change, both past and present, to everyone everywhere. Because of them, no one feared the future like people had done before. *No, she can't be right.* Whilst her stomach continued making noises, she thought of her mother's letters again. These small fragmented pieces from another life alongside hers was her only proof that she was right. History was speaking directly to her, she told herself.

Salzburg, 12th of May 2086.

How was school? I heard they're cutting down jobs again.

Will your teachers get to stay? Tell your uncle not to protest.

He always listens to you.

It's different here in Austria. I don't know by how many metres the river has increased in width, but people are still encouraging us and letting us help. An entire community has even joined forces to search for people's pets. It's beautiful to see. This patience, and the indispensable trust for one's neighbour. Makes me think of you.

Mom.

The Revolt

Julia Korten

February 2100

The smell of exhaust fumes and petrol hits my nose and reminds me of my childhood. A lonely car drives past me and, as always, I wonder who can still afford to maintain a car today. Petrol prices have become unaffordable, and resources have become scarce to produce e-cars. Add to this the increasing driving bans in cities, cars have all but died out. I stand at the station to take the metro to do my groceries. I search my jacket pockets for the shopping list and can't find it. Smiling, I breathe a sigh of relief. Even in my old age, I forget that my purchases are already pre-selected for me. The quantities are weighed down to the gram and tailored to my personal needs, my state of health and my age. I just have to go to the supermarket and pick them up. There are also delivery services, but sometimes I miss the times when I used to go shopping myself. By picking them up, I get a bit of that nostalgia back. The metro is late, so I turn my face to the sun and close my eyes. Reminiscing about my childhood. We were able to travel whenever and wherever we wanted. Our bad conscience was compensated for by planting trees. We could buy anything; the most juicy and exotic fruits, fish from the arctic circle, lamb from New Zealand. The amounts were limitless.

I get on the bus and ride to the supermarket to pick up my groceries. The employee hands me my bags. Curious, I inspect them and secretly hope for a bar of chocolate. As usual, I find seasonal fruit and vegetables, herbs and spices, along with a fresh loaf of bread still warm, butter, beans, insect meat - all from the region.

“How are you doing?”

I turn around and see my friend Pia. We grew up in the same street and share some of my best memories.

“Good! Picking up my groceries, as usual. How is the family?”

I answer.

“Adrian has a really hard time. He has more joy in reminiscing than living in the moment. The future does not bother him at all. We’re getting old, I guess. He never stops talking about the good old days. He misses his freedom, he would love to drive at 200 km/h on the highway as he used to, to eat two pieces of cake instead of just one. He dreams of more than just one plane trip a year. Sometimes he says he doesn’t care how the world turns out. He’s living now and wants to live life to the fullest. I try to make him understand that the lifestyle of our childhood days is no longer sustainable. And even more important, was never sustainable. We had the privilege of growing up in that time when we could have whatever we wanted...”

“... And this has spoiled our way of thinking to such an extent that we perceive today’s lifestyle as a restriction...” I finish the sentence nodding.

She smiles at me, holding sadness in her eyes. “Yes, we have lived so much beyond our means.”

We hug and say goodbye. Our conversation makes me nostalgic again. We had everything and lived in an overabundance of possibilities. It was obvious that our lifestyle could not continue like this. The state is now in control of our consumption patterns. We

can't buy more food than we need to be healthy, flight travels are limited, and the maintenance of a car is so high that only a few people can afford it.

I rush home, store my groceries and open my computer. My students are already in the virtual classroom. After our usual welcoming, inspired by my talk with Pia, I want to know from my students how they describe the world we're living in now and how they think about their quality of life. I am satisfied to hear that they find their lives orderly and without difficulty. My students point out that they can't imagine having to constantly choose between foods, buying new clothes, driving, and leaving the house for work. They can't miss something they never had, but my generation does.

After the class I decide to go for a walk. The cities are packed with parks and greenery. The fresh air fills my lungs, and my thoughts gradually sort themselves out. When my friend Pia told me about her husband being depressed by the lack of choices I wasn't surprised and could understand him. I still think back and miss extensive dinners with friends or trips to get to know foreign countries and cultures. My students on the other hand consider this lifestyle as exhausting and demanding. Their way of living is more comfortable because people work from home to save time and transportation, buying new clothes means donating old ones, groceries are pre-selected, public transportation is dominant. And even I notice how I have a greater connection to the earth. The air is so much more pleasant and clear, my daily walks in nature make me balanced and happy. I hear the bees buzzing again, plants grow everywhere, there are biotopes. Sometimes I watch the children and am pleased that they can feel and experience the basis of life so closely. The view of my students comforts me. At least they see that there are still countries, even if only a few,

where people can consume excessively. I am still surprised and impressed how the generation around the movement of Greta Thunberg has managed to change the politics and mindset of the nations of the Global North after years of not letting up. What appears a restriction to me, means normality for them.

November 2100

Today I received my annual consumption list. I was curious to see my results and I am satisfied. I was able to stay within the range that is considered sustainable by the government. Nevertheless, I must perform an ecological service as a sanction for my additional trip in autumn. Secretly, however, I look forward to seeing the other rule-breakers again. We have become close and feel that our additional journey is a justifiable sin that we share with each other.

In addition to the consumption list, the newspaper is also in the letterbox. It is a relic from my childhood days that I didn't want to give up and read online. "Unconventional thinkers on the rise: how they boycott the rules" emblazons the headline on the front page. I take the newspaper and go for a walk. I settle down on my favourite bench, which faces the lake, and start reading. The movement of lateral thinkers is getting bigger and louder. The supporters criticise the restriction of freedom of choice. They don't like the fact that we can no longer determine our consumption ourselves, but that it is regulated by the state. Some voices even speak of a bad mixture of communism and dictatorship. "Everything used to be better, we could do whatever we wanted," one supporter is quoted saying.

I can understand the need. It was convenient to have everything in bulk. Nevertheless, I feel that life is so much more worth living. When I go outside, I breathe in fresh and clear

air, the birds are chirping, bees are buzzing, green spaces are everywhere. And I am supplied with regional and fresh food. My food no longer must ripen on ships or planes and sail around the world. I feel like I live more conscientiously, think more about my next flight, dress myself and eat my meals in good faith.

April 2101

I wake up from the noise on the streets and open my curtains to see what is happening. I see a crowd of people, a horde of the lateral thinking movement, brawling and celebrating on the streets. Now it comes back to me. The decision on whether the state can continue to control the consumer budget so strongly was taken tonight. Looking at the masses, I realise that the plan has been overturned. For me, this day will probably go down as the most formative event in history. With the dissolution of the state, which has the health of the earth at its centre and sees society as a reflection of this, the well-being of the planet and thus of our habitat will deteriorate.

From today on, consumption is limitless and will skyrocket again. This will also lead to an increase in production. The ecosystems that had recovered so laboriously will collapse again. The companies will be happy about this growth. I am not averse to living beyond Earth's means either, that has always been attractive. Still, it makes me sad and devastated. The planet was well on its way to recovery and many people had understood the process of de-growth and the vision of environmental justice. With the renewed collapse and the volume of over-consumers and over-producers, the earth's lifespan is now likely to be drastically shortened. I put on my shoes and sit on my bench for the last time. I take one last deep breath to remember the clarity and crispness of air. This little paradise will be gone soon.

The Waste(n) Economy

Bryce Chawiya

The year is 2100. Mineral resources have run dry. Atmospheric carbon levels are on the brink. Any more release of carbon into the atmosphere will set the earth on the path to extinction. The burning of carbon fuels has pushed the earth to the edge. China and the United States of America have depleted their accumulated reserves of metal ores and fuel. Supply chains have been disrupted. Countries in the Global South are already suffering shortages including energy and medical supplies. Fossil fuel depletion has cut the lines of transportation. Worse still, there is no more supply. In the years prior, environmentalists had warned of a possible depletion of mineral resources but geologists outrightly dismissed those fears as unfounded. They claimed there were too many mineral reserves to be worried about depletion and accused environmentalists of raising a false alarm. They further argued that if the earth ran out of minerals we could explore off-shore mining or better still get them from other planets. As it turned out, however, geologists had been wrong all this time. There are no available alternatives to mining on earth. The reality is upon us now. There are no more minerals to extract, no more minerals stored to serve our needs.

The earth is on the brink of not only environmental catastrophe, there is also a near complete darkness looming. Coal and

diesel powered energy plants are a distant memory. There is no more uranium to provide nuclear energy. Many solar and wind farms built during the time of plenty are breaking down and lying in ruins. Nearly all the extracted minerals have ended up in the landfills as waste. Water, land and air are highly contaminated as a result of incessant pollution from mineral waste. Desperation is kicking in fast. People are scared for their lives. Some are wondering if it is possible to run away, but to where? Are we going back to the stone-age? Are we going to live around fires like cavemen?

Driven by the hunger to maintain the quality of life humanity has known for ages, people around the world are regrouping into small communities. A new trend is emerging to give new life to resources that had been discarded in land refills. Countries in the developing world that had been made dumping sites by the affluent developed countries are now the new mineral rich sites. Millions of tons of potentially recyclable and reusable resources have accumulated over the many decades of throw-away culture.

Young people in a small village in Southern Africa have taken issues into their own hands. Spending hours and hours in a makeshift laboratory they came up with a solution to generate on-site, emission-free energy from waste. They built a containerised anaerobic digester, turning slurry and bio waste into electricity and heat, generating fertiliser as a by-product. Local farmers can now begin to rebuild their farms, generating more biomass for future food and energy needs. The young men however have set their sights on bigger things. They have started gathering the metals thrown away in landfills and have embarked on rebuilding old computers. They must find lasting solutions to the dire lack of mineral resources in their community in order to maintain a good quality of life. The only way is to bring back to life the abundant

waste matter in an efficient and environmentally sensible way.

It has been three months since the computer lab was set up. In a world record time, a new artificial intelligence unit has been born. Known as B-Tech2100, this centralised AI unit has sensors to detect and separate chemical components in metal items. The B-Tech2100 sorts recyclables by using computer vision and learning algorithms, much faster than human beings are capable of. The B-Tech2100 is able to extract the smallest deposits of rare earth and metal elements to build up new stocks for development of essential products. With this new innovation, local youths are now rebuilding solar panels and wind turbines to provide clean energy to their homes. There are now new jobs and new hope for the young generation. Besides recycling, the B-Tech2100 upcycles waste matter to energy by auto-incineration and pyrolysis with negative carbon emissions. The B-Tech2100 has completely eliminated the community's carbon footprint.

Due to the massive innovation of B-Tech2100 in this small southern African village, more and more local communities are getting connected as the technology is shared. Communities are breaking from the economic system by becoming independent, self-sufficient, localised and enclosed. Multinational companies continue to lose money as they are no longer needed. World leaders have called for an emergency COP47 meeting. For the first time, world leaders are meeting virtually so there are no carbon emissions from flights. It's the cleanest COP meeting ever. On the agenda is one item; the B-Tech2100. The pledges that had been made at COP45 were finally honoured. World leaders come together and pledge to support the further development and scaling up of the new life-saving technological discovery.

There is jubilation all over, people are screaming and singing. . .

‘Daddy! Daddy! Wake up, it’s time to go to school, I don’t want to be late’ said Kai, my son, as he woke me up from my sleep. I slowly and grudgingly opened my eyes... Oh! It was all a daydream. We are still in 2021. I looked down at the newspaper on the table, describing the impending crisis of resource depletion. I must have gotten lost in thought while reading...

Time Travelling to a World of Degrowth

Felix Rüsseler

In an act of despair, representatives of the G7 countries created a virtual robot that could travel in time. Despite reasonable doubts and against the odds, the robot “came back” from the future and provided an interesting report of the year 2100. As they found out, the world would drastically change. Obviously, they knew about current pressing ecological and social challenges. They also knew that they were running a system that needed to maximise profits in order to maintain market positions, political power and generate wealth. On this path, recognition of the depletion of Earth’s resources and the exploitation of the poor was set to fall to the side. The main solution to these problems, they thought? Technological progress, innovation and of course more economic growth! No?

Well, the conclusion the robot brought back is a surprise to them, as seemingly none of the economic development plans they had created thoughtfully have come through.

Economic output is no longer used as a measurement for national productivity. GDP is still calculated, but one has to search for quite some time in official

publications to find the indicator in a footnote. Instead, there are two more measurements called "Societal Well-being" and "National Ecological Balance" which are used to evaluate a country's annual achievements. No country has a state debt level over 25%. To avoid deflation, federal banks regulate the cash amount in such a way that the monetary value stays constant. Industries in the formerly-called developed countries of the Global North have transformed significantly. Whereas many companies have adapted their products or services, others have dropped out of the market. There are for example car manufactures, or as they are called now "mobility providers" who do not sell a single car to a private consumer. Instead, their products are offered as services, aimed towards a maximum usage by a sharing community. Despite the fact that the usage time of cars had gone up to 80% rather than the current 5%, the product's longevity has improved. Renewable energy companies and associated companies within this branch have grown, which has seen a shift in labour towards this industry. Furthermore, a broad and innovative start-up scene has developed in many countries, focusing on providing sustainable products and services.

It is not only the products and services that have changed. Working hours have been reduced in the former industrialised countries to a standard of three days (15 hours) per week. In order to receive a full monthly payment, 15 hours of social work have to be performed every week. But people love it, as there are so many different ways to engage within society. This has also seen a general paradigm shift from viewing the mundanities of society as a necessary evil to embracing it as an inspiring community, providing possibilities to express yourself. The increased availability of time has also resulted in cultural reinforcement, e.g. by an increasing

amount of people expressing themselves in different art forms. Of course, in the past this was unimaginable but such activities contribute to this new indicator of "Societal Well-being".

Included in this context is that social differences have decreased greatly. Equality is finally a lived experience and is implemented as a key value almost everywhere in the world. The few totalitarian regimes left have been cut off from global trade of goods and knowledge and therefore are under massive pressure to sustain themselves. In general, differences in welfare between countries have decreased. A gigantic internationally operating fund has been established which is controlled by a confidential panel integrated in the United Nations. This fund is mainly filled by so-called "resource-use-taxes", which are internationally standardised and monitored strongly. As a result, private persons, companies, institutions and governments pay into this fund according to their resource consumption. By doing so, previously called developing countries could transform towards higher living standards, investing into infrastructure, education or green economy without having to go on the same path as the industrialised countries and damaging the environment.

Every country is more valued individually for the different contributions they make to global well-being, such as ecosystems, natural resources, knowledge, living space, food production capacity, cultural richness and much more. By increasing the overall living standard worldwide, economic migration is not a critical factor anymore, which is important because of a high world population and limited space. To put this into numbers: In the year 2100, there are 9.5 billion people living on earth! This is even more impressive

given the context that about 10% of the global population had to move due to sea level rises caused by climate change. That's right - climate change could not have been prevented in such a way that this previously known scenario was avoided.

However, by global collaboration the challenges of climate-related migration were solved. And even though there is less land space available now, with overall less resource consumption there is enough space for living, food production and green energy production, and more protected conservation areas as well. A lot of credit has to be given to the internationally enforced "efficient land-use policy." This regulation applies to several areas such as private property, agriculture, and city development, and regulates use of space with different restrictions and incentives. It particularly encourages multi-purpose use such as using space for both agricultural output as well as energy generation.

Similar regulation approaches have solved some of the challenges in food production, restricting resource-excessive production of food and encouraging sustainable practices as well as use of modern technology by subsidies. But regulations are only half of the solution. An even higher impact was made through a drastic mindset change of consumers. As the environmental and social impact of products and services became fully transparent, people began to adapt their consumption behaviour. This has not only led to a decreased demand for unsustainable goods but also lowered general consumption and reduced waste. Another reason of course is that excessive consumption from former developed countries has dropped, partly because of a change in mindset, and partly because of less income per capital with the new economic structure.

But what about climate change? Was it not said earlier

that sea levels had risen significantly? Yes, that is true. Climate change and its effects could not be prevented in the way anticipated by the IPCC and policymakers. Carbon emissions until 2060 were simply too high. That led to certain domino effects, for example 90% of glaciers worldwide have melted. However, the world reached a carbon balance in 2080. Besides carbon emissions, countries have been quite successful in protecting ecosystems and increasing efforts for regeneration. So even with the warmer climate, biodiversity has actually not further decreased since 2040; in fact it has gradually increased again from 2080 onwards.

The G7 representatives are impressed. All in all, quite a lot of positive developments without actual further “development” in terms of global GDP growth have actually been achieved. These changes can surely be signed off quickly.

But just as a lot of the challenges seemed to be in order, the year 2101 came with a massive shock. In this year, India, the world’s largest producer of biomass crops, was hit by a severe season of drought. 75% of the annual yield was destroyed within a matter of a few months. This resulted in shortages in biomass raw materials which meant shortages in energy supply. For India, this led to a significant reduction of expected income from exports, which was needed in order to achieve their sustainable economic output. Worldwide this meant energy supply shortages in countries depending on biomass crops. Whereas in the past, this would have resulted in significant financial and social damages, the global degrowth society in 2101 could deal with the problem in an equitable way. Capital resources from the global fund were used to cover for India’s financial losses.

Furthermore, natural resources from other countries worldwide were used to temporarily cover for some of the biomass raw material losses. As energy consumption was still needed to be reduced in some countries, these were paid for by the global fund as well.

Upon departure, a long term plan was being drafted to reduce the dependencies from India's biomass production output.

“Beep.”

The robot signals the end of its future outlook. The G7 representatives are speechlessly impressed by what they have heard and leave the meeting with a positive, yet very different mindset. One of them thinks while leaving, “Degrowth... Doing much less and actually solving much more of our global challenges. Sometimes the common logic just needs to be rethought as well.”

Under a Different Sky

Emma Bergeling

Europe, 2100

Betty Sloan slowly opened her tired eyes. The golden morning light found its way through the thin tent canvas surrounding her. It took a few moments for her eyes to adjust and for her ears to start taking in the myriad of sounds outside: birds singing in the treetops, insects making tripping sounds while inspecting the foreign object that her tent formed, the wind finding its way through the forest and – if she really spiked her ears – waves colliding with land. She took a few deep breaths. A feeling of gratitude and connectedness bubbled up from deep within and put a humble smile on her face.

Ever since the work time reductions were put into place, she had made it a habit to sleep in a tent in the forest close to her house a few times a week. Betty looked at the clock to discover that work started in an hour. With habitual movements, she packed up her gear, thanked the spot of land for hosting her for the night, left it just as she had found it and headed towards her bike to get to work.

While on the bike, Betty took time to contemplate on the times she lived in. Europe had lived through an exciting century full of changes that led up to this year. What happened can most

properly be described as a transformation. As the effects of climate change and diversity loss became more and more difficult to ignore - one example is when the European parliament was flooded during an event of extreme rainfall - social movements advocating ecological action gained momentum.

Communities in Europe started to reconnect with nature and saw themselves as interconnected and interdependent rather than superior to it, which turned out to be a deep leverage point for change. In light of these groups' views, goals of increased growth that had been pursued for decades no longer seemed desirable. What started as niche ideas grew quickly and the prevailing paradigm was increasingly questioned in all levels of society. Business as usual was no longer an option. Furthermore, indigenous voices demanding that development should only happen when human and Earth interactions are in harmony with Mother Earth were increasingly being heard by central powers in the EU.

Nature Rights went from being a fringe idea to a mainstream vision as we started to realise how people and nature are interdependent. Emerging norms of Earth spirituality inspired by indigenous ways of viewing the world passed the threshold to broad acceptance when they became institutionalised through the EU Nature Rights Act (ENRA). The legal protection of the Earth following ENRA hindered several economic activities that were threatening the ecosystems' integrity and functions. Economic activities dependent on fossil fuels were now discontinued and replaced both with technologies compatible with Nature Rights and sufficiency-oriented lifestyles.

The implementation of Nature Rights was not the only thing counteracting environmentally devastating activities. A parallel development was the commodification of nature with the aim

to create market incentives for protection of nature and limiting global warming.

All things combined: the ENRA, higher prices on natural resources and mounting costs from climate change and biodiversity loss resulted in zero economic growth in the EU around year 2040. This is something the EU was prepared for since the biophysical limits to growth had become increasingly apparent in the previous decades with both mounting scientific and real-life evidence of the limits to economic growth on a finite planet. When 2030 came around, no absolute decoupling had been achieved and global emissions had not been reduced fast enough to meet the goals in the Paris Agreement so the Agenda 2030 goal of economic growth was removed and an updated version was drafted, Agenda 2100. As it turned out, most of the effects of low or no economic growth were more connected with the expectations of growth than on the growth itself, so by being proactive and taking precautions, the transition to a steady state economy was a relatively undramatic process for Europe.

One crucial measure to mitigate rising unemployment and increased inequality following no growth was to implement working-time policies enabling equitable sharing of the available jobs. The impacts of the work-time reductions were plenty. It freed time for people to get out of the spiralling consumption patterns that characterised the beginning of the 21st century. Betty really couldn't think of anyone she knew that was not involved in civil society somehow. People didn't have a lot of money, so sharing and collaborating without monetary transactions involved was very common. There was a sense of sufficiency: people had what they needed to live well but not much more. Stress from working too much was basically a memory from the past.

Less production and consumption and the break from fossil fuels had halted global warming and emissions reached near zero globally around 2050, but still, the world lived with just under 2 degrees of global warming. Betty thought with great sorrow of all the species she would never encounter that had gone extinct. The potential crossing of tipping points was still an overhanging threat, two degrees warming was difficult enough to live with, and fear was growing, especially in parts of the world who would not survive more heatwaves, heavy precipitation, and droughts.

Betty took a few last pedals on her bike and started to come out of her bubble as she rolled closer to her office where she would relieve her colleague who had covered the first shift of the day. People in the town were enjoying their day with their loved ones. The local food market was open, and people traded their produce. She closed her eyes and enjoyed the sun rays warming her cold cheeks. Someone tapping her shoulder drew her away from the tranquil moment. "Betty! Hey! How are you? Did you hear the news?" It was her friend Sam. "What news?" she asked back. "Someone is buying the atmosphere!"

Europe, 2101

A year later, the tensions between the values of Earth spirituality and commodification of nature had escalated. Demonstrators were filling the streets all over Europe, chanting "nature is not ours to own," "the atmosphere owns itself," "humans are not superior, we are interdependent." Betty was standing in the middle of a demonstration in Vienna. The streets were filled with demonstrators demanding that the commodification of nature came to an end: it had gone too far! How can someone OWN the atmosphere? The atmosphere had been bought by billionaire Ben Banooza who believed geoengineering could turn the climate

back to the way it had been over two hundred years ago, before the industrial revolution. People had filed several lawsuits, hoping that Nature Rights would trump Banooza's ownership rights, but had been unsuccessful. Suddenly, an uncountable number of planes filled the sky, leaving behind vast and dense clouds. The previously blue sky turned grey as the clouds blocked out the sun. The crowd went silent. This was it, Banooza had carried out his plan.

The following months, people were holding their breaths. Theories were spreading that governments from the countries heavily impacted by climate change had helped fund Banooza's geoengineering and supported him to continue. The global inequalities were highlighted: while us in Europe could still live relatively well in the current state of the world after decades of climate adaptations, millions of people struggled with extreme weather, and this was a potential solution to their problems. For actors in Europe, the risks associated with geoengineering by far outweighed the perks. Betty read the news that climate change was reversed, a cooling of the planet was underway, though the side effects were plentiful and harmful to the environment.

The harms to the environment included loss in crop yields due to acid rain, which impacted the ecosystems in some regions. Betty and the surrounding community had plenty of time on their hands thanks to the shorter working hours, so many groups organised to help the most exposed communities. Thanks to the extensive protection of nature in Europe following Nature Rights, the ecosystems were resilient and had some ability to recover from the shocks following the change of the sky, but the impact was still great. The governments in Europe who opposed continued geoengineering were criticised for being blind to historical emissions and the impacts of climate change. Besides, now that

Banooza owned the atmosphere, the future was his to determine.

How had it come to these extreme measures? Why didn't the world act sooner, when much less drastic actions were needed? And what was the just way forward? Millions of thoughts were going through Betty's head, and she felt like she needed a break from it all. She packed up her tent, got on her bike and let the wind clear out her mind as she trampled to the nearby forest. After putting up her tent and watching the damp sunset behind the misty veil that now comprised the sky, she crawled into the tent and closed her eyes. In the deafening silence that surrounded her, she dreamt back to the curious insects inspecting her tent and the numerous birds singing in the treetops. But if she really spiked her ears – she could still hear waves colliding with land.

Walking Thoughts

Anja Winkler

We need to end the subsistence baloney!

How do you feel when eating the remnants of your harvest sitting deep into winter? How does the buttload of work with children make you feel?

We men must reunite again to strive back to our original and natural power!

*Ever since we limited ourselves to regional production and consumption, we lost our standing in the world! A long time ago we had more wealth than most other nations. Now we are all the same. Where is **the competition, the trade, the politics** to support Germany as the true economic force it once was? It is long gone. Nobody recognises the **possibilities of efficient use of resources** anymore. Anybody could be the master of their own luck, but we choose to close our eyes and keep living in our small, little world.*

*80 years ago, people had, through the tremendous benefits of globalisation - of intensive global trade even! - the opportunity to carry all of the world's knowledge in their pockets! Now through the "reform" of limitation we have so little technology and energy that we have to take turns using **a communal computer**. I dare you to imagine **the Utopia** our country once was! Imagine how life must have been back then.*

*Asking yourself a question and immediately having the answer presented, **what a life!***

Sure, not everybody profited in the same way, but was it a big problem?

No. *Sure, nature and biodiversity decreased a little, but did we get any drawbacks from that? **No!** The only thing putting us back was the war.*

*In this time everything went wrong and **we forgot who we were.***

Recently I have read about a place called “kindergarten”, where children of certain districts were looked after by only a few women for the whole day. What a way to save energy! What a way to relieve nerves! What a way to make time for work that actually does something other than creating stale foods!

Germany, *I call upon you, stop the green left radicalisation and senseless praising of nature that was pushed upon us by **hysterical women** who didn't know how to handle the situation without their men being there!*

Let us remember who we really are!

Let us dominate the global economy again which we carelessly turned our back on!

Let us get back to the world!

I cannot help but chuckle while reading this flyer. Oh, the poor people, stuck in their fear of coming together. Sometimes I can't help but wonder how issues like these develop. Did their parents belong to those people insisting on the old norms, on making differences between women and men or did they develop these ideas by themselves? Strange how people choose to close their eyes from the wonderful world we live in. And then calling upon the “natural power of men”. What a funny thought. What a myth. As if it weren't men with their greed for profit, their hatred, their desire for optimisation - even children-parent relationships! - that almost ruined everything. They know as well as I that it is the strength and determination of women that brought us here. That saved us. That provided a perspective. Not everybody has

the privilege that we have.

The smile leaves my face when I think of the people that had to leave their home such a long time ago just because we did not know how to respect nature. We have seen how these stupid games between nations play out. And then the war. All of us lost there. Makes me wonder how people can even dare say that going back to this system is right?

Although... on some things he might have a point. In the middle of winter fresh fruit would sound like a dream to me. But I have to stop myself, it is unfair to eat something like that when other people have to suffer for it. I am living this way so everybody is treated fairly and I am happy about that. Just by hearing the stories of destruction, pollution, greed and the crimes these led to I understand that. And then even older stories about how people were treated that did not fit the stupid vision of the 'Good German' makes me ashamed. Weird that this was the reality people were living in.

Now that I am thinking back, I can't help but be so proud of my grandparents for helping the people that had to leave their homes, their culture, their nation and come to us, as the sun scorched their harvests. People had to learn to recover from the nightmares of war. War between people and war between humans and nature. I will forever be happy that grandma was an advocate for making Germany a safe haven for everybody. She and a lot of other great women recognised that if we destroy each other, we also destroy nature, our basis of living. So, to stand up to the old ways of thinking was brave. Caring for one another is the answer; she taught me that. And even if you say that having open borders was a mistake, you would have to agree that we needed the input! We needed knowledge on how to perform agriculture in new climates, because the cavemen of the last centuries destroyed the one we

depended upon. We learned from the refugees! We needed their input, and also the fresh perspectives of young people! This is what led us here. And where we are, we are good. We all now know, producing for life is the single most important thing that we can do. All except people writing the stupid flyers.

I see that opinions like these are proliferating which could get dangerous. More and more people are starting to think this way. I know how some of my friends look at the food we have left right now. Even though we have some fresh vegetables from our greenhouses, it is not a feast. And I can understand them in their feeling of unjustness but we have to think of the big picture. I am afraid that people might forget that. Voices arise, questioning whether producing everything by ourselves is the right thing to do. Especially when I think of the floods that are predicted again, it could get difficult, it could fuel their doubts. The streams could lead to a catastrophe if they sweep over our fields again. . . But let's stay optimistic. The only thing we can do is prepare and stand together. Raging won't help us and we have to accept that it is nature's right to rise after everything she had to endure while the rusties ruled. I still wonder how they could be so stupid and not see how they almost ruined everything. In this destruction I understand why the people suffering most started to riot, they didn't know that it would lead to the war.

After walking for a while, the books I am carrying feel heavier with every step I take and my thoughts drift back to the flyer. Yeah, a computer in my pocket carrying all that knowledge would be handy. "Handy"? Wasn't that even the name for that device? Well, who cares. After all the nice stories, grandma also talked about the dangers for my mental state from these devices, so I think maybe it is not the worst thing living without it. Technology should help us to live in harmony, not tear it down.

Speaking of caring, maybe what I am doing right now is not the best thing either. We are supposed to look out for each other after all. So instead of just thinking of all the things said in the flyer, I should maybe try and talk with the person writing them about their insecurities? I should be able to find out whose handwriting this is from the work-register at the garden. Yes, I think that would be a good idea. . .

Words of an Ordinary Man

Mathieu Varlet

13/05/2022 - 11:32 PM

What a crazy year in France! While the COVID crisis weakened the country and the politicians, this random guy has just been elected to be the President of the country. His slogan is “Happiness over greediness” and he advocates a complete change in the French economy, where GDP would be useless. He assures capitalism leads to collapse and a rebuild of France and Europe is essential for a more sustainable future. The main idea from his inaugural speech is how important nature and well-being are to him. At the same time, I can already hear the protests rising in the street! Can't be more French than that. But I must admit, I like it. However, I have no idea how he has been elected but I'll have to deal with it now for at least 5 years. International news will only talk about this tomorrow. One of the most influential countries in the world has elected a 23-year-old president who wants to completely change the vision of politics.

16/04/2023 – 2:23 AM

After almost one year of confusion and protest about our completely new political program, France is starting to understand what is happening. The Gross National Happiness index has been

implemented instead of the old GDP. This concept came from Bhutan and promotes happiness, health, biodiversity protection, and a lot of other good things, but has no interest in the economic aspects of the society. This morning, for the first time (legally) I took the metro for free. It's one of the numerous things that became free in this first year. It will probably soon be allowed for people not to have to work since a Universal Basic Income will be granted to every French citizen. This, combined with technological progress, should reduce the labor time for everyone. It sounds a little bit utopian for me but I'm curious to see what happens if things settle down.

However, many political opponents are afraid of a potential economic collapse within the next few years because of this politic promoting happiness. I must admit that I'm not sure if it will lead us to a safe future but so far it seems profitable for society, and like millions of my fellow citizens I'm enjoying the privileges and hoping for the best.

14/05/2027 – 00:56 AM

Today is the day before the presidential elections in France and I had to write a bit about what happened in the past 5 years. This random guy, Etienne Sauveterre, won the 2022 elections and changed everything in France, and now influences other European countries. All the French citizens are now earning a Universal Basic Income of 500€ per month, and as predicted working time has been reduced. I only work four days a week. This gives me much more free time to enjoy my family or my friends, even though I have many more responsibilities besides my official working time. I also have more time and ease to enjoy nature since many urban parks have opened in the past few years, replacing landfills and abandoned places. It's a haven of peace.

I feel disconnected from the noise, pollution, and stress of the overcrowded city of Paris. I wonder how I survived without such green spaces before. This is a life-changer and makes Paris more enjoyable and beautiful and hopefully, everybody can relate.

Apparently, there's absolutely no doubt on who is going to win the elections. Sauveterre and his new politics are clearly making the French population happy. As proof, no protests have been reported in Paris in the last month. As far as I can remember, this city has never been so peaceful for so long! It also seems like the economy is still doing very well despite the warnings of some economists and politicians.

Some European countries are deciding to follow our path, like Spain and Portugal, aiming for the better well-being of the population. In Italy, the Dolce Vita party is getting bigger and is also oriented towards happiness and slow living. I must admit that I'm proud of the way politics is going in my country right now. Hopefully, it will keep going like that for years. My fiancé is pregnant, and I would love to see my child thrive in such a society.

03/09/2058 – 5:12 PM

What a good surprise to find this book after having completely forgotten its existence. Reading again what I have written about all the past events made me laugh a lot, but also realize how short but intense and full of surprises life is. I was packing my stuff, ready to move from Paris when I found you, perfect timing to write a new page of my life.

It's almost hard for a now old man to remember what happened during the past 30 years. The world is not the same as when I wrote the first words, but for the better. First, if I'm moving out of Paris it's because I finally reached retirement age. Yes, at 59 years old I'm out of the active life, or almost. After a terrible global

drought that caused some regions to lose more than 50% of their crops, France made food sufficiency one of the most important national objectives. Indeed, droughts are already responsible for 75% of food loss. As the government warned, with the inevitable global warming, drought will be more frequent. Investment in resilient technology was vital, but also there was an insistence on people taking early retirement in the countryside so that they could produce organic food for themselves as well as provide the population a sustainable, local, and healthy food supply. This decision has been really useful, since many droughts touched the world. France became one of the biggest food exporters in the world. Still stimulated by this ideology of happiness, profit was used to help the neediest.

So yes, the city boy I am is becoming a farmer from tomorrow. As strange as it may seem, all these policies to make Paris green again (if someone reads this one day they'll probably not be able to understand that joke) reconnected me with nature and allowed me to blossom so much that I need to try rural life now. It's also the perfect time since the kids, if I can call them that now, are living their own lives. They're enjoying free studies or their 20h per week jobs, and have blessed me with a little grandchild. I can't wait to welcome him into my new life and teach him some grandpa tricks.

The French diet has also changed considerably. Moving from a very animal-based diet to a plant-based diet. It's rare for us to eat meat or fish now. This change occurred during the drought where the ecological footprint of meat was not sustainable and the water consumption was too high. Since then, society has adapted, and these commodities are of much better quality, making them a great meal for events and holidays.

Most European countries have followed the French model, leaving behind the appetite for greed and embracing this new

proximity with nature and simple life.

26/11/2100 – 4:43 PM

Before he died, he had told me that he had a book with some events that marked his life. At first, I was really scared to read it, but in fact, it did me a world of good. I thought I would find hundreds of pages about sports and nature, but apparently, he was also a serious guy. His dream of living 102 years and telling everyone that he had seen 3 centuries has unfortunately ended just before. Nevertheless, his wish to see his children and grandchildren thriving in a beautiful world has been granted. From everything I've read in books, society has never been better off in its history. The word 'work' has been replaced by 'contribution' since the word 'work' came from a torture instrument and it's not the case anymore.⁹ The urban exodus has weakened the centralisation of large European cities and the help of technology has allowed for more distance contribution. Nature preservation and the decarbonisation of Europe led to a rebirth of biodiversity. How happy he was when he saw a wild bison walking on his land when 200 years ago this species was almost extinct. Strangely, I didn't find any word about the energy transition he started. Yet, he turned France from a country based on nuclear energy to a green-energy country. Super-efficient solar panels are flourishing all around the nation, providing the majority of French energy needs.

I'm genuinely proud to be your granddaughter Etienne, or should I call you by the name you hated so badly: Mr President Etienne Sauveterre.

⁹In French, the word "work" is translated as "travail" which comes from a latin word designating a torture instrument.

You've Got Mail...

Yegana Abbaszade and Livia Rauf

From: yegana@mail.com

Sent: 23 January 2100 14:44

To: livia@mail.com

Subject: Degrowth is Happening!

Dear Livia,

I can't believe it! Degrowth is actually happening! Sadly, it took a revolution for the governments to finally unite and decide on degrowth policies... but remember how we've always discussed that such obsession with economic growth will result in economic decline and depletion of resources? I am still hopeful, though. I believe degrowth policies will help us to mitigate outcomes of horrific previous policies and lead us to a more equitable society. I know scientists talk about the irreversible effects of climate change, but I believe that we still have the power to restore biodiversity in some parts of the world. Do you remember we read about dolphins swimming in Venice during the COVID19 pandemic in 2020? Imagine Amazonia being restored like that!

I'm interested in learning how Swedish citizens will react to such a turn of events. Do you think they are ready to reduce their

consumption patterns? I remember, during my studies, I had already noticed tendencies of a collaborative economy in society, with a lot of people buying second-hand clothes and furniture. To me, coming from Azerbaijan, where consumerism had reached its peak at that stage, such values were impressive. Here, in Azerbaijan, people feel empowered! The heavy reliance on oil and gas resources is finally coming to an end. We believe that this will at last end the corruption. There are talks with protesters demanding direct democracy and the end of authoritarianism. On the other hand, local economists are vocal in the media about degrowth bringing more poverty. But I guess time will tell? I will let you know how the events unfold.

Love,
Yegana

From: livia@mail.com

Sent: 02 February 2100 10:17

To: yegana@mail.com

Subject: Re: Degrowth is Happening!

Dear Yegana,

Reading your email made me think about our long conversations about the capitalistic society we lived in during our university times. Who would have thought we would experience a degrowth society during our lifetimes?

Finally, people became more and more aware of their behaviour regarding planetary boundaries, decoupling, and overall quality of life and sparked a bottom-up movement. I am a citizen of a

society where our core values are no longer founded on the idea that all sectors must continue to grow. Vast parts of the Swedish economy have been actively scaled-down, but people are worried that this will decrease human well-being. Now crucially, as we scale down socially unnecessary and ecologically destructive parts of the economy, this is likely to increase unemployment. However, new governmental advisers are currently negotiating and suggesting different policies to tackle the problems of unemployment.

I long to live in a society where work isn't essential anymore, and we can finally have an open conversation about scaling down the economy without worrying about job losses. Why can't we just have a policy which guarantees jobs? This would allow us to mobilise and do the work we really need.

This transition is going to require quite a lot of work, as you know. We need to improve public services, public transport, install renewable energy capacity, retrofit houses, regenerate agriculture, etc. The private sector will not do any of this alone, and the public job guarantee allows us to ensure that everyone who wants to work has access to a socially meaningful, ecologically necessary job.

See you soon, my dear friend, and keep me in loop... I want to know more about how it is going for Azerbaijan.

Love,
Livia

From: yegana@mail.com

Sent: 03 August 2100 17:01

To: livia@mail.com

Subject: Re: Degrowth is Happening!

Hi Livia,

Good to hear that! I feel like applying degrowth policies in Sweden is much easier than in other Global North countries.

In my case, I must admit that some economists' predictions turned out to be true. With foreign businesses discontinuing their operations in the country, many people are now left without jobs. On the good side, you may already know that the leaders of the Global South have assembled to develop equal partnership goals to better distribute resources among each other. Good job on Sweden, Netherlands, Switzerland, and some other Western countries joining the conference and committing to mitigate the potential economic collapse in the region by sharing their resources!

Additionally, now that the government is not only focusing on attracting foreign investors, more governmental effort can be concentrated on reducing the impacts of the transition and increasing the general well-being of society. It feels great not to be a sweatshop of the West anymore.

Also, I feel like such drastic changes influence the way society communicates! I can feel a sense of unity and commitment to a better future. During six months, the crime rates have dropped down impressively! Some businesses came forward to enhance the country's digitalisation to support the transition to direct democracy. They believe in a month, we will be able to collabo-

ratively make decisions on every aspect of our future through digital networks. However, of course, there is some confusion and fear. Let's see what the future holds!

Will talk soon,
Yegana

From: livia@mail.com

Sent: 23 September 2100 09:46

To: yegana@mail.com

Subject: Re: Degrowth is Happening!

Dear Yegana,

Since I wrote to you last time a lot of new policies have been implemented. The fear of increased unemployment was, as I told you, one of the main reasons the Swedish government was avoiding a degrowth approach. Since we have new governmental economic advisers, they have interestingly suggested tackling unemployment outcomes by implementing two types of policies. The first policy is shortening the working week, eliminating unnecessary labour. So I can finally start gardening at the communal gardens and listen to books all day, as well as write to you of course! The second policy is to introduce a public job guarantee, like I said before! This has proven to have positive impacts for everyone. The government hopes that this will take the question of employment off the table.

Everyone now spends their free time working in the communal gardens. We have downscaled beef production, instead focusing on vegetarian and local-based food consumption.

I saw in the news that Sweden has stopped producing weapons.

Many citizens have labelled themselves as pacifists. How do Azerbaijan citizens position themselves when it comes to pacifism?

Let's see how all of this unfolds soon.

Love,
Livia

From: yegana@mail.com

Sent: 04 July 2102 09:46

To: livia@mail.com

Subject: Re: Degrowth is Happening!

Hi Livia,

I can't believe it has been two years now! Have you read about the massive water pollution decrease in India? Good news almost every day!

In the wake of limited minerals and metals, investments in weaponry have stopped. Given that the North doesn't need our resources, they haven't been as involved in our policies. In a way, this has led to better agreements between us and the neighbouring countries. A peace treaty has been signed for the next ten years. Can you believe it? We might actually be heading towards a pacifist society.

Although we were an independent country, in a way, it feels like we have been decolonised and starting all over. Digitalisation, supported by collective businesses, has supported the transition to direct democracy. However, there are some challenges in uniting on some decisions such as work hours. Given that the whole society is striving to build a better future for the country, some demand keeping the seven-hour work hours and increasing wages,

while others demand fewer work hours with increased wages. It is a work in progress, and hopefully, there will be solutions soon. I have to admit, although inequality rates have decreased slightly, it is a prolonged process. However, degrowth policies are having quite a positive effect on the inclusion of marginalised groups in decision-making through direct democracy. I am sure that soon we will come up with decisions to sustain a more equitable society.

Collaboratively, we decided to enhance agriculture in the rural parts. With many people moving to rural areas, pollution in the capital Baku has decreased by almost 60%. Collective ownership models are investing in sustainable infrastructure and transportation all over the country. I feel grateful for being able to experience the rebirth of the world!

Best,
Yegana

From: livia@mail.com

Sent: 08 August 2102 19:29

To: yegana@mail.com

Subject: Re: Degrowth is Happening!

Dear Yegana,

I am full of great news! Society has accomplished our social goals and achieved development for all. By all I mean all not like it was before where we were inclusive only on paper. Marginalised communities, indigenous communities and LGBTQ+ are finally included in an equal manner in society. The things that have been achieved in just over two years are remarkable. On an individual

and country scale, we live on fewer economic resources. The new way of living is now part of our everyday lives where we borrow, share and recycle. We share what we already have more evenly and do not plunder for more.

Almost everyone is agreeing that we don't need GDP growth. Although there are some who have been comparing no-growth to recession, they don't understand the differences between recession and degrowth. We have expert economists who have created an economy where people's livelihoods are not dependent on society's perpetual growth. Sweden had achieved a collaborative economy, and all those years the main obstacle was simultaneously growing the economy.

I feel extremely proud being part of Swedish society at the moment. Every part of the society, including marginalised groups, are united to strive for a more sustainable future not just for Sweden but the whole world.

Love,
Livia

From: livia@mail.com

Sent: 24 March 2103 13:07

To: yegana@mail.com

Subject: Re: Degrowth is Happening!

Hi Livia,

I feel like it has been ages since we have talked, but it has only been a year now- but what a year!

I have never felt such a connection with my community and people as I feel now. The feeling of unity and support is in the air.

We have reduced the working hours as the number of businesses working on extracting and selling oil resources has decreased drastically. We decided to keep only one company to be able to have it as a backup in case solar and wind energy will not be able to support us due to the consequences of climate change. I believe in wind energy, though - did you know the capital's name, "Baku," literally means city of winds?

Our economy is naturally transitioning to become circular, given solid passion in the community to reverse the effects of climate change. Local business people invest in recycling innovations to form zero waste production patterns.

I think work-hour reduction has also influenced how people feel. They are less stressed; no one is rushing anywhere. All my friends are very into the arts now! They organise small music festivals in the evenings, and we sing and play our national songs. They believe if this turns into tradition, we can revive the love for our traditional music! With the development of agriculture without the need to export the products, we are becoming highly self-sufficient in food provision. Our traditional cuisine is also flourishing. Without the need to rush anywhere, I enjoy cooking a lot; as a matter of fact, I just made vegetarian dolma out of vegetables from our communal garden! Did I tell you that we have set up a communal garden in front of our apartment building with neighbours? With many people moving out of the city, Baku is becoming a permaculture capital! You have to visit and see! I have heard they have just tested carbon zero aeroplanes!

Sending you lots of love from Azerbaijan,
Yegana

References

Preface

Dreborg, K. H. (1996). Essence of backcasting. *Futures*, 28(9). pp. 813–828.

Johnson, B.D. (2009). Science Fiction Prototypes Or: How I Learned to Stop Worrying about the Future and Love Science Fiction. *Australasian Conference on Interactive Entertainment*.

Merrie, A., Keys, P., Metian, M. and Österblom, H. (2018). Radical ocean futures-scenario development using science fiction prototyping. *Futures*, 95, pp. 22–32.

Wiek, A., Withycombe, L. and Redman, C. (2011). Key competencies in sustainability: a reference framework for academic program development. *Sustainability science*, 6 (2), pp. 203–218.

A Letter from 2101 - Tina Jahn

Bakker, E.S. and Svenning, J.-C. (2018). Trophic rewilding: impact on ecosystems under global change. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 373(1761).

Khan, R., Islam, N., Das, S.K., Muyeen, S.M., Muyeen, S.I., Ali, M.F., Tasneem, Z., Islam, MD.R., Saha, D.K., Badal, MD.F.R., Ahamed, H. and Techato, K. (2021). Energy Sustainability–Survey on Technology and Control of Microgrid, Smart Grid and Virtual Power Plant. *IEEE Access*, 9.

Klerkx, L. and Rose, D. (2020). Dealing with the game-changing technologies of Agriculture 4.0: How do we manage diversity and responsibility in food system transition pathways? *Global Food Security*, 24.

See, H. (2021). The Two Faces of Gross National Happiness: Can Bhutan's Nation-Building Strategy Also Be a Sustainable Alternative Development Paradigm? *Journal of Contemporary Asia*, 52 (3), pp. 452–470.

A World Split But Rejoiced - Manuel Eckert

Alcock, R. (2019). The New Rural Reconstruction Movement: A Chinese degrowth style movement? *Ecological Economics*, 161, pp. 261–269.

McGregor, R. and Blanchette, J. (2021). *After Xi: Future Scenarios for Leadership Succession in Post-Xi Jinping Era* [online]. Available at: <<https://www.csis.org/analysis/after-xi-future-scenarios-leadership-succession-post-xi-jinping-era>>

Parrique, T. (2019). *The political economy of degrowth*. Doctoral thesis: Economics and Finance. Université Clermont Auvergne; Stockholms Universitet.

Cassandra - Dennis Schmuck

Curtis, F. (2003). Eco-localism and sustainability. *Ecological economics*, 46(1), pp. 83-102.

Daly, H. (2019). Growthism: its ecological, economic and ethical limits. *Real-world economics review*, 87, pp. 9-22.

Hagens, N. J. (2020). Economics for the future—beyond the superorganism. *Ecological economics*, 169, p. 106520.

Herrington, G. (2021). Update to limits to growth: Comparing the World3 model with empirical data. *Journal of Industrial Ecology*, 25(3), pp. 614-626.

Hinrichs, C.C. (2003). The practice and politics of food system localization. *Journal of rural studies*, 19(1), pp. 33-45.

Moo, E. (2015). The rights of nature? Bringing the non-human into global environmental governance. *Politik—University of New South Wales International Affairs Review*, 2, pp. 42-44.

Deus Ex Machina - Joakim Kvist

Duinker, P.N. and Greig, L.A. (2007). Scenario analysis in environmental impact assessment: Improving explorations of the future. *Environ-*

mental Impact Assessment Review, 27(3), pp. 206–219.

Merrie, A., Keys, P., Metian, M. and Österblom, H. (2018). Radical ocean futures-scenario development using science fiction prototyping. *Futures*, 95, pp. 22–32.

McClure, P.K. (2017). Tinkering with Technology and Religion in the Digital Age: The Effects of Internet Use on Religious Belief, Behavior, and Belonging. *Journal for the Scientific Study of Religion*, 55(3), pp. 1–17.

Elbmá and Ikká - Vincent Edte

Carlsson, N. (2020). Revitalizing the Indigenous, integrating into the colonized? The banal colonialism of immigrant integration in Swedish Sápmi. *Ethnic and Racial Studies*, 43(16), pp. 268–286.

Greiner, C. (2015). “The North Chose Us”: Selected Poems by Nils-Aslak Valkeapää as Expressions of Sami Cultural Ecology and Indigenous Rights Concerns. *IK: Other Ways of Knowing*, 1(1), pp. 21–32.

Fighting for Climate Justice - Johanna Jeckel

Greenpeace Indonesia (2021). *Deceased Estate: Illegal palm oil wiping out Indonesia's national forest*. [online] Available at: <<https://www.greenpeace.org/southeastasia/publication/44744/deceased-estate-illegal-palm-oil-wiping-out-indonesias-national-forest/>>

Guruparan, K., and Moynihan, H. (2021). *Climate change and human rights-based strategic litigation*. [pdf] The Royal Institute of International Affairs. Available at: <<https://www.chathamhouse.org/2021/11/climate-change-and-human-rights-based-strategic-litigation/challenges-facing-rights-based>>

Parrique, T. (2019). *The political economy of degrowth*. Doctoral thesis: Economics and Finance. Université Clermont Auvergne; Stockholms Universitet.

Rockstrom, J., Gaffney, O., Rogelj, J., Meinshausen, M., Nakicenovic, N. and Schellnhuber, H.J. (2017). A roadmap for rapid decarbonization. *Science*, 335(6331), pp. 1269–1271.

Singh, N.M. (2019). Environmental justice, degrowth and post-capitalist futures. *Ecological Economics*, 163, pp. 138–142.

Going Back to Move Forward - Margarita Oja Da Silva

Kalantari, F., Tahir, O.M., Joni, R.A. and Fatemi, E. (2018). Opportunities and Challenges in Sustainability of Vertical Farming: A Review. *Journal of Landscape Ecology*, 11(1), pp. 35-60.

Ragnarsdottir, K.V. (2008). Rare metals getting rarer. *Nature geoscience*, 1(11), pp. 720-721.

Reed, B. (2007). Shifting from 'sustainability' to regeneration. *Building research and information: the international journal of research, development and demonstration*, 35(6), pp. 674-680.

Schneider, F., Kallis, G. and Martinez-Alier, J. (2010). Crisis or opportunity? Economic degrowth for social equity and ecological sustainability. Introduction to this special issue. *Journal of cleaner production*, 18(6), pp. 511-518.

Singh, B., Keitsch, M.M. and Shrestha, M. (2019). Scaling up sustainability: Concepts and practices of the ecovillage approach. *Sustainable development*, 27(2), pp. 237-244.

Healing - Anna Berg-Grimstad

Laxminarayan, R., Duse, A., Wattal, C., Zaidi, A.K.M., Wertheim, H.F.L., Sumpradit, N., Vlieghe, E., Hara, G.L., Gould, I.M., Goossens, H., Greko, C., So, A.D., Bigdeli, M., Tomson, G., Woodhouse, W., Om-baka, E., Peralta, A.Q., Qamar, F.N., Mir, F., Kariuki, S., qar A Bhutta, Z., Coates, A., Bergstrom, R., Wright, G.D., Brown, E.D. and Cars, O. (2013). Antibiotic resistance—the need for global solutions. *The Lancet Infectious Diseases*, 13(12), pp. 1057–1098.

Mistry, J and Berardi, A. (2016). Bridging indigenous and scientific knowledge. *Science* 352(6291), pp. 1274–1275.

Terreblanche, C. (2019). Ecofeminism. In: Kothari, A., Salleh, A., Escobar, A., Demaria, F. and Acosta, A. (eds.) *Pluriverse: a post-development dictionary*. New Delhi, India: Tulika Books and Authorsupfront, pp. 163-166.

Hubbub - Maurine Luquet

Brown, M.T. and Ulgiati, S. (2004). Energy quality, emergy, and transformity: H.T. Odum's contributions to quantifying and understanding systems, *Ecological modelling*, 178(1), pp. 201-213.

Laastad, S.G. (2020). Nature as a Subject of Rights? National Discourses on Ecuador's Constitutional Rights of Nature, *Forum for development studies*, 47(3), pp. 401-425.

Merrie, A., Keys, P., Metian, M. and Henrik Österblom. (2018). Radical ocean futures-scenario development using science fiction prototyping. *Futures*, 95, pp. 22-32.

Memories of Midnight Sky - Cora Cunningham

Hagens, N.J. (2020). Economics for the future – Beyond the superorganism. *Ecological economics*, 169.

Letzing, J. (2021). *How Long Are People Going to Live in the Future?* World Economic Forum. [online] Available at: <<https://www.weforum.org/agenda/2021/07/how-long-will-people-live-in-the-future/>>

Troll, V. (2020). *SPACE MINING: Science or Science Fiction - Interview with Prof Paul BYRNE*. [online] YouTube. Available at: <https://www.youtube.com/watch?v=LxU9dJhqTA4a&b-channel=ValentinTroll>

Migration of Mercury - Madison Sherwood

Abson, D., Fischer, J., Leventon, J., Newig, J., Schomerus, T., Vilsmaier, U., von Wehrden, H., Abernathy, P., Ives, C., Jager, N. and Lang, D. (2017). Leverage points for sustainability transformation. *Ambio*, 46, pp. 30-39.

Capitalism Nature Socialism (2008). Ecuador First to Grant Nature Constitutional Rights. *Capitalism Nature Socialism*, 19(4), pp. 131-133.

Cullinan, C. (2019). Nature Rights. In: Kothari, A., Salleh, A., Escobar, A., Demaria, F. and Acosta, A. (eds.) *Pluriverse: a post-development dictionary*. New Delhi, India: Tulika Books and Authorsupfront, pp. 243-246.

Loorbach, D., Frantzeskaki, N. and Avelino, F. (2017). Sustainability Transitions Research: Transforming Science and Practice for Societal

Change. *Annual Review of Environment and Resources*, 42, pp. 599–626.

Taylor, P. (1986). *Respect for Nature: A Theory of Environmental Ethics*. Princeton University Press.

Nature's Soldier - Rebeca Montes

Gorobets, A. (2014). Eco-centric policy for sustainable development. *Journal of Cleaner Production*, 64, pp. 654–655.

Lalander, R. (2014). Rights of Nature and the Indigenous Peoples in Bolivia and Ecuador: A Straitjacket for Progressive Development Politics? *Iberoamerican Journal of Development Studies*, 3(2), pp. 148–172.

Steichen, L. and Koshgarian, L. (2021) *How Militarism Fuels the Climate Crisis - and Vice Versa*. [online] Available at: <<https://ips-dc.org/climate-militarism-primer/>>

Peacewomen - Jasmin Ella Masic

Glass, C., Cook, A. and Ingersoll, A.R. (2016). Do Women Leaders Promote Sustainability? Analyzing the Effect of Corporate Governance Composition on Environmental Performance. *Business Strategy and the Environment*, 25, pp. 495–511.

Kin Chi, L. (2019). Peacewomen. In: Kothari, A., Salleh, A., Escobar, A., Demaria, F. and Acosta, A. (eds.) *Pluriverse: a post-development dictionary*. New Delhi, India: Tulika Books and Authorsupfront, pp. 268–270.

United Nations Women. (2020) *COVID-19 and women's leadership: From an effective response to building back better*. [online] Available at: <<https://www.unwomen.org/en/digital-library/publications/2020/06/policy-brief-covid-19-and-womens-leadership>>

(Re)Cycling - Sören Gellers

Kelliher, C. Richardson, J. and Boiarintseva, G. (2019). All of work? All of life? Reconceptualising work life balance for the 21st century. *Human resource management journal*, 29(2), pp. 97–112.

Stahel, W. R. (2016). The circular economy. *Nature* (London), 531(7595), pp. 435–438. Ursul, A. and Ursul, T. (2019). *From planetary to space mining: prospects for sustainable development*. MATEC Web of Conferences.

Reciprocal Acts - Imogen Cadwaladr-Rimmer

Chayne, K. (2021). *Suzanne Simard: Honoring the wisdom of mother trees and old-growth forests* (ep308). Green Dreamer Podcast. [podcast] May 2021. Available at: <<https://greendreamer.com/podcast/suzanne-simard-finding-the-mother-tree>>

Cullors, P. (2019). Abolition and reparations: Histories of resistance, transformative justice, and accountability. *Harvard law review*, 132(6), pp. 1684-1694.

Einstein, C., (2019). Earth Spirituality. In: Kothari, A., Salleh, A., Escobar, A., Demaria, F. and Acosta, A. (eds.) *Pluriverse: a post-development dictionary*. New Delhi, India: Tulika Books and Authorsupfront, pp. 157-160.

Simard, S.W., Jones, M.D., Durall, D.M., Perry, D.A., Myrold, D.D. and Molina, R. (1997). Reciprocal transfer of carbon isotopes between ectomycorrhizal *Betula papyrifera* and *Pseudotsuga menziesii*. *The New phytologist*, 137(3), pp. 529-542.

Rights of Nature - Nature Speaks and We Will Listen - Tove Bryntesson

Keys, P.W., Galaz, V., Dyer, M., Matthews, N., Folke, C., Nyström, M. and Cornell, S.E. (2019). Anthropocene risk. *Nature Sustainability*, 2(8), pp. 667–673.

Schmitt, M.T., Mackay, C.M.L., Droogendyk, L.M. and Payne, D.(2019). What predicts environmental activism? The roles of identification with nature and politicized environmental identity. *Journal of Environmental Psychology*, 61, pp. 20–29.

White, H. (2018). Indigenous Peoples, the International Trend Toward Legal Personhood for Nature, and the United States. *American Indian Law Review*, 43(1), pp. 129-165.

Slow Movement Towards Degrowth - Nahom Kubrom

Abson, D.J. and Fischer, J. (2017). Leverage points for sustainability transformation. *Ambio*, 46 (1), pp. 30–39.

Khalid, I. and Mukhtar, A. (2014). Water Scarcity in South Asia: A Potential Conflict of Future Decades. *Journal of political studies*, 21(1), pp. 259-280.

Merrie, A., Keys, P., Metian, M. and Österblom, H. (2018). Radical ocean futures-scenario development using science fiction prototyping. *Futures*, 95, pp. 22-32.

Parrique, T. (2019). *The political economy of degrowth*. Doctoral thesis: Economics and Finance. Université Clermont Auvergne; Stockholms Universitet.

Smaller Can Be Beautiful - Johanna Askros

Boonstra, W. and Joosse, S. (2013). The social dynamics of degrowth. *Environmental Values*, 22, pp. 171-189.

Demaria, F. and Latouche, S. (2019). Degrowth. In: Kothari, A., Salleh, A., Escobar, A., Demaria, F. and Acosta, A. (eds.) *Pluriverse: a post-development dictionary*. New Delhi, India: Tulika Books and Author-supfront, pp. 148-151.

Jackson, T. (2009). *Prosperity without growth: Economics for a finite planet*. London and Sterling, VA: Earthscan.

Somewhere in the Metaverse - Franziska Johanna Galler

Lehdonvirta, V. (2010). Online Spaces Have Material Culture: Goodbye to Digital Post-Materialism and Hello to Virtual Consumption. *Media, Culture and Society*, 32(5), pp. 883-89.

Steffen, W., Richardson, K., Rockström, J., Cornell, S.E., Fetzer, I., Bennett, E., Biggs, R. and de Vries, W. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, 347(6223), pp. 736-736.

SERI Global (2000). *Overconsumption? Our Use of the World's Natural resources*. [pdf] Janetschek, Austria. Available at: <<https://friendsoftheearth.eu/publication/overconsumption-our-use-of-the-worlds-natural-resources>

Sparkes, M. (2021). What is a metaverse. *New Scientist*, 251(3348), pp. 1-18.

Zuckerberg, M. (2021). *The Metaverse and How We'll Build It Together - Connect 2021*. [online] YouTube. Available at: <<https://www.youtube.com/watch?v=Uvufun6xer8&t=459s>>

Strive and Thrive Together - Valery Ndagijimana

Cox, P. (2020). Environmental justice, waste management, and the circular economy. In: Tudor, T. and Dutra, C.J.C. (eds.) *The Routledge Handbook of Waste, Resources and the Circular Economy*. New York: Routledge, pp. 42–49.

Gunnarsson-Östling, U. and Höjer, M. (2011). Scenario Planning for Sustainability in Stockholm, Sweden: Environmental Justice Considerations. *International journal of urban and regional research*, 35(5), pp. 1048–1067.

Holifield, R. (2001). Defining environmental justice and environmental racism. *Urban Geography*, 22, pp. 78–90.

Parsons, M., Fisher, K. and Crease, R.P. (2021). Environmental Justice and Indigenous Environmental Justice. In: Parsons, M., Fisher, K. and Crease, R.P. (eds.) *Decolonising Blue Spaces in the Anthropocene: Freshwater Management in Aotearoa New Zealand*. Cham: Springer International Publishing AG., pp. 39–73.

The Beautiful Era of Degrowth - Vendla Karlsson

Jevrejeva, S., Jackson, L.P., Grinsted, A., Lincke, D. and Marzeion, B. (2018). Flood damage costs under the sea level rise with warming of 1.5 °C and 2 °C. *Environmental research letter* 13(7) pp. 74014-74026.

Marengo, J.A., Camarinha, P.I., Alves, L.M., Diniz, F. and Betts, R.A. (2021). Extreme Rainfall and Hydro-Geo-Meteorological Disaster Risk in 1.5, 2.0, and 4.0°C Global Warming Scenarios: An Analysis for Brazil. *Frontiers in Climate*, 3.

Root-Bernstein, M., Galetti, M. and Ladle, R.J. (2017). Rewilding South America: ten key questions. *Perspectives in ecology and conservation*, 15(4), pp. 271-281.

The Death of Mrs Kowalczyk - Adam Beswick

Bermeo, N. (2016). On democratic backsliding. *Journal of Democracy*, 27(1). pp. 5-19.

Kopitke, P.M., Menzies, N.W., Wang, P., McKenna, B.A. and Limbi, E. (2019). Soil and the intensification of agriculture for global food security. *Environment International*, 132.

Schreefel, L., Schulte, R.P.O., de Boer, I.J.M., Pas Schrijver, A. and van Zanten, H.H.E. (2020). Regenerative agriculture – the soil is the base. *Global Food Security*, 26.

The Limits of Demo(techno)crazy - Josefina Marklund

Buyse, A. (2018). Squeezing civic space: restrictions on civil society organizations and the linkages with human rights. *The International Journal of Human Rights*, 22(8), pp. 966–988.

Haraway, D. (2016). Tentacular Thinking: Anthropocene, Capitalocene, Chthulucene. In: Haraway, D. (eds) *Staying with the Trouble: Making Kin in the Chthulucene*. Durham: Duke University Press, p. 30–57.

MacGregor, S. (2009). A stranger silence still: the need for feminist social research on climate change. *The Sociological Review*, 57(2), pp. 124–140.

Merrie, A., Keys, P., Metian, M. and Österblom, H. (2018). Radical ocean futures-scenario development using science fiction prototyping. *Futures*, 95, pp. 22-32. Meyer, B. (2019). Financialization, Technological Change, and Trade Union Decline. *Socio-Economic Review*, 17(3), pp. 477–502.

Warner, J. and Boas, I. (2019) Securitization of climate change: How invoking global dangers for instrumental ends can backfire. *Environment and Planning C: Politics and Space*, 37(8), pp. 1471–1488.

The Revolt - Julia Korten

Carstens, P. (2020). *Klimakrise? Welche Klimakrise? Das mit dem Klimawandel ist gar nicht so sicher!* GEO [online] Available at: <<https://www.geo.de/nachhaltigkeit/23125-rtkl-klimakrise-welche-klimakrise-das-mit-dem-klimawandel-ist-gar-nicht>>

Salim, H. K., Padfield, R., Hansen, S.B., Mohamad, S.E., Yuzir, A., Syayuti, K., Tham, M.H., and Papargyropoulou, E. (2018). Global trends in environmental management system and ISO14001 research. *Journal of Cleaner Production*, 170, pp. 645-653.

Zhao, W. and Schroeder, P. (2010). Sustainable consumption and production: Trends, challenges and options for the Asia-Pacific region. *Natural Resources Forum* 34(1), pp. 4-15.

The Waste(n) Economy - Bryce Chawiya

Curry, A. and Schultz, W. (2009). Roads Less Travelled: Different Methods, Different Futures. *Journal of Futures Studies*, 13, pp. 35-60.

Gibson-Graham, J.K., Cameron, J. and Healy, S. (2013). *Take Back The Economy*. Minneapolis: University of Minnesota Press.

Hagens, N.J. (2020). Economics for the future – Beyond the superorganism. *Ecological economics*, 169.

Svenfelt, Å., Alfredsson, E.C., Bradley, K., Fauré, E., Finnveden, G., Fuehrer, P., Gunnarsson-Östling, U., Isaksson, K., Malmaeus, M., Malmqvist, T., Skånberg, K., Stigson, P., Aretun, Å., Buhr, K., Hagbert, P. and Öhlund, E. (2019). Scenarios for sustainable futures beyond GDP growth 2050. *Futures*, 111, pp. 1-14.

Time Travel for Degrowth - Felix Russeler

Kallis, G. (2018). *Degrowth*. Newcastle: Agenda Publishing.

Merrie, A., Keys, P., Metian, M. and Österblom, H. (2018). Radical ocean futures-scenario development using science fiction prototyping. *Futures*, 95, pp. 22-32.

Parrique, T. (2019). *The political economy of degrowth*. Doctoral thesis: Economics and Finance. Université Clermont Auvergne; Stockholms Universitet.

Under a Different Sky - Emma Bergeling

Cullinan, C. (2019). Nature Rights. In: Kothari, A., Salleh, A., Escobar, A., Demaria, F. and Acosta, A. (eds.) *Pluriverse: a post-development dictionary*. New Delhi, India: Tulika Books and Authorsupfront, pp. 243-246.

Parrique, T. (2019). *The political economy of degrowth*. Doctoral thesis: Economics and Finance. Université Clermont Auvergne; Stockholms Universitet.

Smessaert, J., Missemer, A. and Levrel, H. (2020). The commodification of nature, a review in social sciences. *Ecological economics*, 172.

Walking Thoughts - Anja Winkler

Grin, J, Rotmans, J, and Schot, J. (2010). *Transitions to Sustainable Development: New Directions in the Study of Long Term Transformative Change*. New York: Routledge.

Mies, M. and Bennholdt-Thomsen, V. (1999). *The subsistence perspective. Beyond the globalised economy*. London, Melbourne: Zed Books; Spinifex Press.

Mies, M., Shiva, V. and Salleh, A. (2014). *Ecofeminism*. New York: Zed Books.

Xu, C., Kohler, T.A., Lenton, T.M., Svenning, J.C. and Scheffer, M. (2020). Future of the human climate niche. *PNAS*, 117(21), pp. 11350–11355.

Words of an Ordinary Man - Mathieu Varlet

Blauhut, V., Stahl, K., Stagge, J.H., Tallaksen, L.M., De Stefano, L. and Vogt, J. (2016). Estimating drought risk across Europe from reported drought impacts, drought indices, and vulnerability factors. *Hydrology and Earth System Sciences*, 20(7), pp. 2779–2800.

Frumkin, H., Bratman, G.N., Breslow, S.J., Cochran, B., Kahn Jr, P.H., Lawler, J.J., Levin, P.S., Tandon, P.S., Varanasi, U., Wolf, K.L. and Wood, S.A. (2017). *Nature Contact and Human Health: A Research Agenda*. *Environmental Health Perspectives*, 125(7).

Puma, M.J., Bose, S., Chon, S.Y. and Cook, B.I. (2015). Assessing the evolving fragility of the global food system. *Environmental Research Letters*, 10(2).

Scopelliti, M., Carrus, G., Adinolfi, C., Suarez, G., Colangelo, G., Laforzezza, R., Panno, A. and Sanesi, G. (2016). Staying in touch with

nature and well-being in different income groups: The experience of urban parks in Bogotá. *Landscape and Urban Planning*, 148, pp. 139–148.

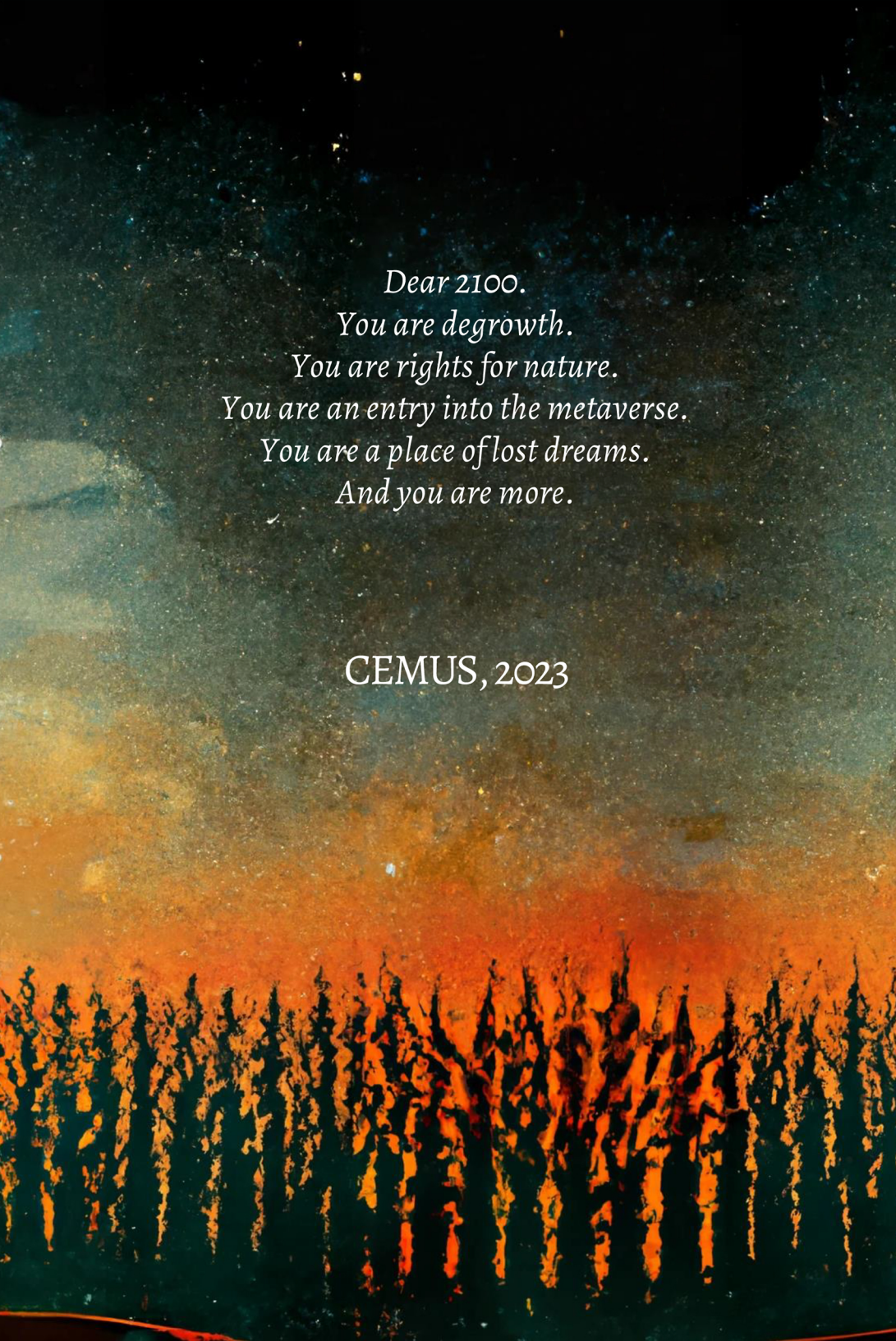
Tubtim, T. (2012). Migration to the countryside: Class Encounters in Peri-urban Chiang Mai, Thailand. *Critical Asian Studies*, 44(1), pp. 113–130.

You've got mail - Livia Rauf and Yegana Abbaszade

Hickel, J. (2021). What does degrowth mean? A few points of clarification. *Globalizations*, 18(7), pp. 1105–1111.

Kothari, A., Demaria, F., Acosta, A. (2014). Buen Vivir, Degrowth and Ecological Swaraj: Alternatives to sustainable development and the Green Economy. *Development*, 57(3–4), pp. 362–375.

Steffen, W., Richardson, K., Rockström, J., Cornell, S.E., Fetzer, I., Bennett, E., Biggs, R. and de Vries, W. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, 347(6223), pp. 736–736.



*Dear 2100.
You are degrowth.
You are rights for nature.
You are an entry into the metaverse.
You are a place of lost dreams.
And you are more.*

CEMUS, 2023