



# Glimpses of Sustainability

– Four Short Stories to Expand Perceptions of the Future

Nina Iglesias Söderström

Independent project • 30 hp

Swedish University of Agricultural Sciences, SLU

Department of Landscape Architecture, Planning and Management

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# Glimpses of Sustainability: Four Short Stories to Expand Perceptions of the Future

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**Figure 1:** Illustration of Tuva's house. Made by Hannes Laurin in Stable Diffusion using custom trained models.

# Abstract

Drawing inspiration from the *Futures Beyond GDP Growth* report, this thesis transforms visions of sustainable futures into tangible narratives, delving deep into the potentialities of everyday lives in such realities. Through creative writing and AI-generated visuals, four distinct scenarios are brought to life, offering glimpses into worlds shaped by profound systemic shifts and alternative worldviews. Indigenous knowledge and principles, such as *the Honorable Harvest*, infuse the narratives, emphasizing reciprocity and coexistence. These stories serve not only as a reflection on our present but also as an open invitation to reimagine and actively shape our future. The research underscores the power of storytelling in fostering empathy, challenging paradigms, and promoting a holistic understanding of sustainability.

By immersing readers into the lives of individuals navigating these evolved societal structures, the work endeavors to challenge and expand current notions of well-being and societal progress. The Indigenous-inspired perspectives further enrich the stories, offering sustainable paradigms that not only contrast but also offer avenues for reshaping Western relationships with the environment and fellow beings. By drawing comparisons with the pre-Columbian Americas, the research accentuates that the evolution of societal structures is not unidirectional or inevitable.

In essence, this thesis underlines the potent role of stories in stimulating empathy and challenging dominant paradigms, inviting readers to engage in the collaborative responsibility of envisioning a sustainable and inclusive future.

# Sammanfattning

Denna avhandling tar inspiration från rapporten *Framtider bortom BNP-tillväxt* och förvandlar dess visioner av hållbara framtider till konkreta berättelser med en djupdykning i det potentiella vardagslivet i sådana verkligheter. Med hjälp av kreativt skrivande och AI-genererade bilder gestaltas fyra distinkta scenarier som ger inblickar i världar som har formats av stora systemförändringar och alternativa synsätt. Kunskap och principer från ursprungsbefolkningar, som *den hederliga skörden*, genomsyrar berättelserna, och framhäver ömsesidighet och samexistens. Dessa berättelser säger något om vår nutid och fungerar som en inbjudan för oss att tänka om och aktivt forma vår framtid. Forskningen belyser kraften som historieberättande har för att bygga empati, utmana paradigmen och främja en helhetssyn på hållbarhet.

Genom att låta läsaren uppleva livet av individer som lever i dessa nya samhällsstrukturer, syftar avhandlingen till att ifrågasätta och vidga nuvarande uppfattningar om välbefinnande och samhällsframsteg. Perspektiv inspirerade av ursprungsbefolkningar berikar berättelserna ytterligare. De framhäver hållbara synsätt som kontrasterar med och samtidigt visar sätt att omforma västerländska relationer till varandra och övriga naturen. Genom att dra paralleller till förkolumbianska Amerika, belyser även forskningen att samhällsstrukturernas utveckling inte är enkelriktad eller oundviklig.

I grund och botten betonar denna avhandling berättelsers kraftfulla roll i att väcka empati och ifrågasätta dominant synsätt. Den uppmanar läsare att delta i det gemensamma ansvaret att skapa visioner och föreställningar om en hållbar och inkluderande framtid.





# Preface

In exploring the complex interrelationships between landscape and identity, we might consider various theoretical frameworks. However, I also find it valuable to reflect on personal experiences. Growing up, I spent my summers at my grandparents' summerhouse on Öckerö, an island in the archipelago outside of Gothenburg. Öckerö is mostly barren rock. All these beautiful, smooth cliffs where we played and jumped around like little mountain goats. I loved jumping from the cliffs straight into the ocean and lying on their warm smooth surfaces to dry off in the summer sun. Those are the images flashing through my mind when I'm feeling nostalgic about this landscape.

This is not necessarily how everybody would have felt about the state of the island, though. The name Öckerö is derived from the Swedish word for oak tree and the people who lived there before the fishing industry cut down most of the trees on the island might be horrified to see the barren, windy landscape — now devoid of greenery — which I remember so fondly. I'm sure that if I had grown up on a lush island I would have felt nostalgic about swinging from the dignified old oak trees instead of jumping from the cliffs and would have been heartbroken to see it today. In this instance, my experience is that of the future generation, speculating about the feelings of a generation before my time. I understand that they might feel upset about the changes, yet I was happy growing up in this new landscape. The exploitative attitude towards more-than-human nature that resulted in Öckerö's current landscape wasn't a sustainable practice, but my point is that nostalgia is a very subjective emotion. Future generations might not feel at all as strongly about some of the things we're worried about today. Some of us might be horrified by the thought of ruining the unbroken horizon with wind turbines, but future generations could have a very different relationship with those turbines. Growing up with the majestic birdlike structures waving at you in the wind, you might even find the horizon too empty without them.

In the early stages of my Landscape Architecture Master's program, I experimented with narrative as a tool for academic exploration. I found storytelling useful for unpacking complex socio-environmental issues and for presenting a vision for the future that can be critical, inspiring, and hopeful. The emotional impact on my audience and peers was also an interesting surprise. I later found out that the most impactful aspect to them was hearing a story about a future that wasn't worse than our current situation, but better.

These were the first two sparks for the thesis. First, the idea that with change comes changed nostalgic perceptions, which can help us dare to dream bigger. Second, that sharing stories of more hopeful futures can help expand our perceptions of what the future might become.

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# PART I

## Introduction

### Aim of the Thesis

*There are many studies connected with climate research showing how the supply side of things might look in terms of energy and transportation. But there are fewer studies looking at how people might live, eat, work and reside in a sustainable society.*

(Hagbert et al., 2019, p.48).

This quote is from the report *Futures Beyond GDP Growth*. It was published by the research program *Beyond GDP Growth: Scenarios for sustainable building and planning*. In the report they also note that sustainable societies and sustainable economies that are not based on growth are largely under-researched areas (ibid., p.5).

The result of the research program was the development of four different future scenarios, none of which are based on economic growth. All four scenarios reach environmental and social targets selected by the research program as essential for the development to be considered sustainable. The four scenarios are called *Collaborative Economy, Local Self-Sufficiency, Automation for Quality of Life, and Circular Economy in the Welfare State* (Hagbert et al., 2019).

In the report's conclusion, the researchers comment that their work has proven the possibility of developing sustainably while also maintaining or even increasing well-being. But, they remark, in order for that to be the case, well-being "needs to be defined according to different values than it is in contemporary society" (Hagbert et al., 2019, p.48).

The aim of this thesis was to explore the envisioning of sustainable future societies and the shifted worldviews and definitions of well-being these futures would require. The four scenarios from the *Futures Beyond GDP Growth* report were analyzed, interpreted, and envisioned as four slice-of-life short stories — with accompanying visualizations — to create a fictional depiction of each scenario. Indigenous knowledge was used as inspiration, providing examples of different worldviews and definitions of well-being. The stories offer tangible examples of what these alternate futures might look like in order to expand the perceptions of what the future could become.

# Research Questions

In pursuit of contributing to the exploration and envisioning of sustainable futures, this thesis is guided by a set of focused research questions.

1. *How can fictional storytelling serve as a method of envisioning future sustainable ways of life?*
2. *How can a deeper level of understanding propel visions of sustainable futures?*
3. *What definitions of well-being in contemporary Western society are challenged through the four fictional stories?*
4. *How do the stories contribute to existing discourse on sustainability within the field of landscape architecture?*

Together, these questions serve as the guiding framework for the thesis, shaping both its academic and narrative components.

## Scope and Delimitations

This study focused on the four scenarios from the *Futures Beyond GDP Growth* report, fleshing them out and creating a character-driven short story set in the world of each scenario.

Limiting the narratives with the concept of a slice-of-life story limits the world-building organically. Many of the questions about these worlds won't be answered merely because they are not encountered on an average day in a random person's life. This is done partly as a way to limit the scope and partly as a way to focus the world-building on subjects related to landscape architecture. It also leaves possibilities open for others to continue building on the stories based on their own disciplines. There might be a day in the life when a character needs to go to the hospital and the story focuses on the healthcare systems in the four scenarios, for example.

Since the scenarios are set in Sweden this also creates geographic and cultural delimitations for the narratives. Though this focus could limit the applicability or resonance of the research findings in other socio-cultural settings it is necessary to limit the scope of the thesis.

Basing the short stories on the scenarios from *Futures Beyond GDP Growth* anchors the thesis in an academic project. The scenarios' feasibility has already been proven which provides this thesis with a solid foundation to lean on and alleviates the burden of proving that the application of the scenarios is possible.

# How to Read This Thesis

This thesis is organized in a way that weaves academic research with storytelling. It can be divided into three distinct parts:

1. The first part of this work includes the Introduction, Method, Theoretical Framework, and Literature Review. These sections lay out the research questions and academic underpinnings of the study, as well as the existing literature that informs it. My perspectives and arguments are also integrated in this part since the central focus of the Discussion section revolves around the fictional short stories.
2. In the second part it would be beneficial to move to the Appendices to read the full text of the four short stories. There is a brief presentation of the stories to give the reader an overview. The cover images of the stories (accompanying the presentation text) also function as links to each correlating appendix. These stories are not supplemental material, they constitute the thesis project itself. Each narrative serves as a case study illustrating alternative futures that are theoretically grounded in the sections that precede them.
3. The Discussion section delves into the analysis and interpretation of these narratives. While it does focus on the short stories, it also connects back to the academic theories and perspectives discussed earlier. The thesis concludes with a summary of the findings and suggestions for further research in this area.



# Method

## Introductory Notes

The method of this thesis consists of several interconnected steps. The basic concept of the method as a whole is illustrated in (See Figure 2).

1. An analysis of the four scenarios from the research program *Beyond GDP Growth: Scenarios for sustainable building and planning*. The scenarios are synthesized and used as the basis for world-building, creating the building blocks for the place and societal structures of the fictional stories.
2. Exploration into theories about ways of understanding and shifting worldviews to formulate theoretical perspectives. Facer's levels of understanding, which are explored in more detail in the Theoretical Framework section, are used to analyze the depth at which psychological, cultural, and ethical changes have taken place in the different sustainable futures.
3. A literary study, using Indigenous knowledge, sustainability, and landscape architecture to interpret how aspects of the scenarios could take shape in the lives of the people living in these futures.
4. Narrative production. Using creative writing to envision the everyday life of some specific people living in the four future scenarios. Here the information about the worlds from the scenarios and the inspiration of socially and ecologically sustainable ways of life, behaviors, and worldviews are combined and brought to life in the four short stories.
5. Using a combination of AI generation and personal image editing to create cover images to further visualize the people and places in the stories.
6. A discussion on the fictional narratives and their relevance. Here my interpretations of the scenarios and literature, and how they affected the stories in different ways, are discussed. Specifically relevant or interesting aspects of the different stories are highlighted. The point isn't to compare and rank the different futures, though. The stories show four different glimpses of potential futures, they all contribute to expanding the library of visions for the future.

## Analysis of the Scenarios

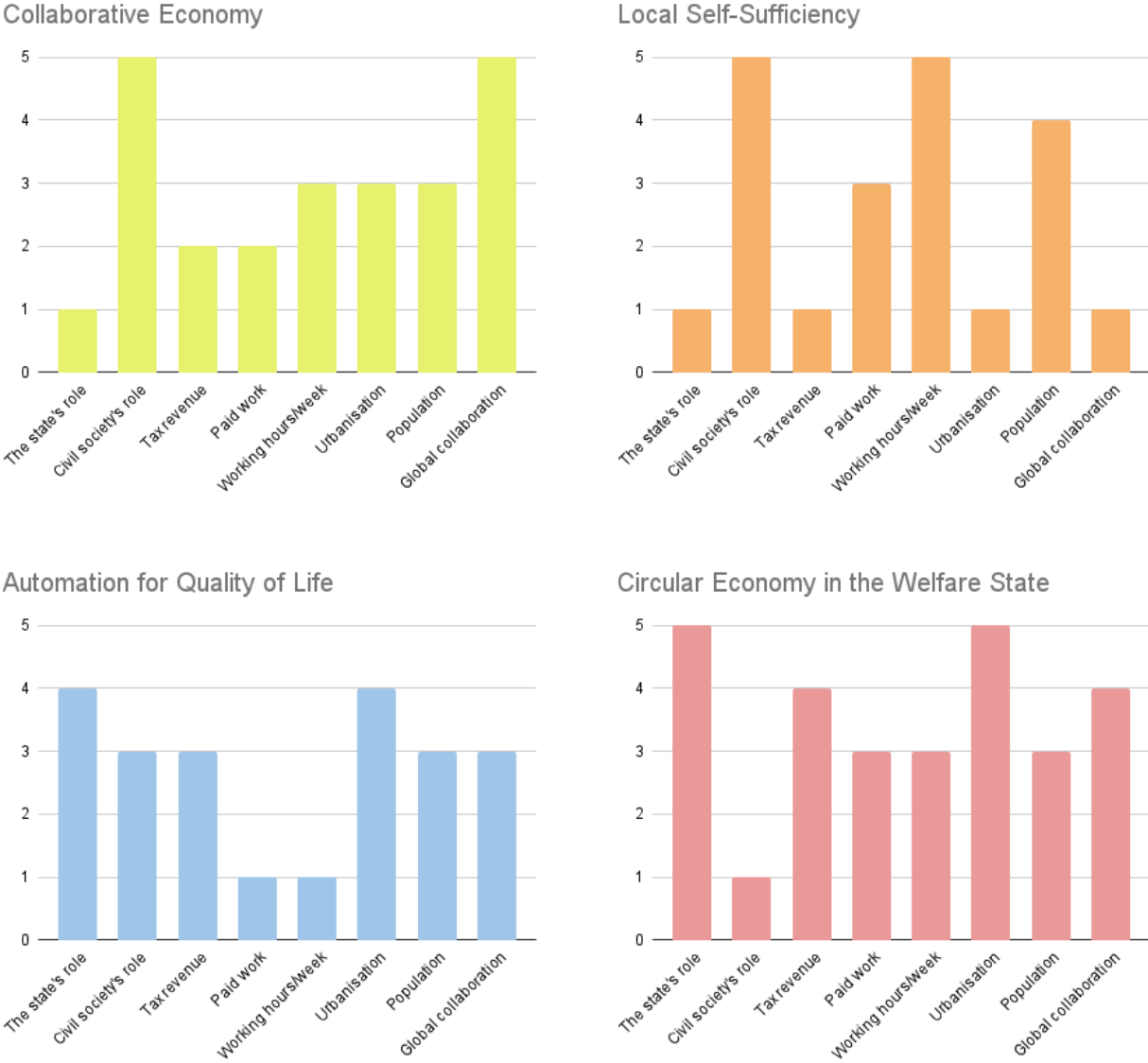
The research program *Beyond GDP Growth: Scenarios for sustainable building and planning* published several reports depicting the scenarios during the four-and-a-half-year-long project. To understand the scenarios as deeply as possible I also



**Figure 2:** My visualization illustrating the basic concept of the methods for this thesis.

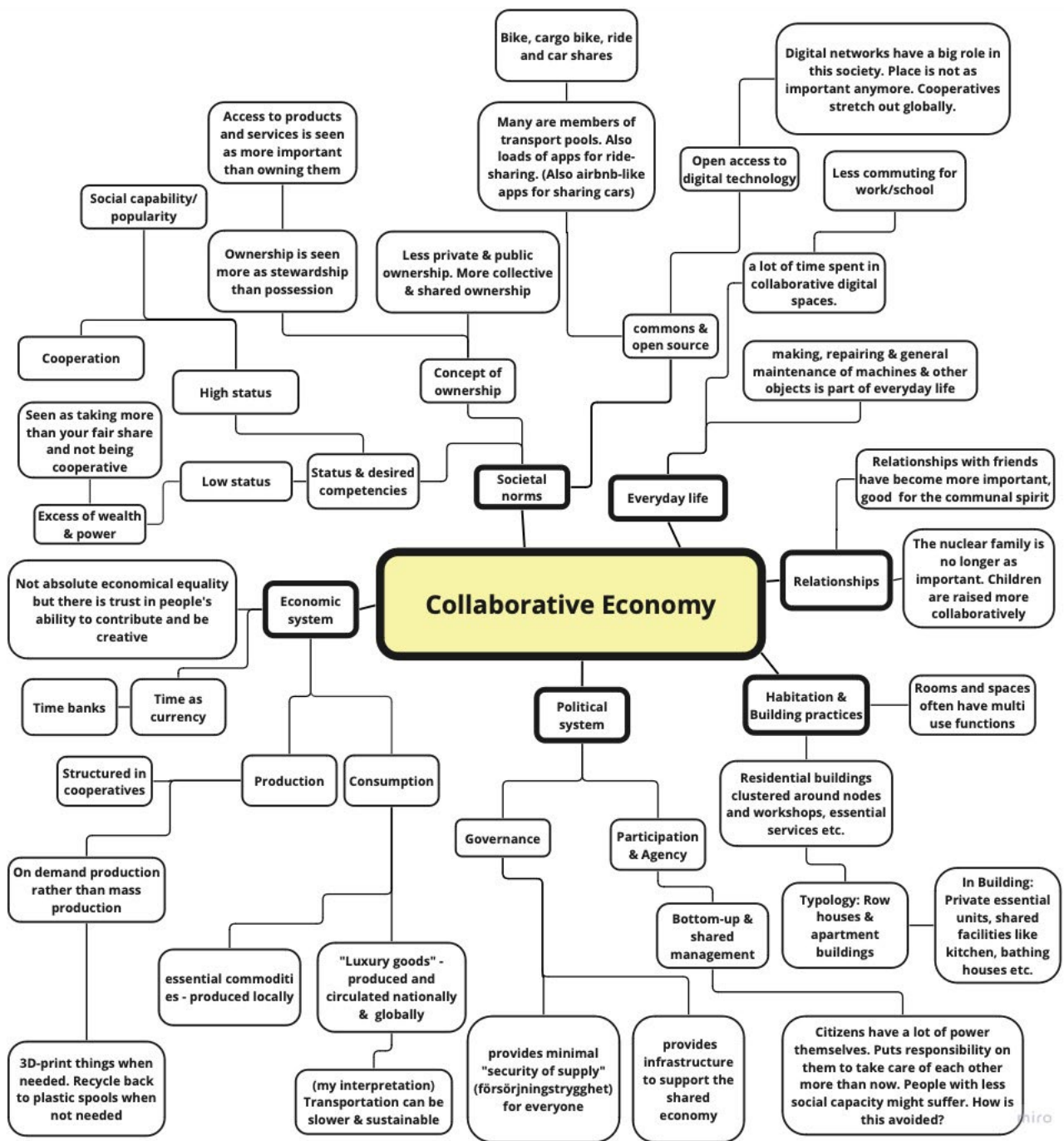
studied these earlier reports<sup>1</sup>. They provided more detail in some places that helped flesh out the world-building. Sometimes they contradicted the final report, though. In these cases, the earlier reports were disregarded.

Based on the analysis from the reports I created diagrams to visualize some of the differences (See Figure 3). This gave a clearer vision of things such as the state’s and the civil society’s roles, working hours, and urbanization.



**Figure 3:** Diagrams I created based on information collected from the 2015 report to better understand some of the structural differences in the four different scenarios.

<sup>1</sup> Two previous reports: (Svenfelt et al., 2015) and (Gunnarsson-Östling et al., 2017)  
 Other material: discussion and information cards created for a workshop developed by IVL Swedish Environmental Research Institute <https://www.ivl.se/omstallning> (who were co-creators in the program)



**Figure 4:** I created mind maps to get a better overview of the information gathered about the scenarios. This example shows *Collaborative Economy*.

Using mind maps to gather relevant information about the scenarios was a good method to start building images in my mind of what people's lives were like (See Figure 4). This sparked ideas that were later baked into the stories.

# Literature

Much of the academic literature used in this research was initially encountered through my coursework. Additionally, two main sources were used as they are both anchored in academia while opening doors to other worldviews and imaginaries.

## **THE DAWN OF EVERYTHING**

The book *The Dawn of Everything: A New History of Humanity* was written by anthropologist David Graeber and archeologist David Wengrow over ten years. Several arguments and earlier versions of the chapters in this book have been published in scholarly journals and presented as named lectures throughout the years of their writing. The authors, who were teaching at the LSE Department of Anthropology and the UCL Institute of Archaeology respectively, also incorporated this work into their teachings there from the beginning (Graeber & Wengrow, 2021, pp. xi). The fact that the notes and bibliography section of this book is 164 pages long is another clear indication of its anchor in the world of academia. At the same time, this book challenges the status quo and, according to the authors, tries to “reconstruct the sort of grand dialogue about human history that was once quite common in our fields” (ibid., p.ix).

## **BRAIDING SWEETGRASS**

The second main source is *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants* by Robin Wall Kimmerer. Kimmerer is a researcher and teaching professor of environmental biology at the State University of New York. In the preface of the book, Kimmerer speaks of the act of braiding sweetgrass, of sharing the tension needed to create the thick, shiny braid. This metaphor is used to describe the essence of the book. “So I offer [...] a braid of stories meant to heal our relationship with the world. This braid is woven from three strands: indigenous ways of knowing, scientific knowledge, and the story of an Anishinabekwe scientist trying to bring them together in service to what matters most” (Kimmerer, 2013, p.12).

Kimmerer brings the reader along on her journey into biology and botany. She tells the reader about growing up as a member of the Potawatomi nation, where she experienced her parents’ ceremonies which established her understanding of relationships with more-than-human nature. When she arrived at college with the belief that she was a born botanist she was told that the things she was interested in weren’t considered science. She tells the reader about the shift in worldviews she took to step into the world of science. Finally, she explains her way back to Indigenous knowledge. How she now can hold them both close and let Western science and Indigenous knowledge overlap and enhance each other. “It is this dance of

cross-pollination that can produce a new species of knowledge, a new way of being in the world. After all, there aren't two worlds, there is just this one good green earth."(Kimmerer, 2013, p.59)

These foundational texts were supplemented by additional books, peer-reviewed journal articles, and reports that were chosen for their relevance to the topics and found through independent research fueled by a deep interest in the subject matter. The literature review serves not as empirical evidence but as a means of exploring and interpreting different facets of sustainable future societies.

### **FICTIONAL INSPIRATION**

There are several fictional novels that have been inspirational in different ways for the creative writing process. Especially regarding world-building and examples of the small expressions certain societal differences can have in people's everyday lives. The utopian speculative science fiction novel *Woman on the Edge of Time* by Marge Piercy was a creative inspiration during the entire writing process. *Black Sun* by Rebecca Roanhorse and *Children of Blood and Bone* by Tomi Adeyemi both depict fictional past worlds. Roanhorse inspired by Mesoamerica and Adeyemi by Yoruba culture and West African mythology.

## **Narrative Thesis Project: Storytelling as a Method**

### **THE NEUROCHEMISTRY OF EMPATHY: THE ROLE OF OXYTOCIN**

By employing storytelling as a tool for academic inquiry, this thesis aims to expand the imaginative horizon of sustainable landscapes, thereby contributing to a nuanced understanding of the roles that fictional narratives can play in shaping future realities. Storytelling as a medium could expand our empathy to these future generations who would benefit from our efforts and suffer without them. Paul J. Zak, professor of Economic Sciences, Psychology & Management at Claremont Graduate University, writes in *Why Your Brain Loves Good Storytelling*, about his experiments with oxytocin and storytelling. "Oxytocin is produced when we are trusted or shown a kindness, and it motivates cooperation with others. It does this by enhancing the sense of empathy, our ability to experience others' emotions." (Zak, 2014). What makes storytelling a powerful tool is its ability to invoke the same kinds of reactions in our bodies without the actual one-to-one interaction. Character-driven stories, Zak has confirmed, consistently increase the amount of oxytocin being released by the brain, meaning that the stories we tell can change our attitudes and motivate us to help others by enhancing our sense of empathy (ibid).



## THE POWER OF NARRATIVES IN SHAPING REALITY

Science fiction writer Ursula K. Le Guin poetically summed up the relationships between imaginaries, storytelling, and the potential for change during her acceptance speech at the National Book Awards in 2014:

*We live in capitalism. Its power seems inescapable. So did the divine right of kings. Any human power can be resisted and changed by human beings. Resistance and change often begin in art, and very often in our art, the art of words.*

(The Authors Guild, 2014)

Some might assert that storytelling is not sufficient for triggering systemic change in entrenched systems like economic growth. Though there is no denying that storytelling alone will not overturn these established systems, it plays an essential role in shaping public perception, which is a critical first step toward broader societal change. By building on the academic research from *Futures Beyond GDP Growth*; through the eyes of my discipline, landscape architecture; adding the human first-person perspective; and taking inspiration from Indigenous teachings, I hope to contribute to the emerging imaginary of a future where infinite economic growth isn't the only way forward.

## BACKCASTING

The idea of using narratives to envision future scenarios is supported by academic research, such as Simon Elias Bibri's work discussing backcasting as a sustainable urban planning approach. Backcasting involves envisioning a desirable future and working back to connect it to the present, determining what plausible steps and changes taken along the way could connect the two (Bibri, 2018, pp.10). While backcasting would be a valuable extension of this project, the current thesis focuses solely on the visioning process. Bibri also emphasizes the importance and potential of the practice of visioning:

*The importance of seeing visions of the future [...] lies in that these visions "have the power not only to catch people's minds and imaginations but also to inspire them into a quest for new possibilities and untapped opportunities and to challenge them to think outside common mindsets" ([11], p. 3).*

(Bibri, 2018, p.10)

## SPECIFIC CREATIVE WRITING CHOICES

If the aim of the thesis had been to compare and rank the different suggested scenarios I would have written the stories as parallel universes, set at the same point in time and surrounding the same characters. The same thing would be happening in all scenarios — a cloudburst or some other climate change related event maybe — and the texts would focus on how the future societies in the four scenarios reacted to this. Since this wasn't the aim of the thesis though, visualizing the most concrete comparisons didn't lead my creative choices.

Since the aim of the thesis was about exploring and envisioning sustainable future societies, about traversing the levels of shifted worldviews, and expanding perceptions of what is possible, I chose a different path. I chose to make the short stories independent from one another. They portray different people and the reader is presented with a glimpse into their lives at a different time in their journey through it. They are also set at different times in the future. The scenarios in the *Futures Beyond GDP Growth* report are envisioned for Sweden in 2050. This is the basis for the worlds where the stories take place so the changes described did happen by 2050 in all the stories. This doesn't mean that the actual stories are limited to take place in 2050, though. Since I wanted to explore the idea of worlds where these new worldviews had been 'the way it is' for a few generations they couldn't all take place so soon.

There is no definite date set for any of the stories but *Automation for Quality of Life* is much closer in time than all the others. This story follows Bee, the only character we meet who remembers the time before everything changed. She reflects on the changes that have happened and compares her childhood with that of her children and grandchild. The other three stories revolve around younger characters but are also further along in the timeline. In these stories, the characters are much more distanced from our current society (which they mainly refer to as 'before the Big Shift'). It comes up in all the stories as they discuss or consider their history but all their knowledge about it is theoretical.

The report states that "Circular Economy is the scenario that most closely resembles contemporary society" (Hagbert et al., 2019, p.29). The reason for the similarities is a consequence of *how* this scenario developed though, not *how far* into the future it is. The order on the timeline of the other stories didn't matter to me. As long as *Circular Economy in the Welfare State* wasn't first I could avoid skewing the perception because of the timeline. By clearly setting *Automation for Quality of Life* first and keeping a looser time-frame on the other stories this variety hopefully only supplies another dimension to the explorative nature of the thesis.

An important inspiration from the fictional novels mentioned previously has to do with the languages and expressions in these worlds. A way for me to convey the radical and intentional changes these future worlds had undergone was to change

some of the everyday words and expressions people use in the stories. Ursula K. Le Guin took this method very far in her novel *The Dispossessed*. Here the characters have intentionally created a new language without ways of expressing ownership altogether. They say 'the mother' instead of 'my mother', for example. Instead of saying that something is 'yours' or 'mine' they say 'You use that one and I use this one' (Edwardes, 2016, p.4). The changes in my short stories are nothing close to creating a new language, or even as elaborate as changing the syntax as Le Guin does. My choices have mainly been in regards to exclamations, names of relational constellations and commitments as well as an insult and endearment or two.

Since there have been societal changes at a worldview or mythic level<sup>2</sup> in the short stories, I chose to imagine that the people in these worlds had moved away from using religious exclamations. Using phrases like 'Oh my God!', 'God willing', 'Dear Lord' etc. might be common in secular societies as well but even then it is a remnant of the religious mythic undercurrent. The huge societal changes that must have taken place in order for the scenarios from the *Futures Beyond GDP Growth* report to come true by 2050 would require something big to happen in our near future. In my short stories this big thing that happened is referred to as the Big Shift. Exactly what happened is never explicitly expressed in the short stories but I imagine one of the things to be a conscious decision to move away from these hierarchical and authoritarian underlying mythologies. I imagine them moving away from ideas of an all-knowing mythical being that controls morality and requires obedience and moving towards reverence to elements of more-than-human-nature. Thinking about more fitting exclamations for the kinds of societies I was writing about I was inspired by *Children of Blood and Bone*, where the characters use expressions like 'For sky's sake' and 'Oh skies' and came up with some of my own, like 'Moon and tides!' and 'Thorns'. The shift away from influence by Abrahamic religions is also noticeable in the character's names in the stories. Most of them have names of different animals, plants or other natural elements and some have old Norse names.

Other words are derived from new technology or relational constellation. 'Help-er-bots', 'nic-legs' and 'dev-parents' are understood through context clues in the stories and related to things that don't exist or aren't commonplace enough in our society to have a ubiquitous definition.

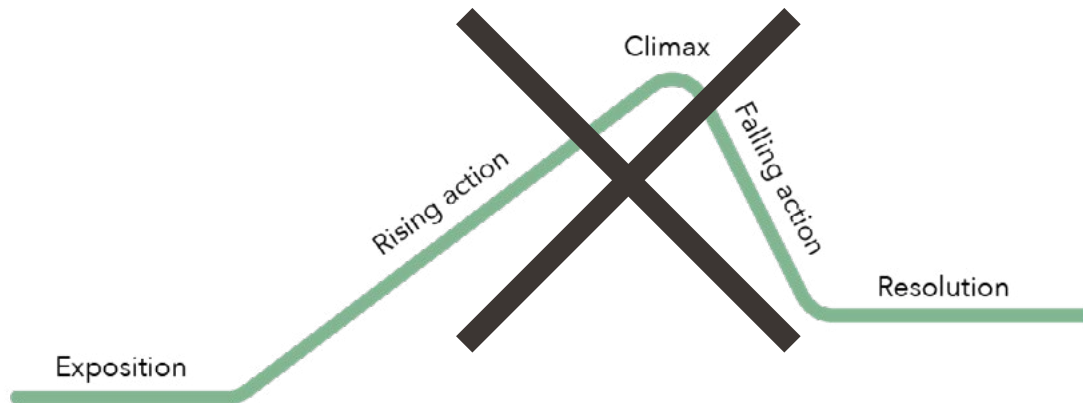
### **STORYTELLING TECHNIQUE: SLICE-OF-LIFE**

To investigate the potential for fictional storytelling in envisioning sustainable landscapes and ways of life, I employ a slice-of-life technique. This storytelling approach

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2 These concepts are introduced in the Theoretical Framework

differs significantly from more traditional methods that seek to offer neat, satisfying conclusions (See Figure 5).



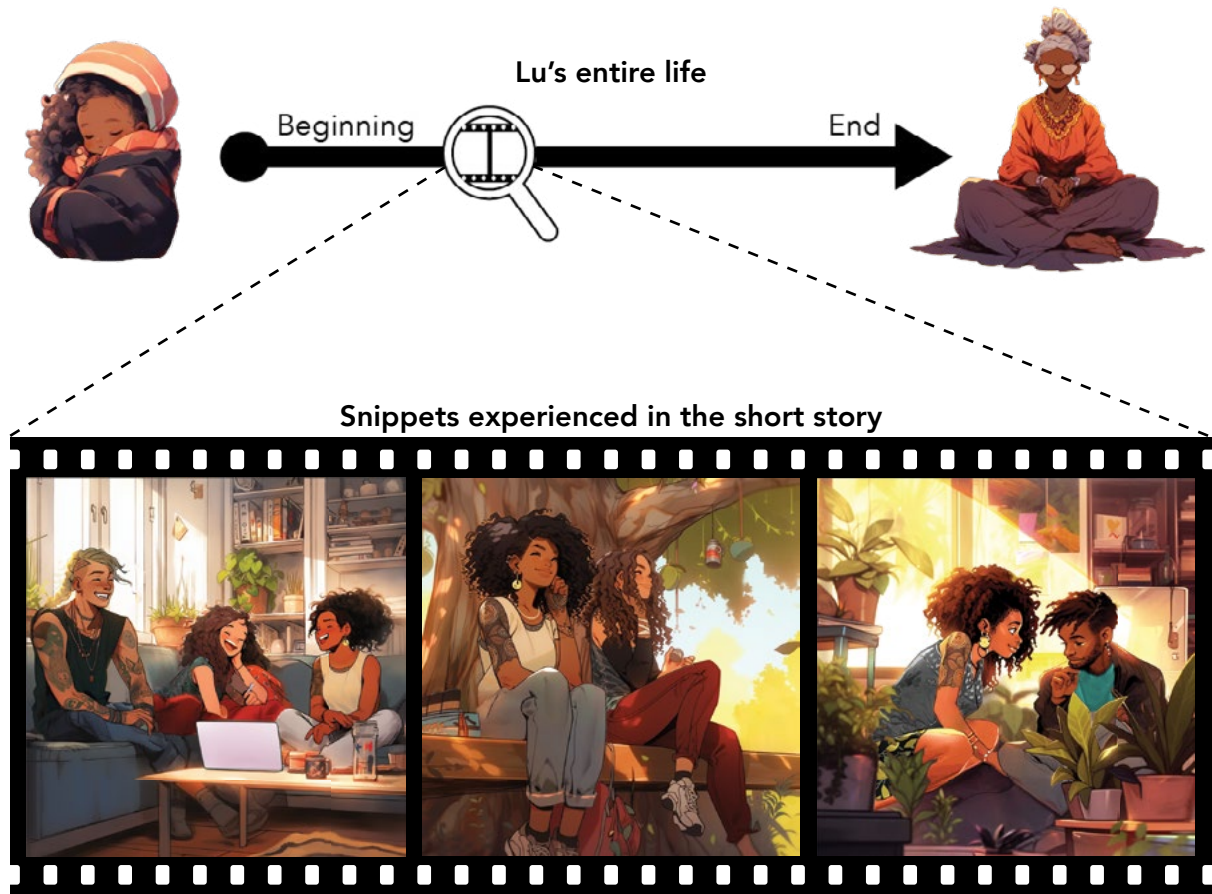
**Figure 5:** My visualization showing that a traditional story arc isn't being followed when using slice-of-life storytelling.

According to the famous playwright George Bernard Shaw, slice-of-life storytelling means plays — or in this case, stories — without either “catastrophes” or endings. Shaw argued that once “the dramatist gives up accidents and catastrophes, and takes ‘slices of life’ as his material, he finds himself committed to plays that have no endings. The curtain no longer comes down on a hero slain or married: it comes down when the audience has seen enough of the life presented to it to draw the moral” (Pref. *Three Plays by Brieux* 1194 in Baker, 2002, p.83)

Shaw’s interpretation of slice-of-life as narratives without neat conclusions brings a symbolic component to the explorations of sustainable futures. Unlike conventional endings, which might suggest that challenges have been overcome and equilibrium reached, slice-of-life narratives embrace complexity and ongoing struggle. This aligns closely with the realities of sustainability, which is not a static goal but an ever-evolving set of challenges and opportunities.

In these slice-of-life short stories, I’ve combined textual narratives with AI-generated cover images to spark the readers’ imaginations and immerse them directly into these potential future worlds (See Figure 6). When introducing a new world, a common narrative device is writing the main character as a visitor or new arrival from our world. The readers and the main character get to experience the outlandishness of this new world together. The main character will ask many of the questions the readers might be wondering. Everything in the story is also automatically filtered through the lens of an outsider looking in or being embraced by a new, strange place.

These are all good reasons to avoid this narrative device in the thesis. Each of the fictional stories gives life to people from the depicted scenarios, the only available



**Figure 6:** Visualization describing the way I have interpreted and used the storytelling technique slice-of-life. The short story *Collaborative Economy* is used as the example. I created it using Midjourney bot, Adobe Photoshop and Illustrator.

experience is through the lens of an insider. It may leave more questions unanswered but, as previously stated, that is intentional. It is another way of limiting excessive world-building by not supplying a person who would ask questions about things that are obvious to the people who live there. Confronting the readers with people who have completely different worldviews, without the buffer of a main character from our world, can also be more impactful. Without the constant comparison to our world, there's more freedom to explore societies that are further removed from our current worldview.

## Method Discussion

### COMPLEXITY OF DIVERGENT SCENARIOS

One significant challenge I faced was the overwhelming complexity inherent in the *Futures Beyond GDP Growth* scenarios. Each of the four scenarios moves in different directions on certain aspects, making it unexpectedly difficult to limit the scope of constructing the narratives. The requirement to produce four distinct narratives also

presented a challenge in terms of the volume of fictional text to write. The slice-of-life storytelling technique was one of the methods used to mitigate this.

### **INCORPORATING THE INDIGENOUS PERSPECTIVE**

I am not Indigenous myself. I have grown up in a Western country with a dark history of colonizing and discriminating against Indigenous people. Therefore, I may have misunderstood some aspects of Indigenous teachings and worldviews that I have studied during this thesis project. I also realize that I cannot represent Indigenous people the way they can themselves. At the same time, I am convinced that it is vital to include them in stories portraying socially and ecologically sustainable futures. If Indigenous people can only be portrayed by Indigenous people they are also forced to carry the full burden of exposing the majority society to their existence and contribution. If non-Indigenous people avoid representing them in their stories to avoid getting things wrong, stories with Indigenous characters will be much more scarce and their perspectives will be heard less often. Adding these perspectives to my stories became a balancing act. I wanted to incorporate them and acknowledge their contribution without appropriating and misinterpreting their cultures and voices. The most important thing for me was to approach this with respect, good intentions, and openness to learn.

I have tried to tread carefully but have incorporated Indigenous perspectives in all the stories. Sometimes through character, sometimes through the practices they use, or the discussions they have. In that way, I endeavored to balance the vital but complex and sensitive task of embracing Indigenous perspectives while avoiding the pitfall of cultural appropriation.

### **FINDING A BALANCE BETWEEN NORMATIVE (GOAL-ORIENTED) AND REALISTIC**

I didn't want these stories to become overly idealistic portrayals of the future, where everybody just happens to be nice to each other all the time. At the same time, I imagine that growing up in the types of societies described in the report would result in a very different emotional maturity for example. Imagine being born into a world that values cooperation, actively rejects all but friendly competition, and views an excess of wealth and power as something negative. It's difficult to imagine how people in such a world would act but their interaction would organically be very different from what we are used to.

### **BALANCING NARRATIVE AND PROFESSIONAL PERSPECTIVE**

Another challenge arose from trying to blend my landscape architecture perspective with character-driven storytelling. A way I consciously integrated specific elements that a landscape architect would be concerned with was by giving important



characters in each story a landscape architecture background (or the equivalent in their world).

### **CONCLUDING THOUGHTS**

Using the building blocks from the report's scenarios to chisel out my short stories has transformed the visions of the future from something large, abstract, and national to something small but also concrete and specific. The stories only show a few hours of some specific people's lives but they contribute with a human and site-specific connection. The short stories offer a detailed glimpse of these people. Their lives are experienced, and their feelings and daily activities breathe life into actual people from the original scenarios.

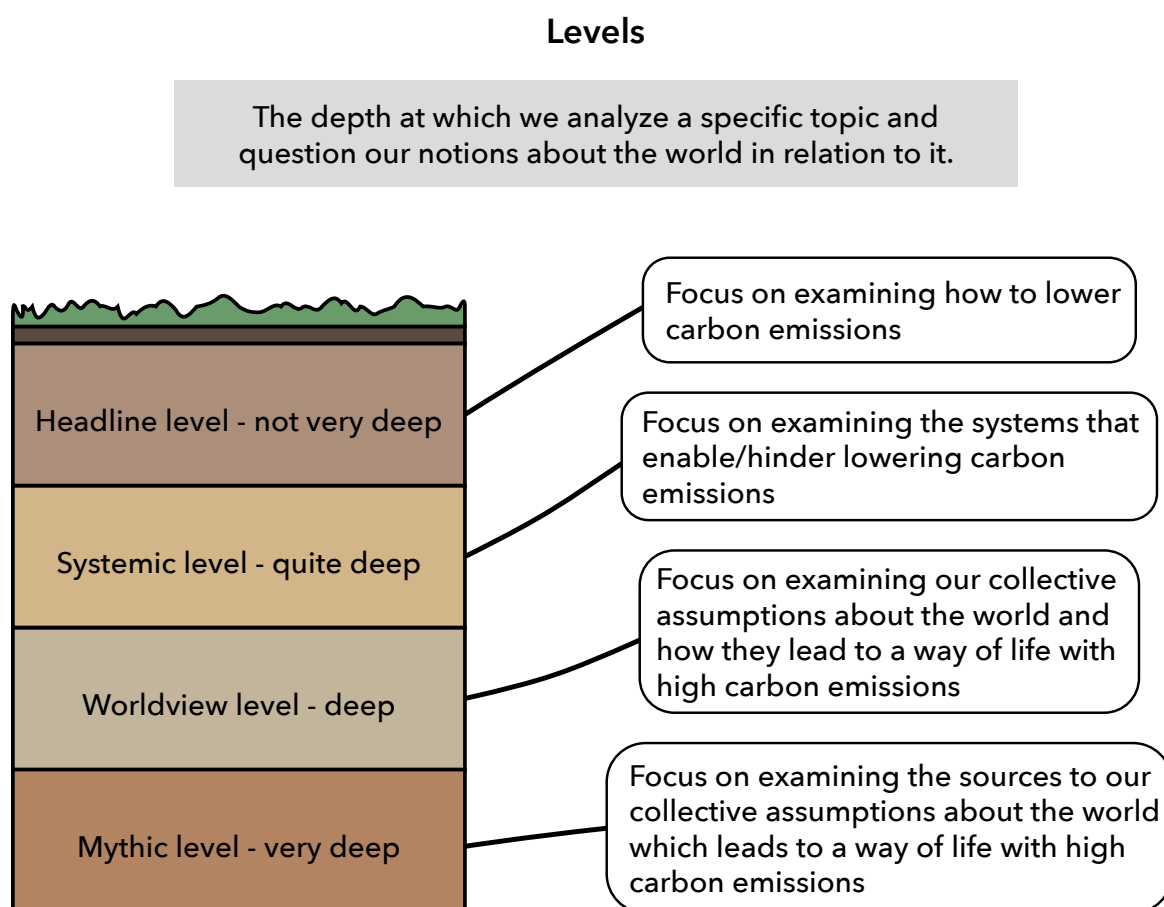
Given the exploratory and interpretative nature of the research questions, this narrative method can offer more tangible visions of sustainable landscapes and ways of life. With this approach, the exploration addresses not just physical but also social, cultural, and emotional dimensions.

# Theoretical Framework

## Levels of Understanding

### FACER'S LEVELS OF UNDERSTANDING: AN OVERVIEW

Keri Facer (2019), professor of educational and social futures at the University of Bristol, discusses four different levels of understanding and how much these levels can color our view of a subject (See Figure 7). Facer illustrates the levels using the challenge of human-induced climate change, demonstrating that the framework offers a structured approach to analyzing complex matters. Considering our approach to tackling climate change also helps us highlight our approach to societal changes at large. At its most superficial, the headline level encapsulates the most immediate and urgent aspects of a problem. The structural level delves into the systems that perpetuate these problems, while the worldview level questions the foundational beliefs driving these systems. Lastly, the mythic level explores deep-seated cultural narratives and identities that underpin our understanding of the world.



**Figure 7:** Adapted from levels of understanding by Facer (2019). The illustration shows how the focus-point changes based on which level we base our understanding on. In this case it is exemplified using the topic of climate change mitigation.

This framework serves as a cornerstone for the thesis, offering a lens through which we can explore the depth of societal change required to arrive at the sustainable future scenarios from the *Futures Beyond GDP Growth* report.

### **THE HEADLINE LEVEL: A SURFACE GLANCE**

The headline level is the level we are exposed to the most. Sticking to the example of climate change, Facer explains that it is “the everyday shorthand that stands for and conceals a lot of other issues [...] Here the immediate question is how to rebalance our relationship with the planet – in particular, by getting carbon emissions down and creating space for other species” (Facer, 2019, p.9).

Facer gives examples of universities making changes at this level, such as using their lands as carbon sinks, shifting to a vegetarian diet, experimenting with local wild-flower meadows, and a carbon-neutral campus-city collaboration (Facer, 2019, p.17). These are all great initiatives, they are individual actions that can all help in their own ways to lower the output of carbon emissions. If these examples are the universities’ main approaches to climate change action, though, there are vital aspects missing.

It is possible to think of the headline level as the treatment of symptoms of a disease or injury. This task is very important of course but it’s not always very effective on its own. Since an understanding of what caused the symptoms could help us avoid many diseases and injuries altogether, it is important to understand this level’s limitations. In other words, by staying at the headline level we are only focusing on the details, not the underlying forces that influence them.

### **THE STRUCTURAL LEVEL: SYSTEMS AT PLAY**

Examination at the structural level provides a deeper understanding of this complex issue. By shifting focus to our current systems — specifically democracy and economics — we start asking different questions. Questioning how these systems enable and/or hinder the transition towards a future where we live in good relations with each other and the rest of nature.

*In economic and political discussions, the notion of continuous economic growth is often taken for granted and seen as a prerequisite for safe and sustainable societal development.*

(Hagbert et al., 2019, pp.5)

This notion that economic growth is necessary for sustainable development is what the research program *Beyond GDP Growth: Scenarios for sustainable building and planning* endeavors to challenge. Their comment that this is a “largely under-re-

searched area” (ibid.) asserts that the structural level of understanding is rarely examined. By not questioning our understanding of democracy and economics at a structural level we could be greatly limiting our approach to tackling issues like climate change and sustainability.

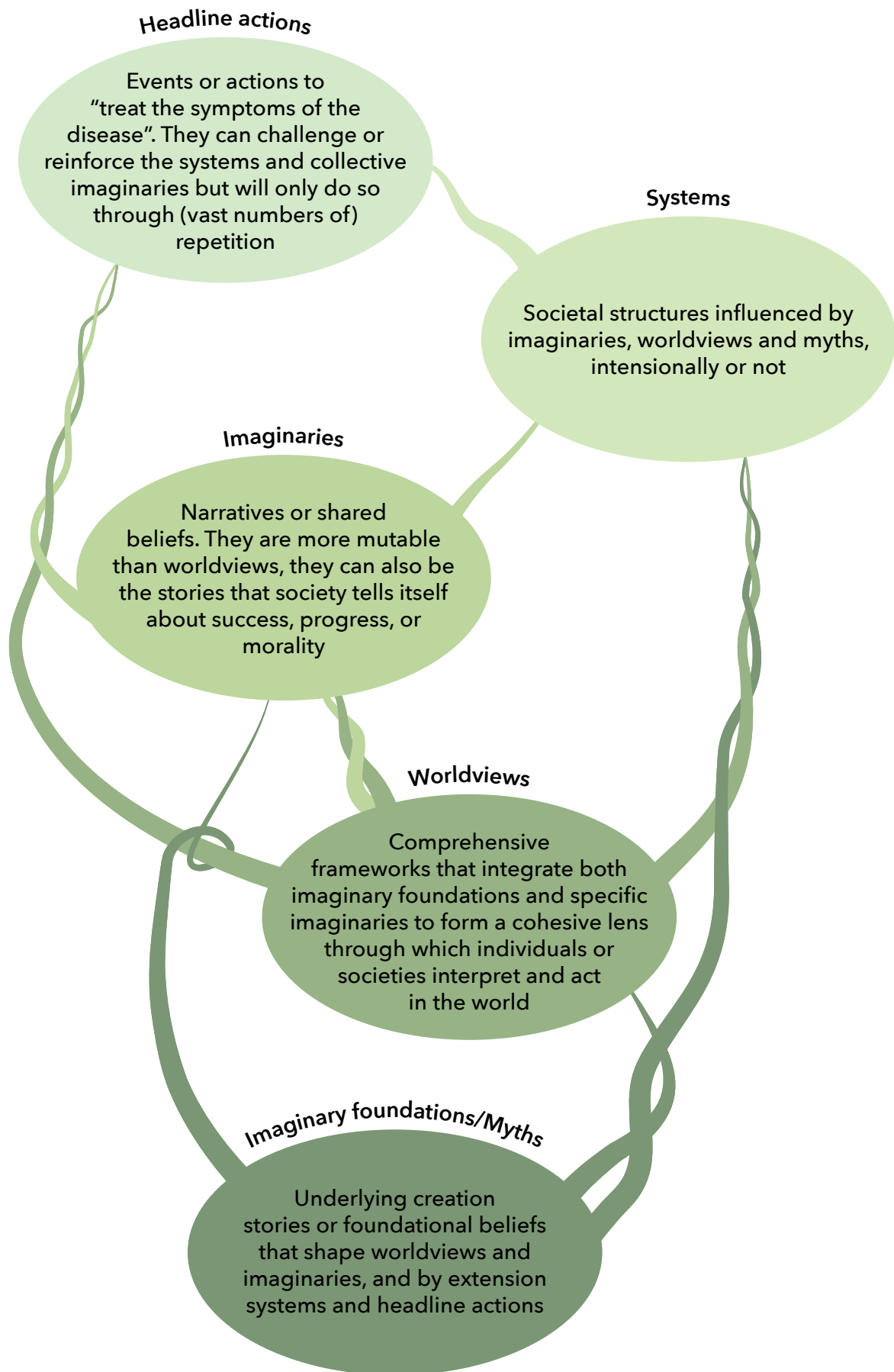
Both Facer (2019, p.9) and the *Futures Beyond GDP Growth* report (Hagbert et al., 2019, p.7) mention Kate Raworth’s doughnut economics. This is an economic theory that incorporates both social justice and environmental boundaries as the basis for a sustainable society. By using a model where these aspects are the foundational pieces, the aspect of economic growth might seem less essential. We might view economic growth as one potential way of achieving this goal but the model also opens up a new discussion. We can start considering the possibility that economic growth could even hurt the goals and that there could be many other paths to achieve them. The structural level is important to analyze when discussing societal change. At the same time, we can change our understanding at a structural level without changing our motivation for it, our deeper understanding of the world.

#### **THE WORLDVIEW LEVEL: FOUNDATIONAL BELIEFS**

Digging deeper we arrive at the worldview level. Considering the task of building a new relationship with the planet at a worldview level leads to more foundational questions. Other ways of understanding change and agency are explored and the assumptions that technological progress and modernity can even be part of a sustainable future is questioned. There’s also an exploration into other ideas, such as “the role of commitments to gift, solidarity and cyclical relations” (Facer, 2019, p.10).

Ian H. Thompson (2019) touches on similar notions in his text *Imaginaries in Landscape Architecture*. He describes imaginaries as universally shared views and understandings between large groups of people. There are social imaginaries, for example, which set up the social structures in a society and govern our collective understanding of them. Thompson also focuses on landscape imaginaries. He explains the concept by using the landscape imaginary of Middle-Earth, from the J.R.R. Tolkien books, as an example. Explaining that Middle-Earth’s landscape imaginary is more than the collection of fictional landscapes described in the books. It is the accumulated collection of landscapes that have become connected to Middle-Earth since its creation. The northern European landscapes and the Alps that Tolkien drew inspiration from, to begin with. The rolling and dramatic landscapes of New Zealand that represented Middle-Earth in the movies. The landscapes of illustrations, posters, book covers, and fan art. They have all contributed to our collective landscape imaginary of Middle-Earth (Thompson, 2019, pp.277).

Thompson’s imaginaries and Facer’s worldviews are closely related and interlaced concepts (See Figure 8). They both describe ways large groups of people understand aspects of our world and ways that our choices, intentionally or not, contribute



**Figure 8:** Terms by Facer (2019) and Thompson (2019). Illustration visualizing my interpretation of the terms themselves and the ways they are related to and intertwined with one another.

to or challenge that perception. The slight nuance between the two concepts can be seen as this:

An imaginary is a collection of associations and beliefs about a specific topic. It can evolve through change based on new knowledge, but it can also merely expand as more information is added. When the Lord of the Rings movies were filmed in New Zealand, the landscape imaginary of Middle-Earth expanded. The filming location doesn't cause the immediate removal of the northern European landscapes from the landscape imaginary, they both contribute to making it richer.

A worldview is *based on* collections of associations and beliefs and is influenced by myths and societal norms. New information and evolving imaginaries can affect a worldview but the change is more shift than expansion. There is the worldview that we will reach a sustainable future through technological progress. Another worldview is that technological progress needs to stop in order to reach a sustainable future. These worldviews are not two parts of a whole, they are opposite ends of a spectrum.

#### **THE MYTHIC LEVEL: DEEP CULTURAL NARRATIVES**

Finally, we have the mythic level, "the 'understory', looking at the foundational questions of who we are in the world and our relations to other beings. Here, we are seeing a re-emergence of indigenous ways of knowing" (Facer, 2019, p.10). This level examines what gave us the base assumptions of our place in the world and what rights and responsibilities this would entail. It could be argued that Facer's mythic level is the equivalent of Thompson's imaginary foundations:

*"Imaginary foundations are often expressed in creation myths, which both reflect and shape behaviour: for example, if you have a myth which states that God placed humankind upon the earth to rule over it, and that other living things were provided for the benefit of humans, then you are likely to develop an exploitative attitude towards nature."*

(Thompson, 2019, p.278)

The contrast between Western and Indigenous ways of knowing, influenced by their creation myths, is beautifully depicted in the book *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants* (2013). Robin Wall Kimmerer tells the story of Skywoman, "shared by the original peoples throughout the Great Lakes"(Kimmerer, 2013, p.19). Kimmerer explains that Skywoman fell from a hole in the Skyworld into the watery world below. The animals living in the lower world helped Skywoman, breaking her fall, keeping her afloat in the water, and trying to find land for her to live upon. The little Muskrat sacrificed his own life

to retrieve the fistful of mud from the bottom of the water that was vital for creating land. After this, Skywoman sang in thanksgiving, so moved by the extraordinary gifts the animals had given her, and began to dance on top of the turtle's back, where she had spread the mud. From this, the land grew and grew until the whole world was made. "Not by Skywoman alone, but from the alchemy of all the animals' gifts coupled with her deep gratitude. Together they formed what we know today as Turtle Island, our home" (Kimmerer, 2013, p.16). As Skywoman fell she had tried to grab onto the Tree of Life, which grew in the Skyworld. Though she had not been able to stop her fall this meant that "Like any good guest, Skywoman had not come empty-handed" (ibid.). She had a bundle of branches, fruits, and seeds with her, which she planted and tended to until the earth was full of life.

The journey of Skywoman stands in stark contrast with the Western creation myth Thompson described. Thompson comments that the imaginary foundations promote an exploitative attitude towards more-than-human nature. Kimmerer's comparison adds yet another layer, making it clear that more-than-human life isn't the only victim in the Western imaginary foundation:

*On one side of the world were people whose relationship with the living world was shaped by Skywoman, who created a garden for the well-being of all. On the other side was another woman with a garden and a tree. But for tasting its fruit, she was banished from the garden and the gates clanged shut behind her. That mother of men was made to wander in the wilderness and earn her bread by the sweat of her brow, not by filling her mouth with the sweet juicy fruits that bend the branches low. In order to eat, she was instructed to subdue the wilderness into which she was cast.*

(Kimmerer, 2013, p.19)

No matter how distant it may seem from some current Western societies, they are still shaped by the Christian imaginary foundation in many ways. In Sweden, we have separated church and state, of course, and our values and structures have changed significantly throughout history. This imaginary foundation still affects the way we understand the world and our place in it, though. This is why Indigenous wisdom is such an important aspect of the journey toward a sustainable future<sup>3</sup>. On Turtle Island, the people shared fundamentally different imaginary foundations, leading to

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3 "By bringing together scientific and technological know-how as well as Indigenous and local knowledge, solutions will be more effective. Failure to achieve climate resilient and sustainable development will result in a sub-optimal future for people and nature." (IPCC Press Release 2022)



fundamentally different worldviews, structures, and relationships. “Children hearing the Skywoman story from birth know in their bones the responsibility that flows between humans and the earth. [...] It holds our beliefs, our history, our relationships. [...] Images of Skywoman speak not just of where we came from, but also of how we can go forward.” (Kimmerer, 2013, p.17).

Where worldviews can be seen as comprehensive frameworks that integrate both imaginary foundations and specific imaginaries to form a cohesive lens through which individuals or societies interpret and act in the world

Imaginaries can be seen as specific narratives or shared beliefs that arise from these foundational myths. They are more mutable and might be the stories that society tells itself about success, progress, or morality.

## Historical Influence of Worldviews on Sustainability

### EARLY ENCOUNTERS AND INDIGENOUS CRITIQUE

In their book *The Dawn of Everything* anthropologist David Graeber and archeologist David Wengrow (2021) write about the clashing imaginary foundations and worldviews in the early meetings between Europeans and Indigenous Americans. Or as Kimmerer puts it “the offspring of Skywoman and the children of Eve” (2013, p.19). As Europeans began to arrive on American shores, they were suddenly confronted with people who had a different worldview and criticized their way of life (Graeber & Wengrow, 2021, p.38).

### MI'KMAQ PERSPECTIVE: REDEFINING WEALTH AND COMMUNITY VALUES

The recollections of Father Pierre Biard, who was sent to evangelize the Mi'kmaq in Nova Scotia, provide an interesting example of the criticism they faced:

*They consider themselves better than the French: “For,” they say “you are always fighting and quarrelling among yourselves; we live peaceably. You are envious and are all the time slandering each other; you are thieves and deceivers; you are covetous, and are neither generous nor kind; as for us, if we have a morsel of bread we share it with our neighbour.” They are saying these and like things continually*

(Biard, 1611, cited in Graeber & Wengrow, 2021, p.38)

The fact that the Mi'kmaq were also constantly claiming themselves richer than the French seemed to irritate Biard most of all. This is an example of their different worldviews regarding riches. To the Mi'kmaq, the amount of material possessions

was not the way to measure riches. They did concede that the French had more of those, but still considered themselves richer since they had more of the things they themselves valued as greater assets, things like time, ease, and comfort (Graeber & Wengrow, 2021, p.38).

### **WENDAT PERSPECTIVE: A CRITIQUE ON INEQUALITY AND GENEROSITY**

Another interesting example of differing worldviews is recorded by Brother Gabriel Sagard, a missionary Recollect Friar who spent some time with the Wendat nation.

*'They reciprocate hospitality and give such assistance to one another that the necessities of all are provided for without there being any indigent beggar in their towns and villages; and they considered it a very bad thing when they heard it said that there were in France a great many of these needy beggars, and thought that this was for lack of charity in us, and blamed us for it severely.'*

(Sagard, 1632 cited in Graeber & Wengrow, 2021, p.39)

When hearing about the unequal distribution of wealth in France the Wendat blamed the people benefiting from this system for not balancing it out rather than the people suffering from it for having to resort to begging on the street. Considering again the imaginary foundations of these two groups of people it makes sense that the French would be surprised by how offended the Wendat were by their lack of generosity. The Wendat got the foundation of their worldview from the legacy of Skywoman. Skywoman, who had fallen from her home but had been helped by all the animals. She gladly received the gifts they offered, showing her gratitude and giving gifts back to them. Seeing the world from this perspective – with its value of cyclical relations, gift-giving, and gratitude – you would be ashamed of the fact that people were hungry and begging for help without receiving it. It would seem like a failing by the community to leave these people in need and it would seem like an especially egregious situation when some people in the same community had more than they could ever need themselves. The French, on the other hand, got the foundation of their worldview from the legacy of Eve. Eve, who had broken an arbitrary rule and was justly punished with a life of suffering for this transgression. Based on this imaginary foundation it's easier to see how the French were unashamed of their societal structures. They thought the beggars themselves were to blame for their sorrows since, according to this worldview, they must have done something bad to deserve this life of suffering. This wasn't necessarily what every Frenchman thought at the time, but it was likely an underlying justification for the way their societal structures were organized.

## **EUROPEAN RESPONSES AND SHIFTING PERSPECTIVES**

The exposure to Indigenous critique seems to have made several of them start questioning their society in a new way, though. Sagard, for example, started off being very critical of the Wendat nation but by the end of his time there “he had come to the conclusion their social arrangements were in many ways superior to those at home in France” (Graeber & Wengrow, 2021, p.39). By the 1700s, books containing Indigenous critique were so common that at least one of them was likely to be found in any middle-class household in places like Amsterdam and Grenoble. (ibid. p.36)

*One of the reasons that missionary and travel literature became so popular in Europe was precisely because it exposed its readers to this kind of criticism, along with providing a sense of social possibility: the knowledge that familiar ways were not the only ways, since – as these books showed – there were clearly societies in existence that did things very differently.*

(Graeber & Wengrow, 2021, p.37)

## **THE IMPACT ON EUROPEAN THOUGHT AND THE ENLIGHTENMENT**

In many ways, these ideas came as a shock to the system for European audiences. Social equality, for example, barely existed as a concept in the Middle Ages. In fact, a recent survey of European medieval literature found no evidence that the terms equality and inequality were used at all to describe social relations before Europeans started traveling to America (Graeber & Wengrow, 2021, p.32). After this meeting though, principles of freedom and equality were slowly starting to be embraced. Many influential Enlightenment thinkers, the Europeans who became vocal about these principles, acknowledged the profound influence of the Indigenous critique on their thinking (ibid., p.31). Indeed, Graeber and Wengrow (2021, p.27-59) argue that the influence of the early Indigenous critique in Europe was a major component of the Age of Enlightenment.

## **A COMPARATIVE STUDY OF SUBSTANTIVE VS. FORMAL FREEDOM**

Fast forward through history and the Western traditional worldview is now dominant in the Americas as well. It was ultimately forced upon the Indigenous peoples, often through brutal practices like forced relocation and mandatory, incredibly abusive, residential schools (Smith, n.d.). So even if it seems as though the Indigenous critique got Europeans to start questioning the inherent and absolute supremacy of God and kings, the deeper imaginary foundations were not changed. The subsequent French and American revolutions didn't result in societies based on cyclical

relations, gift-giving, and gratitude. Of course, a lot has changed if we compare Western society today with Western society before the revolutions, but we have still mainly increased our formal freedom, not the substantive freedom which would require change at a deeper level.

Graeber and Wengrow bring up these concepts when discussing different ways of understanding the meaning of living in a free society. They explain that many people in places like the United States today, see themselves as living in a free society. Their understanding of freedom, however, is very different from what the peoples, like the Wendat, describe in these early meetings:

*American citizens have the right to travel wherever they like – provided, of course, they have the money for transport and accommodation. They are free from ever having to obey the arbitrary orders of superiors – unless, of course, they have to get a job. In this sense, it is almost possible to say the Wendat had play chiefs and real freedoms, while most of us today have to make do with real chiefs and play freedoms.*

(Graeber & Wengrow, 2021, p.131)

The Wendat worldview allowed for individual freedom, their chief played a critical advisory role but had no power of coercion over the rest of the people. The formal freedoms of today, where we are technically free to travel but we cannot do so without the money needed to sustain the trip — and, most likely, the approval for a break by whoever decides if we are allowed to continue receiving money in exchange for labor when we get back — is very dependent on our socioeconomic situation. These formal freedoms mean that *in theory* everyone is equal but in practice, there is a huge difference regarding how many of these freedoms different people can enjoy, and how often they can enjoy them. Substantive freedoms are only possible through structuring society differently. For the Wendat, for example, the theoretical right to travel would not be seen as enough (in fact, it would probably never be a question because they wouldn't acknowledge that an authority could forbid them). For them, the freedom to travel was mainly spoken of concerning the obligation to provide hospitality to strangers. "Mutual aid [...] was seen as the necessary condition for individual autonomy." (Graeber & Wengrow, 2021, p.131) In other words, their worldview offered the people substantive individual freedom *and* the responsibility of granting that same freedom to others.

## **THE INDUSTRIAL REVOLUTION: A RADICAL SHIFT IN TECHNOLOGY**

The problematic nature of the Western imaginary foundation and consequent worldviews becomes evident when considering the contrasting developments

of technological advancements and labor conditions in the Industrial Revolution. During this period many argued that the new efficient forces of production would liberate humans from unnecessary toil. "In fact, by the Victorian era many began arguing that this was already happening. Industrialized farming and new labour-saving devices, they claimed, were already leading us towards a world where everyone would enjoy an existence of leisure and affluence – and where we wouldn't have to spend most of our waking lives running about at someone else's orders." (Graeber & Wengrow, 2021, p.134)

It has been over a hundred years since the Victorian era and we know now that the future did not give everyone the privilege of enjoying an existence of leisure. As John Stuart Mill protested, "All the labor-saving machinery that has hitherto been invented has not lessened the toil of a single human being" (cited in Graeber & Wengrow, 2021, p.134). Considering the exploitative attitude towards more-than-human nature; the arbitrarily punitive deity who controlled your lot in life; and the ideal of earning your bread by the sweat of your brow, it raises the question. Was the new technology even created and built to be labor-saving? In a community with a different worldview, this might have been the case but there's an argument to be made that this machinery wasn't supposed to be labor-saving, it was supposed to be production-increasing.

Historically, the Industrial Revolution was a milestone. In increased use of technology, yes, but also in increased hours of hard labor for the workers. The machinery of the Industrial Revolution lessened the labor intensity of many tasks and some jobs became much less back-breaking, thus raising the standard of living and increasing life expectancy. All of this is true, but it also introduced new forms of labor exploitation and inequality.

Hans-Joachim Voth, an economic historian at the University of Zurich, writes about this in *Time and Work in Eighteenth-Century London*. He establishes the increase in labor during this period. Voth explains that they worked for eleven hours a day throughout this period. The big difference was that in the 1750's, for example, they had 208 working days per year. By the period 1800–1803 this had increased to 306 days every year (Voth, 1996, p.37). Another calculation confirms that the increased yearly working hours in England between 1760 and 1800 was around 1000 hours per year (Voth, 1996, p.38). So, while technology improved the conditions for some people, the social and economic structures in place limited the amount of improvement for the workers' lives and could even lead to the opposite effect in certain aspects.

Fortunately, this is not how Westerners live anymore, but the reason for the eight-hour workday is not the improved technology. The legislation for worker's rights is the achievement of workers demanding change, organizing, and striking (ex. Norwood, 2016). The workers managed to change our collective worldview. They

created a future where Westerners are horrified by the thought of working twelve hours a day, six days a week. The Western worldview has shifted. It is relevant to mention that the shift isn't as universal as one could have hoped since the progress for worker's rights hasn't been the same in developing countries. In the pursuit of economic gain, many Western companies outsource production to countries where labor is cheap because working conditions are still subpar (Kates, 2015).

This indicates that if the historic patterns continue, new technological development won't change Western society's relation to work on its own in the future. What we would need for this kind of change is a paradigm shift at a worldview level.

### **TEOTIHUACAN: A RADICAL SHIFT IN WORLDVIEW**

Imagining such a change can be more difficult than imagining advancements in technology though. There are fewer known examples of these fundamental worldview changes to draw inspiration from. Most people might not even have heard of many historical examples. One interesting example of exactly this kind of change though, happened in Teotihuacan around 300 CE. Teotihuacan had started like many other Mesoamerican civilizations around the same time. That is, with monument-building and human sacrifice (Graeber & Wengrow, 2021, p.341). But quite suddenly all of this changed and, even if we don't know exactly what happened, what is clear is that the trajectory of Teotihuacan's development was dramatically different from other Mesoamerican civilizations.

"[W]hat we see after AD 300 is an extraordinary flow of urban resources into the provision of excellent stone-built housing, not just for the wealthy or privileged but for the great majority of Teotihuacan's population" (Graeber & Wengrow, 2021, p.342). They stopped building monuments permanently and the evidence found of human sacrifice at the Pyramids of the Sun and Moon is only from before this time. "More than that, many citizens enjoyed a standard of living that is rarely achieved across such a wide sector of urban society in any period of urban history, including our own" (ibid. p.343). In contrast to the Olmec, Maya, and Aztec peoples, no evidence of a royal class has been found in Teotihuacan. Royal palaces and graves are lacking in the archeological record and specific paramount individuals haven't even been identified in their works of art (Sugiyama, 2005, p.4). Teotihuacan wasn't a utopian, completely equal city-state after 300 CE. There were still more and less privileged people living there and some houses were more luxurious than others, but the shift in priorities was incredibly impressive.

Considering the previous immense effort dedicated to temple building — a construction process that also required human sacrifices counted in the hundreds — the shift to instead start focusing on securing comfortable residential conditions for the city's 100,000 residents is quite a radical change (Graeber & Wengrow, 2021, p.340-342). What happened in Teotihuacan does not indicate a new technological

advancement but potentially a dramatic change in worldviews and maybe even changed imaginary foundations.

Skeptics might say that the example of Teotihuacan is not relevant to modern societies that are far more complex and governed by global economic systems. However, this case serves as a historical precedent that demonstrates the capacity for radical shifts in societal priorities and resource allocation, even without the influence of modern technology. It shows that substantial changes in collective thought and behavior are possible and can have a lasting impact.

### SUMMARY OF KEY THEORETICAL POINTS

In summary, this section underscores three pivotal insights worth emphasizing:

1. We can learn a lot from Indigenous ways of knowing, especially in the effort for a sustainable future.
2. The introduction of a different understanding of the world and our place in it can have a great impact on what we believe is possible for our society and our future.
3. Without understanding and actively rejecting certain imaginary foundations and shifting certain worldviews, it might be difficult to get as far as we want toward a free and equal society. For example: (See Figure 9).



**Figure 9:** Illustration of a French beggar from the 1700s. Relating to the discussion of different worldviews between the Wendat and the French. I created it using Midjourney bot.

# Literature Review

## The Role of Landscape Architecture

### DEFINITION OF LANDSCAPE ARCHITECTURE

In order to examine why the thesis subject is relevant to the field of landscape architecture, we must first consider what landscape architecture is. In the book *Landscape Architecture: A Very Short Introduction*, Thompson (2014) discusses the definition of the role and profession of the discipline. The definition by the International Federation of Landscape Architects (IFLA) reads as follows:

*Landscape Architects conduct research and advise planning, design and stewardship of the outdoor environment and spaces, both within and beyond the built environment, and its conservation and sustainability of development.*

(IFLA in Thompson, 2014, p.xiii)

Thompson argues that landscape architecture is more fluid than what is captured by this definition, though. The boundaries shared with other disciplines, like urban planning, engineering, art, and architecture aren't exactly fixed. He comments that "A useful way to conceptualize this is to think of landscape architecture as an extended family." (Thompson, 2014, p.23) Landscape architects can work with many different things, they can even be different enough that they might not seem related, but there are "webs of resemblance" linking them together. This is the extended family metaphor. Each person in the family is unique, they can even be very different from one another, but they are all related nonetheless (ibid.).

### SOCIAL JUSTICE AND SPATIAL PLANNING

Thompson makes something clear though, when it comes to how everyday places are shaped — the places where most of us live our lives — landscape architects play an important role. Considering this, there's an argument to be made that landscape architects also have an important responsibility to be mindful of the consequences of the spatial design of our landscapes. In *Landscape and Social Justice*, Setten and Brown (2013) highlight the connection between social justice and place, commenting on the importance of understanding the spatial aspect of justice. "Even though landscape scholars have been relatively slow in taking this on board, this spatial sensitivity suggests the importance of landscape" (p. 245). Setten and Brown do concede that several scholars in recent years have started arguing for social justice questions to be part of landscape studies. They exemplify this with a quote from Henderson (ibid.):



*[T]he study of landscape [...] must stand up to the facts of a world in crisis, to the fact that the condition for everyday life is, for many people, the interruption or destruction of everyday life.*

Imaginaries and worldviews also affect social justice immensely, intentionally or not. Setten and Brown (2013, pp.244) discuss this in relation to cultural imperialism. With highly dominant societal imaginaries, the perspectives of certain groups that contradict those imaginaries are easily rendered invisible. This is an issue that landscape architects need to take into account in their design processes but it can also be an issue for academia in general.

### **THE OBJECTIVITY OF WORLDVIEWS AND IMAGINARIES**

Kimmerer (2013, p.165-168) illustrates this with her experience of the clash between academia and Indigenous knowledge. When Kimmerer's botanist graduate student, Laurie, presented her thesis project to the faculty committee, she was met with harsh skepticism. She was studying if the two different traditional ways of harvesting sweetgrass — pinching it off at the base or pulling it up by the roots — affected the population's depletion. The committee didn't understand the value of the project and the dean's comment was: "Anyone knows that harvesting a plant will damage the population. You're wasting your time. And I'm afraid I don't find this whole traditional knowledge thing very convincing" (2013, p.168).

Laurie didn't let the committee dissuade her though and after a two-year study, her data was crystal clear. The effect of the two different harvesting methods was nearly identical, they were both thriving. The interesting thing was that the control plots were failing. It turned out that sweetgrass didn't follow the pattern that 'anyone knows'.

*We are all the product of our worldviews—even scientists who claim pure objectivity. Their predictions for sweetgrass were consistent with their Western science worldview, which sets human beings outside of "nature" and judges their interactions with other species as largely negative. They had been schooled that the best way to protect a dwindling species was to leave it alone and keep people away. But the grassy meadows tell us that for sweetgrass, human beings are part of the system, a vital part. Laurie's findings might have been surprising to academic ecologists but were consistent with the theory voiced by our ancestors. "If we use a plant respectfully it will stay with us and flourish. If we ignore it, it will go away."*

*[...] The scientists gave Laurie a warm round of applause. She had spoken their language and made a convincing case for the stimulatory effect of harvesters, indeed for the reciprocity between harvesters and sweetgrass. One even retracted his initial criticism that this research would “add nothing new to science.” The basket makers who sat at the table simply nodded their heads in agreement. Wasn’t this just as the elders have said?*

(Kimmerer, 2013, pp.171;173)

Kimmerer’s example doesn’t just exhibit the importance of Indigenous knowledge but also the problem with academia’s elitist and rigid structures. It is important to remember that pure objectivity is impossible, as Thompson (2019, p.288) reminds us “imaginaries are not optional, in the sense that societies cannot avoid creating them.” Kimmerer comments on both the emotional hardship and the huge effort needed to struggle against the dominant imaginaries within her field: “Getting scientists to consider the validity of Indigenous knowledge is like swimming upstream in cold, cold water. [...] Couple that with the unblinking assumption that science has cornered the market on truth and there’s not much room for discussion” (2013, p.168).

## **HUMAN AGENCY AND CHOICES**

Another example where the values of Indigenous peoples’ practices have often been made invisible, or actively questioned, comes from Sapmi. The debate about reindeer in Sweden in the nineties was dominated by discussions about overgrazing (Hagström et al., 2016). Fredrik Juuso, reindeer husbandry consultant at Sámiid riikkasearvi<sup>4</sup>, explains that about twenty years ago the reindeer was blamed for causing erosion and large amounts of wear and tear of the ground cover in the Swedish mountains (ibid.). Johan Olofsson, professor at the Department of Ecology and Environmental Science at Umeå University, has been part of a research project studying the effects of reindeer husbandry in a large part of Sapmi. The fifty-six enclosures in the research study have kept reindeer from grazing there for 15-20 years and have proven that the worries of overgrazing were unfounded. It turns out that reindeer grazing is not causing wear and tear on the ground cover, instead, it is hindering bushes and trees from expanding and outcompeting the unique native flora and fauna in the mountains (Olofsson et al., n.d., p.25). Olofsson also comments about the reindeer becoming even more important for the future of the mountains due to climate change, stating: “We have studies that show that the reindeer has a specifically important role in preserving the biodiversity, especially

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4 The national federation of the Swedish Sami (Svenska samernas riksförbund)

when it gets warmer” (Hagström et al., 2016, 8:50-9:00)<sup>5</sup>. Juuso comments that the study is politically important because it provides scientific proof that what the Sami people have been saying is true. Establishing this fact seems to be met with some resistance, though. According to Olofsson, the debate in Sweden has completely moved away from the overgrazing question but the same issue has now popped up in Finland instead. He comments that many of the arguments in Finland now are mirroring what was said in Sweden in the nineties (Hagström et al., 2016). The fact that this discourse blossomed in Finland despite the huge amount of research that has been done in Sapmi in the last twenty or so years, could be an indication of the difficulty of battling a dominant imaginary.

At the same time, there are indications that this dominant imaginary is moving. Kimmerer speaks of the experience with Laurie and the sweetgrass project as ‘in the early years’, hinting at the changes since her academic life started. Reindeer grazing is now an emphasized part of achieving the Swedish environmental quality objective called A Magnificent Mountain Landscape (Ett betespräglat fjällandskap, 2018). Though there will be more cold water to swim through, it’s important to celebrate when things do change. It could also be argued that these changes are happening because of the cumulative effect of individual actors choosing to question the status quo and focusing their professional efforts on topics that mirror their ethical values, even at the risk of having to swim upstream. In *The Dictionary of Human Geography*, Gregory and Johnston (2009, p.347) discuss this aspect in their definition of the concept of *human agency*. They state that in contemporary human geography, a major discussion point is just this question of individual freedom to act, in opposition to structural forces and how or how much they affect one another. According to *structuration theory* “It is through repetition that the acts of individual agents reproduce social structures such as institutions, moral codes, norms and conventions” (Gregory & Johnston, 2009, p.347).

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5 Original: Vi har studier som visar att [att] renen har en speciell[t] viktig roll i att bibehålla artdiversiteten just när det blir [just när det blir] varmare.

# PART II

## Presentation of the Fictional Short Stories

### Introduction to the Stories

The heart of the thesis project takes the form of four fictional short stories, each based on a scenario from the *Futures Beyond GDP Growth* report<sup>6</sup> and offers a window into a distinct future reality. Brief summaries of the scenarios and overviews of the stories are presented in this section. I recommend reading the full-length short stories before moving on to the Discussion section of the thesis.

*The cover images below are links, leading directly to each of the short stories.*



### Story 1: Collaborative Economy - Meet Lu

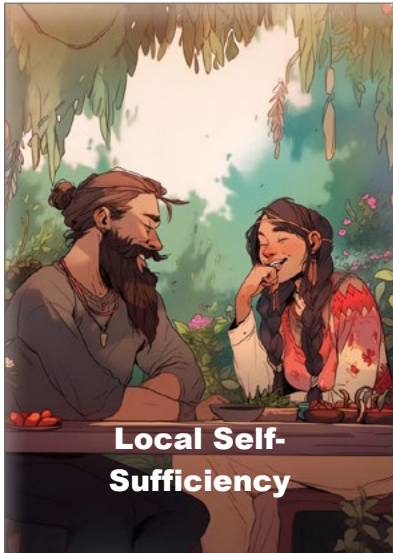
Sweden has transitioned to a digitalized, collaborative economy where people value shared access over individual ownership. Cooperation and co-creation have replaced competition. Various collectives like housing associations, thrive through a mix of paid and unpaid work, facilitated by time banks. Consumption is now needs-driven, and there's a prevailing ethical framework that prioritizes fairness and justice. Digital networks make it possible for people to live more scattered, but they mostly gather in mid-sized cities

for optimized service exchanges and resource sharing. Residential areas have densified, reducing individual living spaces but providing larger shared communal areas. Good relations with fellow cooperative members have become essential and social capital has increased in importance. Governance aims to further promote the collaborative economy by erasing public-private sector borders and incentivizing sharing solutions.

The story follows Lu and her friends on a random Tuesday afternoon. We glean a slice of their lives as they discuss joining a new food cooperative; go to their dwelling co-op's biweekly permanent assembly; and discuss balancing romantic relationships with co-op cohesion.

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<sup>6</sup> Hagbert, P., Finnveden, G., Fuehrer, P., Svenfelt, Å., Alfredsson, E. A., Aretun, Å. A., ... Callmer, Å. (2019). (rep.). *Futures Beyond GDP Growth*. Vällingby: Elanders Sverige AB.



## Story 2: Local Self-Sufficiency - Meet Tuva

Sweden has become a self-sufficient nation focused on local, sustainable solutions. Urbanization and global trade have declined, making way for local markets and community-based decision-making. Electricity is now locally generated, and governance is decentralized. Society embraces DIY solutions, open knowledge, and active participation in local services like food production. Many live in villages or small cities interspersed with agricultural production. Living spaces are larger than in the other scenarios, with housing

and communal units often gathered in small clusters. Technology is simple, recycled, and universally understandable, supporting high degrees of self-organization and independence.

The story follows Tuva and some of the people in her village. Tuva's day starts with an exciting announcement. The cows are back! She spends the morning teaching some of the village kids to milk cows. During lunch, she discusses the upcoming Creation Celebration with two people close to her heart. In the evening she seeks advice and guidance from a parental figure.

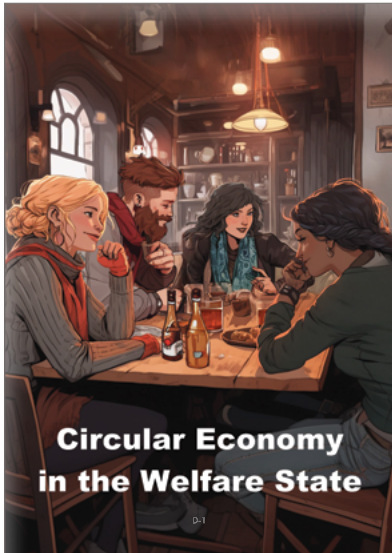


## Story 3: Automation for Quality of Life - Meet Bee

Sweden has harnessed automation and digitalization to shift societal values away from work-centric norms to focus on life quality, freedom, and meaningful engagement. Investments now aim to reduce working hours, allowing robots and digital technologies to handle routine tasks. People work an average of 10 hours per week, freeing them up for creative and social activities. The economy remains robust and aligns with sustainability goals. Life is tech-integrated, and most people reside in smart, urban centers but also

value green spaces. The pursuit of material status has been replaced by a culture of sufficiency. Transport is automated. Governance relies on digital platforms which enhances direct democracy, although citizens maintain trust in the technocratic elite that develops and oversees these digital ecosystems.

The story follows Bee and her family. She play-fights with her AI-system and hangs out in the community garden with her daughter, the daughter's two partners, and her grandson. She speaks to her son who has just arrived by ship to America (which they call Turtle Island) and cycles over to the community center to teach some kids how to use Illustrator, an ancient vector-making program. She also reminisces about her youth, about meeting her best friend and the love of her life while they were up north, fighting for Sapmi's independence.



## Story 4: Circular Economy in the Welfare State - Meet Hazel

Sweden has transformed into a circular economy that eliminates the concept of 'waste.' Driven by stringent legislation, the focus has shifted to reuse, recycling, and sustainable consumption. The state plays a critical role in policy-making that incentivizes sustainable design and resource efficiency. People work a standard 40-hour week. Social status has shifted away from material accumulation to the consumption of exclusive services or experiences. Society is highly urbanized but maintains strong urban-rural connectivity through

public transit. Governance employs both incentives and controls, leading to a resource-rich yet efficient welfare state.

The story follows Hazel and her wife Olive on a Friday evening. They have dinner at home, talking about their days before meeting up with two old friends at a pub quiz. They unfortunately run into one of Hazel's old work colleagues and have an uncomfortable conversation. They get the best score they've ever gotten at a quiz though so, all in all, it's a pretty great evening.

# PART III

## Discussion

### Discussing the Future Scenarios

#### RESEARCH FRAMEWORK FOR WORLD-BUILDING

It was important to investigate the different societal structures and worldviews in the scenarios in order to use them as the foundation of the world-building for the stories. A critical aspect of that was to understand the sustainability goals that are met in the scenarios. During the research program, the participants selected four goals that all the scenarios had to meet, deeming them essential for a sustainable future society:

1. *Climate: Sweden is to be fossil-free by 2050. Max 0,82 ton CO2 eq./capita/year for consumption*
2. *Land use: The per capita land area used for final consumption does not exceed the global biocapacity*
3. *Resource security: Residents should have sufficient access to resources and services for housing, education, social care and security, and good health*
4. *Distribution of power: All residents, regardless of gender, sexual orientation, ethnicity, age, ability, class or income should be entitled to participate in political decision making*

(Hagbert et al., 2019, p.13).

Sharing these foundational goals, it is evident that there are core commonalities shared by the four future visions.

#### COMMONALITIES ACROSS SCENARIOS

For one thing, there have been major changes in areas such as aviation and food production. One such shift is that a vegan diet is assumed in all the scenarios except *Local Self-Sufficiency* (Hagbert et al., 2019, p.26). There has also been a redistribution of resources in all scenarios. "This might involve economic resources but could also relate to power and influence over production, or the possibility to use land for the production of food, materials and energy" (ibid., p.47). Another thing is the drastic reduction in private cars, imports from other countries, and total goods consumption, though these aspects are more varied between the different scenarios (ibid., p.27).

While these similarities offer a unified vision for a sustainable future, the nuances between the scenarios create very different settings for the short stories. Together

they illustrate several different roles that societal structures can have in a sustainable future society.

### **SCENARIO NUANCES: BUILDING VARIED LIVED-IN WORLDS**

Regarding rural living, technological development, working hours, and transportation, *Local Self-Sufficiency* stands out. In this scenario, people live in small clusters in proximity to cropland. Everybody in the community is expected to help with things like food production, technical infrastructure maintenance, childcare, etc. This adds up to longer days working (or doing chores) than in our current society (which isn't true for any of the other scenarios). "On the other hand, there are opportunities for a calmer pace of life and closer relationships and social interaction between people" (Hagbert et al., 2019, p.48). Technology is small-scale and simple enough to be understood by practically everyone and most people don't travel much, but live their lives in these small communities (ibid., p.19). In some ways, this scenario is the polar opposite to *Automation for Quality of Life* where technology has become a huge part of people's everyday lives, even to the point of being integrated into their bodies. There have been large investments in the railway service and automated public transportation and people largely reside in big cities (ibid., p.21). *Circular Economy in the Welfare State* is even more concentrated in metropolitan areas and has invested about as much in public transportation. *Collaborative Economy* is somewhere in the middle with mid-sized cities clustered to enable the sharing of resources and services. This scenario is also highly digitalized, promoting cooperation globally (ibid., p.17). These differences result in quite varied life experiences for the people living in the individual futures. As previously stated, *Local Self-Sufficiency* is often in sharp contrast to the others. But there is another variable that affects the different societies immensely, a variable that connects *Local Self-Sufficiency* with two others and makes the last scenario the one to stand out.

### **THE ROLE OF POWER AND GOVERNANCE**

*Local Self-Sufficiency* and *Collaborative Economy* both have bottom-up perspectives where power and responsibility are much less centralized than they are in our current society. In *Automation for Quality of Life*, political decisions are more multileveled. At the same time, direct democracy has increased with more opportunities to engage digitally. With the great reduction of time spent on work and household chores in this future, the portion of people's lives spent on purely voluntary activities is larger than any other. This means that everybody's substantive freedom has grown in this scenario. Something that might explain why "many citizens trust politicians and the technocratic elite who develop and control the digital operating systems" (Hagbert et al., 2019, p.21).



*Circular Economy in the Welfare State* is the scenario that stands out in this regard. It is the only one where citizens have lost power compared to our current society. The state and the private sector have both gained power in this future. It also seems to be the only scenario that still uses representative democracy. Here the state is deemed necessary to enforce sustainable practices through legislation:

*Policy is aimed at large-scale solutions to reward sustainable design and innovation, to reduce the extraction and use of raw materials and commodities, and to influence people's consumption patterns and lifestyles.*

(Hagbert et al., 2019, p.23)

The report states that "Circular Economy is the scenario that most closely resembles contemporary society" (Hagbert et al., 2019, p.29). An argument can be made that it is also the least ambitious scenario, mainly because the worldview hasn't shifted as far as in the other three. With the coercive nature of the top-down structure in this scenario, citizens would be less personally invested in working together and collaborating. Even if the coercion is for a good cause, such as sustainability, it indicates that the worldview and mythical levels of understanding in this future haven't changed very much in this regard. The belief that people need to be coerced to do the right thing is still dominant in this scenario which makes it more difficult to move as far from contemporary society. When power and responsibility are delegated to a faceless entity and hierarchical structures are the norm, many contemporary societal issues will inevitably also linger. I find it likely that the governance models would do more than shape the macro-structures. The effects would seep into people's everyday lives, affecting social relations and hierarchies.

## **SOCIAL DYNAMICS AND CONSUMPTION MODELS**

This phenomenon becomes evident when comparing how material consumption and status are described in the four scenarios. All four scenarios have moved away from coupling material goods and status, but *Circular Economy in the Welfare State* has a distinctly different tone than the other three.

### **Collaborative Economy**

*The consumption of goods has decreased and is needs-driven, and there is an ethics of fairness and justice in which people do not want to outclass those around them.*

(Hagbert et al., 2019, p.17)

### Local Self-Sufficiency

*The transition to local self-sufficiency is due to the fact that people have voluntarily chosen to reduce their consumption to live within the boundaries of the ecosystem's capacity to support the society and absorb and clean emissions.*

(ibid., p.19)

### Automation for Quality of Life

*Sufficiency characterizes people's lives rather than the hunt for material status, so material consumption is low.*

(ibid., p.21)

These three descriptions captures worldviews where social status has been decoupled from all kinds of consumption. Worldviews where living in good relations with each other and the rest of nature is more important than having more than the people around you. This can not be said about the last description:

### Circular Economy in the Welfare State

*Social status and material consumption are no longer interconnected. Status is instead marked through the consumption of exclusive services or leisure activities, in which it is key to emphasize one's cultural capital in the form of in-depth knowledge about what goods/services/activities are the "right" or most sustainable in a certain context.*

(ibid., p.23)

In this scenario, the perception of social status has changed at a structural level but the worldview and mythic levels are missing. They have not moved away from the concept that status is reliant on having more, they have only exchanged the excess from material goods to exclusive services and activities.

## Discussing Future Stories

The four short stories present four potential futures, each inspired by various aspects of Indigenous teachings, contemporary problems, and potential solutions for a sustainable world. By journeying through these narratives, readers will hopefully consider the philosophical and practical implications of our current societal structures, and explore how alternative worldviews could reshape our future for the better. Below are examples from each scenario:

## STORY 1: COLLABORATIVE ECONOMY

In this story, the main characters discuss several quotes by Kandiaronk, a member of the Wendat tribe, whose discussions were recorded in the early 18th century. The characters reflect on the similarities between the Indigenous critique towards the early Western settlers and that of the people in their recent past (our future), who fought to make this future a reality. Unlike the other stories, the characters in *Collaborative Economy* actively question our current political system. The Indigenous critique about Western punitive and economic systems that have existed for hundreds of years, but often remain marginalized, provides a richer context for the main characters' critique. It challenges pre-existing narratives and imaginary foundations by showcasing dissenting perspectives that have been voiced since the 1700s.

The people in this story practice direct democracy within their constellations of cooperatives. They have assemblies, using consensus-based decision making. They all learn to argue their points from an early age, but they also learn how to compromise and cooperate. They respect that when someone blocks a proposal, the answer is no unless the proposal is adjusted. Nobody is forced to go along with a proposal if they believe it is contrary to the principles of the group. People have much more human agency in this future, especially about the things that concern them most.

The contrasting worldviews between the people in this story and current society is again reminiscent of the early meeting between Indigenous peoples and early Western settlers. Jesuit missionary Le Jeune wrote about the Montagnais-Naskapi in 1642.

*They have reproached me a hundred times because we fear our Captains, while they laugh and make sport of theirs. All the authority of their chief is in his tongue's end; for he is powerful in so far as he is eloquent; and, even if he kills himself talking and haranguing, he will not be obeyed unless he pleases the Savages.*

(Le Jeune, 1642 cited in Graeber & Wengrow, 2021, p.41)

In this story, resources are shared at a systemic level. There are outfit libraries, tech libraries, hardware libraries etc. Ownership is seen more as being a temporary caretaker. You borrow something at the library while you need it and give it back when you don't need it anymore. The average living area per person in this future is around two thirds of what it is today. This doesn't mean that they all live in tiny, cramped apartments, however. Flat-shares and larger family constellations are common in this society. There are single-person and two-person flats as well, but

they are less usual than they are today. The less possessive and more fleeting worldview of ownership in this future affect the way they approach living arrangements as well. An example in the story is when Ant moved out to go to school in a different city. Instead of the rest of his family staying in the four-person flat, despite only being three people, they switched with a family that had recently become larger. This way of thinking isn't prompted by rent prices. It isn't based on a coercive structure that hinders most people from excess resource use, which then allows the people with enough money to do what they want. The shifted worldviews means that people in this future do this in solidarity with one another. They don't use more than they need and when their circumstances change, they adjust and offer their excess to someone who needs it.

At one point the characters discuss the outdoors area around the large chestnut tree in the dwelling co-op's courtyard. Lu mentions that they should have worked more with the kids throughout the process. Ant, who has studied landscape architecture, agrees that he definitely would have involved the kids much sooner. Thompson mentions an example of good participatory design involving kids. It's called The Ian Potter Foundation Children's Garden at the Royal Botanic Gardens Melbourne, Australia.

*The project is exemplary in the way it sought to develop the garden with children, rather than just for them, and for its adoption of active, creative, and enjoyable methods that would appeal to the children as creator-users of the space.*

(Thompson, 2014, p.84)

## **STORY 2: LOCAL SELF-SUFFICIENCY**

In this story, the characters are further detached from contemporary society. They don't actively discuss the past much, this story provides an example of a future that has radically changed. The contrast with our current world isn't debated but becomes evident mainly as the readers compare this reality with their own. As Thompson explains: "Utopian imaginaries [...] are like signposts to a better future"(2019, p.279). It can be used as a standard to steer by, to imagine where we want to get. He reiterates their importance, claiming: "If we could not imagine, we would be stuck in the real. We would not be able to see possibilities, and that would mean that we had no freedom of choice"(ibid.).

I would argue that the *Local Self-Sufficiency* short story is the closest example of a society that has changed at the mythic level. The characters live by the principles of the Honorable Harvest, teaching their children the value of reciprocity when harvesting milk from the cows that roam past their village (See Figure 10). They are preparing for the holiday called Creation Celebration where they celebrate several

different Indigenous creation myths. During this 'slice of life' day, they discuss a number of these myths. One from the peoples throughout the Great Lakes of Turtle Island, one from many communities of Indigenous Australia, and one from the northern Sami people of Sapmi. Actively celebrating these foundational imaginaries indicates that the people in this future have created traditions that, on a mythic level, uphold Indigenous values and worldviews.

Another aspect of this story that indicates a shift at a mythic level is the discussion about 'cantu-cantu'. The people in this story actively practice mutual aid. Their way of life — inspired by people like the Wendat — affords each individual substantive freedom. As noted by Graeber and Wengrow, mutual aid is essential for people to enjoy substantive individual freedom. Without it, only people who can pay for it are free to do what they want. The people in this story are free from being coerced to obey against their will. Their experience of freedom is also inextricably linked to the principles of solidarity with others. Of contributing with what they can and taking on the shared responsibility to ensure the same freedom is afforded to everyone else as well.

The people in the village live sustainably, using the land and ocean around them to grow all the food they need. Their village is planned to be as resilient as possible, using market gardening growing practices to avoid depleting the soil. Seaweed farms are also a sustainability boost in so many aspects.



**Figure 10:** Abstract visualization of the scene when Idun bursts into Tuva's kitchen to tell her the cows are back to visit the village. Hannes Laurin created it using Midjourney bot.

*In the perspective of climate change mitigation, seaweed farms absorb carbon, serve as a CO<sub>2</sub> sink and reduce agricultural emissions by providing raw materials for biofuel production and livestock feed. Seaweed farming system also helps in climate change adaptation by absorbing wave energy, safeguarding shorelines, raising the pH of the surrounding water, and oxygenating the waters to minimize the impacts of ocean acidification and hypoxia on a localized scale.*

(Sultana et al., 2023, p.463)

There's also a discussion in the story about feeding seaweed to the cows in order to minimize their methane emissions. Though more research is required, contemporary studies have shown that seaweed has great potential to mitigate methane emissions from ruminants. Min et al. (2021) writes about this in *The role of seaweed as a potential dietary supplementation for enteric methane mitigation in ruminants: Challenges and opportunities*. Feeding cows seaweed (mixed with bromoform) has shown a 50% to 95% reduction of methane production (Min et al., 2021).

In this case it's relevant to discuss the changes in this future at a worldview or mythic level of understanding. Min et al.'s studies on minimizing ruminant methane emissions are concerned with a more sustainable, but continued, meat production. In the short story, however, the value of minimized emissions is not to sustain an unsustainable industry. Cows still exist in this future but humans aren't artificially increasing their numbers anymore so there are much fewer of them left. The cows aren't alive to supply humans with food, they roam freely and have a reciprocal relationship with the villagers.

### **STORY 3: AUTOMATION FOR QUALITY OF LIFE**

In this story, the main character reminisces about traveling north and helping fight for Sapmi's independence, meeting her best friend (Sami), and the love of her life (Irish). She speaks to her son who has traveled to Turtle Island to meet up with a friend from the Onondaga Nation. You find out that, when the son and his friend were teenagers, the friend had lived with the main character's family for a year as part of a knowledge-sharing project. Indigenous people could volunteer to travel the globe and teach non-Indigenous people about their way of life. This indicates a potential shift in academia, where Western science is no longer seen as superior to Indigenous knowledge, where they can both be embraced and complement each other and where intercultural education is encouraged.

The *Futures Beyond GDP Growth* report states that a vegan diet is assumed in this scenario. The report's focus is on the ecological and social sustainability though, not

the ethics of eating meat. Hunting and eating meat is a part of many Indigenous tribes' cultural heritage and tradition. Therefore, it's not unreasonable to imagine that some Indigenous tribes, and other people living far from the dense automated cities, would still eat meat. As stated in the short story though, the practices they use for harvesting meat follow Indigenous principles<sup>7</sup>. There is no question whether the current meat industry is unsustainable. According to the Secretary-General of The Swedish Society for Nature Conservation, the meat industry affects climate change more than the whole transport sector globally (Axelsson in Kihlberg, 2015, p.4). It also causes eutrophication, leading to soil degradation and ocean acidification, spreads pollutants, and takes up huge amounts of land, causing deforestation and loss of habitat for wildlife, just to name a few things (Kihlberg, 2015, p.5). These negative aspects are all related to the meat industry though, not necessarily the act of eating meat. As Kimmerer comments:

*Traditional peoples who feed their families from the land have harvest guidelines too: detailed protocols designed to maintain the health and vigor of wildlife species. [...] They share the common goal of protecting what hunting managers call "the resource," both for its own sake and to safeguard the sustainable supply for future generations.*

(Kimmerer, 2013, pp.189)

The meat industry has been dismantled in these futures and most people are vegan. (This change in diet has happened in all four stories<sup>8</sup> but there's more focus on it in this story, which is why I'm discussing it here.) Urbanites in this future don't ever come in contact with meat and the people who hunt only do so when it supports the health and vigor of wildlife species. This is a huge societal shift which would almost inevitably change how people relate to animals.

In contemporary Swedish society, few people would feel comfortable slaughtering their own pets. They wouldn't adopt a kitten or a puppy, feed it and take care of it until it had grown big enough, and then kill it to eat for dinner. Pets become part of the family, we care about their feelings, their well-being, and their love. They aren't food to us, instead we see them more as persons. But where do we draw the line between food and person? A Westerner who eats meat might say that this arbitrary line is drawn between pets and food animals. Vegans, like the main characters in the

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<sup>7</sup> Quote from short story: "they only eat meat that is hunted, they follow the principles of the Honorable Harvest and they don't breed animals to be eaten, so it's not a sustainability problem" (Iglesias Söderström, 2023, p.C-35).

<sup>8</sup> *Local Self-Sufficiency* isn't fully vegan but the people in that story follow the indigenous practices previously discussed.

story (See Figure 11), might draw the line between sentient and non-sentient beings. In fact, the son in the story feels conflicted over this very thing. He doesn't want to disrespect his friend's tribe, but having been raised in a society with the sentient/ non-sentient personhood line, he can't help his emotional reaction at the thought of eating a sentient creature.

Considering that most traditional Indigenous food cultures include some meat in their diet you might expect that they would draw the line somewhere in between the Western meat eater and the vegan, but that is not the case. They don't draw the line at all, they see them all as persons. So, what does it mean to grant personhood to non-sentient beings as well? What are we supposed to eat if everything that would sustain us means killing a person? Kimmerer can help us once again:

*[T]he rules of the Honorable Harvest are based on accountability to both the physical and the metaphysical worlds. The taking of another life to support your own is far more significant when you recognize the beings who are harvested as persons, nonhuman persons vested with awareness, intelligence, spirit—and who have families waiting for them at home. Killing a who demands something different than killing an it. When you regard those nonhuman persons as kinfolk, another set of harvesting regulations extends beyond bag limits and legal seasons.*

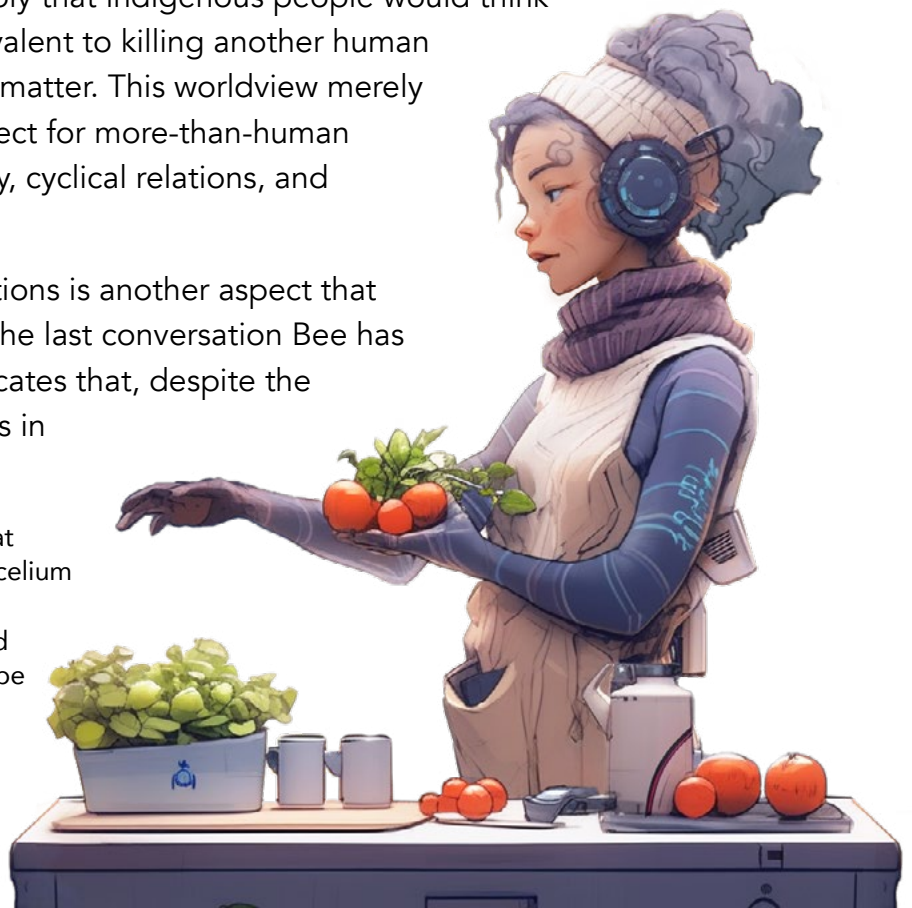
(Kimmerer, 2013, p.192)

These flattened hierarchies between species are somewhat abstracted of course. I'm not trying to imply that indigenous people would think that killing a squash is equivalent to killing another human being, or their pets for that matter. This worldview merely elevates the value and respect for more-than-human nature and invokes solidarity, cyclical relations, and reciprocity.

The concept of cyclical relations is another aspect that is brought up in this story. The last conversation Bee has with the love of her life indicates that, despite the technological advancements in

**Figure 11:** Illustration of Bee.

Though they also have many meat substitutes in this future (e.g. mycelium bacon) fresh vegetables haven't been lost in automation. I created it using Midjourney bot and Adobe Photoshop.





this future, they haven't chosen to use it to prolong life indefinitely. There could of course be technological limitations for this but to me, it's more likely to imagine it is because of the changed worldviews of this future. The way Piercy (1976) illustrates two different worldviews about cyclical relations concerning life and death is another aspect that inspired me in the novel *Woman on the Edge of Time*. The main character in the novel, Connie, is a woman from the 1970s who finds herself in the year 2137. In this scene, her new friend Luciente brings Connie along when Sappho, an old person in their village, is dying. Connie is appalled that Sappho is out in the rain, commenting that if they were hospitalized they could live longer. Luciente doesn't understand why Connie thinks Sappho shouldn't die now, commenting:

*"Sappho is eighty-two. A good time to give back."*

*"You're just going to let her lie here in the chilly air until she dies?"*

*"But why not?" Luciente scowled with confusion.*

*"Everybody gives back. We all carry our death at the core—if you don't inknow that, your life is hollow, no? This is a good death..."*

(Piercy, 1976, p.156)

Luciente's worldview fuels their belief that Sappho's death is something beautiful. That it means giving back to the planet, contributing to fertilizing the soil, and upholding nature's balance. Connie's worldview fuels her belief that dying any sooner than you possibly could is a waste or even a personal failure. Their differing views about cyclical relations could be seen as the headline level reaction (or the symptoms) of living in worlds with very differing views about solidarity, and reciprocity at a worldview and mythic level. Connie's worldview is very colored by being a poor Mexican-American woman in the 70's in New York City. At first, she interprets many aspects of the future she has landed in as failures to succeed. She doesn't understand that intentionally choosing to live a certain way is different than being forced to live like that because of poverty and that Luciente and their fellow villagers feel happy and fulfilled despite having fewer material goods. At the end of the story, Connie finally understands that the negative aspects of poverty she has experienced in her own time stem from having less money and power than almost everyone else and being exploited and treated badly by others because of it. She understands that the difference in worldview between her own time and Luciente's future is the biggest component in determining the quality of their lives, not the amount of material goods available to them.

Marge Piercy isn't Indigenous herself but she has taken inspiration from indigenous knowledge and tradition in her work. Luciente and the people in their village are

Wamponaug<sup>9</sup> and there are many examples in the novel of Piercy's interpretation of Indigenous worldviews.

In this story, suburbia has become a dense urban fabric that facilitates an engaged community life. They have reorganized their cities to avoid car culture and used suburban areas as a testing ground for new, sustainable building methods. Experimentation and in house testing was a great way for them to quickly propel these ways of building houses such as 3D-printed clay houses, mycelium-brick clad homes, modular wood and straw bale buildings, and seaweed houses. They also have efficient automated public transport which allows children to play safely on the urban streets. The main character experiences the joy of watching the kids take turns to race and gather some kinetic energy from the vehicle. Through her perspective we realize how different the street-life has become when it's no longer dominated by car traffic.

#### **STORY 4: CIRCULAR ECONOMY IN THE WELFARE STATE**

In this story, the main character, Hazel, is biologically half Sami but she has been disconnected from this cultural heritage her whole life. Hazel's grandparents are both Sami but she had grown up in Gothenburg with her mother who has lost contact with her Sami family. This was partly as a way to add the Indigenous perspective in this story even if this scenario hasn't embraced as much of their teachings and worldviews. It was partly to highlight that this future still has more lingering issues from contemporary society, where this loss of heritage isn't unusual. It was also partly because I can personally identify with this disconnect between biological and cultural heritage since I have never met my Uruguayan family or been to the country that makes up 50% of my biological heritage.

In the story we find out that Indigenous peoples were at the forefront for changing the way they now treated the planet's resources. The Sami Parliament has a more influential role within the governmental hierarchy and have co-written impactful policies in Sweden. We also find out that there is still exploitative tourism, misrepresenting Sami culture and damaging wildlife.

Recycling is an important sustainability aspect in this future. The centralized systemic measures taken to avoid waste has lead to new commercial structures. Consumables have been divided so that goods with long expiration dates are in one kind of store and ones with short expiration dates are in another. The recycling system has expanded far past drinks bottles. Sizes have been standardized to the point that most containers can be handed back and sent for industrial cleaning before being

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9 Quote from the book: "Wamponaug Indians are the source of our culture. Our past. Every village has a culture." (Piercy, 1976, p.103)

shipped back to producers to reuse. Plastic containers are rarely used and single used containers are made of seaweed.<sup>10</sup>

Another large scale way they avoid waste comes from change in production standards. Things are built to last, they are bulkier and sturdier than the general norm today. Focused on standardized solutions, modularity and ease of repair over any subjective aesthetic values. There is also a renewed effort put into restoration and maintenance of the delicate heirloom objects people have inherited from their ancestors living in our contemporary society.

In the story, we find out that there are new regulations and subsidies in this future to ensure that prospectors sustainably manage previously existing material at building sites. There are also hefty taxes for damaging natural resources and ecosystem services.

This story depicts a future that has changed at a systemic level in many ways but not necessarily at the worldview or mythic level. Hazel expresses frustration about the centralized and bureaucratic structures at work. The worldview in this future is that these systems are required to make people do the right thing. Without a tax protecting the park, Hazel believes that prospectors will damage it by building there because it's cheaper than building anywhere else. The regulations, subsidies and taxes are needed in this future because the dominant worldviews haven't changed enough. The welfare, recycling and railway systems are more developed at this point. People have also stopped eating meat. This is never discussed in the short story but it isn't difficult to imagine that even this change came to pass because of new policies. Meat isn't available to buy anymore and the new normal for people is to buy substitutes. With the coercive nature of the changes in this future the dominant worldviews haven't shifted far enough that people instinctually choose the right thing regarding sustainability.

## **CONCLUDING THOUGHTS**

The stories address the challenges our world currently faces in many different ways. From highlighting the role of direct democracy and consensus in shaping societal norms to confronting the lingering traces of our contemporary struggles, they offer insights into the myriad ways our society could evolve. They underscore the profound impact worldviews and systems have on sustainability and societal well-being.

Graeber and Wengrow comment that most of the world, has been in regular communication for such a long time that it's difficult to distinguish the influences

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10 There are many people working on this kind of bio-degradable packaging already, ex. <https://seaweedpackaging.com>

different parts of the world have had on each other (2021, p.450). The Americas are important in this regard because they are a truly independent point of comparison:

*In the case of the Americas, we actually can pose questions such as: was the rise of monarchy as the world's predominant form of government inevitable? Is cereal agriculture really a trap, and can one really say that once the farming of wheat or rice or maize becomes sufficiently widespread, it's only a matter of time before some enterprising overlord seizes control of the granaries and establishes a regime of bureaucratically administered violence? And once he does, is it inevitable that others will imitate his example? Judging by the history of pre-Columbian North America, at least, the answer to all these questions is a resounding 'no'.*

(Graeber & Wengrow, 2021, p.451)

The inspiration from Indigenous knowledge endeavors to highlight their perspectives on coexistence, sustainability, and reciprocity. The stories are an invitation - to reflect on our present, reimagine our future, and actively shape a world that truly honors both the planet and its diverse inhabitants.

## Contributions to Existing Discourse

### **THE IMPORTANCE OF DEEPER LEVELS FOR THE IMPACT TO FUTURE CHANGE**

To examine an example of a headline level shift we can use the meat consumption in Sweden during the years 2016–2021 as a case study. Statistics from the Swedish Board of Agriculture (n.d.) shows that the overall meat consumption in Sweden dropped for the first time in a long time during these years. According to a survey about consumers' views on vegetarian food, the percentage of vegetarians and vegans in Sweden grew from 6% to 9% during the same years. This 3% increase is quite small compared to the other changes they surveyed, however. In the same period, the percentage of people who eat vegetarian meals 2–6 times a week increased by 11%, and those who eat vegetarian at least once a week had a 14% increase (Axfood, 2022). This indicates that the cause of the lowered meat consumption is not because there was an especially large increase in the amount of people who drastically changed their perception of meat-eating. The huge increase happened among the people who only slightly shifted their dietary habits. Considering the environmental and climate-related reasons to minimize meat consumption this is a victory at the headline level. Only considering this level the drop in meat consumption is all that matters, but if we consider the deeper levels of understanding there is more to the story. 59% of Swedes now eat vegetarian meals at least once

a week which might sound like our current society is closer to meat-free diets than ever. Unfortunately, this is not the case. One day out of seven is quite a significant minority. Only 30% eat vegetarian meals more often than that, which means 70% of Swedes still eat meat or fish six days a week.

The total consumption of meat in Sweden in 2016 was 88.3 kg per capita. This number declined to 80kg per capita by 2021 (Swedish Board of Agriculture, n.d.). There is significance in the fact that the number is declining but it's also relevant to consider that despite the decline, Swedes eat a lot more meat than we have in the past. In 1960 the total consumption was barely 51kg per capita, in 1986 it was 57kg (The Swedish Environmental Protection Agency, n.d.). Each victory at a headline level can be seen as positive, of course. If information about it spreads, it becomes one more piece to add to the expanding imaginary of our society's food culture. Schools starting to serve vegetarian food is a great step, for example, but it's not necessarily indicative of perceptions changing at a systemic, worldview, or mythic level.

This is where I think the short stories in this thesis can contribute something more. These visions show us examples of deeper systemic changes. They are not following a person or venture that is going against the grain (which simultaneously reinforces the collective imaginary of the usual grain direction). In the short stories, the peoples' understanding of the world has shifted at systemic, worldview, and sometimes even mystic levels. In these futures, the person eating meat would be the one who stands out. Most peoples' instinctual reaction in these futures is that killing and eating another sentient being is wrong. The ones who do eat meat do it only when this act serves the wildlife populations as a whole. They don't see meat-eating as the default and agree to 'sacrifice' one day of the week to a vegetarian meal. This is because their worldview doesn't make them feel entitled to taking another sentient beings life purely for their own satisfaction. In these futures, people haven't been taught that more-than-human nature exists for the benefit of humans.

Experiencing these worlds challenges the dominant imaginaries, worldviews and myths of current Western societies. It also has the potential to help change people's perspective by introducing a future where living sustainably, in good relations with each other and the rest of nature, isn't experienced as a sacrifice. The people in these futures aren't martyrs, wishing they could live with the abundance and excess our current society does. By redistributing resources there is even the chance that a large amount of people in these futures have more resources than they would have had today.

## **THE POLITICS OF ACTIVE AND PASSIVE CHOICES**

Economic growth is such a well-established worldview that questioning it will often automatically be considered a political act. Interestingly it is rarely considered a political act to accept it without question. A fascinating contrast to this phenomenon

can be gleaned from reactions to the thought experiment known as the trolley problem. In the report from a study at the University of Wisconsin-Eau Claire, April Bleske-Rechek et al. (2010, p.124) explain the premise. The main point of this dilemma revolves around a situation where you have to make a horrible choice. You are dropped in a situation where you find several people tied to train tracks. They are unable to get away from the tracks and a trolley is approaching and unable to stop in time. You can choose to do nothing, in which case five people will die, or you can choose to perform an action (flip a switch) in which case only one person dies. The study found that most people would choose to sacrifice one person to save five (ibid.).

The fact that the overwhelming majority would decide to take action to save five people might not sound strange. But would they be considered guilty of killing a person if they performed this action? Could they be considered guilty of killing five people if they choose not to do anything? Is it ethically superior to allow five people to die than to actively kill one? According to this study, the answer to the last question is no. Changing the trajectory would not make people feel guiltier than not making a change. Without a previously established ethical framework, our choices aren't automatically branded in contrast to the status quo. Unlike in the case of economic growth, there is no default "right" option in the trolley problem, raising the question: why is challenging the status quo often seen as a political act while upholding it is not?

Envisioning fossil-free futures without GDP growth but with vegan diets and redistributed resources might be considered political. Skeptics might say that it is not objective and rational, that by choosing this topic alone I have made the thesis political. Let's consider this from the perspective of the trolley problem for a moment. The consensus that humans are the cause of contemporary climate change exceeds 99% in peer-reviewed scientific literature (Lynas et al., 2021). We also know that the rising global temperatures<sup>11</sup> are responsible for a "mounting loss of life, biodiversity and infrastructure (IPCC Press Release 2022). In this metaphor, doing nothing to change our trajectory will cause the trolley to kill five people. Envisioning different futures in order to expand our collective future imaginary can be seen as mentioning the possibility of flipping the switch that would only kill one.

This metaphor is lacking in many ways, of course. The changes envisioned are nothing like flipping a switch, they would require a huge amount of work. Unlike the trolley problem, they are also not taking place in a vacuum. They are influenced by the powers and pressures of our current society and are dependent on the actions of a vast number of people. The comparison isn't necessarily accurate when translating

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11 In combination with the societal systems and worldviews that have dominated the world since the industrial revolution.

the number of people dying either. The one-person sacrifice in this metaphor isn't the death of a fifth of the people who would otherwise have died because of climate change. Instead, this person could be seen as a representation of the changes in lifestyle and worldviews that would be required.

Despite the shortcomings of this metaphor though, I find that its main point still addresses the potential skepticism about the subject of this thesis being over-political. Discussing this, it is also relevant to consider Kimmerer's earlier example about the research project studying sweetgrass harvesting. The academic establishment's dismissal of the project (which later contributed important new knowledge) indicates that pure objectivity, even within in academia, is impossible.

### SHARED RESPONSIBILITY

If objectivity is affected by our imaginaries and worldviews which "societies cannot avoid creating" (Thompson, 2019, p.288) isn't it important to question and challenge this concept as a whole? As discussed in the Literature Review, deliberations about this have been increasing within the field of landscape architecture. The belief that academia should be completely separated from anything that can be considered political isn't necessarily universal. Thompson's stance, that we have a shared responsibility of shaping the collective imaginary, is a good example of this:

*Cultural producers of all kinds—writers, painters, filmmakers, photographers, designers and the rest—are responsible for our imaginaries, but generally in the way that hill-walkers might add a stone or two to a trailside cairn to indicate the way. It is a shared responsibility, but it is still a responsibility.*

(Thompson, 2019, p.288).

Another way of looking at it is that all of our actions matter to some degree and in the situations where we have any agency to choose between different options, there's an ethical aspect to consider. While some choices have a very small impact on the world around us and might not be very important to ponder over, that isn't necessarily the case for some of the choices taken in the professional capacity of a landscape architect. As Shelly Egoz writes in *Landscape Architecture and Social Sustainability in an Age of Uncertainty* "landscape architects are instrumental in landscape change that impacts on the public arena. Therefore, landscape architects play a significant political role, whether they are aware of that role or not" (Egoz, 2019, p.221). Accepting that political role and choosing to strive for radical change, could be one way of contributing to our collective responsibility. *In Urgent interventions needed at the territorial scale—now more than ever*, Kelly Shannon urges for landscape architecture's political agency to be forcibly reactivated, stating:

*Landscape architecture must set the boundaries for policymakers and orient social movements. Bold and inspired projects must lead policy. It is now, more than ever, that landscape architecture is a necessity, since there is no assurance that policies will be directed in an intelligent trajectory. [...] Bold visions must combine the tangible and the imaginary to provoke conversations that promote social equity and environmental justice as well as manifesting landscape's transformative power.*

(Shannon, 2019, p.210:216)

To answer the question of why building these stories about a radically different future is specifically relevant for the discipline of landscape architecture. Well, the short answer: It is not. The long answer: Landscape architects have more agency than many others when it comes to shaping the landscape around us, which means we have a greater responsibility to think ethically about the positive and negative consequences of our choices. Thompson sums up this responsibility here: "If we believe that design is an ethical activity, then critical attention to the sorts of imaginaries we create, foster & sustain is an imperative" (Thompson, 2019, p.288). At the same time, it could be relevant for almost every discipline. All of our contributions can add to the cumulative effect of shaping the emerging imaginary of more hopeful and yet still achievable futures. Each discipline could have some aspect to offer that others have missed. It is by the repetitive act of envisioning these futures, performed by many actors in many different situations, that a new norm can start developing, and the more stones that are put on the trailside cairn, the more hikers will see that they can choose another way. This also ties into how Facer ends her lecture about renewing the mission of the European university:

*Our task, then, is not to despair that we cannot save the planet alone through these imperfect universities we are part of. [...] We can work out how we can support and accelerate these through the practices that universities can distinctively offer – namely, the creation of powerful conditions for dialogue between different forms of knowledge and between different ideas of the future. And in such processes and partnerships, we can begin to create conditions for learning in which the active renewal of a common world may become more possible.*

(Facer, 2020, p.25)



# Conclusion

## Key Findings

The use of storytelling was an effective method for anchoring the ambitious but abstract visions of the future from the *Futures Beyond GDP Growth* report to something more concrete. Stories can help convey the lived experience of spaces, express the intangible qualities of place, and the nuanced relationships between people and their environments (See Figure 12).

The societies in the four envisioned futures have experienced radical changes. This would not have been possible without changing our understanding at a systemic, worldview and, in some regards, mythic level. These deeper levels are required for us to examine and rearrange our base assumptions of who we are in the world and our relations to other beings.

Following the perspectives of people who experience these other systems and worldviews as the norm helps expand our perception of what the future might become. These glimpses into worlds with different ways of life and definitions of well-being challenges the dominant imaginaries, worldviews and myths of contemporary Western societies. The inspiration of Indigenous principles in the stories, from the Honorable Harvest to the concept of mutual aid, serves as a counterpoint to Western ideas, reshaping how we relate to the land, animals, and each other.

Since stories have the ability to engage our empathy and affect our understanding of the world, this method was especially helpful for including Indigenous perspectives. This addition contributes to a more inclusive envisioning of sustainable futures. Indigenous knowledge can also contribute to existing landscape architecture discourse by introducing more sustainable imaginary foundations. The four short stories are this thesis's contribution to the shared responsibility of shaping an imaginary of achievable but hopeful futures.

## Implications for Future Research

If I had more time and resources I would have liked for different groups to read the short stories and give me feedback. This would have provided interesting perspectives and insights into the narratives' reception and impact. It would be especially interesting to hear from groups of young people, to understand how future generations interpret and connect with the imagined futures. Input from Indigenous peoples would also have been invaluable to help revise any misinterpretations used as inspiration in the stories and for further advice and insights. Groups of professionals from varied disciplines would also have been interesting since they would be able to contribute with multifaceted insights.

There are also several avenues of exploration I hope that future scholars and practitioners might like to pursue to take this research further and contribute to the discourse in this area:

### **IMPACT ANALYSIS**

Assessing the transformative potential of narrative-driven design research could be achieved by a two-phase survey approach. Comparing participants' perceptions of the future before and after engaging with the narratives could be interesting to measure the efficacy of such stories in shaping perspectives.

### **FURTHER WORLD-BUILDING**

Another interesting avenue would involve inviting professionals to craft their own narratives set within the established worlds of the short stories. This could either be exclusively professionals from within the field of landscape architecture or from other disciplines as well. Their stories could illuminate aspects of these future worlds relevant to their specific areas of expertise, further contributing to existing discourses on sustainability within the field of landscape architecture and more.

### **BACKCASTING FROM SHORT STORY FUTURES**

While the narratives in this thesis project act as a projection of the scenarios' outcomes, there is significant value in exploring the journey from our present to these futures. As mentioned in the method section, backcasting is a strategic approach that starts with defining a desired future and then working backward to identify the policies, strategies, and decisions required to achieve that future. While this thesis has established the envisioned futures, a natural continuation would be to engage in a rigorous backcasting exercise. Such an exploration can provide actionable roadmaps for policymakers, planners, and stakeholders to guide our present actions in alignment with the envisioned sustainable futures.



**Figure 12:** Illustration of Otter and Izzy, from *Automation for Quality of Life*, playing with Otter's kenner together. I created it using Midjourney bot and Adobe Photoshop.

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# Collaborative Economy

## Story 1: Collaborative Economy

*Sweden has transitioned to a digitalized, collaborative economy where people value shared access over individual ownership. Cooperation and co-creation has replaced competition. Various collectives like, housing associations, thrive through a mix of paid and unpaid work, facilitated by time banks. Consumption is now needs-driven, and there's a prevailing ethical framework that prioritizes fairness and justice. Digital networks make it possible for people to live more scattered, but they mostly gather in mid-sized cities for optimized service exchanges and resource sharing. Residential areas have densified, reducing individual living spaces but providing larger shared communal areas. Good relations with fellow cooperative members has become essential and social capital has increased in importance. Governance aims to further promote the collaborative economy by erasing public-private sector borders and incentivizing sharing solutions.*

*The story follows Lu and her friends on a random Tuesday afternoon. We glean a slice of their life as they discuss joining a new food cooperative; go to their dwelling co-op's biweekly permanent assembly; and discuss balancing romantic relationships with co-op cohesion.*

Appendix 1  
2023

All the characters in this short story are fictitious, and any resemblance to actual persons living or dead is purely coincidental.

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## CHAPTER ONE

"Hey guys, look at this! I just found this really sweet food cooperative, we should totally join it!" Lu lifted her gaze from the laptop and found both her friends eyeing her. Fern had a twinkle in her eyes, seeming ready for mischief but Clover's eyes were narrowed, expression wary.

"Tell us more," Fern said happily.

"Yeah, tell us more." Clover crossed their arms. "Like, for example, what would we have to do if we join?"

Lu sighed exasperatedly at Clover, always such a skeptic. It's not like she'd led them astray before. Often. Well, perhaps it had happened more often than she'd prefer, but it's not as if they hadn't experienced some truly entertaining moments as a result. And besides, this was clearly not one of those times anyway.

"Look!" Lu motioned toward her laptop screen. "It's a cool place, just outside of town, it would only take about half an hour to ride over there and they use loads of traditional indigenous growing practices and things."

"Oo, will we get The Three Sisters then?" Fern sounded excited now. Excited, for Fern, meant happily rushing off in a tumbling torrent of words. "I mean, I don't love squash but corn and beans, do sugar snaps count as beans? I love sugar snaps! And you like squash bread, right Lu? We could make all our squash into bread. And—"

"Calm down you chattering bird, you," Clover said calmly. "It'll be part of our contribution to the co-op so you can choose to eat something someone else brought instead anyway."

"Oh yeah, of course. I didn't think about that."

"And we don't even know if The Three Sisters is one of the practices yet—"

"It is," Lu cut in eagerly.

"—And the point is" Clover continued, arching an eyebrow to give her a pointed look. "We need to know what it means to be a member first. I don't know if you two remember but it was only a year ago that we had to use up all our time-bank savings to go to Spain because you, Lu, made us members of a wine collective that required our physical presence during the entire harvest." Fern snickered at that and Lu fought hard to suppress a grin.

"Come on Clover! That was one of the best things we've ever done!" She let herself smile sincerely now. "I absolutely admit that it was reckless of me to sign us all up without talking to the two of you first. And I should have read the terms more closely, I've apologized for all that before and I mean it. It was not cool. But you also have to admit that you had the best time ever during that harvest!" Clover cracked a smile at that, indignation slowly pouring off their expression.

"Regardless," they said. It seemed like they were striving to maintain a stern tone but couldn't contain the warmth seeping into their voice now. "Even if it was amazing I can't have that happen again right now, I finally have a good chunk of time saved up again and I need that for this winter."

"I know! That's why I'm talking to you guys about it instead of jumping headlong into it again. Or, well, also because I realize how disrespectful it was not to consult you last time and I'm trying to be a more considerate friend. Let's review this together and make a consensual decision, okay?"

"Ooo, a consensual decision. How very official and proper." Fern teased as the three of them clustered closer on the sofa. Lu flipped open her laptop and put it on the little coffee table in front of them. The laptop had two modes. There was individual mode, where the bottom half of the screen displayed and worked as a keyboard. There was also communal mode, where you opened the laptop up, as if you were about to crack it, and flipped down the little stand in the back. In this mode it was a screen, twice as large as the individual laptop, so that they could all comfortably see the website.

"It seems like you're expected to put in a couple of hours a week," Lu informed the other two, "you can choose to spend time in the actual food forest, weeding and watering and things, that might be cool. You can also choose to handle deliveries and such. I thought maybe we could use a co-op cargo bike for that." Lu made a swishing motion with her wrist in the air to scroll down the page.

"That could be pretty cool," Clover said. "But we'd need to check the availability for the bikes then."

"I scanned through the app just now and there's a bike free every Wednesday afternoon for as long as I scrolled. If you guys want, we could set up a preliminary weekly booking for now and sign up to handle a few deliveries every week if we decide to become members."

"When are their assemblies? And how often? Are they digital or physical?" This was Clover's standard repertoire of questions now, ever since the disastrous full-harvest incident. In hindsight, Lu really should have realized that something was missing when it came to that co-op. But, to be fair, the co-op organizers had clearly been very disorganized, so it really wasn't all her fault. They barely

ever had assemblies, only had them digitally and when they did they never talked about anything important until suddenly announcing that it was time for people to start gathering for the harvest. At that point, they had been receiving wine from them for several months and there was no way their consciences would allow them to just opt out of helping. Of course, they should have made a point to ask for clarifications about everything sooner but it had been their first international co-op, and, for some reason, Lu had been more nervous than usual. That timidity had disappeared as soon as they all got down there and met people in person, though. She felt silly for having been shy before and she was sorry for the misunderstanding, but then again, they had absolutely learned from the experience. And that was great, right? In fact, this is exactly the kind of thing you're supposed to do when you're young and stupid, right? This is how you learn. It's how you acquire wisdom. Right? Clover's eyebrows were raised again and Lu blinked a few times to try to remember her place in the conversation.

"Sorry, zoned out for a minute." The other two chuckled patiently. "Their assemblies are—"

"Wait! Stop scrolling!" Fern lifted her head from Lu's shoulder. "Go back, yes! Look! You can be part of the preserves commission! I've always wanted to learn how to pickle things and make preserves and stuff. I'm totally signing up for that one." She clapped her hands delightedly and shimmied from side to side in some sort of jiggle happy-dance. There was a moment of silence in the room and then both Lu and Clover busted out laughing. Fern looked sheepish and a blush tinted her cheeks slightly.

"What? I just got excited okay. Stop it!" She was laughing too now though and it made the other two laugh even harder.

"I hate that I'm such a girl sometimes, it just spills out of me I swear, I can't help it!"

"Hey, what are you talking about? Don't hate that about yourself!" Lu was wiping a tear from the corner of her eye but the merriment was draining out of her fast. "It's not a bad thing that you have these bursts of being super-girly, it's really sweet and it's funny because it always catches us off guard, but it's not a bad thing."

"Lu's right Fern. You are amazing. Every part of you, you know this. Please don't try to stifle your joyous self." Clover reached over Lu and stroked Fern's cheek softly before quickly pulling back and clearing their throat. "I mean, just because I'm always such a grumpy pants doesn't mean I want you to be too. I want you to be happy and bubbly when that's who you are."

"You're not always such a grumpy pants, Clover. You're just a little bit more grown up and less reckless than the two of us. That's not a bad thing either." Fern's smile was loving and warm now and, looking between the two of them, Lu realized that the same expression was on Clover's face.

"Right, so it's settled. We're all amazing." Lu said. The other two laughed and for a second Lu wondered if she shouldn't have broken the moment between them.

"Indeed," Clover said, kissing Lu on the cheek.

"Absolutely," Fern said kissing her other cheek. "We are all amazing. Sorry for the super-long tangent. You were telling us about their assemblies."

"Right. So, I'm pretty sure I read that they do primarily physical assemblies, you can join digitally if you need to but they prefer attendance whenever possible. I think it was every other week on Thursdays. But let's look at it all together so we know for sure." Lu started scrolling again, tucking her hair behind her ear to try to get it out of her face. Lu's hair was long and curly, which meant sticking out in every direction and constantly being in her face. She loved how her hair looked when it was down and she was trying to get used to keeping it that way more often but it was just so annoying to keep moving it out of her face over and over that she often just gave up and put it up in a bun. Not today though. She was determined. Looking over at Clover she admired the sleek braid and undercut that kept all their hair neatly out of their face.

"Every other week, that's nice." Clover met her gaze and started, raising an eyebrow. "Are you envious of my hair again Lu?"

"It's just so cool, and pretty, and it's never in your face and I wish my hair would be as disciplined as yours. How did you discipline your hair? Why does it listen to you?!" Fern and Clover laughed.

"You don't want your hair to be like mine. Your hair is also wonderful. As we've just established, we're all amazing. My hair can't be undisciplined. It just is this way, always. Don't you remember how boring and flat it was before I realized what to do with it? Your beautifully curly hair is part of you and it's great. And Fern's beautifully wavy hair is part of her and it's great. You can choose to change your cuts and hairdos but for me, it helped to embrace my texture and curl pattern—or rather lack of curl pattern in my case—and work from that."

## CHAPTER TWO

"See, so grown up and un-reckless!" Fern exclaimed, gesturing dramatically towards Clover. As they all chuckled at this a notification popped up on Lu's computer. A second later all three of their phones buzzed on the coffee table in front of them.

"Shit. The dwelling co-op assembly starts in ten minutes." Clover said as if they couldn't all see what the notification was about. "We'll have to sign up for this food co-op later. Maybe tomorrow? I have child-caring right after assembly."

"Cool. That's fine. We can wait. But it seems great, right?" Lu said excitedly and Clover gave her another meaningful look.

"What?! I'm not going to sign you up without your consent you paranoid person!"

"...Again," Clover said, making a point.

"...Again" Lu repeated, pretending it was her point that was being made.

The dwelling cooperative had its permanent assembly every other Tuesday at 4 pm in the communal dining hall. The co-op was set up in the default cooperative structure with smaller working commissions and project groups meeting at least once between each permanent assembly. The smaller groups had autonomy and made their own decisions within the framework that had been agreed upon by the cooperative as a whole. Questions that affected the whole cooperative were brought up and discussed in the permanent assemblies. Standard stuff. You know how it is.

After waving Clover off as they joined the other childcarers, Lu and Fern were walking over to sit with the rest of the outdoors commission. They didn't have to sit in these groups but it usually happened organically anyway.

"Hey. Did I tell you I met this guy at uni who lives in a dwelling co-op that uses a voting system?" Fern was scrunching her nose as she spoke, looking bemused over her own statement.

"Really? That's—oh, hi Ant—"

"Hi, Lu." Ant nodded solemnly.

"—That's so bizarre."

"Fern." Another nod from Ant.

"I know right? Oh, sorry, hi Ant." They sat down next to Ant and Lu was almost distracted enough to avoid staring at his flawless mahogany skin and soulful dark brown eyes this time.

"What's bizarre?" Ant said and as their eyes met Lu's distraction totally shifted gears and she lost the

conversation for a second after all. Fortunately, Fern saved her from answering right away.

"This guy at uni who lives in a dwelling co-op that votes! Isn't that super weird?"

"That is weird. So what, is it a 50/50 vote? They could have literally half the co-op be Blocks and they would still go through with it?"

"I guess it would have to be one less Block than literally half the co-op, right?" Why did this pour out of her mouth? "I mean, because otherwise, it wouldn't be a majority, right?"

"Touché," Ant said with a wink. Lu looked away quickly and tried to fight the blush she could feel creeping into her cheeks.

"I asked about that too!" Fern was speaking quickly now since the assembly was about to start. "I thought that he would tell me that at least in situations when that many people disagreed they would have some form of discussions, address concerns or rework the proposal or something. You know what he tells me?" They shook their heads in unison, both on the edge of their seats. Ant grabbed Lu's wrist which she was gripping around her armrest in exaggerated anticipation, he blew in a sharp breath, playing up the excitement.

"What?" Ant breathed. Fern laughed at the two of them but Lu had lost her interest in the topic and could only focus on the heat of Ant's hand touching hers.

"He said they try to make sure that there's an uneven number of people in the co-op so that there can never be a 50/50 split." Okay, Lu was back in the conversation now.

"I'm sorry, what?!"

"And if they can't do that," Fern continued, "if there's an even number of people living there and they 'get stuck like that', as he put it, they have a coin toss! A coin toss. Do you get it? They literally toss a coin to see which half of the co-op will get their way and which *literal half* will disagree with the decision."

Silence. The three of them looked at each other, baffled. The silence was ringing in Lu's ears and after a second she realized it was because Fern's last statement had happened to be perfectly timed with the start of the assembly. The social hum and chatter from the large group of people had suddenly died down as the facilitator and note keeper, who were assigned for this week's meeting, had walked over to the facilitation table. Lu tried hard to suppress her giggles over the dramatic effect of the timing and, looking over at Ant and Fern, it looked like they were both in the same boat. Since looking at either of their expressions made her giggles bubble even closer to the surface, she quickly turned back to face the facilitator, trying to ignore Ant's body silently shaking with laughter right beside her.

She tried to focus on the meeting and the updates and questions being brought up by the different commissions but her mind kept circling back to this idea of voting. It felt so strange to her. Of course, she knew that this is what people used to call democracy. She knew that historically there was a long stretch in the past — leading all the way up to the Big Shift, really — when voting had been touted as the epitome of equality. No doubt it had seemed preferable to people in the olden days whose only

comparison had been dictatorships and monarchies. To be honest, she couldn't remember exactly what the difference between a dictatorship and a monarchy was, but she had a feeling people looked down on dictators more so maybe monarchs had been nicer to the people they oppressed in some way.

Regardless, of course, representative democracy would seem good to people who could only imagine an alternative that gave them even less freedom and control over their own lives and the world around them. She knew she couldn't judge historical people by today's standards. She had always felt sorry for people living back then but she had assumed that their society just hadn't been evolved enough to practice consensus decision-making. A modern co-op using a voting system was unfathomable to her. Lu couldn't imagine that the different commissions wouldn't start ignoring some of the principles they disagreed with in a system like that.

"That is why they needed all that bureaucracy!" Mumbling the epiphany to herself more than anything, she was surprised when Ant leaned in to whisper in ear.

"What are you talking about, Louie?"

"Voting. The way it used to work — when so many people disagreed with most of the decisions that were made for them — without their consent, of course, they needed a system to make sure people followed the rules. That's why they didn't allow commissions to be autonomous. They couldn't trust the commissions to be working towards the same interest because loads of the people in a commission could be Blocks who hadn't been listened to. They punished people who didn't follow their rules because they believed that violence was the only way

to control people. Since they refused to let people be part of the decision-making in any real way in the first place, maybe the threat of violence was the only way to make people follow these rules. I mean, the rules must have seemed so arbitrary to most people when these choices were so detached from them. Imagine if all you could do was vote for the professional decision-makers that were the most aligned with your values and beliefs and unless more than half of the entire population agreed with you, even that weak representation of your opinions wouldn't have any influence on any decisions being made about your life." Lu felt a little breathless when she finally finished the rant she had been whispering into Ant's ear. He turned and looked at her with an expression she had a hard time deciphering, she couldn't decide if he looked intrigued or just surprised. But the smile on his lips was reflected in his eyes, which seemed like a good sign.

"I absolutely want to continue discussing this subject with you, but if we want to be actively involved in the decision-making of our own lives, this might not be the best time." Lu could feel herself blush again and hoped that Ant couldn't feel the heat radiating from her cheeks as he leaned in again to whisper. "Are you free this evening? I have a digital assembly with my chocolate co-op after dinner—"

"You're a member of a chocolate co-op?!"

"Yes." Ant chuckled. "And don't worry. Clover's already told me to double-check that I don't have to go harvest the cocoa beans myself." Lu scoffed and rolled her eyes as he smirked teasingly at her.

"So does that mean you have piles and piles of chocolate at your place?" Lu couldn't look away from the mischievous gleam in Ant's eyes.

"My meeting will be done by about eight-thirty. If you come over to my place we could have a deeper discussion about the concept of voting and I will show you my chocolate stash." Lu's breath caught and before she unscramble her brain enough to answer Fern nudged her hard with an elbow in the ribs.

"We're up!" She whisper-hissed at them. "Stop flirting and focus, please. The outdoors commission is next and it will be noticeable to everyone how rude you two are being by not paying attention." Skies, this was embarrassing. She couldn't remember the last time she had been this zoned out in an assembly meeting. Early teens maybe? She glanced up at the display of the week's agenda above the facilitator's head to try to figure out if she had missed something important.

A minute later, Robin, this week's primary speaker for the outdoors commission, addressed their first speaking point. He introduced their proposal to test out some new growth technology for the communal garden in the co-op's courtyard. When he opened up the floor for discussion it became clear that Ant had a much easier time refocusing on the subject than Lu did. Ant patiently explained the functionality and advantages of the tech and pitched creative ways to address some of the concerns that were raised. Lu usually loved this kind of brainstorming and would feed off its energy, but today paying attention felt like the best she could hope for.

After the first discussion and call for concerns, Robin restated the proposal based on the new input they had

gathered. There were no Blocks and only two Stand-asides so it was decided that they would borrow the stuff at the tech library to test it out. They sent the proposal to the next permanent assembly and would try to address the Stand-asides' concerns then. Just a few Stand-asides didn't stop consensus and the outdoors commission could have chosen to just implement the proposal and left it at that. But people appreciated being taken seriously, even if they didn't want to block the proposal outright, and this was an excellent method for keeping good relations.

The second point on the agenda concerned the outdoors commission's spokes council meeting that was coming up next week. Their Neighborhood Coalition hosted the spokes councils in their area and an important topic this time would be the communal park right outside their co-op. They would be discussing improvements in adaptation methods to minimize the damages of the next cloudburst. Again, Ant was engaged and alert as he explained the merits behind the proposals they wanted to put forward. Listening to his and Fern's enthusiasm finally snapped Lu out of her haze and she was finally able to join the discussion at the end of their allotted time.

### CHAPTER THREE

As soon as the assembly finished Fern hooked her arm in Lu's, waved to Ant, and quickly ushered her out of there.

"You don't have cooking today, do you?" She said, sounding almost worried as they walked out of the dining hall's double doors.

"Nope, just assisting tomorrow. I'll be the lead the Tuesday in two weeks, after the next assembly." Fern blew out a relieved breath and slowed a little.

"Oh good. I thought it might be this Tuesday. I worried you would have to run to the kitchen in a sec. Here, let's go to the Chestnut Clearing for a minute." Lu was pulled off the paved pathway and pushed towards the greenery nearby.

Creating this clearing had been the outdoors commission's biggest project last summer. There was a large chestnut tree in the very center and they had designed the space to highlight the beautiful old tree. The area was loosely divided up into four sections, all connected by the tree and the sturdy wooden bench they had built to encircle it. Lu had thought that the co-op kids would flock to the playground area they had designed to span the open northern and eastern parts, but it had turned out that the tree-wrapping bench was much more beloved. After this project, the outdoors commission had truly understood the importance of making the kids an active part of the design process.

Fern pulled Lu over to the southern section, which was the most secluded. In early spring it was a great place to sit like a bunch of smiling cats, eyes closed and faces angled to catch the first proper rays of sun. As the world

woke back up from its winter slumber though, the plants would spread out their leaves to catch the sunshine. This meant that this section was shaded from the worst of the heat during the occasionally scorching summer days. As Lu walked through the mishmash cluster of outdoor furniture the comfortably cool air of late afternoon felt like a wonderful caress to her exposed skin.

"We should bring our dinner out to the party table more often," Lu said as she leaned back against the chestnut tree and looked over at the long table and benches in the western section, draped in the glow of summer evening light.

"What?" Fern said distractedly. "No, wait, I don't care. Tell me what's going on with Ant."

"What do you mean 'what's going on?' It's—"

"What is going on with you and Ant, Lu?" Fern's tone was low now and every word was overemphasis. She sat down on an old-fashioned steel café chair. The chair was facing the wrong direction but instead of readjusting it she sat the wrong way around and leaned forward against the ornately decorated backrest. They stared at each other for a few seconds, Fern clearly waiting for an explanation but Lu didn't know what to say. Finally, Fern's control broke and her questions poured out in quick succession. "Are you enjoying each other? Are you bonded friends? What's going on? Why are you being so secretive about it?" Uh-oh, Fern was getting excited again, her words speeding up and her volume rising. That was until she was suddenly interrupted by voices calling from the other side of the hedgerow of blackcurrant bushes and fruit trees that was separating the Chestnut clearing from the co-op's vegetable garden to the south.



"Who's enjoying each other?"

"Yeah, and who's being secretive?"

Lu shot Fern a scathing glare. "You do know that this place is only visually secluded right?" She whisper-hissed, but before either of them could say anything else Poppy and Sparrow rounded the hedgerow and came over to them, Poppy skipping over the grass and Sparrow casually strolling behind her.

"Who's bonded? What have we missed?" Poppy said looking like she was about to burst with anticipation.

"Yeah, who are you talking about Fern?" Lu felt her cheeks flushing as she looked up at Sparrow. She had the same beautiful smile and eyes as her older brother and Lu couldn't decide if it was lucky or not that Sparrow hadn't heard Fern say his name. Poppy and Sparrow were a few years younger than them and had been best friends their entire lives. Poppy had long red hair cascading down her back, pale—but summer-freckled—skin, and blue eyes. She loved colorful flowy dresses and had armbands of every color and material clinking against each other whenever she moved. Sparrow's copper skin was smooth and unblemished, her kinky curls were cut in a broad mohawk and she had never worn a dress in her life. These differences didn't seem to affect their friendship much though. Sparrow hung out with Poppy at the outfit library just to read or chat and share her opinions about dress choices without any pressure to participate herself. And Ant had told her once that Poppy had learned to braid Sparrow's hair from their dad when she was nine. After that, it had quickly become Poppy who helped with all of Sparrow's protective hairstyles. Lu adored them both, she just wasn't sure she wanted to talk to them about this.

"Wow, that's a beautiful dress, Poppy. I swear you're wearing something new every time I see you. It's impressive how you manage to pull off so many different looks so effortlessly." Lu was smiling up at Poppy, trying to look innocent.

"That's true, you must be down at the outfit library all the time," Fern said excitedly. Sparrow sighed loudly.

"Tell me about it! She drags me over there at least once a week."

"Hey! First of all. Don't pretend you don't like hanging out at the library because I know you do, Sparrow." Poppy glared at her best friend who was now looking somewhat abashed and mumbled a quiet 'Sorry'. "Second of all, don't think you can just distract me by talking about my dresses Lu. I'm not some silly person who only cares about looking pretty. I like wearing things that make me feel beautiful but that doesn't mean I don't have a brain. Why are you being secretive Lu?" Lu was stunned. She hadn't even considered that her comment could have hurt Poppy's feelings. She was right though, it hadn't been a very nice thing to do.

"You're right. It was a shitty move to try to deflect the conversation like that. I didn't mean to imply that you are brainless because you like beautiful clothes, Poppy. I'm so sorry that I came across that way." Like flicking a switch, Poppy's expression changed back to the happy, bubbly teenager from a minute before.

"That's okay," Poppy said. "Just tell us why you're being secretive about enjoying someone and I'll forgive you right now." Lu laughed.

"Oh, so this was just a setup for emotional blackmail then?" Poppy tapped her finger to her temple.

"Brains..." She said, wiggling her eyebrows suggestively. They all burst out laughing and it took a few minutes before Lu could collect herself enough to keep talking.

"Look, it just feels like a bad idea to get involved with someone who lives in the same co-op. I know there's all this talk about 'free love' and 'no judgment' and 'just enjoy each other' here and there, I just feel like it might not be that easy. I mean, we need to be able to cooperate. What if we're bonded and then fall out and start hating each other? What if we have to collaborate on a project when we don't even want to be in the same room? And we'll still have to see each other all the time at assembly and stuff. So then I'll have to move out to get away from it and –"

"– Stop." Fern was holding up a hand, emphasizing her statement. "Lu. I've known you since forever. My moms and your parents literally connected a month before I was born, three weeks before you were. We slept in the same bed the very first night of my life."

"Okay! Skies! We've established that you know me!"

"Okay, good. So. You are the most daring and fun-loving person I know. Shit, just this afternoon Clover was on you about the recklessness of you signing us all up to spend months harvesting grapes in Spain without our knowledge!"

"You did what?" Sparrow exclaimed, staring at her slack-jawed.

"Oh, it was last year," Lu said dismissively. "And we got a boatload of wine for our troubles. It's fine, don't worry about it."

"That's where you guys were when you used up all your banked-up time off last fall?" Poppy said, her eyes

round as saucers. "That's so awesome!" The two girls squealed in unison.

"Anyway," Fern said with a chuckle. "What I'm trying to say is that you're usually not a very cautious person, Lu. You throw yourself into the unknown and you always come back with a huge grin. You're always happy that you did it because you either loved it or you learned from it. Why do you think you and Ant will be any different?" Lu's stomach dropped and she could see on Fern's face that she had realized her slip-up in the same second.

"Wait..." Sparrow's eyes shot to hers. "Ant? My Ant? You're talking about bonding with my brother?"

"Look, Sparrow, Fern is making all of this a much bigger deal than it actually is. Nothing has happened between me and Ant yet. She just thought we were flirting at assembly and..." Lu bit on her bottom lip, unable to continue and leaving the clearing awkwardly silent for a few seconds.

"But you like him though?" Sparrow said. She sat down on the chestnut-tree bench next to Lu, crosslegged and leaning forward, staring into her eyes as if she could find the answer if she just looked hard enough. Her eyes were the same gorgeous shade of brown and almond shape as her brother's, and her slow-growing beautiful smile was inevitably contagious.

"You like him." She stated as if the matter was now closed for discussion. Lu groaned and leaned her head back, staring at the foliage above her.

"I like him, okay." She said, with a sigh. Still staring at the tree above her. It was only in the periphery of her vision that she could see Fern's raised arms, but she couldn't avoid hearing the excited whoops and squeals all

around her. "Come on, shhh, what if he hears you guys, will you shut up please?" Lu leaned forward again, pinning them all with reproachful glares.

"Oh, he won't hear us. He went to the printer's after assembly." Sparrow said confidently. "One of the cargo bikes is broken and he told me he needed to use the metal 3D printer to replace the broken part. The closest metal printer's is like half an hour's bike ride away, plus potential waiting time and the time of the actual printing. He'll be lucky if he gets back before dinner."

"They don't have a booking system?" Poppy said, confused. "Why would he have to wait? I'm sure he booked a spot on the app."

"Alright, maybe he won't have to wait but it's still going to take him long enough that he's not coming back right now and hearing our excitement that Lu's in love with my brother."

"Let's just calm the fuck down, shall we? I have said no such thing." Lu could feel her heart speeding up like crazy and took a deep breath to try to calm her body's stress responses from activating. "Please, guys. I'm already feeling skittish about this whole thing and if you start walking around talking about me loving him before we've barely even touched each other I'm seriously going to start panicking."

"Right, you're right, chill girls." Fern pierced first Sparrow and then Poppy with a meaningful look.

"Barely touched each other?" Poppy said, completely ignoring Fern's warning. "What does that mean? You guys have enjoyed each other a little bit then?"

"No! We haven't done anything, okay? I meant more, like, we've accidentally bumped into each other or shaken

hands or whatever. Nothing explicitly to enjoy each other that way, okay?"

"Okay, okay, chill. I got it. Skies!" In the following silence, Lu desperately tried to think of something to say to change the subject but she didn't want to repeat her earlier mistake and offend someone's intelligence. Unfortunately, this meant that Fern was the first to speak, keeping them firmly on the subject at hand.

"I still don't get why you're so hesitant about this, Lu. Loads of people in the co-op are bonded friends. And loads of people in pretty much every co-op ever enjoy each other. I mean, I would say it's the most common way there is to meet people to enjoy yourself with. Speaking of Spain, you enjoyed yourself with loads of people during the harvest – all three of us did – and we were all able to cooperate with everybody regardless."

"Ooo" Poppy interjected.

"That is not the same thing and you know it, Fern. We all knew that the harvest was a one-time thing, we knew we were going to leave that collective when the year was up and we were probably never going to meet any of those people again. It was a contained timeframe, in a different country, where we could all just have fun and let loose. It is nothing like getting involved with someone in our own dwelling co-op where we are planning to live for the foreseeable future and where we spend a huge chunk of our time-resources in the same commission."

"Okay, fine. I get it, it's not the same thing." Fern said. She started pushing her pinky finger through the holes in the elaborate pattern of her chair's backrest and Lu's frustration dissipated at the sight. After a few moments of silence, Fern took a breath and looked back up at her.

"Fine. Spain was a bad example. You're right. The circumstances are very different."

"Thank you for acknowledging that."

"But! It's still also true that there are loads of people who enjoy each other and loads that are bonded friends, for various amounts of time, in many dwelling cooperatives. Sometimes there are hurt feeling and even heartbreaks, it's true, but people can usually put that aside when they need to collaborate. And, if they can't, the co-op will step in to help with that. I mean, there are so many resources for resolving unrest and emotional pain within the co-op."

"That's true." Sparrow piped in. "It's like with my extended family." As Sparrow spoke Lu could see Poppy stiffen in the lounge chair behind her. Poppy's foot shot out, kicking at Sparrow's ankle to try to get her attention. "They connected about a year before Ant was born and— Ouch!" Sparrow swung around to glare at Poppy who immediately started dragging her hand across her own throat. It was the least subtle silent communication Lu had ever experienced and as she glanced over at Fern there was no way either of them could hold back their laughter.

"Let me guess," Lu said, after their laughter subsided, "your family is no longer connected." Poppy made a pained grimace and Sparrow scratched the shaved left side of her head.

"You're right. This was a lousy example, it didn't work out between them," Sparrow sighed. "But it was also a very different circumstance that was a bit doomed to fail from the start if you ask me." Poppy made an affirming noise at this.

"Did you want to tell us the story, Sparrow?" Fern's tone sounded intrigued but gentle, her arms were crossed over the backrest of her chair and she rested her head on top of them as she settled in to listen.

"Well, so. There were four of them, right? About a year after they connected—"

"And bonded," Poppy interjected.

"And bonded. About a year later, Ant was born. Mom and Dad were blissfully happy of course but the problem was that the other two, Ant used to call them mommy and daddy back then, now we just call them Sienna and Rowan. Well, they had maybe chosen to connect for the wrong reasons. It started becoming clear that Sienna was really in love with Dad and was heartbroken that she wasn't the one having his baby. And Rowan was disappointed that he wasn't the father and had a hard time getting over that he wasn't biologically connected to Ant."

"These people sound kind of insane." Lu glanced at Fern whose expression she was almost sure mirrored her own at that moment. "They do know that you can choose to connect for childrearing without bonding, right? Like our parents for example. I think a big part of what makes them so great at co-parenting is that they're two separately bonded pairs. It makes it so much less messy."

"I think the most important part is going into this kind of relationship with absolute honesty and trust," Poppy said. She gesticulated with one hand as she spoke, half lying back on her lounge chair now. "My parents are great co-parents and they're all bonded. But it might also help that all five of them love each other."

"Oh, yeah. I forgot that you have five parents! It's funny how it feels like that's so many parents but it's really

just one more than we have." Fern laughed. Poppy continued as if Fern hadn't spoken.

"I think a problem for your parents was that they were only bonded two ways. Your dad and Rowan didn't love each other and your mom and Sienna didn't. I think that dynamic very easily creates a lot of jealousy and possessiveness in a relationship."

"Yeah," Sparrow said. "I mean, dev-parents are super common, but they're usually not part of the bio-parents' bonding at all, right?"

"Right! I've never really thought about that, but you're right, Sparrow" Fern said. "Wait, I need to list this, there are biological parents, whose DNA is mixed to create the child," She held up one finger as she spoke. "There are bonded parents, who are bonded with the bio-parents and raising the child with them." She held up another finger. "There are connected parents who consist of two or more bonded parent groups, each with their own child, all raising the kids together but not bonding across the groups." Three fingers in the air. "And there are devoted parents, who don't share DNA with the child, aren't bonded to the bio-parents and aren't the parents of another child which would make them all connected parents. Am I missing anything?" Fern was waving the hand with four raised fingers at the other three as if this would make them remember another type of parent.

"I don't think so, would you—!" Lu slapped Fern's hand out of her face, realizing only now how much closer Fern had moved her chair since they first sat down.

"Well," Poppy leaned back in her chair again, "There's a whole constellation of family units where parents have broken their bonds or connections and bonded or

connected to new people, sharing the co-parenting amongst them all. But I guess if we're talking of the type of parent they would all still fall into one of those four categories." A beat of silence before Poppy continued. "Oh, and, like you said Sparrow, dev-parents aren't usually bonded to other members of the co-parenting unit, they're either unbonded or bonded to someone outside of it, a sep-parent, right?"

"Step-parent." Lu corrected.

"Oh, step. What does step mean?"

"I actually have no idea." Lu looked to Fern and Sparrow who both shrugged.

"Well anyway," Poppy continued, "a step-parent then. I guess that could be a fifth type?"

"That's the thing though," Sparrow sighed. "I think having a family unit with regular dev-parents is much easier because they only have familial and platonic love—"

"Dare I say devoted love" Poppy interjected. They all snorted.

"Sure, they're familiarly and platonically devoted to the child and usually to the other parents." Sparrow continued. "But I think the problem for us was that both Sienna and Rowan were romantically devoted to one biological parent but not the other, which created a much more volatile family dynamic.

"So, what happened?" Lu promoted.

"I was born. I mean, for Sienna it got worse as soon as mom got pregnant again but then I was born and, well, Rowan is a blond, white man. It was pretty clear right away that Dad was my bio-father too and everything just kind of exploded. Things didn't settle down until the two of them moved out and the bond was broken. They live in a

dwelling co-op over by Kestrel Trail now. We still see them sometimes but they feel more like distant relatives or something to me. Ant is closer to them though, he was five when they moved out so he remembers them as his parents in a different way than I do.”

“Wow,” Lu said. Feeling stunned, and also suddenly quite upset on Ant’s behalf. These people had been his parents for five years and then just moved away, with no shared custody or anything. She wondered if it made him feel abandoned, it must do, right? Before Lu could get her thoughts in order Sparrow spoke again.

“I think it really hurt Mom and Dad the way it ended. Ant too probably, but I know they both felt a lot of guilt and shame for a while, especially Mom. She felt really bad about not having been able to work things out, not being able to collaborate on childrearing. I overheard them talking about it once when I was little and she kept saying ‘What does it say about me that I can’t cooperate on raising my children, Elm? What does it say that I can’t collaborate on the biggest collaborative projects there is in life?’ Dad tried to soothe her, he stroked her back and told her that it wasn’t her fault but I saw his face, and—I don’t know—I don’t think I’ve ever seen him look as sad as he did right then.” The clearing was quiet for a moment. Lu could tell she wasn’t the only one feeling emotionally overwhelmed by this story. After a minute or two, Sparrow sniffled and took a deep breath, breathing out the pain. “I think therapy helped them though, and they seem happy now, being just the two of them.”

“Wait, they never got any regular dev-parents after this?” Lu was again totally floored by this revelation. Skies, there was so much she didn’t know about Ant’s early life!

“They never connected with another family unit? They raised two kids alone, just the two of them?” Lu knew that there were single parents out there, of course, but it was quite rare in this day and age. And it just seemed so incredibly taxing! Having that much responsibility, to nurture and take care of a new life in this world, to make sure two little ones had the love and support to grow to their full potential and become happy, well-adjusted people, and only have one other person to share your burden with. Skies, the pressure you would feel! Lu couldn’t imagine. She knew, in the back of her mind, that this was the way people had lived for quite a big chunk of history, though. For many years it had been the norm. The two-parent nuclear family had been standard practice until people finally realized that there was no reason to divide things up the way they were doing. Civilization had finally moved forward, partially by borrowing from the distant past, and reinstating practices such as the commons and beliefs like having a village raise a child. Come to think of it, single parents these days had so much more support than what was considered “normal parents” back in the day. Flatmates or close neighbors would often become aunties and uncles to the children, regardless of blood or bond relations. Many of the co-op’s elders loved spending time with the children. Some of Lu’s favorite people from her and Fern’s childhood co-op were Grandma Maple and Grandmother Holly. Oh-oh, and Grandpa Aster, he was one of the sweetest people she had ever known! None of them were their parent’s parents but they all saw them as grandparents anyway. There was also a general collective responsibility within the co-op that Lu was pretty sure had been lacking before the Big Shift. Now everyone in the co-

op could be a helping hand or a listening ear when the need or interest arose. Plus, all co-op's she knew about had people like Clover whose responsibilities included keeping an extra eye on all the kids and making sure they always had someone to turn to. Lu's thoughts were finally slowing and she realized she had zoned out for a minute. Catching the end of what seemed to be Sparrow reassuring them by listing all the support she and Ant, and their parents, had gotten from the co-op. Poppy, who had been sitting there admiring her colorful armbands as Sparrow spoke landed on the pretty wristwatch she had borrowed for the week and suddenly shot up from her seat in the lounge chair.

"Oh, shit! It's nearly time for dinner! I need to go change!" The other three laughed at the abrupt announcement but then Sparrow got up too. She pointed at Lu, made a heart symbol in the air with her fingers, and winked before waving goodbye to them and lazily stalking after Poppy toward the apartment the two of them had moved into a few months ago.

Lu chuckled and shook her head, she still didn't know what to do. Sparrow's story hadn't exactly soothed her nerves about this. It was true that their situation was nothing like her and Ant's but it still proved that things could be much more complicated than she might be comfortable with. Lost in thought Lu let her fingertip lightly trace over the four letters that were carved into the bench right next to her.

"Who made this engraving?" She finally said. "Do you remember?" Fern had been staring at her since the other

girls left but her eyes flicked down to the carving as Lu spoke.

"I think it was Robin, wasn't it?"

"Oh yeah! And the engraving tool wasn't part of the kit we'd picked up from the hardware library to build the bench so he had to go get it especially, remember?"

"Yep. And that was only after Juniper had tried to block it because they thought it was just too corny to engrave."

"I think they just stood aside, they never blocked it. They can't have argued that the engraving was contrary to the principles of the co-op."

Fern laughed at that. "No, you're right. They probably just stood aside." She chuckled again. "I mean, I see what they mean in a way, it is a bit corny. But it's also kind of sweet in an old-school way and if Robin wanted to do it, I don't see why he shouldn't."

"I don't mind it when it just says C.R.C.A. If he would have written it all out though, I might not have loved it." Lu started writing the full words with her finger on the bench beside her.

"You mean if it would have actually spelled out 'Co-operation. Reciprocity. Conviviality. Autonomy'? Yeah, that would have been worse. I mean, I feel like it was a mantra or a slogan—whatever you want to call it—that was necessary back when people had to re-evaluate what was important to care about. By now it just feels like something we all know instinctively anyway so I'm not sure I see the point anymore. I mean, of course we have to cooperate with one another. Of course we have to practice reciprocity towards each other. Of course—"

“Okay, skies, I get it!” Lu took a breath, she loved Fern but sometimes she just got into these loops. “Well,” she said, “maybe the reason we feel like it’s instinctive is because we were exposed to it from an early age. If we stop perpetuating that exposure to our kids the next generation might not have the same instinct.”

“Good point. It’s a good thing we didn’t stand aside then.” Fern said, smiling at her. “Okay, come on, let’s go eat. Maybe your worries about being able to cooperate despite allowing yourself to enjoy Ant will feel less worrisome with some food in your belly.”

Lu wiped the dirt off her jeans shorts as they started walking back towards the dining hall. She had borrowed the shorts for the whole summer season but she was considering handing them in early and getting another pair. The fit wasn’t right for her and now that she was standing again she could feel how uncomfortable wearing them had become while sitting for an extended period. Maybe she would tag along the next time Poppy and Sparrow went to the outfit library.

“Oh, wait. I’ve got it.” Fern smirked, clearly still thinking about her last comment. “Your worries about being able to cooperate;” — she started indicating a list with her fingers again — “practice reciprocity; uphold conviviality and stay autonomous.” Fern was again waving a hand with four extended fingers in her face. Lu pushed her sister playfully. Fern dropped her hand and squeeze Lu around the waist instead.

“Do you *really* think I’m being silly about this?”

“I *really* think you’re being silly about this. Ant is great. From what I saw today he seems quite interested in you

too. Honestly, how did I not notice any of this before?!” Fern shook her head as if appalled by her own inattentiveness. “Look, even if you ultimately realize that the two of you don’t fit well together, you’re both adult, reasonable people. You’ll work it out.”

“I’m sorry, are you calling me adult and reasonable? I thought we established earlier today that my official descriptors are amazing and reckless!”

Fern laughed as she stepped through the door to the dining hall. “Right, I’m sorry, of course you are. Oo, is that sugar snaps?!”

Dinner was great. There had indeed been sugar snaps, but also beautiful corn tortillas with soy mince, pico de gallo, and pretty much everything else you could wish for. Lu had been over the moon about the guacamole. That must have been a gift from Juniper who was the lead chef today and a member of a Mexican agricultural co-op.

Lu had seen Ant rush into the dining hall just as she was leaving. He greeted her with a nod and then tilted his head in question. She nodded back and he smiled before she had even registered whether her nod was in greeting or as an answer to his unspoken question. Now she was back in her room, pacing.

“This is ridiculous” she mumbled under her breath and sat down on the bed, leaning against the headboard instead. Checking her phone for the time yet again made her heart jump. It was eight o’clock, just half an hour left. Taking a deep breath she tried to calm her nerves, she’d never been this nervous about enjoying herself before. There must be something wrong with her, right?



Skies, these shorts were uncomfortable! She had decided, on principle, that she refused to change outfits before going over there, it would feel too much like she had changed for his benefit. This was ridiculous too, though. Her choice to suffer through uncomfortable clothes was just stupid. Getting up, she decided that it would be fine as long as she didn't put too much thought into it. She grabbed her pair of black shorts with big, bright lemons printed all over them. They were her favorite summer shorts, the motif just made her happy for one thing but, more importantly, they had a comfortable elastic waist. Having kept the lemon shorts for three or four years now she had considered if it was time to bring them back to the outfit library soon but—since the shape of a button might leave a permanent mark on her lower belly because of these flippin' jeans shorts—she was pretty sure she would keep them for a bit longer after all.

After another few minutes of fretting Lu stepped out of her room and spotted Neem and Ginger cuddled up on the couch in the living room. Clover had just come home and dropped like a puddle into an armchair next to the couple.

"Skies! I'm drained," they said just as the door to Fern's room flung open.

"Where are you off to?" Fern called, smirking over at Lu. Everyone else's heads snapped up at that. Lu mumbled something unintelligible and dashed towards the entryway.

"What was that?" Lu could hear the smile in Fern's voice but she tried to ignore it and just waved at them all.

"See ya!" She called as she picked up her shoes and tumbled out of the apartment, grimacing at the loud noise of the door slamming closed behind her.

Lu had never been to Ant's place before but she knew that he lived alone in one of the single-person flats. After a quick text to get his flat number, she stood outside his door, getting ready to knock. She laughed at herself, getting ready to knock. This was so stupid. There was something about this specifically that made her heart raise and her hands all sweaty. She wondered if this was the downside to teaching children from an early age that cooperation and good relations were the most important values to strive for. Was there a risk that these teachings made them grow up wary to put themselves in situations where their cooperative abilities could be compromised? Well, they had also always been told not to fear conflict and been encouraged to debate and speak up for their own beliefs and values. They resolved conflicts all the time in the co-ops, it was a given when so many people were part of the decisions being made, so this theory might not be very solid. Okay, she was just being dumb about this. Lu's heart slowed back down after this final little freakout, she took a deep breath and knocked on the door in front of her. Time to be brave and allow herself to want this.

## CHAPTER FIVE

The door swung open a few moments later. At first, Ant just stood there, holding the door halfway open and staring at her.

"I love your lemon shorts," he said. Then he shook his head, cleared his throat, and opened the door wide for her.

"Come on in. Sorry about commenting on your clothing before I let you into my apartment, that was rude. And kind of creepy maybe?" He cleared his throat again. "Sorry." Ant moved a few steps back to give Lu space enough to remove her sneakers in the tiny entryway. She was trying not to giggle at his adorable, flustered appearance. Ant always seemed so cool and relaxed, she had never seen him like this before, maybe he was nervous about this whole thing too.

"I love your t-shirt," she said. "Is that a kitten throwing a grenade?" Ant's body visibly relaxed and he shot her a quick smile.

"It is a kitten throwing a grenade. I saw it at this outfit library on the other side of town while I was waiting for a print and I just had to borrow it." Putting her arms behind her back Lu leaned against the wall to stop herself from reaching out and touching the preciously fierce kitten above his left hip. "It's super vintage," Ant continued, "from back before the Big Shift they said. Apparently, there was a company that made loads of clothes with different animals fighting back against how humans used to treat them. I just liked the kitten, really."

"And the teal," Lu said.

"What?"

"The teal. The fact that the background color is teal. You look really great in teal." Okay, what was happening? Why was she still talking? She had said the word teal about ten times in a row. Lu could feel her cheeks burning again, thank the sky that her skin tone usually hid some of her blush. Not as well as Ant's probably did but at least it wasn't as obvious as it was on Clover, for example. Ant didn't seem flustered at all anymore, his smile had grown blinding as she spoke.

"You think I look great in teal, Louie?" Lu could only nod in response.

"Well, I think you look great in those lemon shorts." They stared at each other for a long moment and Lu could feel the thump of her heart in her ears. Suddenly, a ringtone started blaring from somewhere further inside the apartment. Ant closed his eyes for a second, swore under his breath, and turned, walking over to pick up his phone.

"Sorry," he said, looking back at her over his shoulder. "Come on in, let me just see what this is about." Lu followed him, looking around. The bathroom door was right by the entryway and beyond that, the rest of the flat was just one open space. It was well designed though, with a room-dividing shelving unit separating the little kitchen and the queen-sized bed she could glimpse behind it. A small bookshelf, a chest of drawers, a two-person couch, and a coffee table completed the sparse furnishing but Lu was still absolutely awed by the space. There were plants everywhere. Beautiful, green-leaved plants in every shape and size. On the floor in big, blue pots, on top of every spare surface, hanging from the ceiling in elaborate rope plant hangers. Ant picked up his phone from the kitchen counter and swiped to answer.

"Hi, sis. I'm kind of busy, is it something important?" He leaned against the counter as he spoke, watching Lu study the plants more closely.

"None of your business," he said and Lu could only imagine what Sparrow was saying.

"Something like that," he said and it made Lu's heart skip to hear the smile in his voice.

"I doubt you do-o." He answered in a sing-song voice but then he stiffened. "How did you—" Lu looked up and saw the second Ant realized that his answer had given him away. He closed his eyes again and sighed, a second later he winced and pulled the phone away from his ear. Lu could hear squealing from the other side of the line and felt her blush creep back up. She looked away from Ant and her eyes landed on a framed art piece on the wall.

"Look, sis. I have to go. I'll talk to you tomorrow, okay?"

"Yep, love you too." He hung up the phone and sighed again. "Sorry about that. My darling sister." He waved the phone indicating what he meant. Lu smiled at him quickly and turned back to the artwork, fascinated. It had a gradient background, white at the top, fading to black, and the foreground consisted of two quotes, from a debate of some sort. The first was by a person named Lahontan. It was stamped in black on the white part of the background, reading:

*This is why the wicked need to be punished, and the good need to be rewarded. Otherwise, murder, robbery and defamation would spread everywhere, and, in a word, we would become the most miserable people upon the face of the earth.*

The answering quote was by a person named Kandiaronk. Written in white, the letters vaguely reminded Lu of smoke but they were still clearly legible. It read:

*For my own part, I find it hard to see how you could be much more miserable than you already are. What kind of human, what species of creature, must Europeans be, that they have to be forced to do good, and only refrain from evil because of fear of punishment?*

Lu chuckled and looked up at Ant who had joined her in front of the artwork.

"This is great," she said, "is it from one of The Early Debates?"

"Do you mean the debates that started the spark for the Big Shift?"

"Yees," Lu said, frowning in confusion. "Of course that's what I mean, isn't that always what people mean when they say The Early Debates?"

Ant laughed, "Yes, that's usually what people mean, sorry. Then the answer is no. It's not from The Early Debates." Lu just looked at him, waiting for Ant to elaborate, trying to give him a meaningful look but his smile was so damn irresistible that she couldn't help

smiling back at him instead. Ant chuckled again and continued. "It's from an early debate for sure, and I guess it did lead up to a big shift, but not the Big Shift you're talking about. It's from a book published in 1703." Lu's eyebrows shot up at this. "The actual book has some super offensive name, I can't even remember it now, but I just love these quotes, they show us this interesting little glimpse into human history that...I don't know. It's fascinating." He looked over at her. "What?"

"Nothing," she said.

"Tell me. What is it?"

"It's just nice."

"What's nice?" He cocked an eyebrow at her.

"Hearing you talk about this. It's nice, okay?" Skies, could she stop blushing. She might have blushed more today than all the other times in her life combined. "Keep talking." She said, trying to ignore her burning face. "The 1700's you say. So this is from the first meetings between Europeans and the indigenous people of Turtle Island then?" His eyes grew wide for a split second. "What? You think I can't read?" She teased. "You think because I didn't go off to some fancy school and learn everything about turning my entire flat into a beautiful jungle I didn't learn about history in school? You think because I haven't seen the world and only moved to a neighboring co-op to my parents I can't understand context clues?" Ant laughed at her antics but waited patiently for his turn to speak.

"First of all, of course I know you can read. We're literally standing here reading quotes on my wall." Lu scoffed. "Second of all, I didn't mean to insult your intelligence in any way. I was impressed that you got it so quickly because no one else has."

"Oh."

"Yeah. And third, my landscape architecture degree did not teach me to take care of the indoor plants in my flat."

"No?"

"Nope. I've always loved plants, my room's been full of them since I was a kid. It's part of why I studied landscape architecture in the first place I guess, but that stuff isn't what I learned at uni."

"So, what did you learn?" Lu had to lean against the wall again.

Ant chuckled, "I don't know, I learned about designing public spaces, climate change adaptation methods, larger green infrastructure projects, things like that. I don't want to bore you—"

"Come on, you know that won't bore me, we're in the outdoors commission together, you know I think all this stuff is super interesting."

"Okay, cool, I won't hold back on that stuff then," Ant said with a gorgeous smile. "But first, I'm being a horrible host. Sit. Please." He gestured towards the small couch. "Would you like something to drink?" Lu smiled to herself as she watched Ant walk over to the refrigerator.

"Sure. That would be great."

"I've got beer, blackcurrant cordial—"

"Wait, from the co-op's blackcurrants?"

"Yeah." Ant looked back at her, questioningly.

"How do you still have that? It's almost time to harvest this year's crop! I finished my share months ago."

Ant chuckled "So cordial it is then?"

"Yes. I would have loved a beer any other time but if I can choose blackcurrant cordial..." Ant chuckled again

and got started mixing the cordial and opened a bottle of beer for himself.

"We totally could have used you last summer when we made the Chestnut Clearing," Lu said, tucking her feet under her and leaning back on the couch to study the plants hanging from the ceiling above her. "From years of studying landscape architecture, I'm guessing you would have known to properly involve the kids in the whole design process."

Ant laughed. "But the kids love the clearing! I see them running around on that bench until they fall in a wobbly pile on the ground all the time. It doesn't matter if that wasn't your original plan, you've clearly designed something appealing, right?" He handed Lu the glass of cordial and sat down next to her, taking a sip of his beer.

"You know what. You are absolutely right. It's fine that they love a different aspect than I had imagined, the point is that they love it. So what's my problem?"

Ant laughed again. "See. There you go!" He said. "But to answer your original question. Yes. I totally would have involved the kids in the design process from the very start." Lu guffawed and punched Ant's shoulder lightly.

"What? I would have." He was smiling now, his huge, bright, contagious smile.

"Mhm," She said, trying to hold her own smile back.

"Okay. Good. We cool? You're not gonna start punching me again?" He teased. "You're not gonna react with violence when I gift you with the knowledge of my professional expertise?"

Lu laughed. "You are pushing it. But you're also right again, violence is not the answer. I will not punch you again, I swear."

"Thank you," he said, clinking his beer bottle to her glass of cordial.

"I will, however, require some sort of recompense for the emotional rollercoaster that joke brought me on." Ant's eyebrows shot up, "What sort of recompense did you have in mind?" He asked, leaning back on the couch and studying her intently.

"Well, if I'm not mistaken, I was promised chocolate would be part of this visit." Should she have asked for something else? She had been thinking about the chocolate when she started this joke—flirt? Whatever she was doing—but now she could think of several things she would rather have asked for. But maybe she didn't want them as compensation anyways, even if it was just part of their flirty banter.

Ant chuckled and jumped back off the couch. "You're absolutely not mistaken. Of course I will supply you with chocolate as recompense for my emotionally scaring joke." He walked back to the kitchen and started rooting around in the cupboards for the luxurious treats.

"So, how do you like living in a one-person flat?" Lu asked after finishing her cordial.

"It feels a little cramped at times but it definitely has its perks," Ant said with a sly grin. "When I moved out to go to 'my fancy school' a family in the co-op got their first dev-parent and needed a bigger flat so my folks and Sparrow downsized. When I came home Dad offered for me to move back with them but it felt excessive for them all to move again and I kind of liked the privacy of living alone at uni anyway." He laid out a spread of chocolate bars on the coffee table. Lu stared at him, wide-eyed and he laughed and gestured for her to go for it.

"You didn't want to live in a flatshare?" she asked, taking a bite of salty caramel chocolate and almost melting back into the couch.

"I don't think I would have minded but there weren't any openings at the time and, yeah, I quite like having my own space. I use the co-op's workspaces when I work from home and I've got all I need kitchen-wise, I never cook at home anyway. I guess it can get a little lonely sometimes but it feels worth it to me for now at least."

"So you're not planning to move back in with your parents now that Sparrow moved out then?"

"No. Definitely not. They've put their names up in the registry so when someone needs a bigger place they'll switch to a two-person apartment. I think they're quite happy to be on their own now too." Lu's smile faltered for a second, remembering what she had learned about Ant's family earlier today but Ant kept the conversation going before she could dwell too much on it. "How about you? Are you happy living in a flatshare? There are five of you, right?"

"Yep. It's a four-bedroom apartment but Neem and Ginger are bonded so they share the biggest bedroom. Honestly, most days I love it, I get to live with my best friends. And, you know, Neem and Ginger are cool too." Ant choked on his beer which made both of them laugh out loud. "No, not like that! I just meant that I didn't know them when we first moved in. They're great but, you know, Fern and Clover and I have been best friends for a long time."

"I get it, I get it," Ant said and the warmth in his eyes made Lu's heart skip a beat. She looked away and continued quickly.

"I like that we have rooms where we can all hang out together, though I see your point of privacy at the moment." Lu had been thinking about the awkward exit from her flat earlier but from the look on Ant's face, that's not what he was thinking about. She could feel the heat rising in her cheeks again and swiftly plowed on. "And I love having a proper kitchen to cook in. Since I'm pretty much the only one who ever uses it, I can experiment with new recipes and stuff quite a lot in there." Most new flats had tiny kitchens, regardless of how many people lived there, since they all ate in the co-op dining hall anyway. Their co-op was a mix of old and new apartments though and Lu's flatshare was in one of the old flats with a lovely old-world sized kitchen.

"Couldn't you use the co-op kitchen for that if you wanted to?"

"Sure, I could. But have you ever been in the co-op kitchen in the evenings?" Ant shook his head. "It's super creepy! All these industrial cooking machines and stuff, suddenly beeping for no reason, or just making these weird death groans."

Ant laughed. "I didn't think you were scared of anything, Louie. I don't know if this revelation that you're able to fear something, makes me feel better or worse." Lu completely ignored Ant's teasing.

"And it's huge and usually super cold in there. It's fine when you're cooking for real — when you're using the machines and there's a group of people working — but it's not a creative environment to test out small batches late at night."

"Fair enough," Ant said, holding up his hands in defeat. "I get it. Sounds like it's a good thing that your flat has a proper kitchen then."

"It is," Lu said. "Thank you for acknowledging my point."

"You're welcome," Ant said. His voice was soft now and, for a moment, Lu couldn't tear her eyes away from his lips. When she finally looked up to try to meet his eyes she caught him doing the same thing, his eyes shooting from her lips to meet her gaze. They were both breathing hard as they moved closer to each other. Ant's breath tickled her cheek as she leaned closer. The loud chime of the apartment's doorbell rang. They both jumped, Lu's heart beating like a hummingbird in her chest, her breathing even more accelerated.

"You gotta be fucking..." Ant muttered under his breath. Lu started giggling hysterically, she couldn't help it, it seemed like all this balled-up tension and the burst of energy from the sudden jump-scare needed to come out somehow.

"You think this is funny, do you?" Ant said, trying to sound stern but smiling back at her as he got up to answer the door. Lu got up from the couch too in an effort to collect herself and actually managed to stop most of her giggles before Ant even opened the door.

"Quail?" She could hear Ant say from the entryway. "What are you doing here?"

"Hey bro, just thought I'd drop by and see if you wanted to hang out, watch a movie or something—"

"Sorry, I can't today, maybe tomorrow? Or maybe this weekend or something?"

"Oh, okay. Are you okay bro, is this a bad time or something?"

"It is a pretty fucking bad time, actually." Ant sighed. "But never mind, I'll talk to you tomorrow, yeah?"

"Okay, cool. Sorry if..."

Ant sighed again, sounding more contrite now. "No, I'm sorry Quail. It's not your fault. I'm sorry for being so rude. I'll call you tomorrow, I promise." Ant closed the door and leaned back against it for a second. "Skies!" He said, locking eyes with Lu. "I feel like such an asshole! Was I being the worst asshole?"

Lu giggled. "You were being a bit of an asshole, yes." She said, smiling hugely. Ant's smile was smaller, but slowly growing as he came to stand beside her again.

"I'm sorry you had to see me act like an asshole," he said.

"Are you saying you would prefer to keep me in the dark about you acting like an asshole?"

Ant chuckled "You're such a smart-ass," he said. "I'm sorry I acted like an asshole, period."

"Well, I forgive you. It's poor Quail you have to worry about." Lu said with a wink. She had found another one of Ant's art pieces and was again reading the words of Kandiaronk. The quote read:

*I have spent six years reflecting on the state of European society and I still can't think of a single way they act that's not inhuman and I genuinely think this can only be the case, as long as you stick to your distinctions of 'mine' and 'thine.'*

"So, who was this Kandiaronk?" She asked. "Their beliefs seem so modern. I mean, reading these you would think it was at least from one of the indigenous water protectors in the early 2020s or something."

"I know right? That's what's so interesting I think." Ant said. "Except for the fact that they would have said free-market economy or something instead of European society, this is so similar."

"Oh, yeah, that's true."

"And Kandiaronk and his peers lived over three hundred years before the water protectors. He was a Wendat tribesman and was just one of all the indigenous people who criticized the European worldview at the time. He was really smart and funny though, so some of his debates were written down by the colonizers. That's why his statements have survived through the years." Ant shrugged.

"That's a good enough reason to have his quotes on the wall."

"I don't know, I just really like these quotes because they remind me that there have been people throughout history that wanted to change the status quo. It's so easy to think of history as if everyone at the time agreed with the way things were. But it's only now that most people have the freedom to take part in the decision-making process for real. It wasn't that people never wanted change before, but in the extremely hierarchal structures that dominated for a long time, their voices were often forgotten or never even heard at all. These quotes highlight that there have been historical people who lived in differently structured societies before as well. And I love that they looked at the Europeans in the same way that we

often look at the people from before the Big Shift. I even read this great part about another French missionary who is super impressed by the Wendat people's eloquence and reasoned argument, explaining that they honed these skills by having public discussions almost daily. The Wendat, on the other hand, aren't at all impressed by the French, complaining that they're trying to grab the stage and are refusing to share with each other, just like they never shared their material possessions and resources. Okay, I'm rambling. The point is that I like the fact that we can't always look at time as a straight line because there were people in the 1700s that had much more modern beliefs than what was still the dominant worldview three hundred years later."

Ant looked over at her when he finished speaking. Lu couldn't stop smiling.

"What?" He said, shaking his head and clearing his throat again.

"Does this mean we've gotten to the deep discussion about the concept of voting, then?" She said, smirking. Ant's smile grew slowly to match hers. They were standing close enough that Lu only had to sway a centimeter or so for their shoulders to brush.

"I put my phone on mute after my last phone call," Ant said, sounding almost strained. "Is your phone muted, Louie?"

"Yes. Mine's pretty much always on mute," she said. "Why?"

"Because we've been 'saved by the bell' at somewhat inopportune moments twice now and I'm not sure I could survive that happening again today." Lu laughed but her laughter was quickly cut short when Ant turned around



and moved over so that he was suddenly taking up all the space between her and the wall. He was leaning against it right in front of her and if she pushed her body forward right now she would press him up against the wall. Before her brain could catch up and follow through on her body's command though, Ant cupped her face with his hands and pulled her closer. Lu stopped breathing altogether.

"Do you want to kiss me, Louie?" Ant whispered. Lu could only nod. "Because I really, really want to kiss you." He was pulling her closer as he spoke and their lips touched just as he finished speaking. After that, Lu's mind stopped processing anything other than 'yes' and 'more' and 'please' and 'don't ever stop'.





# Local Self-Sufficiency

## Story 2: Local Self-Sufficiency

*Sweden has become a self-sufficient nation focused on local, sustainable solutions. Urbanization and global trade have declined, making way for local markets and community-based decision-making. Electricity is now locally generated, and governance is decentralized. Society embraces DIY solutions, open knowledge, and active participation in local services like food production. Many live in villages or small cities interspersed with agricultural production. Living spaces are larger than in the other scenarios, with housing and communal units often gathered in small clusters. Technology is simple, recycled, and universally understandable, supporting high degrees of self-organization and independence.*

*The story follows Tuva and some of the people in her village. Tuva's day starts with an exciting announcement. The cows are back! She spends the morning teaching some of the village kids to milk cows. During lunch, she discusses the upcoming Creation Celebration with two people close to her heart. In the evening she seeks advice and guidance from a parental figure.*

Appendix 2  
2023

All the characters in this short story are fictitious and any resemblance to actual persons living or dead is purely coincidental

Cover design: Nina Iglesias Söderström  
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## CHAPTER ONE

"Auntie! Auntie Tuva, are you in here?" Idun sounded very excited as she came barging into the kitchen where Tuva was drinking her morning cup of herbal tea. Idun stopped abruptly and her tone of voice shifted from excitement to confusion in an instant.

"Why are you having breakfast here?" she asked. "Everybody's in the giftery, you know?" Tuva smiled at the little girl in front of her. There was something so wonderful about how children interacted with the world and it warmed her heart every time she witnessed it.

"I'm glad to hear that you have enough fun in the giftery at breakfast that you haven't noticed until now that I often have my breakfast here alone in the mornings," Tuva answered calmly. "I love eating in the giftery but when I first wake up in the mornings I can sometimes find it a bit overwhelming to meet everybody at once".

"Oh." Idun now wore a contemplative frown on her little face. "I guess I haven't noticed. I love the giftery in the mornings, all the people and movement and stuff is what wakes me up, I think. I guess we're a bit different. For me, it would be very un-overwhelming to eat breakfast all on my own."

"Underwhelming?" Tuva asked, smiling. "Or maybe you would even find it boring or lonely to eat alone?"

"I think I would," Idun said. "But it's okay that we're different, you can eat alone in the mornings if you like that more."

"Thank you, my love," Tuva said and smiled to herself over the wisdom of children. "Now, did you want to tell

me something or were you just worried about my missing breakfast?"

"Oh, yes! I almost forgot! The cows are here!" Idun said with a little excited dance and shimmy over the floor. "Gaia told me she saw them on the way to the giftery this morning, they're over by the north meadow, can we go and see them? Please, Auntie! Oh, oh, can you teach me how to milk? You told me last time they came that you would soon! Pleeeeease Auntie!" Tuva chuckled over Idun's excited pleading.

"What was your plan to do today? Helping at the hatchery?" She asked.

"Nope, a group of us niners were gonna go with Björn to check the seaweed commons and learn what they're supposed to look like at this stage of growth and stuff. But I can do that when the cows have left again, right?"

"I'm sure Björn won't mind. I'll talk to him if you check with the others if they want to come with us or if they still want to go seaweeding." Idun nodded enthusiastically before she was off again, running back out of the kitchen and calling "See you soon!" over her shoulder as she disappeared around the corner.

In the end, Björn decided to join the cow expedition too since the seaweed trip wasn't urgent. This also meant that he could look after some of the younger kids who were clamoring to see the cows too. As they all started walking through the forest garden north of the village — Idun and Gaia promptly in the lead — Björn came over to walk beside Tuva. He had baby Willow sleeping in a wrap carrier on his chest and Otani, who was four, hanging on his back.



"Hi there little spider-monkey," Tuva said to Otani. She found it curious that she had such a visceral reaction to seeing Björn with these children. The whole village helped raise all their children, so why did her body have opinions about seeing him take care of them? She would have to ponder over this later. Otani laughed loudly at being called a spider-monkey and then quickly lowered his voice when he saw the baby stir across Björn's shoulder.

"Sorry," they both whispered and all three of them shot worried looks back and forth to one another for a few seconds. Björn shushed and rocked Willow gently and as she settled against his chest again, they blew out a collective breath in relief. Tuva waved to Carl and Jenny who were on their knees a few meters away, harvesting spinach and radishes in a big basket. When she looked back at Björn, his eyes were on the basket of vegetables, a small frown creasing his brow.

"Are you sure you hate everything that comes from the sea?" Björn asked in a hushed voice.

"I don't hate everything that comes from the sea." Tuva pushed his shoulder, then immediately mouthed sorry, as the baby almost stirred again. Björn chuckled at her and reiterated.

"Okay, sorry, I meant are you sure you're not a fan of seafood?"

"I'm a fan of it as a concept. I'm really glad we're growing and harvesting seafood, I'm glad for all the positive aspects of growing it here and I'm glad that so many people here like it. But I also like the fact that having all this seafood means that the land-food we grow is more than enough, which means I can eat only land-food without somebody else losing out...because I really don't

like the taste of seafood." The last sentence was expelled from her in one quick breath and they both had to suppress their laughter so as not to wake the baby.

"Well, cantu-cantu, you know." Björn said. "I just wish I could have impressed you with some fresh oysters sometimes." He winked at her and then turned to look over his shoulder. "Hey, spider-monkey, did you know that oysters used to be considered great delicacies in the old world?"

"I know, you've told me before," Otani said quickly and Tuva couldn't suppress a snort. "But I was wondering something else," Otani continued. "Why do you always say cantu-cantu all the time? Mom says it means that people shouldn't ever be forced to do things they don't want, but then she also sometimes forces me to do things I don't want. I don't get it." Tuva and Björn smiled at each other but Otani's tone was so serious that they made sure not to show their amusement to him.

"Well, the words are the easiest to explain," Tuva started solemnly. "It comes from a famous saying by the people fighting for the Big Shift from the old world. They would say 'As an autonomous person and part of the community, you cannot do what you cannot do, and you must do what you have to do'. This became a mantra for the Shifters, a philosophy to live by and an expression in their everyday lives. But it's a bit long to recite every time you want to make that point so as time passed, it was shortened. People started using just 'Can't do what you cannot do' and the rest of the quote was just implied. Nowadays, we usually just say 'cantu-cantu' to mean the same thing."

“And what it means,” Björn continued, “is exactly what your mom said. That people shouldn’t be forced to do things they really don’t want to, as long as that choice doesn’t hurt anybody. So, for example, if Tuva doesn’t like eating seafood but many others do — and we have enough land-food that it doesn’t hurt anybody if Tuva chooses to only eat that — we shouldn’t judge her for her choice or try to force her to eat seafood just because we do.” Otani nodded his little head, expression still serious.

“But if your mom forces you to speak quietly so you don’t wake the baby, for example, what she’s actually saying is that it’s your responsibility too, that the baby isn’t disturbed from sleeping all the time,” Tuva said. “We can choose our own ways of doing things but we all have a responsibility to one another to be kind, generous, and caring towards each others’ needs too.”

Björn nodded. “That’s why the second part of the quote is so important. Adding, ‘we must do what we have to do’ means that, yes, we can take from the gifts we are offered and none of us are forced to follow someone else’s orders, but we must also be considerate of others and contribute to each other’s well-being in all the different ways we can.” Otani straightened his little shoulders as if he was taking on the big new responsibility of taking care of his younger sister. Björn smiled back at him and added.

“But it’s also important to remember to be kind and caring towards yourself and to accept that you will make mistakes sometimes. That everyone around you is also sharing this responsibility with you and you can always ask for help when you need it. And that if mistakes are made apologizing can be healing and—”

“COWS!” Idun shouted, dashing back towards Tuva and frantically pointing behind her. Tuva tried to shush Idun as she scrambled to meet up with her. This was both on behalf of the sleeping baby and the cows, who were probably not very used to nine-year-old humans screaming about them. They had reached the top of Oak Hill and the northern meadow was just on the other side of it. Tuva really should have been at the front of the group when they arrived, but she had been too caught up in her conversation with Björn and Otani. And, honestly, she had underestimated Idun’s excitement about the cows.

## CHAPTER TWO

Tuva gathered all the kids at the top of the hill where the large oak tree kept them comfortably shaded. There were bushes of redcurrant, blackcurrant, and gooseberries climbing up the slope to the top of the hill but at the top, there was only grass and clover making it a soft and comfortable knowledge-sharing space. They all sat down in the grass and Tuva explained about the cows and the milking process. Luckily it seemed like several of the cows had calves with them so they could probably share some milk for the kids to bring home.

They discussed the practices of the Honorable Harvest and Tuva could see Otani at the edge of the group, listening intently. The children in the village learned about this in songs, in stories, and in the actions taken all around them from the time they were born. At only four years old though, Otani was still new to the experience of discussing the concept outright. This was not the case for the nine-year-olds. They were old enough to be bored with it by now and Tuva even saw one or two rolling their eyes. Idun still seemed buzzed by the whole experience, however, and ticked each principle off on her fingers as they all recited them together.

“Ask permission of the ones whose lives you seek and abide by the answer; Never take the first, never take the last; Harvest in a way that minimizes harm; Take only what you need and leave some for others; Use everything that you take; Share it, as the Earth has shared with you; Be grateful; Reciprocate the gift; Sustain the ones who sustain you, and the Earth will last forever.”

Tuva loved to see how excited Idun and Otani were over the principles of the Honorable Harvest but in some ways, she was even more pleased to witness the children who seemed bored. The fact that these principles were so obvious to some of the nine-year-olds in her village filled Tuva with gratitude. She knew that if these children had been born at the turn of the century, most of them would have been completely oblivious to such things. They would have understood the world in a very different way and might have been appalled by the materialistically inferior lifestyles their descendants led. But here they were, finding it painfully obvious that humans had the responsibility and the right to live in a symbiotic relationship with the rest of nature. Here they were, impatiently waiting for their first personal experience of building such relations with a cow.

Not wanting the excitement of the children to startle the herd, Tuva did the first round of milking on her own. She walked down the little slope calmly and stopped to introduce herself while still at a comfortable distance for the cows. She asked permission to approach them and for the chance to receive two gifts from them. She asked for some of the milk they shared with their children and the learning experience for some of hers. When the cows just looked at her warmly in greeting, showing no signs of aggression or fear, she walked closer. Tuva reached out her hand to the mother closest to her and the cow moved her head into Tuva's hand to greet her. She introduced herself again but then moved on to the next one, keeping with the principle to ‘never take the first, never take the last’. She calmly strode over to the second mother she could see and glanced behind her to see the children and Björn,

sitting in a row on the little hill, following her every move. Tuva smiled to herself at the wonder on the children's faces and turned back to the beautiful being in front of her. Her fur was light brown and glistened in the sunlight and as Tuva introduced herself again she stared back at her with huge intelligent and empathetic eyes. When the milking was finished Tuva expressed her gratitude for the gift she had received and presented the cow a gift in return. It was a cow treat, containing a mix of salt and other minerals that weren't always easy to come by in the wild. All the ingredients helped the cows stay as healthy as possible, except the seaweed, which was added as a gift to the planet as a whole. The village grew several strains of seaweed that worked as methane inhibitors and feeding it to the cows drastically lowered the amount of methane emitted by their digestive process.

With a final grateful pet on the cow's beautiful big head, Tuva turned and walked back to the bottom of the hill. She put her bucket down and held one finger in the air indicating that one of the children should come down to join her. They debated for a few seconds amongst themselves but pretty soon Idun came skipping down with a bucket in hand and a huge grin on her face.

"I argued that it was my idea for us to come here in the first place, so I should get to go first." She explained proudly and Tuva smiled back at her, confirming that it was a good argument to make. They stopped for a minute to discuss how Idun would conduct her task. Idun proclaimed that the most important aspect wasn't to succeed in harvesting the milk but to avoid causing the cows discomfort or scaring them away. Tuva beamed with pride as she watched Idun practice her breathing for a few

moments and visibly calm herself down. When she felt confident to approach the animals with calm and positive energy, Tuva watched her stroll over and introduce herself.

After Idun had gotten her turn Tuva took the others, one after another, and let the nine-year-olds meet the cows. They checked for signs of the cows giving permission, then pulled on the udders and shot the milk into the buckets beneath. Some of the kids flinched at the loud sound of the first spurt of milk into the metal bucket, but the cows stayed calm throughout. Tuva had always believed that cows were among the best and most patient teachers and, based on the huge smiles on the children around her, that belief had not wavered in the slightest. When they had finished milking, the kids all showed their gratitude and reciprocated with their salty treats. Gaia shrieked and then giggled a little hysterically when the cow licked her hand as she held out the treat.

"The tongue is so big and wet. And it's blue! I was just a bit shocked," she said before turning back to the cow. "I'm sorry, I didn't mean to scream at you". She tried petting the cow in reassurance but she had clearly not been as startled as Gaia. She didn't seem to need any reassurance at all and only kept trying to reach Gaia's hand to lick the last of the salt from her palm.

More people from the village came to join the children and Björn on the hill as they watched the proceedings. Lark, who had mothered Willow and Otani, came over and sat in the grass with them as she fed the baby. After the last child gave the cow she had been milking a big, grateful hug it was time for them all to get going. Though cows were fairly sociable towards humans, they still wanted to be careful about leaving the herd to graze the



meadow in peace as much as possible. Tuva would come back alone this evening, just to sit with them and share stories and appreciation, but this was enough exposure to excitable children for now.

Some of the spectators helped carry milk back, but most of the kids were proudly carrying their buckets back to the giftery themselves. The giftery was located in the center of the little clusters of houses that made up their village. As the cow expedition party came walking along the paved road they were joined by a group of older children who had spent their morning working just outside the village borders. They were learning techniques to keep up the maintenance of the roads that led to their closest neighboring villages. It was part of the old-world infrastructure that they were still using to some degree. Since it wasn't expected to handle that kind of heavy and fast traffic anymore though, it was much easier to manage the upkeep. Before Tuva knew it she was enveloped in a dusty, sweaty hug. She reeled back and coughed.

"Eos!" She cried out while trying to wipe off the dust that now covered her chest.

"Sorry Auntie, I was just really happy to see you and I sort of forgot that I was all dusty." Tuva smiled back at him, accepting his apology and ruffling his hair. They started laughing together when Tuva had to wipe her now dusty hand on her pant leg.

"I have to go and wash off before lunch but I wanted to talk to you about next week, I have an idea for the Skywoman thing at Creation Celebration," he said eagerly. "Could you save me a seat and we can talk about it at lunch? I'll be like five minutes, I'm starving after all this manual work!"

"Of course. Should I try to gather as many people from the Skywoman group as possible?"

"No, don't put any effort into collecting them now," he said grinning. "It's just an idea I had and I can talk to you and whoever you're sitting with today and then we can bring it up at the group meeting tomorrow if we want." Tuva nodded and Eos gave her a quick kiss on the cheek before he ran off to wash up. Tuva wiped her cheek, wondering if it too was dusty as she watched him quickly make a 90-degree turn and disappear between the buildings.

She was so glad to see how much Eos had stepped out of his shell lately. She had a special soft spot for that boy, ever since he and his parents had moved to the village when Eos was eight years old. They had lived in a more remote area a few days north of the village until a really bad storm had hit the coast. Their house and food supplies had been severely damaged by the storm, but these are things that could have easily been restored with the help of the neighboring communities. What couldn't ever be healed was the fact that Eos's twin brother and grandfather had been dragged out to sea and drowned.

The village had been hit by the storm as well but the effects had been minor in comparison. The village had some communal computers that were still in working condition and Joanna, one of the village Elders, was adamant about always checking the weather in the mornings before anyone got out on the water. When they heard that there was a huge, unexpected storm on the way, the villagers had done everything they could to mitigate the effects. They had all worked together without

any discussion, some trying to secure everything they could before the storm hit, some preparing the giftery for everyone to hunker down in safety and some getting the warning out, sending direct messages, and working through the calling lists they had collected to try to warn everyone in the vicinity about the coming storm. Unfortunately, they had been unable to reach Eos's family that day and it still hurt Tuva to think about them caught out in the storm all alone as the people in the village had been riding it out in safety inside the giftery.

The village itself had also fared quite well in the storm thanks to the intentional city planning and organizing that had been done way back when the village was first assembled. The people had actively implemented many specific adaptation methods from the very beginning. This was also one of the main variables considered as the village grew. Their planning council always had an adaptation representative who was tasked with analyzing the effects of their adaptation methods whenever a new project or building was suggested. The ocean farm surrounding the village worked as a great wave brake system. They had a living shoreline and a coastal forest along most of the coast, which protected them from some of the wind and water damage. In contrast to where Eos had grown up, all the buildings in the village that were closest to the water were non-residential. These were buildings with functions related to the ocean farm and boat-building activities and were built to survive being flooded. The way the clusters of buildings were scattered and how the food forest was organized also helped break the wind from several directions.

Of course, there had still been some damage from the storm. Many of the oyster and clam cages had been damaged or lost completely and they had all needed to put in a lot of work to restore things in general right after the storm. They also used up most of their stores of preserves that year to share with surrounding neighbors who had been more affected by the storm and to make up for the food they lost from the ocean farm. Nobody had lost their life though, and with the entire village working together to rebuild there was something so beautiful about that time to Tuva. She still remembered the whole ordeal with bittersweet nostalgia and she was very glad that Eos and his family had been safe living in the village ever since.

She felt sorry for the families that lived in old-world style farmhouses with miles to the nearest neighbor. For one, they were missing out on the security and resilience that a village provided. But that wasn't the only aspect. They also had a much harder time organically cultivating a diversity of relationships with a large group of people. To be part of a community. Tuva had volunteered to be a germination steward for the little family. This meant that she was one of the people whose extra focus that year would be on welcoming them and helping them get settled in the village. Because of the tragic circumstances, they had decided the family needed more germination stewards than usual so Tuva had chosen to spend most of her time and energy supporting Eos. This adorable little boy had been so lost without his brother. The scene she could never remember without feeling her heart clench in pain was from just a few days after they had arrived. This

eight-year-old boy, sitting there on his new bed, holding up one of his old socks.

"This is how I feel," he said. Voice monotone and distant. "I'm just one sock. I used to be part of a pair but without Sage, I don't have a function anymore. What's the use of just one sock, Tuva? Wearing it just makes the other foot feel even colder." He heaved a big sigh and when he continued his voice sounded strained and choppy. "All I am is a constant reminder that the other sock is gone forever." Tuva hugged him tight and let him cry on her shoulder. They sat there, in his new room with only one bed, his tiny body racking with sobs and Tuva's heart broke to witness his grief. During that first year, the two of them grew very close. She supported him through the in-knowing work recommended by the grief therapist, but more than anything, she truly liked spending time with him and was glad he did too. Even now that Eos was seventeen and spending most of his time with the other teenagers in the village, he would still make sure to spend some quality time with Tuva several times a week.

### CHAPTER THREE

After handing the milk over to the gifters (the people responsible for the giftery this week) the cow expedition party rushed to pick up lunch at the big buffet-style tables. Björn bumped Tuva's shoulder and gestured with his head towards the door for them to go sit outside.

"Unc., I think I'll go sit with Coral and them," Otani said and gestured towards a group of kids occupying a round table in the corner.

"Unc. huh?" Björn said with a huge smile on his face.

"Mr. Uncle Björn, sir..." Otani said, sounding very sarcastic and rolling his eyes dramatically but unable to stop the blush blooming on his cheeks. Björn evidently didn't want to embarrass the kid and quickly kissed him on the top of the head and told him to go ahead and sit with his friends. Lark had gotten her food to go and taken baby Willow home for a nap so Björn and Tuva walked outside alone. Right outside the giftery was the village square. Three sides of the square were edged by residential houses and the giftery took up most of the western edge. The row of houses to the south was a little bit shorter than the others, leaving a gap which meant that there was usually one part of the square that was both sunny and protected from wind until late afternoons. There were several movable benches and tables on the square for anyone wanting to have their lunch out there. Björn and Tuva only shot it a glance and waved at some friends, though.

Directly south of the giftery, southwest of the square, was a large area of vegetable and herb gardens. They

were only dedicated to fast growing, annual vegetables. The plant beds in the food forest gardens were more diverse, and quite experimental at times. Many of the plants in these gardens were reliant on more active relationships with humans and required more nurturing to thrive. Keeping them in such a central location made it easier for people to stop and check on them daily and it helped being close to the giftery when bringing in the plentiful harvests. This was also the best place to eat lunch from early spring to late autumn. There were several tables and chairs scattered among the gardens and Björn and Tuva found their favorite place right away. This perfect little nook where you had the perfect amount of half sun, half shade from a beautiful walnut tree. Sitting there, you were surrounded by lovely gardens, teeming with life. Plus, there was loads of cilantro growing right there and Tuva had never met a meal that wasn't improved by a garnish of cilantro.

They ate in silence for a few minutes, well silence might not be the right word, Björn slurped his oysters exaggeratedly and Tuva quirked an eyebrow at him.

"So, did you hear what Malva's planning to bring up at the town meeting?" Björn asked after apologizing for being gross and bumping her shoulder with his.

"No, do tell!" Tuva said, "I guess the grapevine got lost on the way over to me. Or is this a seaweed vine and only you cool kids on the water get to hear about it?" Björn laughed in response.

"I don't think it's a secret or any kind of gossip, I just happened to talk to her about it and she mentioned that she was planning to bring it up," he said. "I honestly don't know what I think about it myself, I can't decide which is

the best way forward so it feels like an especially good idea for everyone to discuss it together."

"You're saying that when you have a solid opinion about something you don't want the rest of us to have a say then, I gather." Tuva could feel the teasing smile spreading across her lips as she spoke. "Cool, nice dictator vibes there, mate."

"You know that's not what I mean," Björn said and poked her in the side. Tuva couldn't stop a little shriek, she was incredibly ticklish and Björn was being horribly unfair by using this knowledge to his advantage.

"Let me guess, you want representative democracy!" She tried to slap his hands away but Björn just kept tickling her. "You want to be our representative and then never actually have to listen to the people you are representing, right?"— she squealed and tried harder to wriggle away — "but then all the representatives to choose from are kinda crappie so we still have to choose you because you're the least amount of crappie of the bunch, right?" She finally got away from his tickles and collapsed in the grass. Björn smiled down at her, still sitting in his chair.

"Are you done pretending I'm a power-hungry old-world unbalancer now?" He asked after a moment and then helped her back onto the chair. He dusted her off and picked away a blade of grass that had gotten stuck in her hair. Cradling her face with his hands he kissed her softly.

"I'm sorry for tickling you like that, it wasn't very nice of me."

"It really wasn't," Tuva said, a little breathlessly.

"You're just so flipping cute when you're giggling like that, I couldn't help myself." Björn kissed her again,

deeper this time, and Tuva felt like her whole body was melting into him.

"You couldn't help yourself is a horrible excuse, Björn," she murmured when he finally pulled back again.

"I know," he asserted, just as softly. "That's why I apologized for my horrible behavior." Tuva smiled, brushed her lips to his one last time, and pulled back.

"I forgive you, Björn. As long as you promise not to become a power-hungry old-world unbalancer." Björn laughed and gave her a heartfelt promise. Tuva loved little moments like this with Björn. He had always been one of her heart-warmers, bringing her joy and light-hearted fun since they were children. Only about a year ago their relationship had flowed into encompassing a physical connection as well. Since then they had been tide-friends, coming together in waves of intimacy on the solid foundation of a beautiful friendship.

"Okay, I'm sorry. You were trying to tell me about Malva's idea," Tuva said. "What does she want to bring up at the town meeting?" Björn was still smiling warmly at her, a twinkle in his light brown eyes. He shook his head to clear it and blinked a couple of times before jumping back to the topic at hand. It turned out that Malva didn't want the cows to roam free anymore, or rather, she wanted to make the cows eat seaweed every day, which meant containing them to control what they ate. Malva had argued that it was the people's responsibility to minimize the methane emissions that the cows produced. By only giving them seaweed sporadically, the people weren't making sure to inhibit the methane emissions as much as they could. On the one hand, this was a good point, methane emissions were a problem. Though the amount

of cows had reduced drastically compared to the old world when they were actively bred in factories, cows still emitted a lot of methane. On the other hand, there was an ethical aspect to caging the cows that didn't feel right to Tuva. That was the mentality of the old world, of finding justifications for keeping roaming animals in cages, of thinking that humans are higher in some sort of species hierarchy. Nowadays people understood that humans were one of the youngest siblings, learning from the rest of nature and working to live in good relations with their other relatives. Was there a risk that they would lose themselves again if the people took this step and lost their balance?

In the village, chickens happily roamed and often slept in the shelters the people had built for them. The difference was that it was all voluntary, though. The villagers received the gifts of some of the chicken's eggs and gave gifts of fodder in return. Cats and dogs moved in and out of different villagers' houses as they pleased. They generally liked living close to people because they were given food and companionship and gave their company and love. The cats were also especially great at keeping vermin away from the village's food stores and dogs protected the chickens from foxes and wolves. The only cages the villagers used were for the oysters, clams, and scallops. This was because they were all stationary animals and the cages were only helping them stay in place and mimicking their natural habitats. Locking in the cows felt like a very different thing to Tuva, and Björn agreed wholeheartedly when she said so.

"This is what I mean, it's tricky, right?" He said with a shrug just as Eos came scuttling up to them and half collapsed on the chair across from them.

"Hi, what happened to you?" Tuva asked cheerily. "Those were some extended five minutes."

"Yeah, I know," Eos said with a sigh. "I was wrangled into eating with Saffron and the others." Björn and Tuva laughed at him heartily.

"What a tremendous sacrifice you have had to endure my dear boy," Björn teased warmly.

"Yes, that sounds like actual torture, I think. Having to sit and eat with great friends and a great Saffron for a whole meal." Tuva agreed. "How did you stand it?"

"You are both seagulls," Eos said dryly.

"Yes we are," Björn said with faux concern. "We should have realized you might have needed rescuing and saved you before you had to live through all that!" Tuva burst out laughing and finally, Eos couldn't contain his own chuckle as he whispered "seagulls" again under his breath.

"Anyway," he said with a meaningful glare. "About Skywoman. I was thinking about her story and about the gifts she gave to the animals in reciprocity for the way they welcomed her and helped her live on Earth."

"Mhm," Tuva said, encouraging him to go on.

"Well, I was thinking — I mean, this would just be a tiny bit of the whole Skywoman part of CC, I'm not trying to make it all about me — but I was thinking. Well, everything I brought with me when we moved here has given fruit now. Maybe we could hand out little bowls of a fruit salad or something with all the fruits I brought from my old home. It would symbolize the gratitude I felt to everyone for welcoming me and helping me live here. Of helping

me live without Sage..." He trailed off and Tuva could feel her eyes burn.

"I love it," she said hearing the wobble in her voice. Eos's big brown eyes were full of relief when they met hers again and Tuva couldn't hold herself back. She threw her arms around him, wiping at a tear with the back of her hand.

"Really?" Eos's question was barely more than a breath but Tuva heard it and was confused by his surprise. She pulled back so she could see him properly before continuing. "Of course. It's a perfect addition to Creation Celebration and especially for the Skywoman group. You're right, your gift to us would mirror Skywoman's perfectly and it's such a beautiful gesture, Eos. I have no doubt everybody will love it." Eos's smile spread as she spoke, growing from a tentative but hopeful expression until he was properly beaming back at her. "And I am the first to volunteer with anything you need to make it a reality." Eyes glistening, but radiating joy and gratitude Eos just nodded at her.

"This makes me wish I was in the Skywoman group too!" Björn said. "It's a great idea Eos, really generous and sweet."

"Oh yeah, which group are you in this year, Björn?" Eos said curiously, casually wiping his eyes on his shirt sleeve.

"The Dreaming," Björn answered. "We're doing some kind of play/performance piece about the tale of The Secret of Dreaming this year. I am almost finished making my eagle costume so you'll have the pleasure of teasing me about wearing that all of Creation Day."

"Oh, nice. I love that story!" Tuva said happily. "That's gonna be awesome!" Eos was smiling too. "You're gonna

be dressed up as an eagle all day?" He said. "I cannot wait to see what that looks like! But I don't think I know that story, how does it go?"

"Well, maybe you should wait for the Creation Celebration when we will be telling the story to everyone," Björn answered with a smile. Eos just looked at him pleadingly for a few seconds. Tuva held in her snicker at how easily Björn cracked.

"Okay, I'll tell you super quick but then we have to be done with lunch and get this afternoon going," he said.

"Hear, hear!" Tuva and Eos called in unison and pretended to clink their glasses before turning to listen eagerly to Bears' telling of one of the Australian Aboriginal creation myths. Björn shook his head at them both and chuckled.

"Once there was nothing. Nothing..." He said, pausing dramatically before adding, "but the Spirit-of-All-Life. After a long time a dreaming began. The Spirit-of-All-Life dreamt of fire, then wind and rain and there was a great battle between the three elements. In the calm that followed the Spirit-of-All-Life dreamt of earth and sky, of land and sea. Finally the Spirit-of-All-Life began to grow tired from the long dreaming and sent life into the dream to make it real. The Great Spirit then sent the secret of dreaming into the world. It first entered into the spirit of the fish who didn't understand the dreams of sandy beaches and lapping waves, so the spirit of the fish passed on the secret of dreaming to the spirit of the turtle. On and on it went to the spirits of many different creatures— I won't go through them all now, but, spoiler, the eagle is one of them—" Tuva and Eos gasped dramatically in mock surprise and Björn just chuckled again and continued. "...

until it was finally passed to the spirit of humanity. Woman and man dreamed of many different things and they understood the dreams. They dreamed of dancing around the fire and children laughing, but they also dreamed of the sandy beaches and the lapping waves. They dreamed all the dreams that the spirits of the animals had dreamed before them and they learned, through the dreaming, that all the creatures were their spirit-cousins. The Spirit-of-All-Life knew that the secret of dreaming was safe and entered the land to rest and recover, tired from the dreaming of creation. This is why the land is sacred, why woman and man must be its caretakers, just as they protect the secret of dreaming for all life." Tuva and Eos smiled for a minute, absorbing the story.

"You're a great storyteller, Björn," Tuva said. "Even with this very abbreviated version, you capture the essence of the story beautifully." Björn winked at her and nodded gratefully, receiving the value of her praise.

"Yes, thank you for that telling, Björn," Eos said. "I'm looking forward to experiencing it with all the costumes and fanfare at CC. And I can't stress enough how much I'm looking forward to seeing you in eagle costume all day!" Eos poked out his tongue cheekily and took off in a half jog towards the square where some of the other kids were gathering. "Off to get this afternoon going!" he called back over his shoulder as Tuva and Björn started gathering their things and clearing the table.

"That kid is something else, isn't he?" Björn said with an adoring smile.

"He sure is." Tuva sighed heavily. "I'm so glad he moved here, just wish it was for a different reason, you

know." Björn gave her a sad smile and kissed her forehead tenderly.

"You know you are probably his main nourisher, right?" Björn said after a moment. A nourisher was a person who provided emotional and mental support. They would take more of an active role in ensuring your psychological well-being and were the go-to persons during moments of vulnerability and introspection.

"Yeah," Tuva breathed. "We grew so close when he first moved here it happened very organically." The two of them smiled after Eos again, watching as he put an arm around Saffron and laughed at something she said.

"All right!" Tuva finally said and pushed Björn to move forward along the garden path. "We need to get moving. Can't stay here like some stones in the meadow all day, it's time to contribute." Björn laughed and allowed himself to be pushed all the way back to the giftery to hand of their dirty dishes to the gifters.

## CHAPTER FOUR

Tuva sat on Oak Hill studying the calm, contented movements of the little herd. While the cows grazed in the beautiful meadow the calves jumped around, playing. Sometimes one would stop to feed from their mother before skipping off again. Tuva had socialized with them for about half an hour but as the shadow from Oak Hill fell over the meadow she decided to give them some space. Cows were crepuscular, and even though the sun hadn't yet set, she wanted to leave with a good margin to let them have their most active time in peace.

The blanket underneath her was scratchy and the gentle breeze felt colder now that the sun was about to dip below the horizon. Tuva wished that she had changed clothes before coming but she had been so warm from preparing raised beds for planting in one of the vegetable gardens that she had miscalculated the temperature. She loved using the broadfork to gently aerate the soil, it was one of her favorite tasks because it felt so meditative. But it had made her warm enough to think the blanket would be enough. Maybe it was also because she hadn't planned to stay for so long, but for some reason, she couldn't make herself leave. Tuva was so caught up in her swirling thoughts that she started at the rustling of grass and the heavy breathing right behind her.

"There you are, little one." Tuva knew that voice and warmth spread in her chest at the sound of the rich, almost gravelly, timbre.



"By the depths of the ocean! You gave me a fright Aspen." Tuva said, standing up and putting a hand to her beating heart.

"You must have been deep in thought if my old legs and lungs didn't alert you to my presence stomping up this hill." Aspen said with a warm smile. She held out a soft, thin blanket for Tuva to wrap around her shoulders. Tuva took it gratefully and helped Aspen sit down beside her on the hill.

"What is wrong, little one? Is there something that ails you?" Aspen was one of Tuva's main nourishers. She had been one of her parents' life-journey companions from before she was even born. Aspen was usually the first one to notice when Tuva needed support and was always ready to listen and help in any way she could. Tuva told Aspen about her conflicting feelings over the proposal of keeping the cows locked up. She understood how important climate change mitigation was. She knew the damage rising temperatures had caused, but she still couldn't stop the nagging feeling that caging them up was a mistake.

When she finished speaking they were both silent for a long moment, watching the beautiful animals that were visiting the meadow.

"I understand your conflict, sunbeam." Aspen said finally. "It is a complex topic and the shadow of past generations is still heavy on our shoulders. May I add another perspective to consider?"

"Of course, Auntie. I am always grateful for your guidance."

Aspen smiled. Her beautiful face spoke of so many years of working hard and providing for her community. The wrinkles radiating from the corners of her eyes had

always been the most pronounced. When Tuva was little she had asked about them and Aspen told her that those were the wrinkles you got from laughing. Even as an adult, now that she knew this wasn't true, she still liked to think that Aspen's laughing lines were just that.

"Do you know which story I'm telling at Creation Celebration this year?" Aspen asked. Tuva shook her head. Aspen was an amazing storyteller. Rather than be part of one of the groups doing a stage performance, themed activities, and treats, she would tell a creation story of her own. In the evening, around the fire that was lit in the village square after the stage performances were finished, she would tell it. It was one of the only times she accepted using the old microphone and speaker system so that everyone could hear the story. She wanted to be able to look at everybody to tell a proper story and usually the listening crowd would fit around the fire, but she graciously made an exception at Creation Celebration.

"It's the Sami creation myth of when Ipmil created the land of the Sami. And before you say it, I know it's called Sapmi but, sometimes, in stories, we like to think it sounds more important if we complicate the names of things." Aspen winked at Tuva who always used to interrupt stories to ask random questions when she was little. Tuva smiled and leaned her head against Aspen's shoulder to listen. Aspen told her the story of how Ipmil wanted to make the world beautiful enough that evil spirits would be scared of it. He slaughtered a beautiful reindeer cow and created the whole world from her parts. Her bones were the foundation, blood vessels rivers, and streams, her skin and fur became forests and trees. Aspen listed everything the reindeer cow's parts became before saying

“Her sacrifice created the beautiful world that scared the evil spirits away. This amazing gift, created through the combination of Ipmil’s abilities and the reindeer cow’s sacrifice, it not to be taken lightly.” There was a long pause while they studied the cows in the meadow.

Finally, Tuva asked. “You’ve been to Sapmi, haven’t you Auntie?”

Aspen laughed. “Yes, I was,” she said. “I was even younger than you are now when I went. It was such a long trip, took forever to get there, but it was worth it. It’s so beautiful up there, my sapling.” Tuva scoffed at the term of endearment. Sapling was a term mostly used for children but Tuva liked that Aspen still called her that sometimes.

“Did you eat meat there?” Tuva asked, unable to stop herself from scrunching her nose.

“Yes, I did. I’ve also eaten meat a couple of times back home. When I was young our plant-based and mollusk food production still wasn’t stable enough. Sometimes, when plant-based harvests were ruined because of extreme weather events or something or other, we had to eat meat to survive. We had to harvest a whole cow rather than just harvesting the milk sometimes.” Tuva nodded. It made sense to her that sacrifices might need to be made. As long as they were respectful when receiving these gifts and making sure to reciprocate as much as possible.

Tuva felt much better after having this conversation. She smiled at Aspen as they started walking down Oak Hill together. They kept talking as they walked back through the food forest. Brainstorming about how best to go about this. Maybe they could have the cows caged for part of the year and have someone travel with them for another part.

Someone responsible for feeding them the right amount of seaweed every day. That might even seem like a great adventure to some of the youngsters, actually.





# Automation for Quality of Life



## Story 3: Automation for Quality of Life

*Sweden has harnessed automation and digitalization to shift societal values away from work-centric norms to focus on life-quality, freedom, and meaningful engagement. Investments now aim to reduce working hours, allowing robots and digital technologies to handle routine tasks. People work an average of 10 hours per week, freeing them up for creative and social activities. The economy remains robust and aligns with sustainability goals. Life is tech-integrated, and most people reside in smart, urban centers but also value green spaces. The pursuit of material status has been replaced by a culture of sufficiency. Transport is automated. Governance relies on digital platforms which enhances direct democracy, although citizens maintain trust in the technocratic elite that develops and oversees these digital ecosystems.*

*The story follows Bee and her family. She play-fights with her AI-system, hangs out in the community garden with her daughter, the daughter's two partners and her grandson. She speaks to her son who has just arrived to Turtle Island and cycles over to the community centre to teach some kids how to use Illustrator, an ancient vector-making program. She also reminisces about her youth, about meeting her best friend and the love of her life while they were up north, fighting for Sapmi's independence.*

Appendix 3  
2023

All the characters in this short story are fictitious and any resemblance to actual persons living or dead is purely coincidental

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## CHAPTER ONE

Bee felt something pressing down on her chest and there was a distinct buzzing sound in her ears. For a second the strong pressure was right over her heart but it disappeared just as quickly and materialized a few inches to the left instead. She blinked her eyes open and met a vividly green-eyed intense stare. The hum in her ears intensified in a short spurt as the purr transformed into a quick greeting.

“Good morning Maui” Bee reached out to pet her little head but Maui quickly jumped away from her and sprinted to the end of the bed. Here she stopped and looked over her shoulder at Bee with an expression that, if she were human, would have been raising her eyebrow. Bee didn't know why she still tried to pet her every morning. Maui had her morning mission and the privilege of cuddles and purring wasn't given to Bee in bed while she was conscious. She could get in one quick pet if she reached over to the end of the bed now but she already knew that any proper cuddles, with purring and head-butting, wouldn't be possible until they met up by the food bowl. Bee yawned and stretched her arms over her head. Skies, her neck was sore, was this another sign of old age? Probably. But then again, she used to have a lot more aches and pains when she was still working forty-hour weeks behind a desk in her late twenties.

“Computer, schedule a neck massage for me sometime today,” Bee said as she grabbed her green linen bathrobe and watched the bed start its calm assent to the ceiling. She really had to adjust the settings so the assent wasn't automatic when she left the bed. Every time she ran to the bathroom in the middle of the night — which was

happening more and more often lately, by the way — she had to interrupt its assent or wait for it to lower back down when she was done. She knew it should be easy to adjust the settings, her four-year-old grandson could probably do it, but Bee was sure this bed had it in for her. Maui was waiting exasperatedly a few feet away, staying close to remind Bee of her most important task in life, not letting her starve to death. The cat feeder was on an automatic timer so if Bee slept in, the food would clatter down into Maui's bowl at nine o'clock on the dot. Since Bee usually got up around eight though, this is when The Queen expected to get her breakfast. Bee rubbed her eye sleepily and the clock in the upper right corner of her retinas came into focus. It read 08:02, proving yet again how remarkable Maui's perception of time was. Bee's daughter, Kaja, had asked her once why she didn't just change the timer to avoid being woken up every morning. Kaja had clearly missed the whole point. Maui was the best alarm clock in the world and there was no better way to start her day than seeing that amazing tortie face and those beautiful green eyes.

“Good morning, Bee.” Her personalized AI said as the little corner sofa and coffee table was revealed in the spot the bed had been occupying.

“Computer. Did you schedule my massage yet? I might forget if we don't put it in now.” Bee said, trying to keep her tone sharp and hold back a chuckle.

“I will schedule it now but it's rude not to say good morning you know. And I do wish you would stop calling me 'Computer', you are well aware that I have an actual name.” Bee couldn't stop her chuckle this time. She knew she was being silly but she loved being silly and saw no reason to deny herself. Calling the AI 'Computer' and talking to it in

that barely personal way gave her this great nostalgic rush from her youth when all the sci-fi movies had depicted exchanges like that. Except those movies were usually set in space or some horrible capitalistic dystopia. Maybe that was why Bee liked this little game so much, it was a constant reminder that even though there were still a lot of problems in the world — like how it seemed as though the extreme weather was getting more extreme and more weather each year — it was so much better than it could have been. Humans had never been forced to flee to outer space to survive and they had managed to turn away from the path towards a capitalist dystopia. It had turned out that the competition of the free market wasn't a cornerstone for innovation after all. Without the overarching priority of profits, innovation had surged and Bee's current AI system was so much more sophisticated than any of the movies from her youth had ever predicted. That was why it was so funny to her that the AI was constantly offended by her behavior and trying to make her interact with it "like a normal human being". One of Kaja's partners had helped her out with the programming. Bee had tried doing it herself first, but when she realized she was having an old-person-tantrum-at-technology she decided to recruit Zay for the job instead. And no, this wasn't the same thing as the bed settings, the bed was actually evil. She had told Zay that she wanted to program her AI system to be somewhat offended (but never really actually hurt) by the fact that she was calling it 'Computer' in a cold voice. Zay had thrown his head back with a loud belly laugh and bounded up the stairs to her flat to get started right away. Zay had the best sense of humor, or, rather, Bee and Zay had almost identical senses of humor

and they had worked together to make her daily interactions with the AI system so much more enjoyable.

Bee cleared her throat and raised her voice slightly.

"Computer, schedule a massage." and then mumbled under her breath "Damn hunk of metal must be glitching again."

"I heard that!" The AI answered, sounding offended. It sighed loudly before continuing. "Going through your schedule now. You are going to the community center this afternoon, you never scheduled an actual time for that so I don't know when exactly." It sounded exasperated and Bee tried to suppress her snicker. "This evening you are going to the 'drinking-beer-and-doing-ceramics'-place with 'Lee and the gang'." Bee loved making the AI read out the silly ways she had scheduled things because it always sounded as if it was beneath it to speak like that. "You are also meeting the book club tomorrow evening so you might want to finish your book by then."

"Oh, right! I'd forgotten about that! Thanks for reminding me. I guess I'll read in the hammock for a bit after breakfast and then I'll have the massage after that."

"Very well, sir." the AI said and Bee burst out laughing. Zay had added in the programming, without Bee's knowledge, that every time she thanked the AI for something and then gave a command it would finish the interaction like a butler from Victorian England. It had taken Bee ages to understand why this happened, seemingly at random, but it brought her joy for days every time it did.

Walking into the kitchen Bee waved in greeting to the little helper-bot that was climbing the hydroponic wall garden,

harvesting tomatoes in preparation for her breakfast sandwich. Maui was on the floor, watching the robot's every move, tail flicking, but when she caught sight of Bee she abandoned the hunt and ran straight to the food bowl, purring loudly. Bee got in two head-butts and a couple of scratches before she pressed the manual release button on the feeder and the threat of starvation was finally over...for a couple of hours at least. Sitting down by the kitchen counter, she sipped her tea and scrolled through her kenner as she waited for her sandwich to be finished. Suddenly Kaja's name flashed along the bottom of her eyes.

"Your daughter is calling you" The AI announced.

"I know!" Bee said, pretending to be exasperated at the unnecessary information. She tapped twice behind her ear.

"Kaja, my love. What's going on, darling?"

"Hi, Mom" Kaja answered cheerily. "We were planning to hang out in the community garden today and hoped that you might want to join us. Some friends and their families wanted to come over to socialize so we thought we'd make a day of it. You're not working today, are you? I can never keep track of your schedule. Actually, could you please send it over so I can sync it into my calendar?" This long introductory greeting was typical of her daughter and Bee decided, as usual, to answer the last question first.

"But if you have my schedule synced I'll miss out on your calls when you think I'm busy." She could hear a smile in Kaja's voice when she answered.

"You sound just like Dad. He was always on about people being too careful with each other's time."

"Your father was a very wise man, my love. I, for one, would much rather you call to check in despite the risk of me

being busy than hearing from you less often because you respect my schedule and refrain from disturbing me."

"Fair enough Mom, I won't sync your schedule to mine, I promise," Kaja said with a sigh but she still sounded amused. "So, are you busy today?"

"Oh, right. I'm not working today but I did say I would be at the community centre later this afternoon. Some goofy kids over there want to learn how to use Illustrator so I'm going to teach them."

"Well that's fine, you can just — wait a minute, did you say you're teaching them illustrator? Not illustration, illustrator? That old manual vector-making program you used to use when I was a kid?" Kaja sounded completely incredulous which made Bee laugh out loud.

"Yes! I told you. Goofy! They are adorable though, looking at the mouse as if it's an alien or something and completely unable to coordinate what's happening on the screen to their movements with the mouse." They chuckled together but then Kaja stopped. Sounding contemplative she said.

"Well, I guess it's not that weird. I mean, we still learn to draw and paint with pens and brushes. I don't know why I was so thrown by Illustrator. Maybe it's just because I remember how frustrated you were with it sometimes, it feels like such an outdated tool, but I'm sure there are valuable lessons to learn from that too. It's sweet of you to help them explore their creativity, Mom." Moments like these made Bee feel a warm glow of pride swell in her heart. She felt proud of her daughter, but really of her daughter's generation as a whole. They were so much better than her generation at doing that. Having a gut reaction to something but before they let that gut reaction settle as a

truth in their belly they would stop and think about it. They would question if their reaction was emotional and based on their own history or personal hangups, or if it was affected by cultural biases or other preconceptions that colored their way of thinking. They would ask themselves if the thing they had a negative or judgmental gut reaction to was harmful towards someone or something else and if not they would consider the positive aspects and usually change their judgment. Bee was in awe at how naturally it came to them most of the time. Of course it was harder when it concerned something personal or if emotions were high but even then they were so much more emotionally mature and competent than Bee's generation ever had been. She had to acknowledge that in some ways the pride she felt was also directed at herself and her own generation though. They had grown up with a very different dominant worldview and constantly had to work on 'deprogramming' themselves away from those underlying, foundational, old-world cornerstones. Even if that work was hard and they failed at it often they had still managed better than Bee had expected at avoiding to establish those worldviews from the beginning when raising their own children. It was ironic that it could still be difficult for Bee to admit to this pride in herself. She would often have to battle with the gut reaction that it was arrogant and narcissistic to think this way, but she did keep trying to remember to be kind to herself and enjoy the gift of her daughter's self-assurance.

Bee rescheduled her reading for the day after as she finished breakfast. She had a shower, finishing with the automatic mist spray of sunscreen, and got dressed in a pair of soft hemp pants and her coziest grey woolen sweater. She

was in no real hurry so she decided to have a quick massage before she left to see the kids. She sat on her tiny balcony, looking out over the neighborhood as the helper-bot massaged her shoulders. She had been really lucky to get this apartment when Oisín died. It was right next door from Kaja's place and in was in one of the old beautiful buildings in Malmö that Bee had always loved. Most of these old buildings had been able to be eco-retrofitted and preserved during the Big Shift and parts of the city looked pretty similar to what it had when Bee was a child.

There were also some areas that had changed drastically, though. Bee remembered how the outskirts of town used to be dominated by fields of huge houses, each surrounded by its own sea of flat and empty lawn, spanning such immense areas that you couldn't live without a car.

When Bee was a teenager she had seen the word suburbia as synonymous with car dependency and entitled energy-wasters but the word had taken on a very different meaning to her today. This was not because her opinions had changed, mind you, it was because the suburbs had changed. The old suburban houses were now linked with a mishmash of other buildings, creating a dense fabric and facilitating an engaged community life.

When the kids were young Kaja had always loved going to the suburbs. She'd loved walking around there surrounded by the great variety of strange and interesting houses and while Bee had been working with one of these projects Kaja would often come along with her. That girl would sit on a bench or lean against a tree trunk and happily draw for hours and Bee would usually be done with work long before Kaja was ready to leave.



The suburbs had been used as a bit of a testing ground after the Big Shift. It had been a way to test out new sustainable ways to build houses. The areas had needed to be densified and rearranged in order to change the fabric of the community. If everything you wanted and needed to do was very far away from your home and there was no public transport, you had a problem. At the same time, public transport couldn't be used in an area where very few people would ever be able to use it because it was an incredibly inefficient use of resources.

Bee had been part of several of these urban planning and development-projects in the suburbs. They had organized the construction of a patchwork of new homes by testing out different environmentally, socially and resource efficiently sustainable building methods. The old suburban houses were now juxtaposed with 3D-printed clay houses, mycelium-brick clad homes and modular wood and straw bale buildings, just to name a few. The empty sea of lawns were now nowhere to be found, but instead of those sterile, private backyards there were loads of communal green spaces to enjoy all over the place. The testing grounds had worked out really well in the end. Of course there had been some misses along the way, but since people didn't have to worry about property values anymore and living in the suburbs became synonymous with being part of an experimental project, people had always been very understanding in Bee's experience. For example, some of the 3D-printed clay buildings had experienced mould issues after a very wet autumn a few years after they were built, but the monitoring systems had caught on quickly and the inhabitants had been happy to move to temporary houses while the clay houses were demolished and replaced. Since

they had been built with sustainable and recyclable materials, these situations were never seen as very big problems.

The development in this field was also moving fairly quickly now, since the building sector's main focus was on improving and developing new techniques to build truly sustainably. And if something they hadn't predicted rendered a specific method or material unsustainable, they could just stop using it. There weren't any huge incentives to push something that actually didn't work because someone had already invested too much in it. That was the best part of the projects in the suburbs, they could test unorthodox ideas out, learn as they went and evaluate along the way.

One of the first houses Bee's project group had been working on were the seaweed houses. With a structure built from CLT-wood panels and using seaweed as the insulation and both exterior cladding and interior ceiling cladding. The seaweed was packed into cylindrical pillows made of knitted wool and were stacked on top of each other along the whole facade. When they were first built Bee used to think they looked a bit like kiwi fruits from a distance, they were brown and looked almost furry the way a kiwi does, but after a year or so they had turned silver in color and the kiwi reference wasn't as apt anymore. When you got closer, the facades looked almost like a bunch of stacked batteries, or maybe like a timber log-house, with the cylindrical cushions of seaweed stacked in neat rows. Indoors the seaweed was wrapped in light linen fabric, making the ceiling look like soft, beautiful clouds. The houses were quite easy to modify, add onto, disassemble and recycle, making them very versatile and a quick success. Nowadays Bee saw seaweed

houses popping up all over the place and every time she saw a new one it brought her joy for days.

## CHAPTER TWO

"You have a meeting scheduled with your daughter at the community garden soon, Bee." The AI-system said.

"I never set a specific time for that, though." Bee smirked as the AI-system sighed exasperatedly.

"I know. I set a reasonable time as a reminder for you since you refused to give me a time." Bee chuckled to herself again and stood up slowly, stretching her body and shaking it loose.

"Thanks, little one," she said to the helper-bot.

"It doesn't understand you, Bee. Helper-bot's don't have language skills."

Bee smiled. "I know, but I like thanking them anyway." The AI-system was silent for a moment.

"It's supposed to be windy today, you might need a jacket." It finally said, just when Bee was about to leave. She threw on her mycelium-leather jacket and walked down the stairs to the community garden. Her family and friends were hanging out together in the shared green space between the buildings and, right away, she spotted Otter and Izzy jumping around in the bushes that lined the wall of one house. Otter was pointing his kenner at everything around him in quick succession.

"Dirt...flower...petal...grass...foot...toenail" the kenner sounded out each word for them.

"I wanna try!" Izzy said, practically jumping with excitement at the thought. Otter looked up from the ground where he was crouching, examining his toenails.

"Oh, okay, sure. Do you know how to use it?" He asked and Bee had to stifle a laugh at how grown up and serious he sounded after such an intense four-year-old-play, only

moments before. An arm was slung around Bee's waist and she turned to find Kaja smiling over at her.

"They are something else those kids" Bee said, smiling back at her.

"They sure are" She replied. "I'm so glad Otter seems to take after Zay in his openness to share without hesitation. Mal and I are both so territorial by nature and it feels like such a gift for him to avoid going through the struggle of all that." Bee snorted, remembering the rocky start to their relationship. They had all met on the first day of a volunteer project called Hanging with the Old Folks. They spent their days socializing with people who were so frail that they couldn't move around at all. Helper-chairs meant that most old people could still have very fulfilling lives but by the time you were too frail for a helper-chair, family members and volunteers visiting where usually the only human contact you had.

While trying to create some sparks of excitement and joy for these poor old souls the three of them had grown close very fast. Bee had rejoiced in Kaja's giddy energy when she told her mom about Zay. She had also been intrigued by Kaja's avid denial of any interest in Mal when Bee casually commented on how often she brought him up as well. She had witnessed when the giddiness was mixed with confusion and jealousy as their relationships developed. Zay had made it clear pretty quickly that he was interested in both of them and even more interested in all three of them being together. Having spent his formative years in an ecovillage with his mom and her many lovers, he sympathized with Kaja and Mal's confusion but he couldn't really understand the problem. After meeting the boys Bee had to agree that at least the sexual chemistry between Kaja and Mal was

undeniable. It hadn't taken long until Mal admitted to wanting Kaja too and feeling cautiously excited about the potential of the three of them being in a committed thrupple. Kaja had still grappled with the idea of loving them both though.

Bee remembered trying to comfort her little girl while she sat, crying into her cup of tea, distraught and overwhelmed by her own feelings. Bee hadn't really known what to say. Just contemplating loving someone else while the kids' father had still been alive made her stomach drop with guilt and shame.

She was glad that Kaja had grown up in a world that wasn't heavily enforcing the message that the only right way to love was a monogamous two-person relationship, though. She actually thought that the three of them could be really good together if they were able to work out their feelings. Ultimately, Bee just sat there hugging Kaja as she cried and hoped it would be a cleansing experience for her.

Eating breakfast the next morning Bee had flinched when the door flew open and Kaja stormed into her apartment, energy bubbly and almost frantic.

"Mom! Mom, you love us both, right?!" she called as she flew into Bee's arms.

"What?"

"Leo and me" she said. "I mean, you always used to say 'I love you with my whole heart' to me when I was little but it's not like you loved me any less when Leo was born, right? It's not like you only loved me with half your heart then because Leo got the other half, right? You just had more love to give because you had another person to love with

your *whole* heart now...right?" Kaja was holding Bee's head in her hands and staring intently at her mother as if this answer was the key to everything. Bee smiled and nodded.

"You are one hundred percent right" She said. "What a beautiful way to describe it. My love for you didn't change when your brother was born, my heart just grew in capacity." Kaja slumped in relief. "Zay's right" she mumbled. "Their love for each other isn't a threat to their love for me." She smiled, eyes glossy. "And my loving both of them doesn't make either of those loves lesser, it just means my heart has grown in capacity so I can love them both with all my heart!"

After that day, the jealousy and confusion Kaja and Mal had first struggled with was completely gone and by now the three of them were the best unit Bee knew. She wasn't being biased because she loved them all so much, they really were the best unit in the world. They were all so loving towards each other and their child and they complemented each other perfectly. Bee also had the very best grandchild in the entire world and she knew for sure that that was just the objective truth, nobody could deny that Otter was the sweetest kid that had ever lived.

Both Mal and Kaja had still been quite territorial towards others for a while but over the years Zay had helped them both simmer down and by now Bee almost never even thought about that rocky start.

"I wonder where that possessive streak of yours comes from" Bee said now, pondering. "I wonder if I instilled that in you somehow."

"Mom, you know you didn't! You were always teaching us about being generous, helpful, kind and cooperative." Kaja said

"Oh, skies! The way you said that, like it's a phrase I've nailed into your skulls from birth!" Bee said. "Darling, did I create this issue for you by making you give away everything you liked in the name of generosity and kindness?" A helper-bot whizzed by above them, collecting the laundry that had been drying outside a forth floor apartment's window. "Robot!" Otter's kenner called in the background.

"Think about it" Bee continued, sounding a little frantic now. "Of course you would feel super possessive about something you really didn't want to let go of. Like your two adorable and loving partners for example!"

"I wanna get in on this conversation." Zay said with a wink as he and Mal walked up to join them. "What are you two talking about?"

"Mom is creating this theory in her head about how she is to blame for my possessive behavior because she's been too encouraging about me being a good person." Kaja said, rolling her eyes good-naturedly and chuckling at her mother.

"I'm not just being emotional about this, it makes sense." Bee said, clearly getting emotional about it. "We really had no idea what we were doing while raising you guys, it was at the same time as we were trying to shift the whole base for a new generation's foundational values. Of course we had some missteps along the way. This isn't just me putting myself down, you are the poor experimental generation who had to live with this Big Shift in society. Of course that's going to affect you!" When Bee finished her rant she found all three of them looking at her with warm smiles on their faces. Mal cracked first and broke out laughing.

"I'm not laughing at you Bee, I'm laughing with you, or I will be soon, I hope." Mal said and reached out to give Bee a hug. "Poor experimental generation..." he muttered and

squeezed her arm gently. "I'll let Kaja speak from experience if we're talking about your early days of mothering specifically of course, but let me tell you that my possessive behavior when it comes to these two" he swept his hand indicating Kaja and Zay "has absolutely nothing to do with my parents being too insistent on me being a generous and sharing person."

Mal had grown up in the countryside with parents who weren't very happy about how everything had changed so quickly. They lived in a huge old mansion with about a thousand bedrooms and trophies of killed animals on their walls. Kaja had sent a constant stream of outraged commentary and picture evidence to her mother the one and only time they had gone to visit. Suffice it to say that Mal's parents weren't thrilled about the fact that an abundance of material possessions wasn't worth as much anymore. The fact that Mal's grandfather had been more respected and seen as superior to everyone around him his entire life for having the fortune of being born into a rich family wasn't seen as a problem to them. In fact, they were furious that Mal's father only lived half his life with this privilege and had been constantly angry with Mal for not keeping up the traditions and customs of superiority that the Creighton men had been doing for generations. When Mal had refused to go to the same private boarding-school as his father, they had finally kicked him out and at sixteen Mal had moved to Malmö on his own. Mal had laughed over Bee's horrified expression when he first told her about the irony of the school being closed down for good just a few months after he had been banished from his childhood home. Being the most prestigious of its kind it had been the

last private boarding-school to close down so his parents really wouldn't have been able to send him anywhere but at that point Mal was just glad to be free of their toxic, abusive mentality.

"My possessiveness" He said now "has much more to do with being brought up by people with the worst kinds of old-world values who told me to act like a dragon and sit around hoarding my gold and to breath fire on anyone who goes near what is mine."

"And what a beautiful dragon you've become." Zay said, petting Mal's cheek affectionately. Bee snickered at Zay's teasing and Mal growled and kissed Zay possessively in response.

"You see what he means though, right mom?" Kaja said, looking intent on getting the point across. "Your insistence on us being generous and kind isn't the reason I have difficulties sharing sometimes, it isn't because you over-corrected. It was just a big societal shift, changing the way we look at things can take time and Otter is a great example of the next generation coming further along. Growing up with you and dad as parents was amazing but of course you were working on yourselves as well, and I'm sure some behaviors slipped through anyway. Otter is part of a generation where his parents grew up after the Big Shift and thanks to you we have such a great head start in developing as parents and helping him navigate this from the start." Bee blew out a deep breath.

"You're right, my darling, we did do a pretty great job." she said, smiling. The late spring sun was warm enough now that Bee had to take off her jacket. She muttered to herself about that damn computer nagging at her about the cold weather and Zay shot her an amused, knowing look.

"Also, Leo doesn't seem to be possessive at all so I think this might have more to do with Kaja's personality than your parenting skills, Bee." He said with a wink.

"Oh, glitch off!" Kaja said cheerily.

"Indeed," Zay answered steadily and gave her a quick kiss. "Now, we do have to socialize with the friends we invited. Otter is clearly doing the best job at being a host out of all of us."

"Of course he is! Isn't it great to experience the next generation doing a better job at things than you do?" Bee said and Zay laughed heartily.

"You are right as always, Bee. I guess I didn't expect it to start at four years old but I should have known." They all chuckled as they stood for just a second together, watching Otter play with his little friends.

"I'm sorry about freaking out." Bee said. "I appreciate you all talking me out of that spiral. You kids are really amazing, you know that right?"

"Of course we know!" said Kaja. "How could we not with all this love you keep showing us all the time?" There was a round of guffaws and then Zay and Kaja walked over to start talking to their friends and neighbors in the garden.

"She's right, you know?" Mal said and Bee looked up to see him studying her intently. He was tall and lean and his dark hair curled in every direction. He wore a long sleeved shirt that was dyed over and over again with seaweed ink. This was a recent hobby of his, the seaweed ink he used slowly faded which meant he could test out different patterns on the same shirt but it also created an interesting effect of capturing layers of time and the constancy of change in the garment. He looked nothing like was Bee imagined his parents would have wanted but he looked like

he was happy being himself and that was really all Bee cared about.

"She's right that you're amazing in the way you show your love." Bee smiled and put her arm around Mal's waist. "You know, after Otter was born Zay told me once that in a way he had hoped that I would have been Otter's biological father." Bee pulled back, staring at Mal and could feel the confused frown on her own face. "Not because there's anything but perfection in that little boy." Mal was quick to assure her. "And, as Zay said, not even to protect him from the lingering racism from the old world. It was because he didn't want there to be any risk that I felt less like a part of the family unit." Mal sighed and continued. "I mean, you know Zay, he would never feel less like part of the unit just because he didn't have any biological ties to our son, but I guess he worried that I would." Bee squeezed Mal's upper arm gently as he spoke, not wanting to interrupt but wanting to show her support.

"I think maybe I would have felt like that when I was younger" he continued. "My bio-parents would certainly have been appalled by it, but I realized then that I don't feel like that at all. You have taught me that parental love has nothing to do with biology and everything to do with love. I am so glad that Otter is this perfect mix of the two loves of my life, nothing could be better than that." Bee couldn't stop herself from tearing up listening to this. "I had no idea I could love anything as much as him, Bee. The day he was born it was like I finally got it. In a way it breaks my heart that my bio-parents clearly never got to experience that kind of love, but more than that I'm just so grateful to have learned how to love a child from the best mother ever."

“Okay, I tried to hold back and let you speak. I can’t restrain myself anymore. I need to hug you right now.” Bee said and reached for him. Mal hugged her back chuckling and said.

“This is why I laughed at your freakout earlier. It was so absurd for me to even imagine you as a bad parent. Of course I understand the worry about unintentionally damaging your children – believe me, I get it – and I didn’t mean to minimize your feelings. I just–” he sighed. “You’re a great mother, okay. That’s really all I wanted to say.” Bee patted his cheek warmly. “And you are a great son, and a great father too.” They smiled at each other before Bee said. “You forgot to mention how great of a grandmother I am!” and then she turned to catch Otter who was running up to her for a big bear hug.

“Bee-Bee!” Otter called as she spun him around in her arms. “D’you know, dad’s taking me mountain-biking later!” he said when she let him go and the two of them sat down together in a patch of clover near by. Bee met Mal’s smile and nod as he walked over to join the others in the garden. Otter had been longing to go mountain-biking with his dad for a while now. He had even brought Bee on a virtual, immersive tour of a nearby kids track in her living room a few days ago.

“Is he really, mo stoirín? That’s amazing! You’ll have to tell me all about it when you get back. And don’t forget to show me any nasty cuts or bruises, now. You know how much I love those gnarly things.” Otter laughed heartily, his laugh was so much like Zay’s already.

“I will Bee-Bee,” he said. “I’ll record some too, so that you can get to experience it yourself when I get back.

Maybe I’ll even be recording while I fall so that you get to feel the shock of falling.”

“Oh, darling, that’s lovely. Just don’t fall on purpose on my account. I’m glad you’re not always holding yourself back for the fear of cuts and bruises, but I really do love this little body you’ve got here.” She reached out and waved his little arms with hers. “And I don’t know what I’d do if you came home without your arms and legs.”

“Don’t worry, Bee-Bee” Otter answered seriously. “I could just get nic-arms and legs if that happened, I would still be the same person.” Bee laughed warmly at this.

“Of course you would be the same person if you had bionic arms and legs. The reason it would upset me is that it would probably hurt quite a lot to lose your arms and legs and it would hurt me to know that you were in pain. Fortunately I was very much exaggerating, mo stoirín. I would say it’s next to impossible to lose your arms and legs at a kids track. Your dad wouldn’t ever let you be in that kind of danger.” She smiled at the little boy, sitting cross-legged in the grass in front of her. He had Zay’s bold facial features and beautiful cinnamon brown eyes. The curl pattern of his hair was much looser than Zay’s though, it really was like a mix between Zay’s kinky curls and Kaja’s thick waves. Ironically, Bee was almost sure that if Otter let his hair grow out it would be almost identical to Mal’s.

“Bee-Bee” he said now, looking contemplative.

“Mmm”

“Why do you always call me mo stoirín?”

“Moon and tides! Have I not told you why? You’ll have to keep an eye on me the way I forget things, my love.” Bee said, seriously worrying for a second that there might be something wrong with her memory.

"I know it's something to do with grandpa, I just can't remember exactly." Otter answered, looking a little sheepish. Bee sighed in relief. Of course young children forgot things easily, why was she getting so frantic about everything all of a sudden. She would have to do a quick therapy session before her beer and ceramics-event this evening, she thought. Maybe she could combine that with the massage actually. Her back was starting to protest over this whole cross-legged-in-the-grass-pretending-my-body-is-still-young thing she was doing.

Bee stretched her legs out and decided to lie down on top of her jacket instead. Otter quickly followed suit and they looked up at the cloudless sky for a few seconds. There was no more laundry drying above them now but they saw a delivery drone swishing by with a large package. Bee wondered at first if it would be too big to be delivered but then Mrs. Larsen's helper-bot opened the living room window wide and the delivery drone squeezed the package through with a centimeter or so to spare. Bee turned her head to Otter who rolled his whole body over to face her.

"It breaks my heart that you never got to meet your grandfather because the two of you would have really loved each other, mo stoirín." She could hear her own wistful tone as she spoke. "What a person he was. Did you know that he used to stay up half the night sometimes writing poems that he sent to his best friend back home in Ireland. They would send these poems back and forth to one another and when I got to read some of them once and told him how much I liked something that he had written, he said 'No no, I don't want to hear any praise please, that's not why I do it. Jay and I never discuss the poems, it's not about getting validation from somebody else. It's just for our own creative

satisfaction.'" Bee laughed. "I don't know why I told you that specific memory, it just stuck with me for some reason. Anyway. Oisín always called me mo stoirín. In fact, he did it for the first time on the very first day we met. I had always loved the Irish accent so I was totally charmed by him right away, and when he used this Irish word as a pet name for me" she sighed. "I mean, he knew what he was doing, let me tell you that!" They both laughed though Bee didn't think that Otter actually understood the subtext of her statement.

"Mo stoirín means my little darling in Irish." She took a deep breath, feeling that familiar pain in the back of her throat and behind her eyes. "I heard those words several times a day for twenty-seven years. When Oisín was gone I missed hearing them so much. But then you were born and I suddenly realized that at least the words could live again. Now I call you that because you are someone I love with all my heart, my little darling, and it makes me feel as if, in a teeny tiny way, you get to have some kind of relationship with your grandfather through me." Otter moved closer and put his arms around Bee, embracing her silently for several minutes.

"Thank you for telling me, grandma. I promise I won't forget again." He said, squeezing her tight.

"Oh, darling. I don't mind you forgetting." Bee said, sitting back up now and wiping her eye with the back of her hand. "I'll tell you over and over again, whenever you want to hear it." She took another deep breath and smiled at him again before changing the subject. "Hey, I saw you playing with Izzy earlier. Did she like playing with your kenner?"



"Yeah, she doesn't have one of her own yet so she got to use mine." Bee was struck again by how casual he was about sharing his stuff.

"Oh! Daddy's calling." Otter said and Bee looked over to see Zay waving at them from the large wooden table in the centre of the garden. It was covered by a lush green pergola and a bunch of helper-bots were zooming to and fro, filling the table with various bowls of food for lunch. Otter helped Bee up from the ground, commenting playfully that it might be time for some bionic knees, and then dashed over to make sure to get some mycelium bacon before it ran out.

### CHAPTER THREE

Bee started strolling towards the lunch table but was immediately distracted when Leo's name flashed along the bottom of her eyes.

"Your son is calling you." The AI announced.

"I know!" Bee said, gleeful to get to be exasperated again. She did the double-tap behind her ear.

"Leo! My heart! How are you? Where are you? How've you been?"

"Hi mom! It's good to hear your voice. I'm good, well, I'm better. I've stopped vomiting, that's good right?"

"Oh no! I was worried about this. I'm sorry you inherited my crappy genes loaded with seasickness." Leo laughed.

"Yes, well, if there's one thing I really wish I would have gotten from dad it sure is this. At this point I feel like my best path in life might be to stay here on Turtle Island so I won't have to brave the journey home."

"My darling boy, you know I would never want to limit your life and force you to come home just to avoid the grief I would feel from losing any chance of ever seeing you again – and I blame myself for the discomfort of your seasickness – but if you think that I will allow you to stay away from me forever, not because you want to stay there, but because you don't want to experience the trip home, you are sorely mistaken!" Leo laughed harder this time.

"Thank you mom, that was perfect. Though I don't think this old-world aristocrat mother you are channeling would ever say anything close to 'I would never want to limit your life', wasn't that pretty much the only thing they were into?"

"Thorns, you're right! I always forget to be horrible enough." Bee said, laughing too. "But, honestly honey, if the seasickness was too horrible couldn't you get a plane ticket home? You haven't gotten the return ticket yet, right? And if it's crazy expensive we can all pitch in a little bit. I'm sure Kaja and her boys would be happy to help and Lee and the gang are already planning to pull some money together for you to be able to splurge on some great experience-package or something. It might be worth it."

"Skies, I don't know mom." Leo said with a sigh. "It just feels so wasteful and selfish. The climate impact of planes is so much larger, they really shouldn't be used if there is any other option. I think I would feel like too much of a waster using up a seat in an airplane just because I didn't want to get seasick."

"I see your point and my thinking might be totally off here." Bee said, pondering. "Flying was so normalized when I was a kid, I guess it's one of those ingrained things where I rationally know the truth but the deep-knowing, the instinctual feeling, has not caught up for me. And I can't stop myself from wanting to save my dear baby from discomfort." Leo laughed again.

"That is one of your many beautiful qualities mom. And one of my great qualities is the capacity to accept that I will always be seen as a baby by you." Bee guffawed loudly at that.

"You are right, that is a quality I very much appreciate actually! But okay, you have to tell me, how is it? Where are you now? Off the ship I gather."

"Yea, landed yesterday. It's around six in the morning here now so I haven't really been off the ship for very long yet. Stars, I'm so glad that I'll be traveling by train from now

on. Oh, right, we're only doing audio, do you want to turn on optic?"

"Of course I do, wait though, I have to sit down, are you sitting?"

"Sitting. Wouldn't dare start the optic with you if I wasn't sitting down." Leo said with a smile in his voice. "To be honest though, right now I really see what you mean. I never used to feel queasy doing this before but I think I might stay queasy for the rest of my life now." Bee snorted and carefully double-tapped both her eyelids.

"Starting optical connection" the AI announced and then Bee's surroundings were quickly muted and another world was overlayed on top of her own reality. She could still see everything around her but it was as if it was only at half opacity and the layer showing Leo's actual surroundings was much more vivid. He was sitting on a small balcony, or maybe a fire escape, looking out over a narrow street. On one side of the street a worker-bot was setting up stalls of fruit and vegetables and on the other a coffee-bot was just getting ready to serve its first costumers.

"Oh, skies!" Bee said, clamping a hand to her chest, heart beating like a hummingbird's. "You didn't think of mentioning that you are several floors off the ground?"

"Oh, sorry, mom. I didn't think you were scared of heights."

"I'm not, necessarily. But it's different when you've made a decision to be somewhere high up, or when you have at least been warned about it. When I have no idea and jump, from one second to another, from being on the ground to being several floors up, vertigo can definitely strike."

"Shit, mom, I'm really sorry!" Leo said, sounding contrite. "Do you want to turn off the optical again?"

"Well, how about we switch to social? It'd be nice to see your face." Bee said, her heart slowing back down now that the initial shock had passed.

"Okay, sure. Though I have to warn you," Leo said. "I look like someone who's been throwing up every day for about a thousand years." Bee laughed and told the AI to switch modes.

"Switching optical connection to socialization-mode." the AI announced. Leo's surroundings disappeared from Bee's vision and she was looking out over the community garden again. She waved to her family and friends still having lunch nearby and Kaja caught her eye and mouthed 'Leo', tilting her head in question. Bee nodded and then turned back to the conversation. Leo was now sitting on the bench right next to her. He was right, he did look grim. His hair looked disheveled and his beautiful eyes, so much like his father's, were bloodshot and red-rimmed. It looked like he had lost some weight too but he was holding a sandwich with some protein-spread and tomatoes so he was at least past the crackers-ginger-and-carrots-are-the-only-things-I-can-keep-down stage. They both broke into huge smiles just seeing each other's faces. It was funny to Bee how much that mattered. You could have the same conversations and everything in audio calls but you just got this special joy by seeing someone you loved's face.

"Oh, I wish I could hug you, my love!" she said. "That's the worst part of this kind of technology, it tricks your brain so much that the fact that you're sitting right here but I still can't hug you grates on me so much more than if I could only see you in a tiny rectangle the way it was when I was a kid." Leo laughed at her.

"First of all, I don't think I would have let you hug me now even if I was there, I wouldn't want to be squeezed in the wrong spot and projectile vomit all over you." They both laughed and grimaced, imagining that scene. "Second of all, are you really doing a technology-these-days rant right now? Do you remember how annoyed you always got when grandma was ranting and screaming about 'the stupid kenner this and the stupid kenner that'?"

"Ouch" Bee said, putting her hand to her chest and feigning taking a hit to the heart. "That is totally brutal and one hundred percent accurate, my son. What have I told you about being accurate? Don't you dare be accurate when you're calling me out on my bullshit." She winked at him and his eyes twinkled in response.

"Bee-Bee!" Otter called as he came running back to Bee. "I got you some facon since you didn't make it all the way to lunch." He held out two pieces of mycelium bacon and threw himself down on the bench next to her.

"That is so sweet of you, mo stoirín." Bee said gratefully. "But you just sat down on your uncle, would you mind sitting in my lap instead so my brain doesn't glitch out." Leo laughed but Otter quickly jumped up from the bench.

"You're talking to uncle Leo?" Otter said, excited.

"I am. He just arrived to Turtle Island. Do you want to say hi to him?" Otter nodded excitedly and quickly put on his AI-glasses. He was way too young to have any implants yet, but the glasses had most of the same features anyway. In fact, many people still choose to opt out of implants altogether and swore by the glasses as a life long solution. Honestly, Bee had gotten them done partly because it felt adventurous and daring when the technology was quite new and there was a lot of uncertainty around it, but it was also

more resource efficient and that was the reason she would use if somebody asked. Bee told her AI to connect Otter in a three way call and tore into a piece of mycelium bacon, or facon as Otter called it.

“Connecting contact, Otter, to audio and optical: socialization-mode.” the AI announced and Bee sighed exhaustedly and smiled broadly in response.

“Uncle Leo!” Otter said when his glasses connected.

“Hiya, kid. How are you doing? Mom and dads being good to you?”

“Yep! You know what?!”

“What?”

“Dad’s taking me mountain biking today!” Otter’s face was glowing with excitement but then his big smile dropped and he suddenly looked very serious. “Wait. He said we would go after lunch and I just finished lunch. That means we’re going, like, now. I should go and pack!” Bee and Leo laughed and Otter made quick and adorable apologies about not being able to catch up with his uncle before disconnecting and running off towards their apartment to collect his things.

“I should let you go too mom, go have your lunch and I’ll shower and try to get my head back on track. Did I tell you I’m meeting up with Badger today? He’s gonna take me to the Haudenosaunee Confederacy and we’ll hang out for a couple of weeks with his tribe.”

“Of course you told me you’ll be meeting up with Badger, this is the part of your trip that I’m actually really jealous of.” Bee said, somewhat affronted over Leo’s exposition, as if she hadn’t been part of the conversations planning this. “I would have loved to see Onondaga Nation with my own eyes. And Badger! You have to hug him

properly from me Leo. Maybe wait until your stomach has settled though because I want it to be a real, long hug. The kind of hug I would have given him myself, okay?” Badger had lived with their family for a year when he and Leo had been sixteen years old. It was part of an amazing knowledge-sharing project where different Indigenous people would travel to other places in the world – usually with biomes similar to their home tribes – and teach non-Indigenous people about their ways. Badger had taught them all so much by sharing his perspective and guiding the community towards new ways of thinking. The whole family had grown incredibly close to him and it had been heartbreakingly difficult for all of them when the year was up and he had to go back home. Especially for Leo. Though Badger had been sad to leave them he had also been missing his own family and community. For Leo there was no bright side to him leaving. He had said that Badger’s happiness was enough, and they still spoke digitally all the time, but Bee suspected that he had been longing for this trip for years.

“Of course I will give him a proper mother-Bee hug. And I’m blaming my nausea for anything I said that made you sound offended just now, remember it is your fault that I get this seasick.” Leo said with a cheeky grin which made Bee laugh again. She was about to say goodbye but then Leo said, in a much more serious tone.

“I am a little bit worried about this meat thing though. I really don’t want to offend anybody. I mean, I totally understand that it is part of their tradition and heritage, that they only eat meat that is hunted, they follow the principles of the Honorable Harvest and they don’t breed animals to be eaten, so it’s not a sustainability problem. I understand

these things rationally, there's just something I can't help but find incredibly gross about biting into a piece of flesh and tearing it apart with my teeth. As soon as I try to imagine it I can't help but see Maui's little legs – remember when she had that surgery for her luxating patella and they had to shave her leg and you said it looked a bit like what chicken legs used to look like in the supermarket..." Leo made a gagging noise and his whole body convulsed in a spasm. "Okay, really bad idea to talk about this now, but it's just something about eating a recently sentient creature that just feels wrong, emotionally, I guess."

"I understand that you feel that way, darling" Bee said. "You've never even had the option to eat meat so you were never surrounded by the justifications and normalizations of eating animal flesh. I remember feeling similarly when I stopped eating meat in my teens, after a year or so the mere thought of it disgusted me, but before that it had just been normal and I didn't consider it really."

"What about when you go visit auntie Aila? Is it ever weird then?"

"You've gone with me on trips to Sapmi, don't you remember? We used to go as a whole family unit."

"I know mom, but I was like five the last time so I can't say if there was any specific awkwardness over missed etiquette."

"Fair enough. Though you had the most evolved emotional intelligence when you were little, I'm pretty sure you would have picked up on it." Leo smiled patiently, eyebrows raised in waiting.

"To answer your question," Leo huffed a laugh at this, "it wasn't ever awkward with Aila. Since we first met in the protest camps and Aila started teasing Oisín and me for

being outsiders from the get go, our not eating meat was just part of the inside joke of our outsider-status. But there were loads of people who weren't Sami in the camps so there was a general spirit of accommodating for everyone's needs there. Ever since, nobody's ever offered us meat when we've visited anyone who knows Aila. But to answer your initial question," Leo laughed again at this, "I think you should talk to Badger about it, ask him about how to approach it. You know he isn't going to get upset with you and he will be much better at guiding you about this than I am."

"Yea, that's a good idea, mom." Leo said. "I might also be less queasy by then too. And I was going to let you go and have lunch."

"Great. You're right, I'll get some lunch." Bee was actually getting pretty hungry by now. "Thanks for calling, darling. I'll talk to you and Badger soon. I love you, my boy."

"Love you too mom, bye."

"Call disconnected" the AI announced.

Bee had a quick lunch where she paired the rest of the facon she had gotten from Otter with some flaxseed pancakes, fruit and honey while filling Kaja and Zay in on Leo's latest update. Kaja was lying in a hammock right next to the pergola making it swing by pushing off with her foot against Zay's thigh and simultaneously laughing and grimacing in horror over her brother's misery. Obviously, she'd had the great fortune of inheriting her father's seasick-free genes as Bee could barely look at her swinging form without feeling queasy. As soon as Bee had finished eating her AI announced.

"You are going to the community centre after lunch. You never gave me a specific time. It seems like this is after lunch. Will you go there now or would you like to pick a more specific time?" Bee chuckled at the AI's snarky tone. She held her finger against her cheek and said.

"Thanks for reminding me. I'll go in a minute. No need to schedule a more specific time but remind me again in half an hour if I have gotten distracted."

"Very well, sir." The AI said and Bee smiled hugely, picturing the little bow in its tone.

"It did the butler thing?" Zay asked, mirroring her smile as she nodded. Bee's AI was muted to others so Zay had only been able to hear her side of the interaction but he must have gathered from her saying thank you and subsequent smile. It could get quite confusing hearing everyone's AI's out loud all the time so most people had them muted to others as a default. Of course, that could also get quite confusing because people started suddenly answering questions that nobody else could hear. Pretty quickly different signals to communicate to the people around you that you were talking to your AI started being used. The most common of these gestures was holding your index finger against your cheek. Bee wasn't sure why this had become so popular but she suspected it was just an easy thing to do. When you got a call in public, most people would keep their finger behind their ear for a bit after tapping to receive the call, to make it clear they were on the phone. Maybe that was why it had become natural to use your finger against your cheek for AI communication.

Kaja shook her head at Bee and Zay's giggling butler jokes as she climbed out of the hammock.

"The two of you. I can't even..." She reached over the table to kiss Bee on the cheek and then kissed Zay on the mouth before walking off. Bee gathered her things, getting ready to go to the community centre and see if she could find the kids who had wanted her to share her ancient skills and knowledge of redundant computer programs. She left as Zay started tending the community garden with some of the neighbors and Kaja was spreading out her watercolors on the big table, getting ready to paint, with a few of her friends and Otter's little friend Izzy. Izzy seemed even more excited looking at the beautiful colors and the magic that happened when Kaja's brush hit the paper than she had when she was playing with Otter's kenner. Bee smiled and waved at them all as she unclipped her bicycle and walked out through the passageway at the end of the courtyard. It would take her about fifteen minutes to cycle to the community centre. There was another centre much closer to her house but The Coalition of Cheetahs Community Centre would always be the community centre to Bee. When the kids were growing up their little family had lived in an apartment close to the Cheetahs and, even though she did visit the community centre closest to her current apartment, The Prickle of Porcupines, from time to time, her community was still at the Cheetahs. Bee usually liked to cycle pretty fast and when she was alone she would almost always use the cycle lanes since they were specifically dedicated to high speed. She loved how it felt almost like flying when she got some proper speed going and since this was really the only way she exercised these days, she also felt proud of herself for doing it. At sixty-four she no longer felt guilty for not exercising more but still felt proud of herself whenever she did, an attitude she counted as a plus point in her self love

tally. Her bike was this beautiful old French sports bike from the 1980's that Oisín had gotten her and taught her how to take care of with love. Though most parts had been replaced at one point or another along the way, it was still in perfect condition. She actually really liked that it wasn't electric or had any integrated smart-functions. It was a classic, old school bicycle and even if it's only power source was her pedaling power it was really fast and nimble.

For some reason she wasn't moving towards the cycle lane today though, she suddenly felt like taking her time. Remembering the conversation with Otter about the first time she had met Oisín and the conversation with Leo about Aila's teasing made her mind swirl with thoughts about her youth. She rode her bike slowly, meandering along the wide road and looking up at the old and beautiful brick buildings on either side of her. So many years had passed and so much had changed since then. She hadn't thought about those very first memories with Aila and Oisín in a long time but today they had randomly come up twice for her. She suddenly felt swept up in the memories of that time and decided she needed to stop altogether. Just coming up on one of her favorite little parks she left her bike outside and walked over to a bench surrounded by apple trees. In the fall this park was always buzzing with little helper bots, harvesting the fruit from all the fruit trees but as she sat down now the whole park felt calm and tranquil. There was a small automatic lawn mower, mowing a designated area of the park where children could run and play games. There were a couple of dog walkers and some random people out strolling, but other than that it was quiet. Bee liked it when the park was lively and full of activity and people but right

now this was exactly what she wanted. A calm and beautiful place to sit in solitude and allow herself the time and focus to really cherish her memories. Sitting there and fully immersing herself in the past she was surprised and delighted with how vivid her memories felt. When she closed her eyes she was flooded with them, suddenly remembering things in such detail that she was left momentarily breathless, just trying to absorb it all.

## CHAPTER FOUR

The protests for Sapmi-autonomy had been growing for a while back then and Bee had finally decided that she had to help in any way she could. She had just run out the clock on her last job. Back then you had to be given proper employment after working in the same place for one year. This was according to the Swedish law but, in reality, what it meant was that most workplaces would stop extending your contract somewhere between ten and twelve months so that they could avoid employing you full-time. The job insecurity just added to the pressure of performing well at work but even people with proper job security were incredibly overworked. The norm was spending an unhealthy amount of time and energy working, to the point that a specific disease caused by this stress spread like a pandemic. After consistently experiencing high levels of stress for an extended period of time, people got to a point where their body and mind had had enough. It was called 'walking into the wall' when the symptoms were sudden and extreme. People suddenly got disoriented, couldn't follow a conversation or read anymore. Bee had heard of cases where it took years for people to get back from this. Ironically, the only thing doctors prescribed for this disease was for people to live healthy lives until they were cured. Healthy meaning with a drastically reduced work load, rest and recovery time after stress exposure, and therapy and other ways to treat depression and anxiety.

When Bee had been informed by her latest employer that they unfortunately just couldn't afford to keep her past the year, she had felt so sick of the whole process. Refusing to

get back into the hamster wheel of begging for employment, this time she had an overwhelming feeling that she needed to do something important. She knew that one of the leading causes for burnout was experiencing high work-related demands and pressures combined with few possibilities to change the situation. Instead of looking for another full-time job — or crash into a wall trying — she needed to know that she was making a difference. As soon as she was able she started traveling north. Bee's roller derby team had organized a Sapmi protest down in Malmö a while back and Aila had been their contact-person. As soon as Bee got to the camp Aila took her under her wing and their friendship bloomed immediate.

Bee lived in the camp for three months before the mining operation they were blocking was ordered to stand down. It felt like such an amazing victory and, though life in the camp wasn't always glamorous, Bee was nowhere near ready to go back home. This was only a small victory in the greater scheme of things and she wanted to keep making a difference. Since Alia had always planned to move back to her home-base camp nearby when they won, the two of them travelled there together a few days later. One of the few old growth forest left in Sweden was under threat of clearcutting and protesters had actively occupied it for almost four years at this point. Aila's little community of friends and relatives had their tents clustered together in a small natural clearing in the southeastern part of the forest.

As they walked through the forest Aila enthusiastically described the use of direct democracy in the camp. She was bubbling with excitement over the upcoming digital summer-sijddastämman, with all four sijddor, that was starting next week.



"We're part of årjesijdda" Aila explained.

"The south sijdda?" It was somewhere between a statement and a question.

"Yes! Very good." Aila beamed at her and Bee felt strangely emotional seeing the pride in her friend's eyes at her limited Sami language skills. "Årjesijdda's actually quite a bit bigger than the other three. It also has by far the largest amount of non-Sami protesters."

"Why is that?" Bee asked, carefully stepping over a fallen log that was blocking their forest trail.

"Probably because all non-Sami outsiders want to be as far south as possible. You guys seem to be have a really hard time with the cold." Aila's eyes twinkled. Bee loved this kind of teasing from Aila, there was something about how her eyes lit up whenever she made a sweeping-non-Sami-people statement that warmed Bee's heart. She couldn't explain it exactly, it was partly because she knew that it was only ever meant as good-natured ribbing. But there was another aspect too that felt more difficult to pin down, it was something about a person who's people had been oppressed being able to tease a person who's people had been the oppressors in an amiable manner. Some people might think that it was problematic even if it was meant as a joke because it was divisive, claiming that we should strive for unity and avoid generalizations regardless of the situation.

To Bee, this was the opposite of divisive. Allowing Aila to be proud of her heritage, to nurture and maintain the indigenous heritage she was born with, was only a good thing. Understanding and acknowledging the wrongs done by Bee's people didn't mean that Bee was to blame for the past and she hated it when people tried to downplay things

rather than acknowledge them because they couldn't handle that their ancestors had been horrible. Unity usually seemed to mean that one side had to strip themselves of whatever made them different in order to keep the peace. Aila making sweeping statements about non-Sami people made it feel like they were equals. It made it feel like, despite their people's history, they were two autonomous individuals who could learn from each other's previous knowledge and tease each other in a warmhearted way.

"Seems like you wanted to be as far south as possible too, though. Do you also have a hard time with the cold, my dear friend?" Aila turned to her and then burst out laughing. She bumped Bee's shoulder with her own.

"I choose the south because of my relations, you thorn!." she said, still chuckling.

"Hmm" Bee said, tapping her chin with a finger. "You mean you chose the south because you wanted to live with the people you cared about and they were already living in this sijdda?"

"Exactly."

"You mean like how *I*, a non-Sami outsider, chose the south because I wanted to stay with *you*, a person I care about?"

"Exactly." Aila said again, as if this was proving her own point and not the other way around. They both started laughing again. "But...look, if you didn't know me, you totally would have chosen the south anyway, right?"

"I guess we'll never know, will we?" It looked like they were getting close to the clearing now, Bee could see how the light was flooding into the forest a bit further along the trail. Aila grabbed her arm, stopping their progress and her voice sounded more sincere now.

"Of course I want you to stay with me, Bee. I was only teasing, you know that, right?" Be nodded with a huge smile. "And just so you know," Aila continued, "even if there are a lot more non-Sami people in årjesijdda as a whole, my – well, yours too now – our family group is still almost all Sami. As far as I know, there's only one other non-Sami person there. Not that it matters of course, you are very welcome to be our second." Bee threw her arm around Aila's shoulders and squeezed.

"I feel honored to be your second." She let her arm drop again as they started walking. "Then again, I feel a little offended that I'm not your first. Who is this non-Sami your family gave the honor of being your first to?" Aila chuckled.

"Oh, Oisín's really great. I think you're gonna like him actually. He's an Irish guy we met at sijddastämman last December. We all started hanging out that winter and then we brought him with us in the summer split." They could hear voices from the clearing now and Aila's gaze started darting expectantly through the trees. All discussions about a potentially lovely Irishman was dropped and they started moving faster in unison. Almost as soon as they broke the clearing Aila was jumped by the two children who spotted her first. There was a big hubbub as the word of Aila's return spread through the camp and everybody came over to greet them.

They had arrived pretty late and after a real introduction with the elders and setting up the tent it was already past midnight. Though the sky was as dark as it got at this time of year, it was still barely darker than a late afternoon in Malmö. The temperature was another matter though and they both eagerly moved to join a group of young people sitting around a big communal fire pit.

"Oh, hey, Oisín!" Aila said. "You and Bee should totally get to know each other. I mean, you might have loads of things in common considering you're both outsiders and all, so..." Her voice was teasing as she half shoved Bee to the empty spot on the reindeer skin next to Oisín. Bee laughed at her friend's obvious meddling as Aila took a seat on the other side of the fire pit, clearly happy to be back with some of her old friends.

"Well at least I'm Swedish so I'm technically less of an outsider, right? I mean, have you even seen proper snow before you got here, Irishman?" She said this last bit in a mock snobbish tone. She suddenly realized that she felt nervous speaking to Oisín after all of Aila's needling. Bee wasn't usually nervous talking to new people and it confused her being this unsure about things. They had met only briefly as he welcomed Aila back earlier but he and Aila had shared a joke about the Irish and the snow then so Bee was pretty sure he wouldn't get offended by her teasing now. She still had to stop herself from cringing a bit though, because her joke just wasn't very funny.

"You think being from their colonizing nation makes you less of an outsider in Sapmi?" Oisín responded with eyes twinkling and a good-natured, teasing grin. "I'd say that being Irish – our people having the shared experience of being colonized and oppressed by a neighboring, brutish nation – makes me less of an outsider than a Swede." Mortification. Bee put her head in her hands, absolutely mortified. She had hoped that he wouldn't be offended that she, who really didn't know him, was joking about his people. In this nervous state it seemed like she had completely forgotten about the context she was in, though. She had only been thinking geographically but what she

said had been so insensitive towards the Sami people and, by extension, all oppressed and colonized people.

"Oh my gosh! You're 100% right." She said, peering at him through her fingers. "I can't believe I just said that, I'm so embarrassed." People around the fire laughed and Oisín put an arm around her waist, squeezing her gently and rocking her from side to side a little bit, as if trying to shake of her embarrassment. Bee groaned at herself still feeling stupid but Oisín wrapped his fingers around her wrist lightly and calmly pulled her hand away from her face.

"Skies you're adorable. Please don't worry about it, you're not responsible for what other Swedes have done. Besides, you're here, aren't you?" He gestured with both hands, indicating the camp around them. "You're actively protesting against your colonizing ancestors' and current leaders' choices."

"Yeah but still. That was so embarrassingly stupid. It was exactly the kind of ignorant comment that usually makes me have to stop myself from punching people out, and I guess I'm one of those people now!" She buried her face in her hands again. "Maybe someone should punch me out?" Her words came out muffled but she could tell people had heard her by the snickering from around the fire. Her embarrassment was slowly waning but the face-in-hands move seemed to work quite well for a self deprecating mood too. "I feel like my grandpa who couldn't understand why it was insensitive to name a baked good after a slur for black people!" Another burst of laughter erupted around the fire and Oisín gently pulled Bee's hands away from her face again. He was looking at her with surprise and confusion over this last statement but she could also see

amusement in his eyes. He kept one of her hands in his, interlacing their fingers and giving her hand a soft squeeze.

"You clearly can't be trusted with this" He whispered, flashing a quick look at their hands and then continuing in a normal speaking voice. "So, what was this about baked goods and slurs?"

"Told you Swedes are assholes!" A guy on the other side of the fire pit said "Slurring their baked goods and stuff." He was giving his friend a pointed look while shaking his head and tsking playfully.

"Not all Swedes, you turd!" Aila reached out and smacked him hard on the shoulder.

"Plus, I'm pretty sure I heard your grandma call it that when we were kids too, Edo." Everyone laughed again but Bee was barely paying attention at this point. Her gaze was locked to Oisín's hand in hers and when she looked up she found his eyes already on her face. They stared at each other for a long, silent moment. Oisín's eyes were really interesting, it was as if they consisted of two separate rings, one brown ring circling the pupil and one blue ring along the outer edge of the iris. The two rings merged in the middle and created a gradient from brown to blue. His hair was dark, black or very dark brown, and in messy waves that somehow made him look casual and genuinely serious at the same time.

"You're adorable too, you know." Bee said without thinking. She felt a quick spike of shock at her own declaration and reflexively squeezed his hand tightly. The alarm quickly settled as she felt his hand squeezing hers back and could feel the truth of her own words landing with a heavy, assertive thud in her chest. His eyes widened and

the small, curious smile he wore slowly grew until it engulfed his entire face.

“That is by far the sweetest thing anyone has ever said to me. I think I just fell a little bit in love with you, mo stoirín. Please tell me that I’m adorable at least one time every day for the rest of my life.” They stared at each other for another few seconds, Bee’s entire body tingling and her brain feeling like a shaken up snow globe, the snow tumbling in a chaotic mess all around her.

“My first thought when you told me that I was adorable,” Oisín continued conversationally, as if they were talking about some matter-of-fact, everyday thing, “was that I didn’t feel sure if I could ever let you go after this revelation about my adorableness. But fortunately, before I spoke I had time to realize what a horrible thing that would have been to say to you. It should never be a question of my choice of not letting you go, it can only ever be a question of your choice to not be let go of. All I can hope to achieve really, is to inspire you to choose to want to stay with me forever. Right?” Again, they stared at each other in silence for a few seconds.

“Still adorable, mo stoirín?” Oisín asked coyly after the prolonged silence.

“Even more so.” Bee answered, feeling a little stunned by their sudden and intense connection. “You’re probably the most adorable person I have ever met.” Oisín’s face-engulfing smile hit her again and Bee suddenly felt desperate for something to say. It seemed like every time she just stared at him he would start talking again and every time he did her snow-globe-brain was hit by another scrambling shake. Her mind snagged on a topic and, for fear

of losing them in the swirling snow, her questions came out in a rush, one after the other, all in one breath.

“Why did you call me mo stoirín? Is that a Sami word or an Irish one? What does it mean?”

## CHAPTER FIVE

Bee felt like she was coming out of a trance. Tears were streaming down her face and the pain of losing Oisín felt even sharper after reminiscing about the wonderful young man he had been when they first met. She had fallen so hard and fast for that boy and living through it again now only made her fall in love with him all over again. The fact that he wasn't there to love anymore was unbearable but the fact that they had lived a whole life together since that first day in Sapmi was absolutely wonderful. Her grief and joy and love was making her happy and sad at the same time, she felt overwhelmed by it but also incredibly glad to have taken the time for it today. Bee realized, as she sat on her bench, so many years later, that she really had granted his wish from that first day. She had told Oisín that he was adorable at least once a day, every day for the rest of his life. It had become a bit of an inside joke in the family actually, even if they were away from each other Bee would manage to tell Oisín how adorable he was every day. She had recruited the children to deliver the message at times. When he had a trip she would sneak little notes in his luggage. If she was away she would prepare and program daily recordings to suddenly play on all the screens in the whole apartment.

After the day they met Oisín never lived another day without hearing the love of his life tell him that he was adorable. Maybe this was why it had been so important to Bee to start using *mo stoirín* with Otter. She had upheld her promise but he had died before upholding his. Even though she'd never actually asked Oisín to call her his little darling for the rest of her life it had been an unspoken promise

between them and she had felt very unbalanced without it. Otter's existence had helped with that. Something had clicked in her when she got to hold her grandchild for the first time, petting his little scrunchy cheek and cotton candy poof of dark hair.

"Welcome to the world, *mo stoirín*" she'd said and that was that, it was time to start living again. She would always feel incomplete without her adorable man but there was balance in her life again. Taking a deep breath, tears finally dry now, it was time to get moving.

She picked up her bike again and still felt like taking her time traveling through the city. This plunge down memory lane had left her in a contemplative state. It made her want to actively study the world around her again, to really appreciate the changes to the world during her lifetime. Restarting her leisurely pace she listened to the sound of the crunching gravel as the bicycle glided down the street. The high speed bicycle and delivery drone lanes were always made of asphalt but in some of the slower paced areas they now had gravel paths to limit the use of petroleum products, increase the permeability for rainwater and decrease the heat island effect in the city. The increased amount of land used for green areas helped with the same things, though this of course had many other values as well. Thinking back, Bee had quite liked living in Malmö even before the Big Shift. Compared to many other places it had a lot of advantages even then. The bicycle infrastructure was already quite developed for example and it had so many beautiful old buildings close to the city centre.

The bell of a trolleybus sounded behind her and Bee quickly moved out of the way to let it pass. It had been so

long since a self-driving trolleybus had hit someone, in fact they were the safest self-driving vehicles out there, but Bee still couldn't get over that little irrational twinge of fear she always got seeing the driver-seat empty.

Behind the trolleybus there was a little caravan of kids riding bicycles, roller-skates and skateboards, all taking turns to hold onto the to back of the bus for a few meters to get an extra boost of speed. They were laughing and cheering together, looking like they were having the time of their lives and Bee laughed with them and gave them an encouraging wave as they rode by.

When Bee was young, all these streets were full of cars. There was a constant flow of them rushing past everywhere around you and, in the city, it felt like you could never escape their incessant noise. There were also cars parked along the streets, taking up even more of the communal space, to the point that it used to be difficult to find a place to park your bicycle. Pedestrians and cyclist had to constantly be on high alert and the general view was that the street belonged to cars and everyone else could pretty much only interact with it at crosswalks.

Cars did not own the streets anymore, the streets were now for everybody. The trams and trains had their tracks separated from the rest, for efficient public transport – and you really did have to look before crossing the bicycle and the delivery drone lanes – but the main roads accommodated for everyone. The wide roads, those that had contained several lanes for cars back in the day, were now divided into a left and a right side. The left side was for the slowest pace, often with places to stop and sit or other things to engage with along the way. If you wanted to move at a faster pace, you would be further towards the right side.

This is also where the lines for the trolleybuses would always be mounted and, in the case of an emergency, the right side of the street would be shut down to let emergency vehicles get through the city quickly. When this happened, the streetlights would change color and alerts would be sent out to anyone in the vicinity. If anyone seemed unaware of the situation, the closest speaker to them would announce the alert out loud and others would stop and help get them out of the way. The actual vehicles also had blinking lights and sirens but they rarely had to use the sirens at all.

These tools had turned out to be a really effective in bringing attention without creating too much disruption, which meant that emergency vehicles were able to exist quite smoothly in this transportation network. Deliveries to the large goods terminals would either happen by train or, when trucks were necessary, at night. The delivery lanes, which were usually right next to the bicycle lanes, where for the small delivery drones that delivered from the terminals to people's individual homes.

People didn't need to travel as much now as they did when Bee was young. Instead of going back and forth to work five full days every week, people now only worked an average of ten hours a week and most were able to plan it out to avoid too much travel if they needed to, or to do most of their work at home if they preferred. But the fact that they didn't need to travel for work anymore didn't mean that people didn't want to travel in general. Since they now had much more quality free time, most people traveled quite a bit for recreational purposes.

The railway infrastructure had been a priority and had expanded a lot since the Big Shift. Trains had become quite

iconic for the people fighting for change, the Shifters as they were called, and many of their flags and symbols depicted trains in one form or another. Trains, or public transportation in general really, had been one of the first big wins for the Shifters. Bee could still remember the shock and barely-daring-to-hope elation she had felt when she'd heard that their demands had been met. All public transportation in the entire nation was suddenly free for everyone to use whenever they wanted.

The following weeks had been absolute mayhem, the amount of people who chose public transportation instead of driving when one was free and the other was constantly increasing in price had totally stunned the people in charge. Looking back now, it only seemed funny to Bee that they had been so clueless but at the time she had walked around in a state of perpetual frustration over their stupidity overlaid with gratitude and excitement over the humungous societal change. She remembered how crowded, delayed and chaotic the train-rides had been at first, but also the joy, compassion, understanding and solidarity most people had expressed. Of course there had been some annoyed people who grumbled about much preferring to pay for their tickets than dealing with this mess, but they were a small minority. Most people had been great and it had really felt to Bee like they, as a society, had turned a page. Moving away from polarization and distance from your fellow human and moving towards collective possibilities and solutions for the future.

She had reflected then on how different it had felt to when they had won Sapmi-autonomy a few years prior. In many ways that had been an even more amazing and emotional experience at first but that feeling had been

somewhat soured for Bee and Oisín as soon as they left Sapmi. She had brought him back to Malmö and they had been slapped in the face by the anger and hate many Swedes were spouting about the Sami. Maybe they had been naive to not have expected it but despite the majority vote to allow Sapmi-autonomy there had been a shockingly loud and hateful minority even in the southern most part of Sweden. For a while it seemed like the country was getting even more polarized but with the free public transportation decision the shifting of the tides was finally starting outside of Sapmi as well. Using the train as the Shifters symbol had worked really well because it was a constant reminder of the positive changes that had come about thanks to the Shifters in people's own lives.

Nowadays most everyone was happy to travel by train, but there was still a limit to when it was resource efficient to add a train line. Increased urbanization was the key for sustainable transport in many ways and during the Big Shift most people moved to the cities. Of course, there were still people who had very strong roots in a specific place which meant they really didn't want to move to a city, or even to a place near a train station. The problem was that if you lived in a remote area, far from the nearest station, you were either very limited and isolated or you would need to use less sustainable transport methods. Since sustainability and resource efficiency were seen as such important aspects, everything that was inefficient was very expensive, both monetarily and as a social stigma.

Bee could get a bit frustrated when discussing with some of her old Shifter friends sometimes because some of them could be quite derisive when talking about 'rurals', as they would call them. Of course she understood the argument

about everyone having to live within the doughnut and she knew that certain aspects of living in the country side made it harder to be as resource efficient. What annoyed her was the dogmatic way they reasoned. It was a tricky question and Bee didn't have a perfect answer for it but she felt like some people seemed to forget the complexity of this problem and ignore the different values that needed consideration. It especially annoyed her when this rural criticism extended to the Sami people. Indigenous peoples in general had been the ones to fight for sustainability and good relations with the planet since forever. Despite being a small and oppressed part of the population in most nations, they had been incredibly influential and important for the shifting societal worldviews.

Sometimes Bee felt like all the Shifters she knew who hadn't been part of the fight for Sapmi autonomy had missed a vital part of the puzzle. It felt like all they saw were random disconnected pieces of sky and trees and water but they missed the connecting pieces which meant that they missed out on the whole vibrant magical landscape that the puzzle actually depicted. These thoughts would only plague Bee on her most cynical days though, she knew that most people had been incredibly influenced by indigenous ways of understanding – even if they might not even know that's where it came from themselves – and she was incredibly glad about this change in attitude.

Oisín had told her once that the people who's ideals were closest to his own could make him feel the most frustrated when he disagreed with them. Maybe that was part of the reason other former Shifters really infuriated her sometimes but Bee thought the main reason was that several of them were much more judgmental and dogmatic about their

ideals than most other people. In many ways that had probably been necessary traits among Shifters during the fight but Bee felt like some of them had also been stunted by it. They had clung on to some of the judgmental tendencies that had been rampant before the Big Shift and almost refused to grow beyond it. Oisín used to say that he thought some people needed ways to judge each other, to rank themselves in relation to the people around them.

"The greatest ranking-my-self-worth tool used to be material wealth, now it's sustainability...and how you choose to spend your time too, I guess." He had told her. "And in so many ways it's such an amazing change. Sustainability is important to care about and it's making such a huge difference that this is the ranking system now. I guess I just feel sad sometimes that we seem to feel the need to look down on people at all."

It was true that people judged each other based on sustainability, not just in relation to urban vs. rural transportation systems. 'Waster' was a common insult, especially among young people, and some of them were completely obsessed with their carbon footprints, tracking everything they did and competing for the lowest score. This had become something of a hot topic and there were often generationally divided debates where the older generation thought the kids were tracking to an unhealthy degree and the younger generations thought old people were being conservative and stuck in their old ways. When Bee's children had started charting their carbon footprint, after one of these viral trends, they had all sat down and talked about it.

"Did you guys know that the carbon footprint was first popularized when I was young?" Her children had shaken



their heads, glancing at each other and then giving her identical bemused looks.

"I mean, this was long before the Big Shift." She continued. "Just think for a minute about what the concept of the carbon footprint could be pushing for. I'm not trying to tell you that you can't track your carbon footprints if you think it's an interesting exercise and I'm sure there are things we can improve at home to be more efficient. And we should absolutely do that if you find them. I'm sure your father will be happy to read out loud to you guys instead of watching a movie tonight for example." Leo and Kaja groaned in unison.

"The TV uses 100% renewable energy, mom. A movie barely counts in the score." Leo said.

"I just couldn't help myself, it was such a great mom-joke!" Both her children gave her meaningful looks, indicating that it was, in fact, not at all a good mom-joke.

"Okay, my point is that I think it's important to know that the paradigm shift back then was in many ways the absolute opposite of this concept. The way I see it, the carbon footprint encouraged each person to start counting their individual consumption habits and making small individual changes, within the confines of what they are personally able to change, in order to compete against each other about who's living a more righteous life."

"You mean the carbon footprint shifts the responsibility for living in good relations with the planet from the collective to the individual?" Kaja narrowed her eyes. "And it nudges people towards ranking and, in extension, shaming each other for perceived failures. I just read a study about how shame leads to defensive and aggressive or apathetic behaviors if the task that will alleviate the shame

feels too big to manage on your own. So, the carbon footprint was pushing towards a society where individuals were doing nothing real but felt bad and angry with each other? With that it was discouraging people from being part of communities who worked together to improve and actively rearrange the system. It was pushing the responsibility onto the people instead of pushing to make the sustainable option the easiest option for people to choose." Bee looked at her daughter, staring in wonder at this beautiful wise and clever person. Here she sat, fourteen years old, she was just a little girl a few days ago wasn't she? Bee couldn't remember how she herself had been at fourteen but she doubted that she had been this eloquent and sharp. The way Kaja could so easily cut through the bullshit and right to the core of things, understanding complex concepts while still keeping her mind open to shift direction if supplied with a new puzzle piece, was astonishing.

"Yes Kaja, you phrased that much better than I would have ever been able to, that's exactly what I meant. The carbon footprint wasn't the only way this worldview was being pushed of course, but yes, exactly that." Leo frowned at this statement.

"Mom" he said. "I know this is something you struggle with so I don't want to make you feel bad but please try to remember to stop putting yourself down or selling yourself short when trying to lift us up. I agree that Kaja's phrasing was great but the compliment isn't any better by being raised above your ability to phrase things well." Bee stared at her son and was almost overcome with emotion now. Leo was scowling but his eyes were kind and affectionate as he tried to get his point across while staying gentle and patient.

**CHAPTER SIX**

He was twelve years old and his emotional maturity was already absolutely staggering to Bee.

“You are absolutely right, my heart. Thank you for calling me out on it. I really appreciate the patience you both have with me about these things.” Bee cleared her throat and adjusted in her seat, trying to be subtle as she wiped an eye with the back of her hand.

“Anyway, back to the point I was trying to make. As Kaja deducted, the point of focusing on people’s personal carbon footprint wasn’t necessarily to encourage a fundamental societal change. I would say that the point was to push the blame for the climate crisis – that’s what we used to call it back then – onto each individual person in society and away from the companies who profited and actually controlled most of the choices. Just the fact that the whole concept of the carbon footprint was popularized by the oil and gas company called British Petroleum is a pretty telling indication.” Her children stared at her, this time looking horrified and shocked.

“Wait. What?” Leo looked absolutely disgusted. Kaja’s expression wasn’t as disgusted but she looked sad and a bit worried.

“I can’t believe how manipulative they were all the time. I seems like you would have to be so skeptical towards everything back then. Wouldn’t you become really unsure about things, and constantly wonder if you had been tricked into your beliefs?”

“Yea, or you would have to decide what you thought about something and then stick to that and never trust anybody else’s new information about the subject” Leo was leaning forward, elbows on knees, as he pondered.

Suddenly Bee heard the honk of a car behind her. She jumped and her heart decided that it might have an interesting career as a jackhammer. Cars were rare in the city nowadays, they were mainly used for moving large pieces of furniture and the like. Bee looked over her shoulder and saw that this was the case for the car behind her. It had a large sofa strapped to the roof and was filled up to the brim with moving boxes, leaving only a very cramped space for the driver in the front seat. The driver seemed to be in his early forties and looked abashed as he started crawling past her.

“I really didn’t mean to startle you!” His window was rolled down and he was close enough to Bee that the volume of his voice made her flinch. Bee started laughing and the man’s mortified expression at having made her jump twice transformed into relieved amusement as she laughed.

“Don’t worry about it. I was just zoning out a little bit, lost in memories. It wasn’t your fault. Thanks for bringing me back into the present.” The driver gave her a warm smile and they waved at each other as he overtook her completely and continued gliding down the street.

“This is the second time today that you have been surprised by a vehicle’s presence behind you. Would you like me to start warning you when vehicles are getting close to you?” the AI-system said in Bee’s ear. It had spoken without judgement, just stating facts and Bee was proud of herself for not feeling embarrassed and defensive over the statement. She barely even felt the urge to explain that it was because she was so used to using the bicycle lanes that she felt disoriented riding in the street for once.

"Yes, that's a good idea." She said. "Computer, activate the vehicle warning system."

"It's not called the vehicle warning system, you just made that name up."

"Activate...now!" Bee started cycling a little faster after this pronouncement and snickered to herself at her own antics. Interacting with her AI always put her in a better mood. She knew some people had a very loving relationship with the computer in their head. Some were even romantically involved, which Bee honestly found a bit disturbing, but maybe she was just getting old and being closed minded about things. Regardless, she preferred having someone she could tease and play with without the risk of actually hurting their feelings. And she preferred that her truly loving relationships were with actual, flesh and blood creatures, rather than a voice in her own mind.

Part of the reason she had been so startled by the honk of the car horn earlier was definitely that she had let her mind wonder but it was also because it was just so rare to hear that noise nowadays. Cars weren't allowed to drive faster than 30 km/h in the cities which meant that they had become quite a slow mode of transportation and it was very rare that people used a car just to travel somewhere. This change was advantageous for many reasons. Apart from the obvious improvement of severely lessened CO2 emissions, it had also given the streets a whole new life. Instead of existing only as transitional spaces, streets had become part of the social and engaging fabric of the city. People felt more connected to the city as a whole and it now felt like you had the right to take up space there in a completely different way. Because of the crawling pace, car accidents

were extremely rare and without the regular flow of fast and heavy vehicles, roads didn't need to be built to withstand the same kinds of forces. New roads could be built in much more environmentally friendly ways as a result, but these reduced forces also meant that the maintenance needed on already existing roads, and the microplastic particle pollution from tyre and road wear, was greatly reduced. When Bee was little she had felt quite unsafe in the streets, as if she was constantly in the way and had to follow strict rules in order to stay alive. As if her crossing the street when the light was red would undoubtedly lead to her death and it would be 100% her own fault. It was as if the car had no responsibility for hitting her, if she broke the rules she was to blame. As she had gotten older Bee had realized that her mother had been plagued by some quite neurotic tendencies, which ultimately lead to Bee's teenage rebellion expressing itself as a longing for adventure and excitement. But, even if her childhood fear of traffic had been a bit extreme even for pre-shift standards, there was still quite a stark difference between the way people used to interact with their surroundings, in a car-dominated city, and the way they did today.

People's relationships to cars had also changed drastically, they were no longer seen as mainstream. They weren't thought of as a convenient everyday tool or even as a problematic necessity. Most interactions with cars nowadays were recreational. Driving was a hobby and a sport, often combined with an interest for tinkering with cars and retrofitting them by turning the old gas guzzlers electric. In the summers – when solar panels generated an excess of electricity – there were several different races and games

organized on tracks outside the cities for anyone who wanted to experience the joy and excitement of fast driving cars, just for the fun of it. Otter had been absolutely gobsmacked the first time he had seen a race. Bee and Zay had taken him last summer and since he hadn't ever seen a car move much faster than a bicycle before that both his mouth and eyes had been round as he watched the cars shooting around the track.

"Bee-Bee?" He had said, tugging at the hem of her jacket. "I know you and grandpa had drivers licenses, I've seen them that old analog photo album you have. Is this how driving was when you were kids? Can you drive like this grandma?" His eyes had still been huge, staring at her with a newfound wonder as if he'd suddenly realized that his old grandmother might be pretty cool.

Bee laughed to herself, remembering that day at the races and suddenly meandering no longer appealed to her. She was just coming up on an especially nice stretch with a slight but steady slope and quickly moved over to the high-speed bicycle lane. Pedaling for all she was worth she managed to pass two or three people before happily gliding the rest of the way down the slope, feeling alive and free and a little sweaty from her energetic sprint. Considering where the world had seemed to be going when Bee was young, she was incredibly happy that this was her reality. She had definitely had some struggles to live through but as a whole her life had been beautiful and she was ridiculously proud that she had had even the smallest part in making this happen. This thought gave her a final, potent flash of a memory. It was of Oisín's last words to her before he died. He had looked weaker and more tired than Bee had ever

seen him but that ever-present twinkle was still there in his beautiful eyes. They had rolled his bed out to their cozy little balcony because he said he wanted to be surrounded by the tomatoes he had so passionately nursed and feel the sun on his skin one last time. The medi-bot, assigned to make him comfortable, hadn't flagged any major risk of causing pain so Kaja and Leo had quickly arranged the logistics. Bee sat next to Oisín, one hand clasping his as she reached over and touched his cheek with the other one.

"You are adorable." She'd said and he had sighed contentedly at her words.

"My life has been better than I could have ever imagined thanks to you, mo stoirín. But you know it's time for me to give back now." He had spoken slowly and paused between words sometimes. Bee's breath had hitched at his last comment but Oisín's voice was clear and sure as he spoke. "I'm so grateful for everything we have done together. Raising our wonderful children..." Though it had clearly taken some effort Oisín had turned his head to smile at Kaja and Leo who had been clutching his other hand in all four of theirs. He had turned back to Bee and squeezed her hand softly. "Can I trust you with this?" He'd whispered, flicking his eyes down to their clasped hands and Bee had nodded frantically, tears beginning to flow in earnest with the reference he'd made. "But it's not just my life that has been better than I could have ever dreamed. The world is better. When we were young the future seemed like a bleak and sad place. That is no longer the case." He'd smiled softly and closed his eyes. "We were part of making that change happen, mo stoirín. I'm so glad that this is the world we get to hand over to our future generations."







# **Circular Economy in the Welfare State**

## Story 4: Circular Economy in the Welfare State

*Sweden has transformed into a circular economy that eliminates the concept of 'waste.' Driven by stringent legislation, the focus has shifted to reuse, recycling, and sustainable consumption. The state plays a critical role in policy-making that incentivizes sustainable design and resource efficiency. People work a standard 40-hour week. Social status has shifted away from material accumulation to the consumption of exclusive services or experiences. Society is highly urbanized but maintains strong urban-rural connectivity through public transit. Governance employs both incentives and controls, leading to a resource-rich yet efficient welfare state.*

*The story follows Hazel and her wife Olive on a Friday evening. They have dinner at home, talking about their days before meeting up with two old friends at a pub quiz. They unfortunately run into one of Hazel's old work colleagues and have an uncomfortable conversation. They get the best score they've ever gotten at a quiz though so, all in all, it's a pretty great evening.*

Appendix 4  
2023

All the characters in this short story are fictitious and any resemblance to actual persons living or dead is purely coincidental

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Base image: AI-generated by Midjourney bot.

## CHAPTER ONE

"Honey, I'm home!" Hazel called as she slid through the front door and out of her sneakers and coat. Olive's head poked out from around the corner, her beautiful long dark hair in a casually messy side braid that swung past her, extending the movement.

"We're not living in a 1950's sitcom, darling. No need to bellow through a two story house," she said with a cheeky grin.

"Could have fooled me with this background music," Hazel teased back. Etta James's beautiful voice sang through the speakers. Olive had restored an old CD player a few years ago and now she absolutely swore by the authentic sounds of CD's compared to streaming. She had been ecstatic when she found a pristine copy of At Last! by Etta James last year. It was so adorable to Hazel purely because it was utterly out of character for Olive to act like a snob about things like this. She dropped her bag on the floor and sauntered over to grab her wife in a passionate embrace.

"Ah, watch it, I'm full of onions," Olive said between fervent kisses, waving her hands in the air to illustrate. They both laughed and Hazel gave her a gentle peck before stepping back.

"What's for dinner?"

"Oh, just making a big batch of spaghetti bolognese. Figured it'll give us a couple of lunchboxes."

"Nice. What kind of mince did you use?" Hazel got herself a beer from the fridge. Olive shot her a meaningful look and she promptly gave that beer to Olive and got another one for herself.

"I used lupin mince, darling. You have made it perfectly clear that you don't love the pea mince and Raven still refuses to eat soy."

"Perfect," Hazel said, squeezing Olive's hips quickly. "Have I ever told you that you are the most amazing wife in the whole wide world."

"You might have mentioned it once or twice."

"Well, good. I'm glad you're not completely unaware of my feelings towards you, at least."

"I'm not, though I would appreciate it if you showed me that love by not acting like our teenage daughter and throwing your bag on the floor when you get home."

Hazel chuckled "Sorry, I was too distracted by my beautiful wife teasing me with handfuls of onions." Olive snorted. Hazel opened her bag and started pulling out her shopping. "I swung by the fresh-store on the way home," she said. "We were running low on oat milk, right?"

"Oh, yes, great. Thank you, darling."

"And they had a new cask of apple must so I got some for Raven." Hazel accidentally clinked the bottles together loudly while putting them in the fridge and saw Olive flinch at the ringing sound.

"Sorry, sorry." She said. "Fumble hands over, I promise. Let me help you finish up." The two of them swirled around in their familiar dance of cooking, tidying and setting the table for a few minutes before it was time to eat. Hazel dropped down at the little kitchen table, suppressing a sigh and smiled at the radiant woman across from her. As Olive turned down the music so that Etta's powerful belting became a soft hum in the background, Hazel sniffed her bowl of food exaggeratedly and made a chef's kiss gesture.



"It smells amazing, honey. Where's Raven, by the way? Isn't she eating?"

"She's having a sleepover with Ash tonight, remember?"

"Oh right, that was tonight." She chuckled, "I wonder if you still call it a sleepover at seventeen though?"

Olive laughed. "Ash's parents are out of town this weekend so, honestly, I'm pretty sure you would call it a party."

"Sounds about right. You made sure to smuggle some condoms into her backpack before she left?"

"Of course I did."

"See, the most amazing wife in the world." Hazel gestured towards Olive as if presenting something magical to an eager audience.

Olive laughed. "Your daughter disagrees, you know. Oh, I forgot to tell you about her reaction the last time she found one in her bag!"

"What did she do?"

"She told me that I was being heteronormative and homophobic by assuming she would have the kind of sex that requires a condom!" Hazel burst out laughing, almost spitting her food on the table and only avoiding a mess by making an undignified save with her hand.

"I can't believe she said that. Wow, that kid spits comedy gold sometimes."

"Mhm," Olive said.

"How did you respond?"

"I told her that we will always encourage her to explore her sexuality with whoever and whenever it feels right to her, but as long as she isn't sure she's uninterested in the

kind of sex that requires a condom to be safe, she will keep finding them close at hand."

"That was a beautiful answer, honey. Did she have a comeback?"

"I honestly can't remember." Olive chuckled and made a dismissive hand gesture to close out the subject. "Now. Tell me what's wrong, darling," she demanded gently.

"What?" Hazel frowned in confusion.

"When you sat down to eat you looked bothered about something. What's going on?" Olive was one of the most perceptive people Hazel had ever known. It was one of the things she loved most about her. Even though it sometimes bothered her that she could never spare Olive from listening to her vent about the little annoyances in life. Sometimes she just wanted them to spend their time enjoying each other instead.

"Oh, it's nothing honey. Just tired from work."

"You're not just regular tired from work. Something about work bothers you, I can tell." Olive was using her stern mom-voice now so Hazel knew she wouldn't get out of unburdening herself about this. Might as well get it over with.

"You know the plan I'm working on now?" Olive gave her a sharp head nod. "Well, inside the plan area there's an old industrial site that's being rebuilt into a residential area, right? It's the classic situation. Most industrial areas were built to connect with train lines so they're located close to train stations, making them geographically ideal for new dense residential areas. And there's the added bonus that you don't have to pay the exploitation taxes. You're not damaging natural resources or ecosystem

services since the area is mostly asphalt and factory buildings already anyways.”

“Yep, I’m with you so far.” Olive said.

“The problem is that there’s a beautiful little park in the area with these majestic old oak and birch trees planted in the late 1800’s.” There was a few seconds of silence.

“Okay, I lost you. Why is that a problem.” Olive said with a confused frown.

Hazel laughed. “Sorry, the problem is that the park is technically part of the industrial area. It’s zoned as industrial which means that you wouldn’t have to pay any exploitation taxes for building in the park either.”

“Wait, what? There aren’t any repercussions for ruining this park just because the map marks it as industrial?”

Olive took the last sip of her beer and leaned back in her chair, crossing her arms.

“It’s not quite as bad as that. It will have to be rezoned regardless and hopefully the politicians will agree with our pitch and rezone it as a green area but there’s a risk that it will be zoned as residential, or mixed use, with the rest of the area.”

“And, if so, it won’t be protected at all?”

“There might be more regulation I can’t remember, I going to check with the M.T.H.N group on Monday, we have a prep-meeting scheduled already anyway.” Olive tilted her head in confusion and Hazel huffed a laugh.

“Sorry, the More-Than-Human-Nature group.” Olive mouthed “Aha” and bobbed her head in understanding.

“The only protection I can think of now though,” Hazel continued, “is that the trees that create the outer line of the park technically qualify as tree-lined avenues. So

they’re under the biotope protection clause of the Environmental Code for that, but, you know...”

“That’s it?”

“Like I said, I hope not. My worry is that, since the rest of the area is full of old buildings and man made materials — which are heavily regulated for resource efficiency — it will be easier and cheaper to build in the park. Normally the exploitation taxes take care of that. Prospectors usually prefer to deal with either restoring and repurposing the existing buildings or recycling and reusing the existing materials. There are enough subsidies along with the regulations for resource efficiency that the taxes for appropriating green areas are worse. Without the taxes though, the park becomes extremely vulnerable.” Hazel started clearing the table, scraped the food scraps into the biogas reactor and put the plates in the dishwasher as she spoke.

“I feel your frustration, darling. Anyone visiting the place would know that the park is not an industrial site, but since it’s marked as that on paper...”

“Yes, exactly. And I think this feeds into the same thing that bothers me about citizen engagement! I mean, how are we going to get people to care about their neighborhood if the municipality is so detached from the area that we don’t even treat their park as a park? If they have no agency to affect things because of the sweeping bureaucracy that the municipality has to follow, why should they dedicate their time and energy to engage with us? There needs to be more wiggle-room to be site-specific.” Hazel sighed loudly. “These centralized strokes are just too broad, you know?” Olive grabbed her hand and pulled her down to sit on the kitchen chair next to her.

"I see what you mean, my love, but you are being site-specific. I know there are a lot of things that prevent even more specificity but you're creative and you make a difference. You planners and landscape architects were trained with these rigid frames and you're damn good at making the best of it."

Hazel sighed. "You're right, honey. Things could be a lot worse, after all. We could be living back in the early twenty-hundreds when the planet's resources were seen as some sort of free-for-all to use and throw away on a whim."

Olive laughed, stroking Hazel's hand with her thumb. "That's a bit of an exaggeration, I think. Dare I say a classic-Hazel-oversimplification-of-complex-financial-and-social-structures-and-pressures?"

Hazel snorted. "I think you need to come up with a snappier name there, dear."

Olive laughed again and Hazel could feel the stress and frustration melting out of her shoulders just by listening to that lovely sound of it.

"I will," Olive said, "and you're also right that caring about each other and the rest of the planet's well-being saturates our general worldview more than it did back then."

"I love how diplomatic and wise you are, my beautiful wife," Hazel cooed. "And I was being flippant about the past, so I really appreciate you listening to me vent about this. It's just such an annoying bureaucratic technicality that creates a lot of extra work because of stupid old zoning procedures, you know?"

"I know."

"But now it's off my chest, thanks to you. Let's not think about it anymore. I just want to enjoy my time with you and think about the things that make me happy."

## CHAPTER TWO

"We need to make a proper run to the dry-store tomorrow by the way." Olive said as she locked the apartment door and Hazel called for the elevator.

"I was just thinking about that. I noticed how crammed the container drawer is. I assume we're running out of some stuff."

"Well, I think that's also partly because your dear daughter has been slacking on her run to the container-deposit for a few weeks." One of Raven's chores was loading their cargo bike with all their single use glass containers and handing them in at the container-deposit center. From there, the containers were shipped to be washed, sterilized and distributed back to the producers. Most truly dry goods were not part of this system, though. It was for the kinds of food items that stayed fresh much longer if stored in vacuum sealed containers. The dry-store was a somewhat misleading name because it didn't only sell dry goods, it sold goods with long expiration dates. Dry goods, vacuum sealed products, such as sauces and canned vegetables. Frozen goods, like the mince they'd had for dinner, cooking oils and non-food-related items. The family had a backpack full of paper bags for transporting dry goods home from the store. For the liquids they couldn't use the paper bags, of course, but for most other things it was easier not to have to bring their permanent glass containers back and forth.

"Right," Hazel said. "That makes a lot of sense now that you mention it. So who's job will it be to wrangle a hungover teenager to do her chores tomorrow morning?"

The evening air was crisp as they strolled, arm in arm along the canal through The People's Park.

"Morning? Are you crazy? We're going out tonight my love, I am not planning to be very active tomorrow morning myself. I was thinking more in the late afternoon or something." They both laughed and Hazel could feel Olive's warmth along her side as they squeezed each other tight.

"We are really getting old if a quiz night with our closest friends is enough to knock us out for half a day," Hazel said.

"I don't know about you but I was not planning to stop drinking when the quiz is over. I need to let off some steam and Ivy and River are my favorite people to get crazy with." Olive said with a suggestive shimmy of her shoulders. Wait, what? Olive needed to let off steam? This was another reason Hazel minded Olive's perceptive abilities. It made her feel like such a bad partner when she didn't notice when Olive needed her.

"Honey, what's wrong?"

"What? Nothing's wrong." Olive sounded as surprised as she did.

"But you just said that you needed to let off steam," Hazel said, cautiously. "What—"

"Oh, no. It's nothing new, darling. Just had two unusually frustrating costumers today, it's nothing I have to unpack." She waved her hand in the air as if dismissing the subject altogether.

"Oh no you don't. You didn't let me dismiss my random annoyance at work, why should you get to do that?" Hazel tried to sound as stern as Olive did earlier but she had never really mastered that unrelenting, demanding tone.

Her mothering style falling naturally into humor, deflect and distract, gratitude and communal appreciation. Not that Olive didn't do much of that too, she was just also very good at the stern tone when the need arose.

Olive laughed at Hazel's attempt to sound insistent. "I'm sorry, love, am I being unfair by not sharing my burdens with you."

"I just want to support you the way you support me." Olive's expression changed, all the teasing gone. She grabbed Hazel's arm and stopped her in her tracks.

"You do!" She said. "Okay, I'm sorry for real. I didn't realize I was acting dismissive towards you. I see that now, you're right, I need to share the same way I expect you to." They shared a smile. "I will be more considerate of that in the future. Can you forgive me?"

Hazel smiled. "Of course I forgive you. Thank you for seeing my point, though." Olive kissed her gently before they kept walking.

"I just had two in a row of the worst kind of costumers today," she explained with a sigh. "First this woman with an ancient broken tea set who wanted me use traditional kintsugi to repair it."

"Uh-oh," Hazel interjected. She had heard this story before. People wanting their precious heirloom ceramics repaired using the ancient Japanese method and not understanding what they were asking for.

"Mhm," Olive said. "When I explained the time and cost for the repair to her she had a total meltdown, screaming that I was trying to rob her of everything she owned. She told me that she knew someone who had gotten it done for a tenth of that price. I told her that I hoped this person was only using their repaired ceramics

as decorations because there's no way they got a traditional kintsugi repair for a tenth of my price." She glanced over at Hazel and added, "traditional kintsugi is the only method approved by Swedish food-safety regulations."

Hazel laughed. "I know, honey. I'm not sure if you know this but you have talked to me about kintsugi before." Olive rolled her eyes but she still couldn't suppress a charming and proud little smile. She took a deep breath and continued.

"Well, anyway, the price of the urushi lacquer alone is more than that. Not to mention the months of drying time in a tightly controlled temperature and humidity-level required for the application of so many layers. The protective gear to handle the raw urushi and the gold powder."

"And the invested cost of learning the trade," Hazel added.

"Right. So, regardless, the woman finally stormed out of the shop and in struts the most arrogant man I have ever had the displeasure of meeting. I swear, sometimes I just want to hit myself in the face for choosing a career that forces me to deal with these rich assholes!" Hazel chuckled and commiserated with Olive over her frustrating customers as they got ever closer to the pub where the quiz was held. They had left the people's park now and were meandering down the cobblestoned streets of one of Gothenburg's most beautiful and oldest city districts.

Hazel knew that Olive loved her job in so many ways, the craftsmanship and passion she put into her work was astonishing. The maintenance care and restoration projects of these delicate and complex old world objects was her

calling. Modern production was rational, efficient and durable. Parts were standardized and modular, easily replaced and repaired. Products were built to be disassembled and improved, part by part. The idea of recycling a whole object just because one part of it was broken seemed like the definition of insanity and waste to Hazel. She knew that this was how people had operated before the Big Shift, though. When she had met Olive and studied the things she worked with she had acquired *some* more understanding for people in the olden days. Many of the objects seemed impossible to repair. Some had the most intricate systems that all depended on each other to function. Others were assembled using some adhesive property that made deconstruction almost inconceivable. Yet others were so delicate that Hazel barely dared to touch them.

She supposed that modern products would look clunky to the people living before the Big Shift. They might be disappointed that there weren't endless variations of every product. To most people, this was just the way things were. Everyone was able to fulfill their basic needs. The welfare system provided everyone who wanted it with the standard products needed to live a decent life. People who collected a salary could choose to spend any extra money on luxury goods. Craftspeople created handmade pieces of art; be it unique clothes, furniture or decorations. Olive would say that craftspeople worked with things that felt like they were one of a kind. Even if they weren't always that exclusive, they were objects that had their own soul and contributed with some of their own inherent qualities. She claimed this was why you had to put in the time and effort to take care of them. Hazel couldn't deny

that the beautiful things Olive created always felt special. The handwoven blue silk scarf she gave Ivy on her 40th birthday still blew Hazel away every time they saw her. Standard clothing was often in earthen and natural tones and the pop of color of the blue silk made her light up every room.

Olive let out a heavy sigh, shook her head and looked up at Hazel. "Okay, I'm all vented out," she said. "Can we just enjoy ourselves and quiz with our friends now?" Hazel laughed and gave her wife a quick kiss.

"Of course we can, honey. Thanks for letting me in, though. It means a lot." She pushed open the door to the little pub and smiled when she was hit by the warm, hoppy, welcoming air from inside. The place was dark but cozy with clusters of sturdy, wooden tables and chairs, a small stage on one side and the bar on the other. Hazel spotted an empty table right away. Since it looked to be the last one, she nodded to Olive and hurried over to claim it. Olive joined her a few minutes later carrying a beer for herself and a perfect glass of ice cold dry cider for Hazel.

"Ivy just texted," she said, after silently thanking Olive for the drink. "They're on their way. She promised on River's life that they'd be here before the quiz started."

Olive laughed. "That's incredibly dramatic. I'm not sure I'm up for murder if they're late, are you?"

"Nope," Hazel said, sighing with pleasure at the first crisp, fresh taste of her drink. "Better hope they're not late, I guess." Olive laughed again, put her jacket on the empty chair beside her and clasped Hazel's hand across the table. They sat for a minute, enjoying their drinks and people watching. It didn't take long until their eyes locked

though and Hazel felt, as always, as if she could get lost in her wife's beautiful chocolate eyes. She could see when Olive suddenly remembered something, her eyes going from hazy and loving to clear and urgent.

"Oh, do you know what your daughter told me just before she left today?" Hazel loved that Olive referred to Raven as 'your daughter' whenever she was mock-outraged or excited. It was their most heartwarming inside joke since Olive was Raven's only biological mother.

"What *did* my daughter tell you, honey?"

"She told me that she wants to go to Sapmi this summer to learn about her heritage. She wants to know about their lifestyle and learn to make traditional Sami jewelry." Now this was surprising. Hazel's mother was Sami but was born in Stockholm and had lived there until she met Hazel's father and moved with him to Gothenburg to raise a family. Hazel had wanted to learn more about her Sami heritage for a long time. She had always felt inspired and proud of the Sami people and their contribution to the teachings of circularity and respect towards the natural world. Globally, the Indigenous peoples had been vital to the changed way society viewed and treated the planet's resources. In Sweden, the Sami Parliament had even co-written many of the policies that had led to the most impactful changes in resource use and management. At the same time, Hazel had always felt quite disconnected from that part of her family. Her mother had had some sort of huge fight with her grandparents and they had lost touch a few years before Hazel was born. Hazel had never been able to get her mom to talk about it. She suspected that her mother had wanted to distance herself from their Sami heritage because it felt so emotionally entangled

with the broken connection to her own parents. Olive was watching her now, she had probably waited for a few minutes as Hazel processed and only spoke now that she saw Hazel's eyes focusing on the present again.

"I'm sorry for telling you now." She said and squeezed Hazel's hand reassuringly. "This probably wasn't the best time or place for you to take this information in."

Hazel scoffed. "Don't be sorry, honey. Who knows, it might be good for me to get distracted and process in steps instead of all at once." Just as she finished talking, the door to the pub swung open and their two oldest friends tumbled through it.

"Hi! So sorry we're late!" Ivy called. She ran over to them, nearly knocking over an empty chair by the neighboring table in her haste.

Hazel chuckled. "See. A perfect distraction," she said to Olive before standing to hug Ivy and then River in greeting.

"Okay, we need drinks." River threw his jacket on the chair next to Hazel and rushed over to the bar.

"Yes, and have you guys picked a name yet?" Ivy hung her jacket and scarf on the chair next to Olive before she sat down, put her elbows on the table and gave them both a no-nonsense stare.

"Not yet, we wanted to wait for you." Olive checked her watch. "And we have about three minutes left before the quiz starts."

"I still like 'And the winner is...'. It's the perfect quiz name." Hazel said and Ivy chuckled. They were still discussing the merits of different team names when River returned with his beer and a glass of white wine for a smiling Ivy. Before they could get any further though, the

quizzer stood up and welcomed them all with a little introduction to the quiz. She was a beautiful, tall woman with long dark hair and wore an intricately woven plaid skirt and a light linen top. Hazel couldn't decide if she was just proud of her Scottish heritage or if she was playing it up as a gimmick. It really wasn't any of Hazel's business though, and she quickly got lost in just listening to the woman's wonderful Scottish lilt. Olive kicked her foot under the table, smirking at Hazel as she shook her head to clear it just in time for the first question.

"Question nr 1. Which biological compound is the main ingredient in all consumable packaging?" The quizzer asked, then added. "Consumable meaning that it is safe to return to the environment as it is, by the way." Olive giggled as she wrote the answer on the sheet. Ivy looked up, frowning.

"Is this a trick question or something? I mean, it is seaweed right?" She whispered. "It feels too easy or am I missing something here?"

Hazel chuckled, "The first question is always super easy. Last time it was the blue whale, remember? It's not a trick question, just a warm up."

"Oh, yeah. Skies, I keep forgetting that." Ivy shook her head at herself and put an arm around Olive, squeezing her shoulder gently. "It's so good to see you guys! I've missed this. We should try to make this a more regular thing, it's just so tricky on Fridays, don't you think?" Before anyone could answer the quizzer's voice sounded over the speakers again.

"Question nr. 2. After the Big Shift, the people's park got its new name to reflect the values the Shifters strived

to honor in the new society they wanted to build. What was the park's name before the change?"

"Skies, we just walked past the plaque on the way over here!" Olive exclaimed. Hazel leaned over the table, cupping her hands around her mouth and whispered.

"The King's park." Olive's eyes widened excitedly.

"Oh, of course! Thank you, love." She wrote it down on their sheet and the other two leaned in to read.

"Hm, well done Hazel, I had no idea about that one." River said.

"Well, I guess it sometimes pays off being an urban planner with a landscape architecture degree." Hazel said, straightening her back and striking a mock pretentious pose before slouching back and adding. "I think this was a pretty easy one, though, to be honest. As Olive mentioned, the plaque is pretty darn close to the pub."

"Yes, but most people don't pay attention to that stuff!" Ivy said with a laugh.

"Is that the kind of things you learn at university, what different parks used to be called?" River said, sounding puzzled. They all laughed and Hazel patted his cheek and explained about the concept of historical archives. Only getting a few sentences in though before they were interrupted by the quizzer's voice over the speakers again.

"Question nr. 3. The car was the most common vehicle used for transportation in the early twenty-hundreds."

"Which is the most common now?" Ivy whispered.

"Trains. Easy." River whispered back.

"I don't know, what about bicycles?" Ivy argued.

"Shhhh, clearly not the question." Olive scolded.

"And shoes?" Ivy added under her breath. Olive just glared at her in response.



“— as our 100% mark, what percentage were we at last year?” the quizzer concluded.

“Shit, I missed the question!” Ivy whisper-hissed.

Hazel laughed. “She asked for the percentage of car trips that are taken now compared to when it was at its worst.”

“Really? Car trips? That’s what she said?” River teased. “Hey, hey, careful!” He said when Hazel pushed his shoulder playfully and some of his beer spilled on the table with a splash.

“Sorry—”

“Okay, come on, people,” Olive hissed. “What do we think? The worst car-year must have been in the 2020’s or 30’s, right? How much are we using cars now compared to that? Half as much maybe?”

“Less I think,” Ivy said. “Cars were flipping everywhere back in the day! I mean, they didn’t even have proper lanes for electric motorbikes or bicycles in rural areas. How were they supposed to get around? All they had were cars.”

“True,” Hazel agreed, “And the railway service has increased, like, six-fold since the Big Shift so cars were used instead of a huge amount of our train rides too.”

“Okay, so what do we think? Are we at 10 percent? 20?” River prompted.

“I would say 20,” Hazel said.

“Yep.” Ivy interjected.

“Agreed.” Olive wrote their answer on the sheet just in time for the next question.

“Question nr. 4. The protein source seitan has been around since the 6th century—”

“Wheat, right?” Ivy whispered.

“Shhhhhh!”

“—Buddhist cuisine. For a big chunk of history, it was made to try to imitate other foods and was more famously known under these imitation names. You get one point for any of these names. Just to be clear, you can only write down one answer, but there are several correct ones you could write.”

Ivy let go of the giggle she had clearly been holding. “I’m sorry, I really have to stop guessing what the questions will be!”

“Yes, please do.” River said, playing indignant. Ivy kicked his leg under the table.

“Ouch, what’s with all this violence being thrown at me today?” The women just smiled at him sweetly.

“Okay, what do we think?” Hazel said, “any ideas?”

“I know this, ah, it’s on the tip of my tongue,” Olive said, frowning. “It’s something funny, kind of childish, I think. Or a rhyme or something.”

“Oh, oh! I know!” River called out, way too loud. The people at the table next to them snickered and to compensate for his outburst he whispered the answer so low that none of them could hear it.

“Come again?” They all leaned in close to try to hear him.

“Mock duck,” he whispered, a little bit louder this time.

“Yes, that’s it! Well done, River.” Olive said.

“Wait, like in Alice in Wonderland?” Ivy asked. “You know, The Mock Turtle?”

“Oh yeah, that might be actually.” Hazel said. “I love The Mock Turtle. Should we write that instead? Or are you guys sure about the answer?”

"Yep, 100%" Olive whispered. "It might be true about the turtle as well but we only need one answer and mock duck is true for sure." Everyone else was happy with that and they had another opportunity of starting a conversation only to break it a moment later for the next question. As the evening wore on Hazel grew increasingly impressed over how well they were doing. Olive could never help herself and got overly invested every time but the other three usually didn't care that much. They just liked having a drink together and quizzing was a nice, low effort way to have some fun. Usually they would know pretty early on that there was no way they were going to win — despite Hazel's favorite team name — but that wasn't the case this time. When they were coming up on the last question before the halfway break they were pretty confident on most of their answers so far.

"Question nr. 10." The quizzer called out, voice crackling over the speakers. "In 2027 a Swedish band released the first album to ever be recorded with only instruments made entirely from repurposed materials. What was the name of the album?"

"Curses, I though they were going to ask about for the name of the band!" Ivy said.

"It's Boreal Beats, right?" River said.

"No, it's The Arcane Avenues!" Hazel said with a smile. "My mom used to love them. We listened to them all the time as soon as dad wasn't at home. Skies, what was that album called, it's one of their earliest ones. I even remember the cover art from the thumbnail image." She sighed and closed her eyes, trying to remember. "It's related to the repurpose aspect, I think. Like Repaired Rhythms or something."

Olive gasped. "Mended Melodies?"

"Yes! That's it. Amazing, honey. Write it down."

"Well done you guys, what marital teamwork." River said.

"Thanks River," they said in unison. "Boreal Beats are really good too, though." Hazel said. "They're from that same era, I've always loved those old school bands."

"Yeah, but these bands must have been pretty old school for your mom too, Haze. I only heard my grandma play them sometimes, I think." Ivy said.

"True. We probably have several generations of Boreal Beaters in the family." Hazel's smile was humorous but she soon dropped it, considering her own statement. Had her mom learned to love old music because her parents had played it to her in her youth? She suddenly realized how much the loss of her mother's extended family hurt her. Feeling somehow incomplete by not knowing these things about her mother's childhood and the relations she had had before her life in Gothenburg. Reflecting on her and Olive's interrupted conversation from earlier, Hazel recognized that she felt excited about the prospect though. The thought of talking to Raven about diving deeper into their heritage made her feel worried and a little guilty, but mostly thrilled. She worried that she was too far removed from the Sami people herself and, even more, that Raven wouldn't be accepted. Raven was neither culturally nor biologically connected after all and Hazel felt guilty wondering if this would amount to cultural appropriation. Then again, Raven was her daughter, it hadn't ever mattered if they weren't biologically connected before, was this so different? And even though Hazel hadn't ever been to Sapmi herself and had missed out on

most of this cultural heritage, it still meant something. Her mom had still told her and her siblings some Sami myths and legends when they were kids. She remembered telling Raven the stories about the Sajva, the friendly spirits up in Sapmi who helped people who were kind to each other and towards the rest of nature. Hazel's mom had taken them out camping in the forest whenever they were able and taught them everything she knew. And Hazel was the same, Raven had learned how to make a fire a long time ago and got her first whittling knife on her fourth birthday. Olive had almost killed her for that one but it was one of very few family traditions and Hazel had desperately clung to it.

### CHAPTER THREE

River dropped down heavily in the seat next to her and Hazel had to blink a few times to get back to reality. She had zoned out for a few minutes it seemed. A new, perfect glass of cider was in front of her and she took a big gulp, smiling at River in appreciation.

"Where did you go, hon?" Ivy asked with a sly grin. Olive wasn't at the table and Hazel could only assume she was in the bathroom. Olive's bladder had barely gotten worse when she was pregnant, she had always peed like a pregnant lady.

"Sorry, got completely lost in my own thoughts. Did I miss anything?"

"Nope, you zoned out at the perfect time!" River proclaimed cheerily. "So, what's going on Haze? How's your darling Raven?"

"She's great." Hazel said, fully back in the conversation now. "She's working on a really interesting project for school, actually. This kid is mapping out the accessibility to green spaces within a 300m radius for several different residential areas. Checking the accessibility by bicycle and public transport to quality green areas. Soon she'll start cross-referencing her findings with the socio-economic groups in the different areas. She'll write her analysis based on the known health benefits of access to green spaces and questioning whether the municipality takes responsibility for everyone's health or just the rich people's." They others laughed.

"So, wait, is she trying to make a statement specifically about her own mother's job?" River asked.

"Did she come up with a whole school project to officially claim that you're the lackey of an unjust and coldhearted government?" Ivy said.

Hazel spluttered into the cider she had just taken a sip from and had to cough a few times before she could answer. "You guys are so dramatic. I helped her pick this subject. I think it's an important topic and even though the government has invested a lot of money to try to balance these disparities, there is still more that can be done."

"Oh, I see." Ivy said after another sip of her white wine. "You're using your kid to argue for your own cause by putting pressure on the politicians from every direction!" Hazel suppressed a smile, looked around exaggeratedly and narrowed her eyes at them.

"Fine. You caught me. I knew how much politics are run by the school projects written by seventeen year olds and used my only daughter for my nefarious plan of making room for more green spaces in Gothenburg." She couldn't keep the conspiratorial tone in her voice at the end as they all busted out laughing. When Olive finally came back to the table she found them in a laughing fit, Ivy wiping her eyes and River holding his stomach. She eyed them cautiously and said.

"I know that I was gone quite a while, the line was brutal, but how much have you guys had to drink while I was gone?"

"Don't worry about it, honey. We're not drunk, I'm just really funny." Hazel said, beaming up at her.

"To be fair, I am quite tipsy," River said. "I'm not sure your joke would have been that funny to me if I was sober." He quickly jumped away from Hazel to avoid another shoulder shove but managed to spill some beer in

the hasty maneuver anyway. This triggered Ivy's giggles again and she soon had to cover her mouth to stifle the noise because the quiz was starting back up.

"Question nr. 11." The quizzier said and they all straightened. "Which virtual reality game, set in the old world, became a cultural phenomenon for allowing players to 'correct' historical environmental mistakes?"

"Easy. Earth's Redemption," River whispered. Olive had already started writing and just winked over at him.

"I loved that game!" Hazel said. "The best VR-game of our childhood, hands down."

"Agreed," Ivy said. "This felt like another one of those too easy questions, though. Is the first question after the break another warm-up question?"

"I don't know. We're at the perfect age to know this one, some other age groups here might not be," Olive interjected. Ivy tipped her head in acknowledgement and took another sip of her wine.

"Question nr. 12. Which popular 2035 film faced backlash for glamorizing the excesses of the 20th century?"

"Oh, wow. No idea." Ivy said. "Anyone?" They all looked at each other, at a loss.

"I can't think of a single 30's film at the moment." Olive said dejectedly.

"Aren't you supposed to know this Hazel? You're to one who loves 30's music so much." River said.

Hazel shook her head. "Sorry guys, I've got nothing."

"Okay, should we just try to guess then?" Ivy said. "How about Excess Glam?"

River laughed. "That's pretty good. What about Cash for Trash?" They all chuckled.

"Cash is King, wasn't that some sort of expression or something?" Olive said.

"I think so. No idea what it means though," Hazel said. "How about King of Trash?"

"Honestly, all of these sound like pretty good movies." River said. "I kind of want to have a movie marathon when we watch them all in a row." The others snorted.

"Just pick one, honey, we're only guessing anyway." Hazel said and they settled to wait for the next question.

"Hey, next time we come here, can our team-name please be Kings of Trash?" River said and they all snickered and nodded to each other. After their straight up guesswork on question nr. 12 Hazel was pleasantly surprised that they were back on their unusually good roll. The quiz went on, they got another drink or two, and before they knew it, it was time for the very last question of the night.

"Okay, final question." The quizzer announced. "Question nr. 20. In the popular children's TV-show, Sunny & The Circular Squad, there's a character that represents the 'old world' and often needs sustainability guidance from Sunny and her friends. What's the name of this character?"

"Oh, oh! Raven loved that show when she was little." Hazel whispered excitedly. "He's called Grumpy Gramps, right?" She asked Olive.

"Grumpy Grans," she corrected calmly while writing the answer on their sheet. "Remember? We were always so confused because he clearly identified as male and Grumpy Gramps was such an obvious name but for some reason he was called Grumpy Grans."

Hazel laughed. "Oh yeah, and you kept telling Raven that it was probably due to this little thing called patriarchy." Ivy burst out laughing, accidentally spraying River in the process.

"Skies, I'm so sorry, River!" She said between laughing and gulping for air.

"Is this your way of fighting the patriarchy?" River asked, wiping his face with a napkin from the condiments basket. Ivy put her head in her hands, muffling another 'I'm sorry' under the table.

"It's fine, sunbeam." River said. "Don't hide, I forgive you. I will even wait to hug you until after I've cleaned up in the bathroom," he said with a smirk and patted his beard. "So sticky" he muttered as he walked away. Ivy looked at the other two with huge eyes and then lost it again with uncontrollable giggles.

"I feel so bad!" Ivy said to the other two who just giggled. She took a deep breath and then shook her whole body, physically shaking it off. "Okay, this calls for another drink!" Ivy leaned over in her chair, trying to see the bar past the pillar that was blocking her view. "Yes, the hot bartender is back. Wish me luck girls."

"You might want to get another one for Mr. Patriarchy too!" Hazel called after her. Ivy turned around and walked backwards for a few steps while calling back, "who do you take me for, of course I will!" Olive and Hazel laughed when Ivy stumbled into someone behind her and quickly spun around, cheeks burning red.

"I mean, that was totally inevitable, right?" Olive said, smiling over at her. Her smile quickly slipped though and Hazel turned to see what had caused her expression to change.

"No! Don't look around" Olive hissed, but it was too late. Hazel's movement had brought her unwanted attention and her eyes locked with one of her least favorite people. Lyra's huge, plastic smile was immediate and she hurried over to their table right away.

"Hazel! I haven't seen you in ages! How are you, darling?" Hazel tried to smile back, though battling between being honest and being rude always made her smiles look strange.

"It's been a while, yes. This is my wife, Olive—"

"—Oh, I know Olive, don't be silly, we met at the New Life party when I was still at the municipality." Olive smiled warmly at Lyra. She was so much better than Hazel at being friendly to people she didn't like very much. Then again, Olive hadn't personally needed to deal with all of Lyra's frustrating opinions at work. Lyra had been actively hindering pretty much everything Hazel had been trying to improve at work since Lyra was promoted to department head. Fortunately, she had moved back to Stockholm after one horrible year. Hazel had never been happy about somebodies parent becoming ill before. She actually felt quite bad about that.

"How's your mom doing?" Hazel asked now.

"Oh, she's fine. Great actually!" Lyra said with that plastic smile again. Hazel was relieved. She also stopped feeling bad in an instance. "She was fully recovered about a year ago. We actually just came back from a big trip. Oh, you might like this, Hazel. We went on a reindeer safari." Hazel's stomach dropped. Of course this woman had been on a 'reindeer safari'. Hazel said nothing but Lyra didn't seem to notice. She had sat down in Ivy's seat without asking and started going on and on about the exclusivity

of the trip. By the time Lyra started talking about the authentic experience of being picked up from the train station and dog sledding to the Sami igloo Hazel was white knuckling the table. She was just about to explode when Lyra was interrupted by Ivy and River coming back to the table.

"Oh," Lyra said, almost sounding embarrassed. "I'm in your seat."

"Don't worry about it," Ivy said cheerily and Hazel wished she had some way to communicate to Ivy that she shouldn't invite her to stay. Fortunately, Lyra caught sight of someone when she stood up to give Ivy her seat back.

"Oh, that's my husband. He seems to be finished in the little boy's room. We were walking home from the opera, you see, but he suddenly couldn't wait until we got back to his parents house. We're staying with them while we're in town, you see. It's not much further but I'm not sure our adventurous, spicy dinner sat very well with him, if you know what I mean."

"Right." Hazel said and silence fell for a second as they all stared up at Lyra.

"Well, it was lovely to see you again Hazel. And Olive of course." Lyra said, her voice and smile were back to sounding utterly fake and for a split second Hazel felt like she was going to explode again.

"It was nice to see you again, too." Olive said, saving her as always. "I'm glad to hear your mother is feeling well."

"Yes. Thanks for stopping by," Hazel said lamely and had a big drink of cider to avoid saying anything else. As soon as the door of the pub shut behind Lyra and her husband, the table erupted.

"For sky's sake!"

"What on Earth?"

"I just can't!"

"Who says 'the little boy's room' when talking about your husband taking a crap in a pub toilet!" Everyone erupted with laughter at the tone of indignation in Ivy's statement. After a few moments Olive reached across the table to grab Hazel's hand, though.

"You okay?" She asked giving Hazel a meaningful look.

"Wait, shit, what did we miss?" River said, sobering immediately.

"Just this flippin' woman. She was my boss for a while and just a total stuck up waster. Her family got filthy rich producing wind turbines in the huge sustainability investments in the 30's. Lets just say she didn't have much interest in improving the lives of those less fortunate."

"It seems like 'those less fortunate' is pretty much everybody," Ivy scoffed. Olive squeezed Hazel's hand comfortingly.

"You okay about what she said about her trip."

It was Hazel's time to scoff at that. "I just can't..." she said again. Sighing exasperatedly.

"What?" River said, always the gossip.

"She told us she had been on an exclusive trip to Sapmi —"

"—No, she said 'reindeer safari' for sky's sake!" Olive interjected. Shocked breaths from River and Ivy.

"She didn't..." Ivy said, sounding uncomfortable.

"She did," Hazel confirmed. "She told us about her authentic experience *dog sledding* with their *traditional* Sami guides and sleeping in their traditional Sami *igloo*." River coughed into his beer and Ivy made a little squeaky

sound that almost made Hazel laugh despite everything.

"Honestly I didn't think this was still happening. There have been restrictive policies for years about the dog sledding. Sled dogs are registered as an invasive species in Sapmi, I thought you were only allowed to keep them as pets now. They are *not* traditional, I mean, she even called it 'reindeer safari', wouldn't you think it would be reasonable to sled with reindeer, not dogs then!"

"And an igloo!" Ivy said. "I thought everybody knew that igloo's are associated with Inuit culture, not Sami."

"Right!" The other three chorused in outrage. The quizzer got back up to start going through the answers and Hazel was honestly glad for the timing. It had been nice to relieve some of her frustration with her friends but she was glad to let it go now and focus on their fun again. Olive had switched their sheet with the table next to them earlier and was scrolling through the other team's answers. She would shake her head or tut now and again as she scanned the paper and Hazel couldn't help but smile at how adorably competitive she was sometimes.

"Right, okay." The quizzer said after ensuring everybody had switched their answering sheets with someone else. "The first question was about packaging. Which biological compound is the main ingredient in all consumable packaging. And the answer to that is of course seaweed." Ivy hissed "Yess!" under her breath and then laughed loudly at her own joke. They got the first few questions right and held their breaths for question number four.

"I will accept several answers for this question," the quizzer said. "You'll get a point if you have written any of

the following: Mock abalone, mock chicken, mock ham, mock duck..."

"Pew! I was worried there for a second." Olive whispered. The others nodded emphatically.

"...unfortunately you don't get a point if you've written mock turtle." Hazel and Ivy looked at each other in surprise. So much for that theory. A big ginger guy from a few tables away groaned loudly and shot his table-mates a regretful and pleading look. The quizzer snickered and continued. "The Mock Turtle in Alice in Wonderland is not based on a seitan product, it's from a dish that was popular in the Victorian area called Mock Turtle Soup. Instead of actual turtles, the soup was made from the head, hooves and tail of a calf."

"Skies, food was so flippin' distasteful and brutal back in the day." Ivy said and shook her head disgustedly. The others nodded their heads and Hazel realized she felt a bit nauseous just thinking about it. She sipped her glass of water, hoping it wasn't the alcohol that was getting to her.

The quizzer kept calling out the answers and Olive confirmed that they had gotten answer after answer right. When they got to question number 10 Hazel was sure it was another win until the quizzer announced. "The first album ever recorded with only instruments made entirely from repurposed materials was called 'Mended Melodies and the Tale of the Soundweaver's Serenade'. I'm looking for the full name to get the point for this one." Hazel put her head in her hand.

"Skies! I forgot it had a super-long extra part of the name! We always just called it Mended Melodies." Ivy and River giggled.

"It's not your fault, honey." Olive said, but she looked quite disappointed at not getting a full score. As if they had ever even gotten close to it before. At question number 12 they found out that the film that had glamorized the excesses of the 20th century was called 'Golden Excess'.

"Honestly, I still think King of Trash is better," River said and they all laughed. Hazel felt a rush of relief that it wasn't just her question that was breaking their epic score and then shook her head at herself for even caring about it. She was hanging out with her good friends and her amazing wife, she was tipsy from cider and she was going to sleep in tomorrow. Hazel wondered if Raven was going to have a worse hangover than her tomorrow. Probably not. Even if she was blasted right now Raven's teenage body was probably going to recover much faster than Hazel's would. But Hazel decided she was going to talk to Raven tomorrow, regardless of how her body would feel by then. She knew now that she really wanted them to go to Sapmi together. She was going to talk to her mother about it too, but that was going to have to wait a few more days. Hazel wanted to meet her actual family. Wanted to understand Sami culture in practice rather than in theory. If meeting Lyra today had taught her anything it was the value of doing the opposite of what she was doing. The value of approaching this culture with respect and an open mind to learn from them and to learn about them. About herself in a way.

They didn't win the quiz but they were all still very proud of their almost perfect score. Olive kept glancing over to the winning table, as if she was hoping to see proof of



them cheating in some way. Hazel couldn't help laughing every time she did. It was just so cute how much she cared about this. Walking home Hazel kept her arm around Olive's waist and sighed contentedly over holding her close. There were things that frustrated her in life, things weren't perfect by any means. The summer heatwaves were getting hotter and longer every year for one, but they were at least less deadly nowadays. People were aware of how to handle them and were being helped when needed. And during an evening like this, Hazel was pretty flippin' happy with her life.

