

DTU

# Visions of Future Cities

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An Anthology of Students' Ideas

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## CONTENTS

|   |    |
|---|----|
| Introduction .....  | 3  |
| Jay Sterling Gregg .....  | 3  |
| The Old City .....  | 4  |
| A Story of Rotterdam by Lærke Philipsen .....                       | 4  |
| (Water Refugees) .....  | 10 |
| A story of Cairo by Genan Hecham El-Jindawi .....                   | 10 |
| Cairo 2051 .....  | 15 |
| A Story of Cairo by Sebastian Brian Mollerup .....                  | 15 |
| (The First Train) .....   | 20 |
| A Story of Johannesburg by Theresa Aichinger .....                  | 20 |
| The Journey .....   | 24 |
| A Story of Los Angeles by Adam Engström .....                       | 24 |
| Moving in Together .....  | 29 |
| A Story of Amsterdam by Amalie Petersen .....                       | 29 |
| (Night Flight) .....  | 35 |
| A Story of Tromsø by Saxe Brejning Skygebjerg .....                 | 35 |
| (In Our Pursuit of Efficiency) .....                                | 42 |
| A story of Beijing by Lærke K. Frier Ørgaard .....                  | 42 |
| Productivity .....  | 47 |
| A Story of London by Elliot Neale .....                             | 47 |
| (The Uptown Gate) .....   | 53 |
| A Story of New York by Trine Marquardsen .....                      | 53 |
| (Zone 34) .....   | 57 |
| A Story of Sydney by Anne Sloth Bidstrup .....                      | 57 |
| (What We Need to Get There) .....                                   | 62 |
| A Story of Sydney by Micki Aaen Petersen .....                      | 62 |
| Sam .....   | 68 |
| A Story of Muscat by Eline Termøhlen Mikkelsen .....                | 68 |
| (Urban Farmers) .....   | 72 |
| A Story of Montreal by Chloé Potier .....                           | 72 |
| How the whole world knew that Melissa Müller was single again ..... | 80 |
| A Story of Berlin by Anna Else Burisch .....                        | 80 |
| The Green Revolution .....  | 85 |

A Story of Boulder by Vilde Rye-Holmboe.....85

## INTRODUCTION

Imagine someone from 100 years ago were whisked into the present. What would that person think of today's world?

Our time traveler would note many changes, but the most impressive and overwhelming have taken place in our cities. What's more, the rate of change continues to accelerate. Likely someone from only a few decades prior would feel astonished with what we have accomplished and what we take for granted today, if not completely lost. While these changes have been driven primarily through technical innovation, we have also seen an evolution in what, we as a society value. These values form the basis for our collective vision, which manifests itself in the forms we usher forth in our urban environments.

Now imagine that we are the time travelers. What will our cities be like 20 years in the future? 50 years? What would surprise us? What would we expect? What would we desire? What would we fear? What are the implications of a modern, smart, and connected city on the quality of life of its inhabitants?

We explored these questions in a graduate level course at the Technical University of Denmark called Smart, Connected, and Livable Cities. The Technical University of Denmark has a strong reputation for producing world class engineers, and our institution does well to instill state-of-the-art technical abilities in our students. In Smart, Connected, and Livable Cities, we go beyond this to explore the broader implications of technology and design within the urban setting. We emphasize holistic urban thinking, and we critically evaluate past, current, and future proposals and ideas for urban development projects. The perspectives include energy, water, transportation, waste, climate change mitigation and adaptation, risk analysis, social justice, urbanization and demographic shifts, health, big data and security, mega-infrastructures, aesthetics, among others.

Students were asked to research current trends in one these topics and produce a technical report. From current and historical trends, they envisioned a possible future for a city of their choice. Some of the stories are utopian, some dystopian, some a surprising mixture of both. Whereas the value of a utopia is a vision, the value of dystopia is a warning. No doubt our future will exhibit elements of each. In any case, the "how we got there" type of thinking motivates and inspires design decisions with a particular purpose in mind.

I particularly enjoyed reading the students' ideas, as they allowed me to peak into the minds of people who will soon be designing the cities that increasingly more of use will soon be living in. The thought occurred to me that perhaps others would enjoy reading it as well and it could be quite useful to have their ideas out in the world where others could ponder them.

JAY STERLING GREGG

# THE OLD CITY

## A STORY OF ROTTERDAM BY LÆRKE PHILIPSEN

*Fischer thought that, even though the old world seemed so very fascinating, the most fascinating thing about humankind was their ability to adapt to new circumstances.*

A loud, but far, crash sounded from the Old City. Fischer knew that around a minute later the wave would come, and the alarm in his pocket warned him milliseconds after the crash. They never knew just how large a building now had collapsed, and actually it didn't matter because the procedure was the same regardless the size of the wave. He looked for the nearest bench in the University Park and sat down and observed the water fence rise from the edges. Few minutes later the wave came from the Old City. It was a rather small one. The stability of the large University Platform made sure, that it almost didn't move.

In the later years the stability of the buildings in the Old City had really suffered from the water around them, and at the moment, a building collapsed almost every day. Of course this would happen – their foundations were made for dry environments. Not water, and definitely not sea water with large and constantly varying flow loads. Fischer had a hard time understanding why it was not prioritized to tear down the buildings in a controlled procedure, while they were still not under water. Everyone could see that this would happen – Couldn't they? Maybe the fear of the flooding were too big for people to admit the problem. Luckily, the politicians had been wise enough to make sure that the new society had been developed.

As Fischer sat on the bench, his mind drifted to the stories his parents had told him from their youth. When they were born, in the beginning of the millennium, it all began. That was, incomprehensible as it was, when the Netherlands still consisted of land; and land meant as real earth – rocks – fields – beach – forest – trees – huge trees – trees larger than houses. He had seen pictures from the times (even though those old-school 2D pictures seemed so unrealistic, of objects and landscape he never knew existed), and he thought it was the most beautiful thing. What wouldn't he give to be taken back to the times? But of course the past always sounded more romantic than it actually was.

His family fit perfectly into the pattern of the general academic family. His parents both went to and met at Rotterdam University of Applied Science, got educated, got a job, got a nice house and got Fischer in the age of 40. Many of his friend's families had the same characteristic. He had seen several pictures from the youth of his parents. It included lots of kisses, lots of clothes, lots of bicycles (with wheels to ride on instead of skis), and of course a landscape – a city which seemed much heavier and stable as the floating one he knew. The buildings he could see on the pictures was built of bricks, concrete and glass. Now they used recycled bricks and concrete from the exact same buildings, but it was only used in the more expensive part of the city, as the patina from the bricks was extremely popular and that those islands naturally got a lot heavier, and thereby more expensive, than the islands with modern, lightweight buildings. His parents, now, lived in one of those houses to be reminded of the city from their youth. When he visited them, he experienced that there was a definite different feeling in there. It was naturally cold and the smell was different. He really liked being there – it made him calm.

His parents, however, again and again, told him and each other how much of a nicer world it was then. They used to say, that the new world was artificial and shallow. He didn't always agree, he thought that people were still the

same kind of people. Changing the surroundings wouldn't change anything. On the other hand, maybe it wasn't all wrong. After all he hadn't experienced the transition – they had.

The alarm vibrated in his pocket – late again. Fischer always had had a tendency of daydreaming. The world had changed so rapidly since the large flood in 2035, and he couldn't help to think how the life had been in the past. It seemed almost ridiculous that just 250 years back, the steam locomotive was invented, with the car 50 years later. They had made a revolution. And now it wasn't even used anymore (since roads and rail tracks needed earth).

However, he couldn't go into another path of daydreaming, he had to go to class.

Five minutes later he stumbled into the lecture hall. A few people, he had seen before, turned their heads with a mix of annoyed and bored faces. Wilke luckily always sat in the back of the room, and Fischer sat down next to him. Even though Wilke was extremely different from Fischer, their friendship was stronger than the most. Wilke had another mind-set than the other students at the university. Maybe it could be explained by his alternative way of growing up. His parents never had a lot of money, so when people were forced onto the sea, they settled in one of the cheaper floating neighbourhoods. Despite their poverty, it was clear to Fischer that Wilke had had an amazing childhood with all the support and love he could get. When visiting Wilke's parents, Fischer was always welcomed with smiles and hugs, but he sensed behind the happy façade, it wasn't always easy for them. It was a luck for Wilke that the Netherlands had decided not to compromise with the educational sector when the large flood limited the economics of the country.

Otherwise he would not have had the possibility to study at the university and they would never have known each other.

"10 minutes break!" the lecturer said after half an hour of not listening.

They went outside to get some air. The garden outside was very well planned. There were a mix of open and closed spaces, manmade installations and natural vegetation. They went to one of the benches.

Wilke looked excited. "What is it?" Fischer asked, and knew that Wilke just waited for him to ask the question. "I went into an old church yesterday! It was beautiful!"

Wilke was diving in his spare time. Diving was one of the most common hobbies, but of course Wilke had to take it to the extreme. Eventually, now he was only diving in the Old City, which of course was illegal since it was extremely dangerous. When Wilke started this bizarre hobby, Fischer got mad with him, but gradually he learned to accept it since Wilke would never change his mind anyway. And of course Fischer was fascinated by the thought of going to the Old City, and see the world he had seen on his parents' pictures.

"Fischer, it was the most beautiful thing. I was instantly back in the old days to a ... Whatever it was called, those séances where people were listening to a man telling about Jesus and stuff. I entered, by the altar, this huge hall. All walls and the floor were made of stone. It was so massive. So heavy. Yet quite light because the room was so large. And in the end of the room, an enormous instrument was placed, with hundreds of wooden tubes. It must have sounded impressive!"

"It sounds like," Fischer replied dryly. He still wasn't fond of the hobby. It didn't help that he knew Wilke would always push the envelope as much as possible. "You know, the day it goes wrong, it goes very wrong", he added.

"I know, I know. It hasn't yet. And I have the best odds that it will not ever", Wilke told him in a charming tone, "but doesn't it sound fascinating?"

Fischer had to admit that he was eager to get to see the Old City that he had only seen on his parents' pictures. "It's time to go in again," he reminded Wilke.

They walked with the rest of the group into the lecture hall again. Just as he realised that the lecture was about "biofuel production from algae", an arm grazed his. He froze. Natalie Kroes knew full well which effect she had on him. She turned her head saying "hi", and he mumbled "hey". She laughed. He wondered if fascination towards the other sex had always been like that. It felt so horrible, but at the same time kind of nice.

After the lecture Wilke continued his talk about the church. "Actually, you should forget all your constant sanity, and come with me. Just one time. I know how fascinated you are of the past."

It was true. Fischer really was fascinated by the idea of seeing the old world.

"You know, the other day, I went by my parent's old house. Even though it must have been really different from then till I was there, I could really sense that they used to live there. The wind turbines on the roof, the flowered curtains, and the many colours on the walls. Not much else was left. I guess, they took most things with them. Outside though, the cars was left behind, and they had a charming playground in the neighbourhood. You should really come and see it all!"

"I don't know..." Fischer doubtfully said. "Come on, just this once!"

"But I don't have the equipment ..."

Wilke laughed loudly, "I have all we need! Great, I'll see you at 5 o'clock at your apartment." Before he knew it, Wilke was gone.

Fischer started home. He always walked, since he had gotten an apartment just next to the university. If going further, he usually took his watercraft. After the city got more and more densely populated and the technology developed, people started to prefer aircraft towards watercraft, because the waterways got congested. When the population moved from the Old City to the new floating one, quite many people chose one of the two other emigration possibilities – Either the mountains, often the Alps, Swedish mountains or Pyrenees, or to space stations. But as the floating cities grew popular, because of the successful cycling system, more and more people had moved to the Netherlands. Time had shown that people preferred staying at earth towards going to space. Even though earth had gotten much rougher with larger areas of desert and larger areas of sea, all the fundamentals for humanity still remained on earth, whereas the production and treatment of food, fuel, water and oxygen were much more difficult in space. The mountains had grown extremely popular as well as the floating communities. They had advantages in the physical stability and beautiful view the different building levels gave, but they had limited space and inflexible space management, whereas the floating cities still had plenty of space outwards and the platforms actually could be moved if detecting a smarter city layout.

Fischer was pleased to be part of the knowledge community in the development of the floating city. He wanted to contribute in the search for possibilities of cultivating many different sorts of food in the floating communities. It was easy enough to take the production of root vegetables and grain with them to the platforms, but, with respect to crops, the tree-bound crops were challenging. And then it was hard making space for animal production. They researched quite a bit in artificial meat production at his institute at the moment.

He arrived home and went straight to the fridge. He had some leftovers, which was easy to heat. He couldn't believe that Wilke talked him into going to the Old City. Did he ever actually say yes? He couldn't remember. Maybe he could still sign out. On the other hand, he was tempted. And it was true that Wilke never got caught or

hurt. Even though Wilke was crazy, Fischer knew that he would research on everything needed when doing all the different activities he was into. Screw it, he'd just do it! This one time. They'd probably not get caught or hurt.

The doorbell rang, and at the same moment Wilke came in the door. "Are you ready?" Fischer looked at him "I just persuaded myself." He was ever astonished of his unremitting friend. Seconds later Wilke had projected a model of the Old City on Fischer's dinner table with his phone. "Are you ready to explore more in one afternoon than you have your entire life?" Fischer was about to protest, that was a bit of an exaggeration, but Wilke didn't wait for Fischer to answer, "We're going to take our scooters to the potato field platform, to the very southeast of the city. Remember your student ID – we have to tell them at the entrance that we are Artificial Agriculture Students. Then we go to the very back, right corner of the field, where I have a hole in the fence I use. From here we are hidden from the City Guards. We have to drop quick and silent into the water, and sink as fast as possible to the bottom of the sea. We need to wait with the security check till we get to the bottom. Otherwise we risk that they see us." He grinned, "But my equipment always work!" Fischer right eye nervously ticked.

"Anyway. When we have done the security check, we swim to the western part of the Old City boundary. As the buildings are getting taller and denser, the city guards will not have a chance seeing us. The first part of the city we have to go through, is the old harbour." He pointed at the projected city model. "It is still full of old containers, old oil refineries and other factories. So spooky. Then we get to the river, and follow it all the way to the city centre, where I will show you the church I saw yesterday. When we go home, we'll just go the same way. I think we will get back before it gets dark."

Half an hour later they stood by the gate to the potato field. It was unproblematic to get in. They walked to the end of the field, and Wilke pulled out in the fence to show the hole he'd told about. Quickly they slipped into the diving suit and Wilke gave Fischer the diving mask (a mask covering all of the face with the ability to extract the oxygen in the water). They also both brought their cell phones to record, light up and in case of emergency. "Let's go!"

Everyone learned to dive in elementary school, and diving was therefore not new to Fischer. But just like everything else, also in diving, the memory had to be refreshed when not have been doing it for a while, so when they dropped in the water, Fischer focused so much on dropping elegant, silent and quickly into the water, that he forgot to take on the mask. He didn't realize it before the salt water got into his eyes, nose and mouth, few seconds after going under. He stopped up, confused, to take on the mask after blowing the water out. Wilke was already 10 meters under him, and Fischer made his body as slim as possible to get down to the bottom quickly.

"You are such a moron!" Wilke said with a twinkle in his eyes. The full-face masks allowed the divers to speak to each other. "But I'm pretty sure the guards didn't notice us. Does your equipment work?" They checked it, and as Wilke had promised, everything worked as it should.

First now, he looked around. They were at the edge of the floating city. Towards the city, the several ties to the platforms could be seen. In the other direction, the open seabed continued as far as they could see (which was not very far in the unclear sea water). "This way." Wilke said, and pointed towards the seemingly endless seabed.

They started swimming near the seabed. The first couple of kilometres, there were only sand ground, but suddenly they came to the first house. It looked like an old farmer house. The roof was gone, and only a ruin of raw bricks was left.

"The buildings are much more worn down out here than in the city. The sea streams are stronger on the bare seabed, and in the cities the buildings act as a struggle for the free flow."



Not a lot further they came to the old port. The heavy steel containers raised before them. They were very rusty, and some of the stacks of containers had collapsed, if the lower ones had bad rust damages. They swam through the container city, even though Fischer didn't like it too much. But, as Wilke said, it might be scary, but better than getting caught by the guards. After the container city, they swam through an oil refinery. It was very monotone with hundreds of cylindrical containers, and was actually a bit recognizable, because some of the apartment platforms looked like this.

They came to the river, which was a groove into the ground. As he looked down into it, he realized that it was actually naturally used by the marine life as a transportation way. Clusters of fish and single fish swam outwards, and on the seaweed, the stream looked very strong. "I see you noticed the strong flow. As you can figure out, it is a bad idea to swim down there. Let's stay up at the shore, but follow the stream to the right." Wilke told him.

As they swam by the shore, the industry city transformed into a more old school city. Fischer noted, that the buildings in here was less worn down than the farmer house was. They quickly crossed above the river, and moved into the real city by one of the streets. Towards the water the buildings were tall and simple. This was the style of the late part of the 20th century, he'd learned in history once. He imagined busy streets with cars on the wide streets and tons of people on the sidewalks. This was also, because of the tall and heavy buildings, an area of a lot collapsed buildings, which reminded Fischer of the danger they actually exposed themselves to here. "Can we swim somewhere with a bit lower buildings?" he asked Wilke. "Sure, the church is just around the corner."

They swam in between some lower buildings and around a corner. In front of them raised the church. The top of the tower was above the water surface. It was enormous – massive – heavy. "It was built in 1450." Wilke told him, "and still standing." "That's impressive!" They swam in through a broken window. Fischer had never seen anything like this. The pillars continued all the way above the water surface. The arches over the windows had so much elegance, but at the same time the building screamed of robustness and grandeur. The room felt extremely large. "I have a feeling that this is the building which has been here the longest, and will stay here the longest in the future." Wilke told him. Fischer silently agreed.

Suddenly a crash sounded and the room immediately got filled up with sand. "What is happening?!" Fischer almost screamed nervously. Wilke instantly put his hands on Fischer's shoulders to calm him down. "Okay, listen to me carefully. A building has collapsed outside. Luckily, we are inside the church, which, as we just talked about, is a durable construction, and will not crash. If we are quick, we can take advantage of the sand fog, and swim back above the roofs, which is much quicker. I have this rope with me. If you just hold on to it, I will lead the way. Alright?"

Fischer marked that he understood everything, and grabbed the rope. Immediately Wilke swam forward. He was a well-trained swimmer, and Fischer could only just keep pace. The next 15 minutes they went through a jumble of sand, emergency light flash and sea streams in different directions. They came back to the potato platform breathless, but unharmed.

When Fischer got his breath, he looked at Wilke, "You are my craziest friend, Wilke. I thought that we were done."

Wilke looked at him with his most slanted smile, "I have tried this so many times. It is actually quite convenient when going back. Much easier to hide. But of course I knew you wouldn't come if I told you about it. And now you experienced the Old City, which you would not have had if I told you all the details."

Fischer didn't know if this made him mad or not. Wilke of course had a point that he would not have come if he knew the real risk, but what if it had went wrong.

“Anyway – it was a great experience. Thanks for taking me.” “You are welcome!”

They walked silently through the potato field. The sun was about to set, which took the temperature a few degrees down. It was nice being up in the cold and fresh air again. They came closer to the field border and could see their present world. It wasn't half bad. Fischer thought that, even though the old world seemed so very fascinating, the most fascinating thing about humankind was their ability to adapt to new circumstances.

## (WATER REFUGEES)

### A STORY OF CAIRO BY GENAN HECHAM EL-JINDAWI

*"I fully understand them. If I was in their situation I would also do anything to get water."*

Kareem was looking forward to coming home to eat dinner with his family and family in-law. It was almost two weeks ago he had seen his parents. They usually met weekly but recently Kareem had been very busy and had formed the habit of coming home late. He was working on a new building project and had to clarify some misunderstandings with a customer. Fortunately, Sarah got off early today and decided to invite hers and Kareem's family for dinner. She had gotten off early as it was quiet at the hospital and so the doctor offered her and some other nurses to go home early. Kareem had reacted happily to Sarah's call regarding the dinner invitation as he felt he needed to relax and lead his mind away from the call he got from his friend in Libya. The telephone conversation between him and his friend had drained all the energy from him and had affected his concentration all day.

While Kareem was walking the crowded street, he looked at the old looking cars and was disappointed that Egypt was still using this ancient transport method when almost the entire world was using electric self-driving cars that has parking spaces all around the cities and are rented by a chip implemented in their hands. The thought of how Egypt's situation had changed tragically since the water catastrophe in 2050 would never leave his mind. The situation in Egypt of course was not perfect before the water catastrophe but he still longed for the time before 2050. Kareem had sold his car many years ago and decided to walk instead. The traffic had been unbearable and he could not handle the long hours in traffic every day and decided as many other Egyptians to walk. Today it took him half an hour to get home, while it took him 2 hours by car a few years ago.

Kareem felt the relief wash over him the moment Sarah opened the door for him. He gave her a hug and walked inside to see the rest of the family. Sarah announced dinner was almost done and therefore told them to get ready. They took turns to wash their hands and then rushed to find their seats at the table. "What a blessing" Kareem's father sighed. "A few years ago we could neither wash our hands nor meet at dinner". Sarah's mother commented that they did not have water nor food to meet on that time and the families broke into laughter, all except Kareem.

"Thank God" they said and began eating.

"Are you okay, darling?" Sarah asked. "Yes darling, I am fine" Kareem said and sent her a nervous smile. They continued eating with a "thank God" from time to time. Suddenly Kareem said, "Omar called me today". His announcement seemed to go unnoticed as everyone around the table continued eating.

Sarah's and Kareem's mothers helped Sarah with the dishwashing and the men went into the living room. "I wish we also had a self-cleaning dishwasher and utensils as most countries do," said Sarah's mother. Sarah and Kareem's mothers reminded her that they are very blessed nowadays to even have water and food. Sarah's mother agreed and continued to thank God, "we do not need more than that," she said.

They were all sitting in the living room and drinking tea when Kareem said, "Omar called me today" for the second time that day. Kareem's father said, "Omar from Libya? How is he?"

Kareem angrily said, "You know how he is, you know that they are suffering just like we suffered a few years ago. You all know that the Africans are suffering from water shortage and are dying every day and yet you all choose to ignore it and only care about yourself." Kareem's mother was very touched as she answered him, "Kareem my dear son, we do not just care about ourselves as you might think. But naturally, we care about our own family and our dearests. I will not stand idly by and watch you suffer and be dying, as that was the case a few years ago. Do you not realize the pain we went through when we saw our loved son dying because of malnutrition? Because I do and I will not allow that again. Besides you should know how much we all love Omar".

Sarah served the dessert and the conversation was not opened again.

Later that night, when Sarah and Kareem were lying in bed, he told her that he would never forget what she did for him when he was admitted to the hospital. He told her that she saved his life and that he was forever grateful for it. He lovingly kissed her hand and told her that he could not bear to think of Omar and other people suffering the way he did. Sarah reminded him that there was nothing they could personally do but that they should comply with the government if they really wanted the access to water. She always used to tell Kareem that the government is their savior.

Next morning, as Kareem was walking the Nile-way, he thought of a time where this way used to be a river. Just a few years ago, the Nile River was still a reality and served water to almost all Egyptians. Even if the quality of the water was very poor and was responsible for many poisoning cases among the Egyptians, it was still a river and Egypt was still proud of the Nile that played a significant role in the Egyptian civilization since ancient time. Kareem remembers how the international studies warned people about how the Nile River would dry since he was a kid. In 2015, some studies warned of a water catastrophic in Egypt in 2025. That did not happen and therefore the Egyptians and the government never took those warnings seriously. Again in 2040, international studies warned that Egypt was already on its way to a huge water catastrophic that would destroy the entire country. The government, however, ensured the population that it would never happen and that the Nile River would always be the main water source for Egypt. Only eight years after, the Egyptians began feeling the consequences of those warnings and it was then obvious that the Nile was disappearing. That led to a revolution against the government and requirements for serious solutions. The situation worsened and the water catastrophe became a reality just two years later. The country had been through many revolutions during the catastrophe and the situation was unbearable. Violence and unsafety was an everyday issue as well as seeing people dying on the streets. The Egyptians experienced a deep distrust and people were willing to kill to get access to water. The vast majority of the rich Egyptians escaped to other countries but the poor population, which is the majority of the citizens in Egypt, were left in Egypt with nowhere to go. No one requires a modernization of Egypt anymore. Egyptians only require water. During this political uncertainty, a group of researchers claimed that they had the only solution for this huge water catastrophic. Kareem could not even remember how these researchers exactly came into power but he specifically remembers the day water felt like a reality again. He remembers the day he saw the tap running water and felt it on his fingers. The government never shared their secret as to how they did it but they explain it as a very complicated technological process. The knowledge did not feel too important at the time, as people were just grateful to have regained the access to water.

Since that day, the government ran their own policy, both domestic and foreign. The only improvement the government really accomplished was to solve the water problem and recreate the security. Kareem loved Egypt so much and naturally felt depressed to see his beloved country in that disappointing state. He thought of the different ways the other countries were living in. What he saw on the television was completely different from what he saw in Egypt. Not only was the transportation different but the entire way of living. Kareem used to wonder how different his life today would be compared to the life he had as a small child. "While the entire world

is moving forward, we are still there," he thought. Kareem returned to reality from his thoughts when a football, made of old clothes and rolled together, hit his head. Two small children with outworn clothes came running up to him and apologized. Kareem had a weakness for children. He kissed them on their forehead and went quickly ahead. He could not avoid thinking about the desire to be a father. Since he married Sarah, they had been trying to have children. They had been to all kinds of doctors and clinics hoping for a solution. The doctors were always ensuring them that there was nothing wrong with both of them but they never got an answer as to why Sarah was not able to become pregnant. Every time the tests showed that everything was as it should be. Today, eight years after, Kareem and Sarah never talk about being parents anymore.

Kareem entered his office and saw that his colleagues were standing in groups and discussing vehemently. The atmosphere seemed different at the office this morning, he thought.

Hani came over to Kareem and asked, "Have you heard the news?"

"Is Omar alright?" Kareem asked nervously. Kareem, Omar and Hani had been friends since forever. Kareem could not remember a time where they were not friends. They had been inseparable until Omar traveled to Libya to visit his dying mother during the water catastrophe in Egypt. One month later, Egypt got the new government, which solved the water problem by a secret technological process. The government quickly chose to close all borders with the African neighbors and therefore Omar could not return home. The government feared that Africans would come to Egypt in large quantities as they still suffered from water shortage in their home countries. The Egyptians knew that the only reason the governments refused to share their technology with other African countries was the power factor. This water source was the only thing that made the government powerful. The government had not done anything else for Egypt. If the Egyptians found the water source, they would not allow the government to continue, Kareem is convinced. "This is not about Omar right now, this is about us. The African countries have decided to meet today to discuss how they can get the water from Egypt," Hani said.

"Nothing new, my friend. It is not the first time they meet to discuss the water shortage," Kareem said. "Exactly! All the other meetings were about the solution of the problem but today it is about a plan to get the water from Egypt," Hani said.

"I fully understand them. If I was in their situation I would also do anything to get water. Our government deserves to be executed," Kareem said.

"Kareem my friend, the problem is that if the African countries attack Egypt, they would not grace the Egyptians. You know that they blame us for supporting our government. They hate us as much as they hate our government," Hani worried.

"That is exactly what we are doing. We are supporting our psychopathic government when we do nothing to stop the government from doing horrible things towards our African neighbor because we are afraid of the water shortage. Therefore, we deserve what our government deserves," Kareem said.

Kareem went to his desk and turned his computer on with shaking hands. "What a shitty computer, who in this entire world uses this kind of technology in 2060?" he snarled. "I bet that Europe cannot even remember what computer this is," he continued.

Kareem was completely quiet for the next 15 minutes and thought deeply. He imagined how his and Sarah's future would look like if Egypt, in the worst case, ended in war. He imagined his parents, his friends, his neighbors and he imagined his beloved Egypt. He was terrified of these imaginations and decided to begin working instead.

The day seemed very long and the tension felt thick. He tried not to think about the consequences of the African meeting but it was impossible not to. His colleagues discussed the meeting over and over again but he stayed quiet and did not participate to the discussion anymore. The only time he talked about the meeting again was when Sarah called him. She was nervous and afraid because of the rumors that had spread quickly among the patients and staff at the hospital. People were talking about a war against Egypt and about torture and executions. Kareem told Sarah to be strong and not to believe the rumors. He told her that the African countries were weak and therefore do not have the resources to invade Egypt. He advised her to listen to the Egyptian media instead of the foreign. Sarah was surprised that he wanted her to listen to the Egyptian media as he used to get angry when anyone referred to the Egyptian media. Kareem told her that this time they were telling the truth. They ended the call but Kareem did not feel Sarah was less nervous.

That Saturday morning Kareem stood up to Sarah crying. A fear controlled him and he did not dare to ask her for the reason she was crying. The whole week had been a long terrible nightmare as rumors of an African invasion of Egypt were spread among the Egyptians and a feeling of helplessness had taken over them. Nevertheless, the local channels had assured over and over again that the Egyptian governments would never allow an invasion. Kareem held Sarah's hand and kissed it. "We will be fine," he assured her.

"I do not think so, Kareem," she said indistinctly as she cried.

"They are already in Egypt and has taken control of the national TV channel. They ask everyone to stay home unless they want to risk their lives," she continued.

Kareem felt a heavy weight on his heart. He began with a sentence but did not complete it. He had predicted it; he had always told Sarah that the African countries would not stay quiet for very long. He was sure the situation would change dramatically if the Egyptians do not push the government to another water management and therefore a better African policy. Nevertheless, Kareem hoped that it would never happen. Kareem and Sarah were quiet most of the day, except for when they called their families to ensure that they were safe. Both Kareem and Sarah's families lived 15 minutes far from themselves and had always been neighbors. Kareem remembers how happy his parents were when he told them about his desire to marry Sarah. Their marriage had only made the bond between the families even stronger.

The situation in Egypt did deteriorated dramatically since the first day of invasion. The news is uncertain and the rumors dominate the situation. Some claim that the president and most of the members of the government did leave Egypt shortly before the invasion. Other claim that they all were murdered. Nobody knew anything for sure. All what Kareem knew was that Egypt was not theirs anymore. Already two days after the invasion, Kareem and Sarah tried to visit their families but were stopped by an African barrier with five men in military uniforms. Kareem and Sarah had to show ID and wait two hours before they let them go. What was supposed to take 15 minutes took 2 hours. It had become common to see Africans in Cairo's streets, as it was common to get beaten and raped. Nothing Egypt had ever been through could be measured with the current situation.

Never has violence and fear been so dominant, even during the water crisis. The African nations had control of the water supply in Egypt but the water was still available for all. Kareem's friend Omar came to Egypt and was anything but happy. Kareem's dream to see Omar in Egypt, drinking of its water and living among his friends, finally came true. Still, Kareem was not happy and neither was Omar. No one knew what the secret technology contained of and no one seemed interested to know. The thirsty Africans got water and the Egyptians lost their country. The whole situation was chaotic and neither Kareem nor Sarah had been at work since the invasion. They did not have the opportunity to visit their families. It was too dangerous to go outside unless it was necessary. No

one really knew how it would end. Certainly, Kareem believed that the hall situation indicated a divided Egypt. He believed that Egypt would be shared between the different African countries that contributed to the invasion.

Many Egyptians regretted their role during the Egyptian government's control. Among them was Sarah. She apologized to Kareem because she did not support him in his criticism against the government and their water management. Kareem told her not to apologize. He told her that he was also weak, "The only thing I did was to criticize, I never did more. In fact, I was also afraid to lose the water again. Nevertheless, what good is it to have water without a country, without our Egypt."

Kareem wept for the first time since he was a child when Sarah told him that she was pregnant. "After all those years of waiting for a baby, it happened just two weeks after the invasion," he thought. It was extremely hard to hear Sarah's desire for an abortion. She did not wish their child to grow up during those conditions. Both she and Kareem could not imagine a future for their child in Egypt. Kareem agreed an abortion was the best for them but he also decided that Egypt was not their home any longer. That evening they both decided to move to Europe.

"We refused to leave our country during the water crisis and we refused to leave our country during the dictatorial regime because we believed in a better future for our country. Today I cannot see any future and I neither can I call Egypt a home anymore. Let us go to Europe and start a new life in conditions that fit with 2060 not 2015. We will try to get children there and give them a decent future," Kareem said overcome with emotion.

# CAIRO 2051

## A STORY OF CAIRO BY SEBASTIAN BRIAN MOLLERUP

*"I've been a cab driver all my life and I've never had as little business as I do now."*

I exited the terminal of Cairo International Airport and had barely entered the backdoor of a shiny black and white hovercab, before the driver turned around and asked me, "So, where to?"

The interior of the cab wasn't like any other standard plastic autocab, this one told a story about the driver. There were prayer beads hanging from the rear-view mirror, leather wrapped around the wheel and the lever for altitude adjustment, which for some reason was there in between the front seats instead of the regular button on the control panel, and on the GPS monitor some local tv-show was running. There were beaded massage seat covers in traditional Arabic designs on all the seat, which, to my surprise, actually was pretty comfortable to sit on. In my amazement of the interior, I had been out of reach like a child in a candy store, and woke up again when the driver repeated himself, "Sooo, where to?" I didn't know how to pronounce it correctly, but I went ahead and said it anyway, "Ehm, Alakarya Hotel?" He laughed at me and said in strong heavy voice, "Yes, yes, Elaqarya", with a strong emphasis on the pronunciation of the word. "I'll take you, don't worry." He had stopped laughing, "But let me ask you one thing first. Why did you get into my cab and not one of the autocabs?" he asked with a strong accent and a wondering look on his face. "To be honest..." I told him, "I don't trust them, and it makes me a little uncomfortable that they drive so close to each other all the time. No, I prefer it the old way even if it's a little slower" A smile appeared on his face as I said the last word, "Why were you wondering?" I asked him. "I've been a cab driver all my life and I've never had as little business as I do now" he said and sighed. "So I ask all my customers nowadays, what it is, that makes them come to me." He paused, "Which is only a handful a day – if even" he added. "Is a couple of customers a day enough to make a living?" I asked. "I don't do it for the money" he said, "I'm sixty-three, I'm retired, the government takes care of me. Gives me more than enough to feed myself and put clothes on my back." He gave me a thumbs up and smiled. I smiled back at him and snorted a laugh. He didn't look a day past fifty, he barely had any wrinkles and his hair looked thick, strong and pure black.

He turned around and started the car, which had this weird sound, this low pitched fast pulsing sound. As he began to push the altitude lever forward, the car slowly began to rise from its support pillars which it had rested on while it was turned off. I asked him "If you don't do it for the money, why do you drive?" He looked at me in the rear-view mirror, "I like it. I get to meet and talk to interesting people like yourself." He winked and continued, "Also because it's boring just to sit around and be old all day" he said and laughed. "No, this is what I like doing, it's what I've always done and it's what I love doing." He smiled and I smiled back at him. We had started moving, and apart from the pulsing sound getting faster and a little higher pitched, you couldn't tell that we were moving. Hovercars were so smooth to ride, you never felt a thing. I leaned back and relaxed on the massage beads while we drove away from the terminal and swung around the 'Cairo Airport Hotel and Casino'. A sign said that we were going towards Airport Road. "You see?" he said and pointed to the top of the hotel. I looked up to see a hologram of a yellow pyramid floating in mid-air on top of the hotel with the words "Cairo Airport Casino – Always open!" in bright pink circling the pyramid. "Every time I drive by, it always amazes me how it can just float right there, in thin air." I didn't really think much of it, it was just a big holographic projection on top of a building. He continued, "It's the same with this car. I sometimes can't believe it. It hovers, it just hovers and I don't know how. It's an amazing time to be alive." He laughed and clapped his hands. "I agree, it truly is" I told him, even though I wasn't really impressed by the any of it. It suddenly occurred to me that I forgot to ask where the hotel was. I didn't know, because my job booked it and I hadn't had the time to look it up. "Where is Elaqarya Hotel anyway?" I asked him, "My job just booked it, I have no idea where it is or how long it takes to get there." He looked in the rear-view



mirror again, he did that every time he talked to me, and it made me a little nervous that he took his eyes of the road so much. "It's in Pyramid Gardens, which is behind the great Pyramid of Giza." He replied while making a triangle with his hands, "It's nice, very new, very pretty, very green. It's about forty-five minutes to an hour drive away." I looked at him in the mirror and nodded, "Thanks." It was silent for a few minutes.

As we drove past the landing strip a commercial white and blue Sonic Boom Boeing Dreamliner Aeroplane was about to take off. It was at the end of the runway almost looking right at us when it started to speed up. It didn't take more than a couple of seconds, before it was up to speed and drove past us. "Whoosh" it said as it drove past, I could feel the car tilting a little bit from the wind pressure it made. I looked out the back and saw the plane gaining altitude fast, and in less than ten seconds I saw the clouds gathering behind it in a conical shape and then a silent blast, "boom" and then it was gone, out of sight. "Why are you in sunny Cairo, my friend?" he asked. "Oh, just business, there's a solar convention at the hotel this weekend." I said. I looked out and saw a solar dome farm behind the airstrip getting closer. "Like those" I added and pointed to the farm. "You know that little farm generates enough power for the whole airport?" I told him. He looked at the farm and nodded, "Yes, those solar domes changed all of Cairo." He said and made a big round gesture with both his hands.

He continued, "I was here you know. Before the solar domes, before the autocabs, before all of it." He held his index finger up proudly. "You ever been here before, my friend?" I shook my head, "No, I've never been here before. I'm in the solar energy industry as you probably figured out. So I always wanted to see the "Solar Capital", as we call it." He looked at me in the mirror and raised his eyebrows, "You chose a great time to visit then, the city have never been more beautiful!" he laughed and clapped his hands again. You could tell that he was excited about his city. "You know how it was before?" he asked me. I shook my head again and with a wondering expression on my face I told him, "No – I don't actually." I had never really thought about how it was before. I've just heard a lot about how it was now, the most sustainable city ever, the desert solar city. "When I was sixteen" he lifted his index finger in the air again, "When I was sixteen, forty-nine years ago..." If he's sixty-three, now, it was only forty-seven years ago I thought to myself, but I didn't correct him.

He continued "...I started as a cab driver, in my black and white Lada 1500, which was the car everyone had. It didn't have any suspension, seatbelts, and the tires and brakes were both worn out" He laughed and clapped and couple of times, "Nothing like this car." My jaw dropped and I spluttered, "Noo, really?" I found it hard to believe that the cars had been such worn out in a city like Cairo. He laughed again and continued his story, "Yes, really! And there was so many cars! And the traffic! Oooh, the traffic! Before those..." he pointed out the window at a couple of small white autocabs driving in convoy. "...everyone who could afford it – which was many because it wasn't very expensive and anything with a wheel and an engine was legal – had a car and most, like me, had a Lada 1500." He sat a couple of seconds, probably reminiscing old times, before he continued. "Well, yes, the traffic was bad before the autocabs. We drove however we wanted to, no rules, and everyone could get a license. I didn't have one when I started driving people around, but no one cared and no one asked." He said, laughed, and shrugged. "I have a license now, don't worry!"

We both had a laugh before he continued, "Now there are so many rules, but it's for the better I think. There's no accidents anymore" he flicked his prayer beads, "and no traffic, because almost everyone uses the autocabs. They're good, took a while to get used to, but I still prefer driving myself. So I do it while I still can, in a few years I probably won't be allowed to anymore." He sighed when he finished. "Why? Because of your age?" I asked carefully trying not to offend him about his age. He spluttered out a loud "Hah!" Apparently I didn't offend him. He continued, "No, no, no, you see, the fun thing about still driving yourself is that the autocabs sense you, and correct themselves according to you. They communicate with each other, but they can't communicate with me, because I'm not a machine, and it slows traffic. Sadly, humans slow traffic down." He was quiet for a second, "How

is it where you're from?" he asked. "Oh, where I'm from there's not nearly enough sun to only run on solar energy alone like here. So we still have old fossil fuel cars and many people aren't willing to get rid of their cars for autocabs. We only have about thirty percent autocabs I think" I told him. "Hah, yeah, here we just had to change.

After the breakthrough with the solar domes, the government set up a huge solar farm just outside of town, you probably know it, if that is your area of expertise. Then they banned all fossil fuel use, so everybody had to get rid of their cars." I knew of it, the world's biggest solar dome farm, it was Cairo's primary source of energy, and it produced more than eighty percent of all the energy usage in the city. He continued, "It was a living hell for years. They had expanded the metro and had put a lot of electric busses on the road. But it simply wasn't enough. They underestimated the amount of people, there was no traffic, though, and a lot of people started to bike. Some people bought electric cars, but there weren't enough places to charge them or change batteries, so most people didn't bother. After a few years, the first hovercars came out and I bought this baby..." he clapped the steering wheel with both his hands twice "...shortly after, the autocabs came and started taking over the commuting problems in the city, and within a year or so, no problems, just autocabs." He made a little explosion with his hands, "Poof, gone" he said.

We passed the old Almaza Airport, which, now, only handled helicopters, and as we drove past six or so helicopters had arrived and departed. "A lot of people are starting to get those small personal helicopters, too" he said, when he saw I was looking at the airport through the window. "But I think most people are waiting for hovercopters. Hover can only take us so far above the ground right now, but it's probably going to change within a few years." I nodded, "You're probably right." He was very talkative, honestly, it made me a little tired, but I couldn't bring myself to ask him to stop. He seemed so happy telling me about the city and it seemed like he knew a lot. He had seen the whole transition of the city, which was quite interesting, but I was just so tired after my flight. Sonic Boom flights always made me dizzy and exhausted.

I sat still, staring out the window, looking at the city and autocabs passing by. From the highway the buildings looked mostly the same, all yellow like sand and taller than the trees in the small parks surrounding them. In between them, autocabs were driving around, people walking and biking. There were small street shops on the sidewalk selling beverages and food. Higher up, between the buildings, laundry was left out to dry on thin wires. On top of all the buildings were solar domes and satellite dishes. We drove a little further and I could see this opening between some buildings. A pathway surrounded by lush green grass, bushes and trees was leading up to this eccentric little sand coloured mansion. "What's that?" I pointed at the mansion and asked the driver. He looked out the window, "Qasr el Baron" he said without hesitation, "It's the jewel of Heliopolis. It was the palace of Baron Empain, who founded the suburb of Heliopolis in 1906. This building was finished in 1911." I stared at the building, without talking as it disappeared behind us. "If you have time, you should go see it up close" he said. "I might, I just might" I told him.

The same buildings began to appear again, but now getting bigger. The driver pointed out to a big white building on the corner to the left. He started talking, "Those guys, The Ministry of Planning, are the one to thanks for Cairo's change. They were the ones who decided to invest everything in the solar domes and autocabs." He went quiet, swung the car in front of a convoy of autocabs and continued talking. "The city is mostly the same otherwise, they just focused on repairing the roads, so most of the buildings are as old as I am!" he laughed. "But now, they have started to move people out of the old buildings and into new ones in the desert. It's cheaper than repairing the old ones so they just get demolished later" he said. "Except buildings like this" he pointed to a tall building with a half-dome on top and even taller thin towers on each side. It was white with beautiful details of Arabic patterns all over. "The holy Mosques and other significant and valuable structures" he continued, "These, they remain and are maintained." We continued towards the centre of the city, the buildings kept getting taller

and denser, and more autocabs appeared everywhere. On the way there hadn't been many, but now they were everywhere. We took our first turn since the airport, a sign said 6th October Bridge. "This road, it is the backbone of all traffic in Cairo" he told me as we drove off the ramp in between the immensely packed traffic, where some autocabs, who without any effort made room for us and kept their distance. "But you see, this traffic moves, not like the old one with human drivers, and next year, it's only going to be autocabs that are allowed to drive here" he said. "Because humans slow traffic?" I responded questioningly, he laughed "Hah-hah! Yes, exactly, because humans slow traffic."

We drove in the packed traffic for about ten minutes without anyone saying a word. We passed another great and beautiful mosque. Two universities, one on each side of the road, and a metro station, where I could see a horde of people entering and exiting. "That's the University of Law" he pointed to the right with his index finger, "and that's University of Medicine" he pointed to the left with his thumb, "and behind that, is the hospital." I didn't know how to respond, so I just nodded accordingly. Another couple of minutes passed, then a great dome started to appear in front of us. Rising from the horizon, it looked like a giant solar dome, which it probably was. I leaned forward in my seat to get a better look of this huge structure. "What is that?" I asked the driver. It must have been at least two-hundred meters tall. "That, my friend, that is the Central Hyperloop Station of Egypt, and the Central Railway Station of Cairo" he told me proudly. "It was just finished last year. There are capsules to Alexandria, Luxor and Aswan. Won't take you more than an hour to get to Aswan, which is roughly 900 kilometers away. It's not really a solar dome, though, it just looks like one. There's solar domes all over the tubes along the routes, which produces more than enough energy." So that's the Central Hyperloop Station, I thought to myself. I've heard about it, but never really thought much of it. We drove a little further, "And down there" he pointed to the right, "is the Central Autocab Station." I looked out and saw, what must have been tens of thousands of autocabs, all perfectly aligned in one huge grid. A convoy of ten or fifteen was driving, and one by one, found a place next to each other in the grid. It was almost like poetry as they parked.

We sat in silence for a long time, it was nice to sit in quiet and think for a bit. I thought about the weekend, I pulled out the itinerary for the convention to see when, what, and where. There were two presentations, I really wanted to see in the morning, the following day. One was about the green building standards and carbon tax. The other was about the future of the solar dome technology, which was going to really interesting. My own presentation wasn't until five-thirty, but just thinking about it made my heart beat rapidly. The thought about standing on stage was dizzying. Talking to all these people, about the benefits of the continued development of solar domes, specialized to harvest the reflected sun rays from the moon, for the countries that didn't have as much sun as Egypt.

I thought of all the things that could go wrong, what if I froze up? What if it weren't interesting? What if, what if. It's going to be just fine. All cities should be as sustainable as this one, everybody could see that. I thought to myself, trying to convince myself that nothing could ever go wrong. We had passed the Nile onto a little island called "Gezira Island", I had faintly overheard the driver say, while I was trying to calm my nerves. From the bridge, which was more like an elevated highway, than an actual bridge, that we were still on, the island looked like an oasis in the desert. Green, lush, and with a crystal blue pond in the middle. We quickly passed the Nile again and took a turn left. I think the driver had realized that I wanted to sit in quiet for a little longer, because he didn't say anything. He just sat there, smiling, driving his beloved hovercar. It weren't until we began turning right and this incredible beautiful park appeared in front of us. It must have been ten kilometres long and a kilometre wide, and at the end, The Great Pyramid stood. It looked tiny from the end of the park, well, as tiny as a structure of that size could be. The driver broke the silence, "Al Haram!" he turned around to look at me, with a big smile on his face. "Al Haram..." he repeated, "...This used to be an old boring road with lots of traffic. But look at it now, a park! Can you believe it? A beautiful park! Almost prettier than the Pyramids!" he laughed. We drove towards the pyramids along

the park. I kept staring at the park. There was a wide walkway in the middle, and on both sides were trees, bushes, ponds and alike. Flowers of all colours, big and small, and every once in a while, there was a little pavilion in beautiful traditional Arabic or Egyptian designs. Further ahead, after about a third of the park, was a big fountain. It had three levels and on the top, water was squirting out upwards, in a perfectly straight line.

We had almost reached the fountain, when the pulsing sound of the propulsion suddenly stopped, all the lights on the dashboard went out, and the car fell to the ground with a big “clunk!” We both bounced in our seats a little after the fall. It didn’t hurt, it was just weird. I grasped the shoulders of both the front seats, “What happened?” I was almost shouting at the driver. He looked around calmly and said, “I don’t know, but all of the autocabs fell too” he pointed at the autocabs all around. He tried to open his door but it was locked. I tried to open my door, but it was also locked. He tried starting the car, but nothing was happening. He looked at me, with a look of what looked like a mixture of amazement and fear, “This never happened before, I’m sorry, I have never experienced anything like this.” He paused, and looked at his phone, “Hmm, no signal.” He paused again, “What’s going on?” he said to himself. I checked my phone too, “No signal on mine either.”

I looked around, but I weren’t able to see into any of the autocabs because of their blacked out windows. The people in the park had all stopped whatever they were doing, and now just stood perplexed, staring at the stopped traffic. The driver and I looked at each other, and then just sat there, for a couple of minutes, in silence, wondering about what was going on. The people from the park had come closer, all the way over to the fence, separating the park from the road.

Suddenly the car started, made a loud “beep” and flashed all the lights on the dashboard rapidly for a few seconds. Then it stopped. Scattering began on the GPS monitor, which the driver had used to watch tv-shows when I first entered the cab. Black and white lines were flickering fast around the screen, when it fixed to a black screen with white letters, which said, “This is our town now.” I could feel my heart racing in my chest. I looked at the driver, and was just about to ask him, what was going on, when I saw that he was calmly staring out the window. I looked out, and saw the people from the park looking in the same direction as the driver. I looked up, and saw a big black box floating in mid-air, slowly spinning. It had the same words that were on the screen, on each side of the box. “What’s going on? Do you think it’s some kind of terrorists, hackers, or something like that?” He was silent for a second, “I don’t know, maybe, it’s not the government, that’s for sure” he then said. The people in the park had started panicking, running around and away, probably to get home, or to somewhere that felt safer. But we were stuck. There was no chance of us breaking out of the car, it was too sturdy. We were trapped. The driver took his praying beads from the rear-view mirror, kissed them, and clenched them in his hand. Then he turned around and to look at me. He stared for a second, before he said, “Maybe” he paused, “Maybe, it wasn’t for the better.” We looked at each other, both with an expression of helplessness and fear. He turned around. After a couple of minutes, I asked him, “How long do you think we’re going to be stuck in here?” He was mumbling something, which was probably a prayer. He finished, pushed one of the beads with his thumb, away from the ones in his hand. Then he said, “I don’t know...” he said silently, “...maybe forever.”

## (THE FIRST TRAIN)

### A STORY OF JOHANNESBURG BY THERESA AICHINGER

*...it was also a radical change, and I could imagine that not everybody agreed with this change.*

Even from afar I could hear it. Drums, singing, clapping. I followed the crowd through the streets. Dry, dusty air surrounded me while passing known concrete blocks, glass buildings and few older buildings. The noise got louder. A mass of people had built a circle around a group of drummers - directly beside the new and modern escalators into the ground. 'What a contrast', rushed into my mind. I was curious about what it would look like down in the earth but the beat of the music distracted me. I tried to cleave a way through all the people to see more. Many of them moved to the rhythm. Also my body started to rock slightly from one side to the other. As I reached the front I saw around ten men beat their drums following a well prepared choreography while singing and dancing at the same time. I did not know where to look first. Fluttering and colorful dresses, incredibly fast moving sticks, painted and decorated instruments. Happy faces everywhere. Their smile was infectious.

After a while, I don't know any more how long I stood there and just watched, I wriggled my way out of the crowd towards the entrance. The building looked strange. Somehow unfamiliar, new. The last years a huge construction site has covered the whole square. And not only this one. There were construction sites all over the city. They became part of everyone's daily life. But not necessarily positive. The continuing noise of all the excavators and trucks disturbed every conversation near the sites, cranes shaped the cityscape, fences hindered me to watch what was going on, and construction vehicles exacerbated the anyway present traffic jams. While looking at the entrance, I knew that this was all gone now. And there had been moments when I thought that I may not live to see this. What was built resembled a big shell that tries to cover the hole. The white color and the glass of the side walls should invite everyone to go inside. But in my opinion it looked too futuristic even though they tried to decorate it traditionally with small flags, garlands and flowers. The symmetry, the slightly tapered roof and the minimalistic design did not fit properly to the rest of the city. But it sharpened my curiosity. And apparently not only mine. A flood of people already walked towards the stairs. In front of it they slowed down a little.

Only two escalators existed to transport the mass downwards. I queued along the others and were slid closer and closer to the ground. It was warm, I felt somewhat cramped and uncomfortable between all the different shoulders. While placing my feet on the first step I was surprised by the speed and the push, and I clung to the railings to feel safe. I glanced down. A second escalator followed the one I stood on to connect the square above me with the tunnel under me. It looked somehow strange, one visitor after each other, lined up. I was prepared as I took the next escalator and tried to relax my body. Everything smelled new and a bit like construction at the same time. Halfway, in the middle of the stairs, I had a great overview. The tunnel was long, I guessed about 300m. It was not very wide and on each side, left and right, the floor was lowered. But a glass fence with closed doors prevented people to go down. I could identify tracks behind the glass. The sidewalls were slightly rounded. Again everything was white. Lamps with a huge round shade projected big cones of light on the floor. The space was not high. Since the mass of people was slowly filling the whole platform, it felt confined. Hopefully they don't let in more people. I had never had a problem with crowds but for a few years now I felt unwell, probably due to the fact that my body became weaker with age.

I looked around the people who surrounded me. There was this colored woman dressed up with a red cloth robe, printed all over with big blue flowers, tried to keep together her four children. The youngest was tied on her back, screamed and cried. A small group of wealthy-looking white men were talking excitedly. Their black suits seemed a bit overdressed to me. Two teenagers with big loose shirts and white caps on their dark cropped hair tried to cover

their curiosity with coolness. There were hardly any people at my age. But in this moment it did not matter how old you are, from where you are or where you go.

‘Ladies and gentlemen, dear fellow citizens, I am glad to welcome you here!’ I tried to figure out from where the voice came. A bit further ahead I could recognize a small stage. Behind a microphone stood the mayor. A South African flag was fixed as background. Again garlands and flowers were used to decorate the space. ‘This day marks a significant change in everyone’s life in our city. We no longer live in an age of backwardness. From now on comfort, rapidity, punctuality and safety are describing the quality of life in the whole area. This newly built underground metro train system connects every important square, every important part of the city. It connects your home with your work, with your friends and your family, with your favorite park, with the coffee shop you always go and with the football ground where your children train.’ The audience applauded enthusiastically.

His words were exaggerated. But in essence he was right. Until now getting from A to B was often problematic. There was no appropriate formal public system. In my almost 70 years there was hardly any change. Yes of course. There was this train they built, and also normal buses they used. But the coverage of this system was totally insufficient. No one wanted to use them. Everyone who could not afford a car, including me, was dependent on minibuses, these vans used as taxis. And every single of these citizens know the hand signs for every district in the city to show where one want to go. It would be interesting how long I already stood on roadsides while waiting for them without knowing when the next in my direction would come. Or how long I sat in them, shoulder to shoulder, in the middle of traffic jams. But since I was a pensioner I was not often out in the city. I felt stressed in the traffic. And all I need was in my closer surroundings. Although Soweto counts to the poorer regions in Johannesburg I was happy to live there. Over 40 years ago I bought one of the matchbox houses for me and my wife and over time we continuously improved it and added new parts. Neighbors became our friends, our children raised there. As my wife died I started to take care of our small garden, growing fruits and vegetables. While doing this it was possible for me to forget the time. Yes, it felt like home there. Having these thoughts in the middle of all these strangers remembered me how far away all this was and I longed for my home.

‘...and welcome with me the first train.’ The microphone voice and subsequent applause brought me back to reality. The mass of people turned right. Everyone wanted to see the train. And apparently everyone wanted to take advantage of the free travel that was only valid for this day. I was glad to stand in the back. In front of the glass wall people started pushing and jostling. Even the security men could not change that. There were just too many people down here. The crowd clapped louder and also started to yell and scream. Finally, the first train pulled into the station tearing a big poster which bore the words ‘Johannesburg Metro 2070 – Start the Future’ and stopped so that the doors of the train were on the same position as the doors of the glass wall. The train was white with a big red stripe on and characterized by huge glass windows. There was no driver in the front of the train. Impressive to see what is possible with technology!

Apparently the doors opened because a bunch of people pressed towards the train without really moving. It took several minutes until loud beep sounds warned of the closing doors. The first train drove away, well-filled, into the dark tunnel. Again applause. I did not know if I would want to be in the first train. Somehow I did not trust the construction and the computers controlling and steering the trains. I had the feeling that there were some test rides needed until I would step in this vehicle.

However, there was not any chance for me to get in one of the first trains. Still I was pushed rather backwards than towards the train.

Yes, such an underground train system did make sense. It was a great improvement for the city, for the citizens, and an advantage and attraction for tourists. But it was also a radical change, and I could imagine that not

everybody agreed with this change. Especially minibus companies would lose lots of people who were so heavily reliant on them. And as a consequence they would lose a huge amount of money too. Especially for this reason there was barely no change or improvement within the city's transportation system in the past decades.

The next train slowly entered the final position on the tracks. Again everyone tried to get in the train without looking to their left or their right. As the door were closed I stood for the first time closer to the tracks. But still not yet close enough to get one of the next two or three trains. Even I had time on this day waiting annoyed me. It still was too crowded and there were too many people in my direct surrounding.

It was the same for the next trains. I was always pushed a little further to the train but could not board one. Almost directly in front of the glass door the mass of people were tighter. To wait there for the next train felt much longer. When the train finally arrived, it became turbulent around me and I was moved a bit away from the door. A boy, he was at most eight years old, stood right next to me. I saw the glint in his eye and knew that he absolutely wanted to get into the next train. I smiled at him and gently pulled him in front of my legs so that he could jump as one of the last ones in the anyway brimming wagon right before the doors closed. Through the glass of the window I saw his shy and thankful smile and a nod in my direction. I winked at him.

The train departed but braked suddenly after it had not even driven one meter. I saw in the shocked eyes of the small boy. Also the people with whom I was still queuing on the platform confusedly looked towards the train. Nobody knew what was going on. It made me a bit nervous as even the security men next to the glass doors did look alarmed and it seemed like they would not be able to control the situation. One of them started to mumble in his headset. The trains' doors were still displaced between the doors of the glass fence. After a few minutes the train started again. And once more it stopped with a jerk after around one meter. I was wondering who was responsible for this. There was no driver in the train. Now I saw the boy only out of the corner of my eyes. He convulsively tried to grab the handle of the door in front of him. Also the people surrounding him in the train tried to hold on somewhere, although it was so crowded that nobody would fall anyway.

Suddenly a big bang. The train in front of me moved only little but due to a heavy blow and an incredible power the trains' inmates were literally catapulted forward. Heads slammed against the windows and walls, people fell to the ground. I looked back to the back of the train. A second, still empty train had rushed into the still standing train. I heard screams. Panic took over. Some of the people inside the train tried to push towards the doors. Thereby they shoved others. More people fell down. Many of them were wounded. The one who already lied on the floor could not get up because others tried to climb over them. It was a terrible sight. Also the people on the platform started to get worried. Everyone saw the chaos directly in front of them but it was impossible to help. Both the glass wall and the closed doors of the trains hindered every access to the injured. I saw as a little bit further ahead one of the inmates opened the door of their wagon using the emergency handle. But this did also not help. The gap between the train and the glass door was too narrow. Nobody would fit through this extremely limited space. Additionally, the train stood still so that the doors were not at the same position as the doors of the glass door. The train would have to be driven a few meters further so that the passengers could get out. But the wheels of the last wagon did not stand correctly on the tracks anymore. Due to the collapse it derailed. Thus, the situation seemed hopeless. Some of the security men stood together, discussing. But they did not act. I stood there as if I was paralyzed. Like a film would run in front of my eyes.

I wrinkled my nose. It smelled of smoke. My eyes were looking for the origin of it. At the place where the both trains were wedged, whiffs of smoke drifted up. The people next to me also noticed it and immediately started to run in panic towards the stairs to get in a safe place. Like a wave the panic was spread over the all the waiting people. In chaos and hectic pace everyone tried to maneuver themselves and their loved ones towards the stairs in

hope that they reach the surface as fast as possible. The escalators were still moving. But people tried to run up faster, several fell down and blocked the narrow space on the stairs. A siren sounded. Apparently someone triggered the alarm.

Only now I saw the fire. The bottom of the least wagon of the overfilled train burned. My feet wanted to follow the others towards the stairs and towards safety. But something in me forced me to stay. I glanced in the train. Frightened faces, terrified eyes, crying children. All of them were not able to see the fire but because of the screams they did notice what was going on. In the meantime the lighting in the train turned off.

My eyes scanned the train to find the boy. He was standing a few meters further ahead, clamped between humans and the closed door of the train. His face was pale. Above of his eyebrow was a wound. Blood ran over his cheek. With the pale of his hand he started to hammer against the door as he noticed me. His body trembled. His sight begged for help. Intuitively, I ran to the glass door which was the closest to him and tried to pull apart the both halves of the sliding door. Despite of the adrenalin rush my strength did not suffice. My body slackened off in the last years. Another young black guy appeared to help me. Moreover two of the security men pitched in to move the door. It proceeded only slowly. As soon as we managed to pull apart the doors about a few centimeters, the two halves automatically slid together again. But it was necessary to open the door completely so that a gap of an arm length overlapped with the gap of the trains' door. It was the only chance to save the passengers.

I felt that the heat came closer. The fire spread very quickly, also the second wagon already burned. However, only the chassis. The space in which the people were staying seemed undamaged. Other people also tried to open the glass doors next to the fire.

The smoke slowly filled the whole tunnel. I had problems breathing, started to cough. After a moment that felt like an eternity we succeeded to open the doors as far as possible and to hold it in this position. A tall man also reached to open the trains' door. First, a petite woman managed to step out. She literally wormed through the crack of the doors. A teenager followed her. One could see the blind panic and fear in his wide open eyes. Both of them ran immediately towards the escalators. 'My' little boy was still caught in the burning train. He was always pushed back by taller people when he tried to move towards the gap. In this moment everyone acted selfish and only thought of himself. The next that could rescue themselves were two men. 'Damn it. Let the children o---', I screamed angrily. My last word was drowned by a loud bang. A fireball filled the whole ceiling of the tunnel. Glass splintered. I felt the heat above me, my eyes were burning on account of all the smoke. I felt a soft hand on my leg. The little boy managed to get out the train. I took his hand and pulled him towards the stairs. He was weak. His body shook. The escalators did not move anymore. Step by step we ran upwards. Fast. Too fast for him. He stumbled. I helped him to get up. Carried him on my arms. Actually, he was too heavy for my arms. The visibility was poor. The smoke blew up the shaft. But I could already see the daylight from above. The last steps. The boy clung his legs around my hip. We arrived. No drummers anymore. But fire trucks. I did not see any of the fire fighters down in the tunnel. It was hectic. Smoke was still rising out of the entrance. But we were safe. Only a few meters away was a bench. I placed him and sat down next to him. We said nothing, only stared at the hustle in front of us. After quite a while he took my hand. His light, soft and small fingers were in my dark and wrinkled hand. 'Thank you', he whispered.



## THE JOURNEY

### A STORY OF LOS ANGELES BY ADAM ENGSTRÖM

*There in the distance I could see it: the city I had tried so hard to make great again, shining brightly as I was leaving the desolate, dark outskirts behind.*

*The following video message by Carlos Sanchez recorded on April 18th, 2061 has been confiscated and banned from online platforms on the account of its anti-environmental nature.*

*The video recording cuts in on a middle-aged man, staring blankly into the camera.*

“Ever since I was a teenager, I had always cared deeply about the environment. This was most likely an effect of the age I grew up in. I mean, hell, I was not the only one. There was only so many documentaries I could watch about how the polar caps were melting or news reports about how we were polluting as a species before I had had enough and felt that something had to be done. It was a great time, this environmental awareness had grown over the years and was finally reaching and becoming the opinion of a large part of the general public. My friends and I were enjoying seeing something finally happening.

The city was finally sorting itself out. It was great to at last get a decent public transport system here, I felt as if I could go anywhere. I felt free. Of course there was still lots of places where these new bus and rail lines did not go. For these places I still had to drive or hitch a ride from someone else. As much as I hated riding in these gas-guzzlers and felt somewhat disappointed in myself when doing so, there was just no other way.

Even if loads of us were enjoying these new pieces of infrastructure, there were still cars everywhere (I mean it is still LA after all). No matter what the city did the number of cars would just not go down. Though I did not like it, I had come to terms with the fact that LA would never be car free. As much as I loved the idea of the city following suit of other cities and making areas car free zones (I mean just imagine lounging around on the middle of the Boulevard), I knew it was never going to happen.

These endeavors the city had been involved in had raised awareness greatly however and we could sense that people were starting to believe in LA’s ability to become green. This all snowballed and soon we had Charles Tyson and his “green team” running for office. His promises of a carbon free, zero footprint Los Angeles was something we could all get behind. Of course I got caught up in this and helped by campaigning and doing things such as picking litter from the side of freeways with some of my friends.

I met Tyson on several occasions. He was a strong-willed and charming character so full of ideas and passion for the environment. It was safe to say that I liked him from the very start, and he seemed to like me too. He said he wanted me to become part of his green team if he was voted into office. I told him that my grades were not the best but he said it did not matter and he was certain he would be able to find me something to do.

Tyson led a very aggressive campaign. He was criticized by the other running members for being naïve. That his agenda was just not feasible. He argued that big changes were needed and everyone would have to make sacrifices in the name of the environment. We should have been more careful with him but everyone was just too swept up in the green movement. What we wanted more than anything was change. Man, did things change.

Tyson ended up winning, by a slim margin sure but what did that matter? LA was going green!

This was such an exciting time, so much promise. My friends and I would be out celebrating many nights during this time, getting into talks about the endless possibilities for the city we loved so much.

Changes could be seen soon enough. He actually created a couple of car free zones in the center of town which was amazing. It caused some congestion at certain points but that was the point, a way of punishing the drivers for using this form of transport. Hating cars, I was all for it. This change got for the most part a positive response. Same could not be said about some of his other endeavors. It had been evident that LA could not maintain some of its consumer behavior. One of the more visible changes was on the allowance of water. Soon enough all pristinely kept lawns around the city were reverting back to a dry brown. Things like this was hard for a lot of people but as Tyson had said before "We all need to make sacrifices for the environment".

These types of minor changes and adjustments went on for months without much of a hitch and Tyson's stock rose. He won over many doubters and people opposed as reports were coming in of pollution levels dropping in downtown areas and water availability seemed to have stabilized. The environment was on every person's mind and we felt that by following Tyson, there was not anything we could not do. It was safe to say that he had made himself a great platform to build upon. He soon announced that it was time for Los Angeles to undergo some big changes to truly become green.

To achieve this, he set his sight on the cars. The object that had shaped the city and the symbol of everything wrong with it. To combat the car he introduced a law stating that all old "dirty" cars were now illegal to drive and had to be replaced with the new ultra-efficient models.

I graduated high school around this time and was having a slight existential crisis. All my friends were going to go off to college while I was left, alone, without any real plans. I had neither the grades nor money to go anywhere. This was about the time Tyson contacted me, he had not forgotten me. He wanted me to be part of his new task force in charge of enforcing this new Clean Car Act. I could not believe my luck! Not only had I secured a job, I was also finally help rid the city of, in my opinion, its greatest blight. I was going to help make this city great.

So here we are, 30 years later. Still stuck at the same job.... maybe not for much longer. I had had so much optimism for my work, now I cannot even look myself in the mirror. I do not like the man I see there.

I thought I was part of the fight against our old environmentally destructive ways but all I have become is a glorified repo man. Tyson's plan to get rid of all the old cars around the city was effective but problematic to say the least. The only allowed cars were of a very new technology and therefore very expensive. Most people could not afford them. The city's government saw this as a bonus, "Oh perfect, in that case they will use our new and expanding public transport system!" This was all well and good, except for the fact that this system was nowhere near large enough and it was just not expanding at a fast enough rate to meet this new demand. As a government employee, I had been given one of these new cars so I did not have to use public transport. Thank God. Every day when driving to work I would pass a massive queue at every stop. It could get pretty ugly at times, for many it was a daily fight to manage to get on a ride. Many were not successful in making it to work every day. My job consisted of driving out to people's homes and take their old cars from them. It was pretty difficult, basically condemning these hardworking citizens to having to endure some hardships as a result. I was able to convince myself however that it was for the greater good. We all had to make sacrifices to save the environment. Mind you, I had not really had to make any yet.

Things seemed to start improving after a while. But then we were hit by the recession, hard. Still have not recovered fully. This is when things really started hitting the fan. All funding for the public transport expansion ceased, which created all kinds of problems. With money tight and jobs hard to come by, people could not afford

to miss any days off work. Those who could had already left the city. At work we started noticing that those who could not afford to leave the city, started reverting back to their old ways, using cars.

They knew it was illegal but that is how desperate they were, they were willing to risk it. To combat this, Tyson beefed up our task force. We were repossessing cars at an unimaginable rate. For every car taken it got harder and harder for me to carry on. People would be breaking down and pleading for us not to take their cars away, knowing that the consequences of this would be grave. We were ruining their lives, taking peoples' jobs and leaving them deserted far from the center of town with no way of getting there anymore. Without cars, the people were left stranded. The city had become too big to travel without a car.

People started doing one of two things. Either they moved to just outside the city limits, where cars were allowed forming little enclaves or they tried their luck leaving their old homes and moving closer into the city. Most of the latter group did not succeed in finding a new place and ended up living on the street. The old issues of downtown LA being full of homeless people was nowhere near anything witnessed now. The streets were packed but still relatively safe but as we continued repossessing cars more and more people started flooding in and life became even more difficult and soon violence and crime seeped in. Even though there was so many bad things happening out in the wide open Tyson did not care. Sure many citizens were suffering but the city was moving in the right way in terms of environmental sustainability. He still thought however that the homeless were an eyesore that he wanted to get rid of.

Tyson had the police department start relocating them, first during operations under the cover of night but after some time they started running during the day and becoming more aggressive. He stated that while living on the streets, these people were littering and releasing harmful emissions from burning anything they could find to keep warm. If they were not going to abide by the city's new environmental laws and not embrace and conform to this environmental mindset, they did not deserve to stay. They were harming the city and standing in the way of progress and most people agreed with him, he had the support. I could see the police load hoard after hoard of citizens onto busses and ship them away to just outside the city limit to fend for themselves. They set up little colonies there, to be honest I am not too sure about the happenings out there. I tried to avoid thinking about that area and instead tried to focus on the positives of all these changes. We were all experiencing difficulties and changes in our lives, some more than others, but at least it was for the greater good.

As the city decreased in population by quite a bit, it changed a lot. As people started moving out, those who could afford to stay cast their old suburban lifestyles to the side and moved more centrally. The city became a dense little place. Large parts of the city had been left deserted. Tyson spun this as a positive, seeing it as a blessing. He did not have to dilute the city funds to improve the entire city. Instead he could concentrate all funding on the tiny portion of city where people lived.

This area underwent huge changes, barely recognizable from the city of old. Tyson lived up to the changes he had promised. It is in many ways now a little haven, a utopia.

It is great, and you can tell that the rest of the population feels likewise.

It is kind of ironic that most of the people still here are here because of the fact that they could afford the new cars. Most of these cars have now either been let go of by their owners or just sit in parking lots gathering dust. Who can blame them when the transit lines run so smoothly? With nearly no cars on the streets the bikes have taken over, making the most of the beautiful LA weather. People seem to be outside more, I know I am. At every opportunity, I will take my wife Sara and daughter Jodie out on a bike ride or go to the beach. It is a great place to

raise a child, with the city being virtually crimeless and with such little traffic we feel safe for Jodie to play out on the street and explore her surroundings, something that was unheard of when I was growing up.

Life has been pretty good here but one can see the “outside” looming in the distance. I have heard many stories and though most of them sound fake, there is probably some truth in them. With us having been in a large drought the past few years and us using water sparingly, the abandoned areas of town have become a dustbowl. In the city we built barriers to ensure these sandstorms would not reach us but out in the outskirts I do not think they were so lucky. I am not sure how they are dealing with them out there. On certain nights I would be looking out towards the horizon and spot clouds of smoke, apparently certain areas were being ravaged by massive forest fires.

We knew life was tough out there. What really bothered me was the lack of empathy shown by the people living in the city to these outsiders.

Politicians labeling them as dirty and against progress, an opinion commonly held by the population. People just feel so self-righteous as if they are the chosen ones, making the world a better place. This type of thinking is only strengthened by the daily pollution updates shown on the big screens around town or received on our phones daily confirming that we are moving in the right direction. We can not forget that we have been doing it at the expense of the outsiders. Those who did not experience old LA do not realize this however, and when learning about the anti-outsider material Jodie was being taught in school I was truly bothered. I felt I had to teach her the real story about the outside, but truth was I did not know much either. That is why, today after work, I decided to go to the outskirts for the first time and see firsthand what life, that I had been partly responsible in creating, was like.

While working, I had always managed to suppress my feelings of guilt when taking peoples’ cars, I was able to distance and convince myself that I was doing the right thing. During my visit today it all came out. After having done my days work I had gotten in my car and headed for the city limits. We are nearing the finishing stages of repossessing all cars, who knows what will happen to our department after that. We will probably be cast aside, like those who did not fit into the mold of the new city previously. Though his legacy still lives strong, Tyson is no longer in office so I cannot count on any favors from him. Anyways, so I was driving through the suburban desert, further from the city than I had ever been. What soon struck me was how dusty it was, as I was driving I could only see a couple of yards ahead of me.

Soon I could see the outskirts appearing before my eyes. What a dump, there was just no other way of putting it. Garbage flying around everywhere and houses (if I can even call them that, more like shacks) in such disrepair. I barely saw anyone when driving around, it was almost like a ghost town. I drove for as long as I could until the road ended, blocked off by some broken down cars. I continued my journey on foot. It was not long after being outside that I started catching a cough. The dust was just too heavy. I passed by an old roadside bar which with its neon sign still lit seemed to be open. The place was a real hole, with the windows boarded shut allowing no daylight to seep in. I sat down and ordered a drink. I tried to start a conversation with the bartender but he was giving me nothing. In fact, I could sense the whole bar staring me down, letting me know I was not welcome here.

I was just about to admit defeat and head back home, when a man came up to me. He recognized me and I him. He was one of the people whose car I had taken, maybe a year ago. He had stood out from the other thousands of people I had done the same to. Unlike so many others, breaking down and blaming me he had just stood there calm and understanding as we took his car away. I panicked as I did not know how he was going to react but again he was calm. We got to talking and he told me a little about life here in the outskirts.

Life had been hard out here. So many people in a place without any jobs, fighting for survival. With no schools or police, there had been constant warfare for control of the neighborhoods, with these gangs having control of all supplies coming into the area and making a massive profit off of the people there. This was a couple of years back now however and they were nowhere to be seen. With the dustbowl, these younger people had all set out to look for greener pastures elsewhere. Apparently, some areas within the city limits had been reclaimed secretly. All that was left were the old and weak. I was in complete disbelief as he was telling me all this. How did we back in the city not know about what had been happening in the outskirts? "Truth is", he said, "no one around the country cares. We are "un-environmental", there is no place for people like us anymore".

This journey and encounter had shook me to the core but it only got worse. I had heard enough and wanted to go. Before I went the man asked me to come with him, there was something he wanted me to see. He gave me a cloth to wrap around my face to cover my mouth and then we stepped outside. He took me about two blocks of derelict shacks away before there in front of me stood a field stretching as far as the eye could see of crosses made of whatever makeshift material available planted into the ground. He explained that this was graveyard from the first few years. Since then the number of dead people had just become too great and they had resorted to mass graves instead. It was not getting any better either with the dust around, people were dropping like flies. It took a while before this all sank in but when it did I broke down completely. This was my fault! I had sent these people here! I had killed them! The man tried to console me and tell me it was not my fault. He wanted me to see it to fully understand what Tyson had done, a man so many of us had looked up to. He told me "Tell our story, make sure the world sees these eco-cities for what they really are." I was so distraught, I hugged the man and gave all the money I had on me whilst tears ran down my cheeks.

I hopped in my car and raced home, not thinking straight. Even though the man had told me it was not my fault I could not stop from blaming myself. Flashing before my eyes were the thousands of faces whose cars I had taken away. It had finally hit me after thirty years, I had ruined these people's lives. There in the distance I could see it: the city I had tried so hard to make great again, shining brightly as I was leaving the desolate, dark outskirts behind. As I got within city limits my phone regained signal. Three missed calls from Sara and a text saying that Jodie and she were over at some friends for dinner.

So here I am, sat all alone with my thoughts. The more I think about it all, the more convinced I am that I cannot go on. I cannot do more harm to any more people. I just hope that this message manages to reach out so people of this city finally see the truth. I am sorry Sara and Jodie, I hope that one day you will be able to understand and forgive me."

*The video cuts out. Minutes later, a loud bang rings out across the neighborhood.*

# MOVING IN TOGETHER

## A STORY OF AMSTERDAM BY AMALIE PETERSEN

*She feels like she needs to sit for a while in the AirCar and think about life, BUT the car starts beeping, because the AirCar must leave from the location within two minutes after arriving, so it doesn't waste valuable time.*

### CHAPTER I - MONDAY MORNING

It's Monday morning, the 10th of August, year 2071. Fortunately Marija has summer vacation, so only her parents are leaving for work this morning. This summer she graduated from high school and she is spending the summer moving into her new apartment together with her boyfriend Jos, who also graduated from high school and has been living in Rotterdam his whole life. After the summer they will both start studying at the University of Amsterdam. This summer is therefore very important to them, and Marija is looking forward to finally living together with Jos, after having lived in different cities for so long. So far, she is still living with her parents, Gert and Frija, but only for a couple of more days, and then her life can really begin.

Marija's grandparents have told her about the chaotic period in the 2030's when the AirCar was introduced. During the 2020's the carpark underwent a complete change into self-driving shared cars. During this time the AirCar was invented and tested out, and the new set of traffic laws was developed. Since self-driving cars were introduced in the 2010's, the car fleet has gradually switched from 100 % user controlled vehicles in 2010 to 100 % self-driving vehicles in 2030. Those were some very chaotic years, since there was still a need for physical signals in the intersections because of the user controlled vehicles. Therefore the self-driving cars also needed to wait in line and the system couldn't be used optimally, which created a lot of congestion. Luckily those days are over, and Marija and her generation will never need to learn to drive a car. She couldn't imagine living in a time where you need to drive your own car. She enjoys being able to relax in the car and play with her Rubik's cube without worrying about the traffic.

### CHAPTER II - MONDAY EVENING

Marija's phone rings, and she is happy that the call is from Jos. She has been waiting all day for him to call. She can sense that something is wrong, and she is nervous if maybe he got cold feet about moving in together. They have already signed the contract to the apartment, so she would understand that he is in a difficult dilemma if he doesn't want to move in with her anyways. She would be heart-broken of course, since they have been together for nearly three years now. But on the other hand, since they started talking about moving in together, he has been very quiet and hesitating. She almost thinks that he has been avoiding her.

Marija picks up the phone.

Marija: "Hey honey, I'm so happy to hear from you."

Jos: "Hey. I'm sorry that I haven't called you so much lately." Marija: "No, no, it's okay. Is something wrong?"

She is shaking. Has she been too pushy with the decision? It was an easy decision for her to move into a new apartment with him in Amsterdam. It would also be convenient, since after her Summer Vacation they will start

studying together in the University of Amsterdam, so she has always had the idea, that this situation would be perfect, and that they would both be equally excited about it. But she has a strong feeling that he doesn't like the idea as much as she does. Why didn't she ask him for his opinion in the beginning? Did he get to say anything at all? Was it really her decision and not his? She can't remember the decision making process now. She is too nervous. Is he calling to break up?

Jos: "Actually... I have been thinking about something."

Her heart starts beating superfast. She sweats and almost panics. She has to start holding the phone more tightly in order to retain herself from throwing it out of the window in frustration.

Marija: "You don't have to explain. I know maybe the decision is a little rushed. If you don't want to do it, just say it. But I just want to know, what I have done wrong? I thought we were ready for this. But I can totally understand that it's a long way to move for you from Rotterdam to Amsterdam. If you live in Amsterdam, you can't see your parents so often, but I didn't think about that when we started planning this. I'm so sorry. I just thought that maybe it didn't matter that much, since you want to live with me. Or I don't know – maybe you don't want to live with me. Do you?"

Jos: "Wow. Wait a second. That's not what I'm thinking AT ALL. How can you analyze all of that from the fact that I didn't call you the past days? I can't believe this!"

He sounded quite surprised and angry. Marija had never been more confused. Had she misunderstood him?

Marija: "It's not just that. I just feel like you have been acting weird for the past month. I feel like there is something you are not telling me?"

A million thoughts went through her head. He said that she was wrong about what he was thinking. How could she be wrong? Women always have a good sixth sense when it comes to reading through the lines.

Jos: "Hey, calm down. You are overreacting. Can you please stop trying to read my mind?! This is so typical women. You always try to read through the lines, and then you start assuming all kinds of things that are not true. Listen. Now, don't interrupt me! The reason why I might have been a little hesitant about this whole "moving in together" project, is NOT because I have second thoughts about the idea of living with you. I would LOVE to live with you. I love you with all my heart, you know that. The reason is, that I have second thoughts about moving to AMSTERDAM. And no, it's not because of you, and it's not because of the distance to my parents. It's because of the city. I know it sounds stupid to you, but I'm actually really nervous about the flying cars. It really doesn't seem safe."

Marija was so relieved. Nothing was wrong with the relationship. Everything was fine. Now it all made sense.

Marija: "Oh, okay. Well, I'm really sorry that I might have misunderstood you then. But there is no reason to be nervous about the cars here in Amsterdam. You've seen them when you've been visiting me here. They are safe. You don't need to worry about it."

Jos: "But how exactly does the system work??"

Marija: "Let me explain it to you. Actually I think I will write it to you in an e-mail, because then I can just check the technical details on Google, so I don't write anything incorrect"

Jos: "Okay, I also need to go and have dinner with my parents now. I'm looking forward to reading your e-mail later. Hopefully it will calm me down a little bit, and I will stop being nervous about this. I know you say the cars are safe, and of course I trust everything you say, but it could still be nice if you could send me some information on the transportation system."

Marija: "I will do that right away. See you tomorrow!"

Jos: "Yes, see you tomorrow morning! I can't wait!"

Marija hangs up. Gert entered the room. He has apparently been listening to some of the conversation, so now he wants to help Marija write the e-mail to Jos about the transportation system. He knows a lot about the transportation system in the city, since he has works in the traffic department in the municipality, where they work a lot with analyzing the system and monitoring the safety and traffic flow. He explains to her how it works and leaves the room again.

Marija sits down by her computer and writes the e-mail.

*"Hi my dear Jos <3*

*As promised, here is a description of the transport system here in Amsterdam.*

*As you know, all cities have their own Automatic Traffic Control system, and the AirCars are so far only introduced in the bigger cities around the world. The capital cities in most European countries have the system. The first city in the world to implement the system successfully was Copenhagen, where it was introduced in 2065. The Ministry of Transportation in Amsterdam are thus following the successful example from Copenhagen and since the two cities are very similar, the system is following the same structure here in Amsterdam as in Copenhagen. Back in 2065 in Copenhagen there was a six months test phase, where the first AirCars was sent on trips through the AirRoads. In this test phase a lot of safety precautions were taken, and the citizens could not use the public space, nor the roads, most of the time, because of the fear of various failures in the technology which could cause the AirCars to crash. This transition phase was of course inconvenient for the citizens, and some would say it was even unnecessary, because there were no errors on the AirCars in the test phase. For this reason there has been no test phase here in Amsterdam, and so far the system is working perfectly. We've had these AirCars since February and they are just great. Of course it's something you have to get used to, but it's not so different from LandCars which have been self-driving for more than 40 years now. So there is absolutely nothing to worry about.*

*The AirCars are monitored by their GPS-position, with the same technology used for airplanes for the past hundred years. So radars are placed around the city, to receive the GPS information from all Air vehicles and the Automatic Traffic Control system ensures that all vehicles stay in their predefined routes and that no routes are meeting. The vehicles have sensors that detects any objects nearby and automatically steers around them.*

*I hope that answered the questions you had.*

*I am counting down to Wednesday. Only two days left now! I can't wait to finally move in together. I feel like I will remember that day for the rest of my life, so we must enjoy it.*

*Hugs and kisses, your Marija"*



### CHAPTER III - TUESDAY EVENING

The family sits around the dinner table watching TV. Today's news features some politicians that are summing up the recent evaluations of the Automatic Traffic Control System. The system already seems to be a great success, and has already made a lot of improvements on traffic flow, congestion and traffic safety in the cities that have it, and it will be worldwide within the next few years. Then they went on to present ideas for future developments of the system. They plan to propose a new legislation, where it will be possible to control the citizens in the same way as the traffic system. The concept is called the Automatic Citizen Control System, and has already gained support from many politicians and from companies that wants to make the technology. With the Automatic Citizen Control System it will be possible for the government to track where all citizens are, by using biologically implanted chips. The politicians agree that the potential benefits of this system far exceeds the disadvantages. They expect a future with zero crimes, since criminals will no longer be able to flee their crimes. This will lead to abolishment of the police force, the prisons, and maybe even the military.

The family discuss the news. Marija likes the idea because it seems like the system will provide safety and security for the citizens. She thinks the politicians are doing a great job of improving the society for everybody, and the Automatic Citizen Control System appears to be another useful tool – just like the Automatic Traffic Control System – to optimize life in the city and support gradually evolvement towards a perfect society.

However Gert and Frija are more skeptical about this. They don't think there is such thing as a perfect society, and if there is, it should be created by the citizens themselves, and not by the government taking control over people. A high level of monitoring of the citizens can lead to many ethical consequences.

Marija: "Whatever, let's not discuss it further today. You can be pessimists if you want to. But I choose to always look at the glass as being half full, rather than half empty."

Frija: "Sure, but you should be careful of not being naive. You might be blind of potential dangers."

Marija: "I'm sorry, but I don't see any dangers. Right now I'm just really excited about the move tomorrow, and showing Jos the AirCars, and I won't let you ruin my good mood. Goodnight."

### CHAPTER IV - WEDNESDAY AFTERNOON

Finally the day has arrived. Marija is so excited to finally move into the new apartment. It is a big day for her, because she has been living with her parents all her life, and this day will be the first day of the rest of her life. She spent the morning packing the last of her stuff and saying goodbye to her parents, as they left for work. Tonight is going to be the first night she and Jos will spend in the new apartment. Jos is meeting her soon and together they are taking an AirCar to the new apartment. It's in the other end of the city, so the optimal route is by AirCar, and they only have the choice of taking the optimal route. The aim of the traffic system is to reduce congestion and improve traffic flow, wherefore the traffic users must take the routes that the TravelApp calculates for them. The Ministry of Transportation has imposed a law on this, so you will get fined if you take another route than suggested by the TravelApp. Therefore Marija and Jos has only the choice of taking an AirCar. AirCar will also be their only option of daily transportation from September when their first semester at the University begins. So it is especially a big day for Jos, since he will be trying the AirCar for the first time. They have entered in the TravelApp the amount of luggage they are bringing for the since, wherefore they know that they will only be the two of them

in the car, because there will be no room for other passengers. Jos is very happy about this, since he is nervous about the trip.

Jos picks her up and helps her carry her stuff to the AirCar that arrives right on the expected time in front of the house. As they enter the car, Marija looks back at the house and gets sentimental. She has been living here her whole life, and now she is all grown up and moving out. A lot of memories about her life in the house are appearing in her mind. She feels like she needs to sit for a while in the AirCar and think about life, BUT the car starts bleeping, because the AirCar must leave from the location within two minutes after arriving, so it doesn't waste valuable time. They have no time to talk further, and Jos is getting even more nervous because Marija didn't have the time to calm him down before take-off.

As the AirCar takes off Marija lets go of her thoughts of the house and they start talking about the AirCar trip.

Marija: "You really shouldn't be nervous about driving in the AirCar. It's perfectly safe."

Jos: "Yes, I know, you keep telling me that. But, how was it? In your e-mail you wrote, that in Copenhagen there was a test phase before implementation, but they didn't do that in Amsterdam. Why was that?"

Marija: "In Copenhagen the system was running without any problems or errors during the whole test phase, so probably they didn't think it was necessary."

Jos: "Hmm..."

Marija: "But let's talk about something else. I've been looking forward to this day for so many years!"

Jos: "Me too, sweetie. Finally I get to live together with my princess!" Marija: "Aww! I love you so much!"

Jos: "I love you too!"

Marija has never been more in love. Life is perfect, and she is happy and excited about the move. They kiss. Everything is perfect. This AirCar trip is really comfortable and actually really romantic.

Suddenly the AirCar is making odd sounds. They notice that a bird is stuck in the windshield wipers. They assume that the technology in the AirCar will somehow remove the bird. But the windshield wipers are stuck and can't move. The AirCar starts to deviate from its route and it starts shaking. Marija and Jos are getting nervous. What is happening? Why is the AirCar moving around instead of following the straight route? It's like the AirCar is trying to avoid flying into the bird, but it hasn't detected that the bird is stuck – making the car keep doing emergency maneuvers. To avoid hitting the bird.

Another AirCar is flying towards them. The traffic laws are programmed into the technology, so normally the AirCars would just fly smoothly past each other.

Jos: "Fuck! What's happening?!"

Marija: "I don't know! We will fly past the other AirCar, I'm sure!"

But she is not sure at all. They are flying very fast and uncontrollable and there is no indications of the car adjusting its speed and route as it normally would. They realize that the technology detecting objects near the car is not

working correctly because of the bird in the windshield wipers. Bu there is no possibility of taking control over the movements of the AirCar, as it is completely computer controlled.

They almost hit the other AirCar, which luckily managed to avoid them. However, Marija's and Jos' AirCar is now completely out of control. It starts to spin around itself and quickly loses both speed and altitude. The automatic rapid expanding foam airbags unfolds, but nothing can ease the extreme forces when the car eventually crashes into the ground.

## EPILOGUE

The distress signal send out by the car has alerted the emergency medical department whose rescue team is rushing to the scene. The rapid expanding foam has evaporated and while the medical crew is working to do spinal stabilization, no heart activity is found on the electrocardiograms. Mobile ultrasound shows massive internal hemorrhage, fractures and extremity bleeding caused by fragments of the carbon reinforced body of the vehicle, piercing through the skin of both Marija and Jos. Several attempts of resuscitation are performed, but the electrocardiogram never shows any heart activity. Both are declared dead at the scene by the paramedics.

The next day an official announcement from the AirCar manufacturer was released:

*"Yesterday one of the AirCars of Amsterdam was involved in a fatal accident. We send our condolences to the relatives of the deceased couple. However, it should also be said that the AirCars still remain the safest mean of transportation. Our technicians have evaluated the accidents and concluded that what caused the accident could only be a user error, wherefore we as manufacturer cannot be accounted for consequences of incorrect or irresponsible use of the vehicle. Thus, we do not take any responsibility of the accident."*

The End.

## (NIGHT FLIGHT)

### A STORY OF TROMSØ BY SAXE BREJNING SKYGEBJERG

*“Look, no planes are departing today or any days in the near future.”*

The day had become night. It was almost a week since the sun had risen above the mountains for the last time this year. The polar night had started and the town of Tromsø would be without sunlight for the next two months. The weather had been mostly dry and windless for the last three months. Back in the time this was highly uncommon but now fall was becoming more predictable as being quite calm.

This served Martin quite well. He was not used to winter storms and being locked in by snow. When he first started to study at Tromsø University he thought it was going to become the hardest three years of his life, but it had been surprisingly acceptable. He never really had been accustomed to the darkness during the winter though and wondered if he ever would. This time he felt that he was better prepared.

The alarm clock started ringing at seven am. It was pitch black outside when Martin pulled the curtain. Only some lights from the neighboring buildings appeared. He stood at the window for some time to see if he could spot any indication that it was actually morning. The concept about morning was beginning to be quite vague to him. Normally was the time when the sun rose, but now it was just a time during the continuous alike day where mankind had decided it was time to get up and start the day.

The breakfast consisted of fish. Martin's relation to fish had for the most of his life been positive, but after one and a half year with diet which mainly consisted of fish he was becoming tired of it. He was starting to consider himself as one of the most creative people on the face of the earth when it came to cooking fish. He could cook, roast, grill and smoke fish. One time he even ate it raw, but this had not become one of his standards.

The first class started at noon which was the least dark time of the day. Martin had gotten up in good time since he needed to buy some books for his study. He looked at the clock and decided to time-book an EV- CAB. They usually were quite busy in the rush hour but with a time booking it was possible to get hold of one.

He picked up his phone and looked at the available time slots for a cab. Unfortunately none seemed to be available. With his priority level as “2” it was usually possible to get hold of one during any time of the day, but people with a higher allocated priority must have an urgent need for transportation this morning. He switched the “share allowed” option which would expand the search to include shared cabs. Normally he preferred to have the vehicle for himself, which was possible for his prioritizing level but from time to time he needed to share the cab.

Four cabs suddenly appeared on the screen all read to pick him up within twenty minutes. He chose the one closest to him and accepted the booking. The pickup would be right outside his dorm block with a time span of 15 to 20 minutes. Martin packed his back and got ready to go.

The wind was fresh and clear. It was obvious that the town was located near the water. His phone vibrated which indicated that his ride was near. The time was about 8 am which meant the rush hour was in its peak. Martin stood and looked at the other people waiting outside. Most of them stood in groups of four due to the four seats in vehicle. Martin had always treasured his relatively high prioritized status. It gave him higher flexibility and the possibility to take a cab alone.

He saw his cab coming up in the driveway along two others. He could see the large number "16" on it which he had been informed was his on the booking reference. He could see that someone already was sitting in it. Martin did not consider himself as the most social person but he did understand that it was polite to be accommodating when it came to sharing a cab. He swiped the control panel on the outside of the vehicle with his phone and the door opened.

Inside the cab was a girl sitting. She was approximately the same age as Martin. She was sitting with a tablet on her lap on which she was typing fast. She looked surprised when he got in. Martin mumbled a "hi" as he sat down. She looked at him without moving her head much, she afterwards gave a low voiced "hi" back.

The cab was put in motion. The girl was concentrated on the screen in front of her, but it was clear to Martin that she had been distracted by his presence. She suddenly stopped writing and quickly turned to Martin.

"I am sorry" she stated "I am not used to share a cab"

"It is okay" Martin answered with a small smile "me neither, but it was impossible to get a ride otherwise" "Yeah I know. Something must be going on"

"Maybe, it is defiantly not common" Martin said

She turned back to her screen but did not continue to type. Her arms were crossed as she looked on the light coming from the tablet. They sat in silence while the vehicle took them down outside of the town.

The cab arrived at the airport terminal after 10 minutes. The airport was located a small distance out of the town, which must had been a clear detour for Martin. The girl swiped her phone on the control panel and the door opened. She got up and went out of the vehicle. She stood next to the car door and looked at him with a concerned expression on her face.

"I am Karoline" She said.

"Martin" he answered while looking up at her.

"Take care Martin" She said quickly, turned around and entered the terminal building.

The cab began driving towards the town shortly after. Martin picked up his phone and started reading the news. Nothing seemed to be different than the normal. Something about the war in the Middle East and the Olympic in Berlin was in a cost overrun.

Martin put away his phone and looked out of the window. He could see some daylight over the mountains and realized that it was too late to both buy the books and make it in time for the lecture. He decided to change to route to take him to the university. He changed his destination on his phone. Shortly after sounded a high beep in the cab as it slowed down. A couple of seconds later another beep sounded and the vehicle accelerated back to cruising speed.

His phone suddenly called. It was his dad. Martin looked at the screen quite confused. His dad normally never called at this time.

"Hi Dad" Martin said quickly

“Martin, I am glad you were able to take the call. Listen, Mom has been admitted to the hospital. We don’t know how serious it is. I know it is not easy for you to come home but I think it could be serious”

Martin could feel his heart hammering in his chest. He tried to recall the last time he had seen his mother, but it had been almost a year and a half ago when he had left Oslo for his study in Tromsø.

“When did it happen?” Martin asked

“Yesterday, we wouldn’t call you before we knew more, but it doesn’t seem to be oblivious what she is suffering from”

Martin had always seen his mom as a healthy woman. She might be 70 but never seemed to suffer from anything serious.

“I will try dad, but it hard to get a permission to leave the city during the polar night, you know that” “I know, I know. Listen we have an idea, some our friends in Kvaløysletta has a ... “

Three short beeps came from the phone. The vehicle had entered the tunnel underneath the town. It had always been an issue for Martin to get a signal down in the tunnel system. He could not stop thinking about his mother and the time he had seen her the last time in the airport terminal in Oslo.

The cab exited the tunnel and Martin tried to call his father but he could not get a signal. Martin started to get anxious. The rest of the ride he tried to call his father, sister and all the families’ friend he knew. But he could not get in contact with any of them.

Martin rushed up the stairs as soon as he reached the university. He hoped that one of his friends in the class could help him. Bjørn had almost been like a brother to Martin during his stay in Tromsø and he might be the only one to know how to get to Oslo at this time of year.

Bjørn stood at the coffee machine next to the staff kitchen when Martin arrived. He was tall and strongly build and always with a big smile on his face.

“Hi Martin, what’s the rush?” Bjørn looked confused but still smiling at Martin while he tried to catch his breath.

“I need to get to Oslo, fast” Martin said.

The expression on Bjørn’s face switched quickly to be more serious. Martin rarely saw this face expression on Bjørn and did not take it as a positive sign.

“It is polar night Martin, you know that is impossible to get out of Tromsø during the winter without a permission and they are difficult to get a hold on. Why do you need to leave?”

“My mom had been admitted to the hospital. They don’t know how serious it is but it sounded like it was important that I got home quickly”

“I am so sorry to hear Martin. I don’t know, it may be enough for you to get a permit, but it will still take some days to apply and then you need to wait for the next plane, which only goes when enough people need to leave, that could take weeks” Bjørn said with a hand on Martin’s shoulder.

“Is there not anything you can do?” Martin said in desperation.

Bjørn became silent as he stood up straight. He was almost a head higher than Martin, but Martin was also relatively low.

“I will try to call my friends in Oslo”

“I already have tried that, but the signal is dead when I try to call outside the town”

“Are you sure? I know someone I maybe can get contact to. Wait here, I’ll be back in a few minutes”

Bjørn went into the staff kitchen with his phone in his hands. Martin started to walk around in circles not sure what else to do. As he walked around the room he could not stop. He felt that if he stopped he would get a heart attack and collapse. He became more and more anxious about the situation.

Bjørn returned after five minutes. Martin could not stop walking around.

“Martin, please stop that. Sit down on the couch” Bjørn said firm. Martin did as told. The couch had always been too soft for Martin’s taste but he tried to make himself comfortable which seemed to be impossible. Bjørn stood up against the table right in front of Martin.

“There has been a power outage in the southern region of Norway, which includes Oslo” Bjørn said looking at Martin. “They don’t know when the power will be back. It is mainly due to the low wind and rain the last months. The other baseload energy sources than hydro just cannot make up it.

“But my mom, in the hospital, without power she is as good as”

“No Martin” Bjørn interrupted “You know the hierarchy of energy: First the government and military, then the police and hospitals followed by municipalities and fishing functions. Then there is housing. Transport is, as you know, at the bottom. This is way it is near impossible to get hold of an EV-CAB these days; they are nearly depleted for energy. This is way it is going to be impossible for you to get out of the town today or in this week at least”

Martin did not answer. He looked down at his shoes which was quite difficult because of the design of the sofa.

“Doesn’t your family have someone who can help you? Aren’t they at a high priority list? I mean with your status level at the supermarket and the EV-CAB services?”

“I tried calling them all” Martin answered. “But as I can’t get in touch with any as I said”

“I don’t what to do then. I am so sorry”

“I can sneak up on one of the trucks leaving for Fauske and then take the train? No one is driving them, so I should be able to get aboard”

“You know that is not impossible but also just plain stupid” Bjørn looked at him serious “It will take 24 hours before you are at the train station in Fauske and then it will take you at least 4 days before the train will be in Oslo. Maybe even more due to power shortage”

“You really don’t think there is anything I can do?”

“I don’t know. Since the energy crisis started it has been impossible for most people to leave their town of origin, with the exception of students.”

Martin looked down once again. He thought about what he had learned about the energy crisis. He could not clearly remember what his teacher had told him but he did recall some small parts of the story. It started when the oil fields in the North Sea were showing indications of being depleted. A war escalated with the whole region of the New Middle East when they increased the price due to the new relation between supply and demand.

The government in Norway chose to enslave people to the town of origin to keep the land populated. They feared Russia would invade if no one lived in the region. Only students and people with high clearance can travel around in the country. All other movements had to be approved by the government. The energy plan between the northern European countries should sharing energy had been working for some time. But when it is most windy Denmark gets most energy and when it has been raining Norway is the one with sufficient energy. Sweden had stopped the Nuclear power plants after an attack on one in Ukraine many years ago. Planes were some of the only means of transportation which is still being powered by fossil fuels.

“What do you recommend me to do Bjørn?” Martin asked desperately.

“To simply just wait. No plane is taking off towards Oslo anyway and there is nothing you can do. Go home and try to keep calling all you know. Maybe there will be some power later in the day”

Martin suddenly remembered the girl from the cab in the morning. Why was she getting to the airport? She most has had a high clearance to be used to taking a cab alone. She most had been on her way home somewhere.

“I think I know what to do!” Martin jumped up from the sofa with some difficulties.

“What? Not something stupid?” Bjørn quickly replied.

“No, no not at all. I met someone in the cab earlier today. She was going to the airport” “Maybe she was just working there Martin”

“I don’t think so. She said that she was used to take the cab alone. “ “So you are going to find her and ask her for a lift?”

“Why not? It is better than staying home and just wait”

“I don’t know Martin”

“Well, I am going to try it”

“Martin, think about it for a second. She is maybe already on her way” Martin did not listen. He was already on his way out of the door. “Whish me luck!”

Bjørn stood alone in room with his arms hanging down at his sides.

Martin quickly ordered an EV-CAB on the way down the stairs. This time it was possible to get hold of one just for him. It arrived a few minutes later. Martin opened it with his phone and soon after he was on his way to the airport.



He rushed inside the terminal as soon as the vehicle doors opened. It was almost empty. Only some security guard and some other workers were present in the hall. He looked around the departure hall for something that could lead him towards the girl from the cab.

The security guards came up to Martin as he stood at check in machines.

“Sorry. Are you planning on going somewhere?” The tallest guard asked.

“Yes, but right now I am looking for a girl at the same age as me. Have you seen anyone like that?”

“Look, no planes are departing today or any days in the near future. Do you need us to call someone?” the guards looked at him with a stiff face.

“Are you sure that you haven’t seen her? Please it is really important” Martin did not know what to do. He was trying as hard as he could to gain some sympathy.

“We are sorry, but we need you to leave the terminal at once”

Martin looked at them both desperately but could see it would not help him. He turned towards the exit and started walking slowly. Out of his right eye he saw a group of people at the far end of the terminal. These may have knowledge about the girl Martin thought. He chose to make a run towards the people. He started sprinting all that he could towards the people.

He could hear the security guards shouting but they were not fast enough to get him. He ran at his full capacity right into the group of people. He accidentally tackled one of them and they both hit the ground. He looked over at the person on the ground and could not help himself for shouting out

“Karoline!”

“Martin!” she looked at him with both a smile and a slightly confused expression.

“I need your help! Are you leaving Tromsø by plane?” “Yes, we are headed for ...”

“Sorry about this mess. Sir, we need you to leave at once. Please don’t make this hard” The security guards had caught up to the group of people and Martin.

“I really need you help Karoline” Martin asked desperately Karoline looked at Martin and then turned to the guards. “He is with us officers.”

“Of course, Ms. Haughfeld. We are sorry about the misunderstanding.” Their expression had changed immediately after this new information. “Is there anything else we can help you with?”

“No, we are fine” Karoline answered.

“Okay. Have a safe trip, Ms. Haughfeld.” The guards turned around and walked away. Karoline turned to Martin and looked at him straight in the eyes.

“We are headed to Trondheim. Some of my colleagues are going to help the city with some energy concerns. Where are you going Martin?”

“Home, Oslo, my mom is sick. I beg you, please take me with you”

“We can take you to Trondheim. From there you can take the train the rest of the way. Will that be sufficient?”

“Yes I think so, yes please” Martin stammered

“Well good, come on then, the plane will take off in 10 minutes.” She smiled at him. “The wind has changed to our benefit now, so we have to hurry”

Martin felt relieved. The trip from Trondheim to Oslo was only about 5 hours by train. The feeling was changed quickly as he thought about what Bjørn had said about the energy hierarchy and transportation’s placement in it.

They went through the terminal quickly. Martin had only been in the Airport once, which was the day he arrived at Tromsø. He was not allowed to go home before he had finished his studies, not even during Christmas time due to the Governments energy and transport policy.

“How is it that you are allowed to travel by plane at this time?” Martin asked. It had taken some time for him to summon the courage to ask.

“Well, I and my colleagues work for the government. We work for the energy and transportation ministry and were visiting the university when we were summoned back to Oslo.”

Martin had never seen anyone from the government before, not even in the media.

“What is happening?” Martin asked

“Nothing serious. Just a small power shortage in the southern region. We should be fine” Karoline answered him. Martin had the feeling that she might was hiding something for him, but he was not completely sure.

The plane stood outside waiting. It was a smaller old plane. By the looks of it, it only had seats for 10-12 passengers. They all boarded the plane, which started taxiing out to the runway while they sat down.

Martin sat down in an old seat made of brown leather and tucked himself in. Karoline sat down next to him.

“We should be in Trondheim in 4 hours. The plane is not especially fast and we have to fly slowly for fuel preservation. Oil is not cheap these days” Karoline told him with a small smile.

The plane took off and started turning to the right quite quickly after takeoff. Martin’s first flight was on the trip to Tromsø. He leaned back in seat and tried to stay calm. He could feel his pulse falling back to a normal level as he started to relax.

The town of Tromsø appeared out of the windows. He could clearly see the few cars which were driving on the streets. He could see people walking on the streets and hanging around near the university. Suddenly the lights disappeared over the university. Martin looked confused at he saw the light at the outskirts of town turned off as well and shortly after the city center became dark. Nothing was visible anymore, all was completely black outside. He heard Karoline gasp. Tromsø had become one with the night.

## (IN OUR PURSUIT OF EFFICIENCY)

A STORY OF BEIJING BY LÆRKE K. FRIER ØRGAARD

*“You can feel it, you can hold it, and you will save this in your feelings and memories. This is a real meeting. This is the real world.”*

An looked around in the flat. It was a mess. The kids were all over. It was like their energy level was growing for each day. Soon she would yell at them, even though she knew that it was not the best way to go. But there was not enough room in the flat for all their things, especially when the girls were playing. She looked at them. They were arguing about one of the toys, which she knew they both would have forgotten in a moment, when their attention would be captured on some of the other play toys, which run around in the room. The kids would just produce more and more toy. An had tried to stop, but without luck. She would clean it up later, she said to herself. She got up from the chair and walked towards the window. It was unusual that she stood close to it as she did not like the height, but the sense of finding one out there who were like her, overcame sometimes the fear. The desperate need of another human story was alluring. It all spun around in her head, and the stomach felt as if someone had thrown a stone into it.

She looked down. There was no one to see, only the fast cars zipping around without any people in them, but always in movements so they could be close to pick up points when people needed them. Efficient. Everyone seemed to be busy. She was actually too, but right now she would try to be a mother. She knew that it was frowned upon to take the time to be a mother. She should work, not take her the time for the kids. The system would do that. The system was helping the families they called it. She often thought that the help more were a robbery of her kids, even though she knew that she could not think of the kids as one's own. Children were humans, and thereby a part of the system. The kids did not seem to miss her anymore.

For every day she seemed more like a stranger to them and the system became a greater part of them. She was told that it was important that the kids became independent of their family and part of the community. To become a unique individual as she back then in the 2010's (10s?) was brought up to, was an outdated way of thinking. Individuality was harmful to humans, as they should be a part of a uniform community. The community, which created similar people, was where the society today found its strength. Of course, in addition to efficiency, which had always been seen as the target of the city. Always could and should the city be more efficient and optimized, so everything could be done faster and easier, and save costs. She had her doubts, was it really what they wanted? The most efficient life? Probably yes. She knew that the society became safer when everybody wanted the same. And in this way the system was helping, as they said. But the interesting and the diversity of the city were gone. The differences that gave life all its shades of colours had now been mixed. She knew from when she was a child, that when all the colours on the pallet were mixed a dull murky colour appeared. Exactly that colour was what, the world had become to. How the colour again could be divided into many shades of colours was a problem with no solution.

The empty space in front of her building seemed very far away as she looked down. She could just glimpse the cars. The area up against the building was deserted both for people and things. Once there had been a sculpture, now it was also gone. It looked like all other places. She looked up and out. The sight was still overwhelming for her. Not just because of the height, the very sight itself was fascinating. Her thoughts were interrupted by a polar

bear cub, which bit her in her leg. Her patience stopped and furious she went to the control panel and turned off all devices. Her two girls looked up at her for the first time today.

“No, mom. Turn it on. You must not power off.”

She knew that it was not allowed to turn all the devices off. It was essential for the community to know what they were doing, to develop the right "offers" to them, but she could not stand the noise anymore. She took a deep breath, enjoyed the silence for a moment before she again turned on all the electronics. She went over to her oldest daughter and sat down beside her.

The movie about prehistoric animals had begun again and small polar bears were moving around in the room. Her youngest daughter tried to chase down one of the small bears. "Please turn off the function? I do not want all the animals in the flat." Reluctantly turned her eldest daughter, Bo off the function, and the animals went all up on the screen in a smaller version. An got up. The room already look better, as several of the toys were now not in the room but at Bo's screen.

She went to the window again. In front of her were the giant towers of the similar buildings in different heights – The city of Beijing. In between stood buildings of the past, built as individual units. Had it been better back then, or was it a distorted view of the past that had made the memory better? The older buildings were a beauty in itself. Everyone was unique.

There were not many of them left; she could only see a few. They had to be demolished when the effective city needed the space. It was obvious that the old buildings had been the seeds to the Beijing, which had been unfolded the last decades. Even they were enclosed by themselves. The streets around them were not as wide as them today, but they were still dangerous for one to move at. To travel by foot in the city was a thing of the past.

She remembered her own childhood. She remembered the garden. Her mother had insisted on living with just a small piece of nature. She claimed that it gave her life. The flat had been small, but the surroundings was like a fairy---tale, as she recalled it. She had understood as she grow older, that the prestige value of these small hutongs were low, and it was possible therefor it had been so important for her, to get this high social status. But it had not made her happy. Actually she recalled herself, her parents as much more happy in their small flat, which had been thrifty decorated. The flat itself had not made them happy, but she remembered all their laughs with friends and family in the neighbourhood. She remembered herself running around with the group of friends watching the grownups during all their chores, which took place in the narrow streets and backyards.

She looked out at Beijing. She could see some new and higher buildings when she looked to the North. It was not possible to see the mountains anymore. The buildings were much higher than them. They seemed to grow faster than the kids. The city was always developing and growing. Always had been and probably always would be.

She knew that she had to go in to the box soon. She was already very late.

She turned around and went back to Bo and Hui. They were both still playing. Bo was still watching the animal film and Hui had printed too much toys, mostly just the same things. She had to clean it up, before the sitter would start. She took Hui up to her and started to pick up all the new toys Hui had produced. She took one of them and gave to Hui. She went to the other corner and pressed the cleaning code. The toys were gone before Hui and herself again were back at Bo. She pressed the bracelet around Bo's arm and then also the one around Hui's arm. She kissed them both, but none of them kissed her back. She knew, she had kissed them too little. She had just not

had the time. The sitter started. From its corner it moved over to the girls, where it stood and watched them. She knew that they would be well looked after.

Nothing could happen to them when the sitter was there, it was much safer than when she had them. It observed everything and did all practical tasks such as exercises in speaking, learning of letters and numbers as well as made sure of that they got enough to eat and drink. It was not possible for the sitter to comfort the children, but there was never a need of comfort, as the sitter would make sure of, that a moment of physical discomfort would not occur. The best thing about the sitter was that you could always count on it. It was always reliable and would never do anything wrong. Not like herself, who both got the kids to laugh and cry when they played together. No, it was probably better what the robot did for the kids. Maintain them in an eternal safe environment without joy or sorrow.

She went back to the seat where she just had been sitting and looking at the kids. She had to work so she pressed her own bracelet. She was in the box. "Back from observation" she wrote. The answer was the usual. "You are hopeless old fashion, the programming and monitoring will give you all answers. That is real observation" Was that really an answer from one of her young employees? A planner who wanted her leading position, she thought. She knew it was correct that the programme could give her all the answers. It was gathering all information about the user of the city, and could compare the data in almost all possible ways. But she still liked to observe the city on her own. It gave her the feeling of the city. She was the only planner who did it. She knew it was an old method and subjective, which she could not use to anything. She had been studying several observation methods when she was becoming a planner, and no method were as efficient and made so grand an information base as the tracking and monitoring system, which could compare and analyse the observation quicker than anything else. But one thing was wrong with the system it could not feel. But what did that have to do with the city. The goal was to create the smart city. "Would they ever reach their goal?" she thought. She knew that it was a process goal, which they never really would meet but a goal, which forced every system, technology and person to be more efficient.

She looked at the observation screen. All the spots were either standing still or moving fast around. The citizens were busy, when they moved around in the city. It was obvious that the people used the spaces in the city for transit. It was efficient. But the traffic off people was reducing. The system's traffic department reduced the amount of cars automatically.

Her job was to transform the roads. They were becoming too large compared to the amount of cars. She was the facilitator of the use of spaces in the city. It was expected that new building would be built where the roads now no function had any longer. The programming had already placed the new buildings. The density of the city would once again be increased.

A spot captured her eye. It was moving slowly ---actually too slowly. She logged into the camera. He was walking. That explained the slow speed. The man was old. She knew him. It was her father. She had not seen him for a very long time, but she was sure, it was him. She turned off the box. And went out of the flat. She had not been out of the door in several weeks. She had had no reason to do so. She was still tracking him. Down at the ground floor a car already was waiting for her. She went in and pushed her bracelet against the blue area. The car went fast through the city. The buildings seemed giant and intimidating. The darkness was significantly larger down here than in her flat. She understood why the prices of the flat in the lower levels of a building were the cheapest. It was empty and dark down here. It was hard for her to know where she was, as everything looked the same. It was good that it was the car, which were finding its way through the uniform district of buildings. There he was. Standing still in front of the old city --The Forbidden City. No one ever used that part of Beijing. For just some years ago tourists were still visiting the palace, but now there were no reason to do so. They could just visit it from

home through the screens they could see, hear, smell and touch the digital model of the place. Just the same as being there, just with an easier access.

An was actually planning on how to use the area better, but she needed a permission to repeal protection of the area. An old---fashioned system that once had tried to slow the progress, and now only caused problems and delays of new construction. The air was disgusting to step into. The air filled with pollution was, as she remembered it, difficult to inhale. He stood and watched her with open arms, as an invitation to an embracement. But he looked reproachfully at her. "Is this what you now want to destroy?" His arms were directed to the abandoned Forbidden City. She looked at him. "You knew I would come," she said "You knew that your slow steps would appear on my screen." He smiled. They started to walk. The place was not as she remembered it. The grand open square, which never had appealed to her, were changed. The maintenance of the area had been terminated as the visitors ended. Now trees and plants had taken over the area. In somehow she was back in her childhood, to the low hutongs in the narrow streets. The atmosphere here had the same peace as her childhood fairy tale world.

An looked down through the streets, which disappeared behind the palace. It was beautiful. She had forgotten how it actually was like to go on adventures. The memory had been good, but she had always assigned it to, that it was seen from a child's perspective. Once again she wanted to go on adventure. She knew that she had nothing to do there and most of all it would be a waste of time. The desire drew her down the smaller streets between the houses behind the palace. Her father walked in silence with her. She began to smile. She stopped and felt the sun against her skin. The warm feeling from the light was amazing. She had forgotten how it felt. She enjoyed the moment, but instantly she got a feeling of guilt to the system. This did not serve for any purpose. She had to go home and work.

"You are enjoying it," her father said, "When was the last time where you enjoyed the life?" She looked at him. Why did he ask of that? She went into her own thoughts. When had she the last time enjoyed the life? Did anyone enjoy the life? There were no results of enjoying, so why do it? To provide knowledge and work gave results. You had to work as efficient as possible.

That was the only purpose of life. "Who does that?" she answered him.

They went back to a car. Her father led her into the same car as him. He put his bracelet against the blue point. Home it said. She wished it were to the Hutongs, even though she knew that it was not possible. It had been her decision to demolish them and instead construct new housing blocks.

She had never physically been in her parent's new home. But she had seen it so many times through the screens. He looked at her. It was like he knew what she was thinking, and again he looked reproachfully and sorrowfully at her. He grabbed her hand. She looked at him and it suddenly felt her loneliness in the box so much bigger. He held tight to her and looked her deep into the eyes.

"You can feel it, you can hold it, and you will save this in your feelings and memories. This is a real meeting. This is the real world."

She cried. This was the real world. How was it forgotten? She was not the only one. Everyone had forgotten it. But that was what she was missing and what she had a longing for. Her awareness of her own loneliness opened up the concern about her children's solitude. They were trained not to show emotion, that made the sitter sure of. Would they ever get a real meeting with others or would they only have each other in a real version until they also should provide to the system?

The car drove fast through the city and the long distance was quickly completed. It was obvious that the city had grown, not only in height. It had eventually involved more and more land around it. However, limited by the mountains to the north. It was many years ago that Beijing also had absorbed the seaport city, which now was a recognized district of the growing town. It was here she had placed her parents, when she had demolished the hutong.

Still having a small contact to the nature with the view to the sea.

Her mother had died many years ago. Actually soon after they had moved.

For the third time today she went to the window, this time guided by her father.

She looked to the east and there far away, she could see the water in small glimpse. The water was so beautiful as it was reflected in all the glass facades of the older buildings and in the windows of the newer. It was liked it painted the city together with the sun. She stood still.

Her movements froze. Was it really that simple? Had she discovered, how she could divide the mixed dull murky colour of the city? She had always had the answer. She was grown up with the answer, and yet had she overlooked it. Her father, who never had read anything or looked at the observation screen, had showed her the answer to her question. How could this have been forgotten? It was so fundamental. She looked at the view again. She enjoyed the view and the light, which were playing with the water. "Enjoyment" she thought. It had no purpose, but it gave joy. A city filled with joy. She smiled for the second time today. When had she actually last smiled?

There in the sun, the nature and the real meeting was the solution. She had the possibility and the solution to give people life. She should create space for the real world.

An laid herself straight down at the grass in the area just next to her own building. She looked to the right; other people did as she here among the trees in the sun. The summer was here and for the first time in many years the people of the city had the opportunity to discover it. It was her work. Where the roads had been too large, she had made room for the humans. She had made areas which purpose where enjoyment of life. She had implemented the nature. She closed her eyes and listened to the noise of voices talking and laughing. Humanity planning was an old discipline, which for years had been forgotten. She had discovered it again. Beijing was becoming a city ---A place for happy people.

Bo and Hui came both over to her and looked at her. Suddenly she grabbed them both in her arms and tickled them. The laughter came instinctively from both of them, "more, more" screamed Bo.

# PRODUCTIVITY

## A STORY OF LONDON BY ELLIOT NEALE

*She sits there content, almost happy. Karl notices his confused look. "Don't worry about that, this is our alternative to the productivity pills."*

The morning starts like any morning for Toby Forbes, the constant buzz of the alarm clock at 5am, like a broken record that you just do not want to hear. Toby leans over and presses the snooze button, silencing the alarm for just five more extra minutes of sleep. He drifts off to sleep, the alarm buzzes again and almost as though in a hypnotic state, he turns off the alarm clock. Toby is 25 years of age, born within the city, he lives on his own in the maintenance sector, one of 9 sectors in London. Within the 9 sectors there are further subsections to create zones. Toby is a building services engineer by trade and is responsible for the electric, water, heating and communications within the centre of the capital, C9.

Toby stirs following the sound of a horn outside. He rolls over to see that he has overslept. Toby jumps into a frenzy to make it work on time 'I must be productive' he mutters to himself. 'Productivity comes from efficiency and productivity brings development and growth', a regular phrase Toby sees saying to himself, regularly printed in the city. Toby rushes out of the door of his small one bedroom apartment and into the bustling streets.

The streets of London have been adapted away from the conventional design of the previous century. The pavements are now narrower, with pedestrians travelling in the direction of vehicular flow. Those walking, unintentionally walk in step in small groups, as though a march to their place of interest. Cars are near nonexistent and have been replaced with automated busses. The busses communicate to each other and remove the need for signaling. Toby avoids the busses and transfers into the underground rail system.

Entering into C2, once called London Kings Cross, Toby goes to his regular breakfast stop, 'Capital Breakfast', here he swipes his wrist on the 'Oyster card' like reader. The reader beeps and reads out 'H2O: Low, Magnesium: Low, Iron: Low...' at this point Toby loses his focus and remembers he forgot to take his 'Productivity tablets'. The tablets are designed to subdue any feelings of aggression and violence and simulate energy and overall health. Toby's mind comes back into focus, 'Food preparation: complete' the machine states monotonically. Toby collects his meal from the food dispenser. The food is packaged in a noughties (a term to describe the 2000's) mess tin. The food is quite heavily processed but provides all the nutrients required as a result of analysis from the last use of a toilet. Toby puts the container into his satchel and heads towards the underground system.

The underground system has been vastly altered since the last century. The system is in the process of optimization and upgrade. The previous multi-line system with original and unique names have been replaced. The system is designed for commuting to places of work only. Transport for pleasure and leisure, not that there is much in the city, is provided through bus usage. Entering into the underground system, Toby passes the alternative group, a rebellion group promoting those to break away from the city. They are identified by the scar on the wrist where they have prized the chip out which was implanted at birth. They form a picket line, generations ago used to laugh at the union picket lines as they strike about the work conditions, little has changed. Each day a few speak to the rebellion group but there is not the sense of mass interest. The group name is unknown, Toby puts his head down to inspect his watch, 'five minutes late' he thinks, 'can't waste the day like this'.

Inside the station box, it is less like the traditional, pick the train line of your choice, it is more like a twentieth century sheep separation yard, with gates swinging left and right to filter passengers. Toby swipes his wrist on the



sensors and continues in single file towards the separation gates. Here an automated system separates the orderly line into another set of queues, Toby walks into the assigned queue. Less like a queue but a conveyor belt of people, continuously shuffling forward. The process of separating and filtering continues twice more. The waiting area for the train capsule is comparable to a livestock pen. The capsule arrives on-time and almost silently. The open platform and line has been changed on the entire system to security doors synchronized with the capsule doors. The capsule operates on a magnetic levitation monorail, boasting a system which is highly efficient, minimal environmental impacts and minimal maintenance.

The capsules are programmed such that all those within are going to the same destination. The previous multiline system has been altered such that all lines are interlinked together. The capsules are designed to look in elevation like an original twenty first underground carriage but cut in half vertically, allowing two trains per tunnel. This allows for an increase in capacity on the lines and removes the requirement to increase the tunnel diameters. Toby darts into the driverless capsule with twenty others or so. The bleeping sound of the carriages remain and the classic 'Please mind the gap' is constantly repeated too frequently. Although the constant safety reminders are frustrating to each and every user, any delay on the lines heavily impacts the transport infrastructure and will ultimately damage efficiency and productivity since the core system of moving intellectual capital is hindered.

Toby arrives at the station closest to his place of work, C9, 'C' standing for core, C9 is the new name for Victoria. The capital is comprised of a number of districts, all who provide to the economic growth of the city. As Toby climbs the steps up street level, the city scape reveals itself. The buildings have all been increased in height over the last 100 years to the same level of The Shard. The buildings are mostly glass clad with the financial institutions at the top overlooking London and those within the city. Beneath are the commercial corporations and at the bottom are the local and social amenities, cafes, bars and restaurants. The financial institutions are connected together by 'sky walkways' designed such that occupants can pass to each office quickly and efficiently to ease pressure induced by the industry. The urban planning has been influenced by those with the greatest contribution to the capital with respect to the economic growth, in an attempt to develop the capital at a greater rate than the remainder of the country. The Northern Power House developed by the Conservative government at the start of the last century has been near but abandoned. The high speed links did not encourage business to develop in the North of England but merely resulted in a net influx of people into the capital.

Toby commences his final part of his journey to work by foot, walking in a synonymous march with surrounding people he makes it to the C8/C9 boundary. The area is the new Green Park, now no longer an area of open greenery, but rather an extension of the financial district. The narrow pavements are still a problem for the older generations as the previous pavement design was wider and incorporated bike lanes. Now the elderly feel as though they are a hindrance to society, as the pace set by those walking is greater than the pace that most of the elderly walk at. Bike lanes gained great popularity at the start of the last century, however the increase in accidents involving cyclists created a burden upon the health care system. The cost of caring for those who were unfortunate enough to be caught up in an accident greatly outweighed the net benefit to society. As a result the state discouraged the use through removing the bike lanes and removing the legal framework once in place to protect the cyclist. In turn, the bike usage declined to zero and created a shift onto the public transport.

Arriving at the entrance of one of the major buildings, Toby swipes his wrist on the scanner indicating his time of arrival. He then makes his way to the briefing room and to his work station. Once at his work station he swipes his wrist again to record his time of commencing work, '5 minutes late' the machine reads out. Toby's work day continues as with his the majority of his daily routine, on his own. He is not too fussed about the slightly late start as pay is capped within London to a modest wage, benefits arise depending upon productivity and efficiency. Those who contribute most to society gain the greatest benefits; better housing, better food quality, better health

care and greater access to entertainment and social activities. Those who provide less do not reap the rewards of the benefits. The idea being that if you contribute more to society the more you will get back, thus promoting social responsible values.

Toby receives the first job of the day, the 'dispatcher', a table top machine prints a microchip which Toby plugs into his wrist watch. The microchip contains the data for the project, location and client. A financial institution is having a problem with a display, the chip notifies Toby of the required tools and parts. He grabs his tool bag and heads out to the financial institution.

At the base of Stanley Axe Tower, a leading investment banking corporation, Toby heads into the external elevator and heads to the fortieth floor. "Welcome to Stanley Ltd, how can I be of assistance?" a secretary politely asks from behind the granite topped counter. A water feature cascades down a wall directly behind. "I am here for Jules Evangeline to fix the telecoms interface." Toby makes eye contact with the secretary, young, pretty, well dressed. The secretary hesitates and calls Ms. Evangeline's office. The secretary directs Toby back to the external glass lifts and sets the lift to rise to the seventieth floor.

Whilst in the lift, Toby notices the flying personal vehicles which allow those who work in the financial institutions to commute outside of the city, away from the narrow streets with the over shadowing high rise towers, a scar of the city scape. In the distance Toby can make out the entrance to the city, once called the M25. Now it is a division between the outer world and London. A wall of defiance and strength, with a monorail running along the topside, surprisingly few attacks happen to the wall. To the North is where the politicians are based, apparently to show leadership and direction, encircling round are the other public subsidiaries; postal, transport command, defence control and medical experts.

Entry into the city is similar to that of getting a job. Adverts are posted outside the parliamentary building detailing the required skills that are needed in within the city. These are generally roles that need to be replaced as a result of ill health, death or those absconding the city. Upon application of a job, you must show evidence of your productivity and your contribution to society. After analysis by a selection committee and you are accepted, you then can live in the city. You are chipped and given the base rate of benefits. A person cannot simply just enter the city for their personal interests and pleasure. Tourism is limited but mainly focuses on the values and strength of the city, however there are mechanisms in place to ensure that you cannot out stay your welcome.

The elevator 'dings' and Toby flicks out of his thoughts and walks into the office of Jules Evangeline. Jules walks over and gestures him to greet with a handshake. A simple, engraved brass plate on the dark oak door displays 'Jules Evangeline – Director of Accounts'. In the new society, contract and office managers have been removed and been replaced with automated systems in an aim to remove the middle man and drive down costs, thus maximizing net benefits. It is not unusual for Toby to meet those at the bottom of society to those at the top with no managerial interface just the chip in his watch to direct and control movements, monitoring the workload.

"I am having problems with the interface with the stock market display board" Jules points to the hologram display next to one of the windows. The office is sleek, designer, with cushioning carpet. Artificial lighting is minimal and is provided through modest up lighting, large glass windows create full height views of the city. Toby asks about the problem, "the hologram flickers" she sharply responds as she looks up from her computer. "Okay, and how long has this been happening? Have you tried..." he asks as he plugs in the diagnostic computer, less of a computer but rather a plugin from the watch. Jules interjects, "Would you like a job here?" she continues "We are having quite a few problems with various parts of the buildings." Startled by her assertive behavior he asks a few basic questions. "Sorry for being blunt, we are in the middle of a large deal. We need someone like you, I can see from the database you have lived in London your entire life, you are loyal and have a high productivity value. We need

someone like you, someone who cares about the city.” Toby stands a little taller “Thank you” he responds. “We will upgrade your benefits package, you will have better food, use of the sky walks, better food, increased medical access and I am sure we can find more suitable accommodation, C2 is hardly glamorous.”

Toby establishes the cause of the problem, a simple glitch in the processing card. The system had predicted this problem and Toby simply replaces the card. Jules continues to engage in conversation during the repair “Just think, your life will be richer, you will live a better life whilst continuing the career you have always had. You will be one of us.” Supposedly meaning that Toby can be a part of a financial institution. Jules offers to exchange details though the smart watch, Toby accepts, he looks up, “It will be a decision you will not look back on.” They hold eye contact momentarily, he breaks the bond and heads towards the lift. He stands at the window looking downwards at the streets below. People crowded, the limited daylight, the noise, the feeling that you are constantly being surveyed from those above. Jules joins “Do you want to be one of them? Or one of us?” she continues “You have a chance to break away from the life you live and move up a level.” Toby looks away and puts his head down “I will get back to you, I need to think.”

On the way down to the street level in the external glass elevator, Toby looks at the ring around London and observes the flying cars running backwards and forwards to the boundaries of London, like worker bees foraging for pollen. A positive he has noticed in recent years is that the yellow like haze of the city has disappeared and the sky is much clearer, probably as a result of the low emission flying car. The flying car, solely used by those at the top could be a new mode of transport for him, a chance to break away from the city but still receive the benefits of the city. Outside of the boundary looks green, uncongested, fields can be seen, greenery in London has all been removed.

The lift rings, ‘Street Level’ the automated voice states. Toby steps out of the door and into the rush of people. Instantly he wishes he was at the top, clean, quiet, and uncongested away from the hustle of life on street level. Toby stares at the narrow roads, wishing that he could once again use a bicycle to move between jobs. The previous government had opened the disused train lines to create safe, fast passages to move around the city. He used to enjoy darting through the tunnels as a child, however these have all been removed to maximize the underground transport system.

Toby takes a short walk considering the proposal and arrives at C10, the new Sloanne Square, once a prestigious area with its renowned Victorian architecture, destroyed by the need for production and economic growth. As Toby passes into the underground, a young, slightly poorly dressed man moves towards him, Toby instantly has a heightened sense of awareness. The man locks onto the side of him, the man in a surprisingly soft voice engages in conversation. Toby notices the scar on his hand, a sign of a rebellion member, a person who is breaking away from the system. “Have you considered leaving the city? Search for a new life? A life where you are in control of your surrounds? A life which is relaxed and healthier? A life without productivity pills? A natural life?” The rebel member asks, Toby a little startled responds ‘The city has everything I need, a sense of belonging, an efficient city, state provided benefits and a stable career. Why should I leave?’ They continue conversing, he understands the man's name is Karl, Toby interjects mid-sentence “How do you survive in the city with no chip? How do you get food? How do you move on the transport?” Karl responds “There are several ways of getting around the system. Firstly, I have kept the chip, solely for transport. For food, we have people on the inside who can provide food. Money is an issue but the odd delivery can get ‘disrupted’, but we do not steal, the city is near crime free and we do not wish to contribute, we collect.” Toby invites Karl to the underground system, they travel through the automated barriers, to Toby's surprise Karl passes through the barrier and is filtered into the same lane. This happens two more times. He is intrigued, “How does this person move so freely around the city?” he thinks.

Toby and Karl board onto the same carriage, 'How would you like to join me this weekend and we can discuss further? You don't appear to be tied into the city, you can break away and escape this depressing and controlling city" Karl says. They exchange details and Toby returns back to the main office, swiping in at each door way. Work continues for several more hours. Toby swipes his chip after twelve hours at work and commences the commute home.

The station is particularly busy this evening, even the filtering of passengers is not adequate for the demand of the transport network. The working day has been changed to remove the pressures of rush hour, such that demand should generally remain constant as the city 'never sleeps' as there is constantly a work force. The separation of working day and night, and social and unsociable hours have been removed. The positive of having a constant work force is that production never stops and the system becomes highly efficient. Transport systems have a constant flow of people opposed to peaks and troughs of passenger flow. The peak loads in energy do not occur as before and thus allow for efficient energy production.

Toby boards onto the autonomous carriage, nearly crushed against the far door. His mind is now full of thoughts: "Do I stay or do I go? The city provides everything I need, I have a stable life, and I get to see the city. I have the chance for a promotion, a better way of life. However, the constant surveillance remains, the state knows what I eat, where I go, how I work and god knows what else that I am not aware of, I don't have a social life but I have a city which supports me. A city which ensures that I am cared for, a city with low emissions, a city with nearly zero crime." His train of thought is lost, a carriage pulls into a station and a crowd of passengers get off, in a surge to either sleep in preparation for the next day or to go to work.

Toby arrives at his home destination and decides to contact Karl, the weekend cannot wait. Karl tells him to head to C3, 'Camden' as it was once called, to the North of the city. An area renowned for its slightly more relaxed style of living and a little more 'free' than the centre. Toby does not hesitate and leaves his apartment immediately. He decides not to use the public transport, the route can be logged and alarms raised to those at the top. He decides to walk to the area.

Karl meets him in a small stairway to a basement. Toby informs Karl of his decision "I wish to leave the city, this place is ruining me, I am just a cog in the machine." Karl pauses momentarily "You understand, once you leave you cannot come back, that is it." In the corner a young lady is sitting smoking something Toby has never smelt, a substance, green in colour, looking slightly fluffy. She sits there content, almost happy. Karl notices his confused look. "Don't worry about that, this is our alternative to the productivity pills." He continues "Removing yourself from the city is like a relationship, you can completely withdraw to allow the relationship to collapse and force a break away or you can remove yourself." Without hesitation, Toby states his intention to remove himself. Karl responds "That's fine, we can remove you. We have an insider with a flying craft, for a small fee you will be taken out of the city. The fee is your chip." He continues "the chip will allow us food and your benefits for a few weeks until the system realises that you are no longer productive." Toby agrees.

Toby sits in the chair and smokes some of the 'green' plant. He feels euphoric, happy yet calm. Karl opens a packet for a scalpel and makes a small incision in his hand. Toby winces in pain, but the pain is not one to cause an outcry. The process is uncomfortable but not excruciatingly painful. Karl then uses tweezers and inserts them into the small incision. A little routing in the hand and Karl clasps the chip and extracts it. Almost like keyhole surgery, the incisions is minimal and the need for stitches is not required, a small amount of glue is passed over the incision to prevent further loss of blood and prevent a bacterial infection.

They talk for a few hours, smoking a little more and drinking some alcohol. A substance incredibly hard to get hold of as a result of the damage it causes to the body and the associated social effects.

Karl takes Toby to the base of one of the major investment banks close by. The security guard, clearly on the inside of this operation, nods and opens the external elevator doors. Toby and Karl enter and travel to the highest floor, as promised. They both stand on the roof top, nearly 100m above the London sky line, both standing near the edge. The city lights twinkling, the night is clear, the stars are clearly visible. "2 minutes until the car should be here to take you away, would you like some more to smoke?" Karl asks, "That will calm my nerves, a new start, a new life, a...." Karl lunges towards Toby, at the same time the flying car comes into focus and prepares to land. "Today has been a test, you have been offered a chance to rise to the top, and this was a test of loyalty." Karl continues "You show great productivity, but you show weakness. You are not committed to the capital. You are showing clear signs of breaking and cracking, fractures in society will only propagate. We have had concerns about you, we wanted you to prove us wrong but you have not. You have reinforced our thoughts. You didn't even give a day of thought about moving out." Toby tries to reason to no such avail. "We have no place for you here, if you leave you will only speak of bad words about us and we will lose our potential talent."

Karl starts walking Toby backwards, his strength overpowering Toby's resistance. Karl moves him to the edge of the building. "Who are you? You are not part of the rebellion." Toby frantically asks to try and show his humane side, a tactic used to reason at times of high stress. "We are a service brought in by the government aimed to prevent uprisings. The lines we form in the stations have nothing to do with an uprising. We are trying to find those who are not loyal, those who affect productivity. Our job is to remove them." Karl releases his grip, Toby falls, quietly. No screams, no shouts. Just falls in silent to the street below. The moment his body impacts with the road below, an empty bus stops just in front. Two men jump off the bus, place his lifeless body in a bag and drive off under the cover of darkness. London has taken another victim.

## (THE UPTOWN GATE)

### A STORY OF NEW YORK BY TRINE MARQUARDSEN

*This was more than Caitlin had ever dreamed. The city was so big and amazing- she had never seen so much luxury and technology before.*

The alarm went off inside her head. Was she dreaming or was she awake? She turned over on her side trying to fight the sound of the alarm, but she knew it was only a matter of time before the noise became louder. She pressed once on her wrist to snooze and drifted back to sleep. 10 minutes later the alarm started again. She pressed the wrist twice and slowly opened her eyes. Her head was spinning from the night before; too much red wine had been consumed. She touched her wrist again and a clock appeared before her eyes. 8.11 AM, she swiped at her wrist and the clock went to the corner of her eye and Instagram appeared. She couldn't concentrate on the images flashing by before her eyes. The argument from yesterday bothered still nagged her. Why was her dad being so on edge in these days, and why did she have to babysit her old grandmother at 80 and her cousin. Even though they were born with only months apart she never met her cousin before. She and the grandmother both lived on the other side of the gate point, far away from the world Sophie knew. She closed the screen and went into her closet. The shipment from yesterday's shopping was still sitting in the corner, still in boxes. Why hadn't Consuela fixed that yet? She called her name, but no answer came. She screamed her name, but still no response. She was usually here before 7 AM so she didn't have to stand in line at the gate point. Each morning she came to their house from The Bronx. Sophie found an outfit she felt was appropriate for entertaining those lowers for the day. She dressed reluctantly and walked down the two flights of stairs there was from her floor to the kitchen. Her dad was nowhere to be found. He always became so mad when he heard her call them Lowers and give her the moral scolding about how they would be as them had been for her grandmother. He probably already left for work she concluded. There is no vacation in the business world, as he would always yell when she suggested a family trip to the outside world.

Sophie didn't care much for holidays in the city, especially not now when it was Easter; it was always filled with Lowers on visit. Some from the rest of the country other Highers came all the way from Europe. As she stepped outside on the sidewalk she could feel the April sun warming her face and smell the crisp morning air. The cars were rushing by her on the streets. She touched her wrist again and activated her GPS location and send a signal out to the caps of Manhattan. She looked into the streets and saw the many white busses filled with families staring back at her. They were probably all heading towards the Empire State. It was the one the tourist attractions most of the Lowers could afford. A little bell noise her went off and a taxi pulled up to curve. She entered the taxi slowly, and entered her destination on the screen in front of her. She entered the address of the gate point – why couldn't they just meet in the city? She couldn't remember the last time she had been there, but she remembered that the place always used to give her the creeps. She looked out the tainted window and glazed at the houses passing by one by one trying to pull herself together for the day she had in front of her. She knew that her grandmother Ada and her cousin Caitlin had tried to go to Manhattan for months but this was the first time that both of their applications had been approved and none of them had been sick for weeks. The taxi pulled over to side and she scanned her wrist at the door and the familiar sound of a bill being paid played in her head and she stepped out on the platform next to the bridge. On one half of the bridge long lines of white busses held in line and on the other side people were standing in lines. The place was just as she remembered it. The wind was blowing through her hair, as she stood waiting next to all the other Highers waiting for their guests. She couldn't she Ada or Caitlin, and she already felt annoyed with them. She observed the long lines of people and cars. Line number one, the shortest one, was for Highers already living in Manhattan, who had been to the outside. They just had to show

their documentation and then they could pass the guards. Line number two was for people working in Manhattan, they had to show their work license and swap a cotton tip in their mouth to make sure they didn't bring infections or disease to the island. The third and longest line was for the tourist and visitors, and Sophie had heard that they had to give a blood sample before entering. Ada and Caitlin have to be in that line she thought and sighed. She had seen her grandmother only twice before, but she had a pretty good idea about how she would look by now. She touched her wrist again and went thought the news that appeared before her eyes.

The two of them walked arm in arm towards Sophie. Sophie didn't notice them before they were only a few feet away from her. Sophie glared at them and sighed, they looked worse than she had expected. They both were their ID-cards in a keychain around the neck together with the temporary chip they had received at the checkpoint. She closed the news in front of her eyes and reached her hand out towards her grandmother. Ada instantly hugged her for a long time while she rambled on for a long time about how pretty she was and how long it had been since she had last seen her. After the long hug Sophie reached her hand towards Caitlin who took and gave her an awkward handshake. A quick glance at her and Sophie could instantly see that she was a Lower and that her close was worn and her model of iEye was at least five years old. They walked towards the cabs holding in line outside of the gate point. Ada and Caitlin were both talking excitedly about the sights that they were going to see that day. As they reached the cabs, Sophie saw their maid Consuela rushing from the gate point towards the employee busses. For the first time Sophie realized that Consuela had to go through that every day on her way back and forward to work and felt a moment of gratefulness to the life she was born into. Their first stop on the tour was as many others the Empire State Building, and the line was going from the building and out on sidewalk for almost a block. Thank God for the fact that I can get them around the line Sophie thought to herself.

Ada stared at Sophie on the way to the Empire State Building with awe. She couldn't believe the way she dressed, back when she used to live in Manhattan in her twenties she didn't have provoking outfits like that and she was even considered a rebel back then. She looked out thought the window of the cab and stared at the buildings passing by. Where was the Manhattan she had been forced to leave almost 60 years ago. The beating pulse of the city was gone with the people who had left the city. She remembered back to her youth where the city had been filled with diversity and people from all different types of origin. Ada looked over at Caitlin whose face was just an inch from the glass looking out in awe at the skyscrapers and fancy apartments as they rushed down 5th Avenue. Back when Ada was young she remembered the good times she had had in the city back then, going to underground clubs, crashing parties and going to gallery openings all around Manhattan. Back then she was young and without a care in the world. Even though it was so many years ago the images was clear in her memory even to this day. She remembered back to the day where she and boyfriend at that time was forced to move out of their adorable little studio apartment. They had both been studying at NYU at the time on scholarship. She was an orphan and he was an exchange student from Germany so none of them had the option of paying the \$500,000 per person that was required if they wished to stay in Manhattan. Ada sighed and looked out into the streets again, and saw a Manhattan staring back at her she didn't recognized. Ada was glad that she and Caitlin had finally been able to go and she was exited to show her the city she once loved so much. They had tried so many times to get their approval form the city but it wasn't easy to receive it. It had been until her son Richard had pulled some strings in the committee of approval that they had gotten some good news. The cab pulled up to the sidewalk and Sophie paid with her chip on the way. Ada was glad she paid. She had save dup for the trip for months but she knew she didn't have enough for the entire day. The prices were another thing that had changed since she had lived there. As she saw the line she was very pleased to have Sophie with them, since she had an all access card to Manhattan she could take the two of them anywhere without staying in line and most importantly without paying. Back when she was living in New York the price for going to the top of Empire was \$25, now it was \$200, and that was apparently one of the cheaper tourist attractions. She damned the city and their arrogant and greed, but

swallowed her pride and went after Sophie and Caitlin into the building and into the elevator. She had been in the city since Sophie was 5 and her mother had died, she couldn't believe how fast time was going and how much had happened in that period. She had grown up and had turned into a beautiful young woman. As she stood there in the elevator with her iEye beaming out into the air, she looked annoyed and important. Ada felt sorry for that young woman who had never seen the real world besides from the images appearing on her iEye. She looked at her watch 10.15 AM. They had to be at the gate point at 20 PM or they would be fined for overstaying their visit. They were meeting Richard back at their apartment at 17 PM for an early dinner. She hadn't seen her son in years and was worried sick about him. He had sounded stressed and agitated the last times she had spoken to him. As they went out onto the platform at the top of the building her mood suddenly shifted. From up her Manhattan looked as it had done 60 years ago. From up there she couldn't see the dull streets and facades, but only the outline and the park that looked as it always had. As they stood back down on the streets they headed towards 5th avenue where Caitlin wanted to see the many stores she had only seen in magazines and she never could afford. This was the first time Sophie seems remotely interested in Caitlin and this day. Ada wondered if they would like each other if they hadn't grown up in different worlds. As they walked down 5th Ada looked back at her youth in Manhattan. How she used to spend all her hard earned money in the stores back then. Back when money existed physically. Even though she had had a chip in her for almost 30 years she still sometimes reached for her wallet when she had to pay for something today. As they wandered down 5th going through the stores filled with luxurious and glamorous clothes Ada couldn't help to wish that New York would return to the city it used to be, a big city of dreams and possibilities.

This was more than Caitlin had ever dreamed. The city was so big and amazing - she had never seen so much luxury and technology before. She had barely used any money since they started planning their trip months ago. She was so ready for this shopping spree, and even though she had heard rumours about the prices in Manhattan, but this was worse than she had feared. She had dreamed about buying dresses that would make everyone back home so jealous. But now she realised that there would only be enough money for a t-shirt. Her grandmother didn't understand the special thing about clothes in Manhattan. You could get close from everywhere else in the world delivered within a day, why would she want to buy then in Manhattan, she would always scold. Manhattan was filled with Highers and Sophie was no exception. Her clothes were so chic and Caitlin had done nothing but admire her life since they had arrived. They were on their way to Sophie and her dad's place, and Caitlin was excited to see their house. Caitlin hoped that with her new t-shirt she would be considered as a Higher when she returned home, she had worked very hard for that in the past years. She knew that it was the best shot to get into a decent college if she could appear as if she was a Higher. As the cab pulled up to the curb she looked in awe at the impressive building standing before her. They must be wealthier than her grandmother had led on. Even though she had met her uncle once before she couldn't really recall his face. Ada had told her that he had a bad temper and was stressed at the moment, so she didn't really look forward to the upcoming dinner. She had checked her iEye in the taxi and a lot of people had already liked her photos from today. She was very pleased with the trip so far. She was a bit sad that she and Sophie had gotten along better, but she was clearly not interested in getting to know Caitlin. Caitlin had hoped they would become friends so that she could visit New York more often. They all went in the house and Caitlin looked around amazed at the sight. The house was huge and luxurious, it was way more extravagant than she had imagined. Ada looked as if she was about to faint, it was clear she didn't expect this kind of luxury. Caitlin walked around the house following Sophie around like a puppy. She was left with a feeling of disappointment of her own life, why wasn't she born into this type of world?

Richard sat silently in the back of the town car driving him from the office to home. He had trouble keeping himself calm. How could they know he had fraud all that money? He had been so careful covering his tracks. What was he going to do now, what would he say to Sophie? As if this day had been bad enough he had to face his mother in



10 minutes. He swiped his wrist and the business section appeared before his eyes. He looked at the clock in the corner, it was 5.30 PM, and he was late and would without a doubt hear for it from his mother. He decided to step out of the car and walk the rest of the way home. He needed some fresh air to clear his head and come up with a plan. The company had told him that he could avoid being dragged to court if he was to pay all the money back that he had embezzled in the past two years. He knew he didn't have that kind of money; he had invested most of it in a company that had gone bankrupt 2 months ago and what was left Sophie had wasted away. He wasn't pleased with the way she had turned out; she was arrogant and ungrateful for the life that was given to her. She didn't go to college even though she would easily get accepted to the best university in Manhattan. He knew all the right people in the city and he tried desperately to think of someone who could help him now, but he knew that there was nothing to do. He knew how important this community though integrity about money is. He knew that if he had killed a person he would know at least 10 people in the city that he could call right know who help him get out of trouble. This however was unforgivable, and there was nothing for him to do except for facing the consequences. He damned his greed, if he had only been satisfied with his monthly income, he would never had stood in this situation. He had one the highest pays in the company. He was getting closer to home and could feel his stomach turning, as he was about to face the consequences of letting Sophie know that they had no other option than to leave the city as soon as possible without being able to bring more than a few items each. He was hoping that his mother would invite them to stay with her until he could get back on track. Sophie would get so furious, he knew that. She loved all of her belongings and would beg him that they could stay and send in an application so that they could bring out more than 10 items from the city when they would have to leave. He knew that they couldn't afford the payment necessary to get such an approval stamp. He stood in front of the door and took him forever to move up the 7 steps. He turned the handle and walked inside the house.

## (ZONE 34)

### A STORY OF SYNDEY BY ANNE SLOTH BIDSTRUP

*She didn't believe that a whole country really felt hatred against each other, and felt the need to be divided into zones to be safe.*

Laura looked out the window, and sighed deeply. The weather was grim – It was June, and winter in Sydney. She was late for work, and had to leave. Most days she got a lift with her mom, but this morning she had to take the bus. It was much more troublesome, but not as creepy as the underground subway.

Her mother worked with Laura at the International Office of Overseas travelling. They administrated all applications from the lower classes to leave Australia. When you were in security class A or B, you could pretty much travel as you wished, but any lower than that, you had to seek permission to leave the country, or even the state for class D or lower. There were 7 classes all together, officially divided after income, but actually after racial affiliation. In Laura's division they worked with the overseas permissions, and they were not given without a so-called "good" reason! Laura didn't like her job in particular, but she could keep to herself during working hours, and you had to have a job to get by.

The bus ride took little more than an hour, even though the office was only 3 km away. Traffic was always chaotic in the morning, even more because everyone needed to be inside before 10 o'clock. Since the last riots a few weeks back it had been prohibited to linger at the streets outside travel hours in their area – which made the traffic on the streets even more crazy than normal.

You had to show your ID to get into the bus, because they were divided into classes. Laura was a Class A, which meant that when she got into the bus it was both clean and quiet, and she could relax a little bit before she had to get off.

Even though Laura was 28 years old, it was not unusual that she still lived with her mother. Ever since the new Law, which was established in 2032, women were not allowed to live alone. You had to live with a parent, a partner or a friend. It was now year 2088 and very normal that mothers lived with her children if her husband died. When – or if – Laura decided to move in with a partner, her mother would probably just move in with them. At the moment her mother was sick, with pneumonia, and since Laura did not have a driver's license – she was riding the bus.

Laura was lost in her own thoughts during the bus ride, and pondered as so often before how their country has gotten here. Before her Grandmother had died, she had often told Laura about "the time before", as they called it internally. Grandma didn't say it out loud, but Laura suspected that she had like Australia much better before.

Laura had never experienced it any other way, but could still feel some kind of reluctance against the segregation of the society. She was in the top class, so she didn't experience the discrimination herself, but she still had a thorough feeling that it was wrong to divide humans after how many percentage "British Australian" they were. She was then abrupt interrupted in her stream of consciousness when the bus arrived at her stop. It was still raining, and she could only look forward to finishing work in the afternoon. She was also eager to get home to her mother again – she was worried about her illness, and knew that she was going to be away from her the next evening.

Laura had always lived in Sydney, but hadn't seen the city change. The change had happened long before she was born. Ever since the colonists arrived in Australia before 1800 there had been problems with racism between the white settlers from England, and the indigenous people who had lived on the island in many many years. The Aboriginal people had felt subdued, and this had resulted in more and more ghettos in the larger cities, and fights between the two groups. Australia was already in the beginning of the 21st century a country with many different original nationalities. And the struggle between the Aboriginals and the white escalated in a way that just enforced the hatred between the white with British origin and everybody else. It ended after a massive outbreak of riots all over the country with a military lock-down in 2032 that resulted in the new Law. Laura was not sure how it ever got that far.

After work, Laura went home. The weather had brightened up, but the city was still nothing like it had been before. There still existed pictures of a beautiful city full of life, but Laura found it hard to recognize as it looked now. These days it was most of all grey, and dull. Everyone was kept in control, even though there had not been any real trouble in Sydney for several years.

There were always soldiers present, to keep the society safe. Laura loathed that expression, since the soldiers were the only ones ever hurting anyone. The city had been divided up into zones, and the different classes could only be in the zones they had been cleared for. Laura had clearance to most zones, but if you belonged to a lower class, you only had clearance to be in the zone where you lived, and where you worked. That was one of the reasons why the subway was that dangerous – people from the higher classes believed that the lower classes travelled into forbidden zones via the tunnels. Laura didn't agree, and none of the stories were confirmed, but she didn't like going down there because of the massive array of soldiers.

Laura and her mother lived in a small house near Coogee Beach. The area had probably once been attractive, but now days it was just neglected. The strict curfew didn't exactly enhance the desire to do garden work or socialize with your community. Before Laura's father died, they had lived together in the same house. He had worked in the government, but had not been very good at it. He had been more or less openly against some of the more radical laws, and it had not made him popular. This was one of the reasons why Laura didn't talk with her mother about her doubts considering the regime. Her mother was terrified that Laura would get into trouble, or maybe disappear as her father had done.

Laura had a secret. Whenever it was possible for her, she would go to one of the zones where Class E and F lived. Even though the area Laura lived in was shabby, it was nothing compared to Zone 34 – where Michael lived.

Michael was her lover, and her fellow conspirator. She was honest to him, and could tell him all of her doubts. And he did the same with her. Michael was an Aboriginal, only mixed with other nationalities - not British. Their relationship was forbidden. They were not allowed to speak privately with each other. But they did, and had done, for almost five years.

They had met at a chat side. Laura had bought a used computer in an antique store, and somehow the restriction that normally was on the internet had not been there when she used it the first time. Somehow the computer had not been formatted before it was sold again, or formatted wrong.

She had already back then been very curious about the other classes and wanted to talk to people from the other zones. She had been too scared to try something in the first month she had it, and then her curiosity had won – her journey on the “forbidden” part of the internet had begun. In the beginning she just browsed around and didn't find anything extraordinary, but then she clicked on a chat side that was open to class E-G – the lowest classes. When she first talked to Michael is had felt so natural, and safe. It had taken almost a year before they had

met the first time, but after they found a way to meet without drawing attention they had seen each other almost every week.

Laura always went to his zone, since she was cleared to travel there. Once she got there, she was allowed to visit the official buildings, and it was in the Post Office, where Michael worked as a laborer, that they had found a small repository where they could hang out for hours without getting caught.

This evening Laura prepared her mother for the next day – when she had a date with Michael. She told her mother different stories – this time she said she had an appointment with one of her colleagues that her mother also knew – that calmed her down, and she didn't worry if Laura was gone for long. Something had broken inside her mother when her father was taken away. Laura used to think of her mother as a courageous and proud woman, but now she was just broken. They had broken her, and she was more and more filled with fear and hatred every day. Laura hated the government for this, more than everything else.

Laura went to zone 34 with the bus straight after work the next day. She would have to go home after the curfew, but she had to take the chance. They had chatted about it for almost two weeks – he didn't want her to come because he thought it was too dangerous with all the interracial controversies these days, but even more because he was afraid that the soldiers would see her get home – and question her. People tend to disappear after such questionings.

But Laura was not afraid of the riots – she had decided so a long time ago, and tried very much to uphold that decision. She was afraid of the soldiers, but she missed Michael more.

During the bus ride she looked out the window, and a feeling of despair came over her. You could literally see the change in the city as you drove through the different zones. In the top zones the city was worn down, but working and there were open shops and public transportation was functioning. But in the lower zones, people was actually living on the streets, there was only jammed up shops, and only the busses from the top zones was still driving – and the inhabitants from the other zones was not allowed to ride them. The infrastructural problems had evolved from the poorer part of the population, who lived in the lowest zones, not being able to buy their own car, to now, where it was impossible for anyone but 95%-whites to ride public transportation.

Laura shook her head, and looked up.

She hadn't realized that someone was staring at her from the other side of the aisle. Her stop was still 10 minutes away, on a good day, and she really didn't feel like talking to a stranger, so she looked quickly down again. But the woman had seen Laura looking back at her, and came over and sat next to her.

“Do you know you are on the list?” the woman asked Laura. Laura must have looked puzzled, because the woman kept whispering to her. “You are on their list – you are under surveillance. I work for them – I know how they do it. They will find some reason to question you – and then take you to custody. It is dangerous for you to do anything peculiar. I don't know what you are doing on all of these bus rides, and where you go, but I have looked in to you because you made me curious. I ride this bus a lot, because my son is excluded, and forced to live in zone 34 – so I visit him often. I work... Well I work somewhere secret, but I just wanted to warn you!” The woman then looked away, and soundless slid away from the seat.

Laura was startled, but had to make a quick decision, because she was at her stop. She got off. She was terrified, but she needed to see Michael, and tell him about this. It could be a scam, or a crazy woman. Which list? Where did she work? Laura doubted the truthfulness in the monologue from the woman.

She looked nervously over her shoulder as she crept along the grey façades. She glanced around, and then walked into the post office. She went straight for the bathrooms for class A and B, and turned just before the door. In the corner of the cleaning room the door to their secret room was concealed by a set of shelves. She hurried into it and through herself in Michael's arms. She told him what had happened in the bus, and they agreed that she had to leave at once, and then keep a low profile for a while. They were both very sad when she five minutes later left the post office, very nervous but determined to come again soon. They should not take this from her! Just because they – whoever they were – only believed in hatred and fighting, they should not keep her from Michael!

The society must be biased; Laura thought when she was home safe in her bedroom. She didn't believe that a whole country really felt hatred against each other, and felt the need to be divided into zones to be safe. The government was nothing but a military dictatorship, and she wouldn't take it anymore. There must be another solution to the racial problems that had led the country into something that resembled a civil war. She thought about the riots a few weeks back. Black men from some of the lowest zones had been fighting the military that wouldn't let them into other zones to work and get food. It had led to fights in pretty much every zone, but all the white people in the top zones had just been told to stay inside.

Laura thought, as often before, that the inhabitants of Sydney needed to be enlightened about how it worked in other countries. Laura had seen a bit on her computer, but could also remember how her grandmother had talked about the time before, where they still got news from other countries. They managed to live in peace, even countries with as many nationalities as Australia.

The system would have to be changed, she knew that much. Under the regime that ruled now, equality would never conquer the hatred. And the citizens needed a role model, to tell them that what is different is not necessarily something to be afraid of.

She went to bed with a feeling of despair, after making an appointment with her doctor the next day. The doctor had access to her files, and she needed to see what was written about her.

When Laura spoke with her mother the next morning it was difficult for her to hide her mood. She was both afraid and angry, but had to try to act normal for her mother's fault. Laura didn't want to make her nervous. She left for work, but went to the doctor's office instead.

From the doctor's office she went to zone 34. After what she had seen in her file she had to talk to Michael. She got there without trouble and with no sight of the mysterious woman from the night before. She sneaked into their usual meeting place without anyone noticing, and waited for him. When he got there she was eager to tell him everything.

She told him how she had been sleepless all night, immersed in thoughts about their future. She had fooled the doctor into leaving the office for five minutes when she was there, and had quickly read her folder on his computer. And it seemed that the woman had spoken the truth the day before – she was regarded as a "low treat" to the country, and was being watched.

Michael was just as shocked as Laura, and they spoke for a while about how anyone had found out that she had impure thoughts about the regime, as they had called it in the file.

Michael agreed in Laura's interpretation of the society they lived in, but he had a more realistic point of view. He didn't think they could do anything about it, and was mostly just afraid that anything would happen to Laura.

When he explained his feelings once again to her, she took his head between her hands, looked him into his eyes and said that if anything ever was going to change, everyone needed to be brave. They had to be, but they also needed to encourage everyone around them to be. Because the regime was not going to surrender without fight and the government was only half the problem. The public needed to be turned around, and accept that everyone was equal, no matter their origin. Laura didn't know how to make this change, but first of all she would have to figure out what the soldiers part in the riots were – she had a feeling that they often started them, and if that was the case, she would have to enlighten the city about the governments cover up. She told Michael all of this while caressing his shoulder, and then looked at him. She could not understand how their love could be illegal. They were just two people, with different color. It didn't matter to them, and it shouldn't matter to anyone else.

Michael looked at her and promised to help her with this impossible quest – and then the door was blown in, and suddenly there were noise and smoke and dirt everywhere. Then everything became black, and Laura fell to the ground. The soldiers won even before the fight had started.

## (WHAT WE NEED TO GET THERE)

### A STORY OF SYDNEY BY MICKI AAEN PETERSEN

*Are you stressed or burned out? You are more than welcome to take a tour through the garden and try the garden therapy yourself.*

A fictional story about the future quality of life and the transitions needed to get there – told from an urban climatologists point of view

By looking through the curved flat---panel display that makes up the airframe structure in the sides of the plain, I have a 360 degrees view on mother earth from the distance of 10,000 meters on my way from Copenhagen to Sydney. On my many flights looking out through the atmosphere has always fascinated me. To observe how climate affects life on earth, the clouds that cast shadows of the sun and affect the climatic condition on the earth's surface. The dynamic and constantly changes of the climate is wonderful. It gives people a sense of time both on a daily and seasonal base, while at the same time the climate makes us aware that we a apart of a larger solar system.

I some way I am miss the tiny oval---shaped windows. Back then I always made sure to book a window seat to get the chance to look out. Looking through the two layers of transparent plastic, focused on one particular view was somehow more realistic. When I'm now looking through the big curved screens, I cannot stop thinking if it is just a movie they have put on from the automatically controlled cockpit. ---As a marketing stunt, just to make the passengers feel comfortable, and to ensure we will book our next flight with them. Despite my lack of confidence, I'm pretty sure that I would have booked an "adventure ticket", if money were not an issue. People sitting in the adventure seats, wear a helmet (that initially was developed for the pilots of the jet fighter F35) with multiple cameras placed outside the flight to ensure that people only see the real nature every time they turn their head. Just like their eyes were flying all alone in the universe.

I closed my eyes and imagined the feeling of my sight being exposed to the sky instead of seeing the middle class family sitting left to me; A scene where the mom continuously confirmed herself that she was looking like a girl at 22, while the teenage son ate candy, played videogames and tried to connect with his overweight father who didn't talk because he was busy by emailing the office. Meanwhile I were getting excited to visit my grandchild Robert and his newly established family in Sydney.

I remember myself being exactly the same age as Robert and I read a thought---provoking story in Naomi Klein's book "This Changes Everything – Capitalism vs. The Climate":

"Before a flight flying from Washington DC to Charleston could depart, all the passengers were asked to leave the plain with their luggage. When they arrived at the warm dark pavement they saw that the wheels on the US Airways flight were sunken into the dark pavement, as it was soft as butter. Actually the wheels were sunken so deep that the car that came to pull the flight couldn't make it. An even bigger car was needed and the pavement for takeoff was cooled by water before the flight was ready to depart. People were upset about their 3 hours delay and a representative from the US Airways apologized the delay by explained about unusual high temperatures." He was right; the temperatures were extremely high and set new warm records (as every single year in that period of time). No one thought about the fact that the pollution from the airplane contributed to the global warming and was a central part of the climatic problem and therefor the delay of the flight.

As a retired climate engineer being a part of a generation where concerns of climate change and global warming related to user behavior have played a big role, I was irresistibly happy when I looked at the wings of the flight and saw how they were covered with photovoltaic. The fact that we can fly across the earth in flights, relying on solar energy without releasing any grams of carbon dioxide or other harmful particles, is just one of the fascinating improvements society has been through in my lifetime. It is fascinating how technology over the last decades has evolved and caused radical changes in our daily life and way of living.

It was my first trip to Sydney since I was studying there back in 2013. More than 50 years of changes and development have passed since that time, and I was really looking forward to see how Sydney was in the year of 2065. Especially because Sydney is well known as one of the front-runners in integrating sustainable urban planning strategies. That was also the reason why Robert, my grandchild, moved to Sydney for setting up a local office for Gehl Architects, where he just became an associated partner. Being a partner in a worldwide well-known company in the age of 27 was unrealistic just a few years ago. But due to the increase of available knowledge and information, young partners are getting more common. ---Simple because they are educated in fields, which did not exist just a couple of years ago. Their skills are very attractive, especially if they are good at implementing and communicating their field of knowledge in an intelligent and useful way, which indeed is the case for Robert.

The sky was clear on the way down. I noticed the developed Barangaroo and at the same time I could see how the urbanization had led to an extensive densification of the urban landscape west from the city center.

The first step out of the airplane was (as always) terrific when arriving to another climate zone. Traveling from the cold rainy weather conditions that dominate the November of Denmark and now 6 hours later feel the solar radiation in Sydney's temperate climate on a late spring Sunday afternoon was an overwhelming feeling.

Robert picked me up in the airport. When we got closer to the city center, the soundless electrical car shifted to self-control and Robert turned his seat 90 degrees, placed his hand on my shoulder, looked me in the eyes and said: "It is so good to see you. Maria and I are so glad that you would come to Sydney and stay with us for a week." I took his hand and told how much I had looked forward to see and spend time together with him and his family. Robert smiled and continued: "I actually have a meeting with the Danish engineering consultant firm 'Steensen Warming'. We plan to collaborate in future projects. They should be excellent in climatic analysis. Since this is your field, I wonder if you would join the meeting on Tuesday." I accepted the invitation. Thus it is two years ago since I retired, I am still following the research in urban climatology. I know the company is in a front position of the field. And at the same time I was honored that Robert invited his old grandfather to join him for business meetings. The DriveNow car automatically parked on the white pavement between two green trees. Just after we passed the wide bicycle lane we entered the partly grass-covered sidewalk, and Robert's neighbor came out with a friendly smile and said hallo, while he entered the car we just parked. Robert, Maria and their two years old daughter Lily lived in a small tree story row house on Crown Street in Surry Hills. I remembered the neighborhood as a vibrant livable area, which my first impression confirmed; the area still seemed to be rich on local restaurants, wine bars, arts and culture. On the other hand everything seemed to be transformed into a much more green expression. The Crown Street I remembered consisted of 2-4 story buildings dominated by dark colored materials. Now the nature was playing a much larger role of the urban expression. Different plants and types of vegetation were implemented in both the street design and in the architecture that appeared in much lighter colors. I was tired after the flight trip, so after the dinner I went to bed.

Next morning I went to the backyard with Lily and picked up four fresh eggs from the shared chicken run. In the meantime Maria made coffee and collected chives and tomatoes from the balcony. We sat down on the northern-



--faced balcony. Showered in the morning sun we enjoyed the breakfast. I told Lily how people in the past used to take vitamins along with their breakfast to get the sufficient amount of D---vitamin. Of course the two---year---old girl did not have any clue of what I was talking about. "I seems strange that people in the past took pills for something they just could receive by going outside" Maria commented.

I used the day in Sydney on my own. On the Mobility app, which combines WalkScore, BikeScore and TransitScore to give the user the possibility to take a shared car or bike, I found a route that matched my mood for the trip. First I walked through Moore Park. Besides the named it could not recognize anything. The trimmed and very well controlled lawn I expected to see was now wild nature. Just as no gardener had entered the park since I left. High and different types of wild vegetation formed the curved pathways where I briefly saw a sign in the park with words such as "increased biodiversity", "reducing urban heat island effect", "improving environmental acoustics", "cleaning the air", "positive psychological effects". Besides the changed nature, it was clear that much more people compared to the past used the park.

The first destination for the trip was University of New South Wales, the university where I was a student many years ago. One of the things I clearly remember was that the university had plugins for electricity outside in relation to outside furniture, so the students could sit outside and work. I never saw anyone using it, but I liked the idea. Walking around on campus, I asked a student sitting with his laptop connected to a plugin outside in a shaded corner how often he worked outside. "Since the outdoor facilities were reorganized so every function fits to the local climate conditions, we always sit outside a couple of hours every day. Before no one worked outside. But after the campus was mapped by wind and solar studies, the outdoor areas are much more livable and usable. Outdoor work stations are now protected from glare, and facilities for long term stays such as outdoor canteen areas are now placed in areas where the user can choose between sitting in a shaded, sunny or filtered daylight zone depending on the mood."

On my way out of campus I saw a group of boys playing football. As I entered the open field where they played, I could feel the light wind comfortably cooling down my skin. I was wondering if the football field was placed in a way so the wind conditions supported the player's increased heat stress. If that was the case, it was really smart!

From the university I took the underground subway to the Botanic Garden near downtown. Like Moore Park, the Botanic Garden was changed to more wild nature and the livability of both people and natural elements had definitely increased. In a part of the garden a group of people was weeding the plants and vegetables. I read the sign "Research shows that a view to green vegetation makes sick people recover faster. People working in green office areas have less sick days and fewer headaches. A special soil bacteria releases endorphins if people inhale it. Are you stressed or burned out? You are more than welcome to take a tour through the garden and try the garden therapy yourself." For me most of the information was well known, but by writing it in the public every people got exposed to it. In the past, it was only researchers reading journals that knew that kind of stuff. I liked the fact that the distance between newly established research and ordinary people were minimized. This must be good both for the research and society.

Tuesday was meeting day and Robert and I started out by taking two city bikes. Robert organized Lily and her backpack in front of the family bike, while I entered my physical conditions on the screen placed on the rear of the bike. After dropping Lily off at the kindergarten, Robert shifted to a regular city bike. As we entered a small hill I could feel how the electrical engine supported my movements. "After the implementation of the electrical shared city bike, bicycling is now the most used common transport in Sydney," Robert explained. "Wow! Last time I was in Sydney I only saw few people on bikes. People in sports clothes were driving in between the cars and exercised to get over the hills," I answered. "Back in 2012 Copenhagen was already well---known for its bike ability, but for me

it was clear that people did not bike in Sydney because of the heat and the many steep hills. At that time I couldn't imagine how the technology could develop bicycles taking the users' physical conditions, heat stress and clothing into consideration, so we now can bike without getting sweaty and at the same time get exercise." Robert laughed and said: "Yes, you are lucky, old man. Otherwise you couldn't follow my pace".

We parked the city bikes in front of the office. The office was located in the CBD and all the facades of the high glass skyscrapers were partly shaded by free hanging vegetation. In the light office environment Peter from Steensen Warming showed us around. Between the plants on the wall there was a quote from Simon Sinek: "Working hard for something we don't care about is called stress; working hard for something we love is called passion". After the short introduction where Christina from the governmental Urban Planning Institute of New South Wales participated, we decided to take a walk---and---talk---meeting. Before entering the two---hour walking path we picked up a coffee at the local coffee shop. I was clear that no one from the group considered buying the coffee in Starbucks next to the local coffee shop.

The agenda for the meeting was to introduce Robert and me to the planning strategies that Sydney has been through during the last decades. At the same time Robert should introduce his newly established education in the field of "Life Quality Engineering". Peter started out by explaining how Steensen Warming works with climatic parameters in urban planning and how their main focus was the relation to outdoor comfort and livability and the urban energy consumption. He started by showing us two pictures of two buildings in the same French city. First he pointed at a picture of a building built in the 19th century. It was a light brick building where the windows were closed off by lamellas. He argued that in this period people spent most of their time outside during the day, since the primary work was done in the fields of agriculture before the industrial revolution. Therefore the building was more isolated to the outdoor climate, because people had been out door most of the day. The lamellas in front of the windows ensured sufficient amount of diffuse daylight while ventilating the room. Then he pointed at a new picture on his tablet showing a fully glazed museum. "After industrial revolution people's life changed and in average people spent 95% of their time inside buildings. Due to that fact, people want to be exposed to the outdoor while the architecture language in that period always was about relating the indoor to the outdoor. This resulted in increased energy consumptions due to overheating, but also warming in the winter period depending on the climate," Peter said.

Camilla continued: "As urban planners we try to convert the citizens of city to be more outside and get more exercise, since the indoor lifestyle where people often work most of the day sitting in front of their desk results in massively lifestyle diseases including obesity. From the political point of view there was a huge potential back in the 2030'ies to promote the citizens to be more active. From an economical point of view it makes sense to invest in prevention by promoting attractive outdoor activities since it is resulting in reduced hospital bills."

"My field of work is orientated about finding the right combinations of things that are good for both improving the individual's quality of life and is an advantage for society at the same time." Robert applied. "As a well---known example is the investment of urban vegetation which solves the urban heat island effect and is an important element of handling rain water. At the same time it adds value to the citizens. We all love green trees, and the common trend of being closer related to the nature is achieved due to common investment. All in all, it is a win---win situation."

Peter nods confirming. "People getting more exposed to nature and spending more time outside just emphasize my point by showing the two pictures from the past. Our day's trend is to find the right balance and urban planning together with architecture need to support that."

“From the governments point of view we want to support the individual potential. We don’t want to enforce people. We want to set up the right boundary conditions so people are supported to do what they appreciate.” Camilla said. “Like when costumers are exposed to candy and other stuff they hardly try to avoid in the waiting line for the desk in the supermarket. Just in an opposite way; we want to inspire people to make the healthy choices.”

Until that point I didn’t say much. I was just inspired by listening to the new focus points in urban planning compared to when I worked as a young engineer. I added: “My generation of urban climatologists started implementing climatic simulations into the design process. It was amazing to be a part of this new implementation. But because it was new back in 2040, planners and decision makers were just fascinating about the way of presenting climatic data without actually understanding it or being able to valuate, if the presented data was good or bad. It was new stuff and just fascinating. At the same time we used weather files representing the last 20 years of statistics when we designed cities that would be finish 20 years later. Looking back, it doesn’t give any sense when the climate has changed so much. How do you implement climatic knowledge in urban planning today?”

“I see your point” Peter answered. “In that perspective we have been through a large game changer. In the process you refer to, we as climate consulting engineers were a part of the team in the master planning competitions. Since it was a competition the money was limited, which was the reason why the time spent on climatic research was pure. But what happened was that the decision makers as you mention were impressed by the climate data presented, so we often won the competitions simply because we were the only team implementing climatic analyses. But since the decision makers then had accepted an urban layout, it was almost impossible to change the building height, street width and orientation at that time. Even though it was first after winning the competition we actually had time to get deep into climatic analyses, and we often suggested radical changes but that was too late.”

Camilla continued: “From the governments point of view we got aware of that cash flow conflict as Peter just explained. And since the climate for a given area is the same no matter which competition team who wins, we decided to hire climate engineers before starting the competition. In that way Peter and his colleagues are paid the sufficient amount of money to investigate the local climate conditions and challenges. So nowadays when architectural companies and all the other relevant fields receive the competition program it includes a deep climatic analysis, things to be aware of, and different kind of strategies for handling the different climatic challenges in a sustainable manner. Peter or his colleagues are then represented in the jury, since they have the competences to evaluate the master plans climatic aspects.” When I heard how the procedure has changed, it really made sense for me. And it was a pleasure to listen to the rest of their meeting, where topics such as the use of GIS and big data related to user behavior, validation of real design, remote cooling using sea water and the increased power of CFD was discussed.

Robert and I decided to walk back to Surry Hills after the meeting. As we walked at the bright pavement I observed how the high albedo materials, cool roofs and the appropriate landscape were combined in a coherent and aesthetic way. Robert explained how this part of the city has been through a renovation, some buildings were demolished and some places were planned in a way, so the urban fabric blocks the warm wind from the inner land, and on the other hand promote the cooler air flow from the ocean side. ---All done to optimize the outdoor comfort and to minimize the energy use for buildings.

The rest of my stay I enjoyed spending time with my relatives in this lovely city. Now I’m sitting in the plane while I’m forced back into the seat due to the high acceleration of the solar plane. Through the curved screens I look over Sydney, convinced that this Sydney I just visited is way better, than the Sydney I lived in back in 2012. I am thankful for being a part of a generation, where it has been proven that a shift from fossil fuels to renewable energy

technologies combined with passive climate solutions, had increased the quality of life for the general citizen, for my grandson Robert and from my great---grandchild Lily.

# SAM

## A STORY OF MUSCAT BY ELINE TERMØHLEN MIKKELSEN

*He had lived to see his land slowly lose its soul, and now he left the world just in time to avoid seeing it fall apart completely.*

He did not know how to pretend anymore. It had been difficult these past weeks – it all seemed so hopeless. Sam sat in class and stared out the thick, UV proof windows. He was thinking about her. She lived out past the mountains, in the tribes. He pondered what his classmates would say if they knew that he was in love with a tribe girl, and giggled at the thought. They would probably think him mad. Sam Ali, the popular guy, the one they all wanted to be like, in love with a girl in the dessert. They had met a few weeks earlier, during an expedition to the tribes. All the history classes had to travel out there to see how the world used to look, before the revolution of 2016. Last time was a community outreach program, they had handed out UV-injections and food for the tribespeople. Thara, that was her name, had helped hand out the supplies because she spoke common speak, a global version of English. Her mother was born in the cities of Jordan, but was expelled to the dessert when she divorced one of the ministers. She had been religious, and one of the few unwilling to let it go when the gulf-state was formed in 2016. Thara was unlike any of the girls in Sam's class. All the others fawned on him – it got old real fast. She was provoking. She still believed in her mother's faith, illegally of course, and she talked back with that wit that made him love her.

The bell rang out, and interrupted his train of thought. He noticed that Kari was smiling at him from the other side of the class. He overlooked it and went out to find his friends in the yard. The school yard, where all the breaks were held, was covered in a dome of the same glass which made up all the windows. It shimmered with the transparent solar cells, which supplied the city with power. Every surface worked all the day to gather power, which in turn was used to cool the enormous indoor areas where they all had to stay. Sam's father was one of the scientist brought in from the west after the regime change, and he had developed the technology for putting the solar cells in all the glass surface and the cover of the houses. He of course, had retired many years ago when Sam was born. They rarely spoke of his mother, and his father got quiet every time Sam would ask about her. He only knew that she had died around the time he was born. All the kids were out in the yard, where the climate was designed to feel like a cool, fresh day, all year round. They even had wind machines, so the conditioning were as authentic as possible. If you didn't think about it, it was easy to forget what the world outside looked like. That's why they had the trips to the tribes; as reminders of how well they had it. Sam couldn't help but to feel grateful for just that – it had brought him Thara.

The bell rang in, and Kari followed him all the way to the door. He could not stand her. They had dated for a while a few years back, and she just couldn't let it go. She was as arrogant and self-absorbed as all the others in the city. Because of his father, Sam was a popular guy, though he actually just preferred to be by himself most of the time. At the end of the day, Sam walked out of the glass exit way, to the huge parking garage, so people could move around without ever stepping foot in the 60 degree Celsius weather. All the students got in their cars and headed home, but Sam had different plans. Since he had met Thara he had been sneaking off once a week, to get injections. It was deemed unworthy of the city people to take these medicinal UV protections, but he needed them now. Thara could not get into the city, and without them he could not visit her in the tribes. It was a colleague of his fathers, one that originally came from the land that once belonged to the United Kingdom. It had long ago been absorbed into the Scandinavian state, but he still spoke with the accent of the old brits. The vaccination helped the cells of the skin repel the UV radiation. Without it, you could not step outside of the glass cover for more than an hour or so. Of course the people of the tribes got it on a weekly basis. Some of the critics of the state had

discovered that the tribespeople started to develop a resilience, but as long as they did not know, the state did nothing to deal with the effects. For now, the darker skin they had developed, and the vaccines, kept them safe. That is one of the reasons that it was frowned upon to mate with the tribespeople. The state was afraid that the gene pool would end up changing to the worse, so no one could work under the sun anymore.

Sam had not told anyone that he had begun to take the vaccinations; people would only start to ask questions. His father probably would not mind, but he did not mind much about anything these days. Most of the elders were starting to die off, because they had lived most of their lives without the technology to deal with the UV; most of them had cancer of some sort. Sam's father was not an exception. He was actually worse off, than most of the others. He was one of the few that had original Arab blood in his veins. Many died in the civil wars of 2015 and 2016, when the Muslim state rose and destroyed the nations. After that everything changed. There was no nationality anymore, and definitely no religion. The countermovement to the Muslim state had gathered all the gulf countries into one state, where religion was frowned upon. But his father had lived in Azaiba when it belonged to Oman, and had only been away during the war. His skin was dark like the tribespeople, but the damage was done.

He had arranged with a nurse, that she could give him the shots behind the hospital. So before long he was on the way home. His car, like all the cars, hovered about 50 cm over the burning hot asphalt. Since the temperature of the roads rose over 50 degrees during most of the year, it was nearly impossible for anything to walk or drive on it. The cars ran on the power that the solar cells in the glass and metal of the car provided. They had discovered the method when the gulf ran dry of the oil that had given them the wealth to become the most technologically advanced state in the world. They then sold all that technology at wildly inflated prices; and regained the wealth that made the gulf rich before the war. It was one of the things that had given his father the status he enjoyed, that and his being an 'original' Arab. Sam got home just as his father was getting out of bed with the help of a nurse. He was afraid to tell him about Thara, he was not sure if he would approve. It was technically legal to be with whomever one wanted to, but those who mixed the races were often shunned. Sam helped his father out into the kitchen, and got some dinner ready for the both of them. All the food in the city came from the desert, and was distributed to the houses.

The dessert plantations and factories were established, when it was discovered how to irrigate the sandy plains. The heat was the same however, and only the tribespeople with their dark skin and the vaccinations, along with the inherited habits of generations in the dessert, could live in those conditions. That is why it was decided that they should stay there. They worked the plantations and factories, all covered and irrigated to provide food for the city. Most of them were descendants of the old migrant workers from the Asian continent, and seen as a lower kind of human. They spoke the old languages. The rest of the world had long since merged the languages into a new speak, common speak, and that had evolved out of English and Spanish. Thara was the only one from the tribes that could speak it, as far as Sam knew. That was one of the reasons she was so alluring, she combined the old world with the new. Sam liked his life, but he missed the culture that the history classes taught. The individuality of the nations that had been removed after the war.

Sam wondered how his father would react to him dating a girl from the tribes. On one hand he knew that he would like her, but on the other hand, he was a big supporter of the divided system. He decided to put it off for now. His father was going on about the new Minister of Technology. Apparently a horrible man, but extremely clever. It was often difficult to read him, he never showed much emotion when he talked, but Sam knew that he was skeptical of the state. In the 30 years before Sam was born, the country had evolved quickly, but now it had stagnated. The state was afraid of a new conflict, so they hesitated to let the technology evolve further. But the old man just

sighed, mumbled something about Sam not listening, and asked to be taken back to bed. Sam could see that he was weaker than usual, but he did not say anything, it would hurt his pride.

After dinner, he could not wait any longer. He ran out of the exit way, to reach the small garage attached to the house and drove off. He aimed for the ominous, red mountains away from the ocean. The air was cloudy with dust, and he knew it would be close to 65 degrees now. The drive to the dessert tribes was about an hour, so he had a while to think. He imagined getting Thara to go with him to the Scandinavian state. The gulf often heard rumors about the northern states, how the weather was better, and the state less controlling. Of course the UV radiation was still harsh, but could be handled with clothing and headwear. Just the thought of breathing fresh air was like a fantasy from an ancient world. It had changed so quickly after the war. When the nations began dropping atomic bombs, the environment finally cracked. They could fly off, take father with them, and head north.

Finally, the tribes began to appear in the sandy surroundings. Her tribe was one of the furthest out; surrounding one of the biggest plantations. Sam arrived at a simple brick house, with a flat roof of the solar cell material that covered every roof in the tribes. Thara came out and greeted him at the door, but Sam could immediately see on her face that something was wrong. She took his hand and walked out onto the burning hot sand, their feet protected by specially made shoes. When they were out of earshot of the house, she told him that her boss had found out that they were seeing each other. She said it in the calm, unemotional manner with which she carried herself. But Sam noticed a single tear starting to peak out of the corner of her eye. He did not say anything; this had been coming for a while. He just pulled her close to him, and prepared to be separated forever. Thara knew, as Sam did, that if her boss did not approve of relationships she could be fired, along with her family. And without a job, no one could survive in the dessert. They had embraced each other for a while, and then she had asked him to leave. He expected no less from his stoic, rational Thara. In a society where people came and went every month for work, he was, in a heartbreaking way, used to saying goodbye to the people he loved. It was a consequence of the new, global world.

Lying in bed later, he stared at the glass ceiling and imagined the world his father grew up in. Nothing had really changed. Not really. The classes were still separated, and love with someone out of one's social class was frowned upon. Money still spoke louder than anything, but now there was an equalizer. Everyone suffered under the climate. At 75, Sam's father was older than most. All the technology in the world could not redo what had been done. The earth had turned on the human race. In a way, it seemed silly for him to worry about Thara. When he was probably part of the last few generations to live on earth. But he loved her, and he wanted to spend his life with her. She was the meaning that he had been looking for. All the girls he had known before had seemed shallow, all his friends were superficial, and his father did not have long to live. She was all he had, and she was all he wanted. He then and there decided that he was going to leave the gulf, and that she was coming with him. The rest of the night he spent in sleepless musings about the life he was planning.

In the morning he went to school as usual, but prepared for it to be the last time he would see it. Later he went to the hospital, where he had arranged to buy a plentiful supply of UV-vaccinations, so they could make it outside if they had to. Of course, he had not been able to talk to Thara yet, but he was carried away. He was sure she would want to leave with him, and start a new life. All he needed to do was get her, and talk to his father. The latter was the most difficult. He was sure the old man would not want to come, but it would be hard to leave him behind. In the afternoon, he went home to face the music. His father sat on the side of the bed, looking out over his old property. When he was a boy it had been a beautiful garden, facing out onto the beach. Now the heat had removed all life from the garden, and the beaches were all covered in decades' worth of garbage and oil spills. The Omanis, who lived in this part of the gulf state before, had taken the nature for granted. Sam's father spent many hours of his illness staring out on the land, with tears in his eyes. It was the only time he showed emotions. Sam

approached him, and put a careful hand on his shoulder. He sat down on the bed next to his father. Slowly, he explained his plan. He told him about Thara, and about going north. His father was quiet for a while, but then he smiled and shook his head. He had been expecting this to happen for years, he had just hoped he was well enough to travel when it did. The gulf state was a good place to live, compared to so many of the areas, but during the war it had changed. There was no soul left in the nation. No culture. Everything that made the place special, had gone with the overthrow of the Muslim state, and later with the counterrevolution. His father explained that he had wanted Sam to make the decision himself, without any influence from him.

Sam left his father's side, and drove out to get Thara. When he reached the tribes he immediately noticed that something had changed. There were no people in the street, and no light in the houses. He drove through a ghost town. Then he saw it. Behind one of the old factory houses was a gathering of people. There must have been hundreds of tribespeople. He got out of the car and moved closer to hear what they were saying. He could not understand, but it was clear that the gathering was agitated. Suddenly he felt a hand in his, and heard a voice in his ear. Thara spoke softly, so none of the surroundings could hear. She explained that the tribes had gotten word of the fading effects of the vaccines, and they were preparing to riot. Sam knew what this would mean for him. If the tribespeople united in a riot against the city, he would not be able to get out of the country. At least not safely. He turned around and faced Thara, and told her about his plan. At first she was quiet. She looked out over the dunes. The place that had been her home forever. The place that had been home too several cultures, nations, families, transformed into an artificial world. And it would only get worse from now on out.

She took a deep breath, turned and faced him, and took his hand. Together they walked to the car. She said that they would have to hurry, and he knew she was right. If the riot got started before they were able to leave the country, they might get stuck here, or worse. They arrived at Sam's house, and planned their way out of the country. In the distance they were beginning to hear masses of people yelling. And out the window, they could see the city lighting up in the night. The riot had begun. The tribespeople had finally had enough of the inequality, and the states indifference towards them. As Sam packed, Thara went to the father's room to tell him about the riots, and their travel plans. Sam looked out over the place where he had never quite felt at home, and hoped with all his heart that they would make it out. Without knowing why, he thought about his mother. He wondered what she would say, if she saw the place she loved go up in flames. Thara came into the room, and walked over to him. She looked into his eyes, and immediately he knew. His father had lived on the land through three changes of regime, and while one could walk on the dunes, and swim in the sea. The proud old man had stood up and looked out over the downfall of his home. Thara said he almost looked peaceful, as if he had been waiting for this for many years. Then he had asked her to help him to the bed, laid down, and passed away quietly.

Sam took a deep breath, and almost felt happy for his father. He had lived to see his land slowly lose its soul, and now he left the world just in time to avoid seeing it fall apart completely. He took Thara's hand in his, and took one final look out the window. Two hours later, he was sitting in an airplane, with Thara by his side, on the way to a better life north of the equator. Beneath them, the dessert stretched out in an endless sea of dunes, while the people of the land fought back against the forces that destroyed the land they love.



## (URBAN FARMERS)

### A STORY OF MONTREAL BY CHLOÉ POTIER

*While I was enjoying my family's company and looking at the narrow streets, bursting with life, I thought about how much my vision of the world had changed over the past 5 years.*

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November 13th, 2062

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"Maria, you have to live your life and do what's best for you. We'll take care of ourselves just fine. Stop being a child and get on that plane!!"

Waiting for my plane to land in Montreal airport, I kept thinking about the speech my mother gave me before I took off from Lima. It had been the hardest moment of my life.

My family comes from a small coastal village in Peru. Until a month ago, we were part of this minority which still resisted the calling of big cities – at least, my parents and little brother were. I just graduated from Lima University after living there for 5 years... But anyway, all that was before the flood.

My parents knew that their simple farmer's life in San Paleso could not last much longer, but what struck our village was way worse than everything we could imagine. We had already faced droughts after the Andes glaciers had all melted down, bad crops because of the lack of water, the departure of our neighbours and friends who wanted a better life in the cities, food shortages, energy restrictions... Of course, we had heard about all these islands and coastal cities being hit by the waves and swallowed by the sea, but we did not think it would ever hit us! All these nightmare scenarios that scientists and climatologists had been waving around for decades had finally been brought into being for us. We had no choice but to go to the nearest big city, Lima, just like everybody else, leaving behind our flooded home, fields and memories. All the incredible moments I had spent there in my 25 years of existence, all the fights we had had to put up to survive in this remote area, all that had just been wiped out in a few minutes.

But that does not explain how I ended up in that plane, flying to Canada.

Of course, we did not have enough money to find a nice apartment in Lima's area. So we had to settle in the refugee camp the U.N. had set up to cope with the arrival of the tens of thousands victims of the recent climatologic catastrophes. I would not say that was a nice place.

On the night of our arrival, my mother and I were checking up the beds we had been attributed in a 50-bed dormitory. As I was complaining about the location of my bed, close to the door, my mom told me:

"Don't bother. You're not going to stay here anyway."

That is when I understood that she had all figured it out for me already. She said:

"Do you remember my Canadian friend, Anna Johnson? She lives in Montreal now, I just called her. I told her about our situation, she says that she would love to help you."

What are you talking about? Help me with what?

Maria, you just graduated from college. You can still have a bright future and a great career! But look around you!

I turned around and took a moment to observe what was around me. What I saw was not very joyful, I'll give her that. My two parents and my 9-year old brother were bearing the marks of the terrible events that had stricken us. Dark rings under their eyes bore witness of the lack of sleep and anxiety which were eating them up. Around us, men, women, children, babies, old people were yelling, crying, fighting, or simply staring the into space, waiting for their next daily ration of insipid food and trying not to think about all the things they had just lost. They all looked desperate, exhausted and hungry. The living conditions in this settlement were hard, I won't argue on that.

My mum said:

You see? There is nothing for you here! But I heard life is very nice in Montreal. Anyway, there is no point arguing. Your father and I saved some money, and the plane ticket is already paid for. You're leaving on Tuesday. Anna will welcome you at the airport."

Despite my vehement protest, my anger, my imploration and my tears, my parents remained inflexible. They wanted me to leave, and send them some money once I found a job. I was furious of having someone decide of my life for me, but the plane ticket was not refundable, and I knew that this decision was as hard for them as it was for me. After hours of negotiations, we finally reached an agreement: if I could not find a job in Montreal within three months, I would come back to my home country.

After heart-breaking goodbyes, I left my parents and 9 year-old brother behind and got on a plane to Montreal.

So here I was, Maria, 25 years old, born and raised in Peru, going to an unknown country with no idea what to expect. All I knew was that I needed to find a job quickly, so that I could send money to my family and try to ease the guilt I was feeling for running away from all the misery they were going through. At least I spoke English and I had a degree in biology... But the truth is I was secretly hoping not to find a job, so that I could come back home.

Just as planned, my mother's friend, Anna, was waiting for me in Montreal airport. She was accompanied by her husband, Tom, and her two children, Josh and Charlotte, respectively 7 and 5 years old. Anna and my mum had met 25 years ago, when they were both young and travelling across Chile. Their friendship had grown over time, and Anna's family had come visit us in Peru a few times before Josh and Charlotte were born. Since their births, we had videocalls three or four times a year, so I already knew the family a little.

After a warm welcome and a few questions about my family's situation, we got in the airtrain to go to her house. The Johnsons had agreed to accommodate me for as long as necessary, which was a true blessing. Without their offer, I would have had no choice but to ask for a bed in the refugee settlement in the suburbs, where the living conditions were known to be harsh, though probably not as much as where I came from.

These refugee settlements had been flourishing all over the world for the past years. Most major cities had now at least one camp to welcome the migrants who had to move because of the frequent hurricanes, floods, droughts, desertification... All around the world, an incredible amount of buildings had been built in the late 2050s to cope with the unprecedented rural exodus happening worldwide, but that was not enough anymore.

At this point, I was just filled with tons of contradictory emotions. First, I was exhausted. I was sad and depressed of being away from my family, which I missed already. I was scared of having to fit in this unfamiliar place. I was afraid of not being able to find a job, since I knew that Montreal was under a very high demographic pressure and

could not provide jobs for everyone. But I have to admit that I was also excited about all the opportunities I would have here. Montreal was famous for being one of the pioneer cities in term of adaptability and sustainability, and the quality of life seemed to be incredible here, compared to what I knew. As the airtrain was floating on its magnetic cushion across the city, I looked through the window. I was amazed by how beautiful and modern the city was. The landscape was very varied: in the area near the airport, I could see tons a high buildings, advertising company logos, and airtrain tracks standing out in the skyline. The buildings all had green rooftops, and were surrounded by small parks and gardens, scattered around the roads and streets. Like all the modern buildings, the facades were probably made of transparent solar panels, although it was impossible to be sure given the distance. The revcars – the driverless electric cars, also covered in transparent solar cells- were the same as those I had seen in Lima – although the traffic monitoring system seemed to be more efficient here, since I could not see any traffic jam.

When we got closer to downtown Montreal, big towers became sparser although still present, cars progressively disappeared, and I could see pedestrians and cyclists wandering around, joggers running along the canals of the Saint-Laurent, zigzagging between the high buildings and going through the parks, people having a drink on the cafés terraces... Here too, the rooftops were covered with vegetation.

We finally arrived at the Johnson's place. They lived in a suburban area, about thirty minutes north of downtown Montreal by airtrain. They explained that if they needed to travel for long distances, they could just book a revcar for a few days. But the transportation system was so efficient in Montreal that almost nobody owned their personal revcar, they said.

Their flat was a big apartment on the nineteenth floor of a 20-story building. They showed me my room, which I immediately loved. I had a small balcony where they seemed to be growing carrots, and from there I had an unobstructed view of the urban landscape of northern Montreal. It looked like the city was a green ocean, from which emerged high towers, just like the late icebergs emerged from the arctic sea 15 years ago. I took a picture with my phone and sent it to my parents, with a few words to tell them that I was safe and missed them.

The Johnsons really wanted me to feel home, and they laid on a first rate meal for diner. We had fresh onions, eggplants, tomatoes, potatoes, leaks, carrots. And even meat – synthetic meat, but still! I had not eaten meat in years!

Back in Peru, fresh vegetables had become a luxury, and we mostly ate cereals like corn or wheat. Not to mention meat, which was reserved for millionaires since the 2047 Climate Revolution. Synthetic meat was cheaper, but it was still reserved for big occasions.

Josh, quite proud, told me all that the onions were coming from their lot on the rooftop's garden. As Anna explained later, each household in Montreal was entitled to request a small garden to grow vegetables or fruits. The rest of the vegetables were coming from one of the 15 vertifarms in Montreal. Anna just so happened to work in one of those farms, and she tried to give me an overview of how they worked and how they managed to provide for 90% of Montreal's food needs.

Montreal was known worldwide for being one of the first cities to implement urban agriculture as one of the major food resources for its citizens. First, the process gained momentum through private individual and collective gardens, where people could grow their own food. Over time, and largely thanks to the support of the Canadian government and Montreal's municipality, all the brownfield sites in the city were depolluted and cultivated, and gardens flourished everywhere, from public or private parks to roundabouts, rooftops and balconies. But, although it was nice for the citizens and it significantly improved the quality of life by decreasing air pollution, reducing the

heat island effects, lowering the albedo of the city and making people more aware of the importance of healthy food, it was not productive enough to feed even one tenth of the city. Which is where the vertifarm came up. The vertifarms, also known as vertical farms, started to truly develop about ten years before the so called Climate Revolution in 2047.

As you know, the Climate Revolution happened after a series of deadly floods, sandstorms and hurricanes struck the five continents between 2042 and 2046. These unprecedented climatic cataclysms, which resulted in millions of victims, finally raised awareness worldwide, about the necessity to take drastic measures to slow down climate change - hoping it was not too late yet. After years of shy environmental measures and agreements which no government really respected, too busy fighting unemployment or terrorism within their borders, an unbelievable breach finally happened. In just a few months, all the coal, oil and gas exploitations were closed down, which of course involved energy restrictions which are still enforced today. Renewable energy was implemented everywhere. All the cars using fossil fuels were replaced by revcars, driverless cars functioning with electricity, mainly produced with high-performance solar energy systems. Smart networks were developed to optimize energy consumption in cities and buildings. Colossal investments were made to mitigate the effects of climate change and fight climatic catastrophes. Rainforests, or what was left of them, were replanted. Intensive breeding of cattle completely stopped, to either replant the grazing areas, or to replace them with cultivations of cereals and vegetables to feed people instead of animals...

All this was only made possible because of the incredible rush of solidarity between countries which surged after these dramatic events. A perfect illustration of this rush is the U.N. climatic fund, which was created in 2047. Thanks to this fund, the poorest countries, or those which were struck the hardest by climate change, could truly benefit from the financial help of the wealthiest countries. As we see it now, the Climate Revolution symbolizes everything which makes humanity so beautiful: generosity, brotherhood, responsibility, respect, hope...

But of course, it happened way too late, and the world kept becoming an ever more hostile place. Scientists say that it could take 100 years before the benefits of the Revolution become apparent.

But let's get back to vertifarms. After the Revolution, one thing had not changed: producing enough food for everyone on earth was a real challenge, especially given the exponential growth of global population. Since it was almost impossible to expand the land dedicated to agriculture, scientists and entrepreneurs gathered to make Dickson Despommiers' concept of vertical farm real. The technological improvements in the energy department made it possible to build these tall buildings dedicated to agriculture and to turn them into economically viable operations. In the vertifarms, tons of vegetables and fruits are produced every day, year round, using the most advanced technologies: aeroponic or hydroponic culture, addition of nutrients, light provided by low power consumption LEDs, precise monitoring of all the environmental parameters to increase productivity... Thanks to the vertifarms, the cost of transport had been extremely reduced, since the "food mile" is of 3km in average. The extremely carefully monitored environments inside the farms made it possible to give up pesticides and fungicides, and to replace them by insects like ladybugs. It is also a great improvement regarding water consumption, compared to traditional land based agriculture. When the vertifarms started to erect in Montreal's landscape, tens of new varieties of vegetables and fruits appeared on the market. Since transport was not an issue anymore, the cultivated species could indeed be selected according to their taste and not their ability to resist long distance transportation. Without the vertifarms, the citizens of Montreal would probably have food restrictions, Anna said. Not to mention the fact that vertifarms also protected them from bad crop years.

As she was telling me about the vertifarms, I could see the twinkle in her eyes. She truly loved her job.

I was astonished. I had heard of these vertifarms before, of course, but so far they were reserved for the wealthiest countries so I didn't know much about them. But a painful statement kept buzzing in my head: if we had vertifarms in Peru, people would not be starving in Lima nor in the countryside. My parents and brother would be able to eat fresh vegetables and fruits all year round, instead of the usual tasteless wheat and corn mush provided in the refugee camp. I asked:

"If these farms are so fabulous, why don't we build them all around the world?"

-Just like everything else, the main problem is money. It is very expensive to build, you need advanced monitoring equipment, a complicated plumbing system, you need to be able to provide enough energy to light the LEDs, you need the greenhouses to be airtight, well insulated... And of course, these are urban farms, so you have to pay a lot to buy the land in an urban area. Even with today's technology, it is very expensive and it takes several years to make profits. And there is a huge competition when it comes to urban lots. Tons of companies are willing to pay incredible prices to get their share."

-But why was it possible to build these vertifarms in Montreal, then? And why not in Peru? , I wondered.

-Well, urban agriculture has always been part of Montreal culture. For more than 200 years, people have managed to keep areas to cultivate their own food. The city of Montreal became aware of the benefits of urban agriculture way before the Climate Revolution. The first Lufa farm was built in Montreal in the 2010s, and though it was just an experiment and it was not efficient enough to make real profits, it started a trend. Ever since, Montreal has tried to be friendly and supportive to those who wanted to do new experiments about intensive urban agriculture. And, one thing leading to the other, new farms appeared, more modern, more productive, more sustainable... On the other hand, Peru is still new to intensive urban agriculture, and with the droughts and the floods that your country is facing at the moment, it is hard to find money to invest in this kind of projects."

My first night at the Johnsons' place was quite agitated. I kept thinking about these vertifarms. I could picture my parents and brother, eating their daily ration of cereals in their refugee settlement, knowing that it would fill their stomachs for about 2 hours and that they would then have to wait 22 more hours before eating their new daily ration. I could remember how my parents struggled to harvest as much crops as possible after droughts or storms, and how the government did not even allow us to take part of our culture for our own consumption, because of the food restrictions. I could not help but think that it was another example of how the previous generations had completely mismanaged the resources, focusing on the short term profit and deliberately ignoring the consequences that their decisions would have in the future. I mean, scientists, climatologists, politicians, businessmen, they all knew what was coming. It is possible to find very accurate estimations of climate change consequences dated from 2015, as I studied at school. By that time, people already knew that even in the best case scenario, global temperature would increase, sea level would rise, violent climatic episodes would become more and more frequent, clean water resources would become a hot button issue, demographic growth would make it extremely challenging to provide food for everyone... And yet, when it would have been possible to anticipate and find solutions, for example preventing food shortages by funding vertical farms, nothing has been planned, and now, in some areas, people do not have enough food to survive.

The next morning, Josh and Charlotte insisted on taking me to the rooftop garden, saying that they wanted to show me something. Quite curious, I followed them, promising their parents that I would look after them. Once we arrived at the top of the building, Josh pointed at the left hand corner:

"Look Maria, here is our lot! And dad said that today, we could pick up the strawberries!"

Charlotte and he looked so excited that they kept jumping, bouncing and giggling, and I could not help but laugh with them.

As we were picking up the strawberries, I heard the voice of an old man behind my back:

“Hi Charlotte, hi Josh! Oh and you must be Maria! Tom told me about you. I’m Bernard, I live on the 8th floor. Nice to meet you!”.

I immediately loved Bernard, he was really nice, and quite funny.

While he was telling me how well he knew my home country, considering the fact that he had spent 3 weeks in Argentina 50 years ago, people kept showing up on the rooftop to water their gardens and pick up their vegetables. They were all really friendly. Jacqueline, 76, from the 2nd floor, Pablo and Rachel, 26, from the 15th floor, Jake and Alex, 34, from the 10th floor... They all joined our conversation, which became more of a joyful cacophony, and pretty soon I felt like I had made 10 or 15 new friends. All that thanks to a few strawberries!

During the conversation, I explained to Pete, who was probably my age, that I was looking for a job as soon as possible.

As unlikely as it sounds, he told me that he was working in the same vertifarm as Anna, and that one of his colleagues had just resigned. It turns out that I had the perfect background for the position. The job was to monitor all the parameters in the greenhouses – moisture, temperature, nutrients concentration, and water, insects...- to optimize the production. I was suddenly very excited – and scared to get the job, since it meant I would have to stay in Canada. But for some reason, my recent discovery of the existence of vertifarms had had a profound impact on me. The fact that buildings could be entirely dedicated to growing vegetables and fruits fascinated me, who had always known traditional land based agriculture in my parents’ farm. And I felt like this kind of projects could really make a difference, help people and reduce food shortages.

We exchanged phone numbers and Pete promised to call me to set up a job interview.

When we went back to the apartment, it was around 9 a.m. As it just so happened, it was the 15th anniversary of the Climate Revolution, and Anna offered to give me a tour of the vertifarm, since all the infrastructures and facilities working towards sustainability were opened to public today. I accepted with great enthusiasm.

After half an hour of airtrain, we arrived in front of the entrance of a 30-story building. Josh and Charlotte were there too, they had visited the farm last year and had loved it because they were given free blueberries at the end of the tour.

The motto of the company was displayed on a huge sign on the building façade: “DUFA Farm®. Urban food, that’s so good”. I remember hoping that the quality of that motto would not reflect the quality of the company, in which I was placing great hopes.

We entered the building, and took the giant elevator. I will not describe the whole visit, it would be too long, but let’s just say it blew my mind. Salads, carrots, tomatoes, bananas, mangos, leaks, potatoes, onions, artichokes, cabbages, radishes, pineapples, pears, peaches... I think I saw more different kinds of fruits and vegetables than I had seen in my whole life. I even discovered new varieties of tomatoes, and tasted delicious fruits I had never heard of before.

I definitely wanted to work there! The greenhouses were at the cutting edge of technology, meticulously monitored, and the food which was grown there was absolutely fabulous.

Once the visit was over, Anna asked me if I could go back home with the kids, since she had to stay at the farm and give tours to the many curious visitors. I took the airtrain back home with Josh and Charlotte, who cheerfully shared their blueberries with me. Suddenly, my phone rang. It was Pete.

“Hi, Maria, how are you? I talked to my boss, he would love to meet you to talk about that job, if you’re still interested. Today is a quite busy day, but how about a meeting tomorrow?”

YES. Of course, I was still interested in the job! We agreed on a meeting at 9 the following day. I was starting to think that I could actually enjoy saying in Montreal for a while.

When we got back home, I ran to my room and tried to call my parents. I was not sure if they had any signal in the camp, but my mum picked up her phone pretty quick.

I had only left them for a few days, but I missed them so much!

As I told them about my new life here, my potential new job, the awesome vertifarm I had visited, the friendly neighbours I had met in the rooftop garden, they told me that they had good news too. The two of them had found a job in a farm nearby. It was tough work, but the salary was not too bad. My brother was attending the classes given in the camp by NGOs, so my parents did not need to bring him to work with them. My mum also told me that the food rations had been increased since the UN had sent food aid in the country. However, new refugees were still arriving at the camp every day, although it was already overcrowded. She said that they wanted to move back to the coast as soon as they had enough money.

When I went to bed that night, I was both relieved and anxious about my parents’ situation. But, except getting that job in the vertifarm and sending them money, there was not much I could do to help them. Once again, I did not get much sleep that night. But when my alarm went off the next morning, I was ready for the job interview.

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5 years later

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I cleared my throat. About 70 people were standing in Anna and Tom’s living room, waiting for my farewell speech.

“Thank you very much for coming, I’m really moved to see that many people. I’m not great at speeches, but first, I would like to thank the Johnsons. They welcomed me when I arrived, completely lost, 5 years ago, they gave me a roof for two months, they let me become part of their family over time.

One the one hand, I am very excited to go back to my home country. But, be sure of this, I am also sad and deeply moved at the thought of going away from all of you...”

My speech went on for 15 minutes. I had so many people to thank, so much to say about how I had grown fond of Montreal, so many contradictory feelings to share...

After working for Dufa Farms® for five years, I had climbed the ladder unexpectedly fast. Within 2 years, I had become team manager, and was responsible for 50 people and 5 entire floors of production. Leeks, cabbages and tomatoes cultivation had no more secrets for me. And seeing people buying our products in the supermarket made me proud every day.

A month ago, I was offered this incredible opportunity. The company was expanding worldwide, and they needed experienced people to go work in a brand new vertifarm in ... Lima. You may think that I would jump on the chance, but I actually really struggled with this decision. I had started a life, here. I loved Montreal, its parks, its people, its buildings, its culture. I did not want to leave all that behind, and I was not sure I would still be able to readapt to the lower living standards in my home country.

But on the other hand, I only visited my family once a year, and I really missed them. They were now living in a small village in the mountains, high enough to be protected from floods. My parents had just finished building a new farm, thanks to the money I sent them, and my brother was in high school.

My parents welcomed me at Lima airport, and then we went for a drink in a small café downtown. While I was enjoying my family's company and looking at the narrow streets, bursting with life, I thought about how much my vision of the world had changed over the past 5 years. I had arrived in Canada depressed, with little expectations and no wish to stay there. I was now coming back to Peru, maybe for a few years, maybe forever. But Montreal had become my second home. I had made so many good friends, especially thanks to the rooftop garden in the Johnsons' building. Some of them had already decided to come and visit me soon. I had found a job which I was passionate about, and which I felt was useful to people. This job in Lima's vertifarm would finally allow me to play my part, fight food shortages in Peru, work towards food security, and free people from the worrying thought, every day that they may not be able to feed their children today.

My parents had farmed land all their lives. I liked the thought that I was going to somehow take over and ensure the continuity of their work. A new era was coming, or at least I hoped so. An era in which food shortages were only bad memories, and where traditional land-based agriculture worked together with urban agriculture in vertical farms and community gardens, bringing people together and filling everyone's stomach with healthy and tasty food.



# HOW THE WHOLE WORLD KNEW THAT MELISSA MÜLLER WAS SINGLE AGAIN

## A STORY OF BERLIN BY ANNA ELSE BURISCH

*Melissa tried to clean up all the used tissues from crying over the break-up with Thomas, but before she was done the doorbell rang.*

*Berlin anno 2050*

*Berlin has become one of the smartest cities in the entire world. The government is selling the collected and analyzed data of the citizens to private companies in order to pay for the efficient technology implemented in housing and infrastructure. This is a story about how one phone call and a breakup changes the day of a Berliner...*

“Melissa, he just wasn't that good for you.” said Barbara on the phone.

Barbara was in fact one of Melissa's best friends. They had been talking on the phone almost every second day since they met in university. They lived only some five minutes by magnetic train from each other, but they had not seen each other since their graduation party six years ago. Melissa always called if she was about to make tough decisions, and Barbara had good advice for everything. This also was manifested in the two friends' new Smart-watch. If something would happen to one of them, emotionally or physically, the other one would get a notification on their Smart-watch. By measuring body temperature and listening to conversations, the watch was able to predict emotional downers. This gave both girls safety and was a way to comfort each other. Due to the Smart-watch alert Melissa talked to Barbara on the phone right now.

“Yes, maybe he wasn't good for me. I guess he was more interested in my high-tech apartment than in me, but that doesn't prevent me from liking him. Oh, but listen Barbara, I just checked the Date- App, and it already suggested new men in my area! - But I don't want a new guy, I want him. I cared about him”, answered Melissa remembering how she met Thomas last year at the Big New Year Update in Kreuzberg.

Every year the technological systems in Berlin get updated with new and better features beneficial for every citizen. This is the only time of the year when the whole city comes to a virtual standstill. Everything is dark. No one is able to travel, work or use the smart technology. Those 30 minutes without electrical equipment often are spent among friends and family in underground buildings. It is the only time of the year where humans interact as they did at the beginning of the century. Somehow those minutes are important for Berliners, as they remind people of how it was long ago, when Christina Aguilera was in her early twenties. Citizens tend to get very emotional during that day, since technology isn't active to tell them what to do to get cheered up.

But normally the melancholy is fast forgotten, since the Update often contains new and advanced features for the citizens. The thirty minutes of total darkness is followed by a big virtual party where everyone has their technological device in the hand and a big need and urge of finding all the cool new features. The party marks the return to stable conditions, where technology is the most important feature.

Last year Melissa celebrated New Year's Update in an underground room near Mehringdamm and this was where she noticed Thomas and he noticed her. A tall and dark haired man was standing in the corner with his blue and shiny smart phone in his left hand. He was about to talk to someone else face-to-face for the first time in a year, when he noticed a red haired girl, wearing a purple dress and pink shoes, entering the room. But before talking to

the mysterious stranger, he wanted to check his Dating-App in order to see if there was a chance of them starting a promising conversation. The App would analyse living conditions, educational background and interests and tell Thomas if there was a basis for a conversation. Otherwise talking would just be waste of time. Nowadays there was no point in wasting time; efficiency was the key to success. And there is no point in talking to someone that won't be beneficial for you.

While he was opening the App he remembered that, of course, it was New Year's Update and therefore no internet connection was available. This made him uncertain. You simply don't talk to anybody you have not checked by an App. All the same he was about to go over to her and say something when he was interrupted by the fireworks. The Update had been completed and as usual this was followed by two minutes of electrical fireworks on the ceiling and walls. Now it was time to check out the new features on the smart devices. Now it was time to go back to normal virtuality.

“Oh Yeah, the magnetic train is running even faster! And now it is possible to rent a robotic babysitter,” yelled a man with a brown suit in the corner of the room. No one seemed to react, since everybody was looking and interacting with other people through their smart phone.

Thomas was of course also interested in all the new features, but most important he could check his Dating-App about having a conversation with the fascinating red haired woman with the pink shoes. The app told him that there was 90% chance of them having a meaningful conversation going on for more than five minutes. This was in fact longer than at any time during his previous relationship. As he had gathered the courage to go over to her, he noticed how sweet she was staring at her smart phone. This was his chance, so he walked over to her.

“Hello stranger, my name is Thomas. I would like to talk to you. According to my App you live in a high-tech apartment and you had a dog called Günther when you were a child. Do you want to go out for a drink on Monday? I checked that you are free after four pm. when this meeting of yours is over”, said Thomas.

Melissa looked at the tall and dark haired man and was already crazy about him. He wanted to go out with her? This was fantastic. She did not even need to consult her App.

The conversation went well, and they turned out to be a good match. It was logical that they moved in together after four months. Everything seemed good until the sensors in the apartment felt that something was wrong. Studies had shown that sensors were able to predict the trouble in a relationship by measuring CO2-levels and analyzing conversations. Thomas choose to break up with Melissa last Tuesday night. He had found a new girl.

Melissa said bye to Barbara. She turned to the other side in her bed, and looked at her Smart-watch. It was 10:00 am and she had another two hours before she had to go to work. Every citizen of Berlin had been screened and tested in order to make sure, that they were efficient at work. Melissa was an average human without any special skills. Thus, she got to work in the time-slot between 12 am. and 6 pm. During this period of time the society would benefit the most of her work as a graphic designer. And only a certain number of people could work and interact with each other during the day. By this, roads never were congested and the transport system was running smoothly.

After the telephone conversation Melissa's stereo automatically played music. By analyzing the content of the conversation with Barbara it turned on a playlist of only happy-go-lucky songs performed by Melissa's favourite acts. First song was "You are Beautiful" performed by Christina Aguilera. Since the last Update the stereo was able to make new music customised for the listener. By mixing up her latest song choices, new lyrics would be created and music composed. All would happen in only a couple of seconds.

Even though it had been only a week since Thomas left her and moved out of their apartment the systems integrated in the housing already started readjusting everything. Already before the breakup actually happened Melissa's file in the housing company system had been marked red and backup plans were about to be prepared. When Melissa and Thomas officially broke up, Melissa's file changed from "being in relationship" to "single". The integrated control system was able to adjust the walls in the apartment after the breakup, but due to experience people tend to be angry if it happens right away. The system was programmed to adjust after 3 days of good night sleep which was registered through Melissa's Smart-watch.

The only time when the workers at WeWatchU had contact with their boss was when they were started in the morning. The boss would push the big red button in the control room and it would only take 10 seconds to wake everyone up, a company record that was improved during the last couple of years.

Among the workers was a robot called Bo as he had been created in Struer in Denmark. The most efficient technology was implemented in Bo and his colleagues and working with them was pure joy. Every day they solved important tasks for the company which included managing a crucial method to investigate, in fact: to massage the personal lives of Berliners.

After stretching all the cables Bo at WeWatchU rolled down the ramp from the 30th floor to the control system on ground level, where the system was ready with their daily update containing the assignments for the day. Automatically Bo left the building in Wedding to start his work of the day. Bo was one of the best employees the company has had for centuries, he was dedicated and dutiful. According to his schedule, his first task was to deliver a bag to a customer in person.

Due to the tight schedule Bo didn't have time to roll all the way from the WeWatchU Headquarter in Seestraße to Charlottenburg where the employees at AllYouNeedisSnacks were waiting for him. He rolled to the nearest traffic hub by using the colourful pavement to lead his way. Berlin was covered by new pavement with colours according to the citizen's health level. No one ever got lost, since color and light would lead the way. Bo reached the Metro stop and went by escalator down to the platform. No one noticed him, since everyone was occupied by looking either into their own screens or the ones mounted in the walls, floors and doors of the electrical metro. Commercials were everywhere in Berlin. Data collected by the government about every single citizen was sold to companies and now they could be used to give everyone personalized commercials. Everyone seemed very satisfied while going by Metro. Bo could therefore roll into the metro wagon and enjoy the commercials music from every screen.

Melissa was still in bed when the walls started moving. She had had seen this once before, when her parents got divorced and her father moved out of their apartment. But this time it was different. She suddenly realised that this was the end of her relationship with Thomas. He would never come back.

She finally got up and watched how the bedroom and the living room became smaller and smaller. The walls moved slowly and when they were set she was wondering. "What will I do all the furniture now?" On her Smart-watch there was immediately a notification of a company that would collect her excess furniture. A new single-person bed was offered and a smaller couch for less than 100 Euros. They could be delivered at her place in only five minutes. All she had to do was to accept the offer.

Shortly afterwards her Smart-watch buzzed again; another company would pick up her furniture for 75 Euros and she would even get a 3D figure of herself as a present if she accepted the offer. The offers kept showing on her watch, but the operating system had already chosen the right company for Melissa. Based on her previous choices and her preferences the system generated different offers, but all the offers came from the same company. All

Melissa's data had been sold to WeWatchU, one of the biggest companies operating in Berlin. By this, the company controlled and provided her Smart-watch with ads and offers. She was in fact being controlled by the company.

Melissa wasn't aware of all this, she just choose the cheapest deal from her point of view. By this, the robots from WeCollectYoureFurniture (of course a subsidiary of WeWatchU), would be in her apartment in less than five minutes. Letting the robots into the apartment would also mean generating new pictures of her home to her personal file. By having photos stored in her file, the company knew exactly what the apartment looked like and details about the interior design.

Melissa tried to clean up all the used tissues from crying over the break-up with Thomas, but before she was done the doorbell rang. Her new furniture had arrived.

After paying the shipment by using her finger print, (the bank would deal with the transfer of the money), the robots began replacing the furniture. The new bed and couch matched the color of the wall, based on information from when Melissa moved into the apartment.

Melissa felt an urge to turn on the television to keep her mind off the break-up and the ongoing relocation of her furniture.

*“Do you feel lonely now? You should try the new app, where you meet and interact with other lonely people in Berlin. You will have an opportunity to send each other gifts and napkins...”*

She switched to another channel.

*“Are you unsatisfied with how you look? Do you want bigger lips? Shorter fingers? This new clinic placed in Lübeck offers everything. There is no waiting list. They will be waiting for you, Melissa, if you decide to change your body. Remember Melissa only 190 km away from your apartment, with the magnetic train this will take you less than 1 hour...”*

Melissa switched again.

*“Melissa! Hey look at our offer in the Supermarket. You get a 15% discount on chocolate and a very special offer on ice cream. One big box of triple chocolate with a big spoon will be delivered to you if you want to. You only need to....”*

Switched again.

*“Do you want to do exercise in order to get in good shape? This will improve your mood and it will make you more attractive to men and women. There is scientific proof of this. This great offer is only for you, a 20% discount on a membership in Fitness World. We miss you, and we want to see you again! Melissa, you deserve to look great. We really want you...”*

Melissa turned off the television.

The robots were almost done moving the double bed out of the apartment and then they only needed to carry in the new bed. Meanwhile Melissa could check out her new neighbour on her Smart- watch. In order to provide housing for everyone, there was a control of apartments in order to make sure that there was room for everyone in Berlin. Moving walls was an improvement compared to the last centuries and a smart way to create flexible apartments as married couples separated or divorced, or when two people wanted to move in together.

On her watch Melissa saw the presentation video of her new neighbour, Wolfgang Meyer, a young student from the western part of Germany. He was walking down the street with black curly hair and tiny glasses. According to the GetToKnowYourNeighbour app, there was a 28% chance of meeting him in real life. There was also a 40% chance of talking to him and having a conversation for longer than five minutes. Melissa closed the app again. Wolfgang Meyer wasn't for her.

She thought about Thomas again. How perfect everything had been when he was living in the apartment. How romantic it was when they both were sitting in the couch with their smart phones and the television going. His sweet messages and cute videos he sent while sitting next to her. How sad that all of this was over now.

*“Nächste Station: Mehringdamm”* announced the sweet female voice in the metro. This was the metro stop where Bo had to leave the wagon. He rolled out on the grey platform and went by elevator to street level. It was quiet in the street even though a very great number of Pod cars were driving fast all around him. People were driving their electrical skateboards and scooters with their eyes focused on a screen in front of them.

No one took notice of Bo. In approximately 5 minutes and 4 seconds he would arrive at his destination.

Rolling down Mehringdamm Bo was following the green line to the building where he had to collect the products for his first assignment. He was greeted by one of the other robots at AllYouNeedisSnacks who helped him load his goods into his trailer. A pink bag full of helpful things for a customer that was about to have an emotional downer. Bo was on his way out of the huge building that he realised that he was running late. Melissa already had hung up with Barbara. From now on he had to hurry in order to accomplish his task.

Opening the door and watching the robot at her front door Melissa realised what was happening. In a pink bag (her favourite color) there was a chocolate bar (Marabou, her favourite), a playlist with only Christina Aguilera songs (her favourite artist) and a pink pyjamas (in her size). Without Melissa having expressed a wish to receive these goods, Bo had delivered all she needed to brighten up her life. She took the pink and slightly heavy bag from Bo's trailer and closed the door. She accepted the invasion of her private life, she indeed didn't need any privacy anymore and she was happy that the whole world knew: she was single and free again.

# THE GREEN REVOLUTION

## A STORY OF BOULDER BY VILDE RYE-HOLMBOE

*"I'm sorry sweetie, but that's not for you to decide. We need to think about the world in a bigger picture."*

I was soaked in sweat as I climbed up the last bit of the hill. I turned around and looked down at the city beneath me. It was early even though the sun was already standing high up on the sky, and the city was still dozing off beneath me. All I could see as I looked down on the city were the sparkling rooftops, all covered with solar panels. On the other side there were rows and rows of wind turbines, and behind that more mountains. It was a glorious sight, but I could feel my mind drifting away. I turned my attention back to the passage I'd been working on last night. I scrolled down with my eyes, and had another look on it. Still nothing.

Back home I had a quick shower, the cold water replaced the burning sensation with numbness, which felt good. I should have worn sun protection, but I'd just have to put on some healing cream this time instead. It was only the beginning of June, but nowadays the temperature could easily get up to 35°C. The summers were always long, hot and dry, and as the years passed it only got worse. I put on the first clothes I could find, shorts and t-shirt, and put my hair in a bun. I went to the kitchen to have some breakfast; I had a look through my options. "Egg and bacon" (made out who-knows-what), bread and jam, cereal and soya-milk or fruit and soya-yoghurt. Sometimes I still missed eating meat and dairy products, but after the green shift it was illegal to produce animal products for food. Livestock used to contribute to more than 50% of our greenhouse gas emission, and was one of the first things the green party abolished. Besides, we needed all the land for growing our own food now. I grabbed the soya-milk and a box of cereal, made a soya latte from the coffee machine and sat down at the kitchen table. I had a look on the latest news. The intense heat and sand storms in the Middle East had led to even more people on the run. In a few years, that part of the world would be uninhabitable. Scrolling down, you could read about the environmental crisis in all parts of the world and the wars between countries fighting for the shrinking resources. In the US it was fairly safe, but it was only because the government threatened to blow up any country that tried to attack us. It might seem cruel, with all the resources we still had. Working for the university I knew the government planned to share our technologies with the rest of the world, once they were developed.

I took a bus to the university area, the summer holiday had just started and there were barely anyone there. I sat down at my computer, it was uncommon nowadays to have one, but I liked the feeling of running my hands over the keyboard. I opened up the code I was working on for my PhD. I worked on behalf of the government. Everyone at the universities did. We worked on lots of things, ways to grow food in very dry environments, ways to recover lost species, how to clean the polluted air and so on. The green party got to power in 2050. I barely remember anything before the green shift. Even my mother is a distance memory. She was one of the last to die of cancer, a year after doctors found a way to treat it. I've never felt bitter about it, but I miss her a lot. When I was younger I really wished there was a way to get her back, or to travel back in time to see her. In truth, it had been what had started my interest in science in the first place. As I got older I realized science couldn't get my mom back, but I strongly believe we can make the world a better place with science.

My PhD is quite simple to explain in short, but not that easy to explain in details. By processing all data available about a person I'm trying to map out a person. The higher the level of data is, the more detailed mapping I'm able to get. After analyzing a person's data I hope to be able to know as much about a person as possible, regarding abilities, personality and lifestyle. For the people that I'm using in the project, I've conducted interviews as well as collecting the data that I need. I collect all the data that I legally can get access to: health records, old test results, information about family connection, education etc. The smart grid collects data on a day-to-day basis, but it's

also kept record of to make a more accurate life style profile. It's amazing how much you can tell about a person through just looking at this data. You have no idea of what they talk about, what they read or what they think, but it still gives you a pretty good idea about who they are. The smart grid is almost the same as it was when it was built, even though it was built long before the green revolution. It's only 15 years since the revolution, and most of the infrastructure hasn't changed since then. They (the government) have done some adjustments to the smart grid, which makes it possible to know which electrical devices are being used, which make the data more useful for me.

A lot of things have changed since the revolution, towards a more sustainable future. The old government really tried their best, but change went slowly. A lot of people thought the government didn't do enough. The number for environment refugees increased, and more and more people arrived in the US. At the same time the climate was changing causing food production to fail year after year. A lot of people came from the south, and land where people used to live is now taken over by large deserts. People were getting angry and frustrated. They'd had enough and wanted change. The green party's timing was in that way impeccable.

Suddenly my thoughts were interrupted as Rob, my PhD advisor, coughed loudly. I realized he was standing right next to me. Strictly speaking it wasn't Rob in person, but a hologram of Rob, but the holograms looked almost real nowadays. "Oh.. Hi Rob" I stuttered in surprise. "Thought I'd check on how you're doing on your project" Rob said and smiled grimly. "I think I'll be done soon, I've discovered some irregularities in my results, but I'm sure it won't take that much time to fix it" I said, trying to sound as confident as I could. "Good" he said, but sounded far from content with my answer. "I hope you'll have it done by the end of the month as planned. I have spoken of this to some really important people in the government, and they are looking forward to see what you come up with." Without saying goodbye Rob's hologram disappeared.

I was left feeling a bit shaky. Rob only turned up for our scheduled meetings every Monday and Friday morning, but today I'd completely forgotten about it. I usually never contacted him in between. I did pretty well on my own, and our meetings mostly consisted of me reporting how I was progressing. I also found him kind of intimidating, which didn't increase my eagerness to make our meeting more frequent. This was the first time he'd told me that my work was of interest for people high up in the system. I didn't know if I should feel happy or scared. You didn't see much of the people in the government, and I wondered what they'd use my research for.

The government already collects a lot of data on people's everyday life. Of main interest is the data that concerns our environmental impact on the earth. Through the smart grid system they measure everyone's power consumption. If you go above you're allowed power consumption you'll be fined. All the trash is weighted, and there's also a limit on how much you can throw away. Families with kids are the only exception when it comes to the prohibition on buying dairy products. Some families have tried to sell products on the black market, which is strictly forbidden. If you start buying more than you necessarily need, you'll get a visit from the police. They have, as far as I know, remained within already existing laws of privacy. They came to power through a revolution, so strictly speaking they could have made new laws. The framework of our society has remained the same, and maybe that's made people feel like the revolution wasn't such a drastic change anyway. If they go across the line, in order to collect more information I'm not sure what the consequences will be. Why would they want to do it, anyway?

I worked until 5 pm; I managed to fix some of the issues. The rest would have to wait until Monday. I took the bus to the city center. There were not many people in the streets, but as I got closer to the railway station I could hear many happy and anticipating voices. At the station grown-ups were standing next to their big piles of

luggage, while their kids were running around. No one had cars anymore, and airplanes were of course out of the question. If you wanted to go somewhere, you had to go by train.

I found my train, and after fighting my way through the crowd, I found my seat. Not long after the train started moving. I watched as we passed the city, soon the houses and the streets were replaced with fields and small country houses every now and then. After an hour I reached my destination. I decided to walk the 3 miles to the farm. It was a dense summer evening; I wish I'd remember to bring a bottle of water. Eventually, I got to the old familiar gate that led to the farm. I walked on for a few more minutes. I had cornfields on both sides until I arrived at the old white house where my dad lives. Next to the house there's a big red stable where my dad keeps the crops until he sells it.

I walked in without knocking. From the living room I could hear my twin brother Caleb and my little sister Tara argue friendly in front of my dad's old--fashioned flat screen television. I went through the hallway to the kitchen where my dad was making a delicious chilly sin carne. "Hi Sally!" he greeted me as I entered. "Hi dad" I gave him a good and long hug. I'd been so busy with my PhD the last couple of months, so I hadn't been able to visit my family for a long time. He looked older. Tired. It was very dry outside, and the last 20 years we'd had a lot of sand storms. If you lived on the countryside you were particularly exposed and breathed in a lot of sand. In the long run it broke down your lungs. I knew my dad often had trouble to breath. It looked like it was getting worse. Medicine had still not found a way to "cultivate" new lungs, even though they were trying hard as the problem grew amongst the population.

At the dinner table our family was making light conversation. Caleb's girlfriend Emma was also there. She works as a nurse and I could see that she every now and then sent worried looks at my dad. My brother Caleb helps my dad out on the farm; I'd always been the brain of the two of us. Tara is only 16 and still in high school, and makeup and boys are her two favorite hobbies right now.

"So... How are you getting along on your project?" Dad asked. "Fine, just fine dad" I replied. "What will you do after you're done with your PhD?" "I don't really know yet," I said. "Right now I'm really just focusing on finishing the project, and maybe they'll want me to work more on it" I said. "Who wants you to keep working on it?" my dad asked. "I talked to my counselor today and he said that the government is interested in what I'm working on." "In what way?" My dad said and looked me straight in the eyes. I felt like I was 14 years old again, and caught hacking into the school system. My brother made me do it, so that he could get his hands on the solution proposal to an upcoming test. "I don't know exactly. He didn't say." My dad was one of the few outspoken opponents of our government. He'd refused to buy any new electric devices after the revolution, claiming that you never know what the government might put into them. He'd also been one of the last to get connected to the smart grid, but eventually they'd threaten with prison, and he'd let them do it.

"From what I understand about your project, in the hands of the government they can use it to get more information about people and increase their control on us." "You don't know that" I said stubbornly "From what I've seen the green party has only tried to make life better for us since they came to power. I'd say they have succeeded in it too. We have enough food now and people's quality of live is improving." "But to what cost Sally? What have we lost on the way? Since they got to power we haven't had a single election. Do you know who runs our country? People are not allowed to travel in or out of the country; some people haven't seen their families for years. Who knows how far they will go?" "They've had to make some difficult decisions, but we have to look on the world as a whole." I said, "When it comes to environmental issues and the nation's safety we have to do all that we can..." My dad was no longer listening at me and continued, "I warned you at the beginning of this project. You know how the government loves information. In the beginning they might have had interest in it for the sake of



'Mother Nature', but they have gone too far now. I can't say how I know, but something tells me that they want to control everything we do. Absolutely everything!" he said. "I think you're wrong. Why do you have to be such a stubborn old man?!" He was about to answer me but started coughing, and I realized he could barely breathe. Emma gave him some water, and eventually it stopped. Then she took him by the arm and helped him upstairs to bed. We three siblings stayed behind. I was glowing with rage and guilt, and I didn't want to look my sibling in the eyes. Emma soon returned. We spent the rest of the evening in front of the television; everyone sat in silence, lost in our own thoughts.

Saturday mornings are like any other day when you're a farmer. I ate breakfast alone in the kitchen, after a while Tara joined me. We sat there for a long time not saying anything. "You now daddy isn't angry at you. The government will find a way to do whatever they want eventually anyway. He just wished you'd use your talents otherwise. You know how he is with the government" Tara said, and looked at me much too serious for a 16-year-old. "I know Ta, I just wished he'd be proud of me. That's all. "I went out on the cornfields. A strong wind was blowing, which would have felt nice if it wasn't for all the sand I got in my eyes. I found Caleb and dad working in the shade of a shelter in the middle of the field. Dad never held a grudge, and smiled as I approached them. They were doing repairs on a sort of water device that my dad had built many years ago. Before my parents bought the farm, my dad had been an engineer; he'd always been good at fixing stuff and could solve any kind of technical problem. "The local authorities have been on me again, saying I use more than my share of power supply. And let me not start on the water supply. How do they expect me to be able to grow anything with all these regulations and restrictions? I'd lose at least half of my crops if I'd listened to their bullshit." My dad snorted. "It's true, we struggle so much as it is" Caleb said. "They say this summer will be even warmer than usual, I don't know how we'll manage." I didn't know what to say, but I stayed with them for a while. It calmed me to watch their skilled hands work on the machine.

Sunday morning I said goodbye to my family and took the train back into the city. I decided to go to the university and try to get some work done. In reality I just wanted to get my thoughts away from what my dad had said. Working for the government I always felt like I had to defend what they did. In reality I wasn't sure what to think. Rob and the government scared me a little bit. I did my project because I hoped that it could come to use to people that could need directions in life, as a tool. Maybe I'd been blinded by my own ideas. If the government wanted to, they could get access to far more detailed information than I was able to. My program only needed a few changes, and then they could know everything about a person. It would almost be like being able to read people's mind. The thought made me shudder. A part of me couldn't, or maybe didn't want to believe them capable of something like that. My dad wasn't necessarily right, but what if he was?

Monday morning I felt nervous while I waited for Rob to arrive. This time he didn't take me by surprise. I was staring at the empty spot as he slowly came into sight. "Good morning" he said, in an almost friendly tone. "Did you get further after we talked on Friday?" "Yes, but I've been thinking some after we spoke. I know that my research can help people.. But I'm starting to doubt if this is going a little bit too far into people's life?" I tried not to meet eye contact with him but I could see the surprise in his eyes. "Too far? I'm not sure if I understand what you mean, Sally." "If you know everything about a person, he or she could easily be manipulated. What about privacy?" I asked. "When the party took over, they had a vision. To save the world." Rob started. "There are three ways of changing the people. The first option is to give them information. People have known about climate change for almost a hundred years. Did that help?" He asked rhetorical. "I guess not... but it was different back then" I stuttered. "Number two, make it easier for people to make better choices. That was also done, to a certain extent. Did that help?" He didn't wait for me to reply. "Sally, you're so naïve. Don't you see what we need to do? Humans are selfish creatures. They will always choose what's best for them. Look at where we are now! For a hundred years people have known where the world was heading. Did they really try to do anything? At the end of

the day humans will act on the basis of their own self---interests. If we are to help people, its better if we make the decisions for them” I bit my lip so hard that I could taste blood on my tongue. “That doesn’t give you the right to control them.” I said in a low voice, even though my inner instincts wanted to shout at him in rage. “I’m sorry sweetie, but that’s not for you to decide. We need to think about the world in a bigger picture. If I can speak frankly we are already at the brink of extinction. We’ve told everyone that we’re doing fine. But guess what? Our climate is still changing, and most likely it can end very badly.”

Not many things were clear to me at that moment, but one thing was. I deleted all my data for my PhD. I couldn’t be sure it was gone; maybe they’d already taken a copy of it. I could only hope they hadn’t. I collected my belongings from the desk, and left it for good. They’d probably come after me, but I would have to think about that later. I only knew of one person that could help me, my dad.

I was now an enemy of the government, but what I was fighting for was far more important. Our freedom. Maybe Rob was right about the future, maybe the world was heading towards a crisis so big that we wouldn’t be able to save ourselves. We were still alive however, and where there’s life there’s still hope. We can only try.

