

# EarthDome

## Installment 1: The Trees

The forest was strange. Fantastical even. Otherworldly. But in reality, it was just from another time.

150-foot-tall giant trees seemed to touch and support the murky sky. But it's not even their height that impressed Alistair.

Having such a sky-holding height, these trees were merely finger-thick, lignin in their trunks helping them to stay erect. Some had scale-like structures on their bark. Delicate, ornate foliage decorated their funky tops.

This was a world dominated by trees.

Alistair pressed his palm against the still standing giant.

“Hard to believe that in 300 million years, you will be coal. The same coal we will have been extracting and using in so many of our industries for so many decades... So much for balance.”

Touching the tree felt real. Almost.

Standing knee-deep in a swamp, Alistair thought of this odd prehistoric world for a second, but not of these self-evident, imposing giants. He thought of something that was not there - those tiny organisms that made such a huge difference.

Wood-eating fungi and bacteria - there were none, not yet. Without them, the sequestered carbon stayed in the wood. The trees did not decompose. Instead, they would be conserved, crushed by their own weight and compressed into pitch-black substance.

“Alistair, you are talking to a tree. Or yourself. Don’t know what’s worse.”

Alistair sighed and closed his eyes.

“Disconnect,” he commanded.

When he reopened his eyes, the forest was no longer there.

The man twisted his neck in an attempt to relax spasming muscles while removing the heavy headset. Looking more like a retro motorcycle helmet, the set was a part of the new immersive-interactive technology the market was obsessed with called EarthDome.

Owned by the Total rECOll company, the technology pivoted around a come-of-the-age AI-generated software. It interacted with the human brainwaves in ways that created utmost realistic experiences. A next-generation simulation of sorts.

The virtual reality of the device was based off of the ultimate database of the planet’s memory - accessible and readily available, at one’s neuron tips. A user could travel all those ages of memory, living them, inhabiting them with one’s presence. It did not affect the actual course of history, of course, but it affected the humans who experienced it and, in many ways, promised to shape and reshape the future.

Alistair looked at the time - the real time - and cursed. Somewhere across the city, a roomful of university students was waiting for him and his lecture.

And the weather was hardly welcoming one to go outside. 15 degrees and two weeks of non-stop rain... So much for a winter in England...

## Installment 2: The Time

“Apologies,” Alistair said, panting and soaking wet. “I lost track of time... in the woods...”

Woods? In London? In 2033? The students gave each other puzzled looks. Some giggled. This new young professor in a queer vintage jacket with patches on the elbows definitely looked like he was lost in time...

“Alright. Today’s topic - the Anthropocene event.” He wrote with a virtual chalk stick on the digital whiteboard behind him. “Now. Who can tell me, why ‘event’ and not ‘epoch’?”

The audience felt silently reluctant to respond. It was his second lecture, and the audience was still cold and distant. Just like that primordial forest he just visited.

Alistair scanned the faces for a few seconds before proceeding to the 3D video presentation. The visual board showed a schematic timeline that started zooming out, making the red anthropocene-marked line shrink shorter and shorter, as decades turned into centuries and

millennia. Soon, it became a barely distinguishable red dot following the more proportional segments. A tiny 'event' of man following long consecutive periods, eras and eons of nature.

"The time frame for this period with distinctively different environmental characteristics was too small to be measured in epochs. That's why in the 2020s, scholars were struggling with putting it on the timescale of history at all. Was too 'insignificant' in terms of time. But the extra-compressed duration does not mean this 'event' was not worth attention. On the contrary. The rates and scales of change caused by the anthropogenic influence are comparable to those of the extinction level events in the past."

The class was silent.

"And here is how this temporal zoom-out would look like from the vantage point of you and me," said the professor.

The isometric video showed birds-eye-view modern-day London. The city started changing, but in a strange and unusual way. The buildings devolved from more futuristic to more traditional. The materials changed. The skyline was losing height. From cars, to motorized carriages, to horses. Looked like the city was processing itself, decomposing itself into smaller and simpler organic elements, much like fungi and microbes decompose wood in our modern world... Soon, where a minute ago was London, there was now woodland. A forest much like the one Alistair visited this morning.

"Somewhere in-between these two extremes - the era of nature's domination and that of man - there is the golden mean, a period where the conditions were perfect for both humans and nature to thrive. The equilibrium point. The mission of my life is to pinpoint - to excavate! - that

exact historical time and measure all the conditions in it so that we could then backtrack all the recent changes to those parameters...”

A few more minutes of silence were interrupted by a dull, lonesome clapping of one pair of hands.

The bell rang. Alistair sighed.

He didn't have much time left on his hands to educate this young generation, let alone to prepare them for what's coming after humanity reaches the 2050 tipping point, when the planet itself will start shaking things up to gain the new equilibrium.

### Installment 3: The Tipping Point

“See the past. Envision the future. All in the present.”

This is how every session started once you put the EarthDome helmet on - with the ad and logo from Total rECOIL.

Alistair was a temporal archaeologist, so his natural range of interest lay in the past. But today, he decided to do something non-typical - dig out the future.

2050 was in the so-called “projected memory” part of the simulation. The AI projections of how the world would be, based on the constantly changing current data.

What Alistair saw upon his mental arrival took him by surprise. It was not even the marshy wastelands around him and the flooded London in the background that dumbstruck him. It was a woman.

*Who is she? The only inhabitant of the dystopian urban future? Why would they include her into the simulation?*

With her back turned to Alistair, the woman was struggling her way through the unwelcoming terrain, collecting something. Probably data.

“Hello?” he uttered almost uncontrollably, eager to see the mysterious woman’s face.

To his satisfaction, the woman did turn around. Her beautiful face was equally startled.

The woman had an indigenous vibe to her. There was something Native-American, tribal, ancestral, natural about her, Alistair thought to himself.

“What the...” mumbled the woman in soft, distinctly *American* English. “I thought the sessions were individual and private! How is it possible?”

Evidently, the woman was yet another user of Total rECOLL’s EarthDome sim.

“Most probably, we simultaneously selected the same time and place coordinates, which brought us both in synch with the same projection... I’m Alistair! I’m a university professor.”

The man approached the woman and offered his hand.

She looked at him, his hand, and ignored.

“And you are?..” asked Alistair, slowly retracting his arm and wondering if his virtual projection self could blush.

“*And I am* busy trying to pinpoint the exact species that caused a cascading change in the biodiversity collapse and brokebacked the progression curve of the 6th mass extinction.”

“In 2050 England?”

“The tipping point year. As for the location - it is the 76th one on my EarthDome map. I’ve been to all corners of the future world, gathering data for my keynote speaker presentation at Pale Blue Dot Summit this year. The British Isles conclude my round-the-world virtual trip.”

“Impressive,” muttered Alistair.

Suddenly, the woman straightened up and cursed under her breath, looking around. Looked like she saw or heard something that Alistair didn’t.

“A tornado warning. Damn crazy weather! I need to unplug,” she shot the words like bullets and disappeared in thin air before Alistair could say anything.

No name. No coordinates. No chances.

## Installment 4: The Summit

A month of revisiting the year 2050 just in case she would come back to finish her last trip.

A month of asking his hacker friend to try and pinpoint the second user in that special session.

A month of responses from Total rECOll stating that they cannot disclose personal information of their customers.

A month of hoping she survived that tornado outbreak.

Until, one day, Alistair remembered she mentioned the Dot-something Summit...

He waited for his memory to fill in the blanks. Everything from then on took just one day: packing his suitcase, buying the summit attendance ticket, taking a cross-Atlantic flight, and stumbling into a room full of people right in the middle of someone's presentation. *Her* presentation.

"...We tried to locate the most critical species to protect in order to slow down if not avert the biodiversity collapse," she said from the stage, glowing from footlights and from within. "And our results were inconclusive. We couldn't find that one key species. Looked like you remove any, in any ecosystem, and the result will be the same, just in a different amount of time. And then it dawned on me. It was not the limitation of the model or wrong samples. It was the ultimate truth.



Think of a forest, for example. Remove bees, and pollination won't happen. No pollination - no fruits and seeds. No fruits - no food for other species, and no future generations for the trees that grow from the seed. Reset and remove, say, squirrels, who eat the fruits, spread the seeds, bury and forget the nuts, hence new growth again. Reset and remove the fungi, and trees will lose their ability to effectively communicate, root, get nutrients, and *decompose!*... Reset and take away the forest altogether, and you get water cycle disturbance, increased CO2 concentration in the atmosphere, soil erosion and landslides, habitat destruction for other species..."

The woman paused for her words to sink before she continued:

"We were missing forest for the trees when looking at the problem of the key species. It's the ecosystems. Always have been."

Before the woman could say her concluding words, a humble male voice reverberated through the audience:

"It's all about balance..."

Everyone started looking for the incognito speaker. Finally, a man stood up. Now, all eyes were on him. Eyes and the projector.

Alistair cleared his throat and continued:

"There is no one species, like there is no one equilibrium point. In my own research of a lifetime, I've recently found the exact time of the sought-after, pre-climate-change, anthroponatural

equilibrium. Only to realize it was useless. That point was right before the golden spike of the Anthropocene - the Industrial Revolution... And who will be willing to live in the 'pre-industrial' twenty-second century? No one. Not voluntarily. What we can do instead is get inspired by those pre-industrial optimal equilibrium parameters and create a world where every currently remaining species would get the protection, territories, and diversity needed for our mutual survival. Where the trees will be tall again. The new equilibrium. The new global symbiotic ecosystem."

After an awkward pause, the audience burst into applause, even though it was unclear whom they were meant for - her or him.

The woman came down from the stage and chuckled, locking eyes with the intruder.

"You stole my applause," said the woman, smiling crookedly.

"Well, that's my first," Alistair laughed shortly and extended his hand.

After a dramatic second of hesitation, the woman locked her fingers with his in a firm handshake.

"Alistair. Temporal archeologist."

"Onatah. Regenerativist."