

## Hubris

The Council buzzed with activity as members waited for the Chairman to call them to order. Some members chatted with their neighbors about families, housing, favorite songs, and other non-business activities. Small groups strategized about how to get favored legislation passed. Pairs of councilpersons stood scattered around the edge of the chamber. Some were pleading for support from the other member. Some were vigorously arguing differing points of view on key issues. Some were making deals, "I'll support this if you support that." Almost no one paid any attention to a withered old man with a cane who was being helped to a seat behind the Chairman's podium. After he was seated, the chairman rapped his gavel and called the council to order. Council members reluctantly stopped their side discussions and took their seats. When everyone was seated, the Chairman spoke.

"I have called this special session at the request of the representative from Northernmost America. She has brought a most distinguished guest to speak to the Council. I will turn the focal point over to her, and let her introduce our guest."

The light surrounding the Chairman gradually faded to background while the light around the councilwoman increased. It was not a harsh light, nor a blinding light. She was simply bathed in a slightly increased light from no discernable source that made her stand out against the subdued lighting of the Council.

"Thank you Mr. Chairman. I want to thank you for allowing me to bring my guest, and I want to thank the Council members for allowing me to continue to represent Northernmost America. Most of my constituents have been forced to move to other territories because of the encroaching ice, but they still need to be represented in the Council. I am grateful that the Council waived the population requirements for representation, and I am humbled that you allowed me to continue as their representative."

She paused for a moment and glanced at her notes. "I am honored today to introduce as a distinguished speaker, Mr. Cedrick Kliney-Albrandt, Professor Emeritus of Natural History at the Northcentral America University. Many of you already know Professor Albrandt, at least by reputation. He is the author of over 200 books, 7 time winner of the Quinuama Prize for scientific achievement, and at the age of 273, a man who has seen more natural history than any of us have even read about. It's safe to say he knows more about natural history than all of this Council and our staffs put together. Professor Albrandt is not here to tell us what we should do, for as he has often told me he is a professor of what has happened not of what should happen, but to give us some historical perspective on our current crisis."

There was a quiet murmuring in the Council when she mentioned the professor's age. Even with all the advances in medicine, living for 273 years was amazing. He wasn't the oldest living human, but people his age were few and far between. The murmuring ceased as the focal point shifted to the professor, who was getting ready to speak.

"Representative Guérin, Chairman Badawi, and members of this Council, thank you for inviting me to speak. It is indeed a great honor." He scanned the entire Council, as if memorizing each face.

"Those who cannot remember the past are condemned to repeat it." The professor paused for a moment to let those words sink in. "Many thousands of years ago a philosopher from what is now

Southwestern Europe wrote those prophetic words. They are as true today as they were when he first put them on paper, and they are as frequently disregarded today as they were back then. As a professor of natural history it is my business to study the past, and to remember it.”

He paused to take a sip of water. It appeared to some that he may have been catching his breath as well, as if speaking was a great exertion.

“One of the things I have observed in natural history is that many things happen in cycles. I can’t claim this as an original discovery, as prehistoric men and women observed it too. Night follows day, and is followed by another day. Winter is followed by Spring, then Summer, then Fall, then Winter again. Prehistoric humans certainly observed these cycles. They didn’t understand what caused them, but they knew they happened and they arranged their lives around these cycles. Some cycles weren’t as easy to recognize, as the cycles were more complex and it took longer than a single lifetime for the repetition to show itself. That didn’t stop humans from observing the events, or from creating theories as to what caused them, it just meant they didn’t at first recognize them as a cycle. Solar eclipses were an example of that. Eclipses were terrifying to primitive cultures. The sun disappeared! The sun was everything! It provided light, and heat. It nourished the crops they depended upon for food! One culture theorized that the sun was being swallowed by a giant invisible dragon, so they shouted, beat drums, and made noise to drive the dragon away. The sun came back, so the theory was proved.”

There was a ripple of laughter at this comment. The professor used the interruption as an opportunity to catch his breath and take another sip of water.

“I have also observed that some cycles are caused by events that are apparently so complex that we still don’t understand them. Severe droughts occur in some parts of the world for no apparent reason, but if you study them long enough you will see a pattern. We don’t know what causes them, but there is a pattern. People will say ‘this is the driest it’s been in 2,000 years’ and act as though it’s a singular event that must have been caused by something recent. If it’s the driest summer in 2,000 years, then it’s not a singular event, it happened 2,000 years ago. Maybe it happened 2,000 years before that, too. Or maybe 3,000 years. Natural cycles are not necessarily simple. It could be that several cycles need to coincide at one point, like the orbits that cause an eclipse of the sun. Until we understand all the factors that cause an event, cycles may appear to be random.”

He sensed that he was losing his audience. Representative Guérin had warned him that the Council had a short attention span. “Get to the point quickly,” she said. He continued speaking.

“A hundred thousand years ago scientists became alarmed that temperatures were rising around the globe. They learned this by studying temperature data for the few hundred years that weather stations had recorded this data. They also discovered that carbon dioxide levels had been rising at the same time, and they formed a plausible model that showed how an increase in carbon dioxide could cause the temperature to rise. When they looked at the sources of carbon dioxide in the atmosphere they found that human activity only accounted for a small percentage, but that was the only factor they knew had changed during the period they studied so they concluded human activity was responsible for the change. It was also the only factory they could control, so in a remarkable display of hubris they decided that human activity was destroying the planet.”

He paused to take another sip of water.

“Curiously, ice borings and other research they did to prove their point showed temperatures and carbon dioxide levels had been fluctuating in a two hundred thousand year cycle that stretched back to long before Homo sapiens had evolved. The temperatures and carbon dioxide levels they were seeing were consistent with that cycle. In science, when you develop a new theory you look for data that either proves or disproves the theory. This data was not consistent with their theory that human activity was causing the changes they were seeing, since the same changes occurred long before there was human activity. By this time, however, the theory was no longer science – it was politics. Politicians were building their careers by implementing policies to reduce carbon dioxide emissions. And there was the added factor that scientists, like politicians, don’t like to admit that they’ve made a mistake. Since the scientists couldn’t explain what caused the cycle they were seeing in the historical data, they decided the data must be wrong. Or at in any event, it had nothing to do with the current situation since their model adequately explained data from the previous one hundred years. They, like most humans, didn’t want to admit that some things were beyond their control. Again, hubris. If a problem existed, it could be solved by man. The scientists ignored the inconvenient data of past temperature cycles and stuck to the theory that man had caused the problem. The politicians believed the scientists and implemented policies to reduce carbon dioxide emissions.”

The audience looked perplexed, but they were shifting uncomfortably in their seats. He knew that this was ancient history and most of them had never heard of it, but he hoped they were beginning to suspect it had something to do with issues they were facing today.

“Back then, society was totally dependent on hydrocarbon fuels, but burning those fuels generated carbon dioxide. The politicians insisted that had to stop. Early attempts to use atomic power were problematic, so they proposed replacing hydrocarbon fuels with intermittent sources such as solar and wind. Moving away from hydrocarbon fuels wasn’t a bad idea, as the supply was not unlimited, but the pace at which politicians forced the change caused tremendous economic hardships. Back then the world was divided into many regional entities, each of which was controlled by an independent government. Some were relatively free, and some were autocratic. In general, the free countries had stronger economies, stronger militaries, and more energetic citizens than the autocratic countries. But it was the free countries that took the most energetic steps to reduce their use of hydrocarbon fuels. They devastated their economies and crippled their militaries in the process. The autocratic countries paid lip service to the idea of reducing hydrocarbon fuels, but continued to use them to strengthen their economies and their militaries. They became strong enough to overwhelm the free countries and a new dark age descended upon the planet. It lasted for over a thousand years.”

“Why is this important today? Today we find ourselves faced with a new ice age. Glaciers are pushing down from the north, global temperatures are plummeting, food harvests are dwindling, and scientists are proposing several ideas to stop the glaciers. There seems to be agreement that plunging carbon dioxide levels are blame, as levels are far below past levels and this is letting heat radiate into space. One proposed solution is to burn forests because trees are stripping carbon dioxide out of the atmosphere. Proponents say this will not only stop the trees from depleting carbon dioxide, it will release their ‘trapped’ carbon into the atmosphere and generate heat as well. This idea is, understandably, has much more support in populous areas which have very few trees than it has in the less populated areas that are heavily forested. Another suggestion is to ban the use of wireless power transmission, as under certain conditions this has been shown to cause carbon dioxide molecules to dissociate into carbon and oxygen. This idea is, understandably, has much higher support in lightly populated areas where wireless power isn’t practical than it is in the heavily populated areas which depend on wireless power. Proposals

like these are creating great friction between people who live in populated areas and people who live in forested areas. Adding to this friction is the fact that people who are forced to leave temperate areas being overrun by glaciers are fleeing to tropical zones, causing massive food and housing problems. These people are demanding the tropical forests be burned to provide more room for housing and agriculture, while at the same time clamoring for wireless power so they can enjoy the lifestyle they left behind. In the past, friction like this has led to war.”

He realized this was a terrible place to stop, but he had to take a break to catch his breath and take another sip of water. Then he continued.

“I asked Representative Guérin to let me address you today because I wanted to plead with you not to forget the past. Learn from it. Do not fool yourselves into believing you can stop a natural cycle, and do not mislead your constituents by promoting controversial solutions. Doing so will only deepen the division between the peoples of the world and could cause a devastating war, the way attempts to stop a warming cycle brought war a hundred thousand years ago. The ice age today is part of the same natural cycle that caused that previous war. We’re just at the other extreme of the cycle. It was hubris for mankind to believe it could stop the cycle then, and it’s hubris to believe we can stop it now. There is an ancient prayer that asks for the courage to change things you can change, the serenity to accept things you can’t change, and the wisdom to know the difference. I pray that you will have the wisdom, the courage, and the serenity to accept the current ice age, as there is nothing you can do to stop it.”

He slumped back in his chair after saying this, exhausted. The Chairman looked at him with concern, but he straightened up again and nodded that he was OK. The Chairman then spoke.

“Professor Albrandt has agreed to answer a few questions. I ask you to respect his age and position by keeping them brief and to the point.”

The representative from Southeast Asia asked the first question. “I have read about the devastating war you described, but I have never heard that the war was fought over a natural cycle. It was my understanding that banning the use of hydrocarbon fuels stopped an uncontrolled rise in temperatures and saved the planet.”

The professor smiled slightly. “The reduction in the use of hydrocarbon fuels was given credit for stopping the climb in temperature, just as the ancient shamans who beat drums during an eclipse were given credit for ending the eclipse. I said the autocratic countries paid lip service to the idea of reducing carbon emissions, but that may have been an oversimplification. They forced their populations to reduce the use of fuel for heating homes, cooking, and other domestic uses. This gave them tighter control over the people while creating the myth that the sacrifices were for the greater good. However, they made no cuts that would inconvenience their industry or their military. Overall there was almost no change in the amount of carbon dioxide they produced, until the war began. Then carbon dioxide production skyrocketed to unprecedented levels. By the time the war ended the natural warming cycle had begun, so the autocrats told their people their sacrifices had saved the planet. History is written by the victors.”

The representative from the Pacific Islands asked the next question. “Hundreds of species of plants and animals are threatened by the drop in global temperatures, and several species have already become extinct. What can we do to save them?”

“There’s not much we can do to save them in their natural habitat,” the professor replied. “Nature is cruel. The extremes of the global climate cycle have always resulted in the extinction of multiple species. I applaud the efforts that are underway to preserve the DNA of as many species as possible, and to breed threatened species in protective captivity whenever practical. The good news is that during the periods between each extreme there’s an explosion of new species. Several of the species we take for granted today didn’t exist before the last extreme.”

“Glaciers are now threatening the outskirts of New York City, and many more cities will be destroyed if we don’t stop the glaciers. What do you suggest we do about that?” The representative from Northeast America asked this question.

“Move south,” the professor replied. “Take as much as you can salvage from the buildings, as everything you leave behind will be left as rubble in the terminal moraine when the glaciers retreat in a few thousand years. There is nothing you can do to stop the glaciers.” There were murmurs of discontent following this answer.

The representative from Northcentral Eurasia asked the next question. “We’ve spent trillions on research into global cooling, and we have heard testimony from dozens of scientists. You’re the first one who’s said this is a natural cycle. Was everyone else wrong?”

The professor hesitated a moment before answering this question, not because thinking about the answer but because he was gathering his rapidly ebbing strength. “I suspect that if you look into that funding you’ll find that you spent the money to find solutions. It’s been my experience that if you’re willing to pay enough, you’ll find someone to give you the answer you asked for. You probably never asked the question ‘is a solution possible?’ Hubris is a natural offshoot of hope. No one ever wants to admit that nothing can be done to solve a problem. I know from my friends and former students that there are, or perhaps I should say there were, many scientists who saw the current climate as part of a natural cycle. They also questioned some of the more outlandish theories offered by people spending your research money. But when there’s unlimited money to find a solution, people who say there is no solution find themselves denied funding, denied tenure, and sometimes denied a job. There is a natural desire among the public accept a solution if a scientist says it will make their lives better. Scientists who question that solution find themselves socially ostracized as well as out of a job. So they keep quiet and go along with the crowd. That’s not the way science is supposed to work, but it’s the way humanity works. Even Galileo recanted when the Pope threatened him with torture. I came forward because I’ve reached the point in life where I don’t need a job and I can weather the abuse.”

He slumped back in his job after saying this. The Chairman thanked him for coming and, after giving him a moment to collect his strength, aides helped him exit the room. There was very little public debate after his remarks, but privately representatives agreed that it was sad to see how far a once-great mind had slipped.