

CHAPTER 11--ICE CORING

From her backpack, Amanda pulled out the pass to the SAS airline lounge that Mary had given her. It was one of the benefits that some travel agents were still able to offer in this day of Internet travel. She had a few hours to spend in the lounge while she waited until she could check into the transit hotel. She checked her ticket, her Air Greenland flight wouldn't depart until 9:15 a.m. the next day. A few more hours of waiting, sleep, then she would be on the next leg of her adventure. It felt like quite an adventure already with her exposure to Danish society, a land of equality and bicycles.

"I couldn't help but notice your friend over there," beamed the tall, well built, bearded man seated on the couch next to Amanda's resting place.

"He's a tough one to take care of."

They both laughed. Amanda hoped he wouldn't ask why she was carrying around a big stuffed polar bear. Besides that, was he hitting on her? She hadn't flipped her hair, nor had she licked her lips. Had she done so by accident? She knew she hadn't fluttered her eyelids.

“Where are you headed?” the man asked politely.

It was such a benign question, yet she had conflicting thoughts about men she didn't know talking to her. It must have been the advertising campaigns she had been exposed to as a child – don't talk to strangers. The message had been drilled into her subconscious. It was as if the advertising had conditioned her to be on guard and confrontational – even as an adult. She was used to men hitting on her, but something in the back of her mind always seemed to flash danger!

Yet, there was something about this travel adventure that lowered her guard. Maybe it was just the physical act of leaving the 'security' of one's known world. Making friends was easier too, like Kayla. Maybe it was both the sense of safety in Denmark and the sense of confidence from riding a bicycle again too, she didn't know. “Greenland, if you can believe it,” she blurted out.

“Lots of polar bears there.”

“I'm looking forward to seeing one.”

“That is where I am going to. Let me guess, you just flew in and have to wait for the connecting flight tomorrow morning.”

“I flew in from Seattle. You too?” She didn't bother to reveal that she had spent the last few hours touring Copenhagen.

“New York. Not many people go to Greenland this time of year. Where are you going there?”

She felt a sense of relief as she noticed what appeared to be a wedding ring. “I'm going

to Ilulissat to see the icebergs.” While she was starting to let her guard down, Amanda wasn’t in the most sociable mood given her lack of proper sleep and the day’s earlier adventures in Copenhagen, she needed to stay awake though, perhaps this conversation would help.

“The icebergs are quite beautiful.”

“How about yourself?” Amanda countered, trying to change focus away from herself.

“I’m a research scientist from Columbia University in New York. I’m part of a team who studies ice cores.”

Amanda lowered her social defenses further as the man sounded more legitimate. A true scientist? Harmless. “Ice cores? What’s. . .oh wait, I think I heard something about that on the documentary I saw on Greenland during the flight over.”

“I’ve seen that one too.”

“I missed that part of the video. What are ice cores again?”

“Time machines.”

“Time machines?”

The man went on to explain that ice cores allowed scientists to study past climate conditions. Ice coring’s notoriety had taken center stage over the debate on climate change.

Cores from Greenland were so detailed that they allowed for a year by year analysis of past climate conditions back to 123,000 years ago. Cores in Antarctica went back 800,000 years ago, but with less resolution. He explained how big drills over several summers would drill down almost two miles to the bottom of the ice sheet. Each section drilled was brought back up and analyzed. Deeper sections reflected climate further back in time.

Snowfall was compressed into ice because the sun, when it does shine, was not strong enough to melt the snow. Then, due to the polar night, 24 hours of darkness, and midnight sun, 24 hours of sunshine, the composition of the snow changed by season. It was like the difference between cooked or raw meat, except it was cooked or raw snow. Each season of snowfall could be analyzed by counting the layers. Winter or polar night snow freezes as a dark layer, summer snow freezes lighter.

It sounded like layers of a cake, a big cake. Or maybe it was like the layers of her life history. A good year, then a bad year, except the bad years seemed to become more frequent. “Dark and light, dark and light?” she uttered.

“Do you mind if I just cut to the chase?” the man replied.

“Huh?”

“I’m sorry. I’m just tired of explaining all the science behind what I do sometimes. Can I just tell you about what we found?”

“Sure.”

“We call our current period of time an interglacial, which means our global climate is relatively stable. What we’ve learned from all these ice cores and other research is that the Earth has had many ice ages and interglacial periods, coming and going in predictable cycles. Recent ice cores show our current interglacial period will last a total of 28,000 years, so any excuse that climate change is good in that it prevents a new ice age is folly. Our current orbit matches an interglacial period 400,000 years ago. It will still be another 10,000 to 15,000 years before the next ice age.”

“This tell us what?”

“That climate change is something to be worried about.”

“You mean global warming?”

“Thank you.”

“What?”

“For calling it by its real name. I’ve gotten so used to calling it climate change. It’s bullshit.”

Amanda looked at her watch and let out a yawn. “Oh, sorry, I’m tired. It sounds like you do some interesting work.”

“I hear you,” he answered sympathetically.

“ I have a couple of hours to kill before I go to the transit hotel, I need some caffeine, do you want anything?”

“Just a soda please.”

“You’re from the East. Nobody says soda where I live.”

They both laughed.

“I’m sorry, I don’t think I caught your name.”

“I’m Nathan. You?”

“Amanda.”

“Pleased to meet you Amanda.”

Amanda walked over to the mini bar and grabbed a cup of coffee and a glass of cola along with a few snacks. She returned and handed him the drink and set the snacks down on the

table.

“Thanks. You know, there is an interesting little story about this cola you just brought me. For a long time Denmark had a ban on all canned drinks. A can ban.”

“A can ban?”

“The idea was to reduce aluminum waste. All drinks were sold in glass or plastic bottles. I think I read that each bottle was re-used an average of about thirty five times before being melted down.”

“That sounds smart. What happened to the ban?”

“Denmark had to revoke that mandate due to European Union law in 2002. They instituted a large deposit price on cans and added cans into their recycling program. Take a careful look at a glass or plastic bottle sometime, they might be easier to find than the cans.”

“Interesting. I’ll keep an eye out next time.” She swirled her cup of coffee as she wondered where the conversation would go next. “I’ve been wondering about global warming in the back of my mind more. What’s your take on it?”

“I’m glad you asked.”