60 SKY (; john PalmerLee) 1110100 011100101 01100001 011011 01100100 01110100 01110010 011101 01100100 0111001 0110010 011101 0110011 01100100 01100101 011101 0110010 Chapter 12: Remembering 01100101 00100 011001 01101

> I had never worn a nullsuit, and wanted some practice before our observation in the morning. Duan was only slightly more experienced, so it would be a good exercise for both of us.

Leaves crunched under footfalls as we stepped upslope to the equipment vault behind our dwelling. The Luminar sun cast long shadows, darkening everything facing inland. Sounds and shadows mingled, becoming sensory overtones of the ominous purpose I felt ever since Duan's discovery. Sensations surged in quantum rushes triggered by the crush of leaves.

I reached out my hand for Duan, and as we touched, closed my eyes. The air moved to avoid me and then recoiled upon itself as I passed, making sweet harmony with the leaves. What delicate beauty, this natural space, and what a gift to have this as my resting place, surrounded by autonomy, unhindered by thought, yet driven by everything in its grasp.

I had known none of this on the Mother Ship, where no function was without plan, and random events never matured without filtering through collective thought.

This dance liberated my spirits, chuckling at my mind's lack of footholds. I walked in sync with the air and leaves, yet a chaotic undercurrent posed the concept of fear. Taking no action, I held at once the unpredictable and the balanced... in mystery.

When we reached the vault, light from the sun streamed through clouds blown in from the ocean, and gusts from the breeze touched us, throwing mist around our faces as if wanting to play. I smiled and inhaled the moisture deeply, responding to the flirt of the wind. *This little one can catch you*!

I felt happy and childlike, and I was developing a habit of associating this state with exposure to Luminar. In many ways, this was my first real home, and I cherished it.

Duan gave the open command, and as the door slid away and lights awoke inside, I remembered the world of my lost community on the Mother Ship. I could almost see them as I stepped inside – organizing tools and special garments for this spawning civilization – dreams that we alone will carry forth for the species.

The air inside the vault was hard-cold and gave a foreign bite while inert gasses receded against the pressure of tangy air drawn in for our benefit. A row of environment suits swayed gently in the artificial breeze, and I watched as their color ramped through a subtle spectrum in response to the warmer air.

Duan and I stood transfixed. We had not yet seen the full compliment of technological gifts at our disposal, and I had mixed emotions about what I saw. Was it possible for the sweet chaos of Luminar to coexist with such powerful, premeditated technology?

I startled at a metallic sound and turned to see Duan looking over a rack of nullsuits, suspended horizontally on pillowmesh. As I stepped toward him, the iridescence of the material invited me, and I realized how both nature and technology had the capacity to move me. I reached out to touch the strange substance – its light sheen darkened just before I touched it, as though hiding from a predator.

Mild chills played on my extremities as I turned to look at other marvels. Every wall surface was highly reflective, and in dark punctuation against the walls were rows of tools, processors, energy converters, and environment suits. Down the center of the cylinder rested heavier equipment – gravitic excavators, silica fusers, network cores and many bulky objects I had never before seen.

Duan had picked out the nullsuits by the time I settled down enough to help. Two suits and two liners. As I stared, I saw our names permanently braided into the soft translucent material of the liners. I smiled and looked up at Duan, questioningly.

He looked at me and smiled before speaking. "I guess someone on the mother ship was taking care of us."

Tears flooded my eyes – half from appreciation for the silent friend, and half from missing our ship-family. I reached for Duan's hand and

squeezed. "A simple gift like this effortlessly transcends space and time. Without a hint of field equations or ether-tearing energy densities, someone has just sent us a message across vast distances." I paused to let the thought finish. "...and the energy came simply from an outstretched heart."

As I looked at Duan, a chill passed through me. Here, between us, was the spark of that same flame. The essence of what drew us together was the basis for every gift we would ever receive from another. This alluring desire for contact was showing itself in so many ways. Something cleared inside, and I saw this desire spreading out to include the reason behind what we were doing this very moment.

"Duan! We are here right now because of an ancient desire to connect with another species. The gift of our names here underscores our wish to prove we are not alone in the cosmos."

Duan was nodding, lifting the liner to fully expose his name.

I continued, "This reminds us of connections to our comrades, yet, because of our present plans, we recognize within the gift a latent potential for a bridge between isolated species. Not only does the gift console us with a message, but it opens our hearts to our bigger purpose here."

Duan looked back at me pensively. "I wonder why someone chose to place our names on the nullsuits – how they could have known we would need them. I can not think of anyone who would have..." Duan broke off, an idea forming.

His intensity building, Duan grabbed my hands and continued. "Sheerin! She took a solo trip down to the surface just before departure. I remember she looked at me like she wanted to say something more, but turned away." He paused, and his tone softened. "She and I were close – yet limited, given the Choice."

I looked at Duan, curious about his life before Luminar. The significance of our decisions were being revealed slowly to us. Had I foreseen everything on the ship, I would have been overwhelmed and chosen to stay. I would not have been exposed to this awesome adventure with Duan. I would not have found this love of place and person, nor have been here, at this moment, on the threshold of such discovery.

Duan was not finished about Sheerin. "Her research revealed Luminar as a potential host for advanced species development. When our surveys found only the simplest life-forms, she became less vocal, but continued her research. Her parting words struck me as being sad – she said something like: 'I fear that I will be missing out on something special here, Duan. Contact me if you can, OK?'" Duan stopped, clearly he had moved deeper into the melancholy of missing associations with others of our kind. Then he raised his head and continued. "Sheerin had considered staying here, but she said her intuition during the gathering was to stay with the ship. She felt saddened as a result, in part because she thought Luminar was so promising."

"What do you think she wanted to tell us through the nullsuits?"

"She was someone who liked secrets, and loved telling them in her own time and way. There was joy in it for her." Duan gazed upward as if traveling back in time. "She loved giving surprise gifts and watching the recipient's face. Maybe she gave this gift for that reason, even though she couldn't be here to watch us receive it."

Something caught Duan's thoughts. He bent down and started examining the nullsuit liner in detail, saying, "I just realized that it was not like Sheerin to give solitary clues – she used to say that a simple surprise could yield many laughs."

Duan straightened up, holding the liner up for me to see. "There is a thread stitched to the inside of mine." He began to turn it inside out, then, holding it up to the light, we saw an inscription.

Duan read the words aloud, "Duan and Jama. May you find something special on Luminar. Know you are loved from afar. I have left other gems. Sheerin."

A shared glance, and our joy electrified the space between us. I reached for Duan and we stared at the words together, absorbing their emotional magic... relishing this fleeting connection with our friends on the ship mother.

With Sheerin's words affixed to our nullsuits, it was a joy to dress – feeling the touch of her hands against our skin. It was as though we now had a third member in our team, exploring Luminar with us in spirit.

They were self contained environment suits capable of hiding all but the faintest flicker of substance from the outside world. The liners were a neutral color – taking on the tones of whatever they touched. Their main purpose was to regulate temperature and protect us from the mildly abrasive outer suit. The breathing apparatus covered our faces and strapped inside the suits, low on our backs. The air recycler activated in response to my first exhale. I went upNet, curious about details – and the information flowed. I was awestruck as the pieces fit together. The external thermal signature of the suits was controlled by highly efficient recycling of body heat and respiration. I was mildly shocked to realize that most of the energy used to power the suit was supplied by thermal conversion. We could stay in the suit as long as we could hold our excrement, and we could don waste processors if needed for extended periods.

*Not me*, I thought casually over the Net, and looked up at Duan once I realized he would hear.

Duan gave me a curious look, and sent a quick what? over the Net.

I smiled and mentioned the excrement recycler. He gave a Netwise nod, and we shared some humorous fiction about past failures – It was good to share an inner laugh. Closing up the suit felt smothering, and I needed help keeping my spirits up.

As the final seals closed, I issued the nullsuit activation sequence and opened up to the Netwise flow of data. With my eyes totally covered, I came out of darkness into a small circular room – my default reality until the processors came on line.

I held my breath in anticipation. Visual dataflow over the Net had startled me in the past, and I wanted to be ready. But the nullsuits buffered the visual onslaught with a benign setup menu off to the side of my field of view. Netwise, I asked, *OK, Duan. I'm at setup. Help me through this, will you?* 

Duan's Netwise voice was right beside me. So close, in fact, that I felt the need to sit down. With no visual clues yet, I felt off balance, and the virtual audio was all I knew.

I will call out the selections, Jama. He paused as I gave a Netwise nod, then went into his efficient checklist mode. The first set of default settings can be accepted – they cover communication protocols and visual references. When you get to the Group Interface section, select a group size of two without discrete frequencies.

As we went down the list, I was impressed with how many options we had, including the width of the visual spectrum we placed into the null band. At that point I stopped Duan and asked, *How do you propose we determine the visual sensitivity of the native beings?* 

I felt Duan's Netwise smile as he responded. I did a little research about this on the Mother ship. I turns out that the set of colors reflected by native flora are probable members of a native species visual range. I completed a survey after arrival that indicates a fairly broad, flat spectrum.

His thoughts drifted for a moment, which told me he was probably making a Netwise query. The next thing I knew, a color band appeared in the center of my visual field – there were some patterns I did not recognize at the high end of the band, and Duan filled in before I could even ask.

The lower frequencies are somewhat deficient, which means it is unlikely the beings will be sensitive to any latent heat signatures from the suits. On the high end, however, they may be able to see beyond our native perception. The colors at this end are simulated for our benefit – we would not be able to perceive these without the nullsuits. I found some plant blossoms reflecting into and above this range, so there is some uncertainty there. I'll set up the nullsuits to handle frequencies beyond our expectations.

I followed Duan's instructions for selecting the nullsuit masking band, and then we were able to activate local visual. I realized how trapped I had been feeling only after my visual field materialized before me. I felt like an animal leaving a cage, and my relief was all over the Net.

I could see Duan next to me, but it wasn't what I had expected. There was an artificial shimmer around what appeared to be a blank, flat visage, and he seemed to be floating beside me. There was no sign of the nullsuit, and I could see shapes through him on the other side of the vault.

My curiosity must have reached him, and he responded. What you see of me is a representation generated by very low frequency electromagnetics. My position is real, but my outline is generated by the Net in response to the frequency signature of the nullsuit. If my nullsuit were to deactivate, you would then see the outer suit directly. Everything you see other than me is real. Because nullsuits are excellent at handling light, a sampling of incoming visual signals are available from any direction you choose.

Duan paused, and my senses told me he was getting some tool ready for me to investigate. An indicator began to flash in my upper right visual quadrant. See that? That is where you are currently looking. It should make intuitive sense.

I looked there and saw a small representation of myself with something like an arrow pointing away from my face at a number that was part of a circle of small dashes. Then I realized what it was. A tiny nav display! My glee flooded the Net, and I started playing with the control. With a little practice, I could change my field of view and watch the arrow rotate about my body. Then, I turned my body and the dashed circle rotated with my facing direction always at the top. *Wonderful*!

Duan was eager to continue. In the upper left quadrant is the suit status display, with spectrum coverage and thermodynamic balance graphics.

An idea came to me and I held my hand up to my face. There it was, shimmering more intensely from electromagnetic feedback, but without any trace of a suit. I smiled and shivered inside as I watched my fingers curl and straighten in perfect sync. It was an odd sensation to feel the suit yet see nothing but a shadow to prove it.

I looked at Duan and smiled. Everything was on the Net now. It was as though I was no longer a living organism, but a virtual construct. I could feel things that I could not see, and see things which might not really exist. I began to feel an inner itch about this that made me want to take off the suit and re-discover the truth.

I drew upon some inner resolve and arched my back. Netwise, I shared some of my discomfort with Duan and suggested we start. I just hoped this itch to get out stayed in reserve – I wanted so badly to enjoy this.

After gathering some equipment, we walked to the ocean. It seemed likely to us that there would be sand at the target site.

I was fascinated by the sand. I would take a step and see my bare foot sink neatly into the sand, but as soon as my foot lifted, the imprint morphed into that of a nullsuit boot.

Laughing over the Net I mentioned it to Duan. *I wonder if the codegens ever discussed this one!* One part of me wanted to access the support doc, but another enjoyed holding the mystery as part of this experience.

At a level spot in the sand we unloaded the equipment caddy. We would be placing sensor arrays near the target site at our first visit, and needed some setup practice.

The sensors were not yet masked, so seeing them from our suits was easy. Simple telescoping legs with multichannel sensors attached to a universal Net node at the junction. Duan and I placed two in the sand and activated them via the Net. You will see the sensor status along the lower edge of the display. We can monitor four sensors simultaneously. The status indicators give rough reports of motion, audio and electromagnetic signatures. To get detailed information about specific results, just do a Netwise select of the specific graphic.

I focused on one of the sensor displays. The electromagnetic status was flashing, so I selected it for details. Immediately, the lower half of my view was overlaid with data, showing the direction, magnitude and frequency composition of the source, as well as a small image of what appeared in the target direction. I laughed inside when I realized I had just found the sun.

Duan, how do we mask known sources so they do not interfere with observations?

Good. A source like the sun can be ignored by entering the status detail and doing a select on the target image. Then from the options listed, select 'Mask' and then confirm the default duration setting of 'Until Further Notice.'

I followed along, and suddenly the status detail closed and the indicator no longer flashed. A thought came to mind, but before I could even send it Netwise, Duan answered it.

To remove a specific mask command, select the status display itself, and a history detail will show including all current mask settings.

I tried it as he spoke, and I felt a flush of comfort. The interface was becoming intuitive.

The rest of the equipment basics went smoothly.

On the way back to the equipment vault, Duan and I began planning the first observation. We had to be prepared for this historic event, but underneath the words I kept imagining our first point of contact. The formality of the plan seemed almost like an avoidance – as though by discussing something intently we could magically raise ourselves up a notch in stature to properly face the Ominous.

I sense a need here that planning cannot sway...

• A minor flush of uncertainty hit, and I wondered what I would do if it hit hard tomorrow.