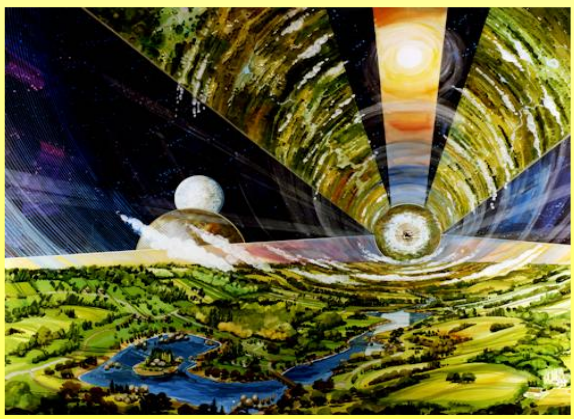
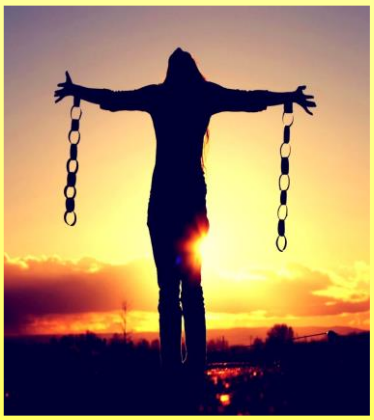
Personal Freedom
Parts 1 & 2

A Habitat in Space & A Trip to the Stars

By Martin K. Ettington





Personal Freedom-Part 1 & 2: A Habitat in Space & A Trip to the Stars

In Part One we learn the story of a young man who lost hope—then found it again.

He learned how to change his life and found a new mission and goals which excited him.

This led him to a career in space manufacturing which evolved into a project building Habitats in Space.

There have been a lot of discussions about Space Habitats, but how would you actually build one and what technical and personal issues would arise in the process?

Read about a personal rise from ashes, hope, and the potential for creating a new wonderful world to live in which is literally out of this world.

Part Two is about converting the Habitats to an interstellar spaceship to settle a new planet.

It is a long journey with major dangers along the way. A generational ship with long lived residents.

And what new abilities would people develop on a long journey to the stars?

Follow this adventure to learn the realistic challenges of an Interstellar Journey

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Personal Freedom-Parts 1 & 2

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Acknowledgements

I would like to thank my friend Brian Aris for his Critique and Suggestions to help me improve this Novel in many ways

Other books by Martin K. Ettington

Spiritual and Metaphysical Books:
Physical Immortality: A History and How to Guide
The Commentaries of Living Immortals
Prophecy: A History and How to Guide
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Enlightenment for Dummies
Removing Illusions to Find True Happiness
Using the Scientific Method to Study the Paranormal
A Compendium of Metaphysics and How to Guides (Six books together in one volume)
Records of Extremely Long Lived Persons
Enlightenment and Immortality
Love From the Heart
The Enlightenment Experience
Longevity Improvements from Science
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Telomeres & Longevity
The Diets and Lifestyles of the Worlds Oldest Peoples

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Hatha Yoga-Helping you Live Better
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Business Books:
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These books are all available in digital and printed formats from my website and on Amazon, Barnes & Noble, and Apple ITunes.

Website: http://mkettingtonbooks.com

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Characters and Info about Part 1

Main Character:	Neil Shakelton
Main Characters Wife:	Jennifer Hazelton
Asgard City	Capital of the Habitats
<u>People in Book:</u>	
Friend in Texas:	Raj
President of my Company	Jake
Friends in Manufacturing Space Station:	Stan, Iris, Joan, and Frank
Acrobatic Pilot in Clearlake:	Bill
Russian CEO	Dimitri Mebeken
Some of the Team for Test Construction Julian	Stan, Iris, Jose, Wilder, Jerome, Havsta,
Milos Forbish	Editor of Blog “Settling Space”
<u>Companies in the Book:</u>	
Trans Manufacturing	
Asteroid Mining, Inc.	
Tigelow AeroTech	
Space Environments	
<u>Names of the Habitat Cylinders:</u>	
Redwood Forest	
Bora Bora 2	
<u>Side Stories</u>	
P1: Long Lived People	Max
P2: Purpose in Life	Mary
P3: The Life Urge	Joe, Tammy
P4: Spiritual Connection	Sharon

P5:Unconditional Love	Erin

Characters and Info about Part 2

The Spaceship name:	The Destiny
Destination #1:	Star: Xi Scorpii C Planet: New Athens Distance from Earth: 100 light years

Additional Characters

Hannabeen the Healer:	Healer and Teleporter
Milos Forbish:	Blogger and Reporter
Tom Wright:	Engineering Manager
Sharon Allison:	Chief Navigator
Kendra Jones:	Most Powerful Psychokinetic Expert
Alan Numal:	Descendant of Kendra-Premonitions
Justin:	First recorded Teleporter
Jolinar Mead:	Security Director
Abula:	Native Chief on New Athens
Richard Patton	Admiral & Leader Defense Directorate
Rick Fastee	Space Racers
Judy Troll	Free space “Cottage” owner
Roshu Dava	Spiritual Zen Monk
Jonas Smits	Over one hundred Olympics competitor
Major Steve Rolland	Special Forces leader in the War

Milos and Erin’s Family

Three Children:	Luke, Millet, Marion
Grandchildren in Story:	Matthew
Great Grandchild in Story:	Jason
Tenth Generation descendent:	Naveen Shakelton

First Three Settlements on New Athens

Explorer Central:	The city near the Ocean.
Paranormals Preserve	The city near the mountains
Science Center	The city near the Inland Lake

Side Stories

P6: Activate Vital Forces	Jean Wilkins
P7-: The Science of Longevity	Alan Trantor
P8: Physical Body Diets and Lifestyles	Stacy Mills
P9: Using your Intuition for Safety	William Yoganda

Destination Two: Horizon	Star: Kepler 186f Planet: New
	Distance from Earth: 500 light years
Person who named the planet:	Julia age 10 years

Prologue

When I was a boy I believed I could do anything! Go to the Moon or Mars, become rich, invent something really cool, and rewrite Einstein's Theory of Relativity.

Then people started telling me to "live in this world" or "Be realistic" or just to "start putting away my childhood fantasies."

The Teachers in school were a big part of the effort to make me fit in. They seemed to all be of the opinion that everyone should be the same. That there was nothing great about diversity of thought and action. They were like the players in Whack a Mole—to knock down anyone with creativity. (I know not all teachers are like that—just the ones I knew)

I gradually succumbed—as most of us do—to peer and parental pressure to become just like everyone else.

But I wasn't happy—and still felt like I had a mission on earth—which was the reason I was born.

I became an average kid—looking for ways to fit into this world

Thinking about a Career and Boy Scouts. How to get a girlfriend. How to be popular.

So—this is the beginning of my story. But I never would have guessed how it would turn out. The universe is surely an amazing place…..

Age 24—Who am I?

To understand who I was at 24 you really need to know more about my life.

My name is Neil Shakelton. I was a good kid—socially shy but a good kid.

I become an Eagle Scout at age 13—pretty young to reach this rank in the Scouts and I was very proud of what I had accomplished.

We used to camp out all year round, including in the snow, where and our patrol built a dogsled—which the rest of the patrol would pull as we went to different activity stations over the weekend at the “Klondike Derby” where we won gold painted rocks or “nuggets” for successfully completing the activities.

This Scouting event was held every year in January and we slept in tents in the snow when the weather was below zero in Fahrenheit. Usually about twenty below zero.

I have to admit that I got Hypothermia my first winter camp—waking up I felt sick and went to lie in the snow because it felt good. Had to go to a warmup shack for a while to feel better… but managed to complete the campout.

After a couple of years in the scouts, one Troop Camping weekend I decided to build an igloo and got other scouts to help me. We built the sides okay but couldn’t get the roof to stay up using just snow.

Finally we put long branches across the top and covered it all with snow blocks. This worked pretty well.

Two of us slept in there that night and even though it was twenty below zero outside it was pretty warm inside—must have been forty degrees inside because drips formed on the inside of the roof from our perspiration !

The Scout leader kept coming outside to ask if we were okay—we were fine! A really great experience overall.

My parents made sure I also went to church. Since they moved a couple of times it was always Protestant, but sometimes Methodist, or Presbyterian, or First Reformed. Each church taught the bible but had a different perspective.

Each church also had its own rituals. There were rituals and dogma—built up over centuries.

The core teachings were interesting, but out of curiosity I started reading about other religions.

Each religion all had their own beliefs, and most of them thought they were the only way to heaven or to enlightenment.

This was totally confusing, and so I started to lose interest. Who was correct? Or were any of them right?

My parents were encouraging but Dad always used to comment at the dinner table that he didn't know how we kids would be able to live our lives since the economy was so stagnant now.

This led to a general environment of me just doing what was safe in life. I didn't want to do anything risky, and my goal was to find a safe job and lead a safe life.

I had no social life, but got excellent grades and my SAT scores were high—so I decided to go to Engineering School.

Went to RPI in Troy New York. The winters were hard and so were the courses, but I graduated as a Nuclear Engineer. Even though I had no plans to work with Nuclear Reactors, it was a good engineering degree because it covered a broad variety of engineering disciplines.

So at age 21 in the year 2040 I was a new engineering graduate and decided to start a new career.

Great things were going on in the world! We had just seen the first manned trip to Mars on TV and Tigelow inflatable habitats in space meant that space tourism was happening and you could take a vacation in space—except you still had to be a millionaire.

Science and technology continued to grow and expand with labor saving devices and cool tech for us all to use

Unfortunately, the rest of the world wasn't so great. With the world population at nine billion and the world economy stagnant, there were not that many good opportunities—even with an education.

Many millions had been put out of work by technology and outsourcing to cheaper countries to get the manufacturing work done.

The Bad Economy

With my new degree in nuclear engineering I was confident of finding a job.

Then optimistic, then depressed. Nobody was hiring Nuclear Engineers and not many in other disciplines either.

What I hadn't realized was that with the growth of offshore work and the improvements of communications that many types of companies could now hire virtual engineers in India and other third world countries.

While engineers usually had to be present and work together in teams, the new virtual reality technologies allowed these remote engineers to work in teams together—no matter where they lived.

They collaborated in the actual locations with tools and information from the firm which hired them—but might live on the other site of the world!

Big Companies were only hiring young people like me who had relevant experience. And how do you get experience if you don't have it but need it to get a job? It was a real Catch 22 situation.

So I started to look for less demanding jobs—like computer support at big electronics retail stores. I targeted a big store in my town and sent my resume and interviewed with them.

However, they had two hundred young candidates for each tech position; many with experience.

Even with my engineering degree there was no way I could compete—I was way over qualified.

Kept applying for jobs—but nobody wanted or needed me. The Computers sorted out the resumes and only people with experience were hired.

I was now living at home—with my adult brothers and sisters and parents. It was a tense time for my parents too.

It was a small house with only three bedrooms, a small front lawn and garden area in the back.

We were all crammed into this house and it was just too noisy inside.

My stress and theirs reached a crescendo when we had a big fight and they kicked me out.

I didn't have many friends and a place to live became a problem.

Homeless and lost

After months of no permanent home, I didn't know where to go, fell into a depression, and was lost in my life.

Sure I tried to apply for some minimum wage jobs, but I think the interviewers felt my melancholy and just didn't feel comfortable hiring me.

So I turned to medicating myself. Started drinking and using pot and ended up on friend's couches at night.

After weeks and months of this I had fewer and fewer friends who would let me stay the night—finally none, so I would sleep in alley ways and parks—wherever I could find a place to lay down.

The homeless community downtown seemed like a good place to go because at least I would find a community where I fit in.

The main homeless camp in our Midwest City had hundreds of people in it. They had tents and other shelters on the sidewalks of the rundown industrial section of downtown.

I made some friends there with people my age who had also given up, were on drugs, or who had mental issues.

Soon one of the homeless advocates gave me my own tent and sleeping bag so I had a place to stay. This was good—at least I could be warm at night and didn't have to sleep out in the weather.

But of course there was a downside—gangs would come around every night and steal things from us. My pocket knife was one of the first things to go as I had to turn out my pockets for them and the leader took it. He was a Hispanic guy all covered with tattoos and sneered at me like I was some type of sheep. I guess to him we all were—and he was the wolf.

At least I was luckier than the girls. Many were raped by gangs every night—then cried during the days. It was a really horrible existence.

This existence of mine went on for several years.

I would keep up with the news by reading old newspapers thrown into trash cans. (Yes printed news still existed because not everyone had an electronic reader and older folks didn't want them)

I think the lowest point of my existence came one night when it was raining and I was in my tent freezing while hearing lots of screams outside from others being attacked. I had reached rock bottom and was considering killing myself.

The 10 Principles of Personal Longevity

I started wandering around the city and to the suburbs-places like where my parents' home was.

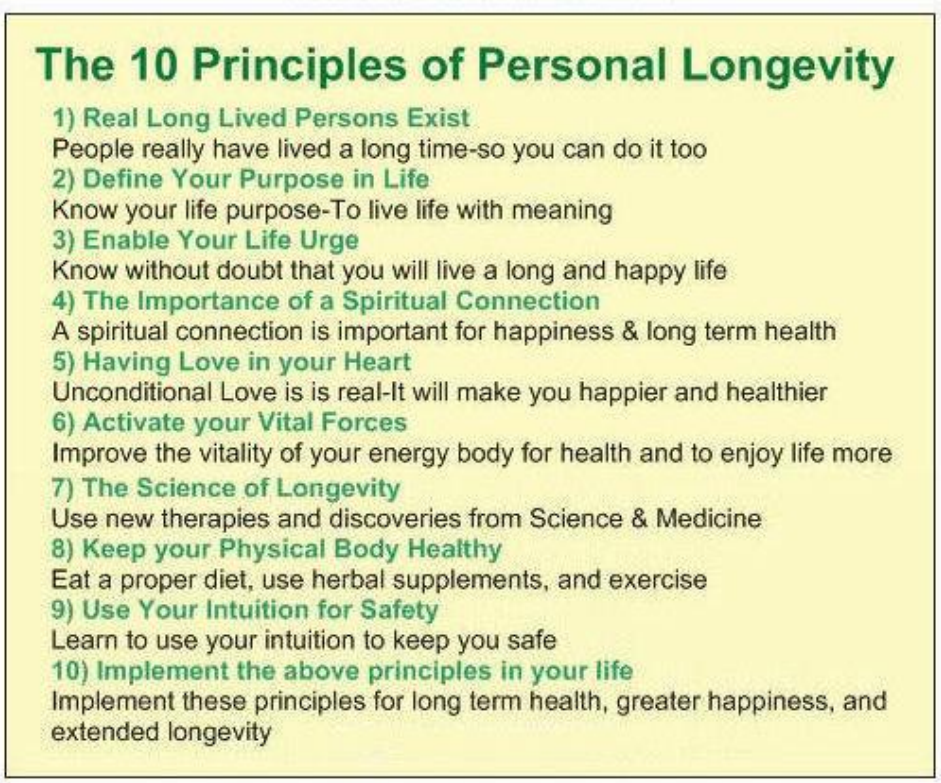
I had to wear better clothes and wash more since I didn't want to be thrown out of the suburbs as another dirty vagrant.

Wanted to see the way regular people lived—and I missed my home.

Would dig through trash cans for food, useful things or reading materials. This is how I first came upon a printed book about "The 10 Principles of Personal Longevity". This book was thrown out with a bunch of other old books—but for some reason the title intrigued me.

I found a good place to sit under a tree at a park nearby and started to read…

Inside the beginning of this book it had this picture:



What was this? And what relevance did these 10 points have in my life.

With initial curiosity and then expanding interest I started to read the book.

The first Principle had to do with records of very long lived people. These were pictures and bios of people from all over the world who had lived to extraordinary ages.

I had never heard of anything like this—I thought the oldest we could live was to about 100 years old. But this book declared, with lots of evidence, that some people had records to show they had lived to 130, 150, 168, 200, and even 256 years old.

The example of a person who was 256 years old was about Li-Ching-Yung who was documented to have lived to that age in China. Here is his picture:

I couldn't believe what I was reading. There were hundreds of records and apparently more on the website about all of this.

If this was true, then a lot of what I had been taught by society about how long we could live was false or even a lie.

This also made me think that I had a lot more time to live my life, explore the world, and find a profession which made sense—than I previously thought.

If our length of healthy life wasn't as limited as we thought—then what other misconceptions did we have?

I tended to believe the evidence and I went to a public internet café to check for myself.

Unbelievably, all of these longevity records were true! I even found additional records not in the book. New persons were being found all of the time in small countries and rural areas who were living to incredible ages.

There were even videos on many of these oldsters still living.

Side Story: Max's Search for Long Lived People

One of the people who read the 10 Principles book about the same time I did was named Max.

Max was fifty five and had done well in his Career. He had done all the things expected of hi by society.

He made money starting his own information business, got married, had two kids, and had fun with his boat waterskiing and fishing on weekends.

The information business was all about finding and selling information to interested parties. Some was from libraries and consisted of rare books or commercial reports, and much was from the internet. Overall, he had many corporate clients who wanted to learn more about subjects or markets related to their businesses.

He hired new people and groomed them so they could take over running the business—even though he still owned it.

Max was also under the illusion that he had to get ready to retire and live until about 75 when he expected to die. His parents had died about then so he thought—well I guess that is when I'll go too.

Being a person who liked to plan things well in advance, he bought a plot at a nearby cemetery and wrote a will for his family.

Max dutifully retired at sixty five and spent several years enjoying his boating hobbies, taking vacations with his wife, and relaxing.

He became bored-like many self-made men when they retired and wanted something more, but he didn't know what else to do.

He also liked reading old printed books (even though E-Readers were prevalent) so he would browse old bookstores in his city.

His city had a State University so it had a lot of used bookstores for students-but which also included lots of unusual books.

One day he was looking through the unorganized stacks of just received books—which hadn't been indexed or placed yet, when he came upon a copy of "The 10 Principles of Personal Longevity"

He bought it for fifty cents and took it home with a few other fiction books.

While relaxing by the pool one afternoon he decided to take a look at the 10 Principles and was amazed by the first chapter.

In the first chapter there were pictures and bios of long lived people well over the age of 100 and some even over 200 years old. This was impossible.

Max wanted to find out if any of these long lived persons were real or if it was just a bunch of B.S. so he decided to use his company's resources to find out.

He still maintained a small office at his company where he could visit to work on his own projects and be ready to attend board meetings as needed.

Over a matter of a few weeks he was able to verify all of the long lived person's information in the book. This included newspaper stories, books written about them, church records, historical archives and more.

One thing he hadn't realized was that most of these people didn't have any type of birth records. It turned out the Birth Certificates only became common in civilized countries at the end of the 19th Century.

In fact he found out that at the beginning of World War 2 only 25% of the population had real birth certificates. This fact came to life when many people were trying to provide documentation for defense security clearances.

However, he thought—there must be long lived people alive today.

As a result he increased his research to look for living long lifers. One of the resources he used was the Longevity Blog from Personal Longevity, Inc.

The Blog had been started back in 2012, and was now at thousands of articles in 2045.

Some of those articles recorded long lived people who were still alive.

One of the most interesting articles to Max were claims of some religious monks in Myanmar (Burma) who were over 1000 and 500 years old respectively in 2013. He wanted to check for himself what had happened to them.

The story he found in the longevity blog was about Wizzardo (Siddha) Sayadaw U. Kowida who was supposedly born in the year 908 A.D. His compatriots were born over 500 years ago.

These statements were all recorded in a book titled "Wonders of Mebegon Village"

These monks were supposedly still living in 2013! What had happened to them? Were they still alive?

Max decided to plan an adventurous trip to Myanmar to see for himself.

In the year 2045 Myanmar was still pretty isolated although many people had cell phones.

The road network was very poor so as he planned his trip he realized he would have to go upriver to get to the small town in the Minbu area where these people supposedly lived.

Max went on his own because his wife and the rest of the family thought he was totally wasting his time.

The day for his trip arrived and Max took a jet from his Midwestern city to Los Angeles where he caught a sub orbital flight to Singapore, then another jet to the main city of Myanmar which the British used to call Rangoon. Now the city was called Yangon, by the locals.

It seemed to Max that the closer he got, the longer that travel took.

Max stayed overnight in Yangon, and enjoyed some of the local delicacies in the city including the local special called “Shan” which included rice, turmeric and freshwater fish. It was really good and had a unique Asian taste.

He went to a travel agent who told him there was a network of buses which could get him to the Minbu area but it would take a few days.

The next morning Max bought ticket and headed out.

Due to the heat and humidity he had bought a wide brim hat and brought a cooler loaded with ice, drinks, and food.

He was planning for a two day journey and at least the breeze from the wind outside the Bus helped to keep him cool.

The paved roads rapidly turned into dirt ones and he spent the night at a cheap motel about half way to Minbu.

Unfortunately, the food didn’t agree with him and might have been contaminated because Max started throwing up and getting diarrhea during his fourth day in the country.

It was fortunate the bus had a bathroom on board or Max would have really upset the driver with all the stops he would have needed to use rest rooms.

Late the evening of the second day the bus pulled into Minbu and Max immediately went to bed to sleep, and get over whatever he had eaten.

The next morning he started his search for the Monks, and found out that Sect lived about twenty miles outside of town in the village of Mebegon.

He hired a taxi—still driven by a person—which was strange since all the ones at home were automated.

Max still had an upset stomach and a light fever, but he was able to travel and just wanted to get this trip over with.

As he got closer to Mebegon he got sicker and sicker and had some terrible stomach pains when they arrived.

As Max got out of the taxi in the heat and humidity, and feeling lots of stomach pain he passed out on the ground.

Max awoke an hour later inside a local infirmary to see an old monk standing over him.

He asked “Where am I and who are you?” The monk answered in good British English “You are in the monastery infirmary and I am monk T. Sing Haipal. Some villagers saw you fall and brought you here”

“I feel better” Max said. “My stomach doesn’t hurt anymore”.

The monk replied “We gave you some of our herbals and you should start recovering from your illness.”

“Thank you so much for treating me. I came here because I heard rumors of very old monks—one over a thousand years old. Would he be available for me to see?”

I really expected to hear a “No” and have to do lots of convincing but T. Sing Haipal said “No problem-You can see him when you feel up to it”

Seeing the strange look on my face of astonishment he added “We don’t hide the abilities of our oldest members. It doesn’t matter because the general public doesn’t believe that we have people of unusual ages anyway”

“How old are you” I asked and added “I’m also surprised that you speak such excellent English”

He said “I’m 525 years old and I learned English in the early 20th century from an English school in Rangoon.”

This was astonishing and I asked “Excuse me but can you prove it” He said “How would you like me to do that? We didn’t have birth certificates then and most of our written records were destroyed in World War Two during the Japanese occupation.”

“So am I just supposed to take your word for your age?” He replied “In a word YES. These things are very difficult if not impossible to prove. I know I lived that long but even have my doubts about Wizzardo (Siddha) Sayadaw U. Kowida who is over 1000 years old. But I trust him.”

He continued “Many people would not believe these facts even if they had articles, books, and pictures from long ago”

I nodded and said “So can I see this old monk later today?”

He said “Yes—I will set it up. He doesn’t speak English so I will be there to translate too”

So later that afternoon. I saw Wizzardo Kowida. He was another old man with a shawl on to keep him warm even though it was hot and humid. He was also sitting crossed legged and his face didn’t look older than about eighty-five.

I guess really old people don’t look much older as they age well beyond what is normal.

I bowed to him and said “Very honored to meet you sir”

His reply was translated as “Welcome Westerner. Happy to meet you too and glad you sought me out. What can I do for you?”

I thought -No preliminaries. Hmm. He gets straight to the point.

I asked “Well, I guess the obvious question which I know you must get asked all of the time is -- are you really over 1000 years old and exactly how old?”

His translated reply was “Well I’m 1,132 years this year, and all I can do is tell you that fact. I have no need to prove it to anyone”

I was skeptical, but the look in his eye was one of **Certainty and don’t doubt me**. His mind certainly seemed sound.

I then asked “So how is this possible Sir” He said “It is through a magical ceremony using spiritual powers which are hidden from the uninitiated.

I asked him a few more things about the world he had been born into, but his replies could have been about any community in the jungle. Even todays small towns would seem similar.

Thanking him through the translator and bowing my way out I went to a room they assigned me for the night.

My guide also showed me a room which contained some old records of the Monastery. He showed me written records going back 1000 years with the eldest Wizzardo’s name on them.

These records were written on ancient bamboos books in the local language-so I couldn’t read them and had to rely on his translation.

He also showed me pictures from the late nineteenth century of British Emissaries and their pictures of a man who looked just like the Wizzardo Kowida.

The guide then said “Of course you know all of this evidence could be faked” I asked “Is it?” He said “No—it is all true, but the outside world will not believe it. The outside world believes we all must have short lives and then that is the end”

I thanked the monks for healing me and their hospitality. They asked me if I would be saying anything to the outside world about their communities and the extremely old Wizzardos. I said "What is the point? I might get a little publicity then it will all die down after the latest world event or sports story—so I think I will keep this to myself"

*****

In the morning I felt just fine after food and a good night's rest. The monk's herbs and other treatments had certainly cured me.

Going back to the United States, I had a lot to process over the next few weeks.

I decided that I was just a young man living the illusion that I was getting old.

That I really needed to get involved in a worthy cause or causes.

I learned about the Habitat to be built at the L5 location and the Personal Longevity Centers.

Over the next year I become involved and determined to be one of the first wave of Colonists living in the Habitat's new and unlimited society.

Life Purpose & Goals

Neil thought *I had never really thought about my life and how I wanted to live it; so it was really interesting that defining your life purpose was the second principle out of the 10.*

The author made the point that if we didn't have an idea of our life purpose and goals, then living a healthy, happy, and long life would not happen—because people would not be motivated to improve themselves and their long term health and happiness.

Without a personal motivation—then nothing else matters.

This was certainly true for me since I was floating through life—and I didn't have any idea of what I wanted to do or become.

Sitting in a park under a tree one day I decided to give it a shot—I wanted to improve my life.

I followed the exercises in the book and started working on my personal mission statement.

The exercises stated that I should not put any limitations on myself—just define my dreams.

Starting with what I enjoyed—being outside, adventure, and using technology, plus wanting to use my education I came up with this life purpose after several days of contemplation:

> *To explore space, make contributions to humanity, and live an exciting and fun life*

I made this statement more elaborate, but kept coming back to the core of it too.

Putting my personal goals together was more work but I kept trying. The goals I listed were as follows:

1) Get a job to support myself
2) Get close and involved in the space community
3) Have a job in space
4) Gain seniority and learn to explore.
5) Have good friends and a family.

Building my Life from Scratch

An old Chinese saying is that taking the first step is the beginning of a thousand mile journey.

The first thing I needed to do was get a real job. Now that I had a purpose and a mission in life I re-applied to become a tech at the Big Box Electronics store.

Had to cleanup to do the interview and my sister snuck me into my parents' house to cleanup, shave, and put on some clean clothes.

My parents caught me coming down the stairs all cleaned up and dressed well. They were so shocked at the change they didn't bother reminding me I wasn't supposed to be there. They just asked me what I was doing. When I told them about the interview, they both gave me a hug and wished me all the best.

The interviewer must have seen something in me because he told me he would give me a shot and I would start training after I complete the paperwork and drug tests.

Made sure that I was clean enough to pass the drug tests, got the job, then started training. Pretty soon I was working as a tech fixing electronics. My first real job.

This was an immense boost to my self-confidence and I made decision to have a successful life.

With the new job and paychecks in my bank account, I got an apartment, stayed sober, and also made a few friends while I saved my extra money.

The next step after two years of being a personal electronics tech was to move to Texas—near the old Johnson Space Center. The NASA Space Center in Clearlake, Texas included not just itself and the Aerospace contractors, but many new Space Startups and other companies like Blue Origin, Trans Manufacturing, Orbital ATK, Space X, and more.

Houston was the center of the Universe for space businesses.

My transfer was to the "Electronics for Everyone" chain store in Houston, where I did the same tech job. The job was boring, but was a steady income which paid my living expenses and allowed me to live in a modest one room apartment.

I also joined all the Space Groups and Clubs I could to make contacts regarding space industries.

These clubs would meet for lunches, lectures, and sometimes field trips. They were a great place to meet people with common interests.

One of my friends Raj who worked at a Space Manufacturing company helped me get a part time position at a Trans Manufacturing which was involved with Space Manufacturing. Apparently the zero gravity of Space allowed this company to build special alloys which were in extreme demand on Earth.

This was because the alloys were extremely strong—more so than titanium—but also flexible and easy to work. The alloys included high strength materials with Carbon fibers and metals like Titanium. They were used in many types of aircraft and other construction.

Trans Manufacturing needed an engineer to help modify and improve their machines—which I worked on. Pretty soon they asked me to go permanent.

As a permanent employee I was doing the same thing—working on improving space manufacturing machines.

Most space manufacturing was organized to work off of raw materials provided by metallic ores retrieved from the Asteroid Belt.

Yes, the Asteroid belt was being exploited at that time, and companies focused on that area had learned how to use intelligent probes to hook onto a target rock, drill holes, then insert blasting materials to blast out a portion of those rocks.

The rock portions—were always about 100 feet in diameter or less had solar powered electronic reaction engines attached to them.

The reaction engines might be slow—only a few pounds of thrust at a time, but over months the accelerations added up, and the “mined” rock balls could be sent to Earth Orbit.

Travel time might be months but who cared as long as a stream of usable rocks were regularly injected into Earth Orbit.

Side Story: Mary's Purpose

Mary was a thirty year old woman who was single and working in a dead end secretarial job in a large software company in Los Angeles in 2050.

She had lots of flings with men, but none she wanted to wed. Mary had some female friends and went out to attend events and parties with them and occasional dates.

She drank and used occasional drugs to make her life more interesting. Pot made her feel relaxed and the drug ecstasy helped her feel alive.

Mary drifted through life since she really wasn't interested in anything.

She had no motivation. Her only motivation was to keep from getting fat to make herself still appealing to her friends and men.

One day she was distributing mail packages around the office.

One of the workers there named Steven opened the package in front of him and said "My idiot brother is sending me more old books on self-improvement. I'm sick of this. Would you like them Mary?"

Mary said "Sure" because she thought Steven was cute and she just wanted something to read so she wouldn't be bored at night.

At home that night she opened the books package. She saw several old volumes including one very odd one. She started reading "The 10 Principles of Personal Longevity".

The second chapter on Life Purpose and Goals made her realize she had a huge gap in her life.

Mary realized in reading this book and the Second Principle, that her life lacked direction.

She felt in her soul that this was something she had to correct to make her life worth living.

So she decided to follow the recommendations in the book to work on her new personal mission statement.

Mary took her next Saturday to go to her favorite hiking spot in Palos Verdes. On the back side of the hill were lots of hiking trails, and she found some overlook stops that had a great view of the Ocean. She picked one where she decided to have lunch and take a break from her hike.

There was a partial overcast and the temperature was in the low seventies. A great place to contemplate her life.

She put herself into a state of drifting and thinking about her favorite spot in the world. This spot reminded her of watching Lake Tahoe from a lawn chair in the back of the vacation home her parents used to have on that lake.

In this semi meditative state she realized that she really wanted to travel, but also do something very few people had done.

Her mission in life was to get involved in an activity bigger than herself that would have a real meaning in the world.

A few weeks later she read about plans for a new huge living Habitat at the L5 Lagrange point between the Earth and the Moon.

She realized she didn't have any specialized technical skills but still wanted to be involved.

Mary started her quest by applying to be a Manager of one of the new Personal Longevity Centers being financed by the Habitat group.

She was accepted and moved to work at the Longevity Center in Houston, Texas, which she later managed.

Located on the east side of town in Clearlake it was an interesting culture near Galveston Bay, with lots of seafood shops and restaurants.

Clearlake turned out to be the home of the old NASA Johnson Space Center and many of the contractor firms which provided various services to NASA.

The local longevity center was located in some one buildings on Nasa Highway One and consisted of several rooms.

One lecture room was for the introductory two day class on the 10 Principles of Personal Longevity.

The people who attended were of all ages and mainly looked like they were hopeful but missing something in their lives.

Mary saw something interesting after each class. Attendees seemed more vital and excited about what they were going to do with their lives.

Each one had done work on their personal mission statement and goals. The students were all excited about their next steps.

A group of those students decided to take the initiative to plan the ecology for a closed cycle habitat like the planned forest and lakes on the planned Habitat.

Mary joined the group and contributed her time and efforts to it each week.

Some of the issues discussed included how to balance the oxygen and carbon dioxide cycle to balance human and expected animal populations with the oxygen produced by the Redwood tree groves planned for the Habitat.

It was known that mature, leafy trees, such as redwoods, aspens and oaks, are the best producers of oxygen based on the number of leaves each had.

The group ended up calculating oxygen production for growing trees of those types based on an estimated number of leaves and how much each leave on average could produce.

The same thing was done for humans and animals to show how fast carbon dioxide could be generated as the habitat was filled with people and animals.

The result was a graph which showed the increases in oxygen and carbon dioxide which would have to be balanced as the habitat was filled with plants and animals.

The result of all this analysis was that the group decided to form a consulting company for the project which also included building sensors for the atmosphere which could be deployed all over the Habitat, and new control systems to manage them and provide information if additional gases needed to be added or subtracted from the Habitat atmosphere.

Everyone respected Mary's work and how well she got along with everyone so she was elected by the group as the first CEO for the company called "Space Environments".

She worked to get formal contracts from the Habitat consortium which was not hard when they knew about her commitment and that she had already been running one of the Personal Longevity Centers.

Mary built her company's credibility by providing atmospheric services to buildings and even cities on Earth. She continued to expand their business to domed cities which were now becoming prominent around the world. Many of those cites wanted the sensors and software their company offered since they mostly had homegrown systems or nothing at all.

In a few years, Space Environments had a yearly profit of millions of dollars.

These profits were invested back into the Habitat project to enable many company members to also be ranked higher as candidates to move to the Habitat when it was finished.

Mary realized that she had been able to do a lot more with her life than she ever thought possible and was looking forward to living and working on the Habitat.

Her personal mission and goals had changed her life significantly.

Living in Houston

Neil: I enjoyed living in Houston. There was lots for me to learn.

I knew that Astronauts had a lot of flight experience so I thought that one thing I could do was get a pilot's license and get some flight experience myself.

I went to an acrobatic school near Galveston Bay where I had heard that a lot of off duty astronauts went to fly.

A friend of mine named Bill who worked for NASA was an acrobatic pilot, was in the Air Force reserve, and a hopeful astronaut candidate.

He took me up in a Pitt Special acrobatic airplane and got me sick to death from barrel rolls, spins, and more. I threw up in my shirt until I was empty.

This incident caused me to want to get my own Pilots license so I took lessons there in a Cessna 152 to learn more.

My instructor was an acrobatic pilot, so I also learned from her how to do spins and how to land at an airport at night on a runway with no lights.

In my social life I met and dated several gals who liked to do outside activities but I didn't have a long term girlfriend.

I also continued my daily running to stay in shape—which is not easy in Houston's high humidity.

Houston treated me well, but I was also looking for my next step into Space.

By the late 2040s we had multiple space stations which were built to learn lessons from the old International Space Station.

These space stations mostly had inflatable rooms pioneered by Tigelow AeroTech. Our company had its own station which used for space manufacturing, and my goal was to get a job on that station… Although I was not sure how—Serendipity would play a role in my life.

Enabling the Life Urge

While my life was changing dramatically, my self-image was still limited by only doing what I thought was expected of me and I didn't really have big ambitions. I didn't really think I was qualified to work in Space.

In my spare time, I decided to learn more about the 10 Principles.

Changing our subconscious image of ourselves was the next principle and I wondered how to apply it to my life.

What was this all about? What was my life Urge?

The Life Urge was defined as the sum total of our subconscious beliefs about how long we could live and what we could do at different ages.

We are also taught from the time we are born that we should expect to go through certain phases in life and die:

1) Babyhood
2) Childhood
3) Teenager
4) Young Adult
5) Adult with Family
6) Retired
7) Die

These phases in life are really a psychological fiction which we choose to believe. If we can re-program ourselves then we can break out of the "Reality Boxes" we have built for ourselves.

From our birth we are constructing our own individual understandings of the world.

After birth our world seems to consist mostly of our parents who are feeding, holding, and changing us.

Then as we grow we start to realize that we live in a home with lots of other "things" in that home that we become really curious about.

I had learned about electricity as a two year old from sticking a bobby-pin into an electrical socket—I was shocked and thrown across the room-a very good lesson—and I never touched a power outlet again.

When we are big enough to get outside of the home we start to learn about the larger world and in school the construct in our mind becomes even more elaborate.

As we pass through life we all start to construct psychological boxes of what is REAL versus what is NOT REAL.

It might start with realizing that Santa Claus and the Tooth Fairy are fictional. Over time we start to define what reality is for each of us and what is normal.

For example, I recall an old true story of a man who was born in a North Korean Concentration Camp. He thought that the brutality he experienced there every day was normal—because that is all he knew about. When he escaped to modern civilization it was a whole new world to him.

The Reality he learning about in our world turned out to be much greater and more varied than he had any concept of when he grew up.

Things we take for granted like having enough food to eat every day was a miracle to him!

In any event, our “Reality Boxes” continue to expand as we learn and experience the world and life until most of us reach a point where we are somewhat comfortable with what we understand and we don’t want to change anymore.

This level of comfort might be something as simple as expecting to pay taxes every year so we aren’t hassled by the government.

Or it might be that we need security in our lives and our jobs—so we can be happy with our families and lives and then die in comfort.

We internalize many of the conventions of our government, religion, and society; and these become the sign posts for how we think our life should be lived.

Now, I’m not going to sit here and say we need to blow everything up and start over.

Many of the things we have in our lives like technology and medical science, as well as inventions to make our lives easier and help us to lives of higher quality than the richest Kings did even a few hundred years ago.

But we also may experience a sense of frustration in our lives which never goes away…..

The result of this thinking expanded my mind, broke my preconceptions, and led me to conclude I could do a lot more, and accomplish a lot more than I ever thought possible.

Working in Space

After working at Trans Manufacturing for several years I was told one day to go see the President of the company

Our President was named Jake and he was a former Astronaut himself.

He oversaw over one thousand employees so I couldn't figure out what he wanted with me.

I certainly wasn't being fired because Human Resources would be the ones I would see, and my work was going very well—I was complimented by my Supervisor all the time. I was totally mystified.

I got to Jake's office and the secretary told me I was on time and for me to go in.

Jake was six feet five inches high and looked like he didn't have an ounce of fat. Square jawed and dominant looking. He looked like he didn't take much nonsense.

He told me to sit down. After some short pleasantries he said "Neil—we have an incredible opportunity for you. We want to know if you would like to work in our space manufacturing facility"

You could have seen my mouth open and my jaw drop to the floor.

I replied "Sir—Of course I'm interested—but there must be many others more qualified who want this job. Why me?"

"Well, you have a huge amount of practical experience designing and fixing our 3D printing machines and we need a manufacturing expert up there. You are the best candidate. So do you want the job?"

"Yes Sir" I said, "I would love to do this"

As I left his office and went home that night a felt like I was in a dream. This was an incredible job and I had been chosen. Wow. I couldn't believe it.

Called a few of my friends and they said we had to go out to celebrate. We did and I had a real hangover headache in the morning. Thank God it was Saturday so I didn't have to go into work.

I had to go through weeks of training about Zero G and even got a ride on the infamous "Vomit Comet" to try out my "weightless legs"

There was a good reason it was called the "Vomit Comet" and I suffered dearly on those first few flights.

Also went to a training course on how to work and live in the space facility safely.

The training was all over in a few months which went pretty quickly.

I could only take twenty pounds of personal effects so I had to choose carefully.

Several weeks later I found myself riding a space shuttle into orbit.

After launch I looked out the window and saw the curvature of the Earth below me—that was when it really hit me. I was in Space.

One of the veterans saw me marveling and said “Welcome to Space. You are a real Astronaut now. Everyone has the same reaction the first time”

After half a day of maneuvering, we docked with the space manufacturing facility which had a crew of five. Me being the fifth person. I was due to be onsite for one year to work on the machines and implement new designs as they arrived.

Imagine a central facility, which was shipped up collapsed and later expanded by pressured air—which was one hundred feet long and fifty in diameter. It was shipped up in compressed form as a ten foot diameter and twenty foot long Module. Then the valves to gas tanks were opened and it was expanded to its current size.

Off this module were 10 other modules—in two circles of five modules each. Eight for manufacturing and experiments. Two were for quarters, galley, storage, and miscellaneous infrastructure for water, air, and the rest.

Attached to the modules were the mirrors for smelting raw materials, the centrifuges, and other apparatus.

The current crew greeted me warmly—Stan, Iris, Joan, and Frank. They showed me around and I quickly got into the routine.

Stan was from the British Isles and a classic looking conservative Englishman. Frank was black and from the United States. He had been a Marine before becoming an Astronaut and was whip cord thin, but tough as nails.

Joan was tall with black hair, and smart too—reminded me of that Nineteen Forties movie star—Hedy Lammar—who had many patents in radio guidance technology.

With Iris I immediately felt a spark and she was also a tall good looking blonde. I wonder if that had anything to do with my interest. Ha Ha

We would all meet for dinner each day, and take time to eat together no matter how busy we were with different things. It was really kind of a required social event—and needed too-the only way we got to spend time with others aboard this lonely station.

We played games like acrobatics—and of course we could do a lot more in zero g than on Earth. Many games had to do with repeating a specific sequence of moves in a specified time before one hit the opposite wall.

When I first tried to compete I pushed off from the walls, did a spin, and then didn't have a way to stop-I wasn't close enough to a wall to catch it.

Iris finally took pity on me and stuck her arm out from where when she was anchored for me to get ahold of.

Hooking up was also a favorite pastime and Iris and I practiced sex a lot. She was a lot more experienced than me and I learned a lot of positions.

I also left time to do meditation each day, which helped me to stay calm and centered.

The processes we supported were based on this manufacturing model:

Small rock portions of an Asteroid were sent to our orbit about 1000 miles up by automated Asteroid miners to where they could be smelted at our station.

The automated robot miners would use explosives to break off chunks of the larger rocks then attach solar sails to send them to earth orbit—which might take months.

The explosives were inserted by robotic drilling of holes twenty feet deep and then loading a good amount of liquid explosive. The detonators were exploded electronically after the robots moved to a safe distance away.

The portions calved off the Asteroids were only 100 feet in diameter each and designed to be small enough to be destroyed by atmospheric heating if they lost orbit over Earth, or were sent on a bad trajectory and starting heading to a burn up and crash on the earth.

At the station, we would use mirrors and lenses to heat up the rock chunks and melt them. The rocks were melted in centrifuges where we would then spin them to separate metals out into layers as they melted.

The layers were then separated and made into blocks of each metal which were cut and loaded into our industrial 3D printers.

The industrial 3D printers then layered different metals into a sheet which was normally five feet wide and half an inch think. Then these sheets were made into rolls each about two feet in diameter.

The finish rolls were loaded into a delivery module and parachuted from orbit to be picked up in the Pacific Ocean south of Los Angeles.

We produced over a dozen rolls each week and it made our whole operation profitable with about a 90% profit margin.

Overall, this was a thoroughly enjoyable experience but I began to think "*Isn't there more we can do?*" and "*Isn't there more I can do with my life?"*

My Life Back on Earth

Back on earth after a few years, I became a Senior Project Manager for the company, planning all of our new manufacturing capabilities and managing growth.

This led to a new house, a new wife (Iris), and children to populate our home over the next 10 years.

I loved being a Dad and would take my son flying with me when he was old enough.

But I still felt something was missing. This led to my Spiritual Exploration.

The Author of the 10 Principles had an interesting point of view about us all having a spiritual core which lives outside of time and space.

He had a similar upbringing to me in that he had been exposed to many religions and made his own conclusions after much study, doing meditations, and having many spiritual experiences.

The Author made scientific analogies to the Spirit as being the underlying substrate of our universe and using examples like the Big Bang, and what exists inside a Black Hole to make his points.

He also believed that often the spiritual truths were covered over with many things people had created—dogma and ritual.

Over hundreds or thousands of years, Dogma and Ritual could cover up the spiritual truth in almost any religion so that believers would have to really search for it.

As I practiced meditation I started to see the world more objectively and that the truth hiding behind religions and belief systems was that the core spirit inside ourselves lived outside of time and space.

That our reality was kind of a Holographic projection of this spiritual substrate.

In fact, Stellar Physicists all the way back in 2016 had proposed the black holes were nothing more than a holographic projection into our Universe of a collapsed star which didn't really exist anymore.

This led me to believe that people could be freed from their current existence and from dominating religions by this understanding of our true spiritual nature.

I also got a group together of likeminded persons interested in the 10 Principles where we worked on our long term health.

This group had all been working on implementing the 10 Principles in their lives for several years.

The health measurements we made showed that most of the group were having medical measurements showing them living about 10 years younger than their real age.

This had to do with changes to their subconscious beliefs and their mindfulness from daily meditation. Other practices helped too.

These practices included not just daily exercise but energy practices like Chi Gong or Tai Chi to become aware of our vital forces and get them moving in our bodies.

Our Spiritual Connections

I continued my journey on improving myself by learning more about Principle #4 which is about the importance of our Spiritual Connection.

It was presented in the book that we all have a spiritual core, and that over centuries, traditional religions have covered up this relationship with all of their dogma and rituals.

But the 10 Principles book didn't condemn established religion—instead it said there was a huge amount of value in those organizations because there was the truth about our spiritual core in all of them and each worked to establish a community of likeminded individuals who supported each other.

One of the things I found out was that after a deep meditation, I could feel my body healing itself from the energies in the spiritual connection and peace I was absorbing. This sense of healing stayed with me after deep meditations all of the time.

I also read that studies had shown how long term meditators were able to stabilize their "hind brains" or autonomic nervous systems which in turn stabilized their organs and glands to improve health overall, and this led to reducing long term chronic illness complications.

The idea was you could reduce stress in your daily life to remain healthier and happier all of the time.

I sure needed the stress reduction, because my life was only getting more hectic.

The Need for more Freedom

As I became more aware spiritually I realized an epiphany about life…

My epiphany was all about how through a deeper spiritual understanding we could achieve more freedom about ourselves and others.

I came to believe that our political freedom has become much more limited than the founders wanted.

I also thought we were caught in an oppressive matrix of societal control and expectations.

These controls are not obvious because we are so used to them.

Here are examples of the control and oppression we live under—because that is what we are used to and we don't know anything better:

Government authority which is intimate in many areas of our lives such as:

- The power to collect taxes from us out of our bank accounts if we don't pay
- Speeding and parking tickets which are so common we accept them as a normal "tax" of daily living.
- Being ordered to buy health insurance as a demand on us of just living in this country. Do we really want the government to know the details of our health? And do we want the government to manipulate us based on our health or health problems?
- Out of control Government bureaucracies which publish thousands of regulations per month—so much that not even an expert can keep track of all of these administrative law decisions.

Religious dogma—I love our major religions but the major religions all have thousands of years of dogma and practice built up over generations until the basic truths they were built upon are hidden except from dedicated seekers.

Cultural expectations—This is what I've run into the most over the last few years as I've learned about what is possible for long term health and longevity and how people have many limiting beliefs.

They have to overcome these beliefs to understand the real possibilities of living a much longer and healthier life than they thought was possible.

We are even fenced in by the technology we use every day.

How many of us have become slaves to answering our cell phones or reading Facebook postings which ping us morning, noon, and night?

Then the thought struck me:

Why don't I form a new community of people who believe like I do and then get them all together in one place-all free from oppression where our beliefs can prosper.

Reading the history of many political and religious freedom movements it became clear that many of the successful groups had gone to live in a place which was physically separated from others—where there might be visitors—but they were few and far between.

Examples included the Mormons, or Quakers, who founded their own towns and societies to all stay together and limit foreigners or non-believers.

Hmm.. Earth was too interconnected now so an isolated colony really wasn't possible there anymore. What about in Space?—yes I liked the idea-but had many more years of work to do to make my thoughts a reality.

Side Story: Joe's Subconscious Beliefs

My name is Joe and I used to be afraid of life.

I was a big guy—250 pounds of muscle in High School and I even got a Black Belt in Tai-Kwan-Do in College.

So-I wasn't afraid of people hurting me, nor I was afraid of where my life was going, what opportunities I would have in our country with a bureaucratic and oppressive government.

I lived a quiet life, got married, had children, and worked for an insurance company as an adjustor.

I felt that I didn't have much time in my life to do anything creative and viewed my life as short.

It was getting closer to retirement and I felt I was just running out of time.

My friends in their fifties were all about planning their retirements and deaths by purchasing plots in the local cemeteries for themselves and their wives.

I had a daughter Tammy who was on the Habitat project who I shared a lot with and we had coffee together once in a while. She was in her twenties and all excited about the habitat project.

One day I was feeling pretty grumpy. She noticed and said "Dad what are you all upset about, isn't your life fantastic? You have everything." I decided to relate to her how I was feeling.

I told her I was depressed that I didn't seem to have much purpose in life left. That my friends were planning their own deaths and I felt my life was over.

Tammy gave me a smile and said "Dad there are other ways of thinking and living"

"What are you talking about?" I said. She continued "One of the philosophies of our growing Habitat community is based on is the 10 Principles of Personal Longevity. It gives a lot of hope to our people and options to think "Outside of the Box" to live a longer and more meaningful life."

I said "Hmm –that sounds interesting but I don't know". "Do you want to learn more?" Tammy said.

"Sure—Why not" I replied. So she said she would bring by a copy of a book on the 10 Principles to read; which she did the next day.

That weekend I sat down in the back yard and had a beer while reading it.

The first Chapter of the book showed me a lot of records of long lived people which was amazing by itself, to think that I could live a lot longer than I thought—Wow that is amazing!

How come we never learned about Long Lived People anywhere else in our education?

Chapter 2 was about my mission and purpose in life which I knew needed a lot of work.

However, it was Chapter 3 about our Life Urge and Subconscious beliefs which really caught my attention.

I realized that I had many beliefs about the limitations of my life which were making me depressed and holding me back.

I did many exercises from the book and visited the local Personal Longevity Center to change my beliefs.

Something wonderful started happening to me over the next few months.

I had Hope in my life again. I saw an amazing number of opportunities for me and a longer healthy life in front of me to fulfil them.

The biggest thing I decided to do was go back to school-but what to study? Many technologies had arisen since I had been a young man and things had just changed a lot since I was in my twenties.

I realized I had a hidden technical bent or interest which I had never fulfilled. I had always told by friends and family that Engineering or Science was not for me.

This was even though I used to like to take mechanical things apart or build electronics projects as a kid.

Tammy filled me in on the early plans for the Habitat and since I'd always been involved with transportation in my current career I decided to learn more about space transportation systems.

So I got a buyout retirement package from my company and everyone wished me well on my upcoming relaxed retirement. They held a nice retirement luncheon for me and even gave me the traditional Gold Watch.

They had no idea what I was planning.

Over the next few years I attended the local University full time, and I had to take basic Mathematics courses on Calculus, subjects like Celestial Mechanics, and all sorts of courses to work towards and Engineering Degree with focuses on transportation.

As I got enough credits I realized Even a B.S. in Engineering wasn't enough. I needed to specialize in specific types of transportation systems and get a Masters to be really useful.

A lot of work had been done on Space Transportation Systems but not much on combined Solar Sail and Ion Propulsion techniques.

Solar Sails are very simple—just have a very thin sheet of Mylar with many computer controlled strings attached and use it to sail around the Solar System using light pressure from the Sun to go everywhere.

One problem is that when you get far out in the Solar System light intensity decreases, due to your distance from the Sun, and you need either a bigger sail or another type of propulsion system.

Ion Propulsion has been used a long time but has a very low acceleration.

Combined, these two system could offer a lot of help to workers in all parts of the Solar System. We could also provide cheaper transportation options for moving materials from one point to another.

My focus was on bringing costs down when combining the two systems.

I found that focused Solar Energy from the Mylar sail could help generate more electricity to ionize the propulsion gases like Xenon which provided ionic thrust.

Additional electricity could be generated by a nuclear thermionic generator—but it didn't need to be as powerful with Solar Sail generated electricity also available. Or the nuclear pile could be entirely removed and Solar Electricity used overall.

In addition, the more limited Solar Sail propulsion could be added to an Ionic thruster engine further out in the Solar System to give a higher overall specific impulse. (Thrust)

To get more funding for my research from the Habitat community I wanted to see how my work could be combined into their project.

I noticed that the amount of materials to be sent to the L5 point for habitat construction would be 100 times more than asteroid miners were used to producing and sending.

The bottleneck was less in the breaking the Asteroids into manageable sizes and more about cost effectively sending them to the L5 point near earth.

My work suggested that by making combined Solar Sail and Ionic Engines available for moving Asteroid materials to the Habitat orbit to be smelted—would cut transportation costs by one hundred times.

People from the Habitat community teamed up with me to start a company to build and market our combined Solar and Ionic technologies to provide more capabilities for materials to build the Habitat.

My long term goal was to live on the Habitat and I had some great ideas for further space drives to push the whole Habitat around the Solar System or even outside!

Unconditional Love

Neil: One of the 10 Principles which gave me a difficult time to understand was Principle #5 about Unconditional Love.

At first I thought this meant some type of Philosophy that all people were equal and they deserved our love and respect.

This was not the case at all.

This was all about opening up our Heart Chakras. There were exercises and visualizations to do that.

When you had an opening experience it was incredible—you felt a lot of heat going into your heart and then you felt connected to everyone around you.

It was a real spiritual high and one of the most powerful of my life.

This connection continued to happen all the time-even though the new heart energies I took in didn't make a big impression after the first few months.

I did find that this chakra on my own body dramatically improved my connections with others, and that the sense of loneliness which had pervaded my life—disappeared.

I was open to new personal relationships—but I didn't feel hurt if they didn't happen.

Also, there seemed to be some improvements in my immune system from the heart chakra opening. It was only anecdotal evidence, but colds and flus seemed to recede from my existence.

Side Story: A Spiritual Connection Helps Sharon's Health

My name is Sharon and I spent most of my life being sick.

In primary and secondary school I was always out sick with some type of illness or physical problem.

My parents fought a lot and I think it was only because of their four children—my two older brothers and a younger sister—that they stayed together.

This noisy atmosphere filled with acrimony was not a calm place to be, and I experienced stress everyday living at home.

When I was eighteen years old in 2050 I decided to move away from my home in a small Midwestern city in Minnesota.

I moved to Austin, Texas because I heard a lot was going on there.

Got a job as a barista at a large coffee shop chain which had lots of tables for customers.

The nice thing about this company was that they offered me full medical only a couple of months after I joined them.

I still led a nervous and tense life even though I stayed away from drugs or too much alcohol.

Still, I would call my existence –such as it was—to just be treading water in place; and I had already internalized all of the stress from when I used to live at home.

I would go to the Gym a few nights a week to do cycling and to lift some weights, but after a few years I started feeling weaker and tired every day.

It became a problem to get up and go to work and I even quit going to the Gym after feeling like this for a few months.

Went to the doctor and he sent me to a specialist who ran a bunch of tests.

I sat down with the specialist to review the tests. He said "Sharon, I have some bad news for you. You have a rare type of lymph node cancer."

"Well you can cure it right?" I said. He told me "It's true that we can treat most cancers to go into a five year or more remission which we call a cure these days, but not all of them. Your cancer happens to be very aggressive and we don't have good treatments."

"So you mean I'm going to die?" I said with panic in my voice.

He said “We will use some standard cancer treatments on you. But honestly I don’t have a lot of hope for you out more than about a year”.

I told my family and of course they wanted me to come home and stay with them. But I just needed a quiet place to be, and home was not it. Even though my siblings were gradually moving out my parents made enough noise with their loud discussions to make me shudder when I thought about going back.

So I let my sister Kate and Mom visit me to help out after I had the chemo-therapy sessions.

After a few months I was weaker than I ever remember being and my hair was falling out so I wore a hat or cap whenever I went out. Fortunately I didn’t have to wear them often since I rarely went out.

One day, my brother Jim visited me and he said he had something for me. He gave me an old dog eared copy of “The 10 Principles of Personal Longevity”.

I asked him where he got it and he said he was browsing at a used book fair and something told him I might like this. I thanked him and went to my room.

I couldn’t work at this point, and with plenty of time to read I started the book.

Principle number four on the importance of our spiritual connections struck me as very relevant.

The book was saying that we all have a core spirit which we “connect” with and which lives outside of space and time. That creating this connection also improves our health.

It said that certain wellness practices increased our connection using deep prayer, meditation, or communing with nature.

The book further stated that building this connection was at the core of almost all major religions but was often covered up by centuries of dogma and rules those religions imposed on their followers.

I was desperate at this time and looking for anything to hold onto so I asked around.

A yoga teacher at my Gym gave me a good lead. She sent me to talk to a man in his fifties who she said has practiced deep meditation for many years with powerful effects.

I called him—his name was Thomas, and asked to come over. He wanted to know about my problem and when I told him he said “Sure—Lets leave lots of time to chat”

So on Monday evening of the next week I met him at his house. (His wife was in the kitchen so I wasn’t concerned about inappropriate behavior.)

I talked with Thomas for an hour and he told me that having a real spiritual connection could bring a “Blueprint” of health down into my life.

He suggested we have meditation sessions three times each week and then I should practice on my own on the days we weren’t meeting.

He taught me breath control and how to be “Relaxed but Focused”

I learned these techniques in the first few weeks, then he had me learn to go deeper each session.

After a month practicing these exercises he had me visualized that my body was aligning in perfect health with my spirit.

This took a while to visualize, but gradually I started feeling what he was talking about: A feeling of solid wellness grew in my core as I went into a deep meditative state.

Each time I meditated deeply I could feel this core expanding.

My monthly appointment with the doctor was coming up and I was dreading it.

Was anything I was trying working?

My doctor sat me down after the latest tests and looked me in the eyes for thirty seconds not saying anything. I said “What is it?”

He remarked “Are you using any other types of therapies to stabilize your body” I said “Just meditation which I now do every day”

He said “Well it must be doing something, because your white blood cell count is stabilizing and your glands seem to be working better. Keep doing what you are doing—because something is working”

This was after a year of chemotherapy which was just barely keeping me going. Regular meditation must be doing something different to help my body.

I was very pleasantly surprised and said “Really? I’m a bit shocked, but at least I have some hope now”.

He gave me a big smile and a hug and said “I think you may be one of the few that has a shot at beating this.”

After that I listened even more intently to my instructor as he led me through the meditations and worked with me to do more powerful visualizations of my health.

After doing this for six months and having more visits to my Doctor he said “Well it’s not entirely gone but the problem has been reduced 50%. Keep it up!” and I could tell he was really proud of me.

Thinking about the 10 Principles book and how it had helped me I determined to learn a lot more about it and get involved in any organizations related to it.

Using the web I found out that there were Personal Longevity Centers I could attend to learn more of what this philosophy of long term health and happiness was all about.

I also wanted to exercise and compete with others too. But due to my bad health most of my life I had never been in any physical competitions, which was why my decision to compete in Triathlons later surprised everyone.

I started running a few miles per day, and those first runs really hurt. As I built up endurance daily exercise became something I looked forward to.

After a few more months I started entering five kilometers races and eventually worked up to doing full marathons.

Riding my bike and swimming every day were other sports I worked at, and within a few years I was entering my first Triathlon competition.

Even though I finished dead last, the joy of competition and pushing my body to its limits fascinated me so much I kept doing it.

My cancer went into full remission after one year of doing deep mindfulness practices. My doctor shook his head and said sometimes he felt like he was just a witch doctor.

I eventually became a physical trainer, and when I saw that the Habitat organization was looking for physical trainers to keep all those space living people in shape I applied.

I had no idea I would eventually start one of the first Space Athletic competitions.

Starting to Organize

Neil Shakelton: I started to have some success in life.

I also knew that I needed a large organization of powerful people with lots of money to realize my vision so I started to create it. But I had to start small.

Fortunately, my heart chakra opening experiences really improved my connections with others, and made building a community much easier.

Building a new large organization takes years, and needs a lot of people.

At first I setup a meetup.com group to find others with similar interests.

I was surprised to find that many people already knew about the 10 Principles and were implementing them in their lives. Most wanted to realize a big vision. This made my job easier.

At several meetups—both in person and virtually, I presented my plans for a large space habitat at the Moon's L5 point. My thesis was that this could be built with today's technology, and it was a place we could all live together in harmony—and it would be very profitable.

There was much enthusiasm and people started to raise money.

Our individual thousands of members raised 50 million dollars—enough for us to get the project started, and we started planning our first big test in space. We also started building the 3D printers and robots we would need for construction

I estimated we needed 20 billion dollars to build the habitat and that 95% would need to be raised from Corporations and Venture capitalists.

It was important to convince key managers in those organizations that this would be a money making venture.

We also had to develop new technologies to reduce costs and make everything as automated as possible.

My vision was to build a huge habitat—along the lines O'Neil suggested in the 1970s. But we had to do it for much less money.

There was already the beginning of automated asteroid mining in the Asteroid belt, and it costed a lot less to send materials to the Earth system without having to launch them out of a gravity well.

My key innovation for Space Construction was to combine 3D printing with robots to automate construction and assembly in Space.

We had enough money from private sources to test some of these concepts. So I convinced my company to let us add a module to their space facility and have an additional crew and dedicated environment to test things out.

The senior managers in my company could see they stood to make billions in the construction of the habitat which would open up huge new markets in the process.

Now in 2050, there was a lot of demand for new orbiting space facilities, but not a quick way to build them. It was expensive on the order of a billion dollars to build one new facility. We decided to start with a test to build an orbital facility which was pretty large, using these new very cost effective technologies.

We were able to use minimal funding because of the companies that kicked in towards our construction test, and the millions we raised from individuals in my growing organization.

My team consisted of ten persons who all had previous space construction experience. Some of the team included Stan, Iris, Jose, Wilder, Jerome, Havsta, Julian.

Yes it was the same Stan and Iris I knew from my first visit to the Manufacturing Station and I was relieved the have them with me.

At our first meeting on board there were some reservations about the project:

Stan said “Look Neil, you know I’m committed to this Construction Test, but what if it fails spectacularly? We would all have egg on our faces and probably never get another space job.”

I said “Stan and everyone else on this team, the nature of what we are doing has inherent Risk. We all have to be willing to live with that Risk and if this doesn’t work we will be respected anyway.”

“How is that?” Stan said, and many wanted to know.

I said “Many venture capitalists and entrepreneurs know that failure can happened with any of their investments, and many times it does. What is important to them is that we try as many ways to fix our problems as possible and keep persisting in our efforts. If we fail anyway we will have learned something valuable for the next time-and they will respect us for our efforts.”

This answer seemed to satisfy the group and we went on discussing other project issues and personal ones too.

Testing Concepts

Our target design was to build a rotating facility like a donut ring and half a mile in diameter. It was designed to be 50 feet wide. The width could also be expanded over time. This 2500 meter diameter would be big enough to create a 0.7 earth gravity from a rotation of once every two minutes.

We also worked closely with Asteroid Mining, Inc. to get them to send us a separate stream of materials to test our construction process. That company agreed to give us an 80% discount since they would be able scale up their business by a factor of fifty to build our eventual habitat.

The idea was to use 3D Printers to convert the Smelted materials to sheets of a few inches thick which could be thickened to six inches by proper building techniques.

The robots were built by Japanese companies who used our designs; they re-designed them to make them more efficient and add features, and had also made an investment in our construction test.

The robots were designed to weld the construction panels together without stopping—except for when new panels were added.

Once the first layer was complete the additional panels would be layered on each other at different angles to improve overall strength. Carbon composites would be sandwiched in between.

Our original station was built out to house workers and facilities for what any needs we would have.

We also got another ten dedicated people on our team to help run the construction effort and they stayed in more add on modules to the original station. Mostly they teleworked from those modules.

It made for a cramped manufacturing facility, but we only needed personal places to hang our sleeping bags so it worked out okay.

The results were amazing. Aside from some initial programming glitches our entire main structure was built in thirty days. An equivalent structure built on the ground and launched would have taken many years and cost one hundred times more.

It was fun to look outside and see the robots building the facility twenty four hours a day.

I went to the manufacturing location in a space suit one day and watch all the frenetic welding and motion of the robots. Was really afraid I would be smashed to bits by their activity if I got in the way.

To do all the finishing work and turn it over to the contracting firms to use this new manufacturing location took another two months. Three months in total WOW!

This of course brought the total construction costs down from an initially estimate two billion dollars to $100 million. Still a lot of money, but a fraction of previous construction costs.

We made a three hundred percent profit margin on the whole effort which our partners were really excited about.

Getting More Partners

Stan and Iris were still good friends with me, and even though they had moved on from Trans Manufacturing, they still were committed to the 10 Principles and wanted to participate in the new habitat we were going to build.

Stan had moved into the Angel and Venture Capital field and knew a lot of the large multi-billion dollar investment players.

We still needed more Corporate Partners so Stan convinced some billionaires to pony up additional billions to reach our construction funding goals.

I did presentations but took my signals from Stan as to when to talk and when to shut up.

These companies were willing to invest since we promised them one third of our habitable area for them to do whatever they wanted—biologicals, raising animals, new crops, experiments, all sorts of things.

The money started to come in after the first six months of our campaign, but the full amount of billions of dollars would take years. At least we could get started on the main Habitat project.

I should have known at the time that it all came with long strings attached.

Habitat Phase 1-Getting Started

So I ended up balancing two projects at the same time.

Project 1 was to start building the habitat. But Project 2 was more difficult.

Project 2 was about building the community who would populate the habitat and how they all became a team implementing the 10 Principles in their lives in the first place.

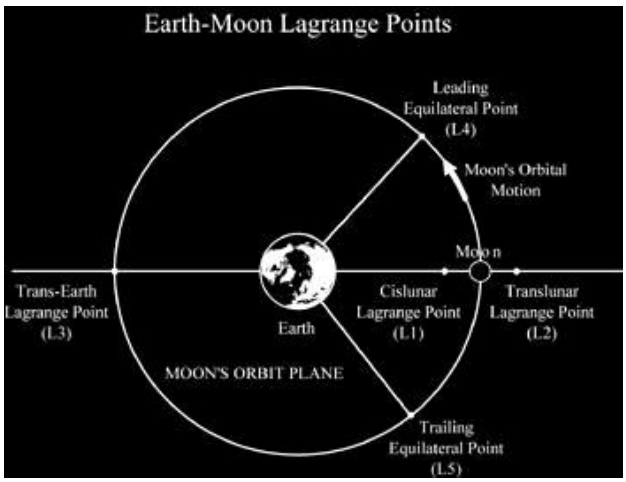
Okay—how did we start the habitat?

First it must be realized that we actually had to build two counter rotating habitats linked together so they would not precess out of place. A fancy way of saying that we wanted the two habitats rotations to balance each other out.

The second thing was where to put the habitat?

We decided to use the L5 or Lagrange 5 point which was equidistantly balanced between the earth and the moon. Anything put into this point (or L4) would stay there.

All we would need would be simple thrusters on the Habitats to keep them in place permanently.



So we assembled a team to build our L5 construction “Shacks” along with tools.

This meant about 20 launches from earth to provide inflatable shelters, supplies, and initial tools.

We also decided we needed about 50 people onsite to get the initial construction done.

Only ten persons were tasked with maintaining our work spacestation. The rest were involved in checking assembly of our work tools. Let me explain….

Most of the work was to be automated by using large numbers of 3D Printers and space adaptable robots.

Our crew of forty astronauts were really all about helping to assemble additional 3D printers after the parts were created on one printer and about assembling and checking the construction robots.

Some of the work also involved maintenance of both types of tools.

The main habitat(s) were to be five miles in diameter and twenty miles long each. This amounts to about 100 square miles of surface area in each habitat or 200 square miles overall.

Each habitat also had to have three feet thick of titanium and graphene laced concrete to make walls and floors for the structures and to keep people inside safe from cosmic rays or Sun storms.

Speaking of graphine, where did we get it all? It is a highly manufactured product after all.

Graphine was refined from deposits of graphite sent to us from the Asteroid Belt. The purification work was done at another manufacturing facility from ores they received from the Asteroid Belt.

We bought the purified graphene from one of our partners since it was already being purified in orbit so it was easy to ship it out to us.

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The amount of volume to create walls and endcaps for was huge. Way too much you think? We didn't think so…..

Construction was on a geometrically growing scale, because as the 3D printers and robots ramped up-the building process would be going faster and faster.

This also meant the materials we received from the Asteroid belt and our smelting processes had to grow in step.

Our Computers worked out the growth plan-we just had to keep providing assembly and maintenance.

Since each construction plate manufactured was to be 100 foot square—that meant we would need about 600,000 hub plates to be constructed. This really meant 3.6 million plates since we needed three layers of each piece to get an overall thickness of three feet.

Each layer as it came out of 3D manufacturing would be six inches thick so six layers at different angles for the habitat shell.

If there were ten robots welding 100 plates per day it would take over 36,000 days or 99 years. If we had 100 robots 3600 days. We settled on 250 robots or about 2700 days which equals about 7 years.

The build up to 250 robots and about 100 3d Printers would take two years, but that meant the outer hulls of our habitats could be finished in about seven years. So seven years was in the plan to generate the plates, and weld or glue them all together.

The 3D printers we all designed to extrude a surface of up to 100 feet in width and six inches deep. This made for some large panels—but we were in space so the printer just had to be held steady we could make any shape as long as we wanted.

We also had smaller printers which could build electronics and sensors layer by layer. These printers used blueprints to assemble all of the electronics needed for the Habitat with integrated circuits (ICs) being one the few things we didn't produce ourselves. The 3D printing work was done at the Nano meter scale.

The ICs were embedded in the electronics by the printers and the whole electronics were tested then embedded wherever we needed them in the structure.

Panels also had to be solid or transparent, so we used a quartz mix for the see through panels.

I went outside with some of the leaders to look at the robots in action. They were amazing.

Each robot had up to six appendages for grabbing and holding, and were powered by solar cells, with small gas thrusters to allow them to move around and keep on a specific site with other automated workers.

The first thing we had to build though were not panels for the habitat shell, but the structure to hold everything in place.

Imagine an "H" with a much enlarged middle bracket which was over twenty miles in length and the upright of the H was ten miles high. Inside this bracket would fit two "rolling pins" which would be the two linked habitats.

The framework was made of titanium, steel, and graphite to provide the strength needed to hold the habitats in place. The framework also had various station thrusters and docking modules for construction, and future supply ships.

We included tunnels for an eventual electric train network.

Also embedded in the stabilization structure were electronics, thrusters, pipelines, and other things we needed to support the entire two Habitats

We could therefore build each habitat from both ends at once.

The endcaps on each one growing towards each other.

You can visualize the end caps starting on each end of the frame work and moving towards each other over time.

While we were getting ready for construction, most of my time as project director was spent making sure our crew was healthy and feeling good about themselves.

We had a lot of social events including celebrations each time we reached a new milestone in the budding construction project.

Also, since the initial phase of construction would take seven years, we had to allow crew members to swap out every six months. Six months at work, and three on the ground, for them to spend time with loved ones, and to fight health and bone density problems from zero G.

Each of us had our own little room-to help us keep our sanity—which was really just the size of an old Apollo Capsule—or the size of several old style phone booths.

The space included a floating sleeping sack, room for personals, and places to stick your sleeping bag on for staying in place. (Chairs aren't needed in zero G.)

Bathrooms were all shared for toilets and showers.

It was while setting up the initial construction effort that I first met Jennifer. She was from the United Kingdom and was a specialist in programming our Printers and Robots.

She didn't really write the programs since that was done on Earth, but she oversaw how they were running, and made changes to make sure all the 3D printers and Robots were working together in sync.

So we met in one of the weekly Friday evening groups where we all watched a movie or group generated entertainment.

She was about 5 foot 10 inches with a medium build, and blonde with blue eyes. We hit it off immediately and started talking shop about my experiences getting 3D printers to work and hers coordinating many types of units together in space.

We knew each other slightly in a professional manner when she asked me "So Neil what do you do for fun up here?" I hate to admit I was stumped because my whole life was work—I thought work was fun.

I stared at her trying to think of an answer. She saw me gaping and smiled "I see you haven't given the idea much thought. Why don't we think of some fun things to do?" I said "Sure. Would love to."

Thus started our sessions for games twice each week. We mostly played chess but also included other games like Go and some online games too where we could play together.

Sometimes we just went to a windowed port to look at the Earth and Stars—but we agreed not to look at the habitat construction—that was work and off limits.

We were holding each other lightly in the windowed area when Jennifer said “Don’t you feel lonely sometimes?” I responded “Yes—But I’m driven to accomplish things—whether with my life or great projects like this Habitat”

I added “But I also like spending time with you. It takes my mind off work, and you make me happy.” Jenn liked that and just hugged me tighter.

It was during these observation times when we would hold onto each other which naturally led to some kissing and more… It was nice to have a good friend I could have real “fun” with.

Habitat Building-The Early Years

How can I describe a multi-year project like this?

Most of it was drudgery and ongoing maintenance work. Just because we were doing an incredible project in space didn't mean that boredom didn't enter the equation.

Yes—there were accidents like several robots running into each other so Jennifer had to re-program their avoidance algorithms.

Or the time five hundred Habitat outer shell plates had to be replaced due to defects found and to replace them with flawless materials. This really hacked our schedule.

So like everyone else I looked forward to my three months back on Earth.

I hardly ever took a vacation but remembered my Dads old advice: "Either take a planned vacation or you will take the time off anyway" He was referring to getting sick or having serious stress related problems.

Back on Earth I met with my old wellness group back in Houston and we continued to work on our Wellness and our Long Term community health

One of the keys to our community was that we were all about achieving an enhanced state of mindfulness to all work together in a harmonious manner.

I also coached individuals to work on their personal mission statements and personal goals. This caused many people to start expanding out of their shells. They took up painting, sailing, or even Aikido marital arts.

It was nice to see people coming out of their shells and enjoying life more.

Jennifer and I became closer and she moved into my tiny apartment on Earth so we could enjoy each other's company all the time.

In space we combined two small personal compartments to have a little more space for the two of us.

I really wasn't used to this since I'd always lived alone as an adult.

It also led to that domestic phrase all men fear "Honey, I really need…."

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Back at the construction shacks at L5 over the next couple of years, the framework for the habitats was taking shape, and early internal construction was starting on the hubs at each end.

We still weren't up to the full complement of printers and robots but you could see real progress.

Disaster struck when I was off duty. Jenny and I were sleeping in one hanging bag in our combined quarters when the alarms went off and red lights started flashing.

I quickly put on some pants and headed to the control room to see that one of the rocks in a shipment from the asteroids had struck the habitat construction area.

I need to backpedal to explain myself.

The normal process of us getting construction materials was for the Asteroid Mining company to send us balls of rock chunks they had blasted out to a rendezvous point about 100 miles from our site.

Then robotic spacecraft would go out to match trajectories and grab hold of the rock blocks or balls to tow them to our solar refinery.

The problem was that the shipment which hit the Habitats was way off course due to a rocket glitch on the rock—which turned out to be a fault in the celestial navigation equipment.

Apparently a contaminated small telescope lenses could give faulty data to the navigation computer.

The rock hit the shell of our under construction Habitat in space instead-while doing several miles per second.

This created a new big hole in the Shelter which endangered the existing construction.

Fortunately the rock was going so fast it just holed the Habitat shell like a giant bullet and left a hole about 200 feet in diameter—which was pretty easy to patch.

The hit had been a type of glancing blow so the other side of the Habitat was not affected.

The hole was easy to fix over the next couple of days, so I was more worried about this happening again rather than the current damage.

The solution turned out to be to install point defense systems on the habitat to send out metal rods to hit and change the trajectories of future objects heading towards the habitat without specific navigation permissions.

The rods were sent by an electromagnetic gun, so they were going thousands of miles per hour when they hit an errant rock or other obstacle.

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A time lapse movie would show the end points of the Habitat growing towards each other over years until they finally met.

This was the reason for a huge celebration at our “shacks” and on the ground the Habitat shells finally met together in the middle.

A lot more work remained but this was a major milestone in overall construction.

Redwood Forest-Building the Inside

We focused most of our initial effort on making the eventual Habitat #1 livable as the first one with an enclosed atmosphere. It was where we were going to move our construction headquarters too. We called the first Habitat “Redwood Forest”.—(with no actual forest existing at the time)

The name was a statement of our vision—not the current reality.

After we moved our shacks into one end of the Habitat onto the “floor” you could look up to see the rest of the now sterile environment, with very little additional light, and no dirt or constructions on the floor.

We had to use lots of large construction lights around our shacks to keep everything visible.

Our Haibitat looked like it had potential, but it certainly didn’t look like a home.

The first things we wanted to do were make the “Redwood Forest Habitat” livable.

This meant adding air, heat, and gravity as soon as possible as well as artificial gravity.

GRAVITY

The first issue to solve was how to keep the rotating cylinders in place and what types of bearings would we use to hold the rotating cylinders while they rotated.

We are talking about a structure which has a mass of billions of tons. Something which can be started rotating step by step—but how to keep it in place?

The problem was addressed during construction by using electromagnets to keep the rotating structure separated from the framework by magnetic repulsion.

This also had the benefit of allowing our computers to use sensors throughout the habitat to tell when the weight was not fully balanced, and to put more repulsion into the magnets as a result to keep things centered on the electromagnetic bearings.

Of course one of the main reasons for building the habitats as rotational cylinders was to have artificial gravity which simulated that on Earth.

For a radius of our rotating habitat of 2.5 miles, and a speed of .48 rotations per minute—we would have approximately one gravity under our feet on the floor of the cylinder.

However, we wanted a much lower gravity for additional interior construction.

This meant we set rotation at 0.15 rotations per minute to have a 10% gravity. Enough to keep things in place—but low enough to make moving things around easier.

Since each habitat was built into a spindle with electromagnetic bearings, all we needed were rotational rockets around the outside of the habitat to start speeding up the rotation from no motion to our desired rotational speed.

And the two cylinders had to rotate in opposite directions to keep everything balanced in the whole facility. Computers monitored the opposite rotations and kept everything in sync.

We used solar powered electric plasma rockets to start the rotation. They didn't have to be very powerful and actually took several weeks to get the rotation up to .10 gravities inside from the centrifugal force.

The cylinder would eventually rotate like a top in its holding framework!

AIR

We collected water from ice asteroids in the belt. They were sent to us along with the rock and mineral Asteroids.

We used mirrors to melt the ice into water next to the water holding tanks.

The water also went through filters to remove gravel and other large impurities.

Air was generated from cracking water into Oxygen and Hydrogen. The Hydrogen would be useful as reaction fuel for the station keeping thrusters.

However, Oxygen was also a dangerous flame risk so we imported carbon dioxide from the Earth where it could be compressed and frozen for transport—plus other gaseous elements.

Nitrogen could be collected from cracking some rocks in the Asteroid Belt but the most cost effective collections turned out to be from probes entering the atmospheres of Uranus and Neptune where the probes did brief entries of their atmospheres to collect and compress these gases.

The probes were then sent back to L5 on month's long trajectories to be emptied and then they went back out to collect more gases.

The final composition of the air was similar to the earthly atmosphere at sea level pressures.

Why not go with an air mixture we know works?

HEAT

The eventual plan was to use rotating solar mirrors to send light and heat into the habitat and to simulate a 24 hour day.

This first mirror as also a test. Not only did it take years to build in parallel with the habitat but it had to be polished to a reflective surface by dedicated polishing robots.

The mirror was made of highly polished aluminum we processed from asteroid rocks and was also built by combinations of 3D printers and assembly robots.

We started with one mirror built outside anchored to the Habitat shell, and constantly shining inside to give us maximum heat and light all the time. We could always close windows on our living shacks to go to sleep.

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We started pumping manufactured air into the habitat and it took a long time to fill.

In fact for the first few months we had to wear spacesuits inside since the pressure was not much different than the top of Mount Everest as far as our breathing needs were concerned.

Rotational jets were started to get the habitat moving up to .15 rotations per minute. This was done over a few weeks also to watch for problems.

Setting up our temporary quarters was really just about setting up pressurized domes on the shell floor and inflating them. These domes had a lot more room than our previous space based quarters and we each had a decent sized hotel sized room for each of us.

The first morning sleeping in the new dome tent I got Jennifer up and we put on our pressure suits then went outside to see the reflected sunlight on the bare floor of the habitat.

It was an amazing feeling to look at the entire enclosure we were in and it almost felt like being on an Earth which was being built.

We both knew what was needed next were DIRT and WATER.

DIRT

Manufacturing earth like dirt is not easy. It has to have the same consistency as earth dirt, the same minerals, and an organic component of microbes, worms, etc. to be what we called “Live Dirt”.

The solution was a mixture of materials from the Asteroid belt which was used by the 3D Printers to turn out microscopically sized modules in the consistency of well-Dirt.

We also needed a process to add living components to the dirt.

We used a mile squared area on the floor of the Habitat to grow earthworms, bugs, and microbes. We grew the “live mix” in smaller batches, then we mixed them in with the large dirt spreads along with some water.

The Dirt all had to be mixed, watered, and living organisms inserted into it.

It usually took several months to become ready and “live”, so we had bulldozers moving dirt around all the time to make sure everything was well mixed.

After a few weeks of mixing and “live growth”, we used a large balloon and tarp which the dirt was bulldozed onto, then we moved the whole contraption to the desired area and emptied it.

WATER

Back in 2015 it was found there was a huge amount of water in the Asteroid belt with water pooled as frozen ice on Ceres.

It was easy enough to shoot us water ice to melt here at the L5 point.

Water ice was melted then mixed with the dirt and also kept in a large set of bladders in the Habitat.

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We need a lot of dirt to cover the bare floor of the habitat.

The plan was to provide contour structures for hills and lakes then cover them in dirt an average of twenty feet thick.

Twenty feet was considered a minimum depth to support living dirt and provide enough depth for the roots of trees and plants which would eventually populate the inside.

The plan was to take five years to build supporting structures and add dirt and water as needed.

Then buildings would be built as people started to settle the inside.

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We also had to worry about radiation storms from the Sun. Large Solar flares could hurt, people, animals, and our sensitive equipment.

This was partially compensated for by having the Habitat shell be at least three feet think with an average of twenty feet of dirt or water on top.

However, we took one more precaution for large storms—to build real storm cellars.

The Storm Cellars were really built under 30 feet of water, with at least 30 feet above, and 30 feet below.

The idea was to build safe rooms with enough Air, Water, and Supplies for a week to house people and animals in the case of the largest solar storms.

These shelters were available to all communities to be used as need. We didn't think they would be really needed except every few years or so.

So visualize that on the shore of many of our large lakes, was a building with stairs going underground.

The building was of course shielded by dirt and plants so it was barely visible—except for emergency signs.

On entering the shelter you would walk down several flights of stairs into the safe room which looked like a hotel with no windows.

Stays were only intended for a few days, so we had dormitory type bunks and apartments for families with communal dining facilities.

The shelters were also designed to be livable with no air outside, and had emergency spacesuits.

These precautions were all in case of a major disaster which might render the Habitat totally airless.

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Overall it might take twenty years for the inside our new world to really start to look green and livable, with cities and towns completed so the whole place would feel like communities on earth.

For now though it was our dome structures on the floor and the basic construction and landscaping of filling the empty space which took up our time.

My attention now turned to the community I was building and how to get them ready to settle here.

Side Story: Erin and Unconditional Love

Hello, my name is Erin and I want to tell you how my life changed dramatically and the way I learned to get along with others.

My early life was a tragedy. I was brought up by dysfunctional parents who were abusive, drug users, who got in trouble many times, and spent a lot of time in Jail.

At the age of thirteen I was taken from my parents by the courts and sent to live in a foster home.

My foster parents tried hard, but they had five foster kids, many with more serious problems so I was ignored most of the time.

I had good grades and eventually got a scholarship to study Psychology in college. By this time my Mother had overdosed and died several years previously and my Dad was in jail for the next ten years on charges of selling illegal drugs.

So I was really on my own with no brothers and sisters.

I remained very much alone, and a real introvert.

Even boys would find me boring and depressed. After a few dates they would find somebody else—even though I thought I was pretty attractive.

So I worked on learning psychology, with plans to have my own practice someday.

Many of my professors remarked that I didn't really have a knack with people and should go into research instead.

While reading many books and online publications, I also read about the planned L5 Habitat community and their Personal Longevity Centers. What I heard from some friends was that they could really help how a person felt about themselves.

So I went to my local Personal Longevity Center and took the initial two days of training on the 10 Principles of Personal Longevity.

The approach to "Unconditional Love" really stuck with me and I found that it was more than just a philosophy.

The real idea was to allow everyone to open their Heart Centers or Chakras to be more connected to others.

We even did some early exercises to get us ready for that to happen.

I decided to work with one of their longevity coaches to learn how to better "Open my Heart".

Over sessions which went on weekly for a couple of months, I finally had an amazing heart opening experience.

After another heart focused meditation with my instructor I started to feel a lot of heat in my heart that was entering me somehow.

As I felt this heat in my heart I had a strong spiritual experience. I felt this incredible love for everyone and everything which was overpowering.

It was a form of personal Ecstasy which is hard to explain. I felt very connected to everyone.

It was an unbelievable feeling and extremely strong. I didn't come down from this natural high for hours.

In the following weeks I continued to feel this heat, and also felt a much stronger connection to everyone.

People seemed to realize this subconsciously and would be friendlier with me than I normally expected.

When I went to a store the checkout clerk would start a conversations which they never had before with me.

When I was at a party I seemed to be the center of attention for everyone—where previously I always sat in the corner alone.

Even my professors remarked that something had changed with me and I really seemed to have a knack with people now; so I should go into professional counseling.

I just felt more connected to everyone which really helped everything I did.

However, I still wanted adventure, and the more I learned about the Habitats under construction the more I wanted to help.

What could I offer the Habitat builders which was of high value or would make me unique enough to be selected?

After reading many articles about people living in Space I found many of them had a common ailment. Most people seemed to suffer from a subconscious fear of their environment going haywire and killing them.

A typical example was a space construction engineer who after one year in space had to quit because he became paranoid about his space suit having imaginary holes, or worries that he would fly off and be lost in space, or that air would escape from his room when he was sleeping and he would die a death in vacuum.

I started seeing these types of patients and developed a therapy which worked for them. It consisted of lots of visualization and hypnotic sessions so they felt the joy of being in Space, not the fear.

I started out holding these sessions on Earth in Houston with spacemen who came to me quietly from word of mouth.

This new “Space Acclimatization Therapy” became well known through some papers I submitted to journals, and pretty soon the Habitat people were contacting me to be part of their crew. I didn’t even have to apply!

I called this newly recognized space induced mental issue “Spaceaphobia” which took root with some space professionals and became a major issue for them after a while.

I was asked to go live in the work camp in space and become a permanent member of the crew.

(This was before the work camp migrated to the shell floor of the Habitat.)

My work must have helped many people because most felt much better after seeing me for a few months, and my Health Supervisor said I was saving the project millions of dollars from not having to recruit new workers.

I was soon to learn just how important my skills would become.

One day I was at my home shelter dome after work when my manager Jake called me with urgency. “Sharon—we have a man who has wired our 3D Printers together and plans to blow them up!”

I knew the 3D printers were the core of the construction operation and damaging them could put the project years behind schedule since new ones would have to be flown up from Earth and assembled from scratch.

I said “I’ll be right there” and took off moving fast in one gravity out the door from my sleeping area.

I had to suit up at the exit from the construction shacks, and a worker shuttle was waiting for me to take me out to the zero gravity construction site where the printers were.

The printers were kept in an enclosed large structure with air and life support so that maintenance workers and engineers could access them easily for fixes and updates.

Finished product was sent out through an airlock to the construction robots who would move the plates to the correct location and weld them into place.

One of the workers was named “Mumad Donnelo” and he had wired all the printers together along with parts of the room to explode on his radio signal.

Mumad apparently had access to lots of the Asteroid blasting gel and had rigged it all up with detonators.

Reading Mumad's personnel file in my tablet on the way to the 3D Printer shack I saw that he had never been in space before this job and had only been here a few months.

Several supervisors and our security officers were in spacesuits next to the site when I got there.

With their permission I turned on my radio and asked him to speak with me. I said "Mumad-What is going on and how can we help you". He responded "These machines want to eat me and they will also produce robots to help them if I get too close anyway. That is why I have to destroy them."

I talked to the security team near me and they said "We need to shoot him and disable him before he destroys anything." I said "Are you sure? He can blow up a lot in there."

They said "We know that, do you have any better ideas?"

I thought about it and said "I can get him to relax and then you can take him"

They had already told me that Mumad had been there for hours and he wanted food and to rest.

I radioed him and said "Mumad, I know this negotiation is going to take a while, would you like some food and we can just chat a while" My idea was to calm him down a lot.

We made sure the food had crushed sleeping pills in it, and delivered it as agreed outside the main airlock door to the printer shelter. He retrieved the package to eat.

All the time I was asking him about his life, and he related how he didn't have a girlfriend, couldn't relate to people and had never been to space before. A classic case of "Spaceaphobia".

I kept talking to him as he become calmer and I could tell he was getting very relaxed.

Soon he wasn't replying at all to what I said, until he just stopped talking.

Our team was standing by on the radio, and when I signaled NOW, they rushed in, saw he was asleep, and took the explosives detonator from him.

Then he was restrained in handcuffs—all while he was still groggy.

He woke up restrained back in our main work structure and looked very confused wondering what had happened.

We all got back to work and I got a lot of praise from the management about my quick thinking and acting in a dangerous situation.

I asked to have a few sessions with Mumad before he was sent back to Earth and management agreed.

I could tell he was open to learning how to connect to people.

Over several years of emails with him while he was in jail, he found he had been able to open his heart and totally change his relationships with people.

Mumad served time for his actions on Earth, but with my therapy he came out of jail after a few years a much happier and more stable person.

My close connection to everyone and my recent abilities to make close friends helped me get a new boyfriend and my time in space was overall a much more enjoyable experience that I expected.

It didn't hurt that I help rescue the project in a time of major danger to its construction timeline.

Our Community

Jennifer and I headed back to Earth for an extended stay.

I wanted to get our group ready to leave but the community had to be expanded dramatically.

We had ten thousand people in our extended group and I needed many times that to start settlements in the Habitats.

How to get 100,000 people involved to start in our program of long term health, happiness, and longevity?

We would eventually need many of people to populate our Habitats but the 100,000 core group was a bare minimum to get started.

We decided to expand national and international longevity centers. Each center could be started for less than a couple hundred thousand dollars.

Since we had many millions to spend from our investors we had already opened a center the previous year in our home city of Houston, TX.

The idea of each center was to teach people the 10 Principles of Personal Longevity, then advanced courses and coaching to help them implement the principles in their lives.

This was a way to get many thousands more and even millions of people involved in living our way of life.

We expected that many of those involved would then want to become colonists of our new worlds.

We also wanted everyone who joined us to have a sense of mindfulness and experience with the 10 Principles.

This mindfulness would help the group work together more on a consensus level and reduce conflicts among us-as well as improve their long term health.

We had a recruitment marketing program which emphasized the ability of everyone to get away from the oppressive bureaucracies on Earth

We also had lots of simulated pictures of what the interior would eventually look like from huge forests to South Seas beauty—along with cities and the curvature of the Habitat in the background.

When people learned they could start new lives free from oppression and in an exciting place to live, they got very interested and wanted to come.

We had five times the numbers of applicants we were asking for to get our initial 100,000 settlers, so we selected many of them based on useful skills.

Some skills which we wanted included:

1) Farmers—we wanted farmers used to growing commercial crops as well as those who raised animals for meat. We wanted to build an entire farming ecology in our Habitat. This was to provide food since we couldn't ship that much food up from Earth.

2) Tourism Agents, Tour Operators, and Hotel Managers. We intended to have a large tourist trade and we wanted professionals to run those industries too. Tourism could and would become a large part of our space based economy.

3) Professional Medical People—Both Eastern and Western medical practitioners. Everything from Doctors and Nurses to Eastern Reiki Healers, Acupuncturists and Herbal healers. All types of medical people from many traditions. We would provide them a great place to practice—free from oppressive government regulations.

4) We also wanted Ministers and Priests of different Religions and Sects. This might sound strange from what we were teaching people about the core spiritual truths, but these established religious organizations had a lot to offer. One thing they could provide was political cover and protection for what we were doing. But we also wanted their cultures and good works to become part of our society. Many were surprised when we approached them but they saw the opportunity for new flocks in space in their futures.

5) And of course we wanted technical people, engineers, computer scientists, geologists, robotics analysts and many more. We needed their technical expertise long term to keep our facilities running as well as marketing our combined expertise for other projects.

We also had many specialists who took trips to different climates like forests or beaches to get an idea of what we wanted in the Habitats.

Our scientists made lots of measurements to better understood the complexities involved in building a new ecology from scratch.

There were many Botanists and animal specialists assigned to figure out a closed loop and robust ecology for our Habitats.

It was important to make sure that our ecology was stable for the long term, so there needed to be a whole cycle developed from microscopic prey to top level predators for our forests and seas.

Of course we wanted to minimize danger to humans so some top level predators like bears were allowed, but the plan was to closely control where they roamed.

In the end—along with our climate planning group we decided that the first Cylinder would have a temperate and forested climate with many lakes and marshes.

The other cylinder was going to be different. It would have tropical beaches and jungles. It would be a lot like the South Seas paradise of Bora Bora.

We named our temperate cylinder “Redwood Forest” after the trees in California, and it was our intention to plant many Redwoods and Sequoias in our new lands.

The other Cylinder was named “Bora Bora Two” since we wanted to emulate that incredible South Seas climate and beauty.

Growth & Conflict

After three months we rotated back to the Habitat to lead the project on site and see how interior construction was going.

The idea was to start building the interior look and feel from the hub where our construction buildings were and move slowly to the other end.

We were creating many habitable and beautiful living spaces along the way.

The construction might take many years to complete overall.

It was already possible to breathe the air which was now only equivalent to an altitude of 18,000 feet on Earth—still needing supplemental oxygen most of the time, which we carried on our backs, but this was much better than wearing a pressure suit or space suit all the time when "outside" inside the cylinder.

You could already see the forms of hills and depressions for a lake taking shape in the first mile out from our Hub.

Dirt was slowly starting to cover these forms, and water filling in a few depressions. The 10% gravity was good enough to keep everything in place.

Before the dirt was placed in proper shapes-like a golf course- the piping for extensive irrigation was installed. Some areas just had sprays into the air, while other areas needed catch basins underground to collect and move the water to lakes or to be re-pumped elsewhere.

Grass and shrubs were then planted in the dirt since it would all take many years for them to mature.

Some areas were intended to be wild and were planted with an assortment of seeds to mimic the look and diversity from Nature.

We added small animals to the new ecologies too. Larger predators would come later.

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Something else was also occurring. Our business partners who we had agreed they could use one quarter of the habitat for what they wanted, for their billions, started building industrial plants on the other end of the facility.

Now, I don't have any problems with industry. We need it to survive as a technological civilization. What I didn't expect was that these companies would decide to do everything too dangerous to do on Earth here in the Habitat.

Originally they wanted to do research on anti-matter here in the habitat.

When we threatened to reject their funds and possibly close the project down they relented.

An expatriate Russian named Dimitri Mebeken was the CEO in charge for our corporate partners who worked with me as since I was the Habitat project head.

We met on Earth originally and he mentioned some Genetic Engineering work to be done in our Habitat. I didn't know he meant disease causing viruses which needed a Class 4 containment to be safe.

His sponsoring company had already setup their Class 4 Containment Facility at the far end of the Redwood Forest Habitat, and imported the viruses and microbes before we learned exactly what they put in there.

Another "Innocent" sounding manufacturing effort had to do with genetic hybrids of animals which we found out later included introducing human genes into Chimps, Water Buffalo, and Anacondas—among others.

Our source of information was our one watering hole we called the "Alien Alcoholics Anonymous" or AAA where everyone hung out after work to shoot the breeze and drink.

One of the lab workers for the industrial companies spilled the beans. When drunk she related that on the other end of the Hub were technologies over there which would change our Universe.

After plying her with a few more drinks she gave our people all the details.

My security service was small but experienced—it was all written up in a report on my desk the next day.

I called Dimitri to setup a meeting with him the next day and took a small flyer down to his end of the Habitat to meet him.

When I confronted him with the evidence of what was going on he looked me in the eyes and said "We paid billions for this opportunity and we will not have a bunch of delusion fantasy driven idiots ruin what we are doing. The payoff is huge and the risk is minor—everything is safely contained."

"This is what you agreed to for the construction money we provided and Earth has no legal hold on us out here."

"The viruses are in a Class 4 facility and the animals are all penned up in secure areas so they can't get out. "

More famous last words were never spoken

I also had a secondary mission—to get Dimitri interested in the 10 Principles of Personal Longevity and to get him interested if I could.

I gave him a printed copy of the book and told him how it had changed my life.

At first he seemed to be looking for what type of Con I was pulling, but after he saw I was sincere he took the book and said he would read it.

Construction Continues

Our initial Habitat residency became one year since the hull was done, while the inside of Redwood Forest really started to look like someplace.

On the outside we now had three fully gimballed mobile mirrors to provide sun everywhere inside in the 24 cycle. It was now as bright at noon here as at midday on Earth.

At our end of the Hub, the construction habitat modules had now moved to inside one of the first true buildings. We did both business and personal apartments in the building.

The building looked well designed and was partly underground so it appeared to grow out of the topsoil. A combination of reflective windows and mirrors help it to blend into the background. A nice trick.

One of the safety features of each permanent structure was that they could maintain atmospheric integrity if the habitat lost atmosphere.

This meant that each building also had a full airlock—although the inner door was left open most of the time.

We considered it extremely unlikely to have a mass depressurization event. Anything likely to make holes big enough to cause us to lose our atmosphere would almost certainly kill the rest of us.

But who could argue about having additional safety features in our work places and homes.

I'm all for redundancy and safety. Good thing we did this too or most of us would be dead.

If you looked around at the man made scenery the effect was more and more like being in a munchkin sized wilderness. All the trees were still less than six feet tall although the grasses were looking wild and getting as tall as many trees.

There were now two filled lakes near us. Both more than a mile long and eighty feet at their deepest.

They were now being stocked with trout and bass.

We were even building simulated sandy shores so people could swim and sun themselves next to the lakes.

One Sunday Jenny and my friends asked me to try something new for fun. I said I was game. We went to the first Lake shore which was called "Little Mediterranean" and to a shack near the beach.

I was excited to see a small motorboat lifted out of the shack and several pairs of waterskies.

They all knew I used to waterski back on Earth, and I was excited, so I told them I would go ahead and try.

We went to the Lake and I jumped in with the skis and also holding the end of the tow rope which was attached to the back of the boat.

When the boat got up to only 10 miles per hour, I started to rise out of the water. My skis planed on top of the water and I hardly sank in at all. Remember that we were then only at .1 gravities so my body wasn't creating much pressure on the water.

I let one ski go and started doing slalom over the wake of the boat, but everything was too easy—since we were riding high and there was very little resistance from gravity on the water.

The others tried too, so at least we did have a fun day.

The air pressure was now the equivalent of 10,000 feet on earth—and many lakes for resorts existed at those altitudes. So although we were out of breath from the exercise, it was well within our abilities.

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We didn't know it then but many experimental viruses and microbes had escaped containment on the other end of the Habitat and a few of them liked to eat metals and adhesive materials.

It turned out that these viruses had migrated through the air to uncovered parts of the structure-especially the transparent parts of the habitat.

Through months they had been eating the adhesives which we used on the Windows to hold them in place because we couldn't weld them.

Gradually the adhesives were being eaten away and small leaks would occur through the cracks in the sides of the windows.

After many months, one of the windows exploded outward from the growing air pressure and its weakening joints. In minutes more windows followed and soon we had a tornado of air trying to get out.

I was sleeping with Jennifer and immediately heard sirens going off and emergency doors closing.

We immediately got our pressure suits on and went to the main control room. Video monitors showed a disaster in process.

We could see instruments recording the drop in pressure to 100 millibars, and less. The lowered pressure was causing the lakes to flash freeze and most of the carefully located plants we freezing and dying..

A tornado of air was outside and was ripping up dirt and plants in all the areas we had tediously constructed and planted.

The problem was not only how to patch the panel which had exploded outward, but how to keep the adhesives from failing on more of them.

Temporary plastic covers were placed over the holes. Now it was time to make longer term repairs.

We decided to address the problem in two ways. First, we sent out the construction robots to replace failing window panels.

They didn't have too much of a problem with escaping air, because most of it was already gone.

At first I didn't know what had caused the disaster, but soon Dimitri called and shame facedly admitted what he thought about the escaped microbes being the problem.

They hadn't told us about the accident a few months previously in which the microbes escaped and he admitted they should have.

I told Dimitri we would have a serious meeting after immediate problem was fixed.

Once the panels had been replaced, we covered each joint in all the windows with antiseptics to kills microbes, and put additional adhesives. The new adhesives were also of a different type which were much less prone to being eaten and destroyed.

We also embedded sensors in every joint to tell if the glue was starting to fail so we could fix it before another explosive decompression.

An additional safety protection were floating balloons which had the electronics to detect a hole and loss of pressure, and a temporary tarp with glue it would place to be stabilized until a repair robot could arrive.

We were lucky that everyone was inside a building and it was the night shift—or we might have lost a lot of people.

The fish in the lakes were lucky since only the tops of the lakes were flash frozen. The deeper parts of the lakes were okay.

However, we did lose young animals in the breeding pens outside of pressurized buildings. That was a real loss of life.

It took months to replace the lost air, but with the improvements to avoid the same problem in the future and with the new monitoring and warning systems we didn't think this problem would happen again.

It took six months to replace all the air and fix the damage. We started over with planting and new animals.

After the first two years inside the structure the first five miles from our hub had been shaped, dirt and water filled in, and planted.

Animals, helpful insects, and birds were released again and they started to multiply.

Fish were added to all the lakes and started to breed so we could catch free fish for dinners.

We kept some lakes very cold so we could grow lobsters and other cold water breeds in them.

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However, the problems with the dangerous things which the research companies could end up releasing were still with us.

In a long drawn out set of negotiations with Dimitri Mebeken we agreed on a new set of rules for us to do regular checks on his facilities and joint regulations which would control dangerous biologicals and chemicals in the future.

We also backed up what we were agreeing to with the potential for us to take physical control of the habitat if it came to that.

Dimitri actually agreed—with reluctance –because his people had invested a huge amount in our venture and they lived here too.

The Habitat being destroyed would destroy most of their companies too, so it was in their best interests to have safety regulations in place.

To my surprise, Dimitri and many of the Corporate workers had become believers in the effectiveness of the 10 Principles.

They even came down to our part of the hub to attend classes and feel the changes in themselves from doing meditation or energy practices.

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We also had another team which had started to work on the inside of Bora Bora 2—the tropical environment. They were a year or two behind us, but making great progress.

Permanent Residency

This chapter is all about residency—not permanent habitation, because we believed that things would continue to grow and change—and who knew what things would look like the Habitats in one hundred years.

In year five after we started building the inside of the structure we decided enough developed environment, safety precautions, and interior buildings were in place to start bringing up non construction workers and their families from earth.

First to arrive were the families of our married workers, and they all had new homes assigned to them which could be separated from each other in our new rolling landscape, or in Condos in the new towns we were building. There were a lot of choices.

We also transplanted our longevity centers to keep helping people implement the 10 Principles as well as introduced a course in our schools to teach all the kids the basics of integrating Spirit, Mind, and Body.

Established religions and other social groups were welcome as long as they agreed to live and let live.

That year over 100,000 people came to live with us it was a real milestone.

We now had not just a continuing construction job, but a community—with all that entails.

Most of the adults needed jobs too, so we set them to work building businesses the community needed.

The new residents started everything from Restaurants to Dry Cleaners, and Grocery Stores.

There were even some pet grooming stores. Yes—people could bring their pets too.

Many distributors and trade organizations were also established since we wanted commercial trade with the other space based communities and Earth too.

I certainly don’t want to forget the farmers, since they were the backbone of our lives in many ways.

The long term plan was to make us self-sufficient in food. It was way too expensive to haul food out of a gravity well.

This meant many acres of land to cultivate, many type of crops, and even planting orchards for eventual harvest.

Our farmers were some of the first permanent residents, and we maintained and had many of the new residents working on our hydroponic gardens to grow food there too.

What about meat? Many objected, but we saw that cows and sheep could be raised too for meat, and they were kept in fenced in areas.

Slaughtering was done by a Co-Op which the farmers started, and after the first couple of years of residency, fresh steak, pork chops, and chicken joined the menu in many restaurants and homes.

We had pressure shelters the animals could be moved into too in case of a breach of the habitat and the farmers would get a few minutes warning.

Once entrepreneur even planted a grape vineyard even though it would take several years for the grapes to be pressed and the wine matured enough to be drinkable.

But our biggest need was a government for the both Habitats.

We all knew we wanted to form a representative democracy, and as the communities developed they would elect delegates to our legislature.

The legislature grew as the population grew and it was designed more on the lines of a Parliament, with the majority party electing the Prime Minister who would appoint a working cabinet to manage our Habitats.

We did a few things different however, in line with the 10 Principles to reduce problems. We were trying to avoid large egos and having individuals impose their will over others. Egotistical and selfish rulers have been one of the biggest problems in history. How could we change that?

Since we lived in the age of computers and electronics, we made rules on each law the legislature passed.

The rule was those laws which would cost more than 10% of the yearly budget or affected more than 30% of the population had to be ratified by the general population.

This was done by persistent email messages and apps which kept bugging people to register their decisions until they almost had to do it. This kept general population confirmations at a 90% level—even though it might take a week or more to get a consensus decision.

The eventual population goal for both habitats was one million so we put the total legislature maximum at 500 persons, knowing that the size of the constituent's bases would grow over time.

Legislative territories had to do with occupations as well as geographical locations.

For example, all the farmers wanted their own representatives in the legislature. These wishes were granted as well as geographic representatives overlapping the farmer's lands.

We also needed a constitution, and so the first job of the delegates –which lasted a few years was to develop a constitution which needed a two thirds vote to be accepted by everyone.

Living in Redwood Forest for Five Years

After five years of building our Habitat community this is how things were:

The manufacturing companies had shrunk and sold off most of their land areas so they now only occupied one eighth of the Redwood Forest Habitat.

They were also building their own manufacturing facilities outside our Habitats and within the L5 point to move all of the dangerous processes.

All of the practices which were a danger to the Habitat or residents would soon be removed to safer areas.

The rest of the Forest Habitat had undergone full initial landscaping. You could stand on the "outside" in the Habitat and see many lakes and hills, with grassed covering them, and trees in the process of building forests.

The tallest trees were now thirty feet high and you could get an idea of what the forests would eventually look like.

Multiple cities had grown and they each consisted of thousands of residents. You could see towers in many of them—since there was plenty of room to grow—which could grow even up to two and a half miles high.

Imagine standing at the End Cap in zero gravity where you enter the Redwood Forest Habitat on the inside.

Near the entrance you would see stairs going down into the ground that led the Habitat transportation system.

There were also a couple of trails which led out of the entrance and down into deeper gravity areas.

The trails started as concrete curving path, in and around trees and grass as you descended. After a mile you started feeling the increase gravity and there were some railings on the trail to help you stabilize and get used to the increased gravity. (Which had been set to one gravity at the highest from increased rotational speeds several years ago.)

There were even some areas to lie on the grass and look upward.

When you did that you saw the entire inside of the Habitat and it was glorious.

Imagine three strips of land with lakes interspersed and towns and cities going all the way to the other Hub—until they faded away in the distance. The air being moist and there being haze which turned the other end into blurs.

In between the three strips of living area were the windows where the solar mirrors shined in simulating day and night. There were also gradual gradations of light as the day progressed.

It all had many colors and looked like you were in an airplane looking down on everything.

The Redwoods and other trees were all still less than thirty feet, so the forests were still small, but you could tell what they would become by looking at the overall plan.

We even had a river with rapids where you could test yourself Kayaking if you wanted.

*****

Some new sports had arisen too. Since the gravity near the centerline of each Habitat was zero, it was possible launch yourself from the End Caps and fly along the centerline.

Many people learned how to fly and even held soccer like games in freefall. With floating goalposts. Teams were formed and it became a great televised competition.

In case you got too much out of the centerline and were brought down by gravity, you could open a parachute and float down safely.

This new living space led Sharon-one of our physical trainers-- to start a new really tough competition.

She was adapting the idea of the Triathlon to our Habitat. Sharon called it the “Greek Space Marathon”. (I don’t know why—it just sound good)

The first race was amazing and many of the dual Habitat settlers took breaks from work to stand at the sidelines or watch on monitors.

I watched too since I was really excited and curious about how the competitors would navigate the challenges.

The distances were also scaled down since Sharon added a few segments.

The field of competitors at the starting line were thirty people—men and women, since some of the segments needed skills; not just endurance and speed.

The first segment started in the main habitat area and was a twenty mile bike ride in one gravity.

The men pulled ahead of most of the women, but a few women were faster than the lagging men.

The second segment was using Kayaks to go down the river. A few tipped over and those people were fished out and were out of the race too.

Women caught up at this point until the remaining twenty five competitors were evenly interspersed-men and women.

I could see that Sharon with her yellow shirt was racing and she was in the middle.

The third segment was a three mile swim in one of the lakes. A couple competitors were already exhausted and had to be pulled from the water since they could not go on.

The fourth event, with a now reduced field, were twenty one persons and it was a race to the end cap from the lake.

The race was fifteen miles but it was a very unusual course.

The race started as normal, but the gravity kept going down. 80% at mile three, 50% at mile seven, and gravity kept reducing from there.

In the last five miles the competitors weren't running as much as jumping. In one tenth of a gravity some jumps could go up twenty five feet.

This is where the real skill came in and a lot of women started catching up.

If you jumped too high, it would take too long to land and others would pass you. You had to jump on the right trajectory. Not just use force.

More people came down at bad angles and got sprained ankles or generally banged up and had to quit.

This left fifteen competitors at the end cap for the fifth challenge.

I saw that the group included Sharon, but also some younger teens—boys and girls, who had been raised in the Habitat the last five years and were the closest we had to "Natives". These kids had lots of time to practice and they were used to variable gravities.

The fifth challenge was to fly down the centerline of the Habitat for five miles using a pair of wings you would flap through a mechanical linkage to your arms and legs.

Once you reached the end of the line—which was a banner held into place by tiny jets, you would parachute to the ground.

The sixth and final challenge was the skydive, and the first one to land in the target area on the ground was the winner.

Women started to catch up on the men, again because skills were needed to flap the wings and their lighter mass made a difference in flying down the centerline.

What we didn't expect in this first race was that the teenagers started catching up and passing the adults with much more strength and endurance.

As the group got to the end of their flying challenge, we saw them dropping off the wings and skydiving down to the finish.

Sharon was still in the race, although the real competitors had dropped to ten—since some didn't know how to fly well and were lagging far behind.

So it was Sharon and the teenagers-five boys and girls who dropped fast without opening their chutes. They were hoping to gain speed and open their chutes at the end to win.

I should also mention that each competitor wore a safety harness with steam powered safety thrusters. If they went too fast and the computer monitoring sensors decided they were going to crash, it would slow them way down to a safe landing, but they would also be out of the race.

Several of the kids were way too enthusiastic and their thrusters went off—keeping them safe, but they were fouled out of the race.

It was a close finish, but when it was over a girl named Marra who was fifteen years old had won the race, and Sharon came in second.

Only seven people finished the complete race. The rest had been thrown out in various race segments or injured on the way.

There were several hundred people at the party celebrating this inaugural race, and Marra got the Winners Crown—smiling shyly as many teen girls do.

Even those who got injured were sitting down—with their bandages on-- and having a great time with the fresh barbeque and wine.

It seemed that a new sport had been invented and everyone started making plans to attend or compete in next years "Greek Space Race".

*****

Amazingly, one our biggest cash producing industries was tourism. Visitors would stay at new hotels—we even had some hotel chains from Earth, and they would spend a few weeks hiking around, boating in the lakes, skiing, sailing, or generally relaxing.

But one of the most exciting things the tourists did which really excited me, was to attend classes on the 10 Principles. They wanted to learn how to live to their optimum potential and personal freedom, and take what they learned back with them to change their Earth habits.

I could see that teaching people the 10 Principles and how to use them in their lives could have a very long term impact on the rest of humanity.

These Tourists also brought in a lot of money too which didn't hurt our community at all.

*****

Our people continued to practice mindfulness techniques and integration of the 10 Principles into their lives.

The full impact of our communities learning the 10 Principles in their lives were just becoming known to us.

Once thing was a lot less religious strife. People brought their own religions with them and they had been building churches, synagogues, and mosques.

But, since these people realized the commonalities of all religions, they were polite together and many interfaith events were planned. Everyone had respect for others cultures and religions.

We had our disagreements-as expected, but everyone in our communities were involved in how to reach a consensus on issues of importance.

Schools were working out, and children were learning important skills in them and having fun too.

In fact one of the newest initiatives was to start planning a college—one for each habitat.

One was to be an engineering and technical school concentrating on construction technologies and techniques we had learned in building the Habitats.

A key difference in the Engineering School was what and how we teach.

We taught construction not only with basic courses, but with a virtual construction program where students learned to build habitats of their designs while wearing virtual reality suites.

The programs were constructed using videos and computer simulations we took from the actual construction.

Students could use tools as appropriate and even speed up the clock in simulation to see the results from their efforts.

Many a student died virtually while building in space, but they learned a lot in the process.

The other things students learned was how to apply the 10 Principles to their lives as an engineer and working in the construction environment.

They learned how being more spiritually centered would help them to remain sharp and objective in a dangerous construction environment, and they learned about how to develop consensus during meetings by avoiding emotions and looking to the common good and the best decisions objectively.

The other college in Bora Bora Two was to be about Philosophy and Wellness; combining the practical application of the 10 Principles to people’s lives.

That school was designed to produce coaches and teachers who had internalized these principles and wanted to help others.

Side courses taught specifics for implementation including Yoga of different types, Meditation Instruction, Tai Chi Teaching, and more.

Bora Bora Two

Talking about Bora Bora Two is fun because I love that place!

Jennifer and I would often take weekend “vacations” there with our friends to see it

We took the tube trains which now connected distant parts of the Redwood Forest Habitat with each other as well as to Bora Bora Two.

These electric and computer controlled trains could take you to stations anywhere in the Habitats within 30 minutes. Trains came to each station every 15 minutes and could each hold 50 people.

We reached Bora Bora Two (BB2) on the train from our station and headed out into the “islands” to the beach house we usually stayed at.

Inside BB2 it was 70% water, with a simulated ocean near the shore. The Ocean was continuing to be stocked with salt water fish and other sea animals including many types of fish and shellfish.

A reef was even in the process of being built and grown to provide a real reef experience to our children and more diversity of life to our Habitat.

Streams were pumped out at the top of hills to have fresh water and waterfalls everywhere too.

The Ocean was up to 100 feet deep for bottom dwelling fish to live and to have a darker experience for some breeds of fish and whales.

Yes-we had whales—a small breeding colony of grey whales, but they added to our diversity and the food chain.

We also had canals to let the whales move from segment to segment to let them move through the seas and all over BB2.

If you hiked some of the islands—which went up to over 1000 feet high-with cliffs, and looked out over the Ocean, you got a real feel for being on a South Seas Island in the Pacific.

We did avoid raising man eating sharks, but did have some of the gentler breeds as part of the overall food chain.

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Several fish farms and fishing businesses developed to supply residents and visitors with fresh seafood for their diets.

You could go to a fish market or a restaurant and find many of the choices an earthly fish market would offer.

So imagine us living on the beach outside of our house there, and grilling lobsters along with fresh swordfish steaks together.

Add to that some fresh corn on the cob which we brought with us from Redwood Forest, and some home grown beer, and you have the makings of a little summer feast.

We sat with our friends after being satiated by dinner and watch the man made twilight descend over the ocean. The number of colors on the ocean were amazing.

It was incredible to think that we had created this new world from nothing and in the dark and cold emptiness of space.

People were meant to live in tune with Nature. Even if it was an artificially created one.

But our sense of adventure was not totally fulfilled. What could we do next for a next adventure?

See the exciting conclusion to this story in Part 2

“A Trip to the Stars”

Part 2

A Trip to the Stars

The Habitats at 20

After twenty years of living in and building our Habitats many things had changed for the better. At least it seemed so on the surface…..

Our population had increased to one hundred thousand people in our two cylinders mainly due to settlers from Earth. Each Cylinder had about the same population and there was an almost permanent visitor population of around twenty five thousand people.

Many people came here for vacations and visiting scholarships to study our construction and long term health expertise.

If you were to tour Redwood Forest and Bora Bora 2 you would see many amazing things.

*****

I'm Milos Forbish and am the main editor and proprietor of the Space Blog "Settling Space". I had done a series of articles and posts fifteen years ago when the L2 Space settlements were just being populated and thought it was time to do an update visit now—20 years later.

To visualize these two big habitats you need to imagine two rolling pins in brackets next to each other. A supporting framework surrounds the rolling pins to keep them in place and they rotate in opposite directions to stop precession of the whole structure. The after section of the structure has space ports which are non-rotating on the end of these huge structures.

We had no windows on the Shuttle so I couldn't see anything except the TV image in the front of the cabin.

My shuttle arrived at the Redwood Forest port. After entering the airlock we could see the port was over a quarter of a mile across. Really huge.

As I exited my shuttle I saw the huge floor of the port where operations were occurring—most were of a commercial nature and involved mostly moving materials around the floor using robots with air thrusters.

There were also about twenty airlocks where ships would enter and exit the main hanger.

It all contributed to a sense of bustle and activity which I really didn't expect.

My guide and contact waved me down—a gorgeous blonde in her apparent twenties. She shook my hand and introduced herself as Erin.

Erin was a really hot tall blonde with blue eyes. I couldn't wait to get to know her better.

I was also quietly shocked because I knew from reading her bio online that she was actually close to fifty.

Erin was to be my escort through the facilities since she had worked here a long time and she was a weekly reader of my blog—which was how we had met when I asked my readers if any of them lived in the habitats since I said I was looking for a guide on my upcoming trip there.

She escorted me out of the port and down a tube to get to the main hub. We were currently weightless so we had to use handholds to work down the tube. The tube was padded in case we hit our heads—as I'm sure many newcomers had done. It took about 10 minutes for us to see an amazing view.

The tube opened out into an incredible view of the interior of the Redwood Forest Habitat.

I took a seat on a bench nearby—obviously placed for visitors who were too dumbfounded to do anything else but stare.

Looking up you could see the three swaths of greenery and civilization interspersed with windows which provided sunlight during the day and stars at night.

I looked up one swatch as far as I could see and saw a forest of trees—with fields in between, then streams which ran into a lake.

In the lake were numerous sailboats and a few water skiers being pulled too.

On the shore was a small city with towers up to fifty stories high with a dock and a full waterfront like you might expect with an Ocean side city on Earth.

The waterfront included restaurants and bars—lots that looked familiar.

Beyond the city were more fields and what looked like a tall hill which had trees and cliff faces on it.

In the hazy distance beyond to the end of the cylinder were more trees and lakes with what looked like one more city in the distance—but more of an old west down. Buildings—made of wood? Seemed to be down there.

Finally, at the far end of the cylinder I saw a white colored mountain. It didn't make sense…

Erin interrupted my reverie after 10 minutes to say "Milos" are you ready to go to your hotel?

I said "Sorry—this place has turned out to be incredible. The last time I was here three quarters of the cylinder was raw dirt and structures…"

She said "I understand. Most visitors and longtime returnees are just amazed at what things look like now. We always give them time to take in the view" and with a smile started leading me onward.

We entered the closest city to this hub, and saw the sign announcing the city's name as "Port Plymouth"

My hotel room was in a tower with a great view of the green interior. I was about ten stories up and the view was incredible. Instead of taking a nap I just sat on my porch and stared.

It really was incredible what the builders had accomplished in only a couple of decades.

I met Erin for dinner and she took me to a local restaurant by electric cart down one of the roads in our third slice of the habitat which was called "Green One" The other two Sectors were "Green Two" and "Green Three" –How creative..

The restaurant overlooked the lake I had seen earlier from the Hub. We had Oysters and Swordfish which were imported from the Bora Bora 2 Habitat. I was pleasantly surprised that they tasted just like they were from Earth—and the Chef was great too. The fish was very tender and has a sauce to die for.

Erin told me that they had many top chefs from Earth who wanted to start their own restaurants here. Some with two and three Michelin Stars.

Erin and I explored some of the waterfront after dinner and we planned for her to pick me up at the Hotel 9AM the next day.

The next morning we took a slow drive to the other end of Green One and went on some dirt roads through "wild areas" to get there.

In the heavily wooded areas there were also redwood trees which were now just about twenty years old and some reaching over sixty feet high.

I saw deer, moose, and even a black bear while traveling through the woods. There were even campgrounds near streams and we saw one family who all waved at us as we passed by.

They had two tents near a stream and a fire to cook some fish they had caught at a nearby lake.

Erin told me that the builders tried to match the climate of northern California and of the Oregon and Washington forests.

After the forest we came to fields with corn and soy growing as well as farms where you could smell the cows and pigs. Several large roofed structures had more cows and pigs in pens. It really stunk.

I wasn't surprised to see one of the farmers spreading manure fertilizer on their crops using a manure spreading machine.

We continued to drive down the cylinder and came to a lake where we had to take a ferry across. I asked why and was told "This ferry is all part of the historic mentality we have going here".

“You can take a tunnel under the lake if you are in a hurry or transporting freight.”

We entered the wooden town—where every building looked like a reproduction of an old west town. They were all made of wood—which I was told was all locally grown.

We stopped to eat at a café and we saw several people come from outside the town on their horses. They stopped and hitched them to a horse hitch outside and down the street next to what looked like a real live old west saloon.

I half expected a gun fight to break out next—but it was very quiet. There were a few electric vehicles cruising through the town too. I learned the town was named “New Tucson”

After lunch Erin took me to see the biggest surprise yet. We went to continue our trip towards the other Hub and the white mountain got closer and clearer.

I thought I saw people on the white slopes moving down it until I realized the hill was covered with snow and these people were all snowboarding or skiing down it!

I also realized as we got closer that this mountain was over a mile high and the ski slopes were thousands of feet of vertical drop.

I said “Whoa!—How is that possible? I know this is a temperate environment, but the air is still way above freezing here isn’t it?”

Erin smiled and said “We are very proud of our ski slope. It is modeled after Whiteface Mountain which is a famous ski mountain in the upstate part of New York State on Earth.

It has pipes beneath the slopes that radiate to open space to keep the ground cool. We also have less sun directed to this area which allows the temperature to drop below zero at night. Then we use snowmaking machines with chemicals to make snow at lower temperatures than in nature.

The whole environment helps the snow created to not melt so we can use it for winter sports.”

Beyond the mountain near the far end cap was another city called “Asgard” with lots of towers which all had a crystalline look—in keeping with the snowy mountain nearby.

Erin took me to a large building with classic designs in the middle of town and introduced me to the Chairman of the Government.

We entered an elevator from a lobby full of marble and crystal and zoomed to the one hundredth floor. Exiting we saw huge windows-floor to ceiling and about twenty feet high.

The secretary said the Chairman was ready for us and we could go right in.

It was my old acquaintance Neil Shackleton who I knew must be in his eighties—but who looked in his thirties. We shook hands and he said he remembered me since I had interviewed him fifteen years ago.

He said “Milos-How are you? Good to see you.”

I responded “Very well and I’m so impressed with the little I’ve seen of the Habitat today. I’m sure there are many more wonders to see”

“Yes there is a lot to see and we are not standing still. See if you can figure out what our new plans are as you visit the rest of our facilities. You can’t visit our control and planning centers yet. Let’s see how sharp your observations are otherwise. Then come back here and we will have a good talk”.

“Oh by the way—you are not allowed to check our data network—we will know if you cheated”

He said all this with a mysterious smile on his face.

It was clear he wanted me to do my own investigations to come up with uninformed conclusions.

We said more pleasantries, then goodbyes and Erin took us to the building’s basement

It was a quick walk to the tube station. There we caught a train back to the other Hub city which only took twenty five minutes—with three stops on the way.

I ate in my room that night and had a good rest because I was dead tired.

Continuing My Tour

The next day was Tuesday and I met Erin again at 9AM.

She said “Okay Milos. What do you want to see today?”

“I thought you had my tour all planned out.” She said “Since Neil said he wanted you to figure things out—it’s totally up to you”.

I sat and thought about it for a minute while she looked at me and waited.

“Let’s go take a more detailed look at the Ports at the ends of each Habitat.”

So we headed back to the Redwood Forest Port.

In the Port I looked closely at the incoming and outgoing materials.

I saw lots of refrigerated containers. When I asked the workmen what was in them they all said “Ice”. They must be transported tons and tons of ice. Hmm-what did they need all the ice for?

Also, there was structural steel going to and from storage facilities. It looked like a lot more steel than needed for additional building within the Habitat since most of the cities were finished anyway.

Next we took the train over to the Bora Bora 2 Port.

There I saw the same things going on and also more equipment being moved of what looked like new shuttles and packed up equipment for new farming and construction.

Both Habitats were finished. What was all the equipment for? Maybe it was for the new Habitats that I knew about were being built nearby.

Since we were already in Bora Bora 2 I asked Erin if she would show me the sights and she was happy to.

We hiked to the nearest marina which was about half a mile from the Hub.

There were lots of seas here in this Habitat so she rented a powered jet boat and we left on the tour.

Erin explained that the many lakes on this strip of the habitat had different ecosystems for the different marine food sources to breed.

The water was also designed to have different compositions from the open Ocean on Earth to fresh water lakes at different latitudes on Earth.

We rode past some fishing boats and I could see their nets were full of fish which looked like trout and large Bass from a few hundred feet away.

Then we entered a lock on the edge of the lake which opened into a tropical sea. This sea also had tourist boats anchored and we could see people diving into the water to snorkel.

I asked “What are they swimming there for?” She said “We have reefs which we built which are now growing on their own and are beautiful to swim around”.

I felt like going in then to cool off from the heat but decided to wait until another time.

There were also beaches we rode past and saw many people sunning on the beach or swimming off the shore.

A wave generator must be under water because we saw waves one to two feet high continuously hitting the beach.

This entire third land or water portion of the cylinder was two and a half miles wide and the lakes often took up the entire width.

So except for some bridges we had to continue to cross from one lake to another through canals and locks.

I was lying down sunning myself on the boat while the day drifted into evening and the sunlight decreased through the windows as they turned.

I looked up through the windows and thought I saw additional struts outside the windows which I didn’t remember from previous visits.

I asked Erin “What are those structures? I don’t remember them from my last visit?”

She smiled and said “Those are additional structural supports and other structures for the Habitats.”

“What does that mean?” I replied. She just smiled and kept quiet. Then after a couple of minutes “You will have to figure all of this out by yourself.”

We entered the third lake about half way down the Habitat and I saw a large mountain about two miles high rising out of the water.

As we got closer I saw what look like Pterodactyls jumping out of caves near the top. No wait—these were people strapped with wings!

We got closer and I see each rider fall down the cliff until the air currents and wings gave them lift. Then they gracefully started gliding. The wings were all different designs and painted many different colors.

The gliders were graceful and went either alone or in “Flocks” with many persons following a leader.

There was a platform in the lake where many of the gliders were landing after what looked like fifteen to thirty minutes in the air.

We steered the boat to the platform and tied up at the dock next to it.

I asked a couple of the flyers how I could glide too. They said “You need some training and experience”. I said “I’ve done Glider planes for many years-would that experience suffice?”

A young man in the group looked about nineteen and he said “You should have enough experience. If you get into trouble you can always pull your emergency parachute cord”.

They directed me to a facility on shore. We took the boat to the shore and rented me wings and a parachute there.

Then we walked down to the tunnel in the mountain near the rental store. The tunnel was serveral hundred yards long with an elevator at the end.

I took the elevator to the top of the mountain—which took about ten minutes.

When I got to the top it was to exit to a windy platform with a line of flyers getting ready to go.

I put on my equipment and Erin wished me luck and gave me a nice smile.

The gravity was also a lot less—about one fourth normal since we were much closer to the rotating axis of the Bora Bora 2 Habitat.

I got to the head of the line and got ready to jump. The jumpmaster did one last equipment check on me then counted down “Ready—Three, Two, One, Go!”

I jumped and my wings slowly started to catch the air. I went from a scary fall to gradually flying.

I controlled my attitude by pulling on my wing controls to control them like ailerons on an airplane.

It felt great! I was really flying—a lot more real than being inside a Glider.

As I descended I felt gravity increase and the descent rate increased.

The whole trip lasted over twenty minutes as I soared around and enjoyed the view and incredibly free feeling of really flying.

I could see the whole Habitat from the air and it looked like a South Sea paradise.

Finally, at one hundred feet I pulled the rip cord on the parachute and fell into the lake. The wings floated and kept me upright. A boat quickly came out and retrieved me.

It was a wonderful experience overall. I could have done this all day. Unfortunately I knew I had a lot more to see and to solve the mystery Neil has posed.

After I dried off Erin asked me where I want to go next. I told her “Outside”. She looked at my with a mysterious stare and hooded eyes to say “Seriously?”

“Yes. Let’s do it first thing in the morning since it’s getting late now.”

An Outside Inspection

I took the tube train home to my Hotel room and we met again the next morning in the Redwood Forest Port.

Erin was there and was wearing a sexy dress which showed off her chest more than her previous business suit did.

She took me to a space construction skiff. We suited up for extra protection in case the skiff lost atmosphere.

We sat in what was a pretty spare steering compartment and entered the airlock.

A green light turned to red when the air was pumped out then the outer door opened and we exited the airlock.

The outside of the Habitats looked like dull metal in the Sun, but you really got a feeling for how huge the structure was by looking at it as we got half a mile away.

I asked Erin to take us out further and then spotted the first anomaly. Set in between the port areas was obviously a new formation of rockets. I pointed towards them

As she steered closer it was apparent that these rockets were for a lot more that station keeping thrusters. I asked “Are we going somewhere?” She said “Maybe”

These rockets didn’t have traditional nozzles though—it was clear that these were EmDrive type rockets. Rockets which turned electricity into microwaves and provided a propulsion which seemed to violate physics.

This violation was argued by scientists for years until most agreed how it worked. One scientist stated:

> *“At the propagation velocities (greater than one tenth the speed of light) the effects of special relativity must be considered. Different reference planes have to be used for the EM wave and the waveguide itself. The thruster is therefore an open system and a net force can be produced.”*

Then we passed up the sides of the Habitat and I saw that there was a new Superstructure outside of the Habitats to hold the whole structure together with a lot more strength. Obviously designed to allow for several gees of acceleration or deceleration.

Then I saw something weird towards the other end of the Habitats. The other end looked white and pointed.

Erin took me over there and I saw that the other end of the Habitats was now being built out to a point—like the prow of a ship, with many antennas on the structure.

Behind this prow was a huge space—almost half a mile long that was partially filled with something white. It had to be the ice I had seen earlier.

I realized then that the Habitats were being converted to an interstellar spaceship!

Why interstellar? Because the barrier of ice at the front has much more protection than would be needed for any trips around the Solar System.

Also, the Emdrive rockets were intended for slow and continuous acceleration. Again, the rockets seemed to be built for a long distance ride.

This was incredible. And the news story of the century. Why hadn't anyone else reported it yet?

I gave Erin my conclusion and she smiled and said "I knew you would figure it out quickly. We have a meeting schedule tomorrow with Neil for you to learn the details of the project."

We rode back in silence while I continued to look at new structure being added onto the Habitats.

The Interstellar Trip Plan

The next morning Neil welcomed me and Erin to his office which also contained his top advisors.

I asked him “Will I be allowed to announce your plans to the world?” “That is what we are counting on.” He said.

Then we sat down and Neil gave me a summary.

He said “We have been extremely successful with this living Habitat system over the years. We really finished building the insides and tweaking all of the systems over the last twenty years.

Everyone who comes here loves to live here or to visit. In fact we have more requests for immigration than we are ready for”

“Okay-so why this long journey?” I retorted.

Neil nodded and continued “As the Habitats become completed, and new features added, people become bored and looked for new challenges”

“What about all of the scientists working here or those in business working to build new Habitats or increase Mining of the Asteroids” I said.

“That group comprises about 25% of our people. The rest are very restless and want to do something new and ‘Outside the Box’ “ he said.

“How do you know they are restless?”

He told me “We do many surveys both at home and at work which show a lot of people are ‘rudderless’ and want something new. Remember most of the people who came here wanted new challenges in their lives and they get bored quickly.”

“So several years ago in looking for new challenges a research team came to me and showed me their plan for us to become an interstellar colony ship”

I said “But won’t that take generations?—even if you met the technical challenges, and you children many ages later will make it to the star you choose.”

Neil said “Not necessarily. Our people are living the ’10 Principles of Personal Longevity” and they plan to live hundreds of healthy years. Not just to their seventies or eighties as most people think are the limits today. Many of them will live hundreds of years to reach our destination and still be healthy.”

“Wow” I said “That is an incredible idea. So you plan a long trip to another star but also plan to live to get there alive.”

Smiles were all around. These people were not just planning a generational trip but were planning to live it.

As much as Science Fiction loves wormholes or faster than light space drives, we really didn't have any better ideas how to travel to the stars.

So a generational ship with the older generations still alive at the destination. Incredible.

The Engineering Manager was named Tom and he proceeded to show some slides...

"As you saw on your trip we are already building onto the superstructure of the Habitats to provide everything we need"

He proceeded to show me slides for the Rockets, additional strengthening, and the front of the ship"

Tom proceeded to explain "The front of the ship has two purposes. One is to redirect microscopic particles in space away from our ship. The antennas you saw there are all part of a basic electromagnetic shield we are developing."

We also want to provide a shock absorber if anything hits the ship. This is what the ice is for"

"The ice also will be mined for deuterium to use in our Fusion Reactors."

I didn't know about the fusion reactors so asked where they were. Tom said "We have the main five reactors at the back of the ship underneath the rocket assembly. This is because the rockets will need the most energy"

He said "We also have additional reactors which will provide artificial sunlight for the habitat interiors to keep life within the way it is now and to allow us to continue to grow our own food."

Neil chimed in "We are already self-sufficient in food and have an excess of many materials. A big part of our planning is to make sure we have planned enough materials with a safety margin for the trip"

"Okay" I said "So where will you go?"

The Chief Navigator, a woman named Sharon took on the response "We have a lot of choices because we will be accelerating the ship to one third of the speed of light"

"How is that possible? That will take a huge amount of fuel and you will have additional forces which change the whole lifestyle of the Habitats. People will feel the force all the time as well as plants and animals. It will change the whole purpose of having rotating cylinders when people are subject to acceleration and everything will try to go down towards the back of the ship." I said with surety in my voice.

Sharon said “How long do you think we will accelerate and at what speed?”

“I don’t know but it must be at least one gravity and for months” I said

“Well if you have a much longer acceleration curve it would be unnoticeable.” What was she saying?

She continued “If you accelerate for ten years to reach one third of the speed of light it can be done at a constant 0.003 acceleration or three one thousandths of a gravity. Basically nobody will notice. Same thing for deceleration”

I was dumbfounded. This trip could really be done, and the Habitats could take the additional stress of movement without any problems.

“Why one third the speed of light?” I asked.

Sharon said “Beyond that speed any micro particles which hit us will have too much energy to absorb without hurting the ship or breaking down our shields too fast”.

“What about deceleration? Wont you have the back end of the ship facing any particles coming in?”

“Yes” Sharon said. “We will be building another shield for deceleration around the engines later. Also, an electromagnetic deflection system for that end of the ship”.

After listening to the rest of my briefing I said “Thanks for answering my questions and for all the details about your starship plans. I assume this is something you would like to release to the public since you gave me all this information?”

Neil said “Yes—we picked you a few other journalists. They will be briefed later but we are giving you the first look”.

“How did you hide this from everyone?” I asked.

Neil smiled as he said “We haven’t hidden it but we misdirected a lot of questions by talking about traveling around the solar system. Experiments on the Habitats. A storage mechanism. Etcetera. People who visit us are busy and don’t ask a lot of other questions”

Okay I thought. While I said “Wow—this has been really enlightening. I appreciate what you showed me and your confidence in me doing the initial release.”

I continued “One last question. What is the destination?”

Sharon answered “Milos. We are still deciding the destination-we have a few more years to prepare before we are ready.”

“The plan is to choose a destination within five hundred years of the ship’s reach.”

“And have you picked a name for this new ship that the Habitats will become?” I asked

Neil nodded his head and said “The ships name for our modified Habitats will be “The Destiny”

In the Habitat and Destinations

That evening I used my internet connection to file new blog updates and post on various other news sites to get the word out.

At first people were asking me about my new “Science Fiction” story or if I was really serious.

However, as I added pictures of the new construction and some slides from the presentation I had received from the Habitat management team, people were excited and amazed.

I also posted some recordings I had made and those went viral very quickly.

Soon I learned from Erin that the management team was being bombarded with requests for interviews.

Erin was spending more personal time with me and I enjoyed her company. She started sleeping over with me in my hotel room.

I hadn’t received any directive to leave the Habitats and Erin said I could stay another few weeks as a visitor if I wanted. I was excited to stay and frankly to spend more time with Erin.

We planned a few days of recreation and fun Camping and swimming in Redwood Forest lakes and in Bora Bora 2.

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In a large assembly room which could hold a few hundred people, the management team was up on the Dais, and most of the seats were filled in the Auditorium.

Most of the seats were filled with representatives from around the two Habitats and interested persons from all over. There were also a few local reporters.

The subject was choosing the Destiny’s destination.

Images from various probes and the largest telescopes in the Solar System were available to show hundreds of potential habitable planets.

Sharon got up and talked first “I think you all know me. I’m the Chief Navigator for the Habitat.” She joked “This used to be a make work position to keep the Habitats on station but has now become a real job as we become part of a new spaceship!”

Some people gave a perfunctory laugh. A few cheered.

“Our job here today is to start the decision process for a new world which will become our and our descendant’s home. This is only the start of the process which will take a few years.

We will form a decision committee to pick the top planetary candidates.

We will only choose worlds which we think are definitely habitable. Then our entire population will choose from the final candidates for our final destination.

I want to emphasize that we plan all of our top choices to be completely habitable and the vote will be based on the total parameters we will give everyone to make a choice of the best one for the type of planet on which we want to live"

Sharon then displayed some of the worlds which were possible out of hundreds of choices within six hundred years distance.

She then said "Six hundred years ship distance at one third the speed of light works out to about two hundred light years.

She asked "How many stars do you think are within two hundred light years of Earth?"

She pointed to various hands raised and most said a few hundred stars.

Sharon then stopped the questions and said "The number of stars within 200 light years is about 14,600."

The audience was shocked by this and we heard many "Wows" "That is huge" and "It can't be"

Sharon nodded and continued "Current probes and telescopes lead us to think that two thirds of these stars have planets in the habitable zone. This means we will have up to ten thousand star systems to choose from.

You can now all see that this isn't an easy choice and there may be many, many candidates to choose from for our destination."

I Milos was also in the auditorium and I was amazed by how large this effort to choose a destination would be. I could see now why they needed several years to make the choice.

I decided to ask if I could be assigned to the destination committee.

After the meeting broke up I saw Neil and asked if I could be a member.

He asked me why so I told him "I can be your representative to the rest of humanity on this important decision. You might even want to get their input."

"I can also be a communications channel back to Earth after we launch."

Neil said he would think about it and get back to me.

Erin was at her home that evening to take care of some errands. The next morning Erin came to my door and knocked. I let her in and she said "I don't know what you said to Neil but he wants you on the destination committee."

I smiled and said “That’s Great! Yes—I convinced him I would be a good connection to the rest of humanity through my blog and press credentials”

She looked longingly at me and said “You know you will have to stay here a few years to make this work”

I said “I guess so” Then gave her a kiss. This devolved into a lot of personal intimacy and it looked like staying in the Habitat for a while was going to be a lot of fun.

The Destination Committee

Our first meeting of the committee came to order a few days later as the first of weekly meetings.

The destination committee consisted of twenty persons-mostly scientists, but representatives from all of the ten major Habitat areas too.

Sharon the Head Navigator was elected Chair for one year.

The plan was to go through two hundred candidate stars/planets each week to narrow down our list to fifty within a year or so.

We broke into smaller teams of four persons each to look at candidates. I was on team number two and we needed to look at forty candidates this week.

We got our own conference room and started reviewing the ten systems.

The information included pictures, spectra, and data on orbital times.

Then we ranked them on a one to ten scale on several criteria. These criteria included:

- Whether the orbit looked like one for a good climate
- The availability of atmosphere and water from Spectra
- Whether the gravity is compatible with human life forms
- The distance in light years.
- Uncertainty due to lack of data

Finally, and overall score was generated from the composite of scores and weightings.

After our first sub team meeting, none of our candidates ranked very well. All the stars and planets came out below a five ranking. A good score would have been a forty.

We mentioned our planet ranking system at the weekly full team meeting and most groups adopted our methodology.

The weeks dragged on and we only had one star/planet ranking over twenty in ten weeks of weekly meetings.

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I spent more time with Erin in my spare time—which I had a lot of. She had to take breaks from work so we mainly went out for fun on her days off.

I tried surfing in Bora Bora 2 in a small sea area.

The surfing area was in a small inland sea which was the full width of one of the three land strips which measure two and half miles wide, and ten miles long.

On the shore in the surfing area there were actual waves several feet high with intermittent waves six feet high.

I learned the waves were created under water by a huge wave machine. One of the biggest ever built.

The coast was curved and it seemed like a real ocean shore. White sand beaches and even seaweed which washed up on the sand.

If you were a good surfer you could catch a wave pipe and surf through it—just like on Earth.

I was just a beginner and was happy to just get up on my board and come in on a several foot high wave.

We brought our barbecue to the beach and had a picnic in between swimming and surfing.
I thought—I could really get used to this life.

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On week thirty of our review of stars and planets we came up with a candidate with a high score. It was at *"Xi Scorpii C".* This star and planet was about one hundred light years from Earth.

Recent photos and spectra from a new probe decades ago and which had been sent in that direction and was several light years closer to the star showed some interesting new information.

We had now learned that the Planet in the *"Xi Scorpii C"* system was covered two thirds in water, and had a breathable atmosphere.

It was also in an orbit of 422 days at a distance which was in the colder part of the habitable zone. A region similar to in between Earth and Mars.

The total score was over forty five points which was the highest for any candidate planets reviewed so far.

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Several months later the full committee met again to choose the final candidates.

We had a larger room than the first one which held almost a thousand people.

There were ten candidate planets which all ranked from 35-45.

We had already voted and named our destination planet—whatever was decided to be “New Athens”.

Ten speakers were assigned to do the presentation on their favorite choice and the audience listened.

We all heard about desert planets, ones that might be paradises—but the measurements were unsure. We heard about larger planets with more landmass and water worlds. All of them sounded like great places—but with a lot of uncertainty.

Then the Moderator introduced me “Milos it’s your turn as our journalist to talk about your candidate”.

I started by saying “Well thank you sir and thanks to our audience. I’m here today to talk about our candidate planet “New Athens”

After giving the audience the facts and figures on New Athens I decided to go for an emotional appeal.

Our candidate planet many dramatic features in its topography from what Spectra showed of the chemical composition and estimated age or the system.

I said “Making a decision on our destination is not about just the facts and figures—although New Athens does rank best in that department.”

“Instead it’s not only about a planet that can be successfully settled, but one that we will feel comfortable living in.”

“We know that our candidate for New Athens will be in a more temperate climate like the northern hemisphere on Earth. We also know that there are lots of Oceans, and we are a people who love lakes and seas in our lives.”

“So I appeal to all of you that New Athens will be a place you will all want to live, and we are more confident about it than the other candidates. Thank you for your time.”

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Five days later the Habitats voted their preference on the ten candidates. After several hours the electronic votes were all tallied and our candidate for New Athens won.

I had several people congratulate me on my presentation and I just replied that the planets stood out and we made our case based on our measurements and observations of it.

Getting the Ship Ready to Leave

Now that a decision had been made on our destination it was time to finish preparations to leave.

It would still be several years until we left and there was lots to do.

One thing which was necessary was for those who decided to not make the trip to another star to leave over the next few years.

It turned out that over ninety percent of our permanent population planned to stay since they all liked living in our Habitat anyway.

We had been told that those who didn't want to settle the planet could stay in the Habitats which would also provide a backup living location and ecology in case the planetary settlement didn't work out.

We also had to contend with hundreds of thousands who wanted to join our trip from Earth.

Our total theoretical capacity of people living on the Habitats was over one million people, but we wanted to keep it down to under four hundred thousand in case of unexpected population expansion or to allow an additional resource margin.

Again, the current population was one hundred thousand and we decided to take on just another fifty thousand people who were reviewed and interviewed and who had the skills to make good settlers on a new world.

So in addition to spaceship capabilities we also had to build new housing in our cities to accommodate these people. This wasn't too difficult since most of the current tourists would be leaving.

We also put together a permanent committee to do Risk Analysis on the most probable types of problems we would encounter on our journey. The committee consisted of Sociologists, Psychologists, Engineers, Political Leaders, and even Military.

As leader of the Habitat I wanted to be closely involved in this process, so I Neil Shackleton made myself leader of this committee.

We wanted a broad diversity of specialties to cover the unexpected.

We also read many Science Fiction books to come up with possible scenarios.

After several meetings this list of potential problems was put together by the committee, and each one had a proposed mitigation:

Social Unrest or Disintegration

Most science fiction stories about long interstellar voyages come up with the scenario of the enclosed society going to chaos. Whether it's about dictators or terrorists, the common theme is societal disintegration which puts the colony ship in danger.

Mitigation: We decided that a two step process of intelligence on what was going on throughout the Habitats and standard policing to make sure all rules were obeyed would be two things we could do to reduce unrest.

It also helped that many people who would live very long lives would be on the journey, and would provide a continuity of civilization and expertise to guile our population

Another solution we already had in place—regular direct elections of officials at all levels to reflect concerns and issues of our interstellar society.

Meteorite Strikes in Interstellar Space

The issue on this subject was how big a strike.

Small particles had already been dealt with through our ice shields and electromagnetic shields.

If a strike was too large it would just destroy the ship and there was nothing we could do about it.

It was a continuous worry though.

Additional Mitigation: Having emergency teams who practiced for damage control procedures and more safe areas for the population in case of pressure losses inside the ship.

We already had built and were building more pressurized homes and buildings. Additional shelters were built out in the countryside.

Animals were trained to head to their shelters when hearing particular warning tones.

Aliens already on the planet

Would there already be a population on the planet and what would we do in that case?

The obvious choices were to just leave for another destination or have a team who could negotiate with the aliens. (Of course we would be the aliens on their planet.)

Additional Mitigation: Build up our Team for Alien contact and have them develop different scenarios and software tools to enable Alien communication and translation.

Mechanical Breakdowns

Even though we were going to bring lots of extra materials and would have our own manufacturing tools like 3D printers, we were concerned that there would be something we forgot that would come to be a problem.

Or maybe we would end up using materials too fast.

The Mitigation was several fold.

First to have more than 10 times the supplies we projected were needed of critical materials or components.

Second was to have an ongoing research program about how to replace things with substitutes if something went wrong.

Population Growth and Control

The cornerstone of our growth plan was to expand and get everyone and further planning and following the 10 Principles of Personal Longevity to increase long term health and longevity to at least the length of our mission.

It was part of our big plan for us to live to see our destination star and remain in good health.

This trip would be over a period of over three hundred years, and that would mean extending our lives for longer than anyone had thought.

The Mitigation of longevity was to get everyone immersed in the 10 Principles and keep up significant aging research too.

For population growth over that period, we want to limit it to a doubling of the population which was still well within the resources which the population would consume.

Defense and Weapons

Even though we were planning a peaceful mission it's possible that we might have disturbances which would need to be put down during the trip or a fight with aliens at our destination.

Mitigation was to have caches of weapons (most of which were secret) and have some of our many of our population trained in military techniques including in various types of simulators.

Our "National Guard" could do regular exercises to build their skills and for fun too.

Boredom

The biggest unknown several of us on the Risk team were concerned about was Big Boredom on a huge scale.

There just wasn't any information on what people would do who needed to get away.

On earth people could go travel, or start a new profession.

In our ship, everything would be purposely constrained.

Mitigation: One idea was to also start sports leagues which would take a lot of time and focus attention on the teams instead of on themselves.

We could plan for more research, but we clearly didn't have a solution for the trip.

We made it a regular group of creative people to make life interesting for all to stop both short term and long term boredom

Once we got to our destination, boredom would not be a problem.

Launch Day

After years of preparation, collection of supplies, planning for the future and taking into account everything we could, it was finally time to go.

There was no way to do a short trip around the Solar System since velocity would be built up over a long period of time, so there were no test flights. Then engines had been previously tested anyway.

Also, individual systems had been flight tested around the Solar System in the years we were getting ready.

The Habitats themselves had already proven their closed life support viability over the last twenty five years.

Reporters did one last set of live interviews with our leaders then headed out in shuttles to Earth.

It was a bustling last week with new settlers coming in or the last persons leaving, and there were many wet eyes in the process.

So Launch Day started with festivals all over the habitats and then a count down and announcement along with projection screens as we left the Solar System for our planned three hundred year flight across the vastness of interstellar space.

The truth was you could not really see anything different to start with and could only measure our speed by sensors and computer displays.

Due to the low acceleration of only three one thousands of a gravity you could not feel it within the Habitats either.

The only way to notice would be to float in the center of the Habitat in zero gee and measure how you were slowly moving towards the rear of the ship using radar or lasers to measure your speed.

But launch day was a great day for a party and new holiday.

Erin and I tried to think of something unique to mark the day and so we had built a time capsule with lots of pictures, technology, and other ideas on a Thumb Drive all in a container.

Some of these ideas had been generated on earth, and some by computers. The ideas were pretty wild and many involving how to save ourselves getting out of ridiculous scenarios.

There were many ideas the Risk Management team never analyzed and maybe they would have some use in the future.

We had excavated a hole and had a small crowd gathered round as we buried the time capsule.

The stone marker over it said it was to be opened when we reached New Athens in three hundred years.

There were some big contests too like Surfing or Skiing.

A basic Olympics called “The Space Olympics” was also held during the first two weeks of launch with plans to do the same every four years.

We would see how this sporting event would evolve over time.

Year One of the Voyage

Neil: As our leader I kept us organized and working on all our tasks to keep the ship healthy and the people inside it happy.

We were doing extensive original research.

Part of this research involved setting up many telescopes for radio, and different light sources since we would be traveling where no one had gone before.

Another area of research was longevity since the plan was for our population to survive to the end of the trip.

When we passed Plutos orbit near the end of the first year, it was cause for another celebration.

I was happy that everything was working so well, but just had a low level intuition that something might go wrong on the trip and it would be totally unexpected.

I also decided to join one of the intramural softball teams since I had always loved the sport and now that leagues were forming we would see how we could do.

We played weekly at a park near one of the lakes and always had a great picnic afterword for the players and the families.

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Milos here, still doing my Blog. Erin and I had of course decided to live together, get married, and have kids.

We had a boy Luke who was five, while our toddler Millett was two years old. Marion would come a few years later.

I still put my Blog out a couple of time a week and it was lasered back to Earth where I know we had millions of loyal readers.

Year 10 of the Voyage

We were now in true Interstellar Space. Everything with the ship was in great shape.

Our people also seemed fulfilled by their work and were getting enough stimulation too.

Our psychologists reported that the high level of mental health in our Habitats seemed to be holding out well.

Mindfulness practices were becoming very common and medical measurements of our population showed a big decrease in stress and corresponding decrease in chronic diseases and aging illnesses.

There were a couple of anomalies which didn't make any sense at the time.

Like the middle aged man whose wings quit working and his parachute didn't open.

You would expect him to die on impact, but he hit the ground flat, then got up with just a broken nose as he wobbled up the rescuers. Very strange.

Or like the woman in her seventies who received a jolt from a one thousand volt powerline she was working on and lived. Even though she had a few burns.

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Oh-I forgot to talk about the transition to artificial daylight from the Sun pouring in as we left the Solar System.

There was a gradual transition over the first year and half as the ship left the Solar System.

The fusion generator lights and heat elements started to kick in as we went further out of the Solar System.

You could hardly realize the transition inside since the frequencies of light, lumens, and heat delivered were the same.

You would have to look up to see artificial fixtures instead of sunlight pouring in.

Plants and people seemed to take these changes all in stride.

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Messages from Earth were still received and we sent back our messages as I sent my Blog every week.

The only changes of note there were that more Habitats were being built. The Habitat Engineering School we had built left many experts who wanted to construct their own space living areas.

We counted ten separate plans to build Space Homes—it would take them years but we were glad we had started something which was growing.

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My son Luke was doing well in school and was really interested in propulsion engineering.

I was happy he looked like he would find a career he could focus on for the next two hundred ninety years.

Side Story: Stacy Lifestyles and Diets

In about year nine of the voyage, Stacy Mills took an interest in the wellness of the ship's population.

Of course others were also interested and had been helping people plan how to use the 10 Principles in their lives since before the ship left the Solar System.

Stacy was different in that she was both a scientist and wellness expert.

Stacy was thirty years old and she worked for the Wellness directorate and analyzed statistics on the overall population.

These stats were from Hospitals, surveys, measurements in school, gyms, and other facilities. All of this data was collected in her offices available to report on.

She saw several long term trends which disturbed her including general gains in weight at all ages, reductions of exercise, and very fatty diets that more and more people were eating.

Relationships were already recognized between those problems people had in taking care of themselves and the types and numbers of chronic diseases which people acquired over the years.

Doing very long range projections she calculated that if these trends continued then ninety percent of the current population would die before reaching New Athens in the "Xi Scorpii C" star system.

This was unacceptable, because even with new residents being born, some very valuable knowledge and experience would be lost during the trip which might mean a disaster in settling the new planet.

As a result Stacy decided to do some research on why people lived as long as they did. She had at her fingertips all of the websites from Earth and much additional research data which had been copied into the ship's libraries for the voyage.

Stacey was interested in the longest lived communities back on Earth.

There were many long lived communities on Earth and she picked four of the largest to delve into.

She did months of research and found something amazing.

All four of these communities had many things in common as to why they had the largest number of Centenarians in the world.

The communities studied were The Hunzas in Northern Pakistan, Azerbaijan near the Black Sea, Vilcabamba in Ecuador, and Okinawa, Japan.

These commonalities included many factors and here are a few of them:

- Older people were respected as having lots of wisdom in their communities.
- People had lots of daily exercise because of their lifestyles to tend animals, fields, or just get firewood in the mountains.
- The Diet was not vegetarian but included only one to three percent meat or fish. The rest was based on fruits and vegetables.
- Water in three of the inland sites was from fresh springs and had lots of natural purity.

Stacy also found many traditional diets which were dishes which could be grown and prepared on the Destiny.

She gave the results to her management and they concurred that a new program should be started based on the evidence she found.

She was assigned to manage the new program and wanted it to be innovative and to get most of the Habitats personnel involved.

So she setup a combination of lifestyle training and competition.

The training portion of the program was to teach people about proper diets and lifestyles based on the information she had collected.

Then she setup measurements for everyone who participated to check their exercise and diets to see who was meeting the guidelines.

Teams were also organized for diets and lifestyles to play games like softball and volleyball.

Medical tests on the participants also provided records of how their bodies were actually doing with the new diets and exercise.

All of these activities generated points the participants. The Teams with the most points each quarter were given credits by the government which could be used for better housing, housing expansions, vacation trips, and more.

After a year or two, many more people joined the teams and more rewards were given out. It became a self-sustaining cycle.

Over the next couple of years of collecting data, Stacy saw that wellness measurements were increasing steadily in the population.

As these measurements got better and better over the following decades it was clear that a large majority of the population making the trip would survive in healthy states to the end of the trip.

Stacy was one of those people because she had joined a team and kept amassing points because of her improved Diet and Lifestyle.

She also attracted a nice guy named Ken over six months being on the same team. Ken had lost a lot of weight following the new program as had Stacy.

They became friends then more than friends.

So Stacy learned that good things came from just digging deeply into a subject and that from organized efforts people could live even longer and healthier lives.

Side Story: William's Intuition

One of the 10 Principles had to do with developing your intuition for safety.

This led some practitioners to start a group focused on this principle.

William Yoganda was one of the organizers.

He had some experiences of simple premonitions during his life.

Around year thirty of the voyage William started a new skill with other residents of The Destiny.

The history of his intuition goes like this: One of William's most memorable experiences was when he was meditating early one morning and thinking about his upcoming few days he would have off to take a little vacation.

He was planning to go skiing at Whiteface Mountain and was visualizing the fun he would have with his friends.

Suddenly, he had a brilliant vision of racing down the slope then hitting an obstacle. The piece of wood or concrete on the ground caught his ski and he went flying off the trail and into a gulley where he blacked out. He was thrown out of his meditation.

A week later he was on the same slope when his ski caught, he had the same fall, and went off the trail in the same place. He was rescued by the mountains Ski Patrol that had a hard time extracting him from the gully and getting him down the mountain strapped in a stokes basket.

Waking up in the infirmary later at the bottom he was lucky to be alive with a broken leg and abrasions all over his body.

He healed, but this was William's first and most powerful experience.

It led him to develop his intuitive skills in ways which would later save the entire ship from destruction.

He developed a technique he could teach others where they would visualize going through a trip and sensing danger throughout the trip. After repeating the trip a few times, the person doing the exercise would have a maximum of impressions about the event or activity in question.

This technique was taught to the intuitive group and led to them sharpening their abilities over time to find and avoid dangerous situations.

Many people later told him they had avoided a dangerous situation as a result only to have their fears confirmed as to how they might have been hurt or killed if they had done what they originally intended.

Year 50 of the Voyage

Something had happened over the last couple of decades. It was unexpected and incredible.

Let's start at the beginning of the story.

Over the last ten years the more unusual stories of people living through normally deathly scenarios had occurred.

At first these events were viewed as just luck, but the number of miraculous saves was counted in the hundreds. Thousands of times more than you would expect from chance.

Some gave credit to William Yoganda and his teachings on intuition. His teachings become more accepted for saving people from danger.

Peoples aslo started to claim they had telepathy—usually with family or people they knew well. This was supported by anecdotal evidence that those persons knew a friend or relative was going to visit them and yes—those persons unexpectedly arrived. Or some other thought of a person who then contacted them right away.

It happened to me-Milos—your blogger.

I had a quick vision of a researcher friend of mine coming to visit me—when we had not communicated or seen each other in years.

Sure enough—at 3PM that day there was a knock at my door and Gerry was standing there when I opened the door. We embraced and had a nice afternoon catching up on each other.

But other things were happening too.

Many people were having dreams and visions of a large asteroid or meteorite hitting the ship in year one hundred and one of the trip—which would end up destroying our dual habitat ship-the Destiny.

It wasn't just one dream reported, but hundreds of dreams or visions of the same event.

The government started keeping track of these reports because there were so many people seeing this future disaster.

And, unknown to the public, the government was taking these reports seriously and spending more time on looking for stray objects in interstellar space.

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There were also now clubs where people practiced new abilities like Psychokinesis—the ability to move matter without touching it—just through the power of the mind.

The effects were usually experiments in moving matches on a table, or causing spoons to bend when held in the hand and stroked.

Even though only a few hundred people claimed strange abilities in their lives the curve was growing over time exponentially.

So far these abilities had become a curiosity and didn't seem to pose a danger to the ship.

More voyagers also started practicing their intuition exercises to reduce personal danger.

These people also reported a future disaster in the trip year of one hundred and one, and that this disaster was looking more and more certain.

Only time would tell if they really was a major emergency headed towards them.

Year 90 of the Voyage

In our ninetieth year of star travel the ship was holding up very well.

Unfortunately, the people were going wacky.

The paranormal abilities people were demonstrating more and more were amazing.

Unfortunately these abilities were often exhibited in destructive ways.

An example was when a young man in Propulsion Engineering lost his temper- lights and switches within several hundred feet of him blew out and circuit breakers were blown.

Fortunately, nothing critical was damaged in that event.

However, multiply this event by thousands over a few decades and the problem was getting much worse every year.

It was only a matter of time before something critical was damaged psychokinetically which would lead to major systems collapses.

Neil Shackleton as leader of his people got the Risk committee together to develop a plan to handle all of the unexpected paranormal powers development.

After extensive research by the committee over a period of weeks no new answers were found.

At the next weekly meeting Neil asked “Does anyone have any new ideas on what to do about this crisis which is affecting our whole journey and which may end in disaster?”

An older member of the committee spoke. “I recall that a time capsule was buried on Launch Day which was supposed to contain additional but unvetted ideas for further Risk scenarios and how they should be handled. Maybe we should dig it up and see what additional ideas are in it.”

Neil said “An excellent idea. Let’s dig it up and get that information into these meetings as soon as possible.

The next day Milos was at the time capsule site with his shovel and started digging with a couple of friends.

It took an hour but they recovered the box. Milos checked the contents and found the thumb drive with the special data.

Several days later there was a special presentation to the committee on the recently uncovered information.

The speaker was a young woman from the committee representing one of the Ocean areas on Bora Bora 2.

She had brought a monk from one of the religious orders with her. That seemed pretty strange.

Her name was Michelle and she said “We have studied the time capsule data very carefully and it does have some new ideas which might explain what is going on with our people.”

“It has to do with the spiritual development our people are going through as they practice mindfulness and meditation.”

“The data included the concept that our population might have an extreme amount of spiritual development over time since we are more focused internally here in deep space. And this is an environment of living which is new to everyone.”

“On Earth you have to do something like go live in a cave to have the same amount of privacy.”

“Here we teach everyone mindfulness and there is lots of time to meditate and think.”

“Let me introduce our Spiritual friend the Zen Monk Roshu Dava. He also has a PHD in Spiritual Philosophy and is an expert on Eastern Spiritual development”

Roshu took the podium. He looked thin and healthy, about fifty years old with a bald head, and we knew he was well over one hundred years in actual age.

He said “Thank you for your attention. Michelle contacted me after she read the new thumb drive data to learn more about Spiritual Development and Siddhas which are abilities which people acquire after years of Mindfulness.”

“I want to tell you all about a famous book written in Sanskrit whose origination goes all the way back to about four hundred years before Christ (400 BCE).”

The book is called “The Yoga Sutras of Patanjali”.

“It consists of four books written in Sanskrit which are relatively short written in that language, but which can be translated into many hundreds of pages when converted to English.”

“This book is often described as an exposition on the Science of Yoga. It provides step by step details on the spiritual development process from an Eastern perspective.”

“It also includes a book mainly about “Siddhas” which are the spiritual powers people develop as a part of the spiritual growth process”.

“It appears that what is happening here in our spaceship and the habitats is that the Mindfulness practices people have been doing consistently for over ninety years are working.”

"Not only are residents learning to optimize their long term health and longevity but they are also becoming very spiritually developed and gaining abilities too".

There was some skepticism in the audience, but nobody had a better idea of what was going on.

Neil said "Wow—that is an interesting idea. So what do you suggest we do about this Roshu?"

Roshu responded "You can't change the spiritual growth we are seeing. It is necessary that people develop to meet your goals for health and longevity and to live out the full journey to New Athens."

"We have to channel this surprising development in our population into productive channels—not try to avoid facing what is happening."

"We need to develop these powers to be used productively-not hope they will go away."

Neil thought for a minute and you could almost see the smoke burning in his brain.

Then he said "Okay, then I propose we have paranormal development groups and rank our population's abilities, then figure out how their abilities can be managed and used productively to help our journey."

The committee discussed the proposal for a couple of hours, but in the end they didn't have any better ideas so they decided to support Neil's ideas.

Here are the major groups which were formed to focus and test people's abilities:

Premonitions

This group included people who had visions of the future. Some were just a few days out and some years in the future.

We wanted to develop this ability to help our society avoid problems and thrive in the future.

This included refining predictions of what object might be heading towards our ship just over ten years away in the one hundred and first year of our trip.

The intuition exercises developed by William Yoganda also became a basic exercise for everyone joining this group.

The Psychokinesis Group

The ability to move objects with your mind and to channel energy is an exciting phenomenon.

We wanted to see if we could harness these abilities to do useful things for our Habitats.

We also wanted to reduce stress related accidents where things around the person in question would fry or blow up.

Healers

It had been known by us for many years that spiritual and energy healers existed. We even used those skills in teaching our population to internalize the 10 Principles.

We already had lots of small healing groups. We just organized and integrated them into one large healing group.

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We also developed a ranking system to rank Persons with psychic abilities or PSIs into Top, Medium and Low categories.

The Low Category was where a person had one or more events in their life but they were still extremely rate. (PSI-L)

A Medium PSI had events more frequently and we could see they were developing into a Stronger PSI. (PSI-M)

The Top category was where a person had one or more abilities and where what they did could materially affect our voyage and success of surviving. (PSI-T)

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Milos: Here is what happened at one weekly meeting of the Psychokinesis group:

First everyone introduced themselves since there were often new members.

Then we all did a meditation to get more relaxed and centered.

After that there were tests on moving objects or trying to generate electricity and mentally light a bulb to rank how strong people were.

One new person came the night I was visiting who said they had a lot of lights popping and electrical sparking issues around them. They wanted to know if we could help.

The woman's name was Kendra and she was about seventy five, but looked thirty.

She had been practicing mindfullness techniques for sixty years every day.

The leader asked her to pick up our heaviest object with her mind. It was a two hundred pound ingot of lead-which she easily levitated.

Then he asked her to hold two heavy wires and generate as much current as she could.

As she held the wires, the current meter went up and up until it showed over two thousand volts.

Sparks started appearing and everyone was worried the building would catch fire and burn down.

Leader John told her “Okay you can slow down and stop now before you wreck our meter”.

Of course Kendra was ranked a PSI-T and lots of help was offered her to help her develop and control her abilities.

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Neil: My descendant Naveen was well grown now and about sixty years old. He was born ten generations after me.

He and I had similar personalities and we spent a lot of time together when he was growing up.

We used to go fishing and skiing together and talked about lots of subjects.

As he was getting older he started to have premonitional dreams about a great accident too.

Even though he had gotten a great technical education growing up, he wanted to participate more and more in the paranormal groups.

He said there might be a way to combine his paranormal skills with technology. I didn’t see it.

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Naveen Shakelton: I decided to attend several Paranormal Group meeting weekly.

At each meeting we were taught exercises to improve our abilities. It was like doing exercise. The more you exercised, the more you would strengthen you muscles. The same thing was true with paranormal abilities.

All of the exercises started by us sitting down on chairs or cross legged and going into a meditational state.

Then we would be led through the exercise.

For moving objects we focused our attention on a weight held up by a string in front of our heads. We were supposed to visualize it moving or even losing weight.

Remember I was doing this exercise weekly in a group and home several times each week for about twenty minutes.

I stuck to the practice for months since I had been told it could take that long to see a result.

In the sixth month of my effort I started to get the lead weight to sway from side to side. After another month I got it to move up and down slowly.

My abilities steadily increased over the years until I was assigned to a team headed by Kendra Jones.

She told us we were going to work on a backup plan to help the ship when the nameless disaster was close to arriving.

Kendra said to the group “We need to become an extra resource to help the ship in case the upcoming astronomical object or objects can’t be handled by our standard drive and technologies.”

We did many types of exercises over the years and found we could actually shield gravitational forces.

The more we worked as a group the more powerful effect we generated.

Side Story: Jean and Vital Forces

Jean Wilkins was forty six years old in year ninety five of the trip when she decided to get serious about her Longevity using the 10 Principles.

Of course she had been taught the 10 Principles in school and even developed a plan with her parents on how to implement them in her life, but never really followed through.

She smoked and used drugs for fun.

She got the pot from black-market contacts on the ship. It was grown mixed in with regular crops in the less travelled areas of the habitats.

And of course advanced medical care could cure most diseases these days.

Jean had numerous affairs and was currently single with no children.

She was out of shape and overweight too

Jean met an old boyfriend at a restaurant one day and they waved to each other then had a bite to eat together.

Jean finally asked her ex-boyfriend why left her.

Tom was hesitant to reply so Jean pressed him “Tom I really want to know even if it hurts.”

“Are you sure?” he replied.

“Yes—I want to learn something from our relationship”

“Okay.” Tom said. “I don’t want to hurt your feelings, but since you asked, I left you because you didn’t seem to care about anything and had no motivation for what you want to do with your life in the future. You just seemed lost. You also let yourself go physicially.”

She was hurt but silent about her feelings and said “Oh…I see. I guess you are right. Haven’t really thought about what I want to do in a long time. I just drift.”

They wrapped up lunch and said their goodbyes saying they wanted to get together soon even though both knew it was a lie.

Later that day and for the next week Jean kept thinking about what she really wanted out of life and she knew she wanted to do at least one thing really well.

The next week she was readying the online news blogs and saw an Ad for a new “Chi Gung” class which was in her town and only a five minute walk from where she lived.

Jean was only doing part time work from her home currently so she decided to go to the initial class.

At the class she saw new students of all ages. There were about twenty five students.

Then the Master came in. He looked like a very fit and charismatic oldster.

He announced himself as Master Lin and that he had been practicing Chi Gung for over one hundred years. He originally learned it in China on Earth and wanted to teach it to others to help them too.

He said it had been helping his health and happiness in life ever since he learned it. That his students would enjoy it too if they stuck with him.

The class would be twice per week on Tuesday and Thursday mornings between 10 AM and 12 PM.

In the first few classes the students learned new stretching and visualization exercises.

This gradually led to meditation in the beginning of the class then energy exercises in the second half.

Over a period of weeks Jean started to feel more energy and lost her lethargy which she assumed was normal since it had been going on so long.

She continued doing meditation and visualization at home every day,

She especially practiced visualizing a store of Chi energy below her Solar Plexus in her intestines.

After several months of practice she was walking in her town when she met an old friend she had last seen over a year ago. Her friend Janice said Janet looked great and must have lost weight too.

After one year of Chi Gung practices Jean started to experience telepathy with others. She would think of them and then they would call or email her.

After five full years of daily practice Jean was becoming an advanced student and helped out Master Lee with his weekly classes.

She was also getting Lee’s private tutoring where she learned to move Chi around and pass it to others to help them heal faster.

Jean also joined the Healers Group and learned that her techniques were not the only ones that could heal others. There were numerous techniques to learn in the group.

Wanting to expand her skills Jean also learned Martial Arts which were made more solid through the Chi she put into these exercises.

After ten years of all of these practices she applied to the Destiny's police force and was accepted.

Her skills in healing others and her advanced Martial Arts combat abilities qualified her.

There wasn't much true crime on the ship, but sometimes crimes of passion or disagreements between people. And yes sometimes bar fights would still occur.

One example of a busy evening was when Jean was called to a bar with some rowdy drunk young adults men standing outside.

She told them to disperse and a couple of the larger men decided to take a swing at her. Jean Calmly diverted their punches and had them on the ground in a minute. She handcuffed them and handed them off to some other security people.

Then she saw an obviously pregnant young woman on the ground writhing in pain. She asked the young woman what we wrong and the girl said "I'm drunk and I think I'm having my baby early".

Jean corralled some people in the street also and they all helped the young woman.

Jean knelt down and passed Chi to the woman to calm her down. Finally, the ambulance arrived and the paramedics helped with the birth while Jean comforted the woman.

Ending her shift at midnight Jean was tired but very satisfied with her life now. She was helping to keep order and help those in distress too.

Jean would also play an important part in the ship's history but she didn't know it yet.

Year 101 of the Voyage

Everyone was feeling some trepidation during year one hundred and one since this was the predicted year of the cosmic strike.

All our telescopes were looking for an object in near space with observers very stressed if not in a hidden panic.

Premonitions had been refined to the month of March that the event would occur, but it still wasn't clear what type of event and from what direction.

Persons knowledgeable about premonitions believe that the future is a probability but there is a lot of momentum towards certain events.

So it was possible to change events but it would take a lot of work and energy.

As March approached everyone walked and talked like they were on egg shells and they didn't want to break the suspense.

There was still nothing that had been observed which might be dangerous.

Kendra-Who was now one of our top PSI-Ts had a precognitive dream in early March.

In her dream she reported that she was riding a black hole that was shooting through interstellar space and that it was heading towards them at about thirty degrees from dead ahead.

When observers on our instruments took a look at that area there was still nothing, so they use gravity detectors and sure enough they found it in that thirty degree head on direction. The black hole they had found was real trouble.

The rogue black hole was hard to see but it could be imaged and plotted from the distortions it created when viewing surrounding stars. It was also approaching us at one tenth light speed.

The object was only one week away when spotted and even our strongest course change would still cause our ship to fall within the edge of its gravity field.

We did maximum course changes anyway—even over the emergency threshold of the engines.

The changes were not enough. The gravity fields were certain to graze the Destiny.

Our astrophysical calculations showed that the Black Hole tidal forces might cause the ship to break into pieces worst case and best case to have lots of damage which might not be repairable here in deep space.

Our Risk committee met in emergency session to find a way out.

Moving the ship and changing speed and vectors as much as possible would be done; but it wouldn't be enough. The gravity field was just too wide—hundreds of thousands of miles.

We were just about pulling our hair out after meeting for several hours when Kendra Jones—who now led the Psychokinetic team entered our meeting and said she had an answer.

We decided to listen because we were out of ideas.

Kendra spoke to us and told us this—with great hope in her voice:

"Our team believes we have now trained together enough that we can exert one strong kinetic effect on the whole spaceship and habitats to protect us from the close approach of the Black Hole."

"We have been practicing our group efforts for years and really think we can make a difference."

Neil said "We appreciate your offer, but that sounds pretty self-deluded since you are talking about millions of tons on our ship and you are all just a small group of about one hundred fifty people."

Kendra continued "Our plan is to shield the ship from the gravity tidal effects of the black hole as it approaches and until it passes."

She added "Each PSI can only stay focused to help the shield stay solid for about an hour."

Our top scientist said "The most dangerous approach and tidal effects will be for about twelve hours. This seems too long for you all to concentrate."

Kendra said "You are correct and that is why we will work in shifts of about eight persons at a time for one hour each".

The Risk group gave a go ahead because they didn't think Kendra's team could hurt anything but continued emergency preparations anyway.

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The day of the closest black hole approach came and we implemented our emergency plans.

Every business and school was closed. All pools were closed and people retreated from sea communities in Bora Bora 2 to avoid large waves.

All animals were put in their protected shelters and even most wildlife was rounded up and put in wild shelters—kept apart so they didn't kill and eat each other.

Every functional area of the ship: engines, life support, astronomy, hospitals, etc. were all manned with everyone in spacesuits and with their helmets nearby.

Everyone who could be was at home with decompression suits and procedures ready.

*****

The closest approach was the time from 10AM to 10PM ship time. (Zulu)

The PSIs were spread throughout the ship but connected by radios to synchronize their efforts.

At 10AM on the dot the first team of PSIs started to mentally build their gravity shield between the Ship and the Black Hole.

We could tell from ship instruments that outside gravity surges fell nearly to zero.

When 11AM came the second team members were ready to replace the first ones who were already exhausted.

The second team took over to maintain the gravity shield as the first team members just sat down or collapsed after transition.

So it went until closest approach when the strongest team members including Kendra took over.

Since I still wrote my Blog regularly I went to watch Kendra as she took over her Sector of the shield as a writer of ship history. (Assuming we lived to have a history to read.)

I could see her sweating until she entered a deep trance.

The Habitat Scientific TV station kept reporting that the Habitat wasn't experiencing any big surges.

Then I heard Kendra groan and felt a deep vibration in the Habitat structure.

Some outer Habitat panes shattered and you could hear atmosphere escaping until robots started to plug the holes and the sound decreased to that of a stiff breeze.

More shaking was felt and a few gravity jolts which made us all bounce a couple of feet.

I thought everything was going to break up around me when I saw some of the earlier PSI team members coming to our vantage point and stabilizing Kendra with their energy. They held her and braced themselves around her.

I guess they had rested up from some of their earlier exhaustion.

Kendra started to relax and the shaking stopped.

After more hours of fear, but no additional shaking, the TVs sounded the all clear.

You never heard such a group release of breath that we were all still alive and the Habitats were okay.

Damage reports showed that some machinery had been damaged and the rockets would need extensive maintenance, but overall the ship was solid.

The window breakages had been stopped in just a few minutes and so there was no major damage to our biospheres or major losses of atmosphere.

The larger lakes and seas in both Habitats had also sloshed in their basins and cause damage to the surrounding land and structures. Only a few lives were lost in their shelters.

There were lives were lost from all of these disruptions which hurt everyone a lot, but less than one hundred.

We would recover and the paranormal groups had definitely saved all of our lives with their premonitional warnings and psychokinetic shield.

It was decided by the Government that cultivating paranormal abilities in our population would be given a priority from now on.

These PSI abilities might become our “Ace in the Hole” in some future emergency.

Year 150 of the Voyage

We had reached the half way point of our trip. However, the ship wouldn't be turned and slowed down until about fifteen years from our goal.

It was time for some big celebrations. There were lots of events to mark half the journey.

These included fireworks and all the usual holiday activities. We even had parades in the larger cities.

Milos: Erin and I were now great grandparents and we had a family gathering near one of the lakes in Redwood Forest.

We had watersports and swimming on the lake, and our extended family enjoyed the inflated jumpers for kids and wine tasting for us elders.

*****

The halfway point on our voyage was a good time to review our successes in improving our population's long term health and longevity.

A full time group of analysts in our health and wellness community had put together a group of statistics on how well we were managing longevity in our people.

The analysis showed eighty percent of those persons committed to implementing the 10 Principles in their lives we still alive and with a high level of activity.

This meant that out of our initial population before people were added just before launch over eighty percent or eighty thousand people were still alive one hundred fifty years after launch.

That was an incredible rate of success.

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In fact we had another Olympics in the last couple of years and a special category for competitors over one hundred and fifty years old.

One impressive competitor I remembered was one of our original plank holders who was also a daily swimmer. His name was Johann Smits and he was going to compete in the over one hundred year old olympic category.

Johann was due to compete in the eight hundred meter swim race.

To set a the swimming pace a young man of twenty who had won all of the competitions in his age group and was the best swimmer in the habitats was picked to set a pace to match.

This young swimmer was named Tom. He had set a record of seven minutes to do eight hundred meters. With his pacing race he set a time of seven minutes and twenty seconds.

Johann was racing against other competitors in the over one hundred category and beat the pace setter. He ended up at seven minutes ad ten seconds.

There were other examples of our oldsters beating youngsters in many sports-Shot Putt, running, and even archery.

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A festival was held to celebrate both our midway point on the journey and the success so far of our long lived population.

We had many “old style” events like a Barn Dance, which Erin and Milos went too. Milos: I got a couple of glares from her when I stepped on her feet during the old style dancing.

Many of our family members also turned out and we had a long picnic table where we all sat together.

Looking at the wonderful scenery and just all around the Habitat Erin and I locked eyes. In that moment we experienced the love and contentment of having our loving family with us in this beautiful fairy land we had been living in for one hundred fifty years.

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Astronomy had continued to advance, and we had regular transmissions between us and Earth so we kept up to date and they sent us new designs to increase the resolution of our telescopes.

By the way, Earth was now settling the Solar System and many planets and moons had bases and even small cities on them.

A few other interstellar ships had been launched but not many—I think most people there wanted to see how successful we were before committing billions in capital and years of construction to building a new interstellar ship.

Anyway, these increasingly better telescopes allowed us to learn more about our new host planet New Athens.

We could make out what looked like continents and the planet had a moon a little larger than Earth’s Moon plus a smaller moon one hundred miles in diameter which we named Sparta.

The larger moon was named “Olympus”.

We could also make out green and dry areas on the planet. Overall it looked very encouraging.

*****

Our paranormal groups continued to evolve and expand their capabilities.

The success of the Psychokinesis group with the Black Hole gravity shield had really gotten everyone excited about what else they could do.

Now this group was focused on building things with their minds. They were learning to manipulate materials to build objects—much like a 3D printer, but still not very exact. They were improving.

We also formed a new group based on a new type of phenomena.

Teleportation by the mind used to be considered fantasy. But now it was proven.

The first confirmed teleportation event happened after one of our original plank holders named Justin. (Plank holders where those who were living on the ship when we started the voyage)

Justin was caught inside an outer compartment when a tank of chemicals exploded and holed the compartment to space.

The hole was small enough that it would take ten minutes to leak enough air to create a deadly environment. Due to the hole in this compartment, the adjacent compartments went into lockdown and none of the escape doors would open.

After Justin realized his predicament he went into a deep meditative state.

Then he visualized himself back at home—safe and sound. He kept increasing the intensity of his vision.

When the air in the room was almost gone and he was about to die from lack of air, he popped back home.--safe and sound.

Cameras in the damaged room confirmed the event, as did his wife when he appeared out of thin air.

It turned out others had experienced teleportation too but didn't want to talk about it because it seemed so impossible, and they couldn't prove it to others.

The Teleportation Group now consisted of seventy five persons who were practicing to gain control of their abilities.

Some milestones included reliable teleports to target locations between the Habitats.

It usually tired out the teleportation practitioners so they could only do it once per day.

The most exciting teleport was for a person wearing a spacesuit to teleport into space, measure the distance using radio timing, then teleport back.

The record was now over one thousand miles. This ability might be very useful when we started settling New Athens.

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Milos: My great grandson Jason was of age and leading an adult life. He was even married with his own kids.

Jason was Luke's grandson and had some strong PSI abilities too. His career mission was to help guard us all from future disasters.

Jason: In preparation for settling New Athens we focused or organizing our records of future premonitions as we got closer to landing and combining them with all others.

Remember that premonitions are potential futures with branches that have different probabilities.

We learn to navigate in those realms of probability like moving a boat from side to side or a river. We also have to watch for hidden snags or rocks in the river which might sink us.

All of the predictions were indexed online with as many details as possible and many seemed to have a common thread.

This thread was that the initial settlements would go well and then we would have a major crisis which might kill of the population but which we could survive if we really made an effort

Most people outside of our group didn't want to believe this could be true—but we did, and started working on mitigations of this risk on our own and secretly.

Year 280 of the Voyage

The population of our Habitats had started the voyage at one hundred fifty thousand.

Due to population growth over almost three hundred years, we now had over five hundred thousand people.

The growth rate was kept down by community incentives to constrain the growth of families, but mainly by people wanting to wait to have children when we were in our new settlements on New Athens.

Since we were now only twenty years from our destination, preparations for building our new settlement were getting more specific.

With more specific images and sensors about the new planet we could see there were several major continents and many types of topography like earth.

We could also make out herds of what must be some type of animals on the larger plains.

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Everything was decided in committees—which became a joke around the Habitats.

Of course there was a Settlement Committee.

It was chaired by a farmer who was in charge of the largest farming collective in our population.

The committee consisted of various farmers, builders, engineers, and other specialists in land, weather and more.

It was decided to build three settlements in three different geographies, but within trading distance. The reason was to let them support each other but be far enough away from each other to not all be at Risk by the same problems.

One settlement would be near the coast, another about one hundred miles away near a mountain, and one on an inland lake. The third city was about one hundred fifty miles from the other two.

The settlements were named after the types of people in our population.

- Explorer Central for the city near the Ocean.
- Paranormals Preserve for the city near the mountains
- Science Center for the city near the Inland lake

All types of persons could settle in each location but it was thought that each one would attract more people who identified with the name.

We also planned to build farms first and test various crops.

Exploration was also a big initial priority to determine life forms, diseases, and basically get a handle on the unknown.

Initial habitations would just be for those on the planet running tests and doing exploring.

The entire first year was allocated to these tasks with additional visitors from the Habitats as there were resources available.

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The Paranormal groups had also planned how they could help.

The Teleporters volunteered to be part of the exploration teams. They could be dropped in various locations to hike around, take pictures, and make measurements. Then they could teleport home when finished or if in an emergency.

The premonition team was focused on the process of settling the planet and what might go wrong.

They had various visions of being attacked by animals. Some of which seemed to be primitive intelligent natives.

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We also had to start selecting settlement teams, exploration teams, and more.

Out of a population of half a million very intelligent and qualified people it wasn't easy.

Eventually, everyone who wanted to could become a settler, but that would not be until a year of after we arrived.

We had also made a decision that people initially going to the surface would be kept there for a period of time until we could make sure that they hadn't contracted any diseases.

This was an isolation protocol which was designed to protect the rest of us.

This first lanading group would work on initial exploration and laying out our planned settlements, as well as scientists looking for contagious diseases.

Year 300-Arrival at New Athens

Everyone was excited as we entered the new Star System of “Xi Scorpii” and went into orbit around the planet.

Our first step was to launch a ring of Geosynchronous Satellites and start detailed mapping of the surface.

A second much lower group of satellites were launched for GPS and worldwide cell phone coverage.

As the detailed images were displayed crowds gathered in parks or auditoriums to view them.

There were lots of oohs and aahs as major sites like exotic mountains and canyons were displayed.

A huge party was held all afternoon and that evening to celebrate us completing our trip and reaching our destination.

We had also completed the trip with over seventy five percent of our original plank holders still alive and in good health due to serious application of the 10 Principles.

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The initial landing team was made up of twelve people. A real combination of specialties, since this team would have to stay on the planet until cleared and would do the initial work on site.

Neil Shackleton insisted on going along since he started the project.

Many of his advisors said he should stay safe on the Habitats until later, but he was adamant. He said “One of the main things keeping me going at my age is to be able to stand on this new world, breathe its air, and enjoy the scenery of this exciting new step for humanity.”

Milos: We all watch video of the shuttle departing our ship, entering the atmosphere, and landing on the chosen settlement site near the Ocean.

Neil was the first out the airlock and down the ramp. He stood on the soil of this new planet and made this speech:

“It’s amazing to think that we evolved from Apes, and developed the tools and ships to reach across the deadly gulf of space to this world.

From this point humanity will never again become extinct from one disaster or war. This is also the first step to humans settling additional worlds throughout the Universe.

It is an incredible accomplishment anyway you look at it and I want to thank everyone on this trip for their vision, hard work, and optimism to make this accomplishment possible."

The additional members of the landing party made their way onto the surface and many smiles and high fives were in evidence.

After the initial celebrations died away the "First Reconnaissance Team" got down to work the next day.

The plan was to setup some tents and team members to sleep both in tents and in the Shuttle and to store some supplies outside of the Shuttle. Additional working space was also needed.

The scientists took samples of everything from the air and sea, to flora, and fauna.

Some light planes were also assembled to send out three explorers in each flyer to the other two landing sites.

These planes were related to helicopters and able to take off and land vertically. They were also solar and battery powered so fuel shouldn't be a problem.

The samples examined by the team Biologist Mary showed that life here was of the same type as on Earth. It had central DNA and many of the same structures in cells.

What was different was one cellular structure which Mary couldn't make any sense of. She took lots of pictures and sent the results to her support team back on the ship.

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In the meantime, the flyers were on their way to the other sites.

Each trip took only an hour and then those sub teams set down to do their measurements.

The mountain team landed near a river in a field with lots of trees.

They setup their tents and started on a hike to explore the area.

In the woods they found many animals—which looked different than earth ones—but what you might have expected on Earth a few million years ago.

One animal looked like a furry large squirrel, but it had a nasty bite which injected a type of poison into one of the hikers named Eric.

The other two hikers helped Eric back to the landing site where he started sweating and started running a high fever.

Eric continued to get worse and his teammates evacuated him back to the base camp where there was a doctor.

The Doctor couldn't do anything and Eric started to fade further.

Finally, a healer from the ship who could also teleport came down from the ship.

The landing team was surprised to see the Healer pop into existence outside the Medical tent and in front of everyone.

The Healer came into the Medical tent and asked for a chair next to Eric's bed.

His was known as "Hanabeen the Healer" and he sat down next to the patient.

Going into a trance he put his hands on Eric near the bite location.

Then you could see light coming from his hands as he treated Eric.

After half an hour he said he was done and that he had removed the poisons from Eric's system.

He said he had teleported those poisons out of his body.

The monitors showed that Eric's temperature was going down and he woke within an hour to smiling faces.

However, the team was now realistic that there were hidden dangers on this planet.

30 Days after Arrival

More teams had landed on the planet to prepare for settlement.

The sample cropland had been plowed and many crop samples planted.

Soil composition had been checked and specialty fertilizers manufactured to setup for the proper mineral balance in the soil for growing.

It would take a few months to see how the growing process was working.

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Construction machines had also been assembled to build roads between the three sites.

The robotic road builder had been tested on Earth and each only needed a small crew of five to man them.

Each machine could grade, do fills, cut out land, and make pavement from local materials. The human crew could fill in where the robot had limitations.

The roads had already been laid out by planners using GPS coordinates.

It should take a few months to build the road bed between each site and then pave them with concrete made from local materials by the road building robot.

Surveyors were also planning each city site.

The plan was to use large 3D building constructors to build commercial and residential buildings after everything was laid out.

A concrete plant and sawmill were a couple of the priority structures were being built.

Trees were being cut to the right volumes for construction and material collected to make concrete.

We would have to duplicate all of the industries on Earth to make this colony work.

There was also satellite prospecting for oil and other materials to support building our society.

We even needed iron to make steel nails. A small steel plant was also built. The location and foundations were being laid out.

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The Habitats had also voted to start a new Calendar with landing day being called year one of the new era or NE 1.

60 Days after Arrival NE1

Milos: I decided to come down to the planet on a shuttle loaded with critical materials and components to see how things were going.

The quarantine would be finished with 30 days and since no problem diseases had been found so far I felt safe going to visit.

I was met on the landing pad by my descendent Naveen Shakelton (yes Neil Shackleton's descendent too)

Naveen was onsite as a project manager now in charge of Risks for the colony. He travelled all over the three cities in progress and looked for problems he could escalate to the management team.

He welcomed me warmly to the settlement with a hug. I knew him well and we did small updates about the extended family while he drove me to a big tent in his solar buggy.

He told me "You can stay in this tent. Unfortunately it's pretty primitive so you will only have cloth partitions and have to use common Lavatory facilities."

"That's fine I responded. I know things are just getting started so I'll pretend I'm camping out"

Naveed smiled and said "Well, we are not pretending. You will be living with very basic facilities."

Over the next couple of weeks I rode around with Naveen in his buggy as he talked to people all around construction and research activities to see what was going on.

We learned that there had been sightings of what seemed to be a primitive race on this world which were hard to find and pin down. They seemed to avoid contact most of the time but we could see them in the underbrush and our sensors could see them easily.

Satellites also showed some villages in the forests and in and around certain caves nears the Ocean.

Naveen signed us up to join an expedition sent out to meet these primitives.

The team consisted of two guards who carried weapons and several scientists who were specialists in alien contact. (We were actually the aliens on this planet.)

We took one of the planes and landed in a field near the village. It was about fifteen miles from the nearest settlement of ours.

As we walked in there was a crowd which looked like large Chimps, but they also had armor which seemed to grow out of their joints. They clearly had natural shielding from attacks.

The Chimp who was in front seemed to be the Chief. In his eyes I saw the glimmer of what seemed to be intelligence.

The village looked pretty primitive like ones like those in the hidden areas of the Amazon jungle.

Our communications team started putting shapes on the ground and the Chief caught on quickly. Attempts at building a vocabulary ensued and the Chief motioned us over to a canopy out of the sun.

It took over a week before the communication structures reach a level where we could have a productive conversation.

The head of the Contact team had been relayed many questions by the leadership back in the Habitat.

We also traded names and the name of our Chief that we could pronounce was close to “Abulga”

We explained we had travelled from the stars and that we were building our own settlements but wanted to have peaceful trade with these “people”.

After information about our plans was exchanged the Chief started to look uncomfortable and then said we had to leave for our own safety.

He said that their Gods were not happy with our arrival and would destroy us if we didn’t leave.

Abulga insisted that it wasn’t his will but the Gods.

We were skeptical and asked him how he communicated with them.

Abulga said “We pray to them and sometimes the Gods appear to us. And I’m warning you—they don’t want you here and will destroy you if you stay.”

He also pointed out painted wooden statues of the Gods which were pretty tall and had four arms.

This sounded like typical Native God worshiping so we didn’t take it very seriously. We were shortsighted.

6 Months After Arrival Year NE 1

Milos: I had decided to stay on the planet's surface since this was where the action was.

Construction robots and 3D printers were hitting their strides and we were seeing lots of progress in the cities and roads.

You could now drive the entire road from "Explorer Central" to the "Paranormals Preserve". The road was four lanes wide built of concrete.

It was obviously a lot bigger road than we needed by now. Our construction was obviously built for the future.

I also took a ride through the "Science Center" and saw many infrastructure buildings for power and sewage as well as water plants and government centers.

Construction on multiple unit housing was also proceeding well.

These building were on a huge grid of planned roads which had been outlined through the whole city.

More construction and science people were coming down from the ship to start working, but overall settlement was still waiting for one year after arrival.

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There were reports of unusual destruction of construction. Robots which had become disabled in ways that looked like sabotage.

Roads were destroyed by floods and objects across them like rocks when there were no cliffs nearby.

Fires occurred in the cities in construction areas of partially built and even completed buildings.

We didn't have the fire stations working yet and many of these building burned to the ground.

Persons investigating these problems couldn't figure out who did the sabotage or why?

Eventually, cameras were put up all over the place and some of the footage showed some weird scenes.

What could one make out about Rocks being levitated in the air then dropped onto a machine or middle of the road.

Evidence was found of fire starting equipment at burned buildings, but videos of those areas showed nobody there.

The problems got so bad that construction for settlement day-planned at year end—might require a significant delay.

Of course one working idea about the problems was that they were caused by rogue PSIs.

The PSI groups themselves got involved and said they were not able to find anyone involved through their paranormal investigative means.

New Earth Year 2, January First

Settlement day had been delayed for quite a while. Top leadership didn't like to do this but the problems on the planet needed to be solved before exposing the general ship population to the world.

There was something bad going on with our settlements and construction.

The amount of destruction was bigger than some disgruntled humans could possibly have managed.

There were often one hundred problems occurring every day and usually no people anywhere nearby.

Jolinar Mead was put in charge of the investigation of what was going on. He was also being supported by Naveen who had been onsite since just after the landing and several staffers to analyze data.

Jolinar was a Habitat plank holder and over three hundred years old. He had been a police investigator early in his career and was in charge of hundreds of security people on the ship to investigate thousands of minor crimes on the interstellar trip.

He had a hawk like face and didn't suffer fools. Jolinar was all business and no sense of humor when on the job.

In case you wondered, Murder was very rare on the ship and only a few had occurred in a few hundred years—all related to family passions getting out of control.

Jolinar ordered additional cameras to be added and even some high speed ones. Some cameras even had infrared and other sensors for who knows what.

Almost every location in or near the settlements were under surveillance.

Since there were uncounted hours of footage and our team was small we used software to look for unusual anomalies.

The anomalies started to pile up for human review.

Some key videos seemed to show that beings in some type of invisibility suits were in the locations where problems were observed.

How were they seen you ask? Because sometimes the invisibility suits had glitches and part of them showed up. The infrared cameras often caught pictures of the entire being.

The aliens in the invisibility suits were seven feet tall and seemed to have four arms.

Naveen had an epiphany that he had seen this image before in the native villages.

They were the same as the images of the Gods in the primitive's village. There was definitely more of a native connection to this race than we thought.

Jolinar led our team back to the village.

We talked with Abulga again through our translators.

Jolinar started with "Chief please tell me more about your Gods"

Abulga replied "Our Gods come visit us regularly. They appear from nothing, and help our people with advice and miracle cures. They are also very powerful and can cause the storms to stop when they want to protect us."

We asked more questions including this one from Naveen "What is the most miraculous thing your tribe ever saw the Gods do?"

Abulga with awe in his face replied "When I was young there was a stream of lights in the sky and some hit the earth which caused much shaking. We were worried for our lives."

"Then many of the biggest lights blew up in huge explosions which covered the sky. Some explosions were close to the ground too. But we were all saved."

"Later we had a big feast to honor our Gods and several showed up for the feast. We gave great thanks and honored them with dancing and many precious tributes."

After a long discussion we thanked them and left.

Jolinar asked our scientists to measure any radioactivity, especially in the locations Abulga had told us about near the mountains and a certain location on the shore where the meteors were blown up close to the ground.

The results were taken from fly overs and we had our answers the next morning.

Large amounts of radioactivity and byproducts from nuclear explosions had occurred at those locations within the last thirty years.

*****

The Destiny's Defense Directorate and Risk teams met in closed session with Neil as the Moderator.

The defense directorate was a small but highly trained organization which was originally staffed by professionals when we started the journey and also staffed my many persons who went through grueling physical and war training over the years for our National Guard.

Milos was also in attendance as well as leaders from the paranormal teams.

The Admiral in charge of the Defense Directorate was named Richard Patton (A multi-generational descendent of the great WW2 general)

Richard the Admiral gave his analysis at the start of the session.

“After reading the descriptions of damage to our facilities and the summary provided by Jolinar about his recent visit to one of the primitive villages I have to conclude that we are in conflict with an unknown technologically advanced race. This race is the Gods of these primitives”.

“Measurements done of additional sites where the chief said large explosions occurred confirm that nuclear weapons were used at those sites as part of interceptors in the recent past to destroy meteors”

“The fact that the enemy seems to have perfected invisibility suits is an additional complicating factor”.

“We don’t know what additional technologies they have. They might have beam weapons too given the stories about many lights blossoming in the sky”

“We need to find out where they are, why they are destroying our settlements, and what is the level of their weaponry.”

These comments caused a babble of discussions until Neil called for silence to talk to the group.

Neil added “I agree with the Admiral’s conclusions and the biggest mystery is why we haven’t found this advanced race in the time we have been here.”

“We need to use all types sensors and paranormal abilities to find this race so we can defend ourselves and hopefully negotiate an end to their sabotage.”

“I would like some updated reports this week and hope we can find them within the next month”.

The meeting broke up after a few more speakers and there was a definite sense of foreboding in the air.

Searching for an Alien Race

Our Paranormals started that day to use their intuition to try to find the hidden alien civilization.

However, they had unexpected results. All of the team using their intuition and remote viewing skills could only get a general impression that the Aliens were somewhere on the planet.

None of them got specific visions of places to search for the aliens.

The whole planet seemed to be shrouded by some type of anti-paranormal field. It was weird but the PSIs had never encountered these types of viewing problems before.

Our military and exploration contingent were using all of their skills too.

Radar, Infrared, radio noise, and many other types of sensors were used from space and aerial flights to get evidence of some type of emissions.

There also seemed to be some type of electronic fog on the planet too. Images came back with blurs, while other sensors seemed to be working through a storm of static and couldn't get any good readings.

We also sent out ground reconnaissance teams to search.

We sent out twenty five teams, and these teams each had about five persons. On each team, one was a technical specialist, one a contact specialist, and the rest were military or police trained.

Most teams kept back empty handed with nothing for their efforts.

A few teams were sent out with PSI-T persons too.

Team number seven was sent out with an experienced PSI-T with it and was to explore a canyon and cave system within one hundred miles of the settlements.

The PSI-T was Naveen who had been building his skills for years.

He decided to put a low level psychic hiding shield over the group. It was one he could maintain at a low level even when sleeping by adding the shield visualization to his subconscious.

The shield should hide them from others at a distance and from any psychic efforts to visualize them from anyone else.

Naveen's idea was that by shielding their group the Aliens wouldn't see them and might not be warned to hide as a result.

As the team approached the canyon they kept behind rocks and bushes to stay out of sight.

Descending down into the canyon on what seemed to be well worn trails they saw some of the "God" beings in the distance.

Most of the aliens seemed to be using one large cave entrance to enter and leave the canyon floor. None of the aliens saw the reconnaisance group.

A few aircraft also left the cave and then turned invisible as they started to rise into the sky.

The team stopped in a sheltered rocky area until night. They also sent a report and position fix to satellites from there.

The leaders assumed the aliens probably slept at night. When it was all dark and they had waited hours they all put on night vision googles to enter the cave.

After a couple of hundred feet from the cave entrance the floor seemed to be paved. Then they entered what looked like a large cavern full of some types of vehicles without wheels.

These vehicles all had jets and also seemed to have structures on them for some other type of propulsion.

The cavern was about half a mile long, a quarter wide, and was full of many different types of vehicles.

Some of the vehicles had obvious weapons pods. We had no idea what these weapons did.

The team found several passages in the back of the cave.

Entering one they found what looked like some type of transport train.

Nobody was around this whole area. Our group assumed it was the middle of the night.

It turned out later that the "Ghosts" admitted they didn't know we were in their cave because they had never had needs to protect their equipment or observe strangers before we came to the planet.

Entering the train we looked around and there were several symbols on a panel near the front. We pushed one which looked like a city and the train started gaining motion.

The train was obviously going deep underground. After about twenty minutes light appeared in the windows and the team could see a huge cavern which must be miles high.

There was a fog of illumination near the ceiling which made it look like a cloud bank.

In the large cavern were many buildings and obvious manufacturing facilities. The buildings were very graceful and some buildings were actually levitating.

We realized that we were confronting a very advanced civilization—maybe more than our own.

Entering the train station we looked for other trains. We scrambled out of the train and into another one, then found the control panel and hit the icon which looked like a tunnel entrance.

We were lucky that there were only a few aliens at the main entrance to the train station—and they didn't seemed to notice us-maybe because of our PSI camouflage.

We took the train back to the transportation bay and made it out of the facility without a problem.

Lots of video footage was taken to be reviewed later.

*****

The Defense Directorate and General Leadership team met again in the Habitat Administration offices to have a follow on discussion of the "God" race now called the "Ghosts".

Exploration team seven was also invited.

Admiral Patton complimented the Special Forces team and presented a summary of the exploration team number seven which had explored the cave civilization.

"First of all I like to give our warm thanks for exploration team seven who gathered this incredible intelligence for all of us." The room echoed to some enthusiastic applause and the team members waved to the group.

"What team seven discovered is that this entire alien race of Ghosts seems to live underground. The train station in the large cavern had tracks leading off into many directions and probably many other caverns full of these aliens too."

"Their level of technology is high—maybe higher than ours. Kendra also has some conclusions about the Ghosts."

Kendra chimed in "The blockages we have encountered to our PSI abilities are unusual. They seem to be caused not by other Espers but by some type of machines."

"Why do you say that?" Neil questioned.

Kendra replied "The reason is that when we find a shield caused by a biological entity we can always trace the effect to the person and get an image of that person. In this case all of the sensor fog and premonitions fog doesn't refer to a person, but to some type of mechanical source."

Admiral Patton said "If that is the case then these beings may be even more dangerous than we thought".

Neil asked "So what do we do everyone? Can we reach an agreement? Do we fight or leave? We don't even know if we can win a war…."

This last comment caused a lot of those in the meeting to sweat and realize just how serious the “Ghost” issue had become.

Various meeting attendees spoke and a consensus was reached that we should try to negotiate but if that didn’t work we had to prepare for fight or flight.

The "Ghosts"

The race we called the "Ghosts" had an unpronounceable name which would sound something like "msfetjtheresr…insdds" So we will just call them the "Ghosts"

Their race hadn't started on New Eden, but they had settled it over ten thousand years ago.

Their civilization was thousands of years older than Earths, but they had reached a level of what they considered was technological superiority and stabilized it at a level they were comfortable with.

They knew about mental powers, but PSI abilities were considered extremely evil and so shields were developed to confuse others use of those powers. They generally didn't want other "Ghosts" to use these abilities.

Most individual "Ghosts" did not know about PSI at all because the fields they live in didn't let them develop.

The "Ghosts" also believed in not interrupting the development of native species so they had built their entire civilization underground and never came to the surface except to explore or launch into space.

They were a great race but also completely paranoid about other races. They were obsessively anxious and the idea of meeting other races was anathema to them. They would rather die than meet another race in peace.

In looks the "Ghosts" were similar to humans except with four arms and about seven foot high on average with different colored hair on their bodies. Their bodies had been engineered for perfection and the colored hairs were part of their culture and groomed appropriately.

The "Ghost" council met in session and considered the evidence that aliens had visited their cities. Orders went out….

There were sensors of the human's journeys and this was a form of contamination they couldn't stand. The trains they rode in were destroyed.

The air the humans breathed was re-purified. All tunnels they walked in were cleaned and pavement replaced.

After the cleaning the council sat down again to consider their plans.

The leader said "It appears that our random destruction did not stop their building efforts. It just made them curious"

The second said "Maybe we will have to destroy them to get them off our world".

The first listened to the rest of the discussions then announced that if the humans would not leave on their own they would be destroyed.

Plans were made, weapons brought out of storage, and persons volunteered for military training.

Since everyone learned electronically, it wasn't hard for soldiers to learn tactics. They only had to exercise and toughen themselves up for the coming battles.

The "Ghosts" didn't like to destroy others because they wanted to protect more primitive species; but their hatred for races of advanced development was too high to ever try to coexist with humanity.

Further Contact and Results

A new contact team of ten persons with an Ambassador was sent back to the Canyon with the Cave and in broad daylight.

As soon as they were sighted near the entrance all the aliens ran inside.

So the humans walked closer. They were streaming sound and video to satellites, and relay points which had previously been setup nearby as a backup.

Then solders came out of the caves riding vehicles which rode in the air and looked like they had anti-gravity.

The lead flying vehicle or tank fired at the group of humans.

The human team hid behind rocks and fired back. At one point the Ambassador stood up and tried to get attention of the “Ghosts” but was shot down anyway.

After fifteen minutes it was all over and the humans were all dead.

Humans watched in shock thousands of miles away as events quickly unfolded.

*****

The unthinkable had happened.

Not only had we met an alien advanced civilization but apparently a war had just started.

The Destiny’s leadership team and Defense Directorate met in closed session to consider the implications.

They considered Destiny leaving the star system, but that action would entail hundreds of additional years of travel and many additional supplies would need to be laid in.

Also, the ship would need new ice shields which would have to be mined, as well as repairs from wear and tear over three hundred years of travel.

In all it would take more years of peace to get ready for another interstellar trip. There wasn’t the time or the will to get ready for another voyage right now.

People saw the feeds, copied them to others, and pretty soon everyone knew about the massacre. Most people wanted revenge.

So the answer was war. They didn’t like it but war had been forced upon them. Maybe the “Ghosts” could beat humanity but nobody felt there was any choice but to fight.

The military contingency plans for invoked. Yes, there were plans for everything.

Going to War

Admiral Patton in his war room said “Okay everyone, we need more intelligence of what we are up against and how many “Ghost” cities are there? What is their military preparedness and their level of technology?”

Normally there was no military, but many people had been trained before we left Earth and many of those were either in the National Guard or were Special Forces regulars.

Younger people had also been through military training on the ship and were available for call up.

Originally their training just seemed like fun and a challenge. Now these young men and women would use their skills for real.

Special Forces teams quickly got ready to launch to look for more “Ghost” sites.

The 3D printers were already working full time to crank out stealth ships to penetrate the atmosphere and to deliver troops secretly.

On the planet, everyone was pulled back to the base near the Ocean and a wall was quickly built, electrified, filled with sensors to watch, and claymores surrounding to keep out intruders.

The Explorer Central Base consisted of several hundred persons who had been caught on the surface when hostilities broke out.

*****

Over the next few weeks Special Forces teams uncovered additional bases. Their intelligence was assisted by pictures of tracks from the first train station visited which included GPS directional information. Following those train line directions helped provide information on where the other cites might lie.

Also, our satellite assets helped narrow down locations. This was because most “Ghost” locations were hidden by additional sensor blurring which helped us by following the blurs.

We learned that there were at least fifty subterranean cities of the Ghosts and we estimated their populations were from two hundred fifty thousand to several million.

We also planned our first attack of the first “Ghost” city we had found.

*****

A company of Special Forces troops were moved in separate flyers from five directions around the cave system.

They not only carried personal weapons like machine guns and hand grenades but advanced shoulder fired weapons which could take out buildings.

The company's leader was Major Steve Rolland who was an original ship plank holder and who had seen numerous actions in Special Forces back on Earth.

Some questioned his fitness at three hundred fifty years in age, but with the mindfulness techniques he practiced daily, his physique was like a man who exercised hard in his mid-thirties.

He had also developed strong premonitional abilities during the trip which could be used for advanced warnings to his troops.

Everyone was also wearing thermal tracking lenses to look for invisibility suits which often showed up in the infrared.

The troops got to the cave entrance unobserved and transportation cave where they proceeded to set charges to blow up all of the military looking vehicles, and to bring down the by destroying rock and steel supports.

Then they set charges at the train station to wreck trains and close the train tunnel.

The troops fell back to outside the cave and waited for five minutes.

As the timers went off a huge explosion tore through those out caves and they all collapsed.

The Special Forces smiled and people in the Habitats thousands of miles away cheered when seeing the events in real time.

Hope rose among the leadership and the people that maybe we could win this war.

Perhaps the "Ghosts" would back down when confronted by force.

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In the "Ghost" leaders conference room the aliens were spitting angry.

There was much discussion about the dastardly and secret attack on the cave entrance and all of the transportation vehicles.

After much discussion it was decided to make a stealth attack against the Human Spaceship to drive the invaders away or kill them all.

The "Ghosts" would use invisible ships with anti-gravity drives to send a force to the human ship in orbit to try to wreck it.

Attack plans were put into effect since it would take several weeks to get ready to go.

*****

On the day the decision was made by the “Ghosts” to attack Destiny, the Premonitions Group was meeting and holding meditative sessions to see what dangers they could discover.

Several people in deep meditation were looking for problems when they had visions of the alien ships attacking the Destiny.

A much larger group of sensitives was put to work to find out more details including one of Kendra Jones descendants who had become very adept at receiving visions and other warnings about the future.

The sensitives determined that the psychic blurring on the surface of the planet didn’t carry into Space.

Alan Numal was that descendant and had been deeded her PSI abilities by genetics which sometimes seemed to appear in families.

However Alan’s main expertise was in Premonitions. He had thousands of them and they guided his life to a large extent.

Alan was the first to detect the possibility of an attack on the Destiny. He had a vision of ships which were just shadows attacking and damaging the Destiny. It was a very strong impression so he knew there was something important about this vision.

He was probably able to sense the upcoming attack because the “Ghosts” psychic blurring technology didn’t cover the space around New Athens.

He immediately contacted other PSIs and they setup to sense a psychic impression session.

There were now lots of proven techniques to mentally zero in on serious problems and get more details ever since the PSIs had saved the ship from the Black Hole over one hundred years ago.

After a couple of days of impressions a consensus was reached that the attack would be in two to three weeks and was intended to damage or destroy the Destiny.

Leaders and the Military forces were informed. They had a couple of weeks to prepare a trap.

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On the day of the “Ghost” attack over one hundred ships carrying twenty five troops each left the underground cities and ascended into orbit.

These were stealth ships which we hadn’t detected in the past.

The alien ships got closer to the Destiny and started planning their attack runs.

The “Ghost” leaders were excited about finally getting rid of these bothersome Aliens.

Suddenly the ships were “painted” by Human infrared and gravity sensors to make them visible to the weapons systems.

Over one hundred missiles and miscellaneous heavy duty lasers struck out and hit the ships destroying most of them and seriously damaging the rest.

The attack was a total failure and all the “Ghost” flyers and almost all of the enemy soldiers were killed.

A few were rescued from their damaged ships and they all suicided as soon as they recognized their captures. The “Ghosts” used some type of hidden neural toxin to die within minutes.

A War of Attrition

Over the next six months raids were made by both sides with inconclusive results.

Some combatants were killed on both sides with some damages to The Destiny although they were still minor and easily repairable.

Some holes had been made in the Habitats which had been repaired quickly by robots.

Also, many of the Emdrive engines were hit any many destroyed. We weren't using them at this point, and they could easily be replaced by 3D printing if we needed them.

The "Ghosts" suffered more serious damage to the entrances to their cities.

We still had enough civility left in us that we didn't want to destroy their cities or civilization but just get them to stop attacking us.

We realized that we were the interlopers and the "Ghosts" had been on the planet thousands of years. This was even though the fact was that they had been alien visitors to the planet in the first place.

People were getting depressed on the Destiny because they didn't see any way of winning and we weren't able to build any settlements on the ground with the war going on.

*****

The Destiny Leadership including politicians, military, and paranormal leaders all met in conference to discuss the situation and find a way forward.

Everyone around the table were asked for their ideas and solutions to end the War.

Some proposed using nuclear weapons to get rid of the "Ghosts" entirely, but most considered that we were the real invaders and things were not at a point of desperation yet for us to consider using nukes seriously.

Others proposed just quitting the War and finding some way to resupply and leave the system. These persons argued that we might mine resources elsewhere in the system then leave.

Others disagreed and said the "Ghosts" would find us and attack us where ever we went in the "Xi Scorpii C" system.

Finally, it was the turn of the Destiny's police department and the Chief gave the floor to his assistant named Jean Wilkins.

Jean said she had lots of varied experience with both keeping order and healing. She also made the statement that

“I have had over one hundred years experience in the Paranormal and Healing groups. We have found over the years that when there is an occasional riot we can project Chi to the crowd and get them to calm down and finally disperse.”

“Also, we have many wellness healing practitioners and they often project energy which heals people in hospitals.”

“I wonder if we can find a way to project a wellness and healing energy to the “Ghosts” to get them to consider us as friendly. Then find a way to end this war by negotiating a peace treaty.”

The Leadership team had not heard this proposal before and it got lots of discussion.

The Paranormal Leaders built on top of this idea from Jean the assistant commissioner

Alan Numal was one of the paranormal leaders and he interjected “This is a really interesting idea to change the minds of the “Ghosts” so they calm down and aren’t always attacking us”

“But we have to find a way to operate psychically through their PSI shields. Can this be done?”

The meeting adjourned with Neil the leader assigning various teams to help develop the idea of calming down the “Ghosts” and ending the war.

*****

The team tasked with developing this plan was called “The Calming Group” and consisted of some Paranormals, Jean Wilkins, Special Forces, and a few scientists who specialized in the interfacing of technology to the paranormal.

Technology had developed and used for years which allowed for wearing special headphones which beeped when someone was thinking of the receiver, then placed a call to them. It was based on measuring electrical impulses in certain parts of the brain. These impulses were calibrated at the store and usually used in families. The impulses became specific to certain people in the families trying to contact each other.

This same technology might be the key to breaking through the “Ghosts” PSI cloaking technologies.

Ending the War

Several experiments were conducted over the next few weeks by PSIs sent to the surface and attempting to communicate with their peers on the ship.

This research group needed to develop a solution quickly because the war was escalating.

The number of attacks on both sides were increasing. “Ghosts” attacking and ruining more settlement infrastructure on the ground and humans destroying more cave entrances as they were found.

So far experiments had not been able to totally block the machine made PSI interference.

We needed some ability or technology or combination to defeat the “Ghosts” screen.

Jean went into a meditative state to attempt to penetrate the block. She was now a full-fledged PSI-T master and had many strong abilities.

She sent a mental probe to the surface which became more blurred as she got closer.

Then Jean visualized that she was changing the frequency of her mental probing to a frequency that was not being blocked.

It may sound anti scientific that one could just mentally change how they were operating, but if you believe that our beliefs make our reality, then PSI phenomena could change how they operated in reality even if it didn’t make a lot of logical sense.

In any event, as Jean changed her mental frequencies, the blocking blur started to fade away.

It was all a matter of PSI technique after all.

More tests were conducted using remote viewing on sample groups of “Ghosts” within their cities.

Jean did a test where she went into a meditative state. Then she visualized herself going into one of the underground cities and viewing a small group of people in a shopping district.

Then Jean sent them an image of a human which just this group saw. The group started to get very upset and angry.

Jean changed her projection to a calming and peaceful energy and the group calmed down a lot.

Other PSI observers of this scene all confirmed the calming effect was working.

The next step was approved by the leadership committee to begin an effort to really win the war.

All of the thousands of PSIs in the Habitats got together in a few coordinated locations to go into a synchronized effort.

They all went into a deeply relaxed state as Jean spoke over an intercom channel to guide them all to provide the same effects.

Many groups were targeted at different locations but to do the same thing. The “Calming effect” was sent out to the entire “Ghost” population.

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In the “Ghost” cities this is what was happening…

Those who were involved in the war started to reconsider what they were doing.

The leaders said to each other “Why are we wasting our resources and people on this war. Maybe an end to hostilities would be better”

Some of the leaders didn’t agree but most did.

Soon peace feelers were sent out to the humans through adhoc meetings between both parties.

This started by warring combatants waving to each other and making peaceful gestures which led to attempts to communicate.

Those first meetings led to assigned Ambassadors meeting both sides with their teams.

Over the next couple of months a peach agreement was reached.

The terms of the agreement were that the humans would be allowed to settle the surface, but they had to respect the natives, and the environment.

We agreed to that and setup a structure of laws and regulations for settling the planet.

In addition, some limited trade started between both societies which should only increase in the future.

We wanted to learn the “Ghosts” technology and they wanted to learn about our mental abilities.

Overall, both societies working together stood to benefit from each other.

Rebuilding The Colony

With the peace treaty in place a full survey of previously built facilities was conducted.

Much more damage had been done to the unfinished settler cities and other infrastructure including roads and municipal plants for water, power, and electricity.

Eighty percent of the infrastructure was damaged so much of the old would need to be cleared away to start over again and fully rebuild the cities.

Our robots started the cleanup process and we wanted to recycle metals and other materials as much as possible.

Settlement day was now planned for the beginning of year three on the planet. This was about fifteen months away.

In each city a central square was built with a different monument in each city.

In Explorers Central square were several planets and a statue of bold explorers seeing a new vista. The surroundings could be changed with holo projectors and a show was in place—which could be modified to show images of our journey from the Solar System.

The Paranormals Preserve central square had an elaborate meditation shrine where people met every day for classes. The idea was to get everyone involved in mindfulness practices.

The Science Center square had statues of famous scientific thinkers and a repeating holo show of the history of science. The scientific accomplishments of the Habitats and the Destiny spaceship were highlights of the show.

The main roads between each city were finished.

Each road was four lanes wide and had a bullet train next to the road.

Whether using robotic automobiles or trains it was possible to cover the distance between each city in under an hour.

In each city municipal services were built. Power was from fusion generators and the Paranormals Preserve was able to use Hydro power from some dams built in the mountains.

A structured business and residential district was also built in each city roads and parks to make the whole place livable and fun.

An infrastructure to support millions of people was in place, but we only needed business and residential buildings for the half million in the habitats to settle into. The rest was planned out for the future.

We also built roads to the “Ghost” caves nearby to encourage interaction between our two races. The “Ghosts” gradually started using our roads and contacted our construction teams.

This led to commercial agreements for materials from them and even some technology.

“Ghosts” also started attending mindfulness classes.

Move In Day

January first of NE 3 seemed like a big holiday and vacation.

It would actually take several months to bring everyone down from the Habitats who wanted to come to the planet's surface.

Today was New Year's Day and the twenty shuttles would each be making several trips. About two thousand people would be brought down today.

Every city was having a celebration.

In the Explorer Central Neil Shakelton led a big celebration and outdoor picnic. (It was really outdoors under true sunshiine) Bands played, children played contests, and speeches were given.

Neil said a few words too "When I was young and homeless on Earth I never had any idea that all of this could be reality.

"First building Habitats in Space, then turning them into the Destiny spaceship, traveling among the stars, and finally arriving and building a brand new outpost for mankind."

"Truly anything is possible when you don't build personal barriers and let your ideas run free. We have accomplished so much in the last several hundred years and have given humanity a new home in the stars."

"Never again will mankind be confined to one world and one Solar System. We are out to explore and live in the larger Universe forever!"

Neil's speech was greet with a great roar of approval and all had a great time.

Most people were settled into large apartment blocks because these were much easier to build in the time available.

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Over the next couple of weeks Neil and other leaders received a request to convene a meeting back on the ship because many people didn't want to leave it.

Arriving back inside the Destiny, things were already getting kind of strange.

The Habitats were already becoming emptier and for people who had lived their whole lives there it was strange to see so many fewer people on the streets, in the markets, and everywhere.

The meeting was held about a month after New Year's day in a large auditorium.

The room was full and leaders of the “Stay at Homes” in the Habitat had emerged.

A discussion and kind of debate took place among the entire population’s leaders and “Stay at Homes”. (SOH) Of course they really weren’t stay at homes but it was something to call themselves and really turned out to be kind of ironic.

One of the SOH leaders named Stacy Mills made the “Stay at Homes” speech to the audience.

Stacy was well known for helping people live healthy lifestyles during the Destiny’s first voyage.

“We congratulate our leaders for making new settlements on this new wonderful planet of New Athens.”

“It looks like you will be successful and have a great new civilization for Humanity.”

“However, many of us want to stay here on the Destiny, for a variety of reasons. Some just like it here and want to stay.

And, some want to keep exploring this galaxy and maybe put down more roots at other stars. I’m sure there are additional reasons too.”

“In any event, out of an overall population of five hundred thousand, over forty thousand want to continue travelling and living on the Destiny”.

Neil replied for the government “Okay, this is an unexpected turn of events and we don’t want to force you to stay, but what about having the ship here for our overall security in case something goes wrong?”

“It will also take you a number of years to rebuild worn sections of the ship, add new ice caps, and get a variety of materials you will need for your journey.”

Stacy replied “We would not want to desert anyone on New Athens, and we know it will take us more years to be ready for our new journey.”

“We propose that a vote be taken by the entire population to allow us to leave in five years. This will be enough time to be here to support the colonies, and to give us time to refit and re-supply the ship.”

Neil said “All right—have you at least picked an initial destination for the ship?”

Stacy nodded and continued “Yes, we plan to go to “Kepler 186f” which is very Earth like and five hundred light years from Earth. It is slightly out of line on our route and so it will take us about nine hundred fifty additional years to get there”

There was a murmur in the crowd. Some commented “This seems like an extended Suicide trip” Others said “Wonderful, it will continue this great adventure of our race”

After much discussion over several meetings the issue was finally submitted to the voters.

The voters approved the extended trip by three to one. So plans were made to prepare the ship for another journey.

Post vote surveys showed that people felt confident about the new settlements and didn't want anyone to live there who really didn't want to be there.

So why not let the forty thousand leave—even if they did die enroute.

Growth and New Plans

News continued to be sent back and forth with Earth using high powered lasers and large photon collection arrays for reception. Even so it still took one hundred years to send messages to and from Earth.

The latest news on Earth was that the Destiny interstellar travelers were still almost one hundred years away from New Athens.

We got news from Earth which consisted of the latest news and technical advances to help our scientists and engineers stay current.

Frankly, Earth seemed to be in stasis, and many new advancements were made here by our people.

One big area of divergence were with the development of advanced PSI powers on our trip. Earth never had a similar environment so did not advance in these areas—except with widely spread individuals.

We did find out that more colony ships were being sent out, but only one about every fifty years as a government or entrepreneur made big commitments for their pet causes.

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The colonies continued to thrive and expand with trade growing steadily with the “Ghosts”. Some “Ghosts” decided to move to our settlements. Originally they came to enable trade, then some came to attend our Wellness centers and more got involved in different aspects of society.

In turn, several hundred humans in the first year of peace went to study in the “Ghost” underground colonies where they were learning more about new “Ghost” technologies, and also the history and culture of the “Ghost” race.

People started to build homes and new estates outside of the cities as they had time and resources.

It became a popular adventure for several families to join together to build new farms and settlements in the boondocks.

Many of these smaller settlements were built in the triangle bounded by the three cities.

This land was relatively safe and surrounded by the settle city areas.

After several years, if you were in orbit, you would see a large amount of land under cultivation in the triangle between the cities, and many new farms outside of this boundary.

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The priorities of those still on the ship was for them to get everything ready for the new voyage.

This led them to develop the resources in the system's asteroid belt. The "Xi Scorpii C" asteroid belt was a little further out, but contained even more metals than in the Solar System by a factor of two.

Automated mining ships were sent to explore and send asteroids down to the New Athens orbit, and smelting facilities were setup to handle the new resources.

Many resources were sold to the planet in return for electronics and other high tech tools which were harder to make in orbit.

Workers built out the new ice caps on the bow and stern of the ship. The ice caps were now fie times the size they were previously.

Additional work crews went through and heavily tested every component in every system.

Many were refurbished like the EmDrive's to provide propulsion on the interstellar propulsion.

These drives were entirely stripped down and each one carefully refurbished.

Additional redundancy was also built into all systems from propulsion, to life support, to food production.

Since this trip would be three times longer than the original, it was determined that every system might fail at some point in the journey and would need to be completely replaced.

Every system had two backups which could be completely repaired on the journey with materials available.

Take the Destiny's control bridge for example. Three backup bridges were built in different parts of the ship. One even had a secret location known only to a few with the need to know.

Other redundant systems like engineering had backups too-just in case.

In the case of raw materials, an entire new section was built onto the front of the ship just to contain additional raw materials. There were five times these basic materials than on the first trip.

Every element and many common chemicals were in the reserves-just in case.

Reserves also included frozen plants and animal embryos. Everything you could think of was in the reserve somewhere.

The supplies and equipment to settle a new planet were also refurbished.

3D printers had more backups for large construction or micro assembly of electronics.

Everything the travelers had learned from the original journey was addressed.

Additional safety systems from accidents were also installed.

One of these systems included robots hovering in the air inside the Habitats with supplies to repair breeches to the vacuum very quickly.

These robots could work together in teams to split up a larger repair job among themselves and fix it several times faster working together than the original robots could.

New computers were installed throughout the habitats since Earth had sent out information on advanced hardware manufacturing and software techniques over the years.

The older systems were kept as backups, but the newer ones were much faster and with a large AI component.

Smaller groups of Paranormals were also needed on the ship to help detect and deter danger. Those who didn't want to go helped train those planning for Voyage two who had many useful abilities.

Some of these Paranormals were PSI-Ts, but given the length of the trip it was felt the travelers would develop their own paranormal resources over time.

Weapons technology was also important to address the unknown.

Many more weapons were built and tested and new ones installed on the Destiny.

Military training became mandatory for everyone turning eighteen years old and a solid career for some.

Five Years Later-Year NE 8

As Year eight New Era rolled around, the time for Destiny to leave was approaching.

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On New Athens, other continents were being settled, ships built for worldwide trade, and overall the colonies were new very self-sufficient.

The human population was growing fast and now close to seven hundred fifty thousand.

The peace treaty with the “Ghosts” had produced a great boon and both societies were advancing with new technologies and wellness techniques to improve both.

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As the ship got ready, some colonists decided to go on the new journey at the last minute, and some ship residents decided to stay on New Athens.

The total exchanges were about equal so the number leaving on the new trip was just approaching forty five thousand, in a ship which could handle one million people in comfort.

A new government for the Destiny had been elected and all the current administration members had trained their replacements and handed off their ship wide duties.

Another big celebration was held, with more speeches, parties, etc. until everyone on the ship was partied out and ready to leave.

Once more the Destiny started her engines and headed out on its second journey. Due to improvements in the engines and shields, the ship could now accelerate to one half-light speed.

The improved frontal shield for the Destiny was what allowed the acceleration up to one half light speed.

The acceleration would be over twenty years at very low accelerations which could not be felt by humans at all.

Side Story: Dr. Trantor and Longevity Science

One of the big issues to be solved on this longer journey was how to keep people alive and healthy for the entire journey.

This was in addition to the fact that we had a large number of people born on Earth who were still alive.

The 10 Principles had already been in practice for three hundred years helping some live to over three fifty years old.

However, the second journey of the Destiny would require human longevity to be extended to well over one thousand years for many people on the trip to allow them to arrive alive in the same generation.

Longevity Science had been a valid field of study for several hundred years. Some of the things it taught had helped us all extend our lives tremendously.

As an example, it had been learned that certain types of food like Resveratrol extract from red wine had a wonderful effect on long term health.

Allen Trantor was a scientist. Having both biology and medical degrees. He was one hundred fifty years old had been researching human longevity for over one hundred years and was also a PSI-T.

One of the things Dr. Trantor had been studying were Telomeres which were the end caps on chromosomes in each cell. It had been learned that these end caps determined how old a cell could live.

In the past hundreds of years others had looked at stabilizing Telomeres in cells to increase the cellular longevity but it never worked properly. The typical result was that the cells turned cancerous.

Attempts to utilize telomere extensions in recent decades had stopped as researchers gave up on the subject due to deadly side effects.

In the year that the Destiny left on its second interstellar trip, Dr. Trantor got back to his research and decided to take another shot at Telomeres being used to lengthen cellular life.

Allen's idea was a new one. It was to combine psychokinetic abilities on a microscopic level with advanced Nanites.

The plan was for the Nanites to lengthen the Telomeres in each cell, then use a psychokinetic glue to keep the Telomeres stable. The glue is really a way of saying that the cells were now tied into the spirit source which gave vitality to these end cap Telomeres.

Early experiments on mice seemed to work. Mice which normally lived three months were able to live to one year old.

Then advanced primates were tested. Unfortunately, these monkeys died within a couple of weeks of having the procedure performed on them.

After five years of research Dr. Trantor had numerous assistants on his project. He assigned the assistants to trying various combinations and programming of Nanites with different psychokinetic techniques to stabilize them.

More monkeys died and the answer still seemed out of reach.

Dr. Trantor decided to go into a deep meditative state and use his premonitional abilities to look at possible lines of research. He looked for positive or light colors in his premonitions to see which were successful directions to go.

He used a recorder to make notes on successful directions.

In subsequent weeks the assistants tried all these new lines of combinations.

Finally, a new Telomere combined treatment seemed to be working. Treated monkeys were living years which should have only lived for one year.

Now it was time for human subjects. Dr. Trantor didn't want to use any other subjects but himself.

Fortunately, he was convinced to treat some of his assistants instead-who really wanted to try it on themselves.

Of the first three human test subjects. Two were in good shape after treatment, and one died in three weeks.

The autopsy on the dead test subject revealed that the Nanites were still too inexact in their work on cellular end caps. Changes were made by tweaking the Nanite programming to reduce endcap telomere errors. Hopefully many more future human subjects would survive.

After twenty years of research and thousands of subjects taking the new telomere treatments many people were experiencing even more stable health which should improve individual longevity by many hundreds of years.

Microscopic images and analysis of cellular health showed that those treated might live for well over one thousand years.

100 Years into Voyage Two

On the one hundredth anniversary of the voyage to the star Kepler 186f a new planet naming contest was held.

The successful name came from a ten year old girl “Julia” who had read a lot of history including the book “Lost Horizon”. It was the story of a hidden paradise in the Hymalayas. The name she picked was similar and was “New Horizon”.

Over then thousand names were submitted, and Julia was picked the winner.

Julia accepted her prize from the head of the government. The prize consisted of additional training credits to learn from any instructors of her choice on subjects of her choice for the remainder of the voyage.

For a society where money was having less and less value, these additional training credits were a real privilege.

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With us now being one hundred years into the new voyage, enough time had elapsed to confirm that the Telomere treatments were really lasting and that peoples ages were stabilizing.

It was clear now that everyone who had the telomere treatments should survive the trip in good physical and mental health.

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We had also developed new force shields which could protect the whole of Destiny much better than any ice caps.

These new shields were over ten times better than the improved shields installed for launching on Journey two and incredibly better than the primitive electromagnetic shields used on the first interstellar journey.

The new shields were based on a combination of sub atomic advances sent from Earth and our experiments in the interstellar medium.

Our engineers experimented for many years with test shields outside the ship and in the dangerous interstellar medium, before finding the best set of parameters to configure them to reflect microscopic masses around the ship.

Within six months the new shields replaced the ones we were using, and almost all impacts from high speed particles were being deflected.

Since the new shield was so effective it also reduced the need for ice mass shielding to nothing. We could now use these excess shielding mass as we saw fit.

250 Years into Voyage Two

With the miniaturization of incredibly powerful shields, and fusion plants, many new runabouts were constructed which could go out into interstellar space and travel around and near the Destiny spaceship.

With the main ship now at fifty percent of the speed of light, the interstellar medium was like a continuous rain of sleet which the engines had to continually push against to keep up Destiny's velocity.

This continuous rain of particles would certainly kill an unprotected human very quickly.

However the ingenuity of humans continued to amaze.

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Richard Fastee or "Ricker" as he was known was born during voyage two. He was tall and wiry and people said he would make a brilliant engineer when they saw his skills with electronics as a boy.

Ricker went through a full technical education and had a strong interest in rockets. Ricker worked in Destiny's engineering department and had many good ideas to increase efficiency.

One day after work he was having a beer with his friends at a popular beach pub in Bora Bora 2. The discussion turned to the strength of the new shields on the ship.

One of his engineering mates said that we now had the abilities to miniaturize the power and electronics to make a shield. Clara was an engineer who said "That's great but who cares? We have no need for a miniature version of the shield."

Ricker mostly listened to his friends toss around ideas about miniature shields and went home to dream about it.

His dream was about flying around in space outside the Destiny with a shield to protect him.

The next morning at a coffee break at work he said to his friends "I have an idea for a small one person ship with a miniature shield which can fly around outside the ship. It might even be used for maintenance from the outside. Who would like to help me build a prototype as a project outside of work?"

Several people including Clara volunteered to help.

Over the next few months, a prototype one person shielded ship was built and tested using an automated control system.

The new ship was constructed using a micro fusion power source and had powerful plasma engines with multi gravity acceleration.

The ship had a seat for just the pilot and a very strong new force field to protect it and the pilot from interstellar high speed particles.

Addition thrusters were also built in to provide very detailed directional control.

The prototype ship was named the “Egg” due to its streamlining.

On the first test the Egg was sent a mile outside the Destinys protecting field to make sure it could really standup to the particle stream.

The instruments sending data back measured the field and showed a strong bow wave of particles which on the screen made the ship look like it was flowing through water.

On the second test Ricker was the pilot. He flew the Egg out into the particle stream and did a lot of maneuvers.

Other members of the team also tried their piloting skills, which was easy because the navigation computer inside allowed pilots to put the Egg on autopilot if they had a problem.

Soon more people in engineering watched the ship doing navigating outside the Destiny, and they started building their own ships.

After the first five ships had been built, a discussion began on which Egg ship was the fastest and most maneuverable. The arguing teams bet each other as to who would win a race.

By this time the media organizations had heard about the race and the Destiny’s leadership was interested too. The leadership didn’t want to disrupt this fun since these “Eggs” might provide a new type of transportation or even fighter technology for the future.

So the first race had video cameras lacing the race course and displays at many bars and public area screens.

The course had some additional markers placed in space with their own thrusters to keep station—which the shield ships had to go around.

The teams included these teams: Egg1(White), The Raiders (Red), Indian Racer (Green), Mooners (Purple) , and Disrupters (Blue).

The racing route was to perform ten loops around the Destiny within various locations from bow to stern.

Since the Destiny was over twelve miles long, each loop was designated with colored lights on the hull and navigation computers in the racing Eggs.

Ricker of course was the pilot of Egg1. The other racers consisted mainly of engineers who had been in the teams building their ships.

At the starting line a laser signaled the pilots that the race had started.

The ships all took off to follow the spiral path around the starship at a distance of ten miles out from the outer surface.

The Raiders took the early lead by piling on the G Forces while using their retro rockets at full power.

Then the Blue color Disrupters ships caught up and did some fancy inversions to take the lead.

Finally, on a straight section of the course, the Egg1 ship showed it had the greatest acceleration.

The Egg1 ship with Ricker as Pilot won the race by a hair.

This race became known as the first race of the Shield Ships.

Shield ship racing became a popular pastime with lots of races and some people killed in accidents. The accidents just added to the allure of the racing.

500 Years into Voyage Two

The halfway voyage celebrations had been just a few years ago.

The trip was going by quickly according to those living through it. People just lived their lives in a more relaxed fashion as years quickly went by.

It was amazing what the proliferation of compact shields and rockets caused as changes to the lifestyle of the people on Destiny.

People were sick of just living in the Habitats all the time even though they had lots of space to live and work in.

So they built additional flyers and small mobile rooms and “Cottage Ships” to fly out in Space and around the Destiny.

A typical weekend in the life of a five hundred year resident named Judy Troll went like this:

After work on Friday, she took tubes from her home in Bora Bora 2 to the airlocks near the shield ships.

Judy hired a small space taxi—which of course had one of the compact shields on it to take her out twenty miles from the Destiny.

The taxi docked with her “Cottage” which was under a solid shield, and had an EmDrive rocket to keep station with the Habitat Spaceship.

Inside she met up with some of her male and female friends who had gotten there earlier for the weekend.

Crossing through the living room—which was weightless, she changed into her swimsuit in the bathroom, then opened her door to the room with the pool.

Since the “Cottage” was in weightless space, the pool was really a ball of water twenty five feet in diameter. It was kept centered by sound waves from the walls of the room and had an air bubble in the center.

Jumping into the pool and swimming towards the air bubble, she emerged inside to find most of her friends drinking a beer. The bubble had additional air hoses and was also centered inside the pool using sound wave generators on the edges of the bubble.

Later everyone had eaten dinner and was outside on the patio –which was really a quartz shrouded room on the outside of the “Cottage” with a great view of the stars.

They all had a wonderful time talking with each other and spent a fun weekend together.

At the end of the weekend a request was sent to a “Bus” which was picking up many people from their own “Cottages” to head back the Destiny.

It seemed that the interstellar ship Destiny had grown a hive of symbiotic beings around it in deep space. This hive kept getting bigger and more popular too.

Reaching New Horizon

The ship was now coming into the “Kepler 186f” system to settle the planet New Horizon.

All of the additional shield ships and Cottages around the Destiny had been pulled back into it or lashed outside so the Destiny could make a long single burn to slow the ship.

This burn had been going on for twenty years to slow from fifty percent light speed to almost a complete stop a few million miles from the New Horizon planet.

With enhanced images and spectra from their telescopes the Destiny travelers could see that the planet New Horizon could be a divine place to live their lives.

New Horizon had fifty percent more surface are than Earth, but because of a lower density almost the same gravity.

All types of typography existed including Oceans, Mountains, Deserts, Forests, Topical, and many other climates.

With a population on the Destiny now approaching its design limit of one million people, it was expected that most would want to settle down on the planet’s surface.

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Many Meetings were held in the years coming up to the arrival to see who would want to do different jobs during the landings. It was expected that most of the population would signup.

Strangely though, most of the inhabitants wanted to stay in Space..

Only twenty five thousand out of a million residents wanted to settle on the planet.

Everyone else either wanted to stay on Destiny or build new Habitats to live in. They just didn’t want to settle a new planet with all of the work and dangers involved.

Living in Space had become ingrained in these people and the dangers of vacuum or solar flares were just part of the environment.

Most people thought it to be much better and more normal to just live in the Space Habitats.

Months after arrival while a colony was being started on the planet New Horizon many new Habitats were planned for construction. Here were a few of the designs:

> A much larger dual Habitat. Similar in design to the Destiny it was one hundred miles in diameter and five hundred miles long. This new super dual Habitat would hold fifty million people and would also be built into an interstellar ship.

An Asteroid to be hollowed out and used as a Habitat. Experimental anti-gravity plates to be used to provide internal gravity using experimental technology obtained from the “Ghosts”.

An interstellar ship with hundreds of smaller modules which could expand outward in interstellar space under the force shield or even expand outward under their own micro shields. The core would mainly contain supplies, power, and the main engines.

10 Years After Arriving a New Horizon

Over the last thirteen hundred years of humanity's interstellar travels, the people on these journeys had become used to living and traveling in space.

Space was more predictable to them than living on the surface of a planet where there might be unexpected dangers.

In the preceding ten years the travelers had expended a huge amount of energy in settling the planet and constructing new space Habitats.

On New Horizon the main settlement was doing well and individuals were expanding outward to create new town settlements.

In Space new Habitats had been built.

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One Habitat was a duplicate design of the Destiny but much larger. It was called "The Adventurer".

The Adventurer ship contained two counter rotating habitats which were one hundred miles in diameter and five hundred miles long.

It contained true seas, canyons, and mountain ranges which were comparable to many on Earth.

The Adventurer was designed to travel to stars up to one thousand light years away which would take thousands of years to reach.

Five Hundred Thousand people had moved in and were ready for another interstellar trip.

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The Asteroid was fifty miles in diameter and about one hundred miles long. It had been named "Clarke" after Arthur C. Clarke the ancient science fiction author.

It had many caves carved in it and several community areas which were over a mile wide and half a mile wide.

There were also space harbors carved into the rock to allow for many types of ships to come and go.

The new population was one hundred thousand with a capacity of over a million.

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The most unusual Habitat was the spaceship full of supplies and many hundreds of smaller mobile modules.

This ship was named the “Endeavor”.

It also had a couple of community areas built into the ship which were miles in size, but the mobile habitations and small shield ships were where most of the population would live.

The Endeavor was also heading out to stars several hundred light years away.

Many people had now learned to teleport between the main ship and the modules so the need for shield taxis had decreased significantly.

The overall shield for Endeavor could be flared out to one hundred miles wide. This allowed the smaller ships and mobile habitats to move around under the shield without having to fight the deadly particle streams.

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The people left on the Destiny had travelled far enough.

Residents voted to stay in local space near the New Horizon planet to participate with and trade with the new colony on the planet.

The residents were happy to live where they were and the population who decided to stay numbered over two hundred thousand.

They expected to continue to learn and live and enjoy life as their forbearers had in their Habitat for over one thousand years.

Typical Destiny residents wanted to work and be a part of the new settlements on New Horizon but wanted to live in their comfortable homes they were used to.

Many of them would teleport to the surface all the time for work, and then teleport back home for meals and to be with their families in the evenings.

People joked that teleporting was the new commuting to work, it just didn’t take as long as driving or as a car would have on Earth.

Teleporting was only for very spiritually advanced adults, and most who did learn teleporting were over three hundred years old.

Epilogue

Neil Shakelton and his much of his family had decided to stay on The Destiny.

Of course some of the younger descendants had itchy feet and had joined the new ship's crews to travel to more stars.

Neil was now over fourteen hundred years old.

His use of the 10 Principles in his life and the Telomere therapies had kept him alive and estimates were that he might live a healthy additional one thousand years.

He sat with his descendants at one of their yearly family get togethers.

Neil was fishing in a tropical sea in Bora Bora 2. He felt a tug on the line and it was a Sea Bass. After fighting the fish for fifteen minutes he finally landed it and it became part of the picnic dinner.

He looked at his family, talking, playing softball, and the kids running around yelling and screaming and thought back to when he was a young man and homeless.

He remembered that he needed purpose in his life when he was a young man and never would have believed the life he had lived.

Or the idea that he would have travelled to not only one, but two stars.

Life was incredible and had more mysteries than could be fathomed.

He realized that his biggest impact on humanity was in practicing the 10 Principles in his life, and getting a whole population involved in these practices to live longer, healthier, and more fulfilling lives

He had helped people realize their personal freedom. This had resulted in humanity spreading among the stars.

He doubted they would have ever done so if they had to build generational ships where only the descendants arrived at the destination.

In general we all want to see the ends of our journeys. This was why the interstellar ships had succeeded. Because a viable society was created with members at all ages who could bring the culture and history of Earth to the stars.

Neil relaxed for a nap in the shade after a great picnic dinner and knew he had more adventures to look forward to.

Life was really a miracle and fun too. Neil went to sleep with smile on his face.

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On the Adventurer in the one thousandth year of its first voyage, the signs were clear.

Light and Radio telescopes were catching images of a spaceship many times the size of the Adventurer. The courses were getting closer together and would soon merge.

We hoped they were friendly.

APPENDIX

Learn more about the 10 Principles of Personal Longevity

What is Personal Longevity?

The Personal Longevity Program is all about helping people integrate spirit, mind, and body to improve their long term health, longevity, and happiness.

I developed these principles after a lifetime of experiences, learning, belonging to different spiritual and health organizations, and getting to know many persons in the longevity movement over the last five years.

The 10 Principles are a step by step philosophy of total health which covers our spirit, mind, vital forces, and physical body.

It is a comprehensive approach to how we can tune our lifestyle and ourselves to live in optimum total health which then also results in long term happiness and greater length of life.

By teaching people how to live by these principles we can bring together all of the best of holistic/alternative healing, and traditional medical practices in ways that nobody else is doing.

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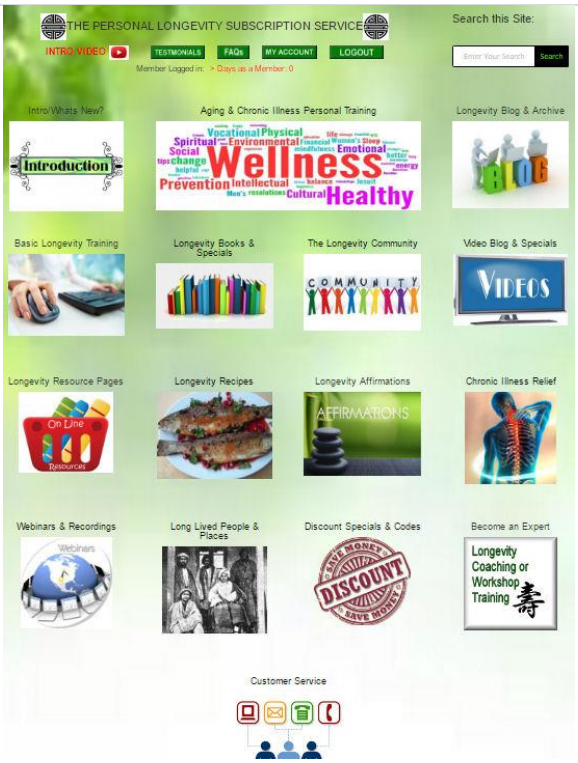

The Personal Longevity Exclusive Subscription Program

The Personal Longevity Subscription Program is our latest product. Members have access to rich information about personal health and happiness that is not available anywhere else online.

http://personal-longevity.com/marketing-template

Features include:

Personal Training

The newest feature of our membership site is the ability to set appointments over the phone or Skype to get personal education on the Aging or Chronic Illness issue of your choice.

Many issues are covered and many have FREE 30 minute introductory sessions with the consultant.

You will also get a 10% discount on the membership site for appointments with them below their in person retail rates.

The Longevity Blog

The largest Longevity Blog in the world! Almost 900 articles and growing daily. Many science articles on Longevity as well as practical advice on your personal Longevity.

Also includes a full index where you can search for words, by Category, Tag Cloud, or by the Month and Year published.

A great Resource and well worth hundreds of dollars –if you could even find all this information.

Basic longevity Training

The membership includes a full basic longevity training program where you will learn how to apply the 10 Principles of Personal Longevity to your life each month.

Includes videos, audios, and reading assignments. A truly unique resource which you will only find from Personal Longevity, Inc.

If you apply it to your life this training program can increase your healthy living by decades. This training program normally sells for $250 by itself so you will be getting a great deal.

Longevity Resource Pages

The Longevity Resource Pages were originally designed as an addendum to each course in the Longevity Coaching Program.

These pages include additional downloads related to each training course as well as links to other related forms of longevity documentation.

A great companion to the training program and well worth the information included.

Longevity Books & Specials

Each month you will be able to download several new EBooks on Longevity, Wellness, Immortality, Healthy foods, and more.

The books section provides many unique reading resources for you. And some which are unexpected!

Enjoy these EBooks because they are not available everywhere…. and they are worth hundreds of dollars purchased separately.

Longevity Personal Advice

Did you ever want free advice about your long term health and longevity?

Under Longevity Advice you can get a review of your Longevity and 30 minutes of advice for free.

Additional Coaching is at a discounted rate. This member coaching is worth over $150 if sold separately.

The Longevity Community

The Longevity Community is designed to help you connect with Longevity and Immortality groups around the world as well as enable communications.

You can send personal messages, interact in groups–form your own–and much more.

We include an index of many types of Longevity and Immortality groups from all over the word. An invaluable resource.

Video Blog & Specials

In the Videos Section you will see our full Longevity Video Blog.

Each month you will also gain access to new and varied videos on each of the 10 Principles which are all oriented towards helping you implement them in your life.

From popular speakers to wonderful meditations–it's all there for you!

Healthy Longevity Recipes

We studied four of the longest lived communities in the world and found their recipes which are based on age old wisdom for healthy longevity.

Each month you will get several new recipes which are very tasteful and based on very healthy and long lived traditions.

These people really know how to enjoy life!

Longevity Affirmations

We need to change our subconscious programming to believe what is possible for healthy longevity.

The Affirmations Section provides you with one new Longevity Affirmation each week.

Each of these affirmations should be meditated on to internalize them and make them part of your daily life.

Chronic Illness relief

One of the biggest problems of aging is dealing with Chronic Illnesses like Diabetes and Arthritis.

Most of these problems start around age 35 and many older people deal with two or more chronic conditions.

In our Section on Chronic Illnesses we provide many exercises and reading materials to help you reduce the severity of pain and suffering from these issues. How much is this worth to you?

Long Lived Persons & Places

One of the really fun areas of the site is where we post a custom video each month on the details of long lived individuals or communities around the world.

It's really great to hear about the details of how people live to such amazing ages or the how and why of the longest lived communities in our world.

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The Personal Longevity Training Program

http://personal-longevity.com

Many at times when people hear about a personal training program, what comes to mind is physical fitness exercise or financial coaching. No doubt there exist several such coaching services but there is a new form of a personal training program that increasingly becoming popular too. This is the health and wellness program pioneered by Martin Essington under the famous brand name - The Personal Longevity Training Program. An engineer by profession, Martin has done extensive research on the topic of human lifespan and has discovered an incredible amount of evidence supporting the idea that humans could live for well over 250 years.

The Personal Longevity Training Program is based on the 10 Principals of Personal Longevity, a philosophy based on the idea that a long, happy and healthy life can be achieved through healthy feeding, meditation, exercising and having harmony in body, mind and soul. It is documented and guided by the book with the same title *"The Personal longevity Program Book."*

By default, humans have a life urge. To survive and rise above the societal constrains. Among the new realities you will enjoy are:

- ✓ Having a new sense of personal freedom and purpose
- ✓ Realizing that the ways we are taught to conform by living under governmental control and others expectations–doesn't have to be.
- ✓ Live a more relaxed life with reduced stress
- ✓ Feel healthier and with more energy
- ✓ Feel more connected to others and happier with your relationships
- ✓ Enjoy Unconditional Love in your life
- ✓ Live to enjoy every day–not just try to get through it. These are real effects of an empowering philosophy of long term health, greater happiness, and extended longevity…

Most of our clients that enroll for the personal longevity program eventually enroll for the Caching Package for coaches too!

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Personal Longevity Professional Training
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The reality of the spirit
Enlightenment and Longevity
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Course #2 What is Your Purpose in Living?
What is Your Purpose in Living?
What your Spiritual connection and Purpose have in common
Finding your Soul's Purpose
Setting Goals based on that deep purpose
Resources for this course
Course #3 Enabling the Life Urge
Enabling the Life Urge:
The Personal LONGEVITY Program
Calendar

Longevity Coaching Training & Certification for Professionals

http://personal-longevity.com/learn-about-longevity-coaching-2

How would you live to earn a living from something you like doing? Given a chance, most people will drop their jobs for a career that has a positive and direct impact on the lives of their friends, relatives and family - a career that gives instant gratification and a sense of accomplishment. What more could make a person happier than seeing a loved one's become happier?

The coaching package for coaches was created to help harness the coaching skills of persons interested in Longevity Concept. This signature coaching course is a brain child of the 10 Principals of Personal Longevity Philosophy.

Let them not lie to you, the healthcare systems is a ship wreck! While they know there are alternative preventive medical practices, they dwell on curative. Yes your guess is right! They want to make profits out of [people's desperation. Let's face it. There are several secluded societies that live without the flawed Obamacare- and the medical profession in the United States and you will be surprised than they have some of the highest records of centenarian. Have you visited Okinawan in Japan? It's not an American territory but because of their ancient practices, they have the highest number of super centenarians, something unfathomable for a remote village!

We are talking facts brothers and sisters! The choice is yours. We acknowledge the contribution of modern medicine but we also highlight its flaws and respect an alternative. An idea proven, whether coming from the ancient world or from the modern world deserves to be given chance.

What makes the Personal Longevity Coaching a viable business for anyone interested? Well, think of this – who wants to die young and sad? Nobody! So you will have a willing buyer willing seller relationship with your clients. This is easy in most conventional commerce setups. There is always a significant level of coercing!

Thanks to a large number of baby boomers, you will have access to a client base that is willing to pay for dear life literally. This population has possibly been won out by the many years of "building the nation". This population is enlightened enough after years of tribulations and the best part is that they need support programs like never before in their lives! Why not be the agent of change? Coach them passionately and professionally! Their progress in life will not be comparable to any award in your life!

Within this extensive Online Training you will get 60+ hours of our 12 longevity training courses- 11 on the 10 principles and 1 on how to coach clients. The course content consists of reading, audio, video, exercises, and tests to check your learned skills. You will also receive five great eBook bonuses.

Each course also includes a link to an additional resources page which has many more free downloads and links to other resources of interest. We use the Moodle online training system which is used by thousands of universities and companies worldwide to host training programs.

It is a full function system with user document storage, online tests and grading, and many other helpful features. The system has been thoroughly tested, used for certificate students, and users love it. There are the same 11 courses in the core training.

The Courses include the following:

- Course #1 Real Long Lived Persons
- Course #2 What is Your Purpose in Living?
- Course #3 Enabling the Life Urge
- Course #4 Your Spiritual Health
- Course #5 Having Love in Your Heart
- Course #6-Energy Body Health
- Course#7 The Science of Longevity
- Courses #8A & 8B-Physical Body Health
- Course #9-Using Your Intuition for Safety

Course #10-Personal Longevity Program Self-Implementation It's nice to read about all these concepts, but how can you really apply them to your own life? This is what the implementation is all about, and it helps you plan a lifelong change in your health focus to live these principles and truly experience long term health, greater happiness, and extended longevity.

The implementation process includes several forms which you will learn to use to apply to your life for better long term health and longevity.

Course#11-How to Coach the 10 Principles. This course is designed for students of the Personal Longevity Program who also want to become Longevity Coaches.

Take your freedom and take the Longevity Coaching Course on at your convenient longer learning pace. It is totally up to you, how long it takes, until you can achieve your Longevity Coaching Certificate, even if it is in an half year, or in one year !

The Program includes additional coaching Ebooks and resources to help you start with Longevity Coaching and earn money. If you are new to coaching this will give you the basic techniques and approaches you can use to develop your own successful coaching business fast. **–**

Only $1,995 as one-time fee for all 12 Longevity Coaching Certificate Online Training Courses!

These courses are totally designed for students of the Personal Longevity Program who also want to become Longevity Coaches in their local area. It includes additional coaching Ebooks and resources.

If you are new to coaching this will give you the basic techniques and approaches you can use to develop your own successful coaching business.

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Packaged Workshops

http://personal-longevity.com/longevity-experience

How would you like to make some money on the side? Don't get me wrong? The words "some" and "on the side" when used in the context of income are in most assumed to be little money! The reality is most people eventually earn more from their little hobbies than they did from a regular job. That is the aim of the Personal Longevity Packaged Workshops Program. That once you start your own workshops as a longevity coach, you will always have a continuous revenue stream.

Increasingly, there are more and more people offering coaching services on various disciplines. The reasons why the Longevity Coaching workshops are bound to attract more interest among the world's population today are:

- Baby Boomers who are aging and looking for ways to improve their health and longevity
- Spa & Resort Clients looking for more ways to improve their wellness and happiness
- Resort Business Clients wanting to add something really new and innovative to their Events
- Persons wanting to improve not only their exterior beauty but their inner youthful beauty & health too.
- Persons who might want to become Longevity Coaches and more…

When you enroll for this course, you will enjoy the following benefits:

- One License for Longevity Coaching & all the Training Content from 12 online Courses
- A full Weekend PowerPoint Presentation-Over 163 Slides
- Workbook & Handouts for Students
- Detailed Training Agendas
- Much more to help you plan and deliver your event successfully
- Training License includes One Day of onsite training with Staff (Per availability & Travel is separate)

What signature features set us apart?

- All Longevity Coaching Training Content from 12 online Courses
- One License to get Certified as a Longevity Coach
- A full Weekend Powerpoint Presentation-Over 163 Slides
- Workbook & Handouts for Students
- And much more to help you plan and deliver your event successfully

- Training License includes One Day of onsite training with Staff (Based on availability with Travel being extra)

Some additional Links to Review:

Our Main Website

The Longevity Subscription Program Page

Longevity Coaching Website Page

Packaged Longevity Workshops Website Page

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