

Quantum Ignition

Growing Up (outtake 1)

Bob Cox

Author's Note

These fragments are excerpts from the first draft of my sequel to *Quantum Ignition: Earth and Moon*. The action takes place in the decades following the conclusion of the first novel, starting with Lilliana's meeting with President Riley a few days after her UN speech. My plan for this book was to tell the story of the growth of the Luna Concord from minor colony to powerful nation.

These chapters have been excised from the sequel, which is going in different directions. The outtakes here are partly "political" in nature. The events described herein are still relevant and part of the *Quantum Ignition* universe.

The sequel novel is now tentatively titled *Quantum Ignition: War of the Anas*. Not all of my first draft has been relegated to these outtakes. Several chapters are being worked into the new book, which will have a grander scope than my original plans.

Bob Cox — May 2024

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Meeting of Minds [2058]

The Journal of President Keith Riley [unedited, not for public release]

[10 June 2058]

I started the National Security Council meeting. “Okay, that Moon woman, Lilli Ana will be here in two days. I have to deal with her, after she gave that UN speech. What are my options? She’s a do-gooder. What kind of pressure can we put on her? What can we get from her?”

My National Security Advisor said, “We can’t put direct pressure on *her*. That’s been tried. Our analysis is that her weak spot is the still tenuous nature of their Moon colony. They are nearly self-sufficient with basic food production, but they still buy large amounts of quality food that they can’t grow up there. They import machinery and manufactured goods, all their medicines, and a steady influx of immigrants. Pressure could be applied through the nations that trade freely with them.”

Commerce spoke up. “Their critical point is the complicated chips that power all their tech. Nobody on Earth understands how or why they work, but they are all produced here on Earth. We estimate that half the chips they buy from Japan and Taiwan fabrication plants are turned into products sold back to Earth nations. The other half stays on the Moon for their own purposes. These chips can *only* be made in Japanese, Taiwanese, and American plants. Their entire habitation of the Moon requires these chips, for power, for air and water, for light to grow food, etc. If they *could* produce the chips themselves, they *would*. This is their weakest link, and surely they understand that.”

I said, “So if something happened to the chip factories in Asia, their Moon colony would be in big trouble?”

Commerce said, “Our estimate is that they would not collapse in the short term, but that they would have to stop growing, stop taking in new immigrants. However, I think it’s important not to underestimate the inventiveness of Ms. Ana. Simply cutting back or killing their chip supply could end up spurring her to new efforts to overcome this speed bump. On the other hand, if the USA started letting their chips be made here, they could grow faster and establish themselves more securely. That could be a carrot to use when talking to Ms Ana.”

I had made a big mistake in charging off and invading their Moon caves. She’d had more tricks in her tool bag than we’d thought. I should have given further thought to planning how to win her over. Now I’m in a political bind, and she certainly understands that. Maybe she is even encouraging it, behind the scenes. The Western states don’t like my policies to reinforce America’s proper power and social order, and they really don’t like the national boycott of her technology. There is serious talk of secession on the left coast, especially in California and Hawaii. California wants the Moon desalinators and other such toys, tech that other nations can simply buy or barter for, more than they want the American Union. Then there’s those beach bum Marxists in Hawaii, who simply don’t understand that the only reason we tolerate them at all is that our military bases out there are so crucial.

Well, I have to meet with her. In a few days, she’ll be off to Europe, where she’ll get a huge welcome. Her devices help them with their now terrible winters — nearly limitless energy, tunnel

boring machines to make underground roadways, tools to easily move mountains of snow out of cities, and so forth. The USA is starting to fall behind, and I have to fix that. Carefully, though, considering the political situation.

Do I want to use the carrot or the stick? I'd tried my hardest stick directly on her in 2055, and she had easily broken it. Most people in the room had heard of the very one-sided "battle" we'd had with the Moon security forces, but of course they seldom brought the subject up.

I mused aloud, "What does she really want? Maybe we should go along with her for a while, and then try to get some advantage over her. Get them dependent on the larger flow of chips from America, and then throttle it back. Play a longer game. But not too long." Assuming I am reelected in 2060, I have about 6 years left in office.

The Defense Secretary asked, "What is it that we want from her? That is, what she isn't willing to give or sell us already, if we end our boycott? Our observer-immigrants on the Moon report gossip that she has talked in confidence to her Council about terrible weapons that could be developed, weapons that she wants nothing to do with. I doubt we can make her give up the keys to her technology. Even just the taste the Navy Seals encountered showed us she can cause damage ranging from trivial to drastic, nearly at will. She won't give up that kind of information."

He asked a good question. I *do* want her technology, and I don't like it that a tiny colony "nation" on the Moon has weapons America doesn't. But I haven't thought it through much more clearly than these general ideas. There have been too many other things to do, trying to force Americans to get back on the right track. So many people don't appreciate the need for the proper order in society. I had barely been elected to a full term in 2056. Things so far didn't look great for 2060, or even for the upcoming fall midterm elections.

I answered, "I put it to *you* all to come up with a list of things we want, in return for our carrot. Plus, I want to see a follow-on plan to twist more out of her after the 2060 election. We'll play nice for a while, which will boost prosperity here and tamp down those Western malcontents, and later we'll squeeze more out of the Moon people. Come up with a second list of things we could realistically get when we throttle their chip supply. You have one day for the first list, and for the first draft of the second list."

I nodded to my appointments secretary, and he glanced at his pad, then said, "Tomorrow at 1 pm back here, gentlemen and ladies."

My next meeting today was with my political team. Lukas Nilson, my 2056 campaign director, was blunt. "Chief, 2060 isn't looking good. If there even *is* a nationwide election. California is halfway ready to walk, to recognize the Lunar nation, and to supply them with chips from the San José fabrication plant. They have more than talk, they have a plan. Which is a hell of a lot more than the Confederacy started with two centuries ago."

I asked, "Lukas, guys, how does this Lilli Ana woman's UN speech figure into the politics? Can we leverage it somehow?"

Lukas looked around the group, then said, "Chief, we think you should go all in on her plan to decarbonize the air. Recognize her nation, trade with them. You will be a hero, practically a co-savior of the planet. Plus, it will damp down the secession talk. It's two years to the election. The ramp up for manufacturing her 100,000 air cleaning machines will take longer than that. After you're reelected, it'll be time to reevaluate the situation."

I liked this line of thought, but only to a point. I said, “She’s not stupid, and she has advisors. They’ll have thought of this, and will have some plan if we try to squeeze them in 2061. We’ll have to be subtle.” I switched gears, “Our base won’t like it. They hate the Lunar ‘nation’, with its mix of races, religions, group marriages, and nearly complete lack of proper social hierarchy. Our wealthy supporters don’t like her talk of ‘no rich, no poor’ and think it’s dangerous. They’re right, too. We can’t just pivot to saying we love the Moon people. We’ll have to be gradual, and hedge our statements with reservations.”

Hank Watson spoke up. “Don’t think too far ahead. That never works in politics.”

He was right, but thinking far ahead was necessary for *policy*. But at this moment, I don’t know what my long term Moon policy goals are. I’d spent most of my time and effort on my “Renew America” domestic issues. But I know I want something besides the glory of “saving the Earth”.

[11 June 2058]

The first list, about what we should ask for in return for pushing the climate fixing project, was on my desk when I went in around 9 am. It was geared towards getting products that would quickly be popular. Besides water desalinators for the West, the biggest ask was a translocator network for the military — to enable instant worldwide movement of personnel and small equipment. Missing was any consideration of what the Moon people would ask of *me*. That was my fault, for not making such ideas part of the request. No, not really my fault. My advisers should have thought of that side of the question.

I brought this point up at our 1 pm meeting. The consensus was that she would want a lifting of the trade embargo so the Moon’s government could start buying chips and other things from the USA. Plus, she’d want me to greenlight the Moon’s admission to the UN.

I answered, “Those things aren’t going to happen, not right away, not before the midterms. The political and donor bases have to be prepared. But we can allow states to import Moon tech. That might help quiet down those bastards in California.”

The usually silent Treasury Secretary said, “How will the states that want desalinators, for example, pay for them if the trade embargo remains on outgoing products? Will we allow barter?”

I was emphatic. “Not yet. If the Moon people want to give things away, then the state governments can accept them. Not individuals or companies. The political situation has to be prepared before we can allow two-way trade.” After all, I’d spent three years demonizing Lilli Ana and her Moon colony to my voter base. It would take us a little time to tamp that down.

Treasury pressed on with her theme, “We can’t afford to waste much time. Her ‘Ana tech’ is powerful, and the economy of Europe is already getting linked to it. In a decade, they’ll be ahead of us. You know they are already building a chip fab plant that can handle the complex Lunar design. Once it is ready, our analysis indicates they want to go all in on converting their economies, as far as Ms Ana will let them. The Germans, the French, the Poles — none of them are slouches at engineering, and they don’t have to know *how* the tech works to take advantage of *what* it can do. In short, it is Treasury’s opinion that the United States needs to adapt, or be left behind.” If she wasn’t so able, I’d fire the Treasury Secretary. Why does she always point out the negatives? Besides, in a decade I wouldn’t be in office, so why should her prediction matter to *me*?

I demanded, "What does that mean, practically, at this moment? What do we want? The Ana woman will be here tomorrow."

Commerce said, "Above all, we want our top level large engineering firms to have access to the technology, to find out what it can do so they can adapt it to their businesses. Freight — can it be translocated in enough bulk to be useful? Power packs — right now they come in 100 megawatt units. Is it possible to make vastly more but lesser units to drive smaller equipment — say, bulldozers and other heavy machinery? And so forth."

Defense said, "Observers report that Ms Ana works closely with engineers on the Moon to adapt her tech to their specific needs. I take it that is what you are talking about? One drawback I see is that there is only one of her. She can't consult with every major company in the country, much less the world. There would have to be some priority system for the amount of time she would be willing to give up."

Commerce came back with, "Something simple like the smaller power units I mentioned would be a big step. Those could be standardized, and our engineers can do the rest to retrofit them into various devices. The total amount of time for Ms Ana to get this going might be very small. It would fit in with her desire to reduce Earth's carbon burden. The jumbo-sized batteries needed to run bulldozers on electricity don't exist now. That kind of equipment still burns diesel."

All this made sense. Big projects, equipment that would be cleaner and cheaper to run, and an even better "Renew America" — have to fake up a new and improved slogan, though. Sellable for 2060, after some prep work. And after that? I said, "These are good starting points. I may run with this general scheme tomorrow, but nothing big can happen until after the midterms. Remember I want to see some ideas for what we can do in my next term."

[12 June 2058]

The Ana woman arrived at 10 am. She was alone, her security retinue required to stay outside the White House grounds. She was escorted to the Oval Office, with only my chief of staff, Thorne Vance, and myself present for the meeting. I disliked her at first sight. What was she? She was short, nothing special to look at.

I didn't get up when she entered, and didn't offer to shake hands. She didn't seem to expect it. Her face was set and impassive. I let Vance take the lead. He said, "Alone, Ms Ana? Don't you at least want a witness with you? Or protection?"

In a neutral tone, she said, "A witness? Why? To jog my memory? I don't forget anything that I intend to remember. To contradict any statements you might make later? What would be the point?"

She turned to me. "Mr President, do I need protection here? If so, then I'll leave now."

Vance answered, "You are vulnerable here. Surrounded by the Secret Service. The legal proceedings of 2053 are still only 'on hold'. You could be detained for leaving the jurisdiction of the court."

She said, still speaking directly to me, "Mr President, I've heard you are a blunt man. I can be blunt, too. Will the United States help Luna fix the Earth? If the answer is 'No', then I will move on to my other meetings. If the answer is 'Maybe', then we can talk. If the answer is pointless threats against my person, apparently I shouldn't take an invitation to a meeting from the President of the United States seriously."

She didn't make any threats, or allude to the failed attempt of 2055 to return her to American custody. She had courage and confidence, not that those mean anything. I said, "Ms Ana, my answer for just this moment is let's talk about our and your options. What do you propose?"

She nodded and said, "First, the United States recognizes the Lunar Concord as a nation, and stops blocking our full entry into the U.N. Second, to build the machines required to cleanse the Earth's atmosphere, about 80 million Ana tech chips will be needed for the initial fleet. The United States will fund the priority production of as many of these chips as possible in American foundries, at a minimum half the total. Third, the United States will commence building at least its share of the fleet of air cleaning machines as soon as possible. There are many more details, most of which can be discussed at a lower level."

Vance said, "And what does the American nation get in return?"

She said, still speaking to me, "Trade with Luna in other matters. Water for the Western states, for example. To the extent you can manufacture the needed chips, more power units. In Europe, they are asking for simpler chips with lower power output, but in huge quantities. Those chips are being designed now. When that design is finished, we can license American chip plants to make and sell these. Lunar techs will ignite them for use. Within reason, other Lunar technology can be made available for purchase."

I leaned forward. "We can't go too fast. I'm amenable to your ideas, but want to start small. If you supply us with the necessary information and equipment, we'll undertake to build and test a prototype of your air cleaning machine. Then we'll see its efficiency, practicality for our uses, and how to scale up to our needs." I figured this step would be a political positive while not offending the base. By the time the prototype was out of the way, the midterms would be over and I could plan for 2060.

She said, "At present, your executive order prohibits bringing any Lunar goods into the United States. Will you rescind that order? Otherwise, what you suggest can't be done."

Vance spoke up, "An exception will be made just for the parts needed for the prototype. Otherwise, the embargo will hold."

She answered, "Your proposal is completely one-sided. You get a prototype. Luna and the rest of America get nothing. At least six other major nations have offered to build such prototypes in just the five days since my speech. Without any restrictions."

Then she continued, "I said I can be blunt, and I will be. You need my technology. Parts of America don't want to be left behind. At best, your party stands to lose the upcoming Congressional elections. More drastic actions are being talked about, as I'm sure you know. Whatever you do now, you should be seen to be moving forward, cautiously maybe, but not grudgingly."

Vance exploded, which was not part of the plan. "You can't threaten the President of the United States. Legally, we consider you as still a citizen, and subject to our jurisdiction. You could be charged with sedition from the words you just spoke. Our special courts are very severe on that crime against the nation."

She was cold, and ignored Vance. As she should have. She said, "Take a step forward, Mr President. Not a baby step, one standard size step. No free trade for now? Okay. Mollify the US West, let us sell them desalinators and other tech. Or trade them for food."

This was where I wanted to be anyway, or not that far beyond. “All right, Ms Ana. You can barter with state governments, but at this time only consumables can be exported to the Moon. We’ll hold off on political recognition until after the midterms, and after our prototype is tested.”

She said, “That’s fine, Mr President. Mr Vance, Luna’s engineering department will be in touch to coordinate the transfer of hardware needed for building the prototype, as well as arranging for a few Lunar engineers to come down here for the construction and testing. Mr President, we should have a joint appearance to announce our agreement.”

I shook my head. I didn’t want to be seen with her, not yet. After all, much of my political base still thought she was halfway to being a devil woman. “We’ll issue a written joint communique. Vance and the press office will whip one up in the next couple hours.”

She declined to have lunch with me, saying, “I’ll be back at my hotel. Send the text of the communique over. I’ve got many calls to deal with.”

The joint announcement went out that evening, saying that America was exploring the climate-fixing program, and that state governments would be allowed to import Moon technology. My political team had worked on the phrasing to ensure that I’d get a quick boost in the polls.

[13 June 2058]

In the Oval Office, about noon, Vance and Nilson rushed in together. “Chief, you’ve got to see what’s going on in California.” Vance flicked on a news feed.

California governor Kathleen Turnbull was speaking at a press conference. “Last night I met in person with Lilliana, the famous inventor from Luna. This morning, I can announce that California will also build its own air cleaning prototype machine as soon as possible. In addition, Luna is sending us one of their newest desalinators, capable of producing 900 cubic feet per second of pure water and beaming it directly inland to a chosen site. It should be operational within a week, and we’ll use it to start refilling some emptying reservoirs. More of these devices will be coming soon. In return, California agriculture will provide food to Luna, and California businesses will produce medical supplies for Luna. In the coming weeks, I look forward to making announcements about other areas of cooperation with the Lunar Republic, projects that are under active discussion starting this morning.” Vance cut the feed as the gathering went to questions and answers.

Blindsided. I asked, “How did Turnbull meet with the Ana woman so quickly? Those Moon people’s diplomatic credentials from the UN don’t allow them to travel outside of New York City and Washington DC.”

Vance shrugged. “Maybe the governor came here by translocator? Maybe it was really a virtual meeting? It must have been planned ahead of time, though.”

I said, “What can we do to stop this? Is it even legal under the changes I made yesterday?”

Nilson said, “Does that matter? Californians have just been told they will get the water they need at last. If you cut that off, you’ll lose the midterms in a sweep. There’s no going backwards. Other states out West will be clamoring for the same desalinators. Transmitting the water straight to the destination — that’s clever. No pipelines needed to supply states far inland, like Arizona and Utah.”

It had been a trap. Once I cracked the door, the Moon people slammed it wide open and nailed it there. I said as much, and added, “Can we slam the door shut again? We don’t have to act publicly,

we could sabotage their desalinator at sea, or something like that. Require onerous customs inspections for all material flowing to and from the Moon. And so on.”

Nilson said, “Interfere with the promised water flow, and California will blow up. I mean, blow out — right out of the United States. Other states will follow them. Most of the desert West for sure. Water is more important than ideology out there, now. You might win in 2060, in a truncated nation. Or you might not.”

Inside, I was fuming then, and I still am. She tricked me into this situation. I had to react, somehow, but I couldn’t think of anything to do.

I said, “So what are our options? How do we recover from our mistakes?”

Editor's Note: Keith Riley was defeated for reelection in 2060. President Turnbull recognized the Lunar Concord in her inaugural address, and reminded everyone that the first Presider of Luna had been born and raised “right here in the United States, in Ohio”. During President Turnbull’s first term in office, the Lunar Concord began constructing its first chip foundry.

Discord in the Concord [2058-2065]

Dominic Newman

The public parts of my life on Luna are well documented. I'll tell you the hidden story.

It was that UN speech which changed my life. I listened to it live, then re-listened to it almost immediately. The new "nation" of Luna was the next place for me and my skills. I could really do well there, for the new nation and for myself, I was sure. More than sure — I was *positive*. I'd been successful where I was, but it was high time to get out of my current job.

I had to wait my turn for the Lunar immigration interview. That still couldn't be done in the USA, not while Riley was President, so I skedaddled down to Uruguay. Punta del Este was a nice place to cool my heels and get away from the stress of Manhattan.

The key moment in the interview was, "Mr Newman, Dominic, tell me how your experience and abilities will be able to further the establishment and progress of the Lunar Republic." I had prepared for that, and I am nothing if not persuasive. Everyone will attest to that, I'm sure.

I leaned in. "In her 2055 Declaration of Independence address, Lilliana had asked for 'scientists, ecologists, engineers, mechanics, farmers, workers, miners, doctors, and more'. I am one of the 'and more'. It's a giant project, building a new nation from nothing. Luna has to buy a vast array of things from Earth for the foreseeable future. That requires organization, financial management, physical management, negotiations with Earth companies — all things I've proven myself at. I'm sure there is a team on Luna doing these things already, but I can help make it work much better. The Lunar government is an outgrowth of the STELA corporation, and their expertise was pure finance. Buying and selling and managing huge quantities of physical things is a different kind of task. It requires different skills. I have those skills. Check out the large-scale engineering and construction projects I've worked on and directed. Your atmosphere project is vaster than all of those put together. Luna needs people like me to make it happen."

They did check me out. Thoroughly. I think that every place I'd worked at since junior high school was contacted. People I'd worked with more than a dozen years in the past dropped me a line telling me about being interviewed themselves. I wasn't afraid. Most of the places I'd been were reasonably happy about me, and those that weren't — well, they never wanted to face defamation lawsuits, so they wouldn't ever badmouth anyone, absent criminal charges.

A few weeks went by. Then I got the news: I was in. Instructions on what I was *allowed* to bring, and some advice on what I *should* bring. A "what to expect" document and links to some videos.

I was ready. I contacted the people on Earth I needed to, and prepared my stuff for emigration. Everything I could carry in two suitcases — no weight limit, but a volume limit. A final appointment for medical checks. Once that was done, I got an appointment for transit to Luna at a facility outside Montevideo.

The Moon! Luna! First thing I did was fall on my face, despite the instructional videos I'd watched. No one laughed. The "receiver" for my group helped me get up and said, "Happens to almost everyone within the first five minutes. You have to learn to use a lot less force in low gee when taking a step. Don't worry, you'll be on automatic pilot in a couple weeks." I didn't like it. Part of my

success came from projecting an image of being in total control, and being a klutzoid was not part of my plan. On the other hand, I'd probably never see any of these people again, once I was settled in.

After a few weeks on Luna, getting oriented, getting used to life there — then I was sent back to Earth. Warsaw for some reason, in the old Żoliborz neighborhood. Working on the purchasing and staging of the hardware from Earth needed for the Lunar atmosphere project. I zipped around Europe, meeting people, inspecting companies, arranging for samples, negotiating contracts, staging deliveries for translocation to Luna.

Right. I was only going to tell you about the “hidden” stuff.

I'm a suspicious type, though I cultivate my open and friendly affect very carefully. I would have made a good spy! Not everyone I worked with was so careful. I was out one evening with some co-workers, eating pickled herring and drinking good Polish potato vodka. One of them got loose-lipped, and said, “Dom, you know a lot of money passes through our hands. Good Earth money, I mean, not those Lunar credits.”

I smiled. He probably thought I was being friendly, but I was really thinking that he was about to tell me something I could twist to my benefit. “Not really *through* our hands, Jacek. More like we direct which hands the money goes to, in return for the mountains of stuff Luna needs.”

Jacek waved a hand in the air. “If my fingers are pointing to the stream to which the money from Luna flows, that's the same thing.”

Eduardo chimed in, “Here's to money streams!”, then he took a big bite of herring. Followed by another mini-glass of vodka and, “Fish must swim!”

Jacek went on, “Look, Dom. You are in charge of the bigger purchase contracts. Let me and Eduardo acquaint you with a couple of guys who can help you out. While you help them of course.” I understood their kind of “help” — kickbacks, commissions, bribes, whatever you want to call it. I'd seen it before. When the money stream is a river, everybody wants to go fishing. Even if the water is guarded by police with very mean dogs.

My answer was genial, as if I was a little drunk, too. “Sure, I'm always glad to meet new people in the business. Brokers, agents, whatever. Let me know when.”

I'm not stupid, and I wasn't going to assume the Lunar government was stupid. I went along with those clowns, Jacek and Eduardo, documenting everything. Then I ratted them out — that is, I properly reported the corruption back to Lunar HQ. Small-time grifters deserve what happens to them.

In a few months, I was head of European purchasing and logistics for the Concord. I commuted between European cities and Luna, dealing with well north of a billion dollars a year in contracts. But what I really wanted was to be back on Luna full-time. I had ambitions, and this fancy dancy clerk job was just the start for me.

Of course, I did get back to Luna. Right after American President Turnbull was elected. Riley's prohibition on direct trade with Luna would disappear when Turnbull took office. The Concord's acquisition strategy had to adapt and expand. I was put in charge of about 30% of the trade with the USA. Made sense, since most of my pre-Luna experience had been in America anyway. I had lots of contacts there. Just had to steer clear of those with whom I'd had bad experiences.

In my new position, I worked closely with a lot of the big engineering supply firms I'd dealt with before. Often even with the same people. This fact helped me a lot, and I was able to get all of my American operations going quickly.

Living on Luna gave me more insight as to what was going on in the economy there. A bonus was more insight into what ordinary people thought about the way Luna was progressing. I made an effort to meet people far outside my work and residence in the central hab caves. I was good at that sort of thing. People generally trusted me almost at first sight. I'm good at talking to all sorts on their own levels — farmers, hab diggers, astronauts, engineers ... you name it. It's a gift, you might say, but in fact I had nurtured it. When I was young, I'd even taken acting classes to help with the way I presented myself. One advantage of living in LA was all the between-jobs actors, who would teach theatrical skills to make a little extra money.

A couple of years went by. I was doing well in all directions. My job performance was solid, even great. More importantly, I was getting known. The atmosphere projects, Luna's and Earth's, were gigantic enterprises. I managed to get some interviews about my role in these efforts onto the Lunar news feeds. Luna prides itself on being unlike Earth, but it's not so different. Flattery works miracles, if you select your targets carefully and fire the right kind of honey glazed ammunition.

I'd worked out a plan. A lot of Lunar citizens felt that the 'pioneer days' schtick was getting old. They wanted more comfort, more choices. Personally, I was on Earth a lot, and I could see the contrast between the "good life" some (OK, a few) people had there and the way people lived on Luna. This would be my leverage point for advancement.

Like I said, I was already doing well, and I thought seriously of keeping on the same way. In a few more years, I'd have reached my goal. Now, I decided to ramp up my vision, and reach for more.

You all know I announced my run for the Council in the "off year" 2064. What you might not know is that I had a lot of support from Earth. Directly, Earthies couldn't do much for me. Earth money wasn't able to buy much, if anything, on Luna itself. But ... there's always a way. When money wants to talk, it finds a way to make people listen. If there's enough money, I mean.

How to get my message out? There was no advertising on Luna. Electoral campaigns were limited to personal hab-to-hab appearances, and online messages. However, Lunar citizens, voting citizens, were all immigrants. With friends and relatives back home. Target those relatives, as precisely as possible, and plant notions that things could be better on Luna. Better quickly, not decades in the future.

My first message was simple: "More meat for Lunies." More elaborately, take resources from the atmosphere projects to increase animal production.

I knew from my wanderings that people on Luna wanted a better diet. Not improved nutrition, there were no problems there, but improved variety. Especially, they wanted meat. Chicken was the majority of what was available, followed by farmed shellfish. Other fleshies were almost all imported, were not common, and were expensive in local credits. I promised the construction of new habs dedicated to the tried-and-true practices of factory farming developed for a century back on Earth. Pigs grow fast and don't need complex feed — in a few months we could be eating pork chops. Beef might take longer, but it would follow.

My indirect campaigning worked. It was a little expensive, but my "friends" on Earth were making an investment. I'd already helped them, and in a more central position I could help them

more. And of course, help Luna. There was too much long range thinking. People mostly just want to get by, day to day, with some comfort. Thirty years from now, or even longer? Might as well be infinity.

As you know, there wasn't much support on the Council for my ideas. Diverting manpower and chip production was one objection. Another one was the unpleasantness of factory farming. Chickens on Luna were raised in open environments, free of predators, and kept until their egg-laying days were over. To get a lot of pork produced rapidly, the pigs would have to be jammed into pens and cages. I didn't want to personally appear "pro-cruelty", so I ginned up a whispering campaign with the basic text being, "Who cares? They're just pigs."

It didn't work. Most of the Council was adamant. Part of it was Ana Lilli's fault. She wasn't a fan of eating mammals ("too much neocortex") and especially didn't like the suffering the stupid pigs would endure before they were slaughtered. But my popularity rose. I was the one who "stuck up for the little guy's needs". I went from hab to hab explaining that I was on their side. Painting the Council as a bunch of elitists who didn't care for ordinary Lunies and their problems. Tried and true ways of rousing up the rubes. They always work.

For the first time, there was vocal public dissent on Luna. Agitation for a "new way". Not all of it was my doing, I promise. Other people came in behind me to stir things up for their own purposes.

But the next decision was purely mine. I'd made it to the Council. Why not run for Presider in the 2065 election? I had a solid following. As Presider, I'd be in a position to help the "little guy" — and even better, help myself.

After I announced my candidacy, things looked good for a while. I knew Ana Lilli wasn't in favor of my run, but she was just one voter. She mostly kept out of Lunar politics, so her distaste for me didn't really trickle out to the voters. That could be used against her. I figured I had a good shot at the election, and I'd deal with her after I was in power. I promised not just meat, but other programs to make life on Luna easier. For example, a project to build vacation habs with synthetic beaches. "Livable Luna" was my sound-bite slogan. I figured I had a good chance to come in and "set Luna straight" (another slogan).

Alas, "the best laid plans" don't always work. I'm still not clear on how I was found out. I got a heads-up from someone in Budgeting that people were being interviewed about various transactions, including some I'd been involved in. That put me on edge, just a little. I'd covered my tracks five times over, and many people had been involved in all those contracts. Digging through all those layers of indirection and misdirection would be fruitless. Even so, I was nervous for a short while.

I tried to forestall any scandal, by coming out in public against corruption. "I've seen things, and I know what's going on. Hidden forces on Earth and Luna are gouging big chunks out of the money we spend on Earth. Only I can root it out." The usual line, trying to inoculate my public image against scandal. The "I've seen things" line should help me if word leaked out from the investigation, and even make me look good. My supporters liked it. I thought I had headed off any abrupt action against me.

Apparently not. A warning came to me from ... well, I won't tell you who. I had to escape "in my bathrobe" (so to speak). But I made it back to Earth before the public announcements. More importantly, before I could be arrested. I've always had a fallback plan or two ready.

I started to scoop up the money I'd hidden in diverse shell companies. Not the billions I'd hoped for when I became Presider, but several hundred million in "fees" and "commissions" for paying

too much on various contracts. I read once about an Earth politician nicknamed “Mr Ten Percent” because he raked off that much from all government purchases he could get his hands on. That wasn’t me, no way — 2% was good enough, since my “friends” on Earth needed their shares, too.

I don’t know how Luna did it, but they were ahead of me in getting at several of my accounts. Even so, I managed to shift a fair amount of money to more secure locations. I holed up in my prepared lair in the Emirates, where Luna was not popular at all — not after the value of their oil plummeted, thanks to Ana Lilli. No one from the Concord would be able to get close to me there. Living on the beach in a mansion was pretty pleasant. Boring at times, of course. There was no thrill of maneuver, of deception, of dominance. On the other hand, there was no risk. Or so I thought.

I really don’t understand how you managed to find me and spirit me back to Luna. I’m being open with you, and cooperative. I told you who was involved on Earth and on Luna. Don’t I deserve some consideration for *that*? You’ve got your Earth money back ... most of it. Except for a little skimming off the top, didn’t I do a good job? Everything was delivered on schedule in the right order, ready for use. You know, the translocator makes managing just-in-time operations really straightforward. None of the machinery or supplies purchased were crappy cheap stuff passed off as high quality. I’m proud of my contribution to the Lunar projects.

Give me a break, won’t you?

Editor's Note: Several of Newman’s proposed initiatives were put into effect. In particular, the construction of sporting and vacation hubs was accelerated in 2066, during Presider Cydney Fredholm’s second two year term. The new Lunar chip facility and the gen3 Qcoh chip design both contributed to these projects, without major effects on the atmosphere enterprise. About that time, immigration increased significantly, as well.

Factory farming was *not* introduced on Luna, then or ever.

Appendix - Timeline

2007	Twins Penni and Phoebe Tarella are born in Alabama
2028	Infant Lilliana Buckeye is found abandoned at an Ohio fire station She is placed for fostering (and possible adoption) with an evangelical family
2030	Lilliana teaches herself to read and do arithmetic
2031	Foster parents return her to state custody, as the child refuses to go to church
2032	Lilliana fostered by Blanca Ortega
2034	Lilliana starts teaching herself calculus, begins first grade
2038	Lilliana starts her machine learning research and development
2039-42	<u>The Asian wars</u> [†] (see below)
2040	Lilliana applies for a patent on her machine learning method
2042	Patent is granted; Marketing to NSA succeeds; Creation of STELA
2042-3	Lilliana instructs NSA data analysis team on her machine learning methods Lilliana starts to study cutting edge quantum mechanics Her frustration mounts as her progress is slow
2045	Begins collaboration with Edward Mitsui
2046	Fires her first attorney William Gorman Hires Richard Clifton and Cydney Fredholm Organizes STELA hedge fund Hires Edward Mitsui to start Qcoh chip design
2048	First working chips; Begin redesign
2049	Second generation chips with high output power Engineering for practical power boxes Initial breakthroughs for translocation, etc
2050	Beginning of personal relationship with Edward Mitsui Construction of underground station beneath Mt Sneffels (the first “hab”)
2051	Acquisition of smaller power companies, secret rollout of power in USA Establishment of Lunar station and what will become Habitat A Marriage to Edward Mitsui
2053	Pregnancy with the future “twin Anas” Meeting with Secretaries of Defense and Energy in new Sanchez administration Return of William Gorman; FBI investigation of STELA; Legal troubles Kidnapping and rescue of Lilliana, death of Blanca Ortega; Battle of Sneffels Ranch

	Birth of the twin Anas Blanca and Phoebe on Luna
2054	Rapid expansion of Lunar station Close relation with President Sanchez
2055	Death of President Sanchez, replaced by House Speaker Riley Battle of Lunar Habitat A Creation of Lunar Republic
2056	Lilliana steps down as First Presider of Luna
2057	Cydney Fredholm becomes first elected Presider of Lunar Concord
2058	Lilliana gives speech to United Nations, meets with world leaders Atmosphere projects begin on Earth and Luna
2060	Kathleen Turnbull elected American President
2062-5	Gigantic Qcoh “negative entropy” coolers to preserve ocean species affected by warming
2063-6	Construction of Luna’s first chip foundry Generation 3 (gen3) Qcoh chips are designed and created
2063	Kamaria is born somewhere in northern Afghanistan
2065	Dominic Newman’s run for Presider-ship is cut short by scandal Cydney Fredholm elected to her second term as Presider Dominic Newman is “extracted” from his refuge on Earth Two year old orphaned Kamaria is adopted by the Parvin family Kamaria is singled out for Ana training after the Parvin’s arrival on Luna Samaya Regas is born in Tasmania First generation identity rings introduced on Luna
2069	Regas family emigrates from Tasmania to Luna Samaya is selected for Ana training
2071-3	Ana Blanca attends medical school on Earth Ana Phoebe begins her reformulation of the Next Physics and the Deep Physics
2072	Kamaria’s father leaves Luna to return to Persia
2074	Founding of the Vesalius Institute of Medicine, including a medical school
2076	Ana Blanca graduates from VIM, begins developing micro-translocation surgery Marriage of Ana Phoebe and Dr Emily Williams
2077	gen4 Qcoh chips developed Adoption of third generation Lunar identity rings, including tiny gen2 Qcoh chips
2079	Suicide of Kamaria’s adoptive mother; Kamaria “runs away” to Shaft City Aariz
2080	Abortive war between the Israeli and Sh’ia Ali theocracies

	VIM develops highly refined neural implants Phoebe Tarella's vision is restored using the Next Medicine
2081	The Yunnan Republic becomes the first Earth nation to adopt a Luna-style Concord Luna pledges to defend Concord nations on Earth from external violence
2082	Luna begins aiding Earth nations in dealing with natural disasters when practicable Hawai'i becomes the first American state to secede and form a Concord Design of gen5 Qcoh chip begins
2083	Birth of Phobos, son of Ana Phoebe and Dr Emily Williams
2085	First voyage to Mars

†The “Asian Wars” (2039-42)

- Second Korean War
 - Much of the Korean peninsula is devastated after the war starts almost accidentally
 - War spills over the border into China, with catastrophic consequences
- Second Chinese Civil War: aftermath
 - China splits into several independent southern republics (e.g., Yunnan and Guangdong) and the northern Great Unity China (a rigidly hierarchical mix of Confucian and Maoist governance)
- South Asian nuclear exchange
 - Clashes between Indian and Chinese forces in the Himalaya regions bordering Tibet cause Pakistan to “aid” China by an impromptu (and unsolicited) nuclear attack on Indian forces
 - Retaliation by India, then tit-for-tat by Pakistan, escalates the disaster: destroyed cities, downwind radioactive contamination zones, spreading to neighboring countries