

The Marchioness

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In a narrow, low-ceilinged corridor under brilliant strip lighting a smartly dressed woman of about thirty carrying a travelling bag in one hand was marching stiffly towards an archway bearing the sign: *DEPARTURES*.

“Hey!”, a voice shouted, “You can’t go through there!”

She hesitated, glanced around, then saw a young man in dark blue overalls at the end of the corridor moving in front of her to block her way to the departure gate. She continued on her way towards him.

An observer would have noticed something strange about the way she moved. Her feet stuck slightly to the floor every time she put them down, requiring a deliberate effort in order to release each foot to take the next step. Her body weight was not centered over her feet, and she was using her free hand to pull on a handrail in order to help move herself forward.

Reaching the man in overalls she held out her right hand, palm upwards. “Check my ID again if you must, but quick. I’m in a hurry.”

The young man gave her a distrustful look. He was floating in the air in front of her, legs slightly bent, his feet not even touching the floor. From a pouch on his belt he produced a scanning device with a small screen, held it over her hand and looked at the screen. “Your name?”

“Lady Rhoda Barwell, ninth Marchioness of Oxonstein. Date of birth 19th of May 2031. I’m booked on the shuttle to the *Arcadia*.”

“The *Arcadia*’s no longer in service, madam.”

“Yes it is. I’m booked. Check my security clearance. And it’s ‘milady’ to you!”

While the fellow stared at his scanner and pressed a couple of buttons, two of his colleagues, similarly dressed, emerged from side doors, again floating weightlessly, and came to his side. The three of them studied the screen together, then gave each other a disbelieving glance.

One of the trio, an older man, looked up. “Outer Space Security Commission...”,

he muttered with a hostile stare at the aristocrat. “What’re the osskies doing here?”

Lady Rhoda returned his stare, only taking her eyes away from his for long enough to check the name tag stitched to his breast pocket. “You may like it or not, Mr Petrakis, but I have the power to order the *Arcadia* shuttle to remain here for as long as it takes for you to get out of my way and allow me to get on board.”

Again the three men exchanged glances. The young man with the scanner shrugged: “She’s right. We’d better let milady through.”

Petrakis looked unconvinced. “We never got this bullshit when it was NASA, ESA and Roskosmos.”

“That’s why they had to be combined into one global security organisation, to keep multinational cowboys like you under control”, she retorted. “And I’m not at all satisfied with the way you kept this flight off the public departure boards. Thanks to you I almost missed it.”

“I told you”, the young man objected, “it’s a private flight. Not open to the public. The *Arcadia*—”

“It’s open to me”, Lady Rhoda stated flatly, and stepped forward, shifting her feet deliberately over the smart velcro surface.

The three men fell back and allowed her through.

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She had been allocated an aisle seat in a narrow passenger cabin resembling one on a small aircraft. Her neighbour in the window seat was a balding man considerably older than she was, who gave her an ingratiating glance with a shy smile from time to time and seemed to be on the verge of addressing her. Rhoda hoped that her preoccupied frown would discourage him, but eventually he plucked up the courage to say: “What a wonderful view of Earth!... Your first time?”

She glanced across to the small porthole window by the man’s shoulder. From her angle of view she could see nothing but darkness outside, but she gave him an ambiguous nod. In order to forestall any further unwanted fraternising she pulled out her reading tablet and immersed herself in studying a report. At first she tried floating the device above her lap, but although it was completely weightless the air currents from the ventilation threatened to drive it out of her reach. She found that

she could hold it lightly in position with just two fingers.

After an hour she sighed and closed the tedious document. She checked the news feeds, then noticed with irritation that the other passenger by her side was glancing across to see what she was reading.

“What’s the news?”, he asked, offering her a friendly smile. “Have they wrapped up the election yet?”

“Sustain-Respect is leading in the polls, the Conservatives are claiming the polls are rigged”, she summarised, and closed the screen. “For the planet’s sake we must hope the polls are right.” She put the tablet back in her travelling bag, pulled the zip shut and glanced curiously around the cabin. From her place near the rear she estimated that about half of the thirty seats were occupied. Apart from the older man by her side they were generally young-looking people, with both sexes and a variety of races well represented. A murmur of conversation in French came to her ears.

Her companion suddenly reached his hand across to her. “George”, he introduced himself, “George Hayson. We’ll be sharing a long journey. Looking forward to seeing the Moon close up?”

“I, er”, she stuttered, taken aback by the unwanted show of friendliness. She allowed him to shake her hand, and noticed that his grip was unexpectedly firm. “Yes, of course. I’m Lady Rhoda Barwell. Working for the United Nations.”

He nodded. “Pleased to meet you. Are you bound for Selenopolis, or just enjoying the trip around the Moon?”

“I’m going to the surface. I’ve got UN business in Selenopolis.” She suddenly noticed a gleam of light from the porthole, and leaned towards her companion for a better view. “Is that it?”

George nodded. “The *Arcadia*. Should be docking in a quarter of an hour or so. Then we can make ourselves more comfortable. You’ll get a better view there.” He gestured towards the seat in front of her.

Rhoda touched the back of that seat and the embedded screen immediately lit up with an image of their destination. A row of numbers at the top of the picture indicated their distance from the station, their speed of approach and their distance from Earth.

The *Arcadia* consisted of a complex array of silvery space station modules which shone brightly in the stark sunlight against the blackness of space. A number of cylindrical modules had been docked end to end, forming a spinal column some 300

metres long to which other modules, solar arrays and space vehicles were now attached. Near one end the column sprouted four slender arms at right-angles to each other and to the spine. These 100-metre arms were on a turntable which allowed them to rotate together around the spine about twice as fast as the second hand on an old-fashioned mechanical clock. At the end of each arm the modules for passenger accommodation were visible, fat and wrinkled, sweeping the sky in a constant chase for artificial gravity.

“I don’t understand”, Rhoda said. “Why are they taking the *Arcadia* out of service?”

“It’s getting old”, her companion responded, again with an irritating smile. “Six years of cycling back and forth between the Earth and Moon.”

“But the *Tranquility*’s still in use, and that’s over ten years old.”

George shrugged.

“What about the *Argyre*? That station’s even younger, it’s the second youngest of the ten cyclers, and yet it’s being deorbited as well, so I’m told.”

George gave her a patient look. “Probably falling passenger numbers. Due to the anti-growth policies of Sustain-Respect.”

“That’s not possible. Sus-Res have barely made an impact yet. The sort of people that can afford these flights know how to evade their legal and moral obligations... How come you’re flying to the Moon, anyway? You don’t look like a high-net-worth to me?”

“Geologist. My university paid for the trip.”

“Oh? Which university?”

“The University of Ascension.”

She frowned. “You mean it’s on that floating island in the Atlantic?... If Sus-Res had their way...”

“That’s why ocean habitat technology is vital for future growth.” He flashed her a conciliatory smile. “Think of it as Plan B. Just in case Sus-Res doesn’t achieve its goal of world domination.”

“It’s the ocean dwellers that are after global domination”, she snapped back. “If they had their way they’d cover the world’s oceans with concrete!”

She prolonged her unfriendly gaze for a few seconds, then turned her face away.

The image in front of her expanded until the rotating arms were lost to view off one side, while the other end of the spine slipped away over the other. Their shuttle was homing in on a logistics module partway along the structure. An unoccupied docking port grew steadily larger in the centre of the screen like an approaching bull’s eye.

A thought struck Rhoda. "This little lot'll make quite a splash when it hits the Pacific Ocean. They'll have to split it up and deorbit each module individually, that's the only way OSSCom will allow it."

"The Security Commission? No, they're not returning it to Earth. They'll find a... what you'd call a graveyard orbit for it."

"Where? At a Lagrange point?"

"Maybe. You'd have to ask the company. Ask Simeon Playfair."

"I intend to do exactly that."

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As Rhoda entered her tiny cabin, a section of one wall lit up with a rustic scene showing birch trees with bluebells clustered around their feet, and the figure of a dignified old man dressed as a sage from classical antiquity walking towards her. The faint trilling of birdsong was audible in the background.

"Good evening, Lady Rhoda", the sage welcomed her in a throaty, carefully enunciated voice. "The *Arcadia* is honoured to have the Marchioness of Oxonstein on board. Please call me Archie. I am your hospitality genie for this voyage. Please ask me anything you like about this station or about the Earth and the Moon. I trust that you will find your accommodation to be first class in every possible respect, but if you should have any problems or special requirements, please let me know and I will do everything in my power to satisfy them."

"Thank you, Archie", Rhoda said while unpacking her travelling bag and laying out her nightdress on the narrow bunk bed. "I want to know if Mr Simeon Playfair is currently on the station."

The sage's wrinkled face creased into a smile. "Would that be Mr Playfair, the chairman of Playfair Spacelines?"

"It would."

"Then I am happy to tell you that he is indeed aboard the *Arcadia*. Would you like me to ask whether he might be available to meet you?"

"Yes, do that, Archie." She placed her toothbrush together with her other toiletries on the bedside table.

"I will do that immediately. Is there any other way I can be of assistance?"

Rhoda stood and thought for a moment, wrinkling her nose at the air current which wafted through the air conditioning. “Archie, there’s a strange smell in here.”

“A hotel bedroom often has an unfamiliar odour at first. I am sure it will soon pass.”

“Archie, this is worse than unfamiliar. Smells like burnt toast, or something. I want you to do something about it.”

“At once, Lady Rhoda. I’ll refresh the air in your room immediately.” The quiet whisper of the ventilation fan ramped up to a rushing sound, and she felt the airstream ruffle her hair. “Is that better?”

“A bit. It’s changed... now there’s something sweet and sickly in the cabin air.”

“It’s called ‘April meadows with a hint of rosemary’. Do you like it?”

“No I don’t! Get rid of it! I don’t want perfume, and I don’t want burnt toast; I just want clean, fresh air. Please make sure the air is cleaned up before I come back.”

“Certainly, Lady Rhoda”, the voice went on imperturbably. “Meanwhile, can I draw your attention to the wide range of ladies’ fragrances we have available in our Duty Free shop upstairs?”

“As if it’s trying to wind me up on purpose!”, Rhoda muttered to herself, and left the cabin.

She made her way up a narrow staircase to the lounge.

The low-ceilinged, richly carpeted room was partitioned into a number of alcoves around its perimeter, and the walls and ceiling were decorated with colourful images of flowers, fish and insects, winding around circular, porthole-like screens displaying computer art. Circular windows in the outer wall were set to give a direct view of the rotating heavens outside. The bar, the shop and a lobby leading to the toilets and the lifts occupied one end of the lounge, the staircase emerged at the opposite end. The lounge was busy with a dozen other travellers, and she couldn’t suppress a frown of recognition when she saw George Hayson waving to her. At first she ignored him and went to the bar, behind which a young woman in the Playfair company uniform was placing drinks on a tray.

“Excuse me”, Rhoda interrupted her. “I’ve been having trouble with my cabin.” The stewardess looked up at her with a fixed smile, and Rhoda continued, “There was a strange odour in the air, and Archie only made it worse by trying to smother it with perfume.”

“Did you ask him to refresh the air?”

“Of course I did! But there shouldn't have been anything wrong with it in the first place. Contaminated air can be extremely dangerous.”

The stewardess's smile took on a new intensity. “Oh, I really wouldn't worry, Lady Barwell. It's nothing unusual, and Archie's capable of measuring trace elements in the air to parts per billion.”

Rhoda glared at her. “I want you to go down there and check my cabin for yourself, and you can let me know when it's safe for me to enter!”

“I can assure you, milady, that Archie has the air quality under constant control throughout the *Arcadia*.”

“And I can assure you that Archie doesn't have to breathe the air, and he's not to be trusted – I mean, *it's* not to be trusted. It's nothing but a few lines of machine code, after all!”

Rhoda turned away, intending to find a seat where she could relax in solitude. Her ears caught a snatch of Japanese conversation from a nearby table, German from another. The typical international mix one found on space stations. She allowed George to catch her eye again. He was sitting at a table together with a young couple, and there was a spare seat for a fourth person. Rhoda acknowledged his gesture with a nod and walked across the room to join them.

“Mark and Susanna, colleagues of mine from Ascension”, George introduced his companions.

“Pleased to meet you”, Rhoda said with a routine smile, and noticed the matching wedding rings on the young people's fingers. “Lady Rhoda Barwell, with the United Nations. It seems the University of Ascension has a large budget for lunar geology?”

Mark smiled. “Our trips are subsidised by the Playfair company. The work we do is valuable to them as well.”

“The gravity here feels light. Is this lunar gravity?”

“It's Martian. Four tenths of Earth gravity. Like it?”

“It feels quite comfortable.”

His wife Susanna added, “Low Earth orbit stations generally give you three quarters of a gee. But the Earth-Moon cyclers have proved that people can live comfortably at half of that.”

“But not sustainably.”

“Yes, as sustainably as you like.”

“They don’t know that. The cyclers have only been operating for...”

“Thirty years”, George stated.

“That’s thirty years of adult life”, Rhoda corrected him. “We’ve still no idea whether human reproduction is possible in Martian gravity. And no reproduction, no sustainability.”

Susanna made a strange laugh.

“Did I say something funny?”

Mark put his arm affectionately around Susanna’s shoulders. “My wife was conceived and born on the cycler station *Archimedes* in 2036.”

Rhoda stared at him in surprise. “Why haven’t I heard about that?”

“It was kept secret at the time. Ethically unacceptable, you see. Even today, with all the fuss that Sustain-Respect is making...”

Susanna added, “My parents were keen advocates of colonising Mars. They were flight stewards together on the *Archimedes*. It had Martian gravity, the same as we have here. Towards the end of her pregnancy my mother had to stay out of sight.”

“Did Simeon Playfair know anything about this?”

She smiled sweetly. “You mean, my godfather?”

Rhoda frowned and gave her a searching look. Was there something asymmetrical about her eyes, something odd about the colour of her skin...?

Susanna leaned towards her. “I’m perfectly normal. Honestly!”

“Sorry, I didn’t mean to be rude... You don’t have any Chinese ancestry, do you?”

Susanna laughed. “What would you like me to order for you? The toasted bacon sandwiches here are especially good, with a choice of garnishings.”

“With real bacon?”

“You wouldn’t know the difference.”

“You mean it’s a high-impact plastic substitute?”

“I mean it’s a low-impact cell-cultured substitute. Manufactured in energy-efficient clean conditions without having to slaughter any poor pigs. You mustn’t believe everything Sus-Res tells you.”

Rhoda stared at her. “My husband the Marquess of Oxonstein is a senior official

with Sus-Res.”

Susanna returned her stubborn gaze. “Then I’m sure you must be well informed.”

“In comparison with real meat it’s lacking essential nutrients.”

“Do you want to eat or not?”

Rhoda sighed. “Yes, I’ll have a toasted plastic sandwich.”

Susanna tapped on a small screen set into the table top to make the order.

“And a glass of whatever wine-flavoured liquid certified fit for human consumption they serve here. Speaking of plastic”, Rhoda went on, “my cabin smells funny. When I went in there was an odour of burnt toast. I complained to the stewardess”, she nodded in the direction of the bar, “but she said it was nothing unusual. The cheek of the woman!”

Susanna rested her hand on Rhoda’s arm. “That’s Tonya. She’s very experienced. If she says it’s normal, then it’s perfectly normal and there’s no need to worry.”

George added, “Archie will probably get it flushed out in a few hours.”

“But isn’t it dangerous? Unhealthy?”

“You could ask Simeon Playfair. I expect you know he’s been living on this station for the past three years, managing his business empire from up here.”

“Because if he set foot on Earth he’d be arrested for tax evasion”, Rhoda shot back.

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Rhoda cleared her plate and relaxed with her glass of ersatz wine while the others chatted about mutual acquaintances. She couldn’t help herself from staring curiously again at Susanna, drawn by the young woman’s gracefully slanted eyes.

The object of her curiosity noticed, and smiled back. “I’m perfectly normal. Ask Mark if you don’t believe me!”

“Yes, but are you...?”, Rhoda began, and stopped herself, embarrassed.

“Am I what?”

Rhoda pushed back her chair and stood up. “Are you able to recommend anything from the Duty Free shop? I suppose all their cosmetics are as artificial as

their food, but maybe there's a nice souvenir I could take back for Teddy..." She glanced around and was surprised to notice for the first time that the shop, next to the bar, was shuttered. "That's odd. Why's the shop closed?"

Susanna gestured towards the stewardess, who was just coming out from behind the bar. "You could ask Tonya."

Before she could do so, Tonya clapped her hands and called for the attention of everybody in the lounge. Looking up, they saw that she had channelled a news report onto the porthole-screens so that all could see, and she now turned up the volume. Rhoda sat down again and watched with interest.

"Today", the newsreader said, "Playfair Spaceways announced it had taken the Earth-Moon station *Argyre* out of public service. This retirement of the three-year-old cycler station will be the first of several reductions in the fleet of stations carrying passengers between the Earth and the Moon, in order to match capacity with the recent fall in passenger numbers."

A diagram appeared showing the station in a figure-of-eight orbit in the Earth-Moon system, and the point at which it had left that orbit.

"At first it was thought that the station would fall back to Earth and be made to reenter over the Pacific Ocean, as had been done before with the Russian Mir station, the International Space Station, and the subsequent Russian, Chinese and Indian scientific stations. But Playfair has announced that the *Argyre* is to be taken higher, not lower, in order not to burden the Earth with its debris, as well as to save it for possible future use. This was achieved by making a small course change close to Earth, which altered its latest flyby of the Moon. Instead of the Moon returning the station towards Earth as it usually does, it has boosted it into a higher orbit. The company has, however, not stated where its final parking place is planned to be."

"That's just going to create more space junk", Rhoda observed critically when the broadcast was over. "I'm surprised they got OSSCom to agree to it."

"OSSCom's only concerned with near-Earth space", George corrected her. "If they take the *Argyre* up high enough, then why should the osskies care?"

Rhoda gave him a stern look. "OSSCom's responsible for outer space, as its name says. That's all of outer space, no matter how far from Earth."

"Even out as far as, say... Mars?"

"Especially out as far as Mars!"

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The next morning, ship time, Archie appeared on the wall of Rhoda's cabin and announced that Simeon Playfair would be pleased to receive her in his suite at 11:00 the following day. This came as a pleasant surprise, for she had been expecting that there might be difficulties in obtaining access to the reclusive tycoon.

For a while she sat in the privacy of her cabin and listened to the occasional footsteps and voices of people out in the corridor, and to the ever-present rustle of the air conditioning. The strange odour was less noticeable today, she thought, but still not entirely cleared away. After making another complaint to Archie and sitting through his useless excuses, she opened her reading tablet for the latest news.

On Earth it was polling day. Sus-Res was predicted to win a majority, the Conservatives were still the outsiders, though some thought they could still turn the tables on their anti-growth rivals before the day was done. When it came down to it, people liked to tell the pollsters they were all in favour of reducing their impact on nature and living responsibly, but in the secrecy of the polling booth their immediate material interests of ever more technology and ever more jobs dictated their choice.

There was also more news on the Earth-Moon tourism industry: the other big travel company, Vostochny Space, was also taking two of its cycluser stations out of service. The fleet of ten stations shuttling back and forth between the two worlds would therefore fall to seven, or even to six if the *Arcadia* itself was eventually also removed from the route. Had Earth-Moon travel really fallen by two fifths in recent years? Perhaps, Rhoda thought, Sus-Res was really beginning to have a major impact after all. Naturally the Russian-owned company denied any improper collusion with Playfair. The chairman, a dour-faced gentleman named Boris Rukavishnikov, insisted that the downturn in space travel was affecting both companies equally.

She turned her attention to her mail. There was a personal message from her husband as well as a number of official mails to answer. She spent an hour composing replies but when she tried to send them the tablet suddenly lost its internet connection. All she could get from Archie was his regrets for the loss of service and assurances that it would be restored as soon as possible. Meanwhile the station's own news server would still be available. Rhoda frowned with annoyance.

At lunch time George noticed her preoccupied look and suggested that she join him and some of the others that afternoon for a session in the zero-gravity gym, located in the station's spine. She excused herself on the pretext that she had never been very athletic, but George insisted. She reconsidered the merits of the harmless diversion and allowed herself to be won over.

When the group of half a dozen sports fans had assembled, one of the stewards, a nervous-looking young man with a permanently gloomy expression, introduced himself to them as Daniel and led them into the lift. They ascended the access arm connecting the passenger module to the *Arcadia's* spinal column.

At the top Rhoda was almost weightless and appreciated the guiding presence of the steward. The group transferred into another small, lift-like compartment. Daniel pressed a button to close the hatch they had come through; it swung to but failed to lock, and it was not until he had gripped the handrails on either side and given the hatch a vigorous kick with his foot that it consented to seal properly.

Rhoda watched this procedure wide-eyed.

Having locked themselves in the steward pressed a single button on a small control panel on the wall. There was a whine of electric motors and a strong sideways force as the compartment, on its own independent turntable, detached itself from the access arm and despun itself. After a few moments there came the jolt and hiss of hatches making new connections, and they were able to leave by the other exit into the non-rotating parts of the station.

"Wait a minute, Daniel", Rhoda stopped him. "I didn't see you type in any sort of password or access code?"

"No", he shrugged sullenly.

"Well, shouldn't you have done so? What about security? Anyone could have come through here!"

The steward shook his head. "No need for security. Archie knows where everyone is at all times."

"That bit of jumped-up software!"

"Yes", he agreed again. "So it's all open access, right? Now do you want to follow me to the gym, please, Lady Barwell?"

They were joined by another crew member from one of the other gravity modules, and the two stewards organised team games and showed the less

experienced passengers how to move in zero gee without hurting themselves or making themselves giddy. For an hour Rhoda was completely absorbed in the novelty of three-dimensional space basketball.

In a pause halfway through the afternoon Rhoda found herself at a cupola window offering views up and down the length of the *Arcadia* as well as out into space. She glanced around and saw George at her side.

“Nice to see things standing still, for a change”, he commented. “Of course you can always stop the rotation by putting the windows into virtual mode, but sometimes it’s still nice to see out the old-fashioned way.”

Rhoda gave a little laugh. “It makes me feel powerful, like an eagle soaring over the world!”

George smiled back at her. “I think the exercise is doing you good.”

“All an illusion, of course. In reality we’re prisoners of technology.”

“Prisoners, or partners?”

She looked away from him, out into the darkness. “The other stations are somewhere out there, I wish I could see them go by.”

“You probably could if you had a computer-guided telescope.”

“I wonder what they did with the *Argyre*?”

“Yes, it’s strange, but the company hasn’t made any more public announcements about it.”

“Maybe they’ll drop it into the Pacific Ocean after all. Did you know that Vostochny are also decommissioning some of their stations?”

George responded absent-mindedly, “I heard something of the sort.”

“The *Potyomkin* and the *Yekaterina*. Of course it’s sad when you have to give up something like that, after people have put so much effort into making it work. But in the long term our survival depends upon it.”

“Certainly our survival...”

Rhoda decided to snap George out of his otherworldly mood. “Look”, she pointed through a window that gave a view onto the lower part of the station’s spine, away from the ever-turning gravity modules. “What are those stubby conical things docked to the side of the spine there?”

“Those? They’re atmospheric entry vehicles. They could be used for escape from the *Arcadia* in case of emergency – collision with space junk, say, or a fire, or a solar

storm that overwhelmed our radiation protection. Useful to be able to escape from the station and reenter the atmosphere directly, rather than have to use the shuttles and rendezvous with a low Earth orbit station.”

“Why don’t they have wings, like the shuttles do?”

“The older technology of a simple ballistic capsule with a heat shield is more reliable in cases of emergency. And the shuttles can’t return to Earth so quickly. They have to slow down once, to orbital speed, and then cool down before they can slow down again, and this time land. The capsules are designed to land directly from the cyclor. Those tanks there...”, he pointed, “take water brought in from the near-Earth asteroids. Some of it goes to top up our radiation shielding, most is processed into rocket fuel.”

Rhoda squinted at something in the corner of the window and frowned. “Look, what’s that jagged line?”

George chuckled. “Oh, that’s nothing! The sunlight’s just catching a crack in the glass.”

“You call that nothing? Our lives depend on that piece of glass!”

“But look how many layers there are. A single crack in the outermost pane isn’t enough to worry about. Probably caused by a micrometeoroid.”

“And if the other layers get cracked as well? At what point does the air pressure cause the window to blow out?”

George gave her a more serious look and gestured at the window. “We’re looking through a 50 centimetre water jacket. The outer window isn’t under any pressure, so it can’t blow out. I’ve seen windows take much more punishment than that with only a dribble of water escaping to space to show for it.”

She gave him a skeptical look.

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That evening Rhoda again joined the three Ascension geologists for dinner. For a while their talk revolved around recent discoveries concerning the geology of Mars. Pleasantly tired after the unaccustomed vigorous exercise that afternoon, Rhoda mentally tuned out.

“I’m sorry”, Susanna said, turning to her. “Here we are talking shop and

ignoring you. Did you have a pleasant day?"

"Yes, thank you. We narrowly avoided death by structural failure of a window."

"Don't you think it's rather fun living in a building where you have gravity in one part, and no gravity in another? It's a bit like having a house by the sea, where you can live on land, but spend a few hours swimming if you want to. Of course you don't get the smell of the sea... How's your cabin now?"

"The smell's not as bad as it was. I think the air conditioning's cleared most of it. But if it comes back I'll take my complaint to the top!"

"Strange smells sometimes come and go at random", Susanna told her. "The air conditioning's working to keep everything in balance, but it's not a stable balance, and sometimes it gets out of hand. Especially in the early days. My parents used to tell me of how an entire module would become uninhabitable, with a buildup of methane, or hydrogen sulphide, or ethylene glycol, or one or another species of nasty microbe. Once there was an infestation of moths, another time there were fleas. Whenever that happened the module had to be evacuated, sometimes the entire station. Once everybody was out they had to vent all the air away into space and start again. But after thirty years experience, it doesn't happen so often now."

"That's very reassuring", Rhoda frowned back at her. "By the way, do you know why I can't get any signal on my tablet?"

"I expect the station's web server's down for a software upgrade", Susanna replied brightly. "You can still use your tablet to tune in to the station's digest of TV from Earth."

"I don't want TV. I want to mail colleagues on Earth. I've not had any connection since this morning, and Archie's been no help at all. Bland reassurances that everything's fine, and no action to solve the problem. That's not a hospitality genie – just a mouthpiece for regurgitating the company PR flannel."

George leaned across to her. "Why don't you leave them in peace?", he suggested with an ingratiating smile. "Can't they manage without you for a few hours?"

"No, they can't! I've got a report to send in to my UN department, and amendments to the constitution of the Golf Club to discuss, and a gala concert in support of sustainable living to organise, and on top of that my family needs to know I'm safe."

“You have family on Earth?”

“Well, of course I do!”, she exploded. “Doesn’t everybody? What will my husband think if I’m out of touch for hours on a dangerous space flight?”

George, Mark and Susanna shared an embarrassed glance.

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Playfair’s quarters occupied the whole of one of the four gravity modules of the station. The ultimate penthouse suite, Rhoda thought at breakfast, gazing out of the lounge window. Earth, now looking small and remote, floated past twice a minute. No longer was she flying over a world, but merely observing a planet in the sky. Fifteen seconds after Earth, shining brilliantly in its summer dress of sea and clouds, had glided past, an equally brilliant half Moon followed, only a naked Moon, bare to the very rocks, hugely larger and rounder than she had seen it before: a remote disk now transforming itself into a tangible, three-dimensional world. But it was a world of suffocating deserts and deathly shadows, of grey dust and stabbing shafts of invisible radiation, no place for humans.

She turned to the young woman she was sharing a table with. “That’s what Earth’ll look like very soon”, she growled.

The woman stared uncomprehendingly at her.

“Haven’t you heard?”, Rhoda added. “The Conservatives have a majority. Growth will continue until the Earth is stripped bare. It was our last chance to save the planet...”

The other woman smiled at Rhoda. “Maybe it’s not really as bad as that?”

At 10:45 Rhoda approached the bar and spoke to Daniel. To her complaint that she was still out of touch with Earth, he merely shrugged.

“Well, this is just not acceptable!”, she fumed. “I’ve got an appointment with Mr Playfair at eleven, and I’ll certainly mention your unhelpful attitude to him!”

The steward gave her a hostile glance, but then made a peace offering. “I’ve got to take some things over there right now. I’ll accompany you, Lady Barwell.”

“I can find my own way, thank you.” But when Rhoda reached the lift door she waited for Daniel to catch up with her, carrying a box of supplies.

To reach the billionaire owner of the spaceline they ascended the access arm

and drifted weightlessly around a curved compartment at the top into another lift which took them back down the length of another access arm, the one leading to Playfair's private lounge. They landed back in Martian gravity.

"Please make yourself comfortable, milady", the steward offered. "He'll be with you in a few moments." And he disappeared with his box down the stairway to the cabins.

Rhoda glanced around. She had been expecting ostentatious luxury but the lounge was similar to the one in her own module, though with the partitions and most of the tables removed. Scattered instead throughout the room were pots containing a variety of real, growing plants – cacti, orchids, small shrubs, all displaying brightly coloured flowers – which gave the space the feeling of a conservatory. One wall was covered with a mass of leafy tendrils on which grapes were ripening. The air was warm and damp. Between the plants she glimpsed wall-mounted pictures with scenes out of science fiction: H.G. Wells's Martian tripods destroying a British battleship; Klaatu and Gort emerging from their flying saucer; a solitary Martian astronaut wandering through a vast rose-tinted landscape; a bullet-shaped spaceship on the Moon, its hull emblazoned with a garish Nazi swastika. Some easy chairs encircled the wide open space in the centre of the room. The ultimate luxury in outer space: comfortable living space. And grapes grown on the vine.

"Rhoda!", came a man's voice from behind her. "How kind of you to drop in!"

She turned. The tycoon was older than she remembered, his face engraved with signs of the passage of the years, but he still cultivated the flamboyant mane of hair, the garishly coloured shirt, the sparkling eyes. They shook hands.

"I'm glad you remember me, Sim."

"How could I possibly forget? The months we shared together were precious to me."

"As they were to me."

"Then why didn't you stay?"

"It's a long story..."

"Sorry, it was rude of me to ask. Please sit down. Coffee? Daniel, coffee for our guest, please!"

She accepted the cup offered to her by the steward, and sniffed at it cautiously

before taking a sip.

Playfair stretched himself out on an armchair opposite her. “Yes, it is real coffee, imported from Earth. It’s great to see you again. You’re looking just the same as you were then. Perhaps we can pick up again where we left off?”

“I don’t think so. We weren’t on the same wavelength on so many things.”

“Maybe we’ve changed since then?”

“You’ve not changed, Sim. I have. I’m married now, with a good career. Thanks to Teddy, I even have an aristocratic title.”

“I’m very happy for you...”

“Teddy’s a dick-head, of course, but I love him all the same. He’s head of the research department of Sustain-Respect.”

“You always did aim high.”

“Don’t flatter yourself. I was young and impressionable when I met you.”

“Wiser now, eh? So what are you doing with yourself? I’m told you’ve got a post in some obscure department in the United Nations.”

She hesitated before replying, “That’s correct, yes.”

“Of course it is.” His voice was gentle. “But in reality you’re an agent for the osskies.”

“Sim, this isn’t what it looks like.”

He gave her an ironic smile. “So you’ve not come to close down my little operation?”

“Hardly little. An industry that carries twelve hundred space tourists a week, sixty thousand every year.”

He nodded approvingly. “You’ve been doing your homework.”

“Of whom one in ten can afford the spectacular jump onto a cycler station and see the Moon from close up and their home world shrink to the size of a golf ball in the sky”, she continued brightly. “Fifty-five per cent with Playfair Spaceways, the rest with your competitor, Vostochny Space.”

He yawned. “If you’re applying for the job of tour guide, the post’s already taken. Rhoda, what do you actually want?”

Again that moment of hesitation. “I’ve come to warn you.”

He shook his head thoughtfully, then stood up, walked to the window and looked out. After a moment she followed him and came to his side.

“Look out there, Rhoda. What do you see?... You’re seeing a quarter of a million kilometers of empty space between ourselves and the blue ball we were born on. Empty. No up, no down, nothing to hold on to, nowhere to rest your foot, blasted with invisible radiation that would kill us in an instant if we weren’t protected. Our lives depend on this 200 centimetre jacket of water sandwiched between layers of specially tinted glass. Every breath we take depends on the machinery that surrounds us, keeps us from boiling alive, or freezing solid, that prevents the dangerous build-up of flu viruses or trace elements or the waste products of our own bodies. Machinery that can break down at any time. And frequently does.”

“That’s not what I’m talking about.”

“Whatever you’re thinking of, Rhoda, it’s a trivial threat by comparison.”

“No, it’s not trivial. OSSCom knows what you’re up to.”

He gave her a suspicious glance. “So what are they going to do about it?”

“Sim, believe me, the only reason you’re not in prison on Earth right now is...”, she waved her hand around at the room, “because you’ve pre-empted them. You’ve chosen to live in your own prison in the sky. Maybe the ultimate penthouse suite, but you’re living under permanent house arrest.”

“To you a prison, maybe. For me it’s freedom.”

She smiled. “Then why can’t you find a woman to share it with you?”

He avoided her gaze. “What are OSSCom planning to do?”

“Sim, they’re taking action. At the next Earth flyby this station is going to be boarded and seized.”

“Ah. Piracy, in other words.”

“No, just a police raid. I’m sorry. I joked about how difficult it would be to close down the entire industry of commercial passenger spaceflight. But that is their long-term goal. It’s now the official policy enshrined in law.”

“*Their* goal? Then what’s *your* goal?”

“I just wish a happy mean could be found. I’m not one of those idiots who think technology’s always bad! Being able to have conferences in space has certainly contributed towards world peace. But I’m not so sure about space tourism.”

“Can’t have one without the other.”

“There are already far too many people in space, and you’re just encouraging more of them. I’d like to see a future where we could still visit the Moon,

occasionally, just a few people, just taking photos, without trampling all over it and destroying it.”

“That’s nonsense, Rhoda. I expected a more intelligent view from you. Nobody can destroy the Moon. It’s a lifeless pile of rubble; the bomb-site, the wasteland left behind by countless ancient explosions. The only things worth preserving on the Moon are the things we humans have built: the tourist hotels, the mining complexes. The only green, growing things that have ever existed on the Moon in its entire multi-billion-year history are the plants growing in tubs in Selenopolis right now.”

“And what about Mars?”

“Mars is the same. There’s no life there. Yet. Apart from the microbes in a handful of dead astronauts’ bodies.”

“You can’t be sure of that.”

“After a century of searching, we can be pretty damn well sure!”

“So you think you can now go out there and do anything you like to the planet?”

“If you put it like that, yes.”

Rhoda looked agitated, and suddenly burst out, “Look, Sim, I’m begging you, for old times’ sake, give up this dream of Mars. You can’t achieve it. Nobody can...”

He studied her face but didn’t reply, and after a brief hesitation she continued, an urgent tone to her voice. “Nobody can colonise Mars. It’s not like America or Australia. Even getting there at all is next to impossible. Think, Sim! You know the history! The rockets and spacecraft the Americans built back in the twenties, now rusting in scrapyards because the cost kept going higher and higher and in the end Congress simply wouldn’t keep on pouring good money after bad. The Russian efforts in the thirties, building rockets which they flew time and time again and which crashed and burned time and time again. A dozen cosmonauts had to die before they gave up. Some of them are still circling the Sun now in a dead hulk. Then the Chinese in the forties. More monster rockets, more spacecraft, for a while more commitment, and the Chinese astronauts were the first to walk on Mars. And they’re still there now – the first to die on Mars! The second Chinese expedition, which turned back and never even got as far as Mars. Sim, the planet’s jinxed! It’s an unattainable dream! That’s why OSSCom was founded out of the wreckage of the world’s space agencies – to protect us from our own dreams! There’ll be no more licences for human exploration of Mars. No more attempts to send astronauts to

Mars, no more dreams of colonising it, and absolutely no more violations of planetary protection protocols! It's over, Sim, the dream's over. And if you can't see that, then OSSCom will make sure you do see it!"

"OSSCom! Rhoda, don't you see, OSSCom's merely a front for the global Sustain-Respect ideology!"

"Yes, it's a part of it. Sus-Res isn't an ideology – it's plain common sense! The Earth simply cannot support fourteen billion people. It's ecological suicide! Climate change could suddenly kick back in at any moment and make the world uninhabitable! Therefore the ideology of growth has to be rejected, and replaced with the ideology of sustainability. What's so surprising about that? That's why Sus-Res has the goal of reducing the world population to under one billion people within one hundred years. And closing down unsustainable and unnecessary industries like air and space travel. The dreams of Mars merely inflame people who ought to know better with the false belief that growth can continue on other planets. Mars is the last hurrah of the Victorian ideology that progress equals growth. That's why it must be killed, otherwise everybody dies!"

Playfair smiled and shook his head. His look was indulgent, patronising even.

"I can see you don't believe a word I'm saying. I'm sorry I disturbed you. I'd better go." Rhoda turned, red-faced, and started to walk towards the lift.

"Rhoda! Come back here!"

She hesitated, turned, studied his look. "I'm sorry, Sim. I've said what I wanted to say, and... that's all."

"Do you really think I haven't heard this a thousand times before? In magazine articles, blog posts, even po-faced articles in scholarly journals, dripping with irrelevant erudition? Come back here and sit down! For old times' sake? And anyway", he added as an afterthought more to himself than to her, "it's too late now for you to walk away from this..."

She shrugged. "Don't think you can make me change my mind, Sim. I've thought a great deal about it."

"At least have the politeness to listen to my response." He gave her an encouraging smile. "I know you're not the sort of person who'll walk away from a challenge!"

She bowed her head in acknowledgement of the compliment, and returned to

her armchair.

“Daniel, more coffee, please!”

The steward appeared from behind the bar, himself embarrassed to have secretly witnessed such an emotionally charged argument. But the tycoon gave no sign that he had noticed his employee’s feelings. He waited until their drinks had been refilled, then sat down opposite his visitor and steepled his fingers in front of his chin in a theatrically thoughtful pose.

“Dreams”, he finally said. “Powerful things, aren’t they? Dreams of happiness, like the one which led us astray together ten years ago.”

He smiled at her, and she had to frown in order to avoid smiling back.

“Or the dream of flight. Like a bird. For thousands of years, going back to, say, the ancient Greek myth of Daedalus and Icarus. Lucian’s story of a trip to the Moon. For thousands of years it was no more than that, a dream. But then suddenly people found a way to approach the problem scientifically, suddenly the internal combustion engine was invented, everything fell into place, and today two billion people a year travel by air with no more concern than if they were just catching a bus. Sixty thousand of them going on to visit space and the Moon.”

“But there’s no magic bullet to get you to Mars.”

“Isn’t there? Or is there, perhaps? How, exactly, would you go to Mars?”

“I wouldn’t. It’s a frozen, monotonous, airless desert. I can’t imagine anyone wanting to go there to visit, let alone to live.”

“Not even to be in at the birth of a new civilisation? To help the human heritage to achieve immortality? To shake off the corrosive pessimism of Sus-Res? No? All right, you wouldn’t. But I would. And so of course I’ve thought about how to do it.”

“And how’s that?”

“Aha! Intrigued, in spite of yourself, eh?”

“No, just politely curious.”

“Okay, let’s run with politely curious. How would I get to Mars? You’re right, of course. It’s a long journey, dangerous, little margin for error. If a government puts up the money, or a private company, they can’t keep on doing so forever. The astronauts must either set up a self-sustaining colony, or come home.”

“Or die on Mars.”

“Or die. Exactly. But we don’t want to die. We want to set up a new permanent

branch of human civilisation. So in principle the calculation's extremely simple. We can sustain flights to Mars for a certain period of time before the money runs out and we go bust. That's not very flexible; ten years or so in the best case, probably less in reality. Looks like we'll only get one shot at it in today's conditions, thanks to Sus-Res. But say we get that one shot. We need a certain minimum number of people and mass of equipment on Mars to get a basically self-sustaining colony up and running. So what we have to do is to work on reducing the people and equipment until they fit into a package small enough that we can send them all to Mars within our brief window of commitment. If we can do that, then we have a colony. It can survive and maintain itself and grow, even with no more commitment from Earth. If we can't do it, then no colony."

"You can't do it", Rhoda decided, shaking her head. "It's not possible. You'd need thousands of people and millions of tonnes of machinery. Millions of people, more likely. You're having to recycle everything, repair everything that breaks, and at the same time mine new resources, process them into high-tech products. You need an enormous variety of professional skills, and teachers to pass them on to the next generation. Then there's the biological uncertainty about whether people can even live full lives on Mars – the gravity, the radiation, trace elements..."

Playfair nodded. "When I first tackled the problem in the 2020s, that's the conclusion I came to."

"But now of course you know better!"

"Why the sarcasm? Yes, my view's evolved. In the past forty years a lot has changed."

"So what's the internal combustion engine for Mars?"

"Life support. Manufacturing. Incremental progress in transport, control. Expert systems. Boring, everyday things that used to depend upon the existence of an entire global economy, but can now be miniaturised. The first real breakthrough came with the Arcadia Society. Heard of them? They started to experiment with self-contained colonies on Earth, picking up where the old Biosphere 2 project left off. Unlike Biosphere 2, they weren't trying to replicate all the biomes of Earth in a huge greenhouse. They focused simply on keeping people alive and comfortable in a small-scale controlled environment. And they didn't try to recycle everything from day one. They approached the problem gradually, first recycling water, then gradually closing

the food cycle, step by step. They set up a community on a Scottish island, and that community started to grow. They had to tackle the social problems of managing a small-scale utopian society. Problems that had doomed so many experiments of that nature. But they had new ideas and new technologies, and they were successful. Eventually they needed room for expansion, away from the jurisdiction of existing governments. They discovered that another group had already solved this problem by building floating ocean platforms in international waters, made by pulling calcium carbonate out of seawater with solar energy, the same process that shellfish use to make their shells.”

“Ascension?”

“Yes. They anchored their platform to Ascension Island in the tropical Atlantic Ocean, and grew outwards from there. The authorities in London wanted to encourage development; they were only too happy someone had found a use for the island. This group wasn’t interested in Mars at all, they wanted more living space on Earth itself. With results we know about. But their needs dovetailed with what the Arcadians were doing, and they joined forces. They demonstrated that people could live normal lives on synthesised food in a controlled micro-environment. You want sustainability? These are the guys who’re making it happen. At the same time they worked out a political system based on electronic democracy. At the same time there were advances going on in small-scale manufacturing with versatile machines which could use a small range of raw materials to turn out a wide variety of products, from clothes to computer chips. At the same time computerised expert systems were codifying vast areas of professional knowledge. Expert humans changed from being specialists to generalists, aided by machines. At the same time other companies were building up a space tourism industry which was steadily driving down the cost of flying into space. Developing reliable technologies for stations such as this one, with everything controlled on board. No need for a mission control on Earth to watch over us every minute, when we can rely on a little piece of software called Archie. Once space tourism reached the Moon’s surface, we were able to work out how to clean spacesuits from the clinging dust, make them last for years. Do you see the pattern? All the elements for a colony on Mars were gradually coming together, produced by a variety of different people working independently in different parts of the world for different purposes. Or off the world – I hear you’ve met my goddaughter?”

She frowned at him. "I met Susanna, yes."

"A very pretty woman."

"Don't be such a bloody male chauvinist!"

"I can say what I like up here!"

"Anyway, that's not the point. I mean, is she... fertile? Capable of having children of her own?"

"She's not the only one. And yes, there has been a successful second-generation pregnancy."

"But were both the partners...?" She shook her head. "I won't argue with you, Sim. The point is, you still won't colonise Mars because OSSCom knows what you're up to. What you're planning is nowadays regarded as immoral. In any case it constitutes a breach of modern international law, and they're legally obliged to stop you."

"And you're the first shot in this war, I suppose? The warning shot across my bows?"

"Not a warning shot. You've had enough of those already. I..."

"Then what?"

She was silent for a minute, but then took a deep breath. "Oh, what the hell!... I'll tell you anyway. My job here is to place you under arrest."

He stared at her in surprise. "You come here, drink my coffee, breathe my oxygen, talk political philosophies, and then—"

"Sim, if I had any intention to do my job, I wouldn't have warned you in advance. I'm booked to go on to Selenopolis, but that's just my cover. The plan is for me to miss the lunar shuttle, stay on the station and fly around the Moon and back towards Earth. When the next shuttle passengers from low Earth orbit arrive on the station they'll turn out to be armed OSSCom agents. Their orders are to seize control of the *Arcadia*. Mine are to put the handcuffs on you just before the shuttles arrive, to prevent you from putting up any kind of fight."

"A damn fifth-columnist!"

"But I'm giving you the chance to get out now while there's still time! Take the shuttle now, down to Selenopolis. OSSCom can't touch you on the Moon. They'll still take over the *Arcadia* and the other stations, but you'll be safe."

Playfair relaxed, nodded and smiled. "How thoughtful of you, Rhoda. Maybe

there is a chance for us together after all?”

She shook her head. “I’m staying here. When OSSCom arrives I’ll tell them you just happened to have business on the Moon, or decided to make a change for whatever reason. So I couldn’t arrest you when I was supposed to.”

There was a pause while the tycoon gave her a searching look. “Why? Why is the Marchioness of Oxonstein going to all this trouble for an old reprobate like me?”

She shrugged. “I don’t want to see you imprisoned and humiliated. OSSCom’s planning to use you as an example to encourage other wealthy entrepreneurs to renounce their business empires. They want to see you ruined and publicly shamed and discredited.”

“The sinner atoning for his sins, eh? Sackcloth and ashes.”

“It’s getting personal.”

Playfair nodded. “I know exactly who’s behind this. We go way back; we’re old rivals. And yet you...?”

Rhoda returned his gaze. “I want to persuade you. With reason. Not humiliate you.”

“So it seems I’ll have you to thank for saving me from a public flogging by my arch-enemy. Only one small problem: there won’t be any shuttles going down to the Moon this time around.”

“There... what?”

“I’m staying on the *Arcadia*, too.”

“Sim! It’s not too late! There are a dozen shuttles attached to the station right now. There must be one you can use!”

“Not to go to the Moon.”

“But then what happens to me when...?”

“This station is actually an important part of my plan for Mars.” The tycoon smiled at her.

“But I’ve already told you... Ugh! You’re as pig-headed as you always were! What’ll you do when the OSSCom agents arrive?”

Playfair merely smiled. “I’ll deal with that problem if and when it arises. Maybe the election result’ll persuade them that resistance is futile!” He stood up and went across to the window, and after a while he spoke again. “Have you looked at the Moon recently? The altitude we pass over it, the view is really impressive. Well worth

the quarter of a million dollars for the trip. Even for those who don't make the extra flight down to Selenopolis."

She stood up as well. "I hope you'll think about what I've told you, Sim."

"And I hope you'll do the same. Who knows? You may be travelling with us further than you expected."

"Sim, stop it, it's over! If you stay on the *Arcadia* you'll certainly be arrested in three days time, if not by me then by the uniformed agents. You must stop playing the fool and leave now if you want to stay a free man!"

"Thank you, Lady Rhoda. Your concern is noted."

"I try to help you, and... I don't know! I give up!" She decisively turned to go.

This time he made no attempt to prevent her leaving.

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Back in the lounge of her own passenger module, Rhoda went up to the bar and called the steward.

"Excuse me! Daniel! I still can't get any signal on my tablet. It's been two days now!"

"I'm sorry, milady", the steward muttered, the usual sour look on his face. "There'll be no signal on personal devices for a few hours, right?"

"A few hours! I've got urgent mails to send back to Earth!"

He gave a helpless shrug. But the stewardess came to his side, beaming a reassuring smile. "Why don't you just relax and enjoy the view, Lady Barwell? We'll be sure to tell you as soon as the signal comes back on. Why not come with us up to the spine to see it from the cupola?"

She heard a rustle at her side and turned to see George Hayson. He gave her a sympathetic smile. "Having trouble?"

"Yes, there's still no signal on my tablet, Archie keeps giving me PR eyewash, and these idiot stewards think I've got nothing better to do than sit and watch the Moon go by!"

"That's actually not a bad suggestion, is it, Tonya?" George winked at the stewardess and took Rhoda's arm. She found herself being steered away from the bar and towards a table. "Let me order you a drink, and we'll see what's going on."

“But these are important! I’ve got work to do here!”

“For the United Nations?”

“Yes!”

They sat down, and George ordered them both drinks.

“So there it is”, he said, pointing to a large window on the wall near them. A few other passengers in the lounge were also watching displays showing a non-rotating view of the Moon as the *Arcadia* swung closely by. “Mark and Susanna went to watch from the viewing cupola in the spine, as did a lot of other people. There you can see it directly through the window without the rotation. But I don’t mind seeing it in virtual mode. I’ve been here before.”

“Very impressive”, Rhoda muttered grudgingly.

“Do you know the names of those lunar seas?”

“I think so. That one’s the Sea of Tranquility, where the first men landed on the Moon a century ago. That smaller circular one’s the Sea of Crises...”

“Notice anything unusual?”

“No. Yes... No, I must have got confused.”

“Go on.”

“The cyclor stations move in a figure of eight pattern...?”

“Yes...”

“So we should be flying over the western side of the Moon moving west. But surely we’re actually flying over the eastern side going east? That can’t be right?”

“You’re absolutely right.”

“You mean, we’re going the wrong way? Would that explain why the shuttles to the lunar surface have been cancelled?”

George nodded.

“But then that would also mean we’re on the wrong orbit to return towards Earth...?”

“Right again.”

Rhoda’s face took on an expression of alarm. “So what’s...?”

“What’s going on? Rhoda, you *are* aware the *Arcadia*’s been taken out of public service, aren’t you?”

“But surely not yet? There are people on board!”

“It’s only been taken out of the public Earth-Moon service. The orbit has been

changed so that the lunar flyby boosts us away from Earth.”

“But you said that only takes us to a graveyard orbit?”

“What comes after the graveyard? A resurrection! We’re heading away from Earth, true, but towards Mars.”

“Mars? George! You’re not seriously telling me this station...? With all of us on board...? With no authorisation from...?”

“It had to be kept secret because the Outer Space Security Commission has effectively outlawed manned flights to Mars.”

“Impossible! Nobody could keep something like that secret.”

“We’re all volunteers, but we didn’t know exactly when Playfair would make his move. There were rumours, of course, but when nothing happened they were dismissed as conspiracy theories. Meanwhile Playfair gradually built up these two stations in particular, the *Arcadia* and the *Argyre*, over the past ten years, with fuel, equipment, supplies, landing vehicles which could reach the Martian surface directly from the cyler. Because when we arrive at Mars there won’t be any stations there in orbit as an intermediate stopping place.”

Rhoda continued to stare at him in disbelief.

“Now perhaps you understand why outbound comms have been disabled? The news will only be made public once all four stations are safely on their way.”

“All *four*...?”

“Including the *Potjomkin* and the *Yekaterina*. About 250 people in all.”

Rhoda groaned.

“Before we left low Earth orbit the management told me a little about you, including the name of your real employer. They asked me to keep a friendly eye on you. I understand you got on this flight via unusual channels?”

Rhoda stared at him. “OSSCom got me onto this station because they had business with Simeon Playfair, and I was chosen to speak to him. But if this is true...”

“Surely you must have known? That this time we’re really going to Mars?”

Rhoda’s face hardened. She stood up, glanced defiantly around the lounge and raised her voice. “That’s not possible. This station is not authorised to leave the Earth-Moon system. I’m an agent of the Outer Space Security Commission, and I have the power to order it to remain in Earth orbit!”

Heads turned curiously, but the other people in the lounge regarded her more

with amusement than with concern.

George sighed. "Nobody here's listening to what the osskies say any more."

"Furthermore, this station is unsafe! While I've been here I've noticed five serious anomalies. I'm revoking the *Arcadia's* licence to carry human beings!"

"Rhoda, please sit down and stop making a fool of yourself. Can't you see the die is cast? We're on our own now."

"That's *Lady* Rhoda to you!", she snapped, but then slowly relaxed back onto her seat. When she spoke again she sounded tired. "George, how do I get back to Earth?"

He shook his head and shrugged helplessly.

"George, you don't understand, I said I've got to get back to Earth!"

"That'll depend on how OSSCom reacts", George decided. "If they're willing to tolerate Earth-Mars traffic you could find a return flight in a few years time. I think they will. We reckon half the world's population will want to share our experiences on Mars in VR sims. We'll be so popular, OSSCom will have to allow free access."

"And if they don't? My god, I could be stuck on Mars with you lot until we all die! Which, looking on the bright side, probably won't take more than a month or two."

George shook his head. "A lot's changed since the Chinese missions. We all know the risks, but we've done the sums, and this time they add up. We've got a much better chance of success than anyone ever had before us."

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When Rhoda emerged from the ladies' toilet into the narrow passageway taking her back to the lounge, a figure stepped in front of her to block her way. She looked up and saw the steward, his face still wreathed in his characteristic sullen expression.

"Lady Barwell", he whispered, "I think you ought to come with me."

"Daniel, what's the matter?"

"Not so loud", he hushed her. "You want to see Earth again, right?"

"Of course."

"Wait here for two minutes, then come to the lift. I'll be waiting for you." He turned and walked away.

Rhoda thought for a moment, then emerged from the short corridor out into the lounge and took the staircase down to her cabin. There she pocketed her reading tablet and her toothbrush, and returned to the lounge. She saw George beckon to her, but ignored him and made for the lift. When the door opened she saw Daniel waiting inside, out of sight from the lounge.

The door closed behind her and they began the ascent.

“Will you tell me what’s going on?”

“I’ve been thinking. And the more I think about it, the less I like this mission. You’re right, Lady Barwell. We’re not going to make it. I want out.”

Rhoda’s eyes lit up with hope. “Is there one last shuttle leaving?”

“We’ll make our own shuttle, right? Those ships you saw moored along the spine, they’re designed to land on Mars. That means they can also land on the Moon.”

“Even from the trans-Mars orbit we’re in now?”

“We’re not in a trans-Mars orbit. One of the many things they didn’t tell you. This orbit only gets us halfway to Mars, after which we fall back inwards again, missing Earth by millions of kilometres. The only hope we have of making it all the way to Mars is if we rendezvous with a fuel dump in deep space.”

“Is that a problem?”

“You’re kidding, right? You said yourself, you’ve seen how this station’s falling apart at the seams. But nobody can say anything, except Yes, Mr Playfair, and At once, Mr Playfair, and Please may I lick your arse, Mr Playfair!”

The lift came to a halt and they passed through the spin-despin compartment with the sticky hatch door. Daniel opened the zero-gravity hatch and cautiously led the way out into the long pressurised corridor running the length of the *Arcadia*’s spinal column. They passed along metal walls lined with pipes, cables and boxes of equipment, hauling themselves forward using the handrails.

“What about people watching from the cupola? Won’t they see us?”

“They’re too busy having a big love-in to congratulate themselves on their own cleverness. Won’t notice a thing. There’s a ship just along here I’ve had my eye on. It’s warmed up, ready to go.”

“In case of emergencies?”

“In case a criminal act is being committed.” He stopped and looked directly at

Rhoda. "Lady Barwell, do I have your word as an authorised official of OSSCom that flying this station into interplanetary space without official authorisation is a criminal act under international law?"

"Technically... yes."

"We can't prevent the crime. But the next best thing is for me to rescue you and return you to Earth, right?"

Rhoda nodded mutely.

"This one." He led the way to a hatchway set at right-angles to the line of the corridor. When he had opened it, Rhoda could see a small airlock, and another open hatch to a small cabin beyond.

"This is our ticket home", Daniel whispered, and heaved himself forward.

Just at that moment a woman's voice came from behind her. "Rhoda! Are you coming to watch from the cupola?" She turned and saw Susanna, with Mark and some other people also coming up behind her.

"Yes, I just wanted to...", Rhoda muttered.

"But you're too late. We're over the night side of the Moon now."

Mark spotted the open hatch and frowned. "What's happening in there?"

A woman in the company uniform shot forward, and she recognised Tonya. "There's someone in the shuttle!", Tonya shouted. "What are you doing?"

From behind her came Daniel's voice: "Get in, milady, quickly!"

Tonya's voice again: "It's Daniel. He's in the shuttle."

Daniel again: "Please, Lady Barwell, now!"

A familiar voice in front of her: "What's going on?" She found herself face to face with Simeon Playfair. "Get that idiot out of there before he does something stupid!"

"Get back all of you!", yelled Daniel from behind her. "Otherwise I'll shoot!"

"Careful, Mr Playfair, he's got a gun!" Tonya moved to shield her employer from Daniel's line of fire.

"He's bluffing!", someone else shouted. People gave each other questioning looks, but nobody dared move forward.

"Lady Barwell!", came Daniel's desperate voice from behind her. "Get in now, or you'll never see Earth again!"

Playfair gazed intently at Rhoda. "Rhoda! Are you part of this?"

Rhoda swallowed, looked back at the open hatch, then turned to face Playfair. "I'm sorry, Sim, I..."

"Of course", he said gently. "You've got a husband, a career, a posh title, a political party. I might have expected you'd try something desperate like this. That's why we didn't..."

Something changed in her expression and she shook her head. "No", she said firmly and moved towards him, away from the still open hatch behind her. "It's nothing to do with me."

She heard the slamming of the hatch, but did not look back. A moment later there came the hiss of air as the airlock was evacuated, followed by a jolt as the shuttle uncoupled from the station.

"It was Daniel", Tonya said. "He always had doubts, but I never expected..."

Susanna asked, "Can he make it back to Earth?"

Mark slid his arm around her shoulders. "Maybe. If he's clever enough to fool us with a pretend gun..."

Playfair was still gazing at Rhoda in wonderment. "Can it be you've really begun to understand me, understand what we're trying to do?"

"Not at all", she replied casually. "If you succeed, then you'll need a Martian branch of OSSCom to look after you. And if you do go the same way as everybody else...", her voice dropped to a hiss, "then I just want to make sure that when you and I are the last people left alive on Mars, and we have just one hour's oxygen left before we die, I can then look you in the eye and tell you, I told you so!"

Without further hesitation Rhoda seized the handrail and launched herself back down the corridor towards the lifts.

* * *

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