

# Precession

October 12, 2021

Lucca stands on the coast again, among the colossal concrete structures. He starts walking towards Aloha's dining space. In the corridor between 2 buildings, an image of Nerezza flashes. Lucca is startled, but walks on.

He walks pass a person sitting on the sidewalk, wearing a working hat. He sings "Get on the A Train".

PERSON, after singing the song: "Hehehe... something big is going to happen. Young person, when in trouble, take the Aztorian Train."

Lucca walks on into Aloha's dining space.

Interior, Aloha's dining space, dusk. A familiar face is sitting at the counter. It is Emma.

LUCCA: "Emma?"

EMMA: "Oh helloooo! I knew you visited this dining space."

LUCCA: "What brings you here?"

EMMA, sighing: "Since the Institute disbanded the government, all the human computers went out of work. I'm just gonna chill here I guess."

LUCCA: "I see..."

ALOH: "She will sing at the band."

LUCCA: "That's amazing..."

EMMA: "Ehehe."

After a while, Lucca and Emma are looking over the city.

EMMA: "Precession?"

LUCCA: "It is something so powerful that the Institute is willing to imprison humanity to prevent it."

EMMA: "Imprison?"

LUCCA: "2 imprisonments. The first, is imprisonment of progress. Aztorica has been stagnant for 400 years.

The second, is a direct imprisonment of all humans in a Synthesis Project. Luckily, it will be a while until they succeed on that front."

EMMA: "What can be so powerful that they will go to such extreme lengths?"

LUCCA: "It is unreasonable to expect them to act with the INTENT to harm humans. What's way more likely, is that they are trying to prevent something worse."

EMMA: "Wow..."

LUCCA: "Whatever we can do, the first step is to figure out what Precession is."

LUCCA: "Precession in physics, describes a type of motion through space for spinning objects. If there is a torque applied in the right place, the axis of rotation itself, rotates. The rotation of the rotation axis is precession."

EMMA: "A kind of meta-rotation... Is that very scary? I don't know. Precession of the earth happens over a 41,000-year cycle."

LUCCA: "Mr Williams spoke of Precession in one of our last lessons."

EMMA: "He did! He did! ...Hm. Hey Luc, you are part of the Institute, why don't you know what precession is?"

LUCCA: "It's likely to be something only the highest members know. So Director Alma, maybe... The First Director, for sure."

EMMA: "Go ask them!"

LUCCA: "Are you fucking serious?"

EMMA: "Why? TO reach the top of the most powerful organisation... The CIVIL PROTECTION INSTITUTE... They must be extraordinary people. They will understand! You just explain that you are genuinely concerned about the wellbeing of humans like they are, and you just... yknow. Walk up to them."

LUCCA: "No one is allowed to meet the First Director except for the Directors. And Director Alma... I don't know. She seems unusually indifferent towards the Institute Bureaucracy, but I don't want to risk it."

EMMA: "Huh... Is there someone else?"

LUCCA: "Professor Lambda! He is in the cell. If the Synthesis Project is the Institute's design, then he MUST have been working for the Institute."

EMMA: "Great! Just go visit him in his cell."

LUCCA: "Really?"

EMMA: "Come on, I'll go for you if you don't want to."

LUCCA: "Fierce and fearless as always... Impressive."

EMMA, comically offended: "What is that supposed to mean?"

LUCCA: "It means you're scary."

EMMA: "Oh, you!"

Interior Institute.

LUCCA: "I'm here to see Professor Lambda."

GUARD: "This way."

When Lucca turns the corner, he sees Director KATZ standing next to the cell of Lambda. This makes Lucca scared.

LUCCA, bowing: "Director."

DIRECTOR KATZ: "Do you know who I am?"

LUCCA, seeing the name tag: "Director cats?"

DIRECTOR KATZ: "It's pronounced 'Kahh-tz'."

LUCCA: "I'm sorry."

DIRECTOR KATZ: "I've heard good things about you from Alma."

LUCCA: "She's too kind."

DIRECTOR KATZ: "Lucca. Why are you here?"

LUCCA: "Oh um I conducted the handover for Professor Lambda. And uh, I think he's a very interesting person. I would like to speak to him - there's no one else like him in Aztoria."

DIRECTOR KATZ: "Sounds... ...good."

Inside Lambda's cell.

LUCCA: "So uh, how's life here?"

LAMBDA: "It's good. I made my decision myself, and I wanted to do this. So I'm proud. Thank you for that day."

LUCCA: "I'm glad to hear. You know, I still respect you as a scientist. Maybe even more after that."

LUCCA, thinking: Director KATZ watching... I can't ask anything at all!

LAMBDA, startling Lucca: "Lucca."

LAMBDA: "If you're trying to obtain some secret about the Institute, I can't help you. Director KATZ over here has a perfect lie detector machine, designed by none other than myself. If you learn any information, you will not be able to walk out of here. If you learn anything, you WILL be found out."

I don't want to help you either. There is an unspoken contract - if I don't spill anything, I get to live fairly normally. The Directors are happy. Everyone is happy. That's the rational course of action."

LUCCA: "Oh, no, no i never intend - what even is there to learn? I was just curious how you're doing you know, it's not any person who can get to speak of one of Aztoria's greatest minds."

LAMBDA, laughing: "Of course. I said "if". I'm not suggesting anything. I am just saying, our time would be more productive if you bring me a encirclement-chess board. That's a good time for the both of us."

DIRECTOR KATZ, pleased: "You heard him, Lucca."

LUCCA: "Of course. I will visit again."

Balcony of ALoh's dining area.

LUCCA: "There is a lie detector right next to his cell. It seems like the Institute is serious about not letting the secrets out."

EMMA: "Huh... So that means you can't learn anything. An impossible puzzle to solve..."

LUCCA: "Almost no well-defined practical problem is impossible to solve. We just need to exploit the boundary conditions."

LUCCA: "The lie detector machine created with Lambda's genius... I REALLY cannot learn ANYTHING... when I am WITHIN the cell."

Emma's eyes grow wide.

EMMA: "'Within the cell.' You mean..."

LUCCA: "Lambda himself gave me the solution. We will use a chess board to communicate. I will not learn any actual information, ONLY the encoded messages. This way I can answer the lie detector test truthfully.

Once I get out, I will decode the message, and I will have smuggled out valuable info."

EMMA: "That's crazy... What encoding will you use?"

LUCCA: "Lambda said to bring an encirclement-chess board. The game uses black and white pieces, and of course, empty space. That means it will be a trinary language. There is only one common trinary language that we use in contemporary Aztoria."

EMMA: "And what message will you send?"

LUCCA: "As you suggested, simple and direct with no ambiguity. The language is not very spatially efficient. And the board is only so big. I will use the limited space to ask: 'What is Precession'."

EMMA: "Good luck! I am really curious what it is."

Interior, Institute.

An intense game of encirclement happens. Close up on Lucca and Lambda's faces. When the game is over, Lucca takes the lie detector test.

DIRECTOR KATZ: "Have you learnt anything about the Institute, any state secrets of Aztoria?"

LUCCA: "No."

The test was negative. Lucca packs up and leaves, Director KATZ halts him. Lucca is initially scared, but the director only recites an Institute slogan.

DIRECTOR KATZ, bowing: "For the happiness of all humankind."

LUCCA, returning the bow: "For the happiness of all humankind."

Interior, Aloha's dining area. Emma huddles around Lucca, watching him decode the message.

EMMA: "Let me do it! Let me do it!"

The message reads "Precession: not in space, but in time."

A pause for that to sink in. Lucca's eyes grow wide with understanding.