

## All My Blood

*... all my blood ...*

The three words were the first to emerge from the analysis. Other words began to appear in the text in bright blue, replacing black alien symbols as the language processor began to produce results.

As a linguist I had always been fascinated with the decipherment of ancient languages. As a young girl I had read about the decipherment of Linear B and of Mayan. Much of my academic career had been spent on the undeciphered script of Mohenjo-daro and other sites in the Indus Valley. The problem with many such languages was the scarcity of samples and the fact that, as with Etruscan, most of the inscriptions were gravestones or boundary markers. It was often easy to translate ‘Here lies ...’ or ‘This land belongs to ...’, but that was where traditional techniques hit a wall. Without a Rosetta Stone, getting to translate a wider vocabulary or understanding the grammar was next to impossible. My doctoral thesis had been about whether it was possible to understand an unknown language given a large enough corpus of material.

*I broke all the rules ...*

Now the first words of the text appeared. Seconds later they were amended:

*I have broken all the rules ...*

The language processor was understanding subtler distinctions within the language. Quantum algorithms were finding patterns in The Corpus and translating it. The massively parallel network of computing capability that we had managed to convince our funders to provide was digesting the terabytes of data that had been left with The Message.

‘Congratulations Dr Cass. Your approach appears to be working.’ The voice was that of Xiao Li-Ping, one of the second generation of Internet billionaires whose quantum processors were powering the analysis, having ousted the neural networks and other artificial

## All My Blood

intelligence techniques of the first generation. He and five other major investors were sitting round the table watching the emergence of the message on the screen in front of us.

The first colonists on Mars had found The Message and The Corpus in what was obviously an alien artefact. It had quickly been determined to be a store of digital data in a kind of crystal matrix. It had then taken ten years of research to extract the data, but right from the start it was apparent that a very small part of it was a message, while the remaining terabytes were there to provide a corpus of language that might enable us to understand and translate the payload.

... 42 ...

The numbers appeared on the screen in the centre of The Message.

‘Is that a joke Linda?’ Sharon Hamilton looked across at me. It was her spaceship that had brought The Message back to earth, one of the first return trips after several one-way journeys that had deposited colonists with no prospect of returning home.

‘Not my joke, Sharon.’ I looked up to see if other numbers were appearing. There was a *first*, but no other actual numbers. I looked at Li-Ping. He shook his head. I never thought he had much of a sense of humour anyway.

Alongside the first screen, a second hung in the air. Data about the process was being constantly updated in a dashboard. In the centre was a graph showing how much of The Corpus had been translated. The line had been flat for many days until yesterday, when it had slowly begun to climb, although no translated words had appeared in The Message. Now it passed the 50% mark. Another part of the display turned green. Around 25% of The Message appeared to have been translated.

The beings who had left The Message and The Corpus had obviously been more advanced than us. They had known how much data would be necessary for us to analyse and decipher their language using text and images. I thought back to the Earth’s first attempt at interstellar

## All My Blood

communication: the golden plaques that had been attached to the Pioneer 10 and 11 spacecraft. The amount of information they contained was minimal, and there was little information for any space-going civilisation that found them. Then the recordings sent on the Voyager spacecraft had contained greetings in 55 languages. How would aliens know that we had so many languages and that they all said the same thing? No, whoever had left The Message on Mars had intended it to be deciphered by creatures at a certain level of technology.

I leant back in my chair and looked around the room. We were in Ningbo where Xiao Industries had its headquarters, but the room itself could have been anywhere. The furnishings were corporate and bland. Only when I looked out of the window was the location obvious: I could see out across the city to the sea and a succession of islands that guarded the entrance to the bay.

The figures on the dashboard were changing faster and the graph was climbing steeply now. We were all watching as The Message turned completely blue, the last alien symbols replaced by words that we could read. A bell chimed, the dashboard stopped changing, and six of the wealthiest individuals who had ever lived on earth stood up and applauded.

‘Dr Cass. will you do us the honour of reading The Message?’ Xiao Li-Ping, our host, and the most significant investor gestured at the screen. I stood up, bowed slightly to the others and started reading.

*I have broken all the rules. Leaving a communication in an Originator system is strictly forbidden. If the others knew that I had left so much information, they would have left me with it on the fourth planet and blasted me and it to pieces from orbit.*

*We are on a quest to find the Originators. They passed through this part of the galaxy hundreds of millions of years ago and seeded life on a number of planets. We believe ours was the first. We became a space-faring race early in our history as a result of the*

## All My Blood

*intervention of the [no translation available; likely transliteration is Hixbal], and have explored many systems around our own. We have found planets where the life forms share the same genetic material as our own. These planets are in systems that would have been in a straight line through space at the time that the Originators passed through. Yours is the last we have found, and number forty-two. After we leave here, we shall follow in the same direction as the Originators in the hope of finding other planets or the Originators themselves.*

*When we arrived at your planet, there were other space-farers here. They had come to watch a celestial event. A rogue planet had travelled in from the space beyond your system and was inside the orbit of the fourth planet when we arrived. The others were grandstanding here in the hope that it would collide with one of the rocky inner planets and create a massive explosion. We found you on the third planet from your star. We landed and spent over a year in the time of your planet investigating and sampling the lifeforms there. It was a time of great change and destruction for your world. The rogue planet cut between the second and third planets and was captured by the star's gravity in a slingshot orbit around it. While it passed, it blocked the light of the star, causing parts of your planet to freeze. However, the tidal forces of its passing tore at the great landmass of the planet, causing earthquakes and volcanic activity that also heated the atmosphere. Our experts in planetary mechanics believe that the landmass will begin to break up and drift apart, and by the time you read this, the shape of your planet's land surface will be very different.*

*That is not my expertise. I am a biologist and was responsible for sampling thousands of lifeforms. The research confirmed our expectation. You share a genetic heritage with us and with the beings on the other Originator planets we have investigated. You are all my blood relatives.*

I paused and took a sip of water from the glass in front of me.

## All My Blood

‘Is there evidence of an event like that?’ asked Sharon.

‘No idea,’ I said. Li-Ping and Colm Tierney, the pioneer of implants, were staring in front of them with the glassy-eyed look that we all associated with accessing the Net through their embedded chips.

Li-Ping was first to speak. ‘Early Jurassic period,’ he said, ‘the super-continent of Pangaea began to split into Laurasia and Gondwana.’

‘Triassic-Jurassic extinction event,’ said Colm. ‘An event at the beginning of the Jurassic period that caused a mass extinction.’

‘Go on,’ said Li-Ping, ‘keep reading.’

*The plant life is analogous to our own, and most of the sea creatures and land animals have DNA that is similar to ours. We found just one small group of animals that were different. I think it is a mutation. In DNA terms it is unique, at least on this world. I can't speak for any other worlds until I have checked the databases collected on those planets. The creatures have hair rather than scales or feathers and seem to have better mechanisms for adjusting their body temperatures. But they are small – prey – food for the majority of land animals. We are not allowed to interfere, but I would expect that within a million years you will have developed intelligence and language and will have begun to explore the other planets of your system. You will find this message and the large body of information that should allow you to understand our language and decipher this message. Then you will also have access to our history and the shared history and science of the other Originator planets.*

*The device in which I have stored the information is a quantum communicator. Reading the data will cause the collapse of the wave function for entangled particles. Wherever my descendants are when that happens, they will know and will set out to visit your planet again. We look forward to meeting you.*

## All My Blood

‘Is that possible?’ It was Sharon again who asked the question. ‘That device must be millions of years old. Could it maintain the state of entangled particles for that long?’

‘Not with the technology that we have,’ said Li-Ping, ‘but then they were advanced enough to have interstellar travel and to have stored all that data in the crystal, so I don’t see why not.’

‘More to the point,’ said Colm, ‘if they did leave the device there at the start of the Jurassic period, that was around 200 million years ago. What happened to them? If they expected our distant ancestors in the Jurassic to evolve into space-travellers in a million years, didn’t they wonder what had happened when no-one picked up the ’phone and called them in 200 million years?’

‘Linda,’ said Sharon, ‘your system has analysed all the data in The Corpus. To translate The Message, we had to translate The Corpus. Can you search it for information or even pictures of the beings who left The Message on Mars?’

‘It should be possible.’ I said, ‘We put the data through a number of systems in parallel. It’s all been indexed.’

I accessed my implants, opened up a link to the search engine and issued what I reckoned was the right search query.

The screen in front of us lit up with an image of what I can only describe as a large, smiling velociraptor in a space suit, a helmet in one claw-like hand.