

# **Breakthrough to Mars**

By Amelia Wu

A special book project with:



### Introduction by Bruce Callow

The first successful human landing on Mars is on the horizon and will become a reality in the coming decades.

*Breakthrough to Mars* by Amelia Wu, introduces readers to a diverse team of astronauts embarking on a historic mission to Mars. The crew, aboard SpaceX's Starship, faces challenges and unexpected discoveries, including signs of past alien life. As the narrative unfolds, the astronauts explore a Martian cave filled with 5,000 year old alien artifacts, sparking questions about the mysteries of the red planet and the origin of life itself in our solar system.

Amelia's story balances scientific exploration, human camaraderie, and unexpected twists, promising an enthralling interstellar journey. She envisions that the first human landing on Mars will take place in 2035. This aspiration is compelling but achieving a crewed Mars landing by that date remains contingent on overcoming technical, financial, and logistical hurdles.

Reading *Breakthrough to Mars* will convince readers it will happen sooner rather than later.



#### **Chapter One: Meet the Crew**

A new and highly trained team is going to space. Their mission is to get to Mars, build a base, and try to find water. They will be the first team to land on Mars. They are calling this undertaking Mission Mars. Getting to Mars will be hard, so they will be using a spaceship called Starship, made by SpaceX.

The crew is made up of Ryan,commander/pilot from Whitehorse, Canada. He is the first native Canadian in space, is married and has one child. Next is Amelia, 1<sup>st</sup> officer and copilot, from Vancouver, Canada. She loves art and drawing as well as many different kinds of architecture. She also helped design the Mars base that the crew will live in. She is married and has two children.

Cynthia is from Los Angeles, California and is the science officer. She is in charge of finding life on Mars. Cynthia is married and has one child.

Maria, who is from Chihuahua, Mexico is the botanist for the mission. She is in charge of caring for the greenhouses and food for the crew. Maria brought along a four year old Chihuahua who is a service dog named Martita. She is married and has two children.

Next is James. His Chinese name is Yi and he is the chief engineer and is from Taipei, Taiwan. Yi loves reading engineering and rocket design blueprints and manuals. He is married and has one child.

Last but not least is Matt who is from Moscow, Russia and is the medical officer for the journey. He likes to play the violin and will be bringing his violin on the trip to play music.

And that is our whole crew. This crew will be in space and on Mars for five years. They will be building a base and trying to find water on Mars. The proposed launch day is July 21st 2035. Right now it is 2023, so they have a lot of time to prepare.

#### **Chapter Two: During the Wait**

These astronauts are brave, adventurous, engineering, and persistent. And they are all ready for a great adventure! After waiting for a long time, the launch day was getting closer.

During the wait they did a lot of training in NASA buildings. Ryan studied and trained how to be a pilot in Houston. Amelia was helping design the Mars base and training to be a pilot, too. Cynthia was testing her skills and also learning more about finding life on Mars. As for Maria, they sent her to the hardest places to grow food like deserts, and places with little water and a lot of heat. James was with a group of engineers who were building and tinkering with equipment. Matt was the medical doctor, so he was gathering the necessary equipment and learning how to use it on the mission.

It had been a long time since the members of the crew had gone to space, (Ryan and Cynthia had walked on the moon during the Artemis program), but some of them had forgotten a few things. They went over how to use equipment on the ship and when to use it. Another group of SpaceX engineers made a few little tweaks to the rocket and also planned the base on Mars.

NASA and SpaceX wanted to prepare the Mars base so it could withstand almost anything. The Mars base will be made of concrete, radiation shielding, and lots of types of metal. They sent a supply rocket to Mars two years ago. The rocket contained things for the Mars base and backup supplies.

The engineers ran into a few problems and hiccups with the crewed mission rocket, like a tiny piece of the engine falling off or something didn't work, but they fixed it. The crew knew there were going to be a lot of people watching the launch on the news, so they were ready. Finally, it was launch day.

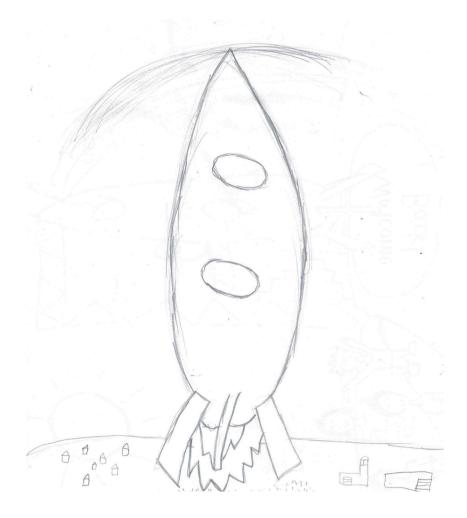
#### **Chapter Three: Launch and Flight**

The crew and the dog silently walked up the stairs and boarded the capsule. They were all a little bit nervous, especially James because he hadn't gone to space as many times as the others. As the crew got into the capsule, they wished each other good luck and they lay down and got into position.

10....9....8....7....6....5....4....3....2...1.....

Ignition!!!

#### Blast off!!!



The trip to space was mostly uneventful. They had some bumpy moments, but it was mostly smooth. The crew members that had not been to space in a while just looked outside and admired the view for a little while. The rest of the crew controlled the ship, looked around, worked in the ship, updated ground control, and played with the service dog, Martita.

It's been about four months and they are getting closer to the red planet. It will take about seven months to get to Mars, so they still have a long way to go. Martita was one of the problems, though chasing floating equipment and bumping into the crew members too. Eventually the dog calmed down and decided to take a nap.

James and Cynthia then went outside for a space walk ( without the dog). They checked the spaceship for any problems and they found that the communications antenna was broken. James went inside and got a spare antenna, then came out and fixed it. It took them about two hours to replace the antenna and finish their space walk.

The crew looked outside the window a few hours later and Mars was getting pretty big. They all got excited and started talking about what they might do on Mars. Amelia shouted, "The first thing I'm going to do when we get to Mars is to walk around and eat something!"

"And I am going to decorate the base!" yelled James. They excitedly kept talking and talking as they got closer and closer to Mars.

## **Chapter Four: Landing and Discovery**

The crew landed safely on Mars and began to roam and do the things they said they would do. When they came back to the base, it was well decorated and everything was in place including the kitchen, sleeping areas, and the laboratory. The crew took a few seconds to look around then got to work.

Maria started planting food, Cynthia started a few experiments, and James finished up a few details on the base. Cynthia went out and started to look for a source of water and life. She came back a few minutes later to report that she saw nothing and went inside the base to rest. Amelia and Ryan unboxed more of the supplies, including building materials and tools that had been sent to Mars in a supply rocket, and finished things up on the ship.

A while later Cynthia came back from another 5km expedition to tell them that she had found a trace of some

kind of life source! She had found a few bones that were pretty far from the base. At least she thought they were bones, they had some dust that hid them, but Cynthia's careful investigation had found them.

There were two bones on the ground that were the pieces of one but wouldn't fit together and they were slightly reddish and orangey. After a few minutes of study, Cynthia was sure they were bones.

The rest of the crew was surprised and happy. Ryan reported the discovery to ground control and the crew all started screaming "Yay!" and "Woohoo!"

The excited crew boarded the Mars rover and headed in the direction of the bones. They had no idea what they had just found, but they were ready to find out!

## **Chapter Five: The Bones**

Cynthia stopped their vehicle and knelt down on the bones. They were still there but they looked like they'd been stepped on? No, they had been moved, but by what?

Then something very strange happened. A huge gust of wind came at Cynthia. The crew looked around frantically, but they saw nothing. Then there was another big gust of wind. Red sand swirled wildly everywhere in the wind. The crew stood up and nervously walked in that direction but there was nothing so they went back to the base.

The moment they got back to the base, ground control said they had picked up a slight breeze, which was unusual. Ground control said they would report anything else they found.

Luckily, Cynthia had taken a few photos of the bones. She laid them out on the table and carefully examined them.

Maria came over with the dog and asked what she was doing. As Cynthia explained what was going on, Martita, curiously sniffed at the photos. Suddenly, Maria had a great idea! She suggested that if Cynthia brought the bones to the base, Martita could sniff them and lead them to where the bones came from. And that's exactly what they did.

# **Chapter Six: The Aliens**

Cynthia brought one bone shard to the base just as Martita rushed out. Martita sniffed the bone then started running away. The crew followed her until they came to a giant cave. It wasn't really far from the base, but it wasn't close either.

As they walked into the cave, they saw bones, archives, and a broken UFO. There were many bones in the middle of the cave. The crew thought that aliens had once lived here because of the UFO. And they had never seen something like it before.

The crew's first reaction on seeing inside the cave was shock. They felt this way because they were the first to find evidence of life on another planet and they weren't sure what to do. As they examined the items in the cave, they found some pretty cool stuff including something that looked like food. But they kept looking because they were sure there was something even more important.

## **Chapter Seven: Life on Mars?**

After thinking for a while, Cynthia thought that aliens had come to Mars from a different planet or universe about 5,000 years ago. The aliens stayed on Mars for a long time until something happened to them. Cynthia thought that what happened to the aliens was like what had happened to dinosaurs on Earth.

Maria found a few English words in the archives, which was pretty surprising. And they found what looked like a very old computer. It didn't work so they decided to take it back to the base with them.

The crew decided to take some of the bones back, and leave some in the cave. Cynthia had made a map before they went on the trip, so she marked where the cave was on the map.

The crew brought some of their discoveries back to their base and Matt checked the bones over and said that the

bones were completely safe. The bones were kind of like human bones, but some of them were curved or really tiny. By studying the bones and other items the astronauts concluded that the aliens were pretty advanced in technology.

# **Chapter Eight: The Alien Items**

When the crew got back to base, they reported what they had seen to mission control. Mission control was surprised and shocked to learn about the aliens and were very interested in the items the aliens had, especially the archives.

James managed to get the old alien computer to start working a bit, but they didn't find much in the computer. Not yet.....

The trip to Mars was almost over. So the crew started planning and packing for their trip back which would take about eight months to get back to Earth.

They decided to bring the old computer and archives back to Earth with them and keep the bones in a base on Mars that they would keep track of. They left the UFO in the cave so they could go back to study it anytime.

Meanwhile, the Chihuahua Martita, was enjoying the rest of her time on Mars a lot, jumping happily around in the low gravity and playing in the dust.

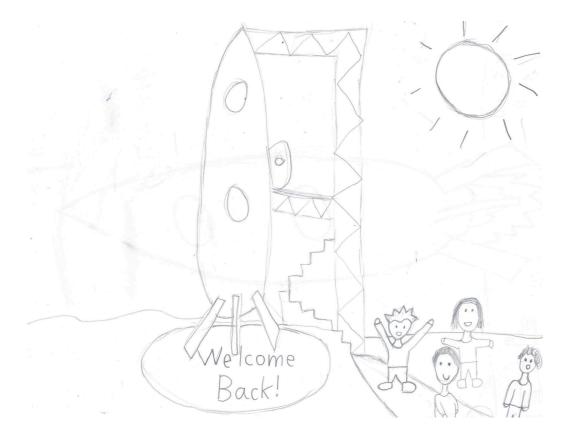
The crew packed up a lot of equipment and decided to leave the base on Mars with the bones. And soon, they were ready.

## **Chapter Nine: Heading Home**

The crew boarded the ship and got ready for the long trip back to Earth. Soon, they were back in space, flying away. The crew was happy to get back to Earth but sad to leave Mars, but they were ready.

James got the alien computer to work even more and it operated like a normal computer with a few unusual apps. The astronauts couldn't read what the apps were because they were written in some alien language that they couldn't read.

Finally, they were home. There were friends and family and other people the crew didn't know that came to greet them and congratulate them. They felt happy that they were back on Earth and went back to their normal lives.



The crew, along with other teams of scientists, was still studying the bones, the alien computer and archives. But one thing is for sure, this would be a day that they would never forget.

The End