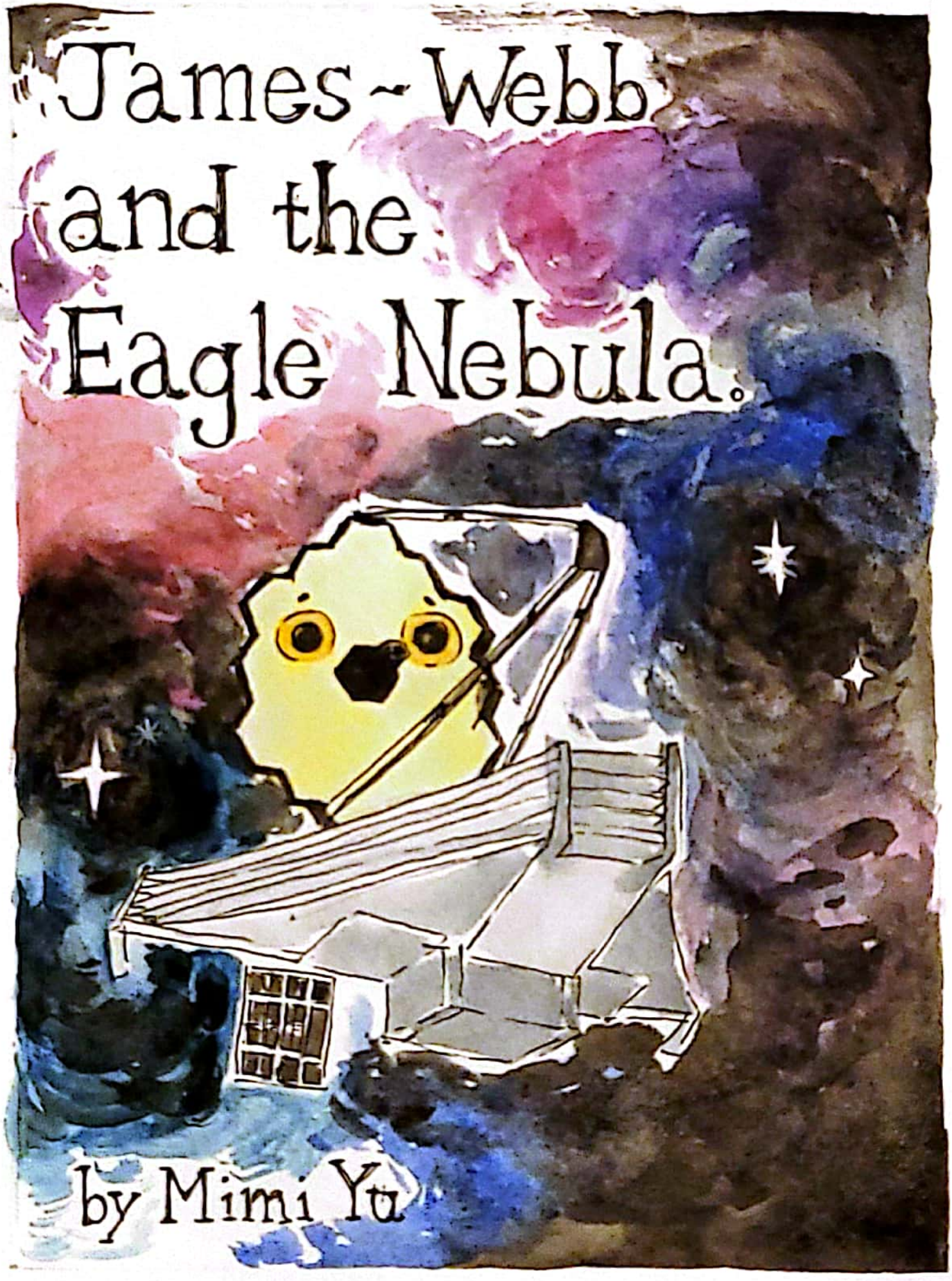
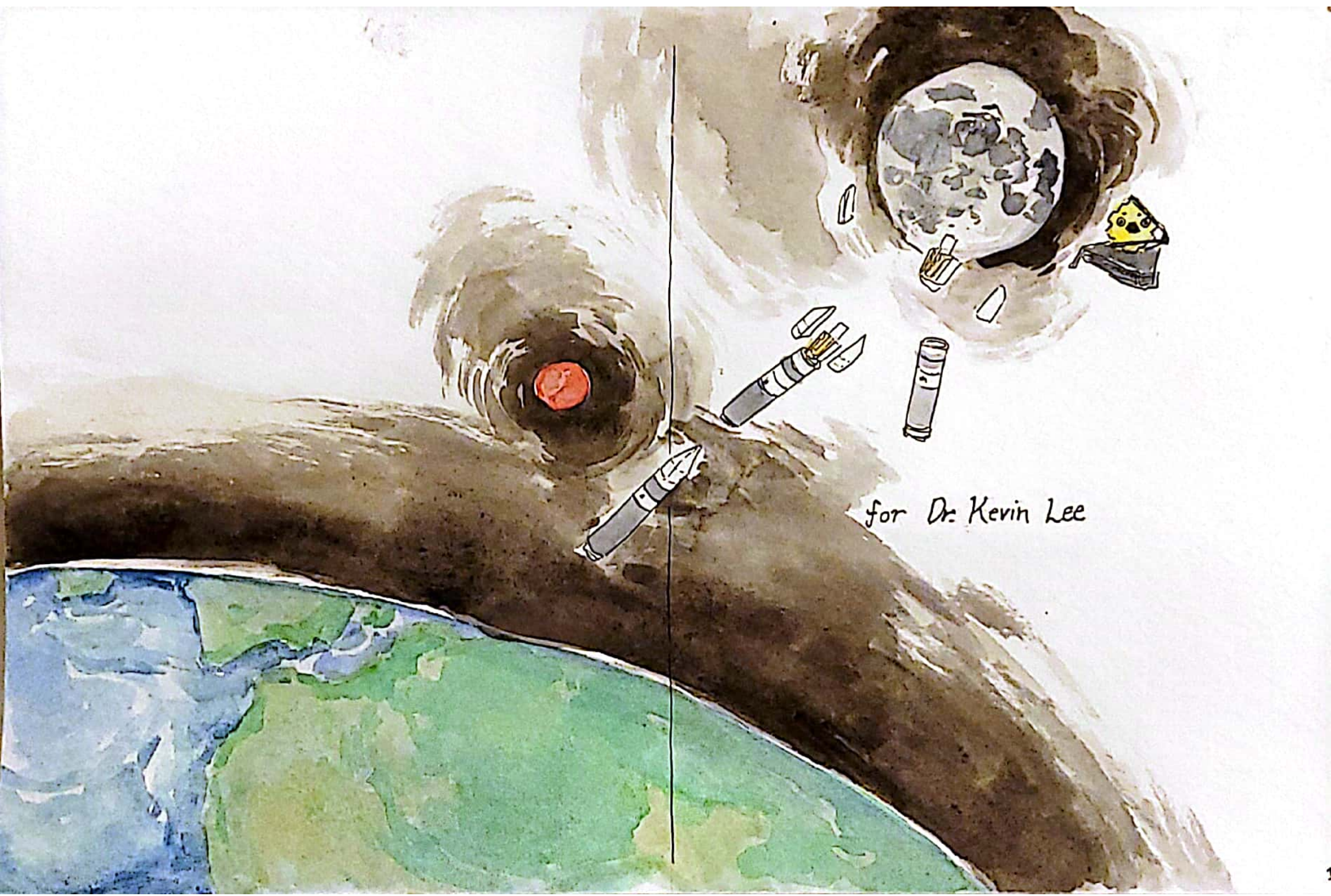
James~Webb and the Eagle Nebula.

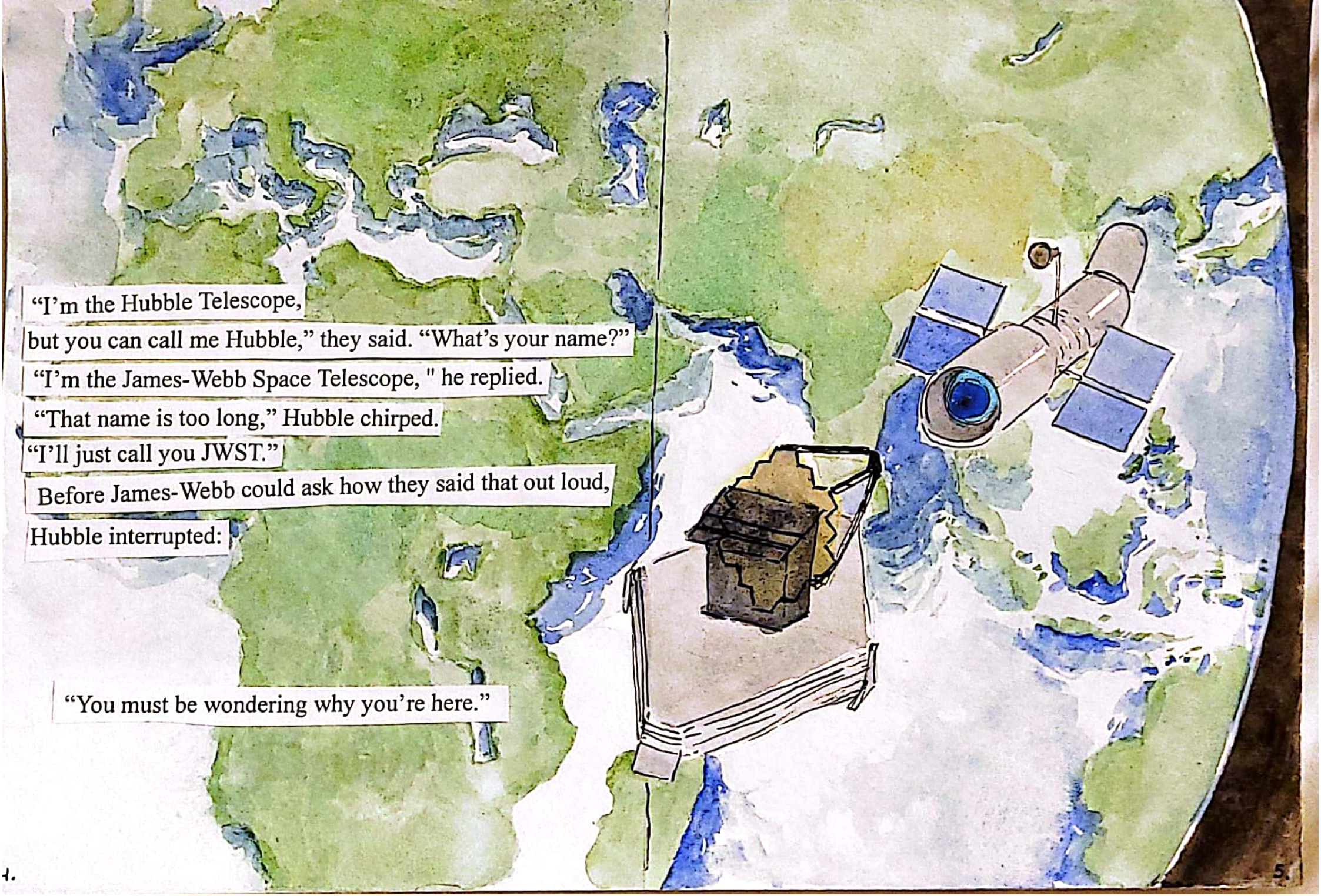


by Mimi Yu



On December 25, 2021, the James-Webb Telescope launched into the air and into space. As he began his journey, he couldn't help but feel a deep existential dread in his thermal subsystem. What now? What was his purpose? Why was he created?

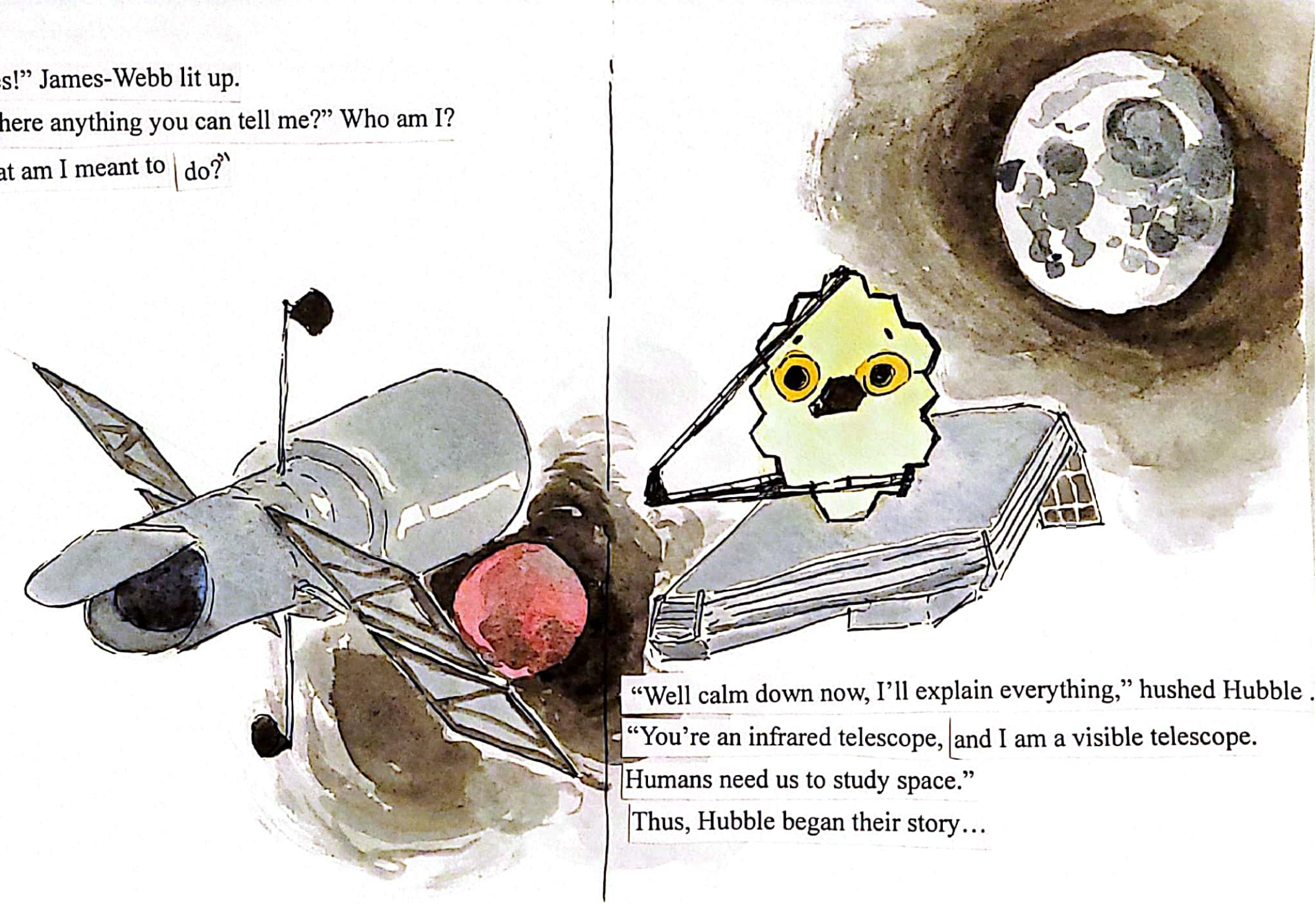
And who was that?



"Yes!" James-Webb lit up.

"Is there anything you can tell me?" Who am I?

What am I meant to do?"



"Well calm down now, I'll explain everything," hushed Hubble .

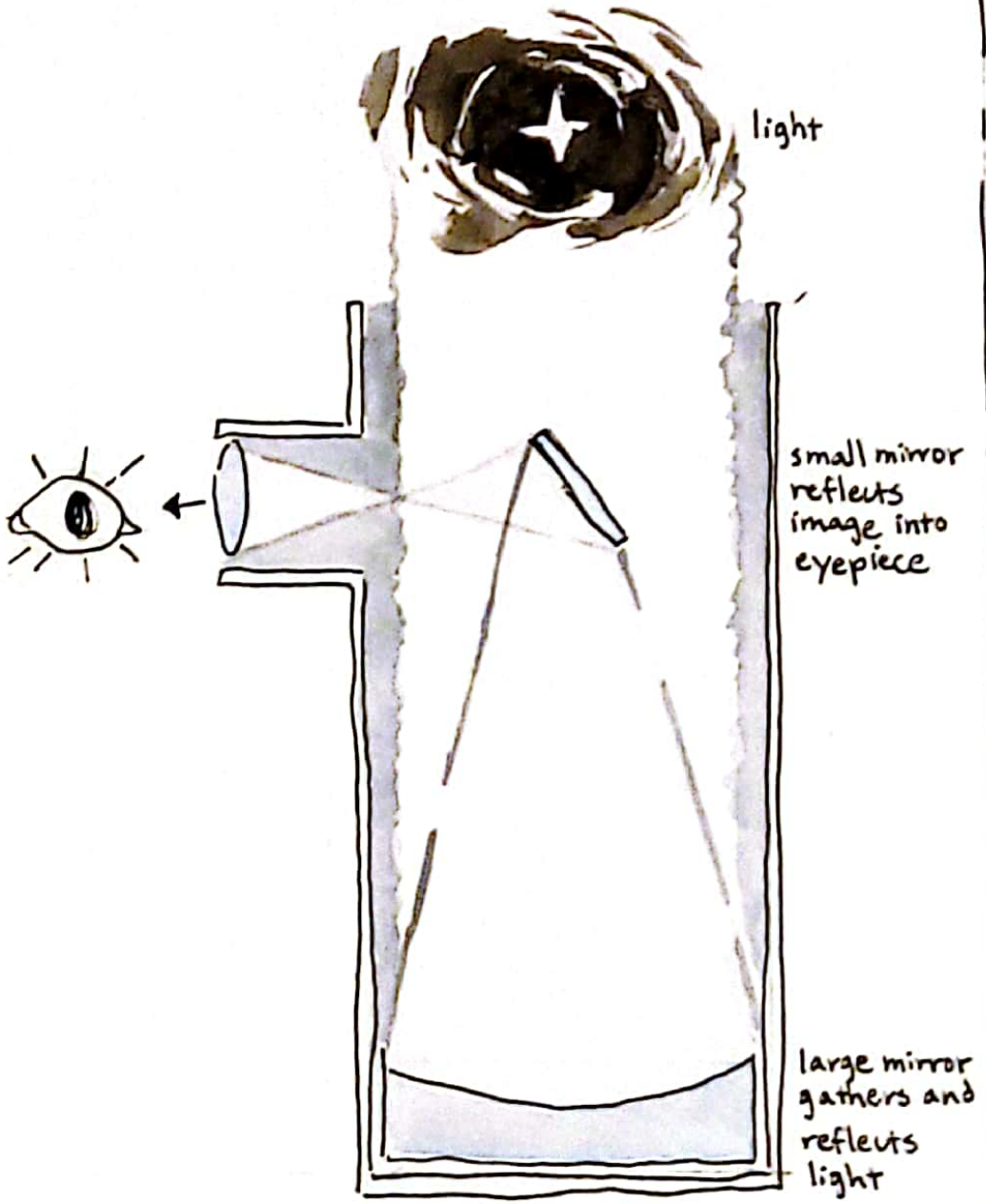
"You're an infrared telescope, and I am a visible telescope.

Humans need us to study space."

Thus, Hubble began their story…

"In the past,

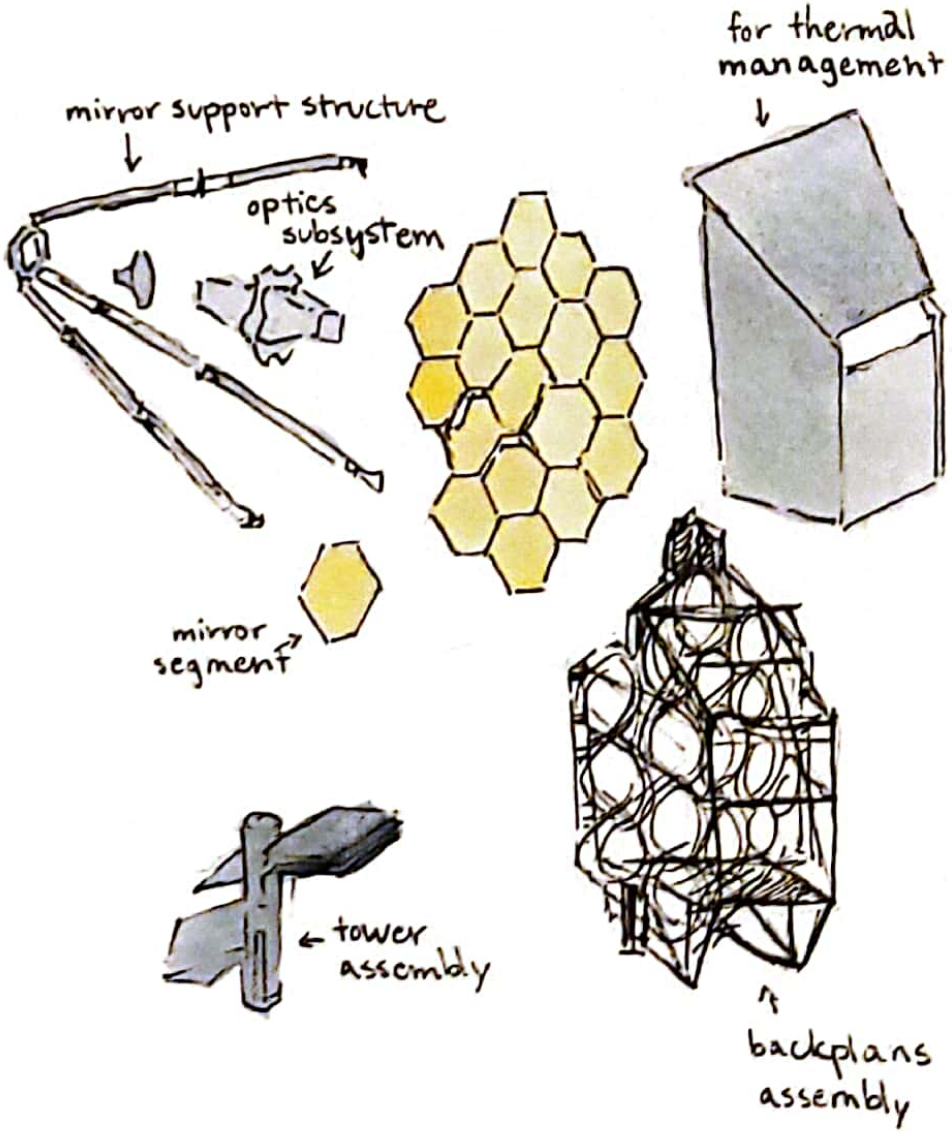
humans have used objects to help them observe the sky."



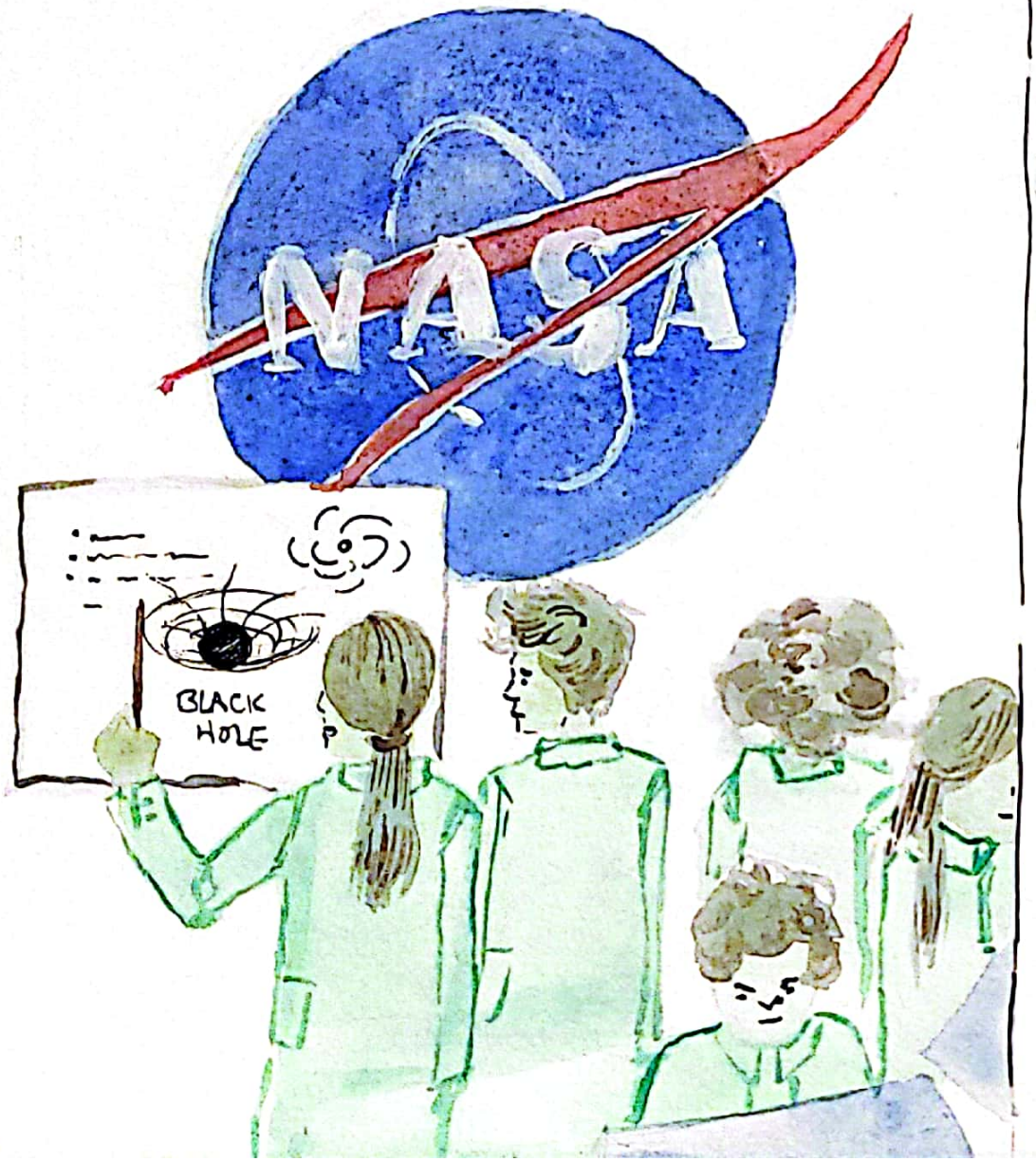
"As time has progressed,

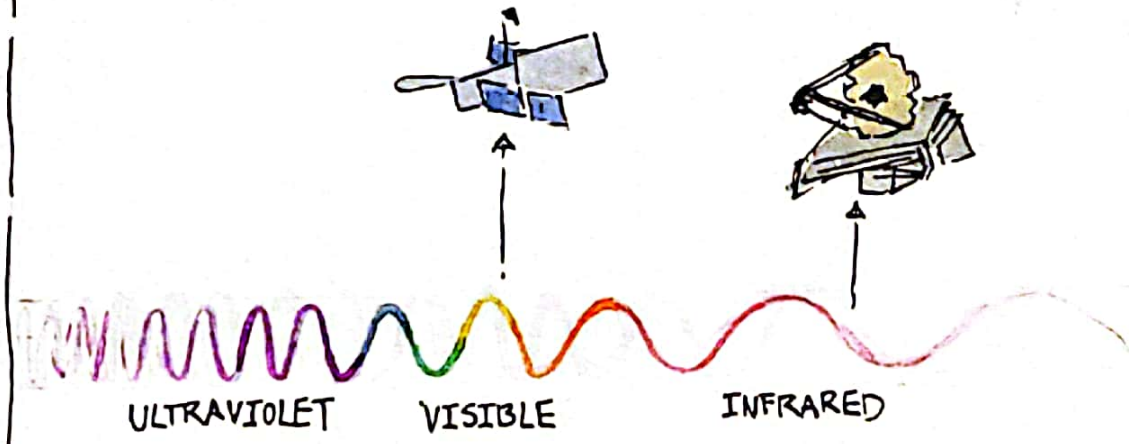
these instruments have become more complicated,

and much more powerful."



"With telescopes, NASA can observe comets, stars, galaxy clusters, and even time. Humans can slowly learn how the universe changes and evolves."





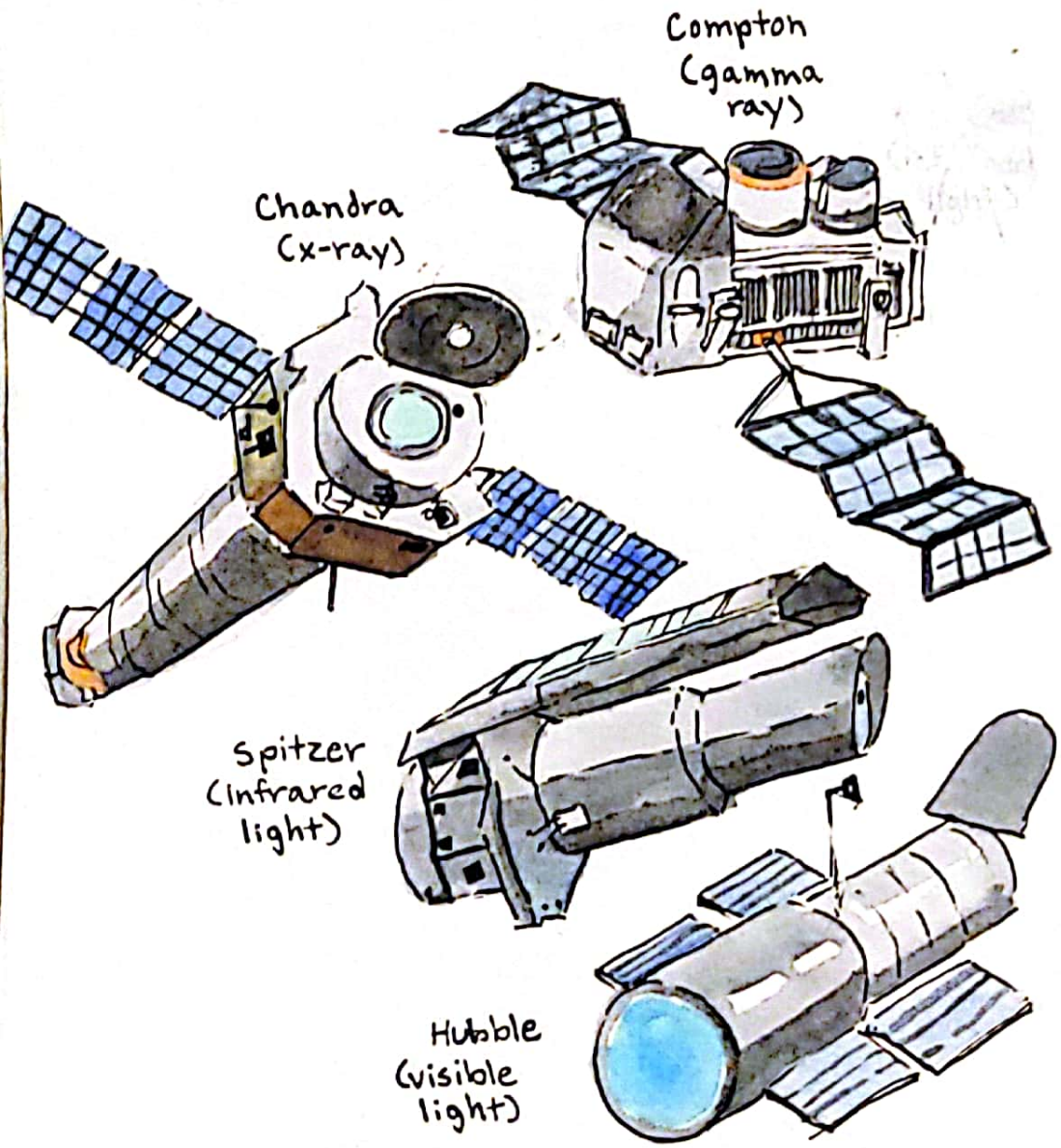
"JWST, as an infrared telescope, you're very powerful."

"I am?" James-Webb was incredulous.

"Yes! Truly! Within the electromagnetic spectrum, humans can only see the universe in visible light. As something which can see in infrared, JWST, being able to detect longer wavelengths of radiation means that you can see details of space humans would've never been able to detect. You can see light and early stars from beneath dust. In fact, you may even see the beginnings of the universe,

and the first galaxies that were created."

"But, are there any other instruments like us?"
the James-Webb Space Telescope asked.

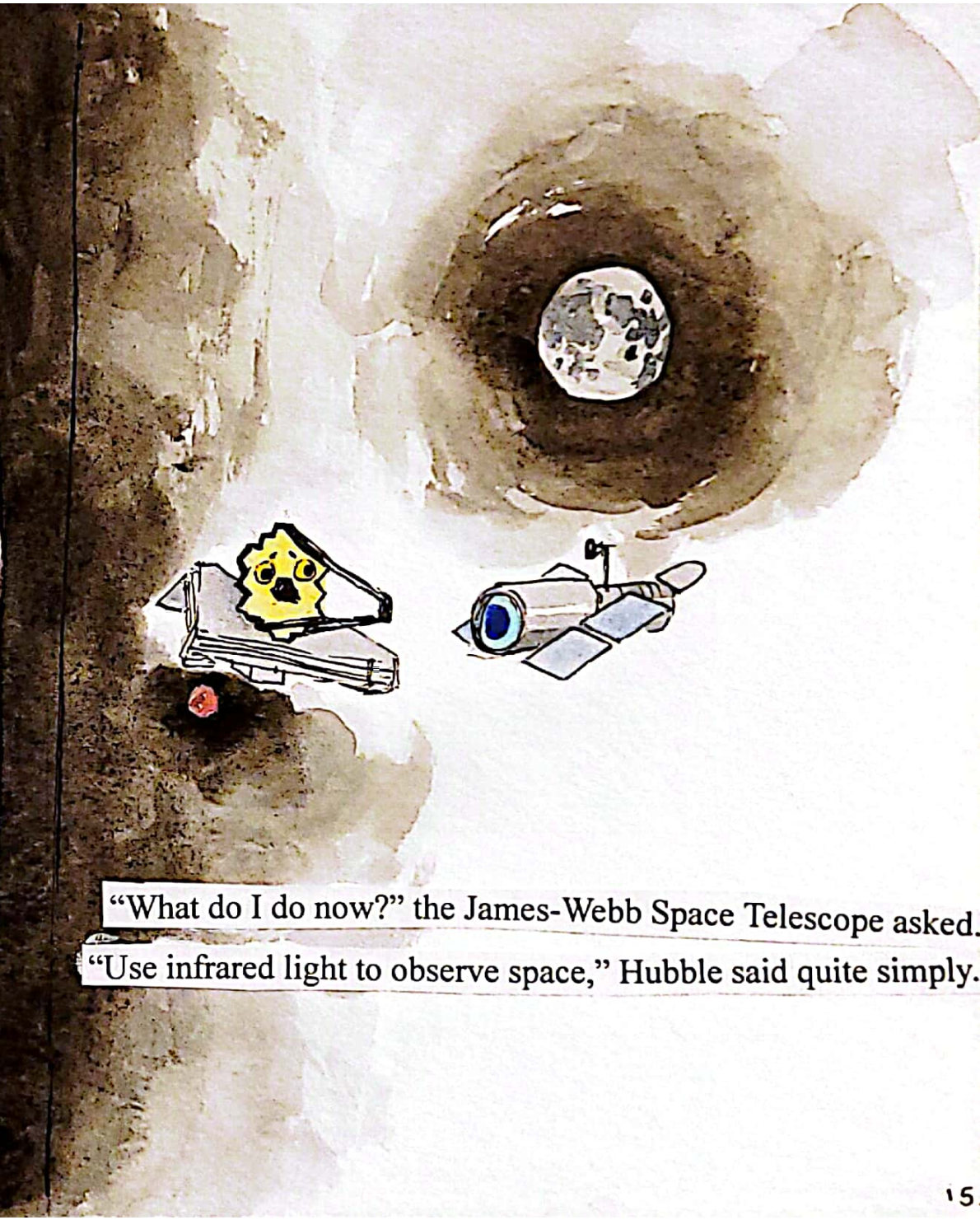


"There are other telescopes as well,"
the Hubble Space Telescope replied.

"The Compton Observatory used gamma radiation to discover supermassive black holes, and uncover the influence of high energy photons within the cosmos. Chandra is an x-ray telescope that uses its data to study high temperature gases and dark matter. Spitzer was an infrared telescope like yourself, however she retired back in 2020, as well as Compton."

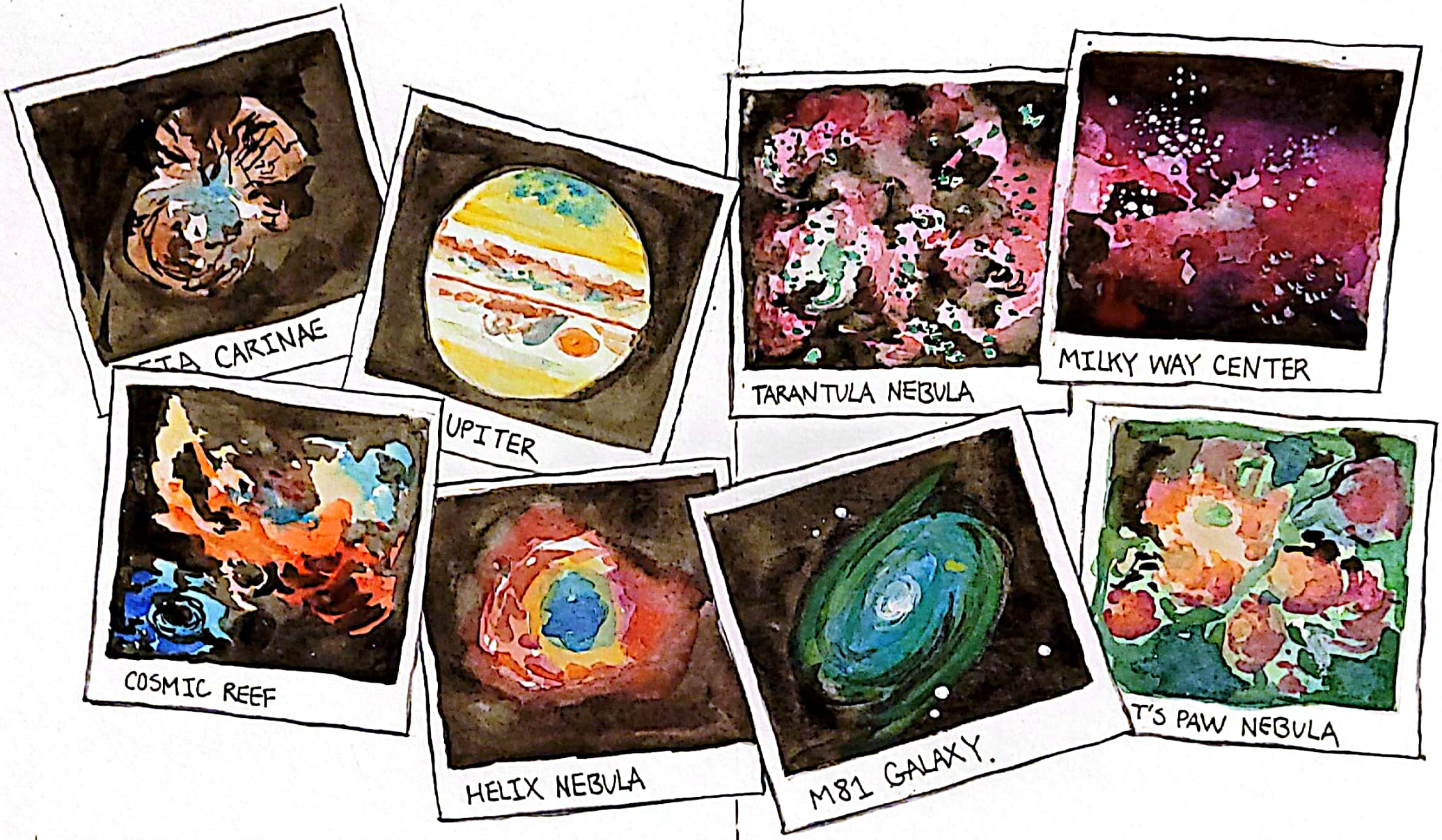
"Is that why I was created? To continue her legacy?"

"Yes, JWST, partly. But I have heard from the astronomers that you have the potential to be 1,000 times more powerful."



"What do I do now?" the James-Webb Space Telescope asked.

"Use infrared light to observe space," Hubble said quite simply.

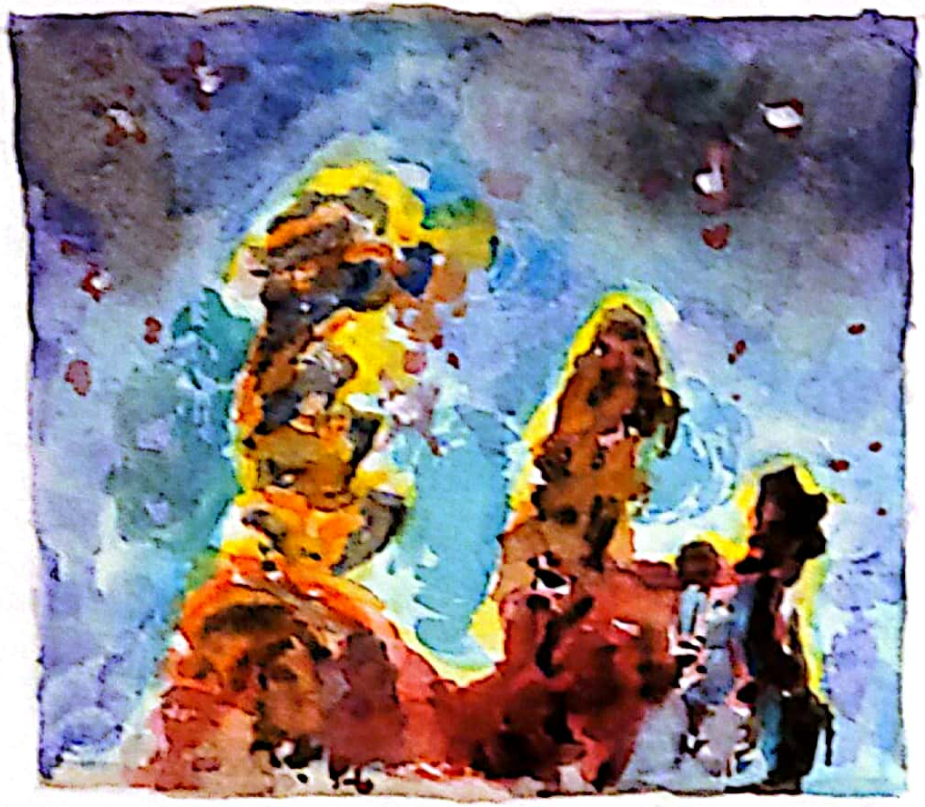


And with that Hubble and James-Webb traveled

across the universe…

Capturing the secrets of space,

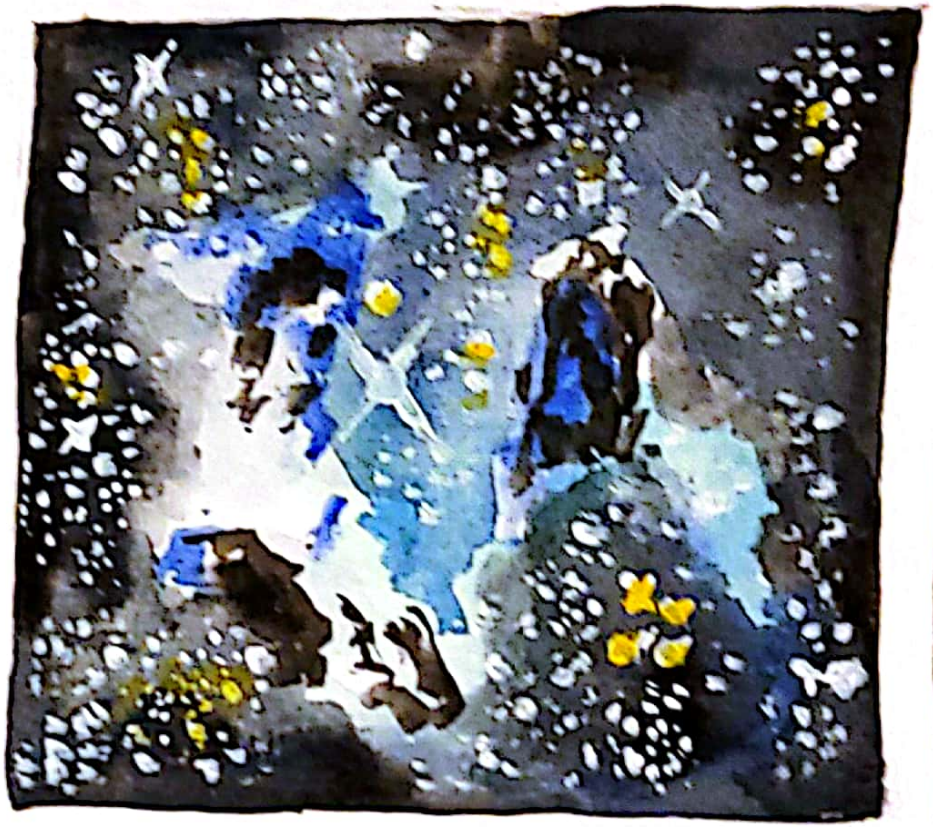
one with visible light and the other with infrared…



PILLARS OF CREATION ~ VISIBLE

When the Hubble and James-Webb Space telescope reached the Eagle Nebula and looked upon the Pillars of Creation, James-Webb was in awe. "Do you see it Hubble?"

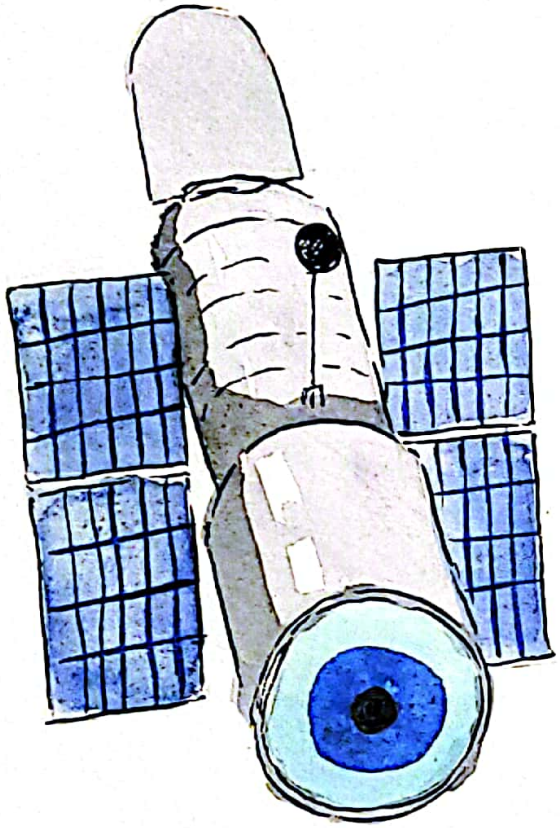
"It's beautiful, but are you seeing something I'm not, JWST?"



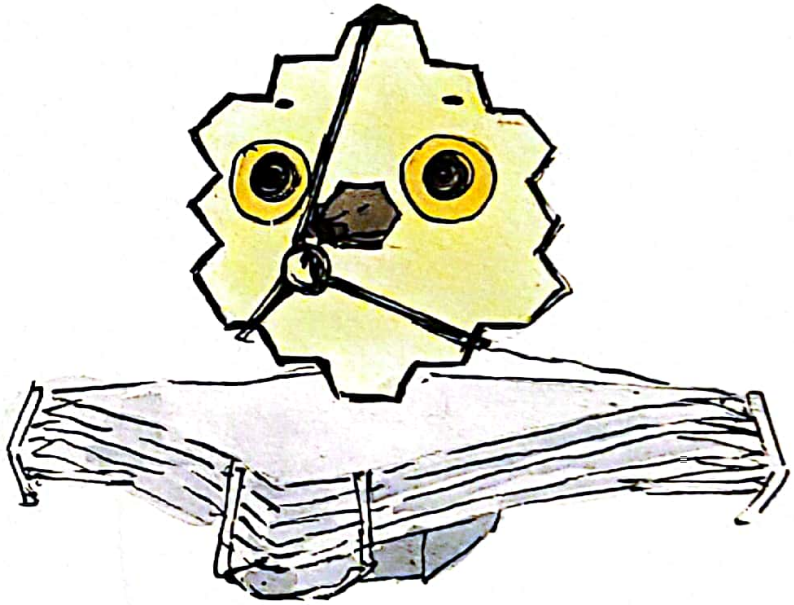
PILLARS OF CREATION ~ INFRARED

In fact, by being able to see in infrared wavelengths, James-Webb saw the Pillars of Creation

basked in millions of glittering stars.



After promising that they would always be friends,
the James-Webb Space telescope strayed farther and farther
from Earth until it reached nearly 1 million miles,
escaping Earth's orbit.



And as Hubble continued helping humans see objects more
clearly above the Earth's atmosphere, the James-Webb
Space Telescope began its mission of discovering the beginnings
of the universe,
and unraveling the mysteries of our first galaxies.

The End.