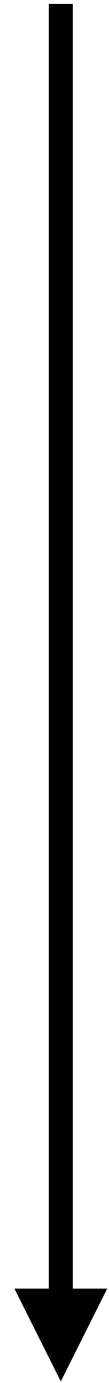

Ethics in Science Today

Joseph Guidry, Ashley Lopez, Adan Ramirez
UTeach, October 13, 2020

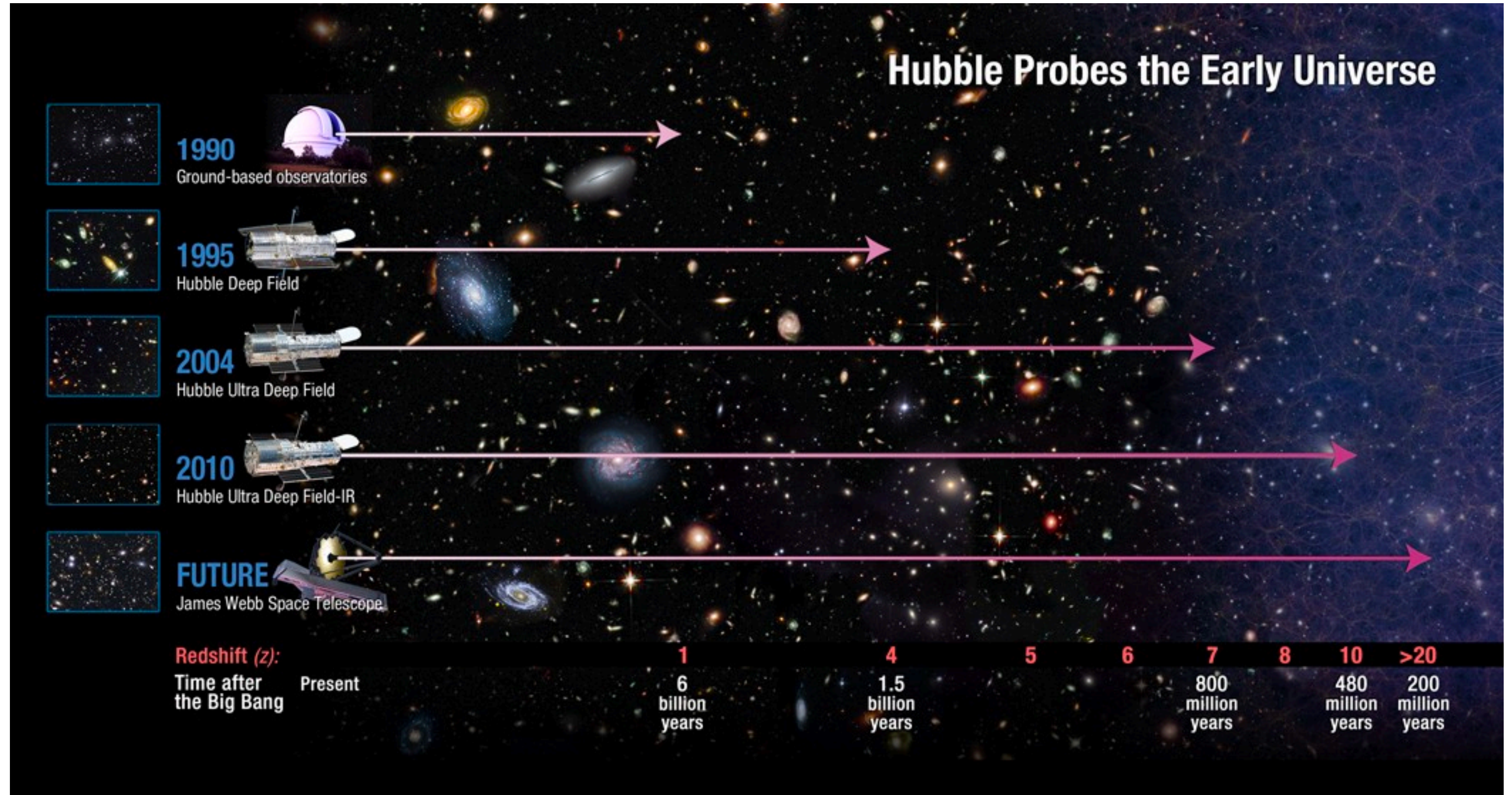
What's a place special to you?

- **In your journal, write down a place that is special to you**
 - It can be your house, Ms Merritt's classroom, your favorite place you have vacationed too
 - **Take 2 minutes to do this. Share your answer in the chat when you are done**
-

Smaller, less
advanced



Bigger, more
advanced



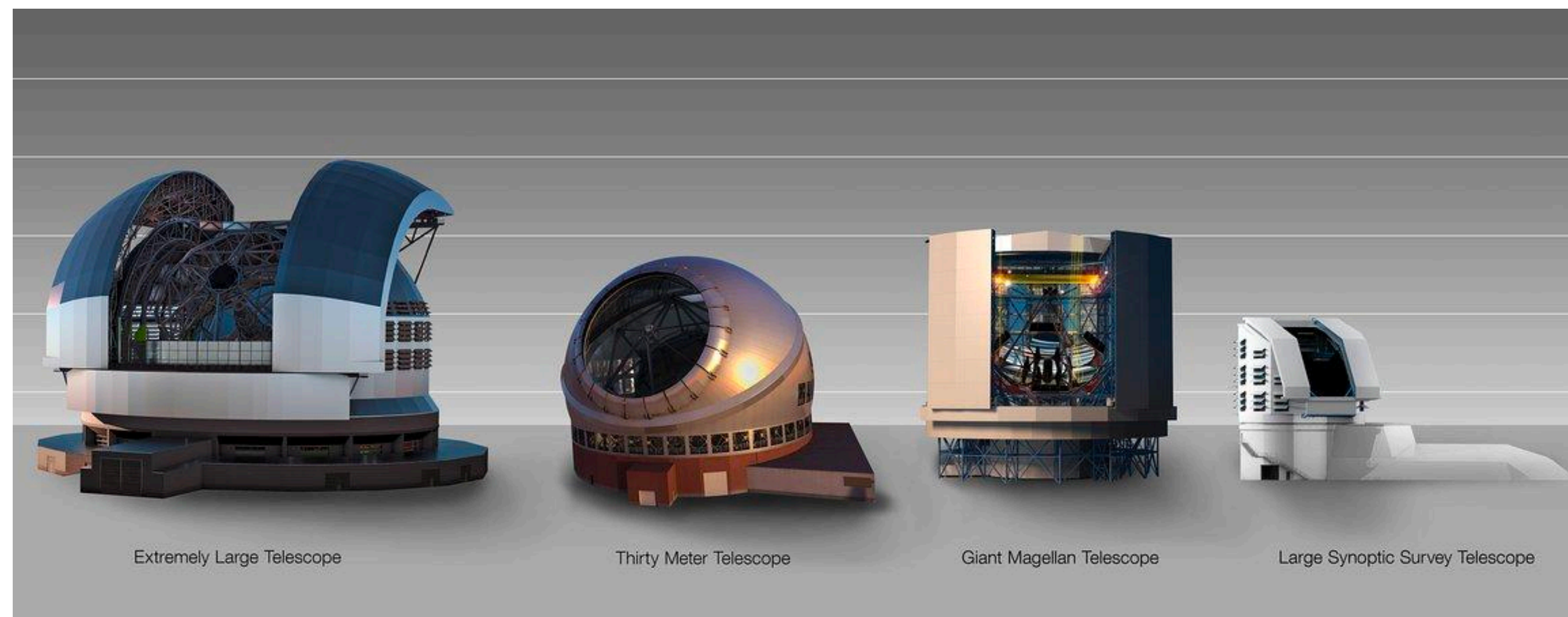
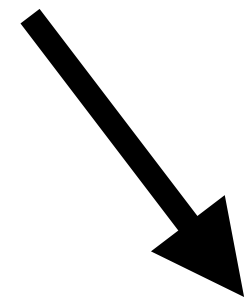
Just how big is big?

- If the Texas Capitol is about 300 feet tall, do you think these big telescopes are bigger or smaller?
- **Enter your answer in the chat!**
- **Both are correct!**



300
feet

These are like
20 story
buildings!! 😬



300 ft

200 ft

100 ft

0 ft



Let's see what these big telescopes can see

- Open Google Sky: **CLICK ME**
 - Explore the Hubble Showcase:
 - **In your journal, write down your favorite object you looked at**
 - What is it? A galaxy, star, nebula?
-

What if I bulldozed your special place to build a telescope without your consent?

Quickly share in the chat how this would make you feel.

This is called Astrocolonialism

- Write these definitions in your journal:
 - **Astrocolonialism** - the colonization of indigenous peoples' lands for the construction of telescopes
 - **Indigenous people** - people native to a particular place
 - For example, the Lipan Apache and Tonkawa peoples are indigenous to the area known as Austin today
-

Thirty Meter Telescope



- The Thirty Meter Telescope (TMT) is planned to be built on Mauna Kea
- Mauna Kea is sacred to Hawaiians and is a delicate ecosystem
- **This is only one example**

Key takeaways:

Science has consequences, regardless of your intentions.

Responsible scientists must consider all the possible consequences of their science.

This idea is called **ethics in science**.

Is it ***ethical*** to advance science if it means we hurt people and harm the environment?

Reflection

- Let's practice being responsible scientists and write a reflection on how you would resolve this
 - Can you think of an equitable solution?
 - What are some other scientific projects that you think might be in ethical gray areas?
 - Write this on padlet at this link: **CLICK ME**
-