Aloha Kakou,

And just like that August is over, summer break is behind us and school is back in session. While COVID still lingers around, it is not nearly as bad as it was a year ago and things definitely are resembling more the “normal” that we were used to. With the remodeling project done, we are starting to set up some new displays at the VIS.

The University of Hawai‘i at Hilo Astronomy’s department was generous enough to lend us the spotter scope that was used with the first 24” research telescope built on the mountain back in 1968. The 7 foot long, 6 inch in diameter F/15 refractor telescope was equipped with a special XY moving focal plane allowing the selection of a guide star to help the larger telescope tracking of the sky motion while acquiring astronomical data. It is quite fascinating to be able to see up close and personal a piece of history. The telescope is currently at the VIS and it is aimed towards Maunaloa, allowing visitors to look through its eye piece.

We are working with a couple of other observatories to set on display instruments that have been used in various high profile projects on the mountain.

Our collection of titles offered at the VIS also continues to grow. We now have over 47 different titles ranging from kids coloring books, Hawaiian culture books, navigation, birds, plants and others. We will continue to expand on our titles as we move forward.

We hope to see you soon at the VIS.

Rodrigo Romo
Maunakea VIS Manager

A New Image of Jupiter
By Miranda Taylor

Webb NIRCam composite image of Jupiter. Photo Credit: NASA, ESA, CSA, Jupiter ERS Team; image processing by Judy Schmidt.

Jupiter is the largest planet in our solar system and named after the Roman god of the heavens. The new image of Jupiter from the James Webb Telescope is certainly heavenly. Showing aurora borealis at both poles, the image was processed by Judy Schmidt, a citizen scientist from Modesto, California.

According to NASA, the image of Jupiter is “created from a composite of several images from Webb.” The image of the gas giant does not appear in likeness of color to the traditional image. Multiple filters reveal the new perspective of Jupiter. The auroras shine in a filter that is mapped to redder colors, which also highlights light reflected from lower clouds and upper hazes. A different filter, mapped to yellows and greens, shows hazes swirling around the northern and southern poles. A third filter, mapped to blues, showcases light that is reflected from a deeper main cloud.
Humuʻula Trail
By Miranda Taylor

The Maunakea Rangers deserve recognition for all of their hard work in the staff spotlight this month. Their primary concern is the safety of all who visit Maunakea.

The Rangers give information on safely going to the summit as well as the natural resources of Maunakea. If there is an emergency, they are the first to respond. They help to enforce administrative rules for public safety.

The Ranger checkpoint near the Visitor Information Center has significantly decreased the amount of casualties occurring on the descent since 2021.

With steep grades of 20%, driving with caution is crucial. Rangers take the break temperatures of vehicles coming down from the summit. They monitor the weather for visibility on the access road. The checkpoint allows for the Rangers to ensure all who travel to the summit are safe and abide by the recommendations and restrictions.

Visitors must have a four-wheel drive vehicle or an all-wheel drive vehicle with low gearing with at least half a tank of gas. It is not recommended for children under the age of 13, pregnant women, or those who have been scuba diving within a 24 hour window to go to the summit. There is a recommended acclimation period of 30 minutes at the elevation of the VIS to all who wish to go to the summit. There is forty percent less oxygen at the summit and a high risk of severe altitude sickness for those who do not follow safety recommendations.

The rangers also manage and account for the hikers who hike the Humu'ula trail. They maintain communication with tour operators. They also assist with trash collection along the road and the summit and pull invasive weeds. The ranger staff is comprised primarily of retired policeman, firefighters, emergency responders, and military.

We are thankful for their passion as stewards of the mountain.
Mythology of Maunakea: A Tale of Fire and Ice

Story Adapted from “Pele and Poli‘ahu: Legend as Informational Science” by Keawe Vrendenburg

By Miranda Taylor

Hawai‘i is a land of vast juxtaposition and beauty containing 8 of the 13 biomes of the world.

The mythology of the island passed down through oral tradition is intertwined closely with nature and reflects information about the history of Hawai‘i. Two of the most renowned places, the snowy Maunakea and the fiery Kilauea, are home to two powerful elemental kupua, Poli‘ahu and Pele.

According to legend, Poli‘ahu was holua sledding with her friends on the slopes of Maunakea. Their joy racing down the mountain drew a crowd to admire their snowy sporting. As the crowd grew, a mysterious stranger approached and challenged Poli‘ahu to a race.

Poli‘ahu gladly accepted and the two set off down the slippery slope. The race was a close one, but Poli‘ahu was declared the winner. The stranger became enraged. “You cheated,” she declared. In her anger, she revealed her true identity: Pele. She stomped her feet and caused an earthquake.

Maunakea began to erupt. Pele vowed to destroy Poli‘ahu and her mountain as she began to hurl lava at her sister.

Poli‘ahu ran back up the slopes of Maunakea and called forth snow creating a blanket of white.

Poli‘ahu called for Lilinoe to help her defeat Pele. The snow and mist combined to form thick ice that could not be melted by the lava.

Pele attempted to overpower the icy mantle with more lava, but was dismayed. Her lava was instantly cooled into hard stone. Realizing her defeat and inability to melt the ice, she fled to Kilauea where she now resides today.

This legend closely correlates the geological history of the adze quarry formation. During the Ice Age, Maunakea was covered in glaciers. When it erupted, the lava was quickly cooled by the ice forming a dense thick ice-quenched olivine basalt known as Hawaiite. This type of rock is what was mined and used by the ancient Hawai‘ians for tools and weaponry. Kilauea is a younger volcano than Maunakea.

This story correlates directly with modern science. The same event being told through different lenses to describe a beautiful and significant geological event.