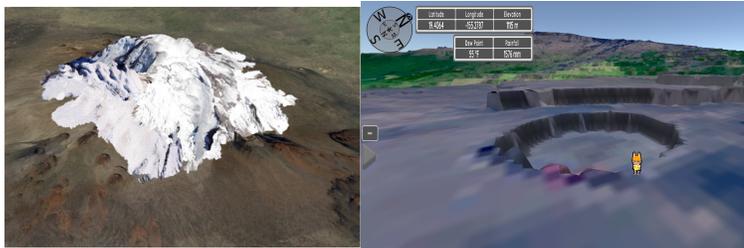


# Hawaii Geovisualization Overview

**BEFORE YOU GO FURTHER - there is an overview presentation that may be worth your time.**

The presentation to your right explains the sequencing of prerequisites in Canvas that helps you reach an A+ efficiently, while also meeting the lab science requirements of the Arizona Board of Regents

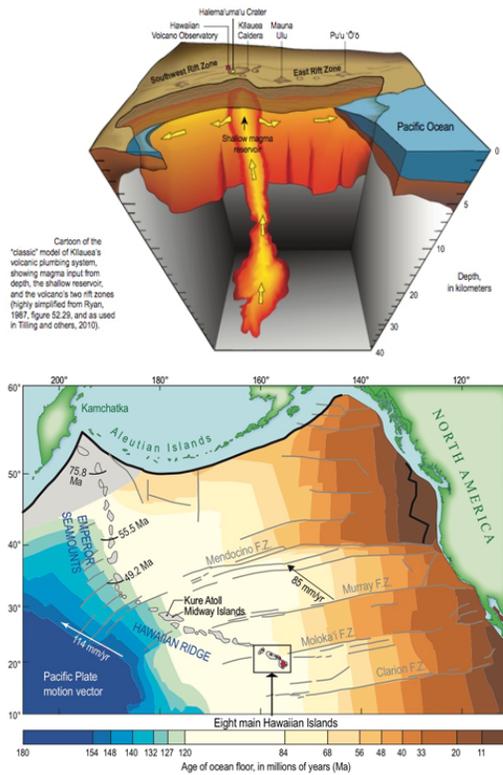
GPH 112 Understanding Prerequisite...



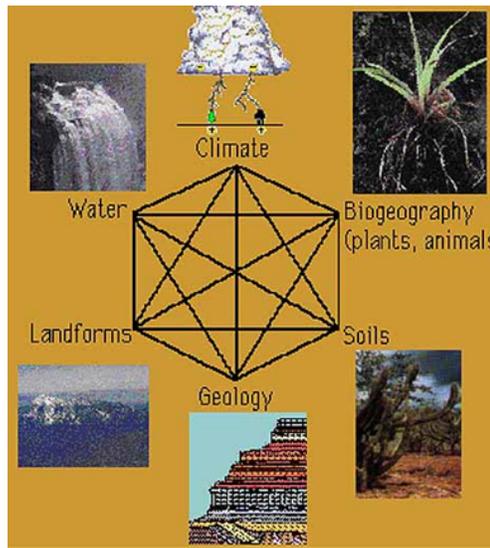
Upper left: Artistic portrayal of the Makenaka-age glacier on Hawai'i as it advanced towards its maximum extent about 20,000 years ago— all on top of the Mauna Kea volcano. Art work by ASU student Alexis Ruiz, using Google Earth imagery. Upper Right: geovisualization image of avatar on edge of the Kilauea crater on the Big Island of Hawai'i. From: [https://gamejolt.com/games/2BC\\_bigIslandofhawaii/469026](https://gamejolt.com/games/2BC_bigIslandofhawaii/469026) .([https://gamejolt.com/games/2BC\\_bigIslandofhawaii/469026](https://gamejolt.com/games/2BC_bigIslandofhawaii/469026)) Lower images: Feral (wild) relief from the erosion of Hawaiian volcanoes

The Big Island of Hawai'i is a special place for physical geographers to study. The Hawaiian Islands are in the middle of the Pacific plate. Whereas most volcanic activity is associated with divergent and

convergent boundaries, the Hawaiian Islands sit on a hot spot in the mantle. The Pacific Plate has been moving over this hot spot for tens of millions of years, producing first the Emperor chain and then the Hawaiian chain of volcanoes.



On the Big Island, there exists such a wide range of climates, all while the geology of basalt lava rock type remains pretty constant. For example, warm desert conditions exist on the western sides of the Hualalai, Mauna Kea, and Kohala shield volcanoes, and cold desert conditions on top of Mauna Kea and Mauna Loa volcanoes. Physical geographers have studied everything from rainshadows to the effect of the Trade Wind Inversion on treelines, as well as the impact of weather and climate on landforms. Really, Hawai'i allows physical geographers to let all aspects of physical geography come together.



The designers of this laboratory hope that you will be able to explore the physical geography of the Big Island in person in the near future. However, in the meantime, this lab transports you to a virtual simulation to analyze questions that we hope will enhance your in person exploration. This is the website to obtain the geovisualization with guidance on downloading and playing in the tutorial quiz:

[https://gamejolt.com/games/2BC\\_bigIslandofhawaii/469026](https://gamejolt.com/games/2BC_bigIslandofhawaii/469026)  
 ([https://gamejolt.com/games/2BC\\_bigIslandofhawaii/469026](https://gamejolt.com/games/2BC_bigIslandofhawaii/469026))

**SUMMARY OF BIG ISLAND LAB QUIZZES**

You can return to the quizzes (resume) after you start - to enable you to take screenshots and ask questions using those screenshots. The exception to resuming is the tutorial quiz; you have to finish that in one sitting (but you get 7 attempts).

The video on the right is a brief overview of the structure of all of these activities.

### GPH 112: Brief overview of th...



These are the quizzes in the Hawai'i overview modules that must be taken for you to access the main labs

- Hawai'i Tutorial - you must complete the tutorial quiz with 100% accuracy to gain access to the rest of the quizzes. We assume that you have never before downloaded and played a video game before, and we want you to get comfortable interacting with the physical geography data in the game.
- Basic Background on Big Island Physical Geography: Lecture & Quiz

These are the main labs you will see in the Hawai'i geovisualization lab module:

 **Hawai'i Physical Geography: Helicopter Data Tour**  
10 pts | Submit

 **Hawai'i Physical Geography GeoFinder**  
2 pts

 **Hawai'i Physical Geography: Geomorphology - Volcanic Landforms**  
4 pts

 **Hawai'i Physical Geography: Geomorphology - Waterfalls and Feral Relief**  
11 pts | Submit

 **Hawai'i Physical Geography: Classic Kohala - Orographic Effect and Rainshadow**  
9 pts

 **Hawai'i Physical Geography: Precipitation Patterns**  
4 pts | Submit

 **Hawai'i Physical Geography: Biogeography - Treelines and Plant Succession**  
8 pts | Submit

**ADDITIONAL HAWAII LABS:** After you finish the modules with the primary labs based on the four geovisualizations, we have additional labs you can try. These additional labs exist for many reasons: so you can earn more points if you need them to reach your grade goal; and also to continue learning.