

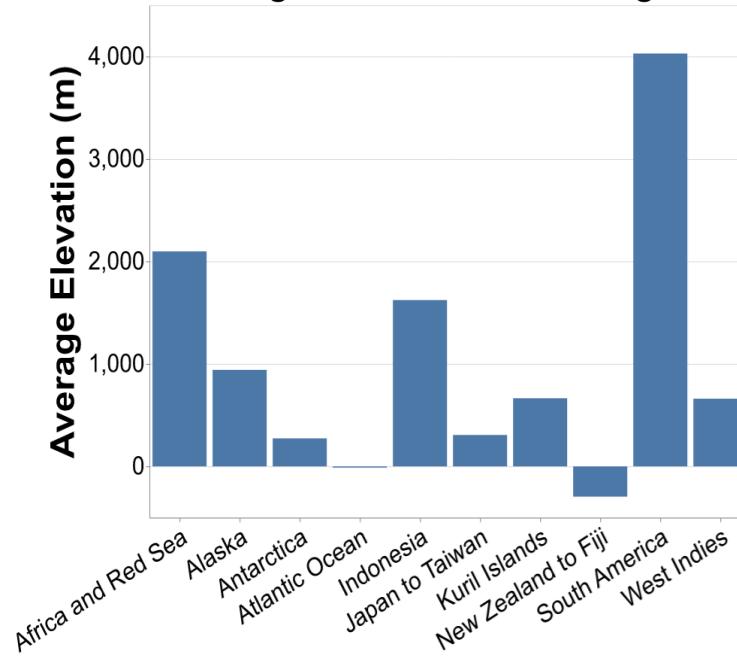
How Do Rock and Volcanic Types Influence Elevation Differences Across Regions?

INTRODUCTION

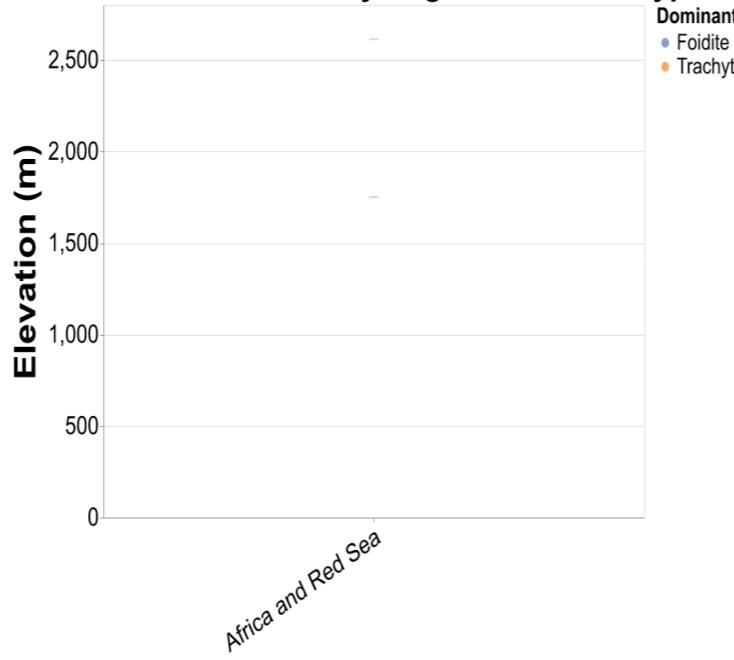
This poster explores how elevation varies across regions and rock types. It examines elevation differences linked to dominant rock types and volcanic variations. The analysis highlights how volcanic type and rock influence regional elevation patterns. These insights help understand geological factors shaping Earth's surface elevations.

01 South America and Africa/Red Sea have highest elevations with notable intra-regional elevation variations linked to rock and volcanic types.

Average Elevation Across Regions

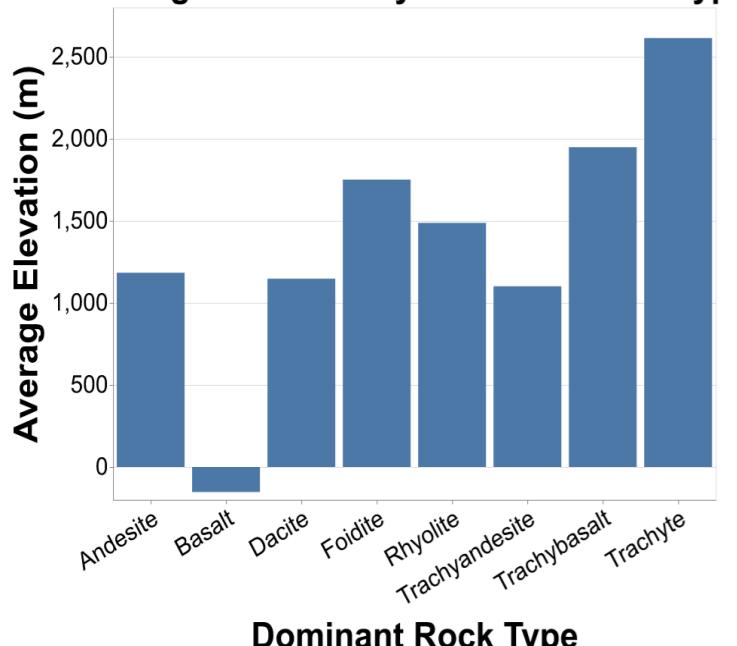


Elevation Distribution by Region and Rock Types

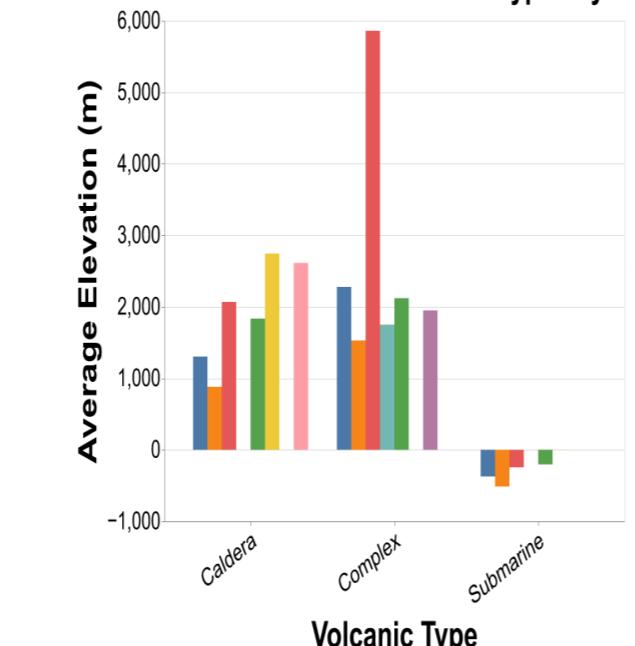


02 Trachyte and Dacite dominate elevations with large differences influenced by volcanic type and some rock types exhibiting below sea level elevations.

Average Elevation by Dominant Rock Type



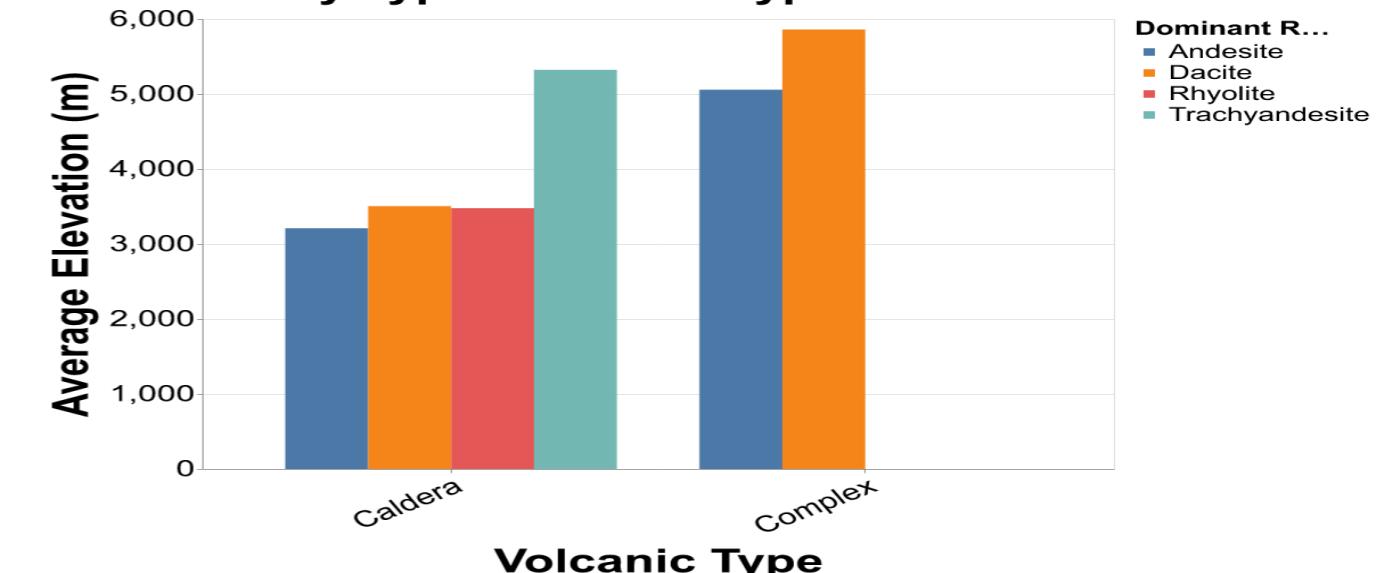
Elevation Differences in Dominant Rock Types by Volcanic Type



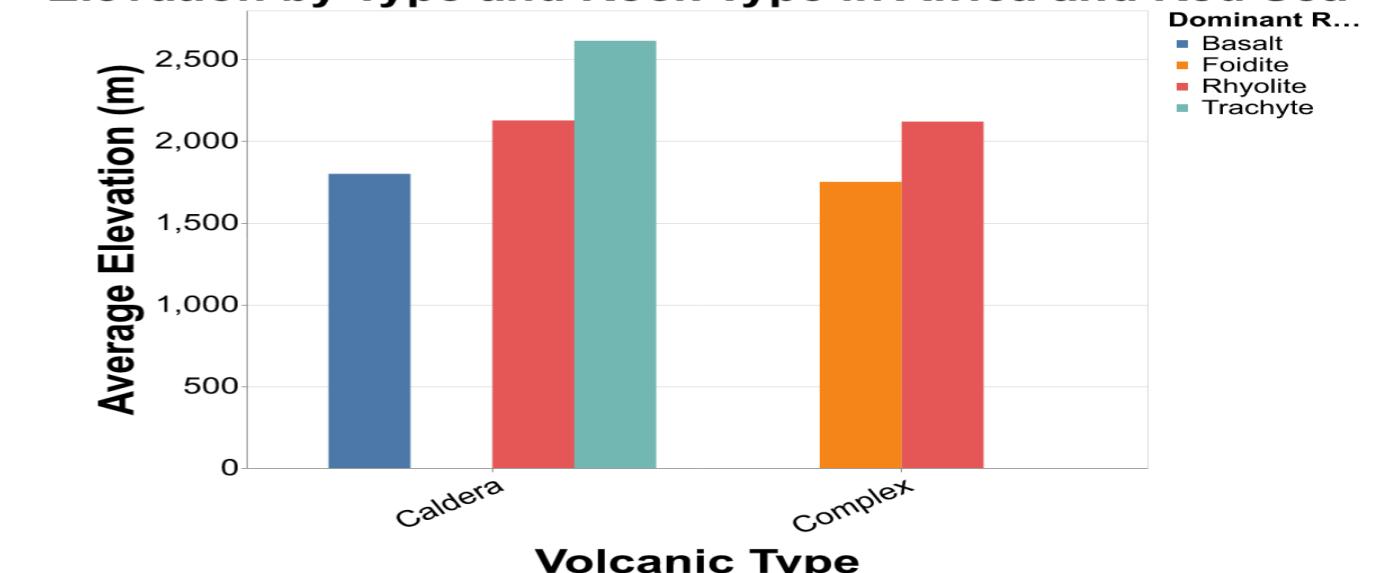
Caldera and Complex volcanoes show consistently high elevations, with Dacite, Andesite, and Trachyte rock types driving regional elevation differences.

03

Elevation by Type and Rock Type in South America



Elevation by Type and Rock Type in Africa and Red Sea



CONCLUSION

South America's average elevation exceeds 4,000 meters, driven by the Andes Mountains. Africa and Red Sea show notable elevation variation linked to rock and volcanic types. These disparities highlight how tectonics and geology shape regional elevation patterns distinctly. Trachyte and Trachybasalt dominate high elevations, while Basalt occurs at lower or negative elevations. Dacite's extreme elevation in Complex volcanoes suggests magma composition influences volcanic height. This underscores rock type's critical role in shaping elevation variability across volcanic landscapes. In South America, Complex volcanoes with Dacite reach near 6,000 meters, surpassing Calderas. Africa and Red Sea show Trachyte-Calderas with higher elevations than Complex types, indicating regional volcanic and rock influences. These patterns reveal how volcanic structure and rock type jointly control elevation differences by region.