

Mineral Spotlight: Beryl var. Emerald

This week's mineral spotlight is a popular green variety of beryl ($\text{Be}_3\text{Al}_2\text{Si}_6\text{O}_{18}$). Its bright color comes from trace amounts of chromium and occasionally vanadium. Emerald accounts for approximately a third of the economic activity from colored gemstones in the United States - more than any other colored gemstone.

Emerald was independently discovered and gained popularity in ancient civilizations in Asia, Africa, and South America. One of the earliest major mining operations began around 1300 BC in Egypt, which produced many of the emeralds used in historical jewelry.

Another historic emerald mining operation occurred after the Spanish conquest of South America. Extensive emerald deposits were discovered in Colombia around the year 1500 AD. The indigenous Muzo people likely mined the land over the previous millennia, but were pushed out after a decades-long fight with the Spanish. The deposits became globally commercialized by the Spanish in the mid-1500s, with the conquered native people working as forced laborers in the mines. Colombian emeralds flooded European markets, kickstarting a global emerald trade. Mining continued after Colombia gained independence from the Spanish, and some mines are still active in the region, providing the Dice Museum with two Colombian emerald specimens.



This feature was posted on Dice Museum social media by Museum intern Josian Aardema on 5/30/2023.