

GEOLOGIC TIMEWALK - CENOZOIC

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OK. So we've reached one of the final stops on our geologic time walk. Roughly 50 million years ago, the Indian Plate collided with the Eurasian Plate, producing some of the biggest mountains we see today-- the Himalayas. Mount Everest stands at a little over 29,000 feet tall.

There's been mountains in history in the past that may have been taller, but over hundreds of millions of years, these mounds erode due to rain and the difference in temperature between seasons. So we don't see those mountains as high, such as the Appalachian Mountains.

Roughly 45 million years ago, we see modern mammals really start to invade land-- not just inhabiting holes in the ground, such as these little tiny mammals that we saw during the age of the dinosaurs, but we see horses, rhinos, camels, dogs, cats, and even apes.

So in Africa, they believe this environment was really a big rain forest at one time. But due to climate change, we start seeing a lot a savanna-type environments. This causes the apes to come out of the trees and begin to walk. That's super important in the history of our human history.

So we're going to go to our final stop along the walk and really focus on the evolution of humans and some of the other glacial-interglacial events during our recent times.

OK, so we've reached the final stop along our geologic time walk. This is roughly 12 million years ago when sea level was relatively high. Florida, having very low relief, is actually covered in a shallow sea. And we see a lot of upwelling of nutrients. Megalodon prowls these waters for marine mammals and other fish and perhaps other sharks as well.

Now, as we fast-forward through time to roughly four million years ago, we see a little bit of climate change in Africa. And the rain forest or heavily forested area that we see in Africa becomes more of a savanna-type environment.

But eventually, they believe that due to glacial events, a high abundance of water has locked up in glaciers and sea levels go down a little bit. And Homosapiens are believed to migrate out of Africa and into India and Asia and Europe for the first time.

Further cooling of the planet causes sea level to drop a little bit more, and we believe roughly 40,000 years ago, there was a very narrow gap between Siberia and Alaska that actually allowed the first Homosapiens to migrate into North America and eventually South America. This is the first migration of humans into the Americas.

It's extremely significant. We would later rediscover ourselves as Europeans sail across the ocean to find the Native Americans.

So you can tell that-- we began roughly 550 million years ago in the Paleozoic all the way over by the old Dali museum. And we've walked through mass extinction events, changes in the Earth's atmosphere, reorganization of the continental plates, and we've made it to almost our present time. And actually, in the last few inches of the last step along this walk is actually an entire recorded human history-- the great pyramids, the Industrial Revolution. Everything is in that couple inches.

So that brings us from the past into the present. I hope you enjoyed this geologic time walk throughout the Paleozoic, Mesozoic and Cenozoic. I hope you learned a lot about the earth's past and you enjoy the present.