

Intro:

History meets prehistory.

The most intriguing part of Stratford Hall, which you will find upon visit, is its rare and complex vision of the deep layers of time on this Earth. Stratford holds the ability to transport visitors through multiple historic moments, including history that took place before the concept of time even existed. Travel into the Great House and the 18th and 19th centuries come alive. Visitors envision the reality of a plantation life in the juxtaposition of America's declaration of freedom and the height of the Atlantic Slave Trade. Further time onsite will lead visitors to the Cliffs Plantation site, which holds clues to the life of early settlers, when immigrants were colonizing land among Native Americans and facing the hardships of 17th century everyday life. Lastly, as visitors experience the view of the cliffs, they are transported to prehistoric times when humans had not yet made their stamp on this Earth. Instead plants and animals beyond the imagination occupied the country. The layers of time that sit on these acres tell interwoven stories of our earth - it is rare, educational, and transformational. Stratford hall blends the human history of time into the history of our physical Earth, and the magic lies in those discoverable connections and unique perspectives.

Context:

The Cliffs are a geological phenomenon that exist in only three places in the world (Los Angeles, Austria, and Belgium), rare because of its visible stratigraphic layers of the Miocene and Pleistocene epoch. The Miocene (23.3 - 5.3 million years ago) was an increasingly warm period in Earth's history, and it was soon followed by cold temperatures and glaciation in the subsequent Pleistocene (2.6 million - 11,700 years ago). The layers of rocks you see in the Cliffs were created by rotating periods of very high and low sea levels, which were a product of cooling and warming in the Earth's climate over time. When the climate was warm, glaciers would melt and the sea level would rise. As it cooled again, ocean water would freeze back into glaciers and the sea level would drop, leaving behind the sediments that are now shown in the Cliffs. These layers help geologists and paleontologists configure the stories and events of Earth's history by acting as clues into past depositional environments and habitats.

The Cliffs are split into four different layers, named for the ocean formation that deposited them. At the water's edge is the Calvert Formation, the oldest formation dating to about 16 million years old. Above the Calvert Formation is the Choptank Formation, and above that is St. Mary's Formation. All three of these layers belong to the Miocene Epoch which ended about 5 million years ago. The youngest and top lying layer is Bacon's Castle Formation which enters into the Pleistocene Epoch, dating around 1.6 million years ago.

Marine deposits encourage fossil preservation because the water rapidly buries the bones or footprints of the animals underneath the sediments, protecting it from the harsh deterioration of weather. Due to their prior marine environment, the Cliffs preserved an abundance of fossils,

each layer revealing different intervals of animal and plant inhabitants. Paleontologists discovered that the oceans that formerly covered the cliffs, which stretched all the way into where I-95 lies now, contained animals like baleen whales, large porpoises, and massive sharks, like the megalodon. Subsequent layers reveal that after the ocean receded during a period of cooling, North American megafauna like the mastodon, giant ground sloth, short-faced bear, and many ancestors of modern day animals roamed Stratford Hall.