

500 Million Years at the Beach

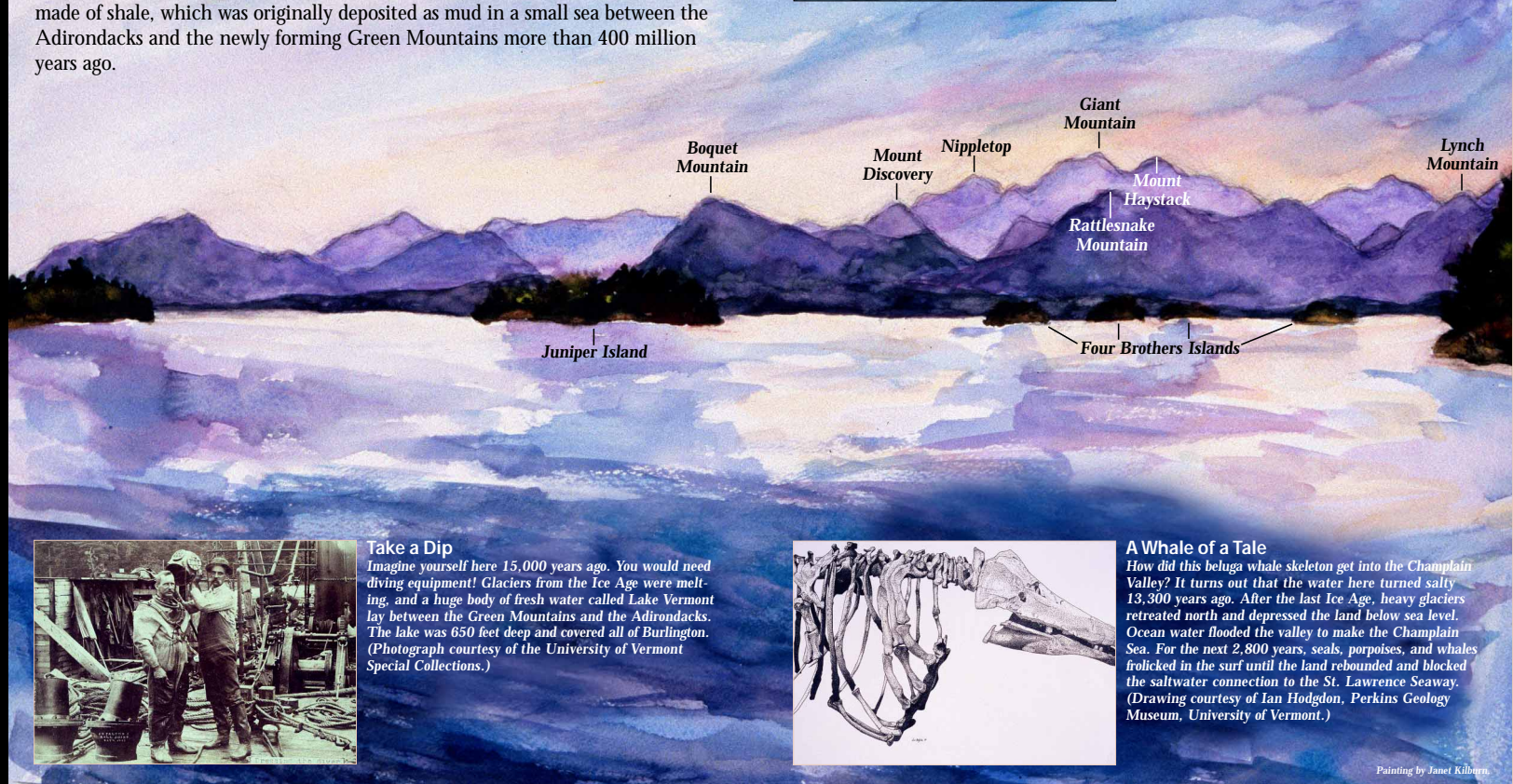


See the Adirondack Mountains across the lake? Try to find the peaks shown in this watercolor. These ancient mountains—made up of rocks over 1 billion years old—grew to their present height 120 million years ago. Today, occasional earthquakes remind us that the Adirondack Mountains are still active!

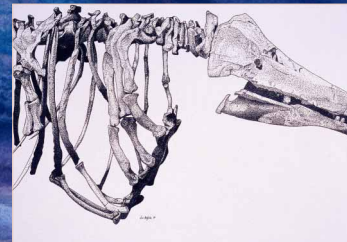
You can also locate several islands in Lake Champlain. Rock Dunder, located between Shelburne Point and Juniper Island, is sacred to Native Americans. According to Abenaki legend, the deity Ojiohozo turned himself into that rock after he created the lake, so he could admire his creation forever. The islands are made of shale, which was originally deposited as mud in a small sea between the Adirondacks and the newly forming Green Mountains more than 400 million years ago.



The World Turned Upside Down
500 million years ago, North Beach was located along the western edge of an ancient ocean. Over 400 million years ago—even before tectonic plates came together to form the supercontinent Pangaea and the once-lofty Green Mountains—deep layers of bedrock were thrust over the younger shales that make up Lake Champlain's islands. The world-famous Champlain Thrust Fault is exposed along the beach at Lone Rock Point to the north. On the other side of the point, the light-colored, OLDER dolostone sits on top of the dark-colored, YOUNGER shale below it. (Photograph courtesy of Jack Drake, University of Vermont Geology Department.)



Take a Dip
Imagine yourself here 15,000 years ago. You would need diving equipment! Glaciers from the Ice Age were melting, and a huge body of fresh water called Lake Vermont lay between the Green Mountains and the Adirondacks. The lake was 650 feet deep and covered all of Burlington. (Photograph courtesy of the University of Vermont Special Collections.)



A Whale of a Tale
How did this beluga whale skeleton get into the Champlain Valley? It turns out that the water here turned salty 13,300 years ago. After the last Ice Age, heavy glaciers retreated north and depressed the land below sea level. Ocean water flooded the valley to make the Champlain Sea. For the next 2,800 years, seals, porpoises, and whales frolicked in the surf until the land rebounded and blocked the saltwater connection to the St. Lawrence Seaway. (Drawing courtesy of Ian Hodgdon, Perkins Geology Museum, University of Vermont.)

Painting by Janet Kilburn.