

Madison. Still others streamed from Keweenaw Point and Duluth into central Wisconsin and Minnesota. Wherever these local ice-streams terminated, they left moraines to mark the extent of their advance. This was the "second glacial period." The entire continent north of an irregular line passing through New York, Fort Wayne, Madison, Minneapolis, and Yankton, lay, like the soil of Greenland in our time, buried beneath a bed of ice and snow some thousands of feet thick. The summits of the Adirondacks, the Catskills, and the White Mountains barely emerged above the desolate, featureless waste. What went on—how the subglacial inequalities of surface strained the semi-rigid ice-stream into conformity; how the deep ice-mass snapped with loud detonations, into yawning crevasses; how the summer sun gave origin to superglacial streams which sooner or later lost themselves in the fissures, and joined the roaring streams beneath the ice, which escaped at intervals along the southern border; how they were augmented by the enormous thawing of the under surface of the glacier; how these streams assorted and transported the subglacial *débris*—all these things are of too great interest to fail of mention, but of too great importance to admit of adequate discussion.

During this reign of ice, the snows fell which overtook the long-haired elephant of Siberia and Alaska (Talk XXVII), and buried them in herds. They had been browsing for many generations on that northern slope. I know not to how severe a climate their natures fitted them; but clearly it had not been a climate which brought perpetual snow. Now they experienced a new chill in the atmosphere. Now the snows descended and they crowded themselves together in ravines for warmth and mutual protection. Their instincts taught them this mode of self-preservation. They had often outlived a snow-burial during winters preceding. But their last burial finally arrived. Now no thaw succeeded the overwhelming storm. No spring-time returned to release them from their chilly retreat. Spring only turned the snowy blanket to ice. Other winters buried the mammoth beneath added beds of ice.