

posits were partially washed away. The moraine of the first glacial epoch, farther south, was now subjected to the action of a second flood. It suffered greater erosion than the second moraine, and hence remains to us a less conspicuous feature than the second.

The ice-sheet had laid down an unstratified bed of "till"—a compact mass of clay, pebbles, and boulders; the glacial flood transported vast quantities of material, and left them in a state of torrential stratification overspreading the till. There is much reason to believe that the materials thus transported were borne beyond the limits reached by the glacier. In this way, the action of the glacial expedient for renovating the surface of the north was extended to the southern states. There has certainly been a southward transportation of pebbles and sand throughout all the Gulf states. It was an event synchronous with the dissolution of the great glacier. But we must bear in mind that the south had not been visited by an agency which plowed up the disintegrated rocks accumulated during preglacial ages. The flooding of the south exerted only a surface action.

Between the glacier and the floods, the surface of the whole country east of the Great Plains—with the exception of a few small isolated areas—underwent a process of thorough repair. The sharp river gorges were filled—even an ancient gorge of the Niagara River—and a fresh bed of subsoil materials was spread over the land. The larger rivers sought out the drainage valleys which they had occupied before the invasion of glaciers. The fundamental features of the drainage were everywhere determined by the underlying rocky structure. But many of the smaller streams which now sprang into existence, selected for the first time their winding channels among the inequalities of the Drift-covered surface. From that epoch to the present, all the streams have employed themselves in effecting an ever deepening erosion. Of the greater arteries of the continental drainage, the ancient preglacial bounding walls may sometimes still be traced. The high cliffs of the Upper Mississippi show where the great river