

the wind to the height of 40 or 50 feet, and inclose evergreen oaks (*Quercus virens*), the upper branches of which alone protrude above the surface. Between the parallel sand dunes were salt marshes, where we collected the plant-eating shell called *Auricula bidentata*, of a genus peculiar to such littoral situations. On the sea-beach, we gathered no less than twenty-nine species of marine shells, and they were of peculiar interest to me, because they agreed specifically with those which I had obtained from the strata lying immediately below the megatherium and other fossils in Skiddaway Island, and which occur below similar remains presently to be mentioned near Hopeton. In some places we found bivalves only of the genera *Pholas*, *Lutraria*, *Solecurtus*, *Petricola*, *Tellina*, *Donax*, *Venus*, *Cardium*, *Arca*, *Pinna*, and *Mytilus*, just as in the fossil group. On other parts of the beach there was a mixture of univalves, *Oliva*, *Pyrula* (*Fulgur*), *Buccinum*, &c. Besides these shells we found, scattered over the sands, a scutella and cases of the king crab (*Limulus*), and fragments of turtles, with bones of porpoises.

Every geologist who has examined strata consisting of alternations of sandstone and shale, must occasionally have observed angular or rounded pieces of the shale imbedded in the sandstones, a phenomenon which seems at first sight very singular, because we might almost say that the formation is in part made up of its own ruins, and not derived wholly from pre-existing rocks. On the exposed coast of this "frontier island," I saw a complete explanation of the manner in which this structure originates. Deposits of sand and beds of clay are formed alternately at different seasons, and at the time of our visit the sea was making great inroads on an argillaceous mass, washing out pieces of the half-consolidated clay, and strewing them over the sands, some flat, others angular, or rolled into various sized pebbles. These, when carried out into the adjoining parts of the sea, must be often included in the sand, which may be eventually converted into sandstone.

Among the numerous sea birds, I particularly admired one called the sheer-water, with its shrill clear note, and most rapid flight.

On my return to Cannon's Point, I found, in the well-stored