

bear their cargoes of earth and stones as they journey over the ocean. And, as these ice-islands melt away, their rocky cargoes must be scattered far and wide over the bottom of the sea. By this system of transport the ruins of many an Arctic valley are strewn over the fjords and sounds of Greenland.

At the time when the granite boulders of Carrick were transported from their original home among the hills, the land was so deeply buried under snow and ice that a massive ice-sheet crept down to the sea-level from the mountains of Carrick and Galloway, filling up the valleys and overriding the lower hills, even up to a height of more than 1000 feet above the present sea-level. The more precipitous eminences of the uplands rose above the surface of the ice on which they shed their frost-broken boulders of granite. Not improbably at the time of extremest cold the ice-sheet descended to the sea, and may have advanced for some way into its waters, where its margin broke up into fleets of bergs that sailed away seawards, dropping over the submerged land their freight of granite boulders. As happens within the Arctic circle at the present day, the cold may have been so intense as to freeze the waters of the ocean and invest the coast-line of that ancient Scotland with a solid encrusting zone of ice. Such an ice-cake would envelop many a stone lying along the beach, and, when broken up by the storms of summer, would carry its imprisoned boulders away to sea, and finally drop them on the bottom. It is far from improbable that this process was also in play during the long migration of the Carrick boulders. There still exist, in abundance, along some parts of the shores of the Clyde estuary, the remains of the shells which tenanted the sea during this cold era in our country's past history. Many of these shells are still natives of the