

widely separated as are the mountains of Scandinavia, the British Isles, and the Alps, or the times of the advance and retreat of glaciers in those several regions, and the greater or less intensity of cold, must be looked upon as very conjectural.

We may presume with more confidence that when the Alps were highest and the Alpine glaciers most developed, filling all the great lakes of northern Italy, and loading the plains of Piedmont and Lombardy with ice, the waters of the Mediterranean were chilled and of a lower average temperature than now. Such a period of refrigeration is required by the conchologist to account for the prevalence of northern shells in the Sicilian seas about the close of the newer pliocene or commencement of the post-pliocene period. For such shells as *Cyprina islandica*, *Panopæa Norvegica* (= *P. Bivonæ Philippi*), *Leda pygmæa*, Münst, and some others, enumerated among the fossils of the latest tertiary formations of Sicily by Philippi and Edward Forbes, point unequivocally to a former more severe climate. Dr. Hooker also, in his late journey to Syria (in the autumn of 1860), found the moraines of extinct glaciers, on which the whole of the ancient cedars of Lebanon grow, to descend 4,000 feet below the summit of that chain. The temperature of Syria is now so much milder, that there is no longer perpetual snow even on the summit of Lebanon, the height of which was ascertained to be 10,200 feet above the Mediterranean.*

Such monuments of a cold climate in latitudes so far south as Syria and the north of Sicily, between 33° and 38° north, may be confidently referred to an early part of the glacier period, or to times long anterior to those of Man and the extinct mammalia of Abbeville and Amiens.

* Hooker, Natural History Review, No. 5, January 1862, p. 11.