

valley we may or may not find terraces and beaches. If we do, it is not often that they correspond entirely in number and height on the two sides.

The number of terraces on a river varies with its size, the largest rivers having the smallest number. Thus, on the Connecticut river, the number rarely exceeds three or four; but on some of its tributaries, and those not the largest, as the Ashuelot, at Hinsdale, New Hampshire, and Whetstone Brook, in Brattleboro, Vermont, they rise as high as ten.

The height above the streams which the river terraces attain generally varies directly with the size of the river. The following are some of the highest terraces that have been measured: on Connecticut river, at Vernon, Vt., 237 feet above the river, and 450 feet above the ocean; at White River Junction, Vt., 209 feet above the river, and 529 feet above the ocean; on Black River, at Proctorsville, Vt., 150 feet above the river, and 1,028 feet above the ocean; on Lamoille River, at Hardwick, Vt., 380 feet above the river, and 1,100 feet above the ocean; on Genessee River, at Mount Morris, N. Y., 348 feet above the river. In Peru, Mass., there is a terrace 1,851 feet above the ocean. The highest of the famous Parallel Roads in Glen Roy, in Scotland, is 1,495 feet above the ocean. Robert Chambers has measured the heights of twenty-five successive terraces in this district. A terrace at Rhinefelden, on the Rhine, is 306 feet above the river. In Switzerland the highest terraces are from 1,300 to 4,350 feet above the ocean, but their great elevation may be due to the existence of former barriers of ice, producing basins, in which the terraces were formed without the aid of the ocean.

Terraces occur in basins. There is a series of them from the mouth to the source of a river. For example, there are twenty basins upon the Connecticut river between its mouth and source; and five basins upon Winooski river, in Vermont. Upon lakes and ponds there is but one basin. These basins may be connected with each other directly, or be separated by rocky barriers. About such gorges and obstructions, terraces are usually either higher, or of greater breadth than in other parts of the basin.

River terraces usually slope toward the mouth of the stream, at the same angle with the descent of the river, or even more.

There are four kinds of river terraces: 1. *The Lateral Terrace*, which is the ordinary terrace, parallel with the course of the valley, and continuing for miles along the banks; 2. *The Delta Terrace*, which includes not only the deltas of large streams emptying into the ocean, as the Mississippi, but the former deltas of tributary streams, now cut through by the lowering of the bed of the stream; 3. *The Gorge Terrace*, which includes the deposits about the ends of gorges, intermediate in character between the first and second kinds; 4. *The Glacis Terrace*, which is a ridge sloping rapidly upon the side facing the stream, but gradually upon the opposite side. They are most common in alluvial meadows. It will be seen that lake terraces and maritime terraces are lateral terraces.