

the narrow channel. This would remove much sediment, which would be redeposited at the lower end of the gorge, where the velocity of the current is diminished by contact with the placid waters of the lower basin. This process in many cases would go on only in times of freshets.

The Glacis terraces may have been formed by the unequal deposition of detritus over the surface. Sometimes they are mere modifications of lateral terraces, or undulations in large meadows.

We see then that by the simple drainage of a country, including its rivers, terraces might be formed along the shores of the ocean, lakes and the banks of rivers, supposing only a general slow and perfectly uniform rise of the land or depression of the ocean. Almost all writers, however, suppose these vertical movements to have been by starts, with intervening pauses. At an earlier date, the prevailing theory was, that the terraces were produced by the bursting away of the barriers of lakes, and the sudden sinking of the waters. These are quite natural suppositions to explain the stair-like aspect of terraces. But in respect to river terraces, we have the following decided proof that no such paroxysmal rising or sinking has produced them. 1. By such theories the terraces ought to correspond in number and height on opposite sides of the river, which is very rarely the case, although to the eye it may frequently seem so. Neither do they correspond in number or height in different parts of large lakes. 2. Where tributary streams have cut through the lateral terraces of the principal river, as they have often done near their mouths, the number and height of the terraces on both streams ought to agree. But the reverse is true. Thus, on Connecticut river the number of terraces is usually three or four; but on some of its tributaries, as on the Ashuelot river, at Hinsdale, and Whetstone Brook, in Brattleboro, the number rises as high as ten, and yet the uppermost is no higher than the highest on the main river.

We can, then, explain the formation of terraces without supposing the continent to have risen by a series of paroxysmal movements. They might have been produced by mere drainage, with a slow and equable movement. Yet we would not deny the phenomena of the bursting of barriers, or of sudden elevation at particular localities. For example, the sudden rushing of the waters of Runaway Pond to Lake Memphremagog, by the bursting of the barrier, left behind two lateral terraces. And some have explained the Parallel Roads of Lochaber, in Scotland, by pauses in the rise of the country. Doubtless, also, there are other cases