

taste does not differ from that of good water rendered hot, by culinary fire.

On the 10th they visited all the hot springs. They issue on the east side of the valley, where the huts are, except one spring, which rises on the west bank of the creek, from the sides and foot of a hill. From the small quantity of calcareous matter yet deposited, the western spring does not appear to be of long standing; a natural conduit probably passes under the bed of the creek, and supplies it. There are four principal springs rising immediately on the east bank of the creek, one of which may be rather said to spring out of the gravel bed of the run; a fifth, a smaller one than that above mentioned, as rising on the west side of the creek; and a sixth, of the same magnitude, the most northerly, and rising near the bank of the creek; these are all the sources that merit the name of springs, near the huts; but there is a considerable one below, and all along, at intervals, the warm water oozes out, or drops from the bank into the creek, as appears from the condensed vapor floating along the margin of the creek where the drippings occur.

The hill from which the hot springs issue is of a conical form, terminating at the top with a few loose fragments of rock, covering a flat space twenty-five feet in diameter. Although the figure of the hill is conical, it is not entirely insulated, but connected with the neighboring hills by a very narrow ridge. The primitive rock of this hill, above the base, is principally silicious, some part of it being the hardest flint, others a freestone extremely compact and solid, and of various colors. The base of the hill, and for a considerable extent, is composed of a blackish blue schistus, which divides into perpendicular lamina like blue slate. The water of the hot springs is, therefore, delivered from the silicious rock, generally invisible at the surface, from the mass of calcareous matter with which it is encrusted, or rather buried, and which is perpetually precipitating from the water of the springs; a small proportion of iron, in the form of red calx, is also deposited, the color of which is frequently distinguishable in the lime.

In ascending the hill, several patches of rich black earth are found, which appeared to be formed by the decomposition of the calcareous matter; in other situations the superficial earth is penetrated, or encrusted, by limestone, with fine lamina, or minute fragments of iron ore.

The water of the hot springs must formerly have issued at a greater elevation in the hill, and run over the surface, having formed a mass of calcareous rock one hundred feet perpendicular by its deposition. In this high situation they found a spring whose temperature was 140 of Fahrenheit's thermometer. After passing the calcareous region, they found the primitive hill covered by a forest of not very large trees, consisting chiefly of oak, pine, cedar, holly, hawthorn, and others common to the climate, with a great variety of vines, some said to produce black and yellow grapes, both excellent in their kinds. The soil is rocky, interspersed with gravel, sand, and fine vegetable