

in sight of the Prairie Butes, a regular collection of hills, rising out of the level plain like islands from the water. These are very deceptive in height, and may be seen from a great distance. The party encamped on a small creek, called by the trappers the Little Fork of the Butes. The hunters said that the party employed by the Hudson Bay Company last year caught more than one hundred beavers during their sojourn in this neighbourhood with their cattle.

On the 16th, they passed towards the Butes, and encamped, after an ineffectual search for water, at a place that had been occupied for the same purpose by Michel, in the valley or "Kraal" of the Butes. Here they found two deep holes of stagnant water, the remains of a rivulet that was now dried up. The ground around and near the Butes is covered with a great quantity of the bones of animals that resort hither for safety during the season of the freshets which flood the whole of this extensive plain. The soil is quite loose and crusted over with the deposit left by the water, through which the horses broke to the depth of four or five inches; nearer the Butes, the soil is harder and strewn with fragments of volcanic rocks. There is little doubt that each of the Butes was once a volcano. They are grouped within an oval space, which has a circumference of about thirty miles: the longest diameter of the oval figure lies in a northeast and southwest direction. The valley passes through the southern part, and opens out on the eastern: it is about seven miles in length; and here the party found water. This valley may be considered almost as a prolongation of the exterior plain, though parts of it are somewhat higher, as appeared by its not having been overflowed. The highest of the Butes was made, by a triangulation executed by Lieutenant Emmons and Mr. Eld, seventeen hundred and ninety-four feet. They have the appearance of having once been much higher and more extended than they now are. The volcanic rock, according to Mr. Dana, is a trachytic porphyry, of a purplish colour, which contains hornblend and six-sided tables of mica, with glassy feldspar, in crystals from a quarter to half an inch in size, disseminated through it; some of the rocks have a porcelain aspect, but this variety only constitutes a few of the peaks. The rock is found either in horizontal or vertical layers or curved in all directions, and is thickly sprinkled with mica. The Butes were ascertained to be in the latitude of $39^{\circ} 08' N.$; yet it has been generally believed that these were on the dividing line between Oregon and California.

On the 17th, they proceeded, and in about fifteen miles they found themselves on the banks of the Feather river. There is a difficulty in fording this stream, on account of the quicksands; and the first time