

literally at every step, mixed with morsels of pottery, and here and there a little clay idol.\*

From the centre of the State of Ohio to the country of the Shoshonees, as well as to the Rio Gila, and the just-described mines in Mexico, the straight distances are almost equal, measuring about seventeen hundred English miles; indeed, the Mexican mines are a trifle nearer to Ohio than the above-mentioned districts. It would be lost labor, therefore, to indulge in speculations from which of these localities the obsidian found in Ohio and Tennessee was derived. The number of articles of this stone that has been met east of the Mississippi is so exceedingly small that its technical significance hardly deserves any consideration. Yet, the sole fact of finding worked obsidian at such great distances from the nearest places where it occurs either in

\* *Anahuac*, p. 99. The following interesting communication was addressed to me by Dr. C. H. Berendt:

"During one of many excursions which I made in the years 1853-'56 around the Citlaltepētli, or Pico de Orizaba (in the State of Vera Cruz), I saw an obsidian mine on the western slope of that mountain. I had heard of it from my friend the late Mr. C. Sartorius, who had visited the place years ago. I was informed that the Indians of the village of Alpatlahua knew the place, but that they did not like to have it visited. Some say they have treasures hidden in the caves of the neighborhood; while others believe that they have idols in those lonely places which they still secretly worship. The cura of San Juan Coscomatepec, who was of this latter opinion, gave me the name of a mestizo farmer in the neighborhood who might be induced to show me the place. Our party followed from Coscomatepec the road which leads to the rancho Jacal and the pass of La Cuchilla. We did not find the mestizo at home, but his wife, who directed her boy to show us the cave. Reaching the bridge of the Jamapa river, we took a by-road parting to the north, which brought us to the village of Alpatlahua, and about four miles farther north to a branch of the Jamapa river, which we crossed. We then left the road and proceeded about half a mile up the river through thick woods, when we found ourselves suddenly before the entrance of the cave. It was about fifty feet high and of considerable width, but obstructed by fallen rocks and shrubs. Heaps of obsidian chips of more than a man's height filled the bottom of the grotto, which had apparently no considerable horizontal depth. To the left the mine was seen, an excavation of from six to eight square yards, the bottom filled up with rubbish and chips. Obsidian, evidently, had not only been quarried, but also been made into implements at this spot, the latter fact being proved by the occurrence of cores, or nuclei, of all sizes, from which flakes or knives had been detached. We were not prepared for digging, and it was too late for undertaking explorations that day. So we left, with the purpose to return better prepared at another time, hoping to find some relics of the miners and workmen, and, perhaps, other antiquities. But it happened that I never had an opportunity to visit the place again. Mr. Sartorius saw in this cave three entrances walled up with stone and mortar, but these I did not discover, having, as stated, no time for a careful examination. Future travelers, I hope, will be more successful.

"Mr. Sartorius mentioned another place, likewise in the State of Vera Cruz, where obsidian formerly was quarried. This place is situated in the chain of mountains extending from the Pico de Orizaba to the Cofre de Perote. One of the intervening mountains, called Xalistac, is distinguished by a white spot that can be seen at the distance of many miles, even at Vera Cruz. It is produced by an outcropping of pumice-stone resting on an immense mass of obsidian that has been worked in various places. I know the mountain well, but not the road leading to it, never having traveled in that direction."