Yet, admitting all this, when we consider how scarce these relics are and realize the position of the quarries, sometimes on high slopes and frequently in exposed positions and removed from the spring, that desideratum of the Indian village, we see plainly that they were rather mining camps than village sites.

**Resemblances of the Quarry Turtleback**

But the study of these quarries brings us beyond the bounds of Indian archeology and the interest that clings to their flaked stones lies not in what these are, but what they can tell us about the flaked stones of other ages and peoples.

The chief thing to be noticed about them is, and recent discussion has impressed the fact, that they resemble the so-called implements of alleged older peoples in the Age of Stone.

They look like Trenton specimens, like certain European neolithic quarry specimens (Spiennes and Cissbury), like certain among the Somme, Thames, Marne and Onse valley specimens, and when we have realized this we see that the important thing about quarries all over the world is not the "turtlebacks," for they seem common to many and characteristic of none, but the resultant blade for which the "turtlebacks" were made.

Fortunately we can find—if we look hard enough—arrow-heads (Flint Ridge, Saucon Creek, and Macungie); pitted hammerstones (Gaddis' Run), pointed wooden billets (Macungie), polished celts (Macungie and Grimes' Graves), pottery (Spiennes), and fossil bones (Abbeville), at such places to tell whether they are the workshops of North American Indians, of the Neolithic celt-makers of Belgium, or of the Drift Men of France and England, but outside of these culture and age tests we find a site marking difference of result aimed at in the different workshops named.

At Spiennes the "turtleback" turned to a celt; at Abbeville, if it turned to anything, to a *coup de poing*; at the North American quarries to a cache-blade spear or arrow-head, while if we could see the Mount Hope greenstone quarry or the Gippsland River-bed workshops in Australia (R. Brough Smith's "Aborigines of Victoria," p. 378), we should no doubt see it again fading into the so-called "tomahawk."

While, then, in three epoch-denoting classes of workshops—European drift, European neolithic, and North American Indian—we have the "turtleback," we must allow that the fact that a thing is a "turtleback" is neither for or against its antiquity. Bereft of its fellow-specimens from the quarry or workshop, wanting therefore a clue as to the intent of its maker, without geological horizon or associated relic, it must remain dateless and unlabeled.

Returning to the Lehigh Hills' quarries, a study of their topography makes us believe that the Indian dwelt some time in the valley of the Delaware before he discovered and worked them, and meanwhile as an inhabitant of the larger streams, chipped blade material in the form of beach-exposed pebbles. The recent discovery of argillite quarries at Gaddis Run, on the Delaware, in May 1893 (after the preceding pages were written, i.e., in November, 1892), and the study of the neighboring river shores seemed to divide the large group of argillite "turtlebacks" there found into two classes—those of the quarry and those of the riverside, distinguishing between quarry chipping places, where "turtlebacks" were made at a late period of Indian occupancy systematically and by skilled workmen from material excavated inland, and riverside chipping places of an older time, where "turtlebacks" were made along the riverside from surface material there at hand.

And these riverside workshops it was which, when we came to push investigation abroad and into earlier geological horizons, seemed analogous to the specimen-bearing sites of the drift.