

Such knowledge, partial as it was, must have been derived from the south. Everywhere to the northward we look in vain for anything more than the mere hammered native copper, untouched by fire. Dr. J. W. Foster does indeed quote Mr. Perkins, who himself possesses sixty copper implements, including knives, spear-heads, chisels, and objects of anomalous form, as having arrived at the conclusion "that, by reason of certain markings, it was evident that the Mound-builders possessed the art of smelting copper,"* but the illustrations produced in proof of it scarcely bear out the opinion. The same idea has been repeatedly advanced; but the contents of the Mounds amply prove that if such a knowledge had dawned on their builders, it was turned to no practical account. Mr. Charles Rau in his "Ancient aboriginal trade in North America," says "although the fire on the hearths or altars now inclosed by the sacrificial Mounds was sometimes sufficiently strong to melt the deposited copper articles, it does [not] seem that this proceeding induced the ancient inhabitants to avail themselves of fire in working copper; they persisted in the tedious practise of hammering. Yet one copper axe, evidently cast, and resembling those taken from the Mounds of Ohio, has been ploughed up near Auburn, in Cayuga in the State of New York. This specimen, which bears no trace of use, may date from the earlier times of European colonization. It certainly would be wrong to place much stress on such an isolated case."† The well known volume of Messrs. Squire and Davis furnishes illustrations of copper and other metallic relics from the Mounds of Ohio.‡ Mr. J. T. Short engraves a variety of similar relics from Wisconsin, where they appear to have been found in unusual abundance.§ In the Annual Report of the Historical Society of Wisconsin for 1878, the copper implements in their collection are stated to number one hundred and ninety implements classified as spear or dirk-heads, knives, chisels, axes, awls, gads, and drills; in addition to beads, tubes, and other personal ornaments made out of thin sheets of hammered copper. Dr. J. W. Foster has furnished illustrations of the various types, from the valuable collection of Mr. Perkins.|| Colonel Charles C. Jones engraves a specimen of the rarely found copper implements of Georgia;¶ and Dr. Abbott shows the prevailing forms of the same class of relics found along the whole northern Atlantic seaboard.** All tell the same tale of rudest manipulation by a people ignorant of the working of metals with the use of fire.

And yet the native copper was ready to hand, in a form, and in quantity unknown elsewhere. No such supplies of the pure metal invited the industry of the first Asiatic or European metallurgists. The Cassiterides yielded in abundance the ores of copper and tin; but these had to be smelted, and worked with all the accumulated results of tentative skill, before they yielded the copper or more useful bronze. By whom, or where this first knowledge was mastered is unknown; the tendency is still to look to Asia, to the first home of the Aryans, or perhaps to Phœnicia, for the birth of this early art. Yet if the

* Prehistoric Races of the United States, p. 259.

† Smithsonian Report, 1872, p. 353. The important word *not* supplied here, it is obvious from the context is absent by a mere typographical error.

‡ Ancient Monuments of the Mississippi Valley, vol. i, pp. 196-207.

§ The North Americans of Antiquity, p. 95.

|| Prehistoric Races of the United States, pp. 251-259.

¶ Antiquities of the Southern Indians, p. 225.

** Primitive Industry, pp. 411-422.