

by no means deficient. They generally reveal a decimal system having original names for the digits to 10. They then repeat these names, with a conjunction thrown between them, till 20, for which there is a separate inflection to the decimal, and this inflection is added to the primary particle for numbers till 100, for which there is a separate denomination. By awaking the latent powers of computation, most of the tribes, and all the instanced ones, it is believed, are found capable of denoting high numbers. Inquiries made of the Choctaws prove that they can compute, by doubling their denominators, or by new inflections, to 1,000,000,000; the Dakotas, to the same; the Cherokees, to 300,000,000; the Chippewas, to 1,000,000,000; the Winnebagoes, the same; the Wyandots, to 3,000,000; the Hitchites, to but 1000; the Pillagers, to 100,000; the Camanches, to but 30, etc.; and even the wild and predatory Yumas have the decimal system.

To ascertain whether the Indian mind and character exhibit a type of race which may be deemed peculiar, it will be necessary to examine their religious and psychological notions and dogmas, their mythology, and their conceptions of a Deity, and, if their traits, opinions, and predispositions be indigenous or American, to inquire in what their original conceptions of art or science, religion or opinion, consist. In the Toltec group, a calendar and system of astronomy and a style of architecture are found which are eminently calculated to arrest attention. More than all, the tribes over the whole continent possess a class of languages which by their principles of grammatical construction, though running through great changes, vindicate claims to philosophical study.

Nothing is more notorious than the former prevalence of sun-worship among the Peruvian and Mexican tribes; where, however, it was mixed with the practice of human sacrifices and the grossest rites. The Aztecs made offerings to the sun upon the highest *teocalli*, and sung hymns to it. Sacred fire was supplied alone by the priesthood, and it was the foundation of their power.

North of the Gulf of Mexico the doctrine prevailed with more of its original Oriental simplicity, and free from the horrid rites which had marked it in the valley of Anahuac and among the spurs of the Andes.

The tribes of the present area of the United States would admit of no temples, but made their sacred fires in the recesses of the forest. They sung hymns to the sun as the symbol of the Great Spirit. Such is their present practice in the forests. They were guilty, it is true, at all periods of their history, of shocking cruelties to prisoners taken in war, but they never offered them as sacrifices to the Deity.

They never use common fire for uncommon purposes. Sacred fire is obtained on ceremonial occasions by percussion; most commonly with the flint.<sup>1</sup> *Opwáguns*, or pipes, with the incense of tobacco, are thus lighted whenever the business in hand is national in character, or relates to their secret societies. This object, so lighted, is first offered by genuflections to the four cardinal points and the zenith.

<sup>1</sup> The Iroquois used an apparatus for giving velocity to a turning upright stick on a basis of wood, called *Dá-ya-yá dá-ga-ne-at-há*.