

solstices and of the equinoxes, and that of the transit of the sun across the zenith of Mexico.

It is hardly possible that a nation so far advanced as the Aztecs in mathematical science, should not have made considerable progress in the mechanical arts. Indeed, a degree of refinement is shewn by intellectual progress of any kind requiring as it does a certain cultivation of both useful and elegant art. Agriculture in Mexico was in the same advanced state as the other arts of social life, their chief productions consisted of beans, Indian corn or maize, banana, the cacao—from which chocolate is derived—the vanilla, used for flavouring their food and drink. The gigantic stalks of the great staple, Indian corn, afforded them a saccharine matter which supplied the natives with sugar, little inferior to that of the cane itself; but the most miraculous production of their soil was the great Mexican aloe, or Maquey tree, whose clustering pyramids of flowers towering above their dark coronals of leaves, were seen sprinkled over many a broad acre of the table-land. Its bruised leaves afforded a paste from which they manufactured paper, its juice was fermented into an intoxicating beverage, called *pulque*, of which they were excessively fond; with its leaves the more humble dwellings were thatched; thread of which coarse stuffs were made, and strong cords were made from its tough and twisted fibres; pins and needles were made of the thorns on the extremity of its leaves; and the root, when properly cooked, was converted into a palatable and nutritious food, it furnished, in short, meat, drink, clothing and writing material for the Aztec.

We could not here enumerate the great varieties of plants—many of great medicinal virtue—which have been introduced into Europe from those regions. Its flowers also are of the most variegated and gaudy colours, and now form the greatest attraction of our Greenhouses. They were well acquainted with the mineral as well as the vegetable treasures of their country. They drew silver, lead and tin, from the mines of Tasco; also copper from the mountains of Zacotollan, taken not only from the crude masses on the surface, but also from veins wrought in the solid rock, into which they opened extensive galleries. Gold was found on the surface and gleaned from the beds of rivers; they cast it into bars, in which state, or in the form of dust, it made part of the regular tribute. Iron existed in the soil, but they knew nothing of its uses. They found a substitute in an alloy of tin and copper; and with tools made of this bronze, could cut not only metals, but it is said, with the aid of silicious dust, the hardest substances, as basalt, porphyry, amethysts and emeralds. They fashioned these last, which were found very large, into many curious and fantastic forms. They cast,

also, vessels of gold and silver, carving them with their metallic chisels in a very delicate manner. Some of the silver vases were so large that a man could not encircle them with his arms. They imitated with great nicety, the figures of animals, and, what was extraordinary, could mix the metals in such a manner that the feathers of a bird, or the scales of a fish, should be alternately of gold and silver.

They used another metal, made of *Iztli*, or obsidian—a dark transparent mineral, exceedingly hard, found in abundance in their hills. This they made into knives, razors and serrated swords. It was said to take a keen edge although soon blunted, and with it they wrought the various stones and alabasters employed in the construction of their public works and principal dwellings. These ancient Mexicans made utensils of earthenware for their ordinary purposes of domestic life. They made cups and vases of a lacquered or painted wood, impervious to wet, and gaudily colored. Their dyes were obtained from both mineral and vegetable substances. Among these was the rich Cochineal, the modern rival of the farfamed Tyrian purple—with this they gave a brilliant colour to the webs which were manufactured of every degree of fineness from the cotton plant—which grew in abundance in the southern parts of the country. They had the art, also, of interweaving, with these the delicate hair of rabbits and other animals, which made a cloth of great warmth as well as beauty, and of a kind altogether original to themselves, on this they often laid a rich embroidery of birds, flowers or some other fanciful device. But the art in which they most delighted was their plummage or feather work, and with this they could produce all the effect of a beautiful mosaic.

The gorgeous plumage of the tropical birds, especially of the parrot tribe, afforded them every variety of color: and the fine down of the humming bird, which revelled in swarms among the honey suckle bowers of Mexico supplied with soft aerial tints, which gave an exquisite finish to the picture. The feathers pasted on a fine cotton web, were wrought into dresses for the wealthy, hangings for apartments, and ornaments for the temples. The profusion in which gold existed in Mexico and Peru, and the estimation in which it was held by these ancients was best seen in the manner in which it was used in liberal decorations of their temples “which one writer says “shone resplendent by reason of the abundance in which it was used” and for the adornment and magnificence of their princes. Of these the Tezucans displayed by far the most magnificence. Their gardens, palaces, fountains and temples exceeded those of every other portion of the country, a detailed account of which is given by Prescott in his reference to the golden age of