

We have no means of determining whether it was in force in pre-Incan days or was a strictly Incan innovation; but that it had been successfully carried on for hundreds of years before the conquest of Peru is certain for only through centuries could so complete a communism have been established and carried into effect. One of its most remarkable features is the fact that the empire was not composed of members of a single race, but was a confederation of hundreds of tribes and of several races of various characteristics and temperaments; and yet one and all submitted to being mere cogs in a gigantic communistic wheel. And, what is more, they appeared contented, prosperous, happy and progressive as such." (Verrill, p. 267.)

"Horatio Hale and Amedee Moure, speaking from long contact with these natives, declare that while 'impartial investigation and comparison will show that some of the aboriginal communities of the American continent are low in the scale of intellect, others are equal in natural capacity, and possibly superior, to the highest of the Indo-European race,' and that 'with reference to his mental powers, the Indian of South America should be classed immediately after the white race, decidedly ahead of the yellow race, and especially beyond the African.'" (J. H. Evans, *Message and Characters of the Book of Mormon*, p. 379.)

4. Industrial Development. The Book of Mormon implies a high industrial development among the ancient peoples of America, and specifically mentions many industrial materials, such as copper, iron, cement, precious stones, etc. Recent research has demonstrated that the prehistoric peoples of America had domesticated many animals, such as sheep, oxen, horses, bees, perhaps also llamas and other beasts. Some doubt has

been cast upon the Book of Mormon account which mentions horses because there is no record of horses having been in America at the time of the early explorers. It is well known, however, that the horse was numerous and wide-spread upon the American continent in recent geological time, and the absence of the mention of the horse in the scant records of the first explorers is not a proof that the horse was not really there. In fact, evidences of the pre-Columbian use in South America of horses for burden bearing seem conclusive.

After referring to various finds in Southwestern United States, Dr. Alfred S. Romer concludes: "There is a very strong evidence that horses, two genera of camels, a mammoth, the sloth **Nothrotherium**, two extinct genera of 'antelopes,' and the giant 'cat' **Felix atrox**, existed in the southwest in comparatively modern post-Pleistocene times. This immediately suggests a comparison with the La Brea fauna, of which these forms are typical members." (In Jenness, *The American Aborigines*, 1933, p. 72.)"

"Recent discoveries have now shown that the mastodon lingered on for many centuries as a contemporary of man in the New World, and there is some evidence that in Ecuador one was slain by man not more than 3,000 years ago, as the polychrome pottery associated with it attests." (J. Eric Thompson, *Mexico Before Cortez*, 1933, p. 290.)

"Cotton growing and the elaborate dresses represented in the statuary and the wall-panels have already been referred to. * * * The dresses must have been made * * * from cotton or the fibre of cactus and aloe, gathered wild. It has been suggested that much of the material of the loom was fibre from the perennial tree-cotton. Messrs. Blom and LeFarge in their 1926 expedition into Central America discovered in the cave

near Comalcalco the only fragments of Old Empire textiles so far recovered. They are of a coarse cotton cloth—apparently cultivated cotton. * * * Spindle whorls of pottery have been recovered from the excavations, and presumably the loom was as simple as the spindle and of the same character as that employed in later times. * * * From this simple frame it is probable that the magnificent tapestry-like ceremonial robes of the Old Empire, were produced, if not in blood, at least in much sweat * * * the problem of weaving the pattern on several strips, to dovetail when sewn, must have required considerable ability and concentration.” (Mitchell, pp. 97-98.)

Agriculture was practiced and the products of the forests were used. “Terracing of the land shows that agriculture was extensively practiced in former times in regions now unoccupied. Two principal forms of prehistoric stone terraces, built evidently for agricultural purposes, may be recognized in the Central American region, in addition to the narrow terraces of earth described in a previous section. There are (1) narrow, high terraces to hold drainage water and prevent erosion in the narrow valleys or on steep slopes of mountains, and (2) broad, low terraces apparently leveled to keep rain water from running off rather than to apply irrigation.

“Many localities which are now occupied by apparently virgin forests are shown by archaeological remains to be regions of reforestation. Thus in the Senahu-Cahabon district of Alta Vera Paz relics of two or three very different types of primitive civilizations indicate that as many ancient populations have occupied successively the same areas which are now being cleared anew by the coffee planters as though for the first time.” (Dr. O. K. Cook in Bulletin No. 145, Bureau of Plant Industry, 1909, p. 16.) (Jensen, p. 110.)

In the building of the cities with their houses, temples and monuments stone was used, and to judge by the excellence of existing remains, the people reached a high degree of skill in stone-cutting and building. Curiously enough, a fine variety of cement was known in those days which was used for covering houses and pyramids and for the making of roads. "In ancient times Chichen Itza and all the great and lesser cities of the Yucatan peninsula were linked by a network of smooth, hard-surfaced highways. The Mayas of today call these old roads *zac-be-ob*, or white ways." (Willard, p. 88.)

Beautiful pottery was made by most of the ancient inhabitants of America. Glass appears also to have been made by them.

Copper is known to have been used in prehistoric America, for large numbers of copper objects have been found. It seems certain also that iron was known and used, but since iron rusts easily few iron objects dating back to prehistoric days have been found in America. This fact has been used to cast doubt upon the Book of Mormon story. Authorities very generally agree, however, that iron must have been at the command of the people of ancient America. "There is no evidence that the use of iron was known except the extreme difficulty of clearing forests and carving stone with implements of stone and soft copper." (Bancroft, 4:779.)

"Iron was unknown to them in the time of the Incas, although some maintain that they had it in the previous ages, to which belong the ruins of Lake Titicaca. Iron ore was and still is very abundant in Peru. It is impossible to conceive how the Peruvians were able to cut and work stone in such a masterly way or to construct their great roads and aqueducts without the use of iron tools. * * * Some of the languages of the country,

and perhaps all, had names for iron. 'It is remarkable,' observes Molina, 'that iron, which has been thought unknown to the ancient Americans, has particular names in some of their tongues.'" (Baldwin, p. 248.)

"Iron seems to have been unknown in America at the time of the Spanish discovery, but the Mound-Builders' graveyards afford proof that they not only knew it but manufactured it into tools and implements." (DeRoo, 1:67.)

"There is a tradition (among the Indians) that Florida had once been inhabited by white people, who had the use of iron tools, (which) and the subterranean wall found in North Carolina go very far to show that they (the white people) had a knowledge of iron ore and consequently knew how to work it, or they could not have had iron tools." (Priest, p. 233.)

Priest tells of the finding of axes and hammers made of iron in the saltpeter caves of the Gasconade country in Missouri and that Dr. Beck "considers the circumstance of finding those tools in the nitre caves as furnishing a degree of evidence that the country of Gasconade river was formerly settled by a race of men who were acquainted with the use of iron, and exceeded the Indians in civilization and a knowledge of the arts." (Priest, p. 236.)

"Meteoric iron has attracted the attention of men at different times and in widely separated regions. In the New World, for instance, it was used not only by the Incas of Peru but also by the Mayas of Yucatan and the Aztecs of Mexico. Amerigo Vespucci found the Indians of the La Plata region of South America making arrowheads and small tools of this metal; the Indians of North America considered it so precious a material that they used it to overlay their beads of gold. Ornaments and tools of meteoric iron have been dis-

covered in the mounds in the Mississippi and Ohio valleys. The Eskimos of Greenland used fragments of such metal inserted in bone handles for knives and spearheads, and even recently Peary found the tribes on Melville Bay using tools of this type." (The Origin and Early Spread of Iron-working, Harold Peake, in the Geographical Review, October, 1933.)

Priest describes the finding in New York, Onondaga county "in the same grave with the bottle * * * an iron hatchet edged with steel. * * * In the same town * * * were found the remains of a blacksmith's forge; at this spot have been ploughed up crucibles, such as mineralogists use in refining metals. Within the range of these works have been found pieces of cast iron, broken from some vessel of considerable thickness. * * * Anvils of iron have been found in Pompey (Onondaga county) in the same quarter of the country with the other discoveries; which we should naturally expect to find, or it might be inquired how could axes and the iron works of wagons be manufactured." (Priest, pp. 252, 253, 255.)

"At a depth of five and one-half feet below the surface at the temple site, among broken pottery and imbedded in charcoal, I found a steel or hardened iron implement. The greater portion is almost completely destroyed by corrosion, but the chisel-shaped end is in good condition. It is so hard that it is scarcely touched by a file and will scratch glass, and with such an implement it would be a simple matter to cut and carve the hardest stone." (Verrill, World's Work, January, 1928, quoted by President A. W. Ivins, 99th Annual Conference, p. 11.)

Precious stones were known to the people of ancient America. Ornaments of jade, pearls, emerald, amethyst, cornelian, turquoise and mother-of-pearl have been found in large quan-

tities among the remains of these people.

5. Warfare. The Book of Mormon recounts a long succession of wars among the various divisions of the people who lived anciently in America. Indeed, the Book declares that warfare at length became so bloody that whole peoples were exterminated. It is interesting to note that modern American archaeology tells practically the same story.

"There appear to have been very hotly contested religious disputes; constant wars broke out between the sectarians following the God Votan and those who worshipped Quetzalcoatl, and the vanquished on either side perished under horrible tortures, or were compelled to fly their country." (Nadaillac, p. 274.)

"An American archaeologist, Professor Walters, has made a scientific investigation of this (in the Choctaw Indian country, when the Kansas City, Pittsburg and Gulf Railway was built through it) burying ground. He found it to cover thirty acres and estimates that it contained 75,000 skeletons of men slain in battle. They were buried in sand, and according to the statements of Professor Walters, as given recently in the New York Sun there were two distinct strata of earth formations above the sand." (Mill. Star, Vol. 60:85.)

"In Piedras Negras and Menche-Yaxchilan especially monuments are to be found of bound and captive warriors—unpleasantly bound and unpleasantly treated. These are northern outposts, and probably mark the occasional raiding and sujagation of un-Mayan enemies. * * * The Archaic civilizations of the Old World were for long peaceful civilizations. Organized warfare rose with the rise of powerful groups of nobility inside the framework of the state who came to represent the central power of Sun King and Sun King's priests. Or it rose through contact of the Archaic