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PROGRESS OF ARCHÆOLOGICAL DISCOVERY IN CENTRAL AMERICA.

Of the fact of there being ruins of ancient cities, hitherto shrouded in mystery, scattered over that large tract of country which separates North from South America most persons are now aware. But their nature, age, or relation to the early history of the world has remained till quite recently a matter of which comparatively nothing has been known.

Determined to explore these ruins and learn the lessons they might teach, a scientific investigator, Dr. Augustus Le Plongeon, accompanied by his wife, set out on a mission of discovery to Yucatan in August, 1873, from which he recently returned. Ten years previous to this he had determined the task of writing an account of prehistoric America, and having dedicated himself to this work, had found, after having explored the ruins of antiquity found in Peru and Bolivia since 1862, that in Yucatan were situated the most valuable materials for such work; and a residence of nine years, constantly engaged in explorations both of a super- and subterranean nature, has made him familiar with many of the Yucatan ruins.

Attention was concentrated upon the cities of Uxmal, Chichenitza, Ake, and Mayapan. There are other cities as large as these, but they are in the possession of the hostile Indians. Still other cities exist which are fraught with interest in an exceptional degree, for they have been inhabited by a race of dwarfs, compared with whom the dwarfs of popular exhibitions are almost giants. The diminutive stature of the inhabitants is shown by the buildings, the doorways of which, Dr. and Mrs. Le Plongeon assured us, are thirty-six inches high by eighteen inches in width.

In Uxmal there are several ruins in a state of excellent preservation. These prove in an incontestable manner that in early ages a high degree of civilization existed. The date of the erection of several of these edifices is believed to be not less than six thousand years ago, although Dr. Le Plongeon is of opinion that there is much that points to an antiquity of ten thousand years.

In one temple, which is richly decorated both with marble and other stone, portions are profusely covered over with inscriptions and writings in the Maya language, in writing of an ancient nature hitherto unknown, but the key to which has been discovered by Dr. and Mrs. Le Plongeon, by dint of much perseverance. With this new alphabet they have been enabled to decipher many of these records of ages of the long ago.

Another guide to the discovery of the antiquity of these erections is the worship of Deity in the form of the mastodon's head. Now, as this animal has been extinct for ten thousand years, it follows that either the builders of these temples or their fathers were familiar with it, for had they not known the mastodon they could not have made an image or a picture of it, and all of the buildings throughout the peninsula are ornamented with the mastodon's head, and some of the sculptures represent human figures in the act of worshipping it.

form a triangular arch; the rooms are generally long and narrow, but very lofty, the walls and floors being cemented with concrete. At Uxmal is a building called Monjas, which consists of a hundred and twenty rooms, all arranged in pairs, each pair communicating with one another by a doorway, but with none of the others, except through the courtyard. There are no interior sculptures, all being on the outside, and in these a certain local style or order has been observed, for while at Uxmal the ornaments are all found above the doorways and facades, at Chichenitza they reach down to the ground. One edifice, known as the Governor's House, is 293 feet in length. They are mostly erected on artificial terraces composed of stones laid on the top of each other, one of these being similar in style to the "hanging gardens" of Babylon.

The great question of popular interest regarding these archæological remains is, What do they teach us? Apart from the history of the family affairs of the contemporary kings, which can now be read with comparative plainness by the explorers, it has been discovered that there is an almost absolute identity between the language, the manners, and customs of these prehistoric Yucatanese and those of Chaldea, Egypt, Hindostan, Persia, Burmah, and Siam, and that an early and cultivated civilization, imagined to be of a higher type than any other, existed in Yucatan. It has also been discovered and established beyond cavil that Freemasonry existed in these prehistoric times with the same Masonic symbols as are now in use, proofs of this being found in the photographs and casts; and that what is now known as mesmerism existed six thousand years ago in very much the same form as it does at present, as shown by the decorations on the frescoed walls. Among the customs common to the Yucatanese, are to be found some also common to the inhabitants of Hindostan, such as the manner of carrying children astride on the hip. The making of an impression of the hand in red pigment on the walls of certain sacred edifices was common in former times both to Yucatan, to Elephanta and other places in India, and even in caves in Australia and others of the South Sea Islands.

The Maya language, still spoken in Yucatan, was also known in many parts of the East. The last words of Jesus of Nazareth, Eloi, Eloi, lama sabachthani, are said to be pure Maya words, and to mean, "Now, now, I sink; darkness comes over my face." From the narrative, it would seem that none of those standing within hearing understood the language made use of, as they imagined he was calling upon Elias to aid him. Enough has here been said to indicate the great interest that attaches to Yucatan.

THE BURSTING OF ARMATURES.

The bursting of the armature of a dynamo, as recently reported in the daily papers, has caused much comment as to the possible danger arising from accidents of this kind, and, as usual, conclusions have been arrived at without any inquiry being made as to the facts of the case.

In some classes of dynamos the armature consists of a shaft upon which are placed many hundreds of disks of iron separated by paper, and around which coils of copper wire are wound longitudinally. Upon revolving this, the centrifugal force tends to throw the copper wire off, but to hold it in place strands of spring brass wire or piano wire are bound at intervals about it. These confining bands have to resist the weight of copper only, the tensile strength of the disks being ample so far as they are concerned.

When the armature is made of cast iron, the tensile strength of the iron will resist the centrifugal force if the casting be without flaw, and the high degree of perfection to which casting is brought at the present time makes this aspect of the question hardly worth considering.

The armature first considered is so incased by massive field magnets, and the fragments would be so light in comparison, that but little danger would menace either life or property in case of rupture.

It is not much use asserting, says the Lancet, that assemblies of sane persons ought not to become victims of panic; but, in truth, unless the nervous system of man could be reconstructed on a new principle, which would necessarily deprive it of some of its most excellent qualities, it is impossible that there will not always be a tendency to impart and receive this impression, which so powerfully affects the body and mind that judgment is for the time suspended, and the limbs either refuse to act impulsively or under the control of the emotional part of the being. Discipline is the only remedy for a tendency to panic.