

224 Artificial Mounds of the Island of Marajó, Brazil. [April,

From the American Naturalist, April, 1879. THE ARTIFICIAL MOUNDS OF THE ISLAND OF MARAJÓ, BRAZIL.¹

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Of all the localities in Brazil where the remains of ancient Indian tribes have been found, the Island of Marajó is the most interesting to the archæologist. Whether the race at this point was a superior one, or whether the conditions under which they lived were more favorable, it is certain that the ancient inhabitants of Marajó, or at least a portion of them, made greater advancement toward civilization than any other of the aboriginal tribes, having excelled in the arts those of every other part of Brazil, so far as we know to-day. In addition to shell-heaps and stone implements, similar to those existing in nearly all the provinces of Brazil, there are found at Marajó antiquities whose characters are quite peculiar to that locality and indicate superiority. I refer to the artificial mounds and the objects they contain, of which I propose to give a brief description.

Marajó, like all the region about the mouth of the Amazonas, is very low, and excepting a small tract in the east, is so slightly elevated above the level of the river, that in the winter it becomes changed into a large lake. Over all its expanse there is not a single natural elevation that might be called a hill, the portions not subject to overflow, being very gentle undulations of the surface, having a height of only a few metres above the surface of the water. As explained by its indefatigable explorer, Dr. S. Ferreira Penna, of Pará, the island may be divided into two nearly equal parts; the western, covered with forests in which abounds the India rubber tree, and the eastern, consisting of plains. It is the eastern part that concerns us now.

The plains being covered with a heavy growth of rich grass, constitute a good grazing ground, and are thus well suited to the raising of cattle, which is to-day almost their only industry.

The farmers have, however, to contend with many difficulties, due in part to the structure of the island. Every year many

¹ Several of the Museums of this country possess collections of pottery from Marajó, procured either by the late Professor Hartt, or by others; but up to this time no accurate account of the region whence they were obtained, has been published. The following translation of a short article, descriptive of this interesting island, which appeared in the Vulgarisador of Rio de Janeiro, September 22d, 1877, may thus prove acceptable to American archæologists.—RICHARD-RATHBUN.

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cattle are drowned in the lowlands, or fall victims to the alligators, and, from time to time, a more severe winter than usual deprives them of fodder, and occasions severe losses. Another and more important inconvenience arises from the impossibility of retaining in good condition a sufficient number of horses for farm work. Formerly horses thrived so well on the island that they came to take entire possession of the grazing grounds, forming a serious impediment to the industry of cattle-raising, and about forty years ago the farmers killed them by thousands for the sake of their hides. To-day horses are so expensive and their preservation so difficult that they are only in use where it is absolutely impossible to dispense with them. For ordinary service, and even for traveling, oxen are used, and, upon one occasion, I witnessed a troop of horses being driven to their enclosure by herdsmen mounted on oxen.

Near the centre of the island, in the midst of the plains, is a lake called Arary, out of which flows a river bearing the same name. Other important rivers are, the Igarapé-grande, which empties at the south-east part of the island, and the Anajús, which rises a little to the west of lake Arary, and, crossing the forests of the western side, receives, before leaving the plains, the tributaries Camutins and Moções. On the margins of all these rivers artificial mounds exist, but only those of lake Arary and the Camutins have been examined. Those which I shall now describe may be taken as types.

The best known mound is situated by the side of lake Arary, and in the winter becomes transformed into an island called the Island of Pacoval. In shape it is nearly oval, having a length of one hundred and fifty metres, a breadth of seventy metres, and a height of five metres above the water of the winter's overflow, which covers all the neighborhood for many miles around.

On one side of the island, exposed to the action of the waves, is a small cliff, in which the structure of the mound is displayed, and where it is seen that even to its base the earth is filled with pottery and ashes, proving the artificial origin of the mound. The waves have excavated very extensively into it, and the beach below is covered with the fragments of pottery. The mound being thickly wooded, the objects lying near the surface have been much broken up by the roots of the trees, but at a greater depth they are preserved in perfect condition. Several other lo-

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calities on the shores of the lake have yielded a similar kind of pottery, but these places have not been investigated.

About six or seven leagues to the west of Arary, on the banks of the Camutins, there exists another well-known group of mounds, and a league farther are over fifteen others of large and small size. The plain is here also very low and subject to inundations, the greatest natural elevations not rising more than one or two metres above the water during the rainy season. A narrow strip of forest usually borders the margin of the river where the mounds, also wooded, are generally encountered; there are, however, other mounds situated upon the plain. The principal mound of the Camutins, known by the same name, is a veritable hill, having a height of fifteen metres above the plain, and with its sides so steeply inclined as to render their ascent on horse-back quite difficult. The outline of the mound is elliptical, its length being two hundred and ten metres, and its breadth at the base about eighty metres; but at the summit it is much narrower. The sides are furrowed by the rain which commences to excavate in holes made for the purpose of procuring iguacabas, which are in great demand as receptacles for farinha. In these furrows the earth is seen to be full of pottery and ashes as at Pacoval. As a stronger evidence of the artificial origin of the mound there is found near it a large excavation, similar to those sometimes formed in railroad grading, and from which, without doubt was obtained the material for constructing the mounds. This excavation is on the opposite side of the river, and near it is another mound almost equal in size to that of Camutins. A few hundred metres below the mound of Camutins, on the same side of the river, is a third mound of less height, but broader and probably longer. This last is situated in a bend of the river, being surrounded by water on three sides.

These three mounds all extend in different directions, indicating that their position is without significance. They all have a more or less elliptical or oval form, but this seems to have been accidental, as there is no evidence that they were constructed according to any definite plan. It is quite different with the North American mounds, which in other respects closely resemble those of Brazil. In the former country they often assume the outline of a geometrical figure or of some animal.

According to the statements of the inhabitants there are in the

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upper part of the river ten or twelve mounds of smaller size than the above. Still others exist on the margins of the Anajús, Moções and Igarapé-grande, and also in various parts of the plains, distant from any river.

From what has been said it is evident that the mounds of Marajó were the work of man, and that too of an exceedingly industrious race. For what purpose were they built—for defense, as dwelling places, or as cemeteries for the dead? They were probably intended for all these. They were primarily localities for living upon, elevated as much to escape inundation as to afford a better means of defense against enemies. That they were also used for interment is proved by the number of burial urns with skeletons which they contain. The remains of fire and of an abundance of pottery for domestic use indicate as well that they were places of habitation. It is likely that they were the sites of fortified villages, occupied by a tribe holding to the custom, so common among Brazilian Indians, of burying the dead inside the house.

I will now pass to a consideration of the objects found in the mounds; these consist of stone implements and pottery. The former are not common and do not differ notably in shape from those of other localities; they are well polished and made of diorite, a kind of stone which is not found on Marajó, nor at any near locality on the main-land.

Pottery exists in the greatest abundance, and is as noteworthy for its superior make as for the beauty and perfection of form and ornamentation which it displays. Of the majority of objects made by prehistoric man, it may be said that they are curious and interesting, but devoid of taste; that is, they do not gratify our tastes, perfected and purified by centuries of culture and art. Among the vases of Marajó, however, are some that compare very favorably with those of the ancient Greeks and Etruscans in symmetry and elegance of form, as well as in the relief and high grade of their decorations. The ancient inhabitants of Marajó were truly masters in ceramic art.

Considering that the aboriginal mode of making an earthenware pot was to coil up a long strip of clay—and of this fact we have ample proof in the mounds we are describing—it is wonderful to behold a pot thus constructed, measuring almost a metre in diameter, made perfectly symmetrical. This, together with the regularity and perfection of the lines of ornament,

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demonstrates the great experience and culture of the maker. The ornaments encountered are naturally divided into three classes—those in relief, the engraved and the painted. The first kind is found upon idols and trinkets, and upon the sides of vessels, often forming handles by which they can be lifted. They are made by the hand, of soft clay, and generally rudely represent the human figure or that of some animal.

The engraved and painted ornaments, however, very seldom represent natural objects, and when they do, it is in a very conventional way, rendering it difficult to interpret them. They are usually of a purely æsthetic character, and include the fret, the cross and other styles very well known in art.

From some of the primitive forms has been worked out an exceedingly interesting series of modifications, from which arises the greatest value of the antiquities of Marajó. It is evident that we have there vestiges of a savage race that had entered upon the first rudiments of art, and advanced so little that it is possible now from their relics to trace each step in the early development of art. As the study of embryology has solved many difficult questions in zoölogy, so has the study of art here in the embryo explained important points in the general history of art.

Prof. Hartt has thoroughly investigated this subject, and has arrived at very important conclusions regarding it. A single example will serve to explain the importance of this study. Ruskin and others have proved that many of the complex designs of architecture and the other arts are evolved from the fret, but no one has carried the analysis farther. Now the pottery of Marajó comes in to complete the series, by showing that this fret originated from straight lines, which the savage, like a child, uses in his first attempts at ornamenting.

I am unable within the limits of this paper to discuss this exceedingly interesting subject further. It simply remains for me to add a few words respecting the uses of these various objects, that an idea may be obtained of the customs and the mode of thought of this ancient people. Some of the objects were doubtless idols, and indicate a form of religious belief to have existed among them; others seem to be trinkets or objects made as pastimes; others ornaments for the dress or person; while others still were articles of domestic use, and even these last were carefully ornamented. Finally, the largest and most elaborate of all were burial urns, sometimes of broad dimensions.

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but always so constricted at the mouth as to admit only disjointed bones, deprived of their flesh. In these are encountered human remains, unfortunately, however, so reduced to powder that it is impossible to determine the physical characters of the race.

In conclusion, I can safely affirm, that even to-day it is very hard to find on the Amazonas proofs of greater industry than that furnished by these mounds, or a higher appreciation of the beautiful than is manifested by the ornamentation of the pottery of the ancient inhabitants of Marajó.

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