NOVEMBER, 1860.

Meeting held at the house of Judge Charles P. Daly, 82 Clinton Place; Thomas Ewbank, Esq., Second Vice-President, in the Chair,

Correspondence.—Letters were read from Baron Gerolt, Prussian Minister at Washington, acknowledging the receipt of his certificate of Corresponding Membership. From Dr. Daniel Wilson, University College, Toronto; from Dr. Peter Wilson, Cattaragus; from Rev. Isaac Bird, Hartford, on Arabic Tracts, etc., for circulation in the Interior of Africa; from Dr. I. K. Dille, of Cedarville, Ohio, to Dr. Davis, on another curious inscribed stone, said to have been found in a mound near Newark in that State.

Election of New Members.—The following gentlemen, recommended by the Committee on Nominations, were unanimously chosen Corresponding Members:—Dr. J. Barnard Davis, Shelton, Staffordshire, England; Bishop Payne, of Cape Palmas, Africa; and Dr. L. II. Gulick, of Micronesia.

Papers.—A Paper "On the Huacas, or Ancient Graveyards, of Chiriqui," by John F. Bateman, Esq., of Panama, was read by Dr. Merritt. Mr. Bateman accompanied Dr. Merritt to Bugaba in 1858, and afterwards visited many other ancient cemeteries in the province of Chiriqui.

Account of a Visit to the Huacas, or Ancient Graveyards of Chiriqui; by John F. Bateman, Esq., of Panama.

The Huaca of Bugabá having been described at a former meeting of your Society, I will endeavor to describe to you Boquete. The Huaca of Bugabá is situated a little South of West from the extinct volcano known as El Volcan. Boquete is entered on the east side. The entrance is between the rivers Cochare and Caldera. You are on a beautiful plateau, or table-land; and, looking over the precipice, you see the rivers, hundreds of feet beneath you, foaming in easeades, to the level of the plains below. In riding over this pass, to the rancho, distant some four miles, following the Rio Caldera, you see the marks of the graves in the round river-stone. Looking south from this elevation, you view the whole country, the town of David, and the Pacific beyond, distant about forty miles. From the rancho, following the former course, you descend some

two hundred feet; and, from this onward, the country becomes much broken. Gradually again rising, on the right is the river, and on the left a high table-land, with its angular sides almost perpendicular.

From the entrance of the pass say six miles the river takes a turn to the west. In this angle was found the small image of gold which you have seen, approaching nearer the human face and figure than any other I have met with. This little spot in the bend of the river contained some three hundred of the circular huacas; and, although surrounded on three sides by graves of the same external appearance, this is the only one from which gold was taken, and even here only in small quantities. The images of stone presented to your Society by G. M. Totten, Esq., were from this locality.

Following the river, you are now behind El Volcan, and within the range of the Cordilleras; on crossing the river, a short distance above the bend, you stand upon another Portrero, containing some twelve acres, its only occupant being an Indian, who was in the mountains at the time I was there. The whole elevated portion of this was covered with graves; and so close were they, that in excavating one we would open three or four others. These were all regularly-built sepulchres: the body having been laid on the hard pan or clay, the sides formed of flat stones, and these covered with large flat stones, many of which would measure a yard square. In these graves, and those in the adjoining forest, which vary in depth from three to four feet, are found the same riverstones. In the forest are found additional stones,—quadrates, of four inches by twenty inches in length. These were placed vertically, thirty inches apart, around the edge of the quadrangular graves.

In this locality I witnessed the opening of a large grave, about ten feet in depth, marked by five round pillars of stone, of fourteen inches in diameter, and from five to six feet in length,—three to four feet of which were in the ground. The pillars were placed to represent a square, with one in the centre. Under this one, on the clay, was found a plate of gold, four inches in diameter, and a small figure of an ant-eater. No pottery was found in this grave, and this was the only one in that locality containing gold. Stone hatchets were found here, but no musical instruments. The pottery was all small, and rude in shape and material. Small basins, standing on three feet, each of which contained a small pellet of clay. None of the pottery was either glazed or painted.

Leaving this locality, recrossing the river, and continuing on in a westerly direction, we found the blackberry just ripening, and the bushes loaded with this luscious fruit. Toiling up a steep hill, we came upon another *Portrero*, north of *El Volcan*, and found the altitude uncomfortably cool at morning and evening. This spot contains many graves. Following the ridge, and entering the forest, I was somewhat surprised to find that the altitude of the oak had been attained; the ground was literally covered with acorns of the previous year's growth.

After penetrating a mile, the graves I had so long wished to see,—those marked with pillars of basalt, moss-grown, and bearing the marks of extreme

age, the existence of which we had doubted,—were now before us; and, running in a line some two thousand feet in length north and south, were a number marked with these pillars, some standing four feet above the ground, while others were nearly or quite out of sight beneath it. On either side none of these were to be seen; but, on examination with a bar, the locality proved to be a large huaca. I selected one which was singularly marked, and set the peons at work, stripping the whole surface.

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On the south was a large pillar, and, running north and south in a line with it, were three smaller ones, some thirty inches apart. I found in this grave large quantities of the river-stone, of all sizes; and in excavating, from the surface to the clay, a depth of five feet, I found great quantities of broken pottery, of a different quality from any I had before seen. It was very thick and finely glazed on both sides.

Such quantities of this would lead to the supposition that it was broken and buried with the body. On reaching the clay, I found that two bodies had been buried here, side by side, the small row of pillars marking it as a double grave; there were no signs of human remains,-only the black loamy earth, showing the original position of the body. The pottery was very large and fragile. One piece was taken out; an exact pattern of our pitcher of the present day. I examined the pillars, and inquired for hieroglyphics, but failed in obtaining any. In San Miguel, not far from Bugabá, I found one, now in possession of your Society, copied from the original. I saw, taken from a grave of the quadrangular kind, three teeth, a small piece of bone, apparently a rib. and three pieces of the skull of a human being, but so fragile that they crumbled at the touch and by exposure.

One thing I am satisfied of, namely, that the bodies were all placed north and south. As to the depth of the graves, this is dependent on the locality. The body was always placed on the hard pan or clay, and the distance of this from the surface regulated the depth. A singularity in the huacas of Bugabá is, that some of the graves contain gold, and others none. Some of them contained as much as three pounds, while others, in close vicinity, although containing more pottery, and that of a higher order, contained no gold,—the richest graves having the least pottery. In one part of this burial-ground are found figures of gold probably representing idols, for they bear but little resemblance to the human face or figure. Others contained figures of the alligator, shark, jaguar, and other animals; also arrow-heads and stone batchets, which would lead one to suppose that this was the burial-place of the warriors, and that their courage was compared to that of the animals found in the graves. In other portions of the huacas only three plates of gold were found, from four to eight inches in diameter, very thin and even in thickness, with a finely-finished surface, and a corrugated bead on the edge, to preserve the disk, each punctured with two holes, probably for the purpose of suspending them from the neck of the wearer. Whether these were symbols of office, or were worn for ornament, I do not pretend to say. In some of the graves, only one of these plates was

found. In one we saw a plate and a mill or grinding stone, besides jars. In another portion of the field nothing but jars and mills was found.

The grinding-stone, being a piece of household furniture, would lead one to suppose that only the women were buried there. In all ages of savage life. women have been the slaves of the men; and the stone on which they had toiled during life, grinding their maize for tortillas and chicha, would be a fitting emblem to accompany them to the land of their belief.

That the people who anciently inhabited this region were well acquainted with the alloying of gold, and its manipulation, their work abundantly attests. Their figures, although not designed according to our tastes, show a good knowledge of casting. Most of them are copied from the four-feoted or feathered animals. Figures of the shark, crawfish, and alligator are quite common, The artisan will see and acknowledge creditable workmanship in the figures and pottery.

The alloying of gold was well understood; and the thin plates before described indicate skill, for no marks of the hammer are visible. I saw a copper figure plated, showing that they had a knowledge of this art.*

Many say that the gold mines are not far distant from this place. Others give it as their opinion that the gold and copper came from Nicaragua. I differ from them. In a previous expedition into the interior, I examined a large section of country, where copper is found superficially. Whether it exists in beds or veins I am unable to say. This place was very much nearer to Chiriqui. A road still exists from Chiriqui to Boca del Toro, on the Atlantic side, passable only on foot in from two to three days. The mines of Belen and Veraguas have been known ever since the memorable voyage of Columbus, in 1504, when he endeavored to found the first colony at the mouth of the Rio Eclen. He speaks of large quantities of gold in the hands of the Indians. The mines are owned one by an English and the other by an American company. The latter are now operating their mines. Here is a gold-bearing district, distant less than three days' journey,-a place known from the earliest history of this country,-and I think it not unreasonable to suppose that from these places came all the gold.

Spanish history tells us that the Spaniards found large quantities of gold among the Indians of Penonoma. This is between Panama and Chiriqui. To cross the Cordiileras from this point was not a journey of magnitude or hardship to the Indians, and the fact is yet to be ascertained whether the gold came from the Pacific or the Atlantic slope of the Cordilleras. Spanish manuscripts are still in existence describing mines in this direction, and how to get to them from Penonoma. Operations were stopped by the Governor of the State of Panama, who took all the slaves from the mines, ostensibly to work on the roads but in reality to work on his haclenda. As far as I penetrated, there were no signs of gold; but the season was unpropitious, the streams being swollen by the daily tropical rains. The dry season is the only time to enter the mountains: then it

^{*} It is not improbable that Mr. Bateman is mistaken in this, or uses the word plated in other than its technical sense, - Com. on Pub.

is much cooler, and, without a tent, you can sling your hammock between two trees, and sleep where night overtakes you.

A trip into the mountains of this country is a much greater undertaking than in any part of California which I have ever visited, because tropical growth impedes every step. Provisions and tools must be carried on the backs of natives; and, when you enter the forest, you bid adieu to comfort, and almost to the light of the sun.

The natives of this region, the half-breeds or *Cholos*, are capable of great endurance. With seventy-five pounds on his back,—held by a strap under each arm, and another over the forehead,—one of them will travel all day, at such a gait that it will fatigue the traveller to keep up with him.

These mountains are now inhabited by tribes of Indians, called Valientes. They are under the government of two brothers, who were educated by the Jesuits. They are capable of writing and conversing in the Spanish language. They still retain all the traditions of the conquest, the acts of cruelty and oppression of the Spaniards; and, although unfriendly to them, receive one speaking the English language as a friend, on whom they think they can rely to drive the conquerors of their forefathers from the land. Their palenques, or residences of the Caciques, are on the Atlantic slope.

The natives of the Pacific side have a decided aversion to the Valientes of Chiriqui Viejo; and, if they are to be believed, they will shoot an intruder of their territory at first sight. For this information concerning the Valientes I am indebted to a native of David, who for several years carried the mail between David and Boca del Toro. He also informed me that, on the trail between these two points, there was a very large boulder, covered with hieroglyphics, and also large huacas, with the graves marked with pillars of stone.

Dr. Torrey, referring to Mr. Bateman's paper, observed that the absence of organic remains in the huacus was not necessarily an evidence of their high antiquity, since water charged with carbonic acid dissolves phosphate of lime, the principal constituent of bones, in a very few years. When the cemetery connected with the old Brick Church, at the intersection of Nassau street and Park Row, was removed a few years ago, the graves were all carefully excavated, but the very skeletons of the dead had disappeared. All the earth was sifted, and yet only a few fragments of bones were recovered, notwithstanding that the oldest burial did not go back more than 80 years. The conditions and constituents of the soil had much to do with the duration of organic remains deposited in it. Dr. Torrey also remarked that he had never seen any evidence of soldering in any metallic relies in America, and that he could not satisfy himselt of the means by which the gold plates were produced. He was sure

there was no vitrified glazing on any of the pottery, and that the colors used on them were never burnt in, as they easily rub off when moistened.

Mr. SQUIER regarded the fact of the rapid decay of human remains in the earth, under certain conditions, particularly in the case attested by Dr. Torrey, as equally interesting and important to antiquaries. In certain parts of England, nearly perfect skeletons had been taken from British barrows, antedating the Roman conquest. But few and very fragmentary bones had been found in the Western mounds, except those of the modern or existing Indians, who often buried in these mounds, and whose remains have been often confounded with those of the mound-builders proper. In all the mounds excavated by Dr. Davis and himself, in the Mississippi valley, but a single entire skull, demonstrably of the era of the mound itself, had been discovered. Its preservation was due to peculiar conditions, which were set forth in full in the Ancient Monuments of the Mississippi Valley, published by the Smithsonian Institution. Probably none of the numerous skulls exhibited in museums as those of the mound-builders are really such, although not improbably taken from the mounds. As regards what is called glazing in pottery, Mr. Squier remarked, he had seen nothing answering to it, in the modern sense of the term, in any of the aucient pottery of this continent. Some specimens that he had seen had been well-burnt, and others had a very fine polish, produced by rubbing them with various pigments over a fire, or by smoking them over burning pitch-pine. He had specimens in his collection from Honduras, very elaborately painted with various colors, apparently in oil; at any rate the coloring could not be removed by water. Some had been excavated from ancient depositories, where they had been buried for an indefinitely long period, but which retained their colors, probably in all their pristine brilliancy. The glazing or polish on the true ancient Peruvian pottery is proof against sulphurie acid; but that on modern imitations, of which most collections are made up, gives way at once under the acid.

Further discussion of these points took place between Drs. Davis and Merritt and Mr. Cotheal, in the course of which it was mentioned that Mr. Bateman's collection of golden articles from Chiriqui, exhibited at the October meeting, had been purchased by Mr. Robert Stewart, of New York, for his private cabinet. The thanks of the