ANNUAL REPORT

OF THE

BOARD OF REGENTS

OF THE

SMITHSONIAN INSTITUTION,

SHOWING

THE OPERATIONS, EXPENDITURES, AND CONDITION OF THE INSTITUTION

FOR

THE YEAR 1883.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1885.

FORTY-EIGHTH CONGRESS, FIRST SESSION.

The following resolution was agreed to by the Senate June 10, 1884, and concurred in by the House of Representatives June 24, 1884:

Resolved by the Senate (the House of Representatives concurring therein), That the annual report of the Smithsonian Institution for the year 1883 be printed; and that there be printed sixteen thousand and sixty extra copies, of which three thousand shall be for the use of the Senate, six thousand and sixty for the use of the House of Representatives, and seven thousand copies for the use of the Smithsonian Institution.

II



LETTER

FROM THE

SECRETARY OF THE SMITHSONIAN INSTITUTION

ACCOMPANYING

The annual report of the Board of Regents of that Institution for the year 1883.

JUNE 24, 1884.—Ordered to be printed.

SMITHSONIAN INSTITUTION, Washington, D. C., January 21, 1884.

SIR: In accordance with section 5593 of the Revised Statutes of the United States, I have the honor in behalf of the Board of Regents to submit to Congress the annual report of the operations, expenditures, and condition of the Smithsonian Institution for the year 1883.

I have the honor to be, very respectfully, your obedient servant,

SPENCER F. BAIRD,

Secretary Smithsonian Institution.

Hon. George F. Edmunds,

President of the United States Senate.

Hon. John G. Carlisle,

Speaker of the House of Representatives.

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ANTIQUITIES FROM OMETEPE, NICARAGUA.

By CHARLES C. NUTTING.

Although the name of this island has been spelled "Ometepee" by previous explorers, I have decided to adopt the spelling of the inhabitants of the country, which is also that used in official papers.

This latter fact I discovered through reading official reports of the eruption of the volcano published in "El Centro Americano," a Nicaraguan newspaper. This island is situated about 9 miles from the town of San Jorge on the west shore of Lake Nicaragua. It is about 20 miles long by 10 wide, and the greater part of its surface is covered by two volcanoes, which are prominent features of the scenery from all parts of the lake.

The Volcano Madera is of greater bulk than its companion and much more irregular in form. So far as I could learn it has never been known to give signs of activity within historic times.

The Volcano Ometepe, situated on the northern end of the island, is said to be one of the most regular in form in the world, being a perfect cone from all points of view. It is about 5,000 feet high.

This has also been considered an extinct volcano, but, during my visit, it began showing signs of activity. On March 6, 1883, a thin column of smoke was seen to issue from the exact summit, and about six weeks afterward there was a slight flow of lava on the southeastern side.

Ometepe has the reputation of having been an object of worship by the peoples of past ages, and the large number of stone images found on the island would seem to indicate that it was sacred ground. It was evidently a chosen spot for burial, as the immense number of graves and burial urns still testify.

The present inhabitants of the island are mostly Indians of a rather purer type than is found on the adjacent mainland, although many of them show a mixture of Spanish blood and a few are partly negro.

For a description of the appearance of the pure-blooded native, I can not improve upon that given by Dr. J. F. Bransford, in his "Archæological Researches in Nicaragua," page 6:

"In physique the Indians are usually rather short, low-browed, with dark copper skin and coarse hair. On and near Madera are a few of commanding stature, many of the men being over 6 feet high and the women proportionately large. The head is short, the features strongly marked, with heavy lower jaw and large teeth."

I was unable to discover any remnant of reverence among the natives for the old idols found on the island, nor did they offer the slightest objection to the removal of one of them, although they were convinced that said removal was simply a freak of insanity on my part.

One prominent characteristic of these Indians is the deference and

obedience which they pay to the opinion and will of their wives, whom they consult on all matters of importance.

This fact is well illustrated by an instance which is, perhaps, worth recounting.

While digging for antiquities the writer found a spot peculiarly rich in the objects of his search, but it was on land owned, or at least worked, by an Indian who proved unusually avaricious and demanded payment for every yard of earth disturbed.

He also put in a bill for damages done to his crop of young plantains by my men passing over them on their way to and from work. I considered the bill a just one and offered to pay it while settling up my other accounts, when, to my great surprise, he refused to accept the money. Upon being pressed for a reason he said that his "mujer," or "woman," had forbidden his taking the money.

In order to test the extent of his obedience I urged him to take the money, telling him that his "mujer" need know nothing of the matter. He steadily refused, however, and gravely stated that "women knew everything."

The Catholic Church is here, as elsewhere in Central America, the controlling power among the Indians. But they still retain some curious remnants of their own ancient superstitions, among which may be mentioned an almost universal belief in the *personality* of the great forces and features of nature.

They attribute life and passion to Lake Nicaragna, for instance, not only in a figurative but also in a literal sense.

This power of ancient superstition was well illustrated by an instance which occurred during my ascent of the Volcano Ometepe.

This ascent was made at the request of the "alealde" of the town of Moyogalpa, who furnished me with six men to carry water and provisions.

After entering the dense forest which clothes the summit of the peak, I became convinced that the men knew nothing about the trail, and accordingly determined to make a way for myself and, selecting the most intelligent of the men for my companion, I pushed on ahead leaving the others to shift for themselves.

After toiling upward for an hour or so, wishing to ascertain the whereabouts of the rest of the party, I asked my companion to shout, and see if they were within hearing. He seemed extremely reluctant to do so, and I gave the call myself, much to his evident alarm.

After shouting several times without any response, I was informed by the Indian that my efforts were useless as the others wouldn't answer even if they heard me.

Upon inquiring the cause of this, I was told that they were "afraid to make a noise so near old "Ometepe" as it might make him "muy bravio" (very angry)!

I found, upon rejoining the others shortly afterward, that it was even

so, and that my calls were plainly heard, but not answered for the reason given.

The Indians are good-natured and indolent, as a rule, and rarely quarrelsome or dangerous, except when under the influence of liquor.

I found it much easier to lead than to drive them. Their good-will is readily gained, and more can be accomplished through that than through either fear or money.

The antiquities secured by me may be divided into two general classes: (1) Sculptures in stone; (2) Vessels of clay and their contents, including all objects found in the burial places.

Among the stone sculptures I saw a number of human figures about life size, besides smaller articles comprising images of men and animals, and also utensils such as grinding stones and vessels for various purposes. I saw and examined seven human figures carved in stone and of nearly life size.

No. 1. A large human figure, sitting, about 5 feet high. The head, upper arm, and knee are wanting. Found lying, half embedded in the gravel on the lake shore, about 3 miles north of Moyogalpa. This is probably the figure referred to by Dr. Bransford as "an image without a head lying in the edge of the lake."

No. 2. Companion to the last, about the same length, but of slighter build, from which I judge that it was intended for a female. This figure also differs from No. 1 in having the arms bent at the elbows with the hands resting on the knees, while in No. 1 the hands hung down straight at the sides. Both Nos. 1 and 2 are headless, and the latter is probably the one referred to by Dr. Bransford as follows: "Another was said to be uncovered at low water during the dry season." At the time of my visit the figure was lying in the water, by which it was nearly covered.

Nos. 3 and 4 are Dr. Bransford's Nos. 1 and 2. They have been taken from their original position in the forest and set up as gate posts at the Catholic church at Los Angeles. They are now the property of Dr. Earl Flint, of Rivas, who bought them from the church and intends shipping them to this country.

No. 5 is a very much worn figure of "a man in a standing position." The basalt rock is worn almost smooth, but it bears evidence of workmanship. I must confess that I could not make out the figure of the man, and give it as such on the authority of the native who guided me to it.

No. 6 was a seated female figure found in the dense forest south of Los Angeles. This figure also was headless, and I failed to find the missing part.

No. 7 was the companion to the last, and in better condition than any of the others I examined. The head was off, but I found it lying near, and found that it fitted well, having been broken off at a comparatively recent date. This figure I determined to secure for the National Mu-

seum, and succeeded in transporting it down to the lake shore, across the lake and over the mountains to the Pacific coast, where I placed it in charge of the Pacific Mail Steamship Company.

The idol is now in the National Museum at Washington, and forms the subject of the following illustration:



Front and side view of stone figure from Ometepe. (Size= $\frac{1}{Tz}$.)

The figure is that of a man seated. It is about life size, but the legs are small in proportion to the body. The head is large and is surmounted by the head of some animal. The arms are separated from the body at the elbows and hang straight down.

The following are some of the measurements: Height of figure without base, 4 feet 3 inches; height of figure and base, 5 feet 9 inches;

width of seat, 2 feet 1 inch; height of seat, 1 foot 7 inches; sole of foot to knee, 1 foot 2 inches; arm and hand, 2 feet 1 inch; greatest girth of body, 3 feet 11 inches; greatest girth of base, 5 feet 11 inches; girth of neck under chin, 3 feet 6 inches; girth of arm, 1 foot $4\frac{3}{4}$ inches; height of head from shoulder, 1 foot $2\frac{1}{2}$ inches; across knees, 1 foot $2\frac{1}{2}$ inches; knee to back of figure, 1 foot $10\frac{1}{2}$ inches.

I also shipped to the museum a figure, supposed to be that of a monkey. The head only is distinct. It was found in a cacao plantation, about one-half mile northwest of Moyogalpa. This figure is said by the natives to have been worshipped by their ancestors.

The burial urns and their contents and accompanying objects of clay, bone, shells, and human remains were all found in two localities, which are called, for convenience in reference, graves Nos. 1 and 2, although it must be understood that each was a burial ground of some extent, and not a simple grave.

GRAVE No. 1 was located some 400 or 500 yards from the spot where the idol last mentioned was found, being more to the southwest and nearer the shore of the lake. It was situated in a plantain patch owned by an Indian.

The fact that the spot was exposed to the direct rays of the tropical sun rendered it a trying place to work, and I have nothing but praise for the three men (Indians) who toiled faithfully day after day in the exeavations at this place.

The surface ground here is of rich loamy soil about 8 inches in depth, under which is a bed of sand nearly 2 feet in depth. Underlying this sand is a hard bed of ashes and grit, through which the excavations did not penetrate.

The burial urns were of two general classes, round and shoe-shaped. The natives call the former "Ollas," and the latter "Burrugas."

Although carefully packed in soft grass, all the large vessels that I secured were badly broken, and at the time of writing only two of them have been mended so that measurements can be taken.

No. 61,713 was the first vessel encountered, and was found covering the mouth of a large shoe-shaped urn, being inverted over the same. It is a large basin-shaped dish, round at the bottom, being 7 inches deep and 18½ broad.

No. 61,712 was also used as a cover to an urn of similar shape. It has a flaring rim at the top, and foot at the bottom, and is 14½ inches high by 18 broad at the top.

No. 61,714 was a rather small round urn.

No. 61,708. A shoe shaped urn which is being restored.

No. 61,710 is a round deep urn.

No. 61,711 is a round medium-sized urn.

No. 61,709 is a shoe-shaped vessel.

No. 61,750 is a shoe-shaped vessel.

No. 61,707 is a small urn, made of the same material as the preced-

ing. It resembles No. 61,712 in shape and measures as follows: Depth, $8\frac{1}{2}$ inches; greatest breadth, $10\frac{1}{2}$ inches.

These large urns were generally found at a depth of about 2 feet. The round ones generally had covers of material similar to the urns themselves, while the shoe-shaped vessels were more often covered with more delicate, painted bowls. Fragments of human bones were found in nearly every urn, but they crumbled at a touch upon being exposed to the air.

Many articles of more delicate construction and finer workmanship were found. They were often used as covers to the shoe-shaped urns, or buried near the latter, or placed within the urns, where bowls were sometimes found inverted over the scull of the occupant, apparently serving as a cap or protection to the head.

I was much surprised to find, in several instances, that bowls had been broken, and afterwards placed within the urns. This is proved by the fact that many of the bowls which were found in pieces inside of the urns were too large to pass through the mouth of the urn when entire.

No. 61,691. Bowl, painted on outside. Found inside of round urn: Depth, $3\frac{3}{8}$ inches; width, $8\frac{3}{4}$ inches.

No. 61,692. Bowl, painted on outside. Found as cover for shoe-urn. Depth, $4\frac{1}{8}$ inches; width, $9\frac{1}{2}$ inches.

No. 61,693. Bowl, painted on outside. Found at a depth of 5 feet, ininside of round urn containing skull. Depth, $4\frac{7}{8}$ inches; width, 9 inches.

No. 61,694. Bowl, painted on outside. Found outside of urn. Depth, 4 inches; width, 8½ inches.

No. 61,695. Small bowl painted on outside. Two red lines around inside close to the top. Found inside of round urn. Depth, 3 inches; width, $5\frac{1}{2}$ inches.

No. 61,696. Small bowl painted on outside. One indistinct red line around inside of urn. Found inside of round urn. Depth, $2\frac{1}{4}$ inches; width, 5 inches.

No. 61,697. Bowl with raised figure of human face on each side. Painted on the outside. A brown line around inside of rim with a red line immediately under it. Found covering a shoe-shaped urn. Paint very fresh. Depth, $4\frac{1}{8}$ inches; width, $9\frac{1}{2}$ inches.

No. 61,698. Bowl with raised figure similar to preceding. Painted on outside with a delicate pattern in fine lines and dots. Painted on inside with rather coarser pattern covering entire inner surface. Found covering a burial urn. Paint very fresh and distinct. Depth, 34 inches; width, 10 inches.

No. 61,699. Bowl with raised figure somewhat distorted. Painted inside and out with rather a ruder pattern than the last, and not so carefully executed. Colors remarkably fresh and distinct. Found outside of burial urn. Depth, $3\frac{1}{2}$ inches; width, $8\frac{1}{2}$ inches.

H. Mis. 69——58

No 61,700. Shallow bowl painted inside and out with similar patterns. On the outside there is a series of twelve hieroglyph like figures of two kinds in alternation. On the inside are ten similar figures also alternating. This bowl is thicker and more solid in construction than any of the others. I have been unable to find another like it in the collection of the National Museum. It was found inside of a round urn where it served as a cover for a human skull. Depth, 2½ inches; width, 7 in ches.

No. 61,701. Shallow dish with flat bottom and flaring sides. Painted on outside simply in black and red lines broken by short vertical lines extending around its circumference. On the inside the design is much more elaborate, being more like that found on some of the larger bowls. This also was found inside of a round urn and had been used as a skull cover. Depth, $2\frac{1}{4}$ inches; width, $7\frac{1}{2}$ inches.

No. 61,702. Shallow dish with bottom more rounded and sides more flaring than the last. Painted inside and out with very elaborate designs. Paint scaled off in many places. Found near a shoe-shaped urn. Depth, $1\frac{5}{2}$ inch; width, $6\frac{1}{4}$ inches.

No. 61,703. Deep dish with rounded bottom and flaring sides. This dish is ornamented both inside and out with designs more intricate and elaborate than any other that I have seen from Ometepe. The colors are quite fresh and distinct. Found inside of round burial urn. Depth, 2 inches; width, 5\(\frac{5}{2}\) inches.

No. 61,704. Deep, narrow-mouthed, bowl-shaped vessel ornamented on the outside with a series of red and black lines, and oblong longitudinal panels inclosing circular and square figures. Lower half of outside and entire inside not ornamented. Found inside of a shoe-shaped burial urn. Depth, 4 inches; width, $5\frac{1}{8}$ inches.

No. 61,705. Deep, flat-bottomed, straight-sided vessel, painted red, and ornamented with incised lines on the outside near the rim. Found outside of burial urn. Contained human bones. Depth, $3\frac{3}{4}$ inches; width, $6\frac{1}{4}$ inches.

No. 61,706. Two miniature shoe-shaped vessels joined together, facing in opposite directions with a handle on top (broken off). The two vessels are joined together inside by a round hole. This specimen is unique in the collections of the National Museum. Depth, $2\frac{1}{2}$ inches; width, $4\frac{5}{8}$ inches.

No. 61,744. Under this number come the numerous legs or feet of tripod vessels of clay encountered in all parts of the excavations. They almost always are made to represent the head of man or some animal, are hollow inside, and often have a little ball of hard clay within which makes a rattling noise when shaken. They are always painted in designs corresponding to those found on the vessels to which they belong. Although dozens of these legs were found I did not encounter a single entire tripod.

No. 61,745. Two vase ornaments representing heads of animals well

executed and much more elaborate in form than the preceding. Unpainted.

No. 61,743. Clay "Sinkers." An intelligent native told me that he considered that these objects commonly called "sinkers" were, in reality, tools used for molding the various clay vessels with which they are associated.

No. 61,746. A small round fragment of painted ware, perforated so as to form a ring. Probably an ornament of some sort.

No. 61,747. Shell implement found in burial urn.

No. 61,748. Fish vertebra found in burial urn.

No. 61,749. Flint flakes found in burial urns. Said by the natives to have been used in fashioning the incised ornaments on pottery.

No. 61,715. Clay disc; I can think of no probable use whatever for this article. It is simply a round hard burnt disk $4\frac{1}{2}$ inches wide by about $\frac{5}{2}$ inches thick with rounded edges.

No. 61,716. Arrow-head found beside a skeleton which had been buried outside of burial urns, and stretched at full length with face up.

No. 61,717. Small portion of a semi-fossilized human bone, probably the ulna. Found inside of burial urn, at a depth of 5 feet below surface of ground. No. 61,693, was found in the same urn.

A great number of skulls and other portions of human skeletons were encountered both inside and without the urns. Those inside the urns were extremely fragmentary and crumbled at the slightest touch. I brought the fragments of a skull found at a depth of five feet along with Nos. 61,717 and 61,693.

I also collected a large number of bones from skeletons found outside of urns.

These seemed to be in a much better state of preservation, but were all jolted to pieces on the homeward voyage.

Some of these skulls are remarkably thick with a good facial angle. It seems hard to account for these two modes of burial in the same spot.

Skeletons were often found stretched out right by the side of the urns.

The fact that those found outside of urns were in a much better state of preservation than those inside would seem to preclude the idea of the two modes being contemporaneous; the urns being an excellent protection for the latter. The indications are that a considerable lapse of time must have intervened between the two modes of burial, and that the urn burial is the older method, and that the full-length interment was practiced by a subsequent race. This subsequent race must have exposed the urns in digging their graves, and the question arises. Why were the urns left undisturbed?

Dr. Bransford has suggested to me the most plausible answer to this question which is substantially as follows: "All mankind, both savage

and civilized, have a peculiar reverence for the graves of the dead, and, among many uncivilized races, this reverence has taken the form of a deep-rooted superstition which forbids the molestation of any grave. This was probably the feeling which induced the 'subsequent race, spoken of above, to leave unmolested the urns containing the remains of human beings."

GRAVE No. 2.—This place of burial was found at a spot only 200 or 300 yards northwest of Grave No. 1.

The character of the ground is much the same here as at No. 1, but the urns were found much nearer the surface, the tops of the vessels generally coming within a foot of the surface of the ground.

Most of the large urns were broken by roots of trees which had penetrated them in all directions, but they seem to be of the same style as those found in No. 1, with perhaps a little more attempt at ornamentation.

No. 61,737. A large, ornamented, shoe-shaped urn, much like No. 22,343 of Dr. Bransford's collection in size, shape, and ornamentation.

No. 61,738. A very large round urn which I succeeded in getting out of the ground intact, but it was badly smashed on the voyage.

No. 61,739. Medium-sized shoe urn, also badly broken. There was one vessel, badly broken by roots of trees, that had an ornamentation which I have not seen elsewhere among specimens brought from Ometepe. The vessel was about size and shape of Dr. Bransford's No. 22,320, but was rather more regularly formed. The ornamentation consisted in a regular, five-pointed star formed of raised lines. One of the points was missing.

The smaller articles of pottery from Grave No. 2 differ from those found at No. 1 in several important particulars. They have, in general, an appearance of greater age, and are more often ornamented with raised figures or designs. The painting is less elaborate and the paint much less fresh and distinct.

No. 61,718. Deep bowl, painted on the outside in a rather elaborate pattern. The design in color differs from that of similarly shaped vessels from Grave No. 1 in having the color laid on in bolder and more massive bands and patches. Shows slight traces of having been over the fire. Perhaps it was a vessel used in cooking. Depth, 34 inches; width, 6½ inches.

No. 61,719. Shallow bowl painted outside in a crude pattern, and inside in an elaborate one. Found in burial urn. Depth, $1\frac{1}{2}$ inches; width, 4 inches.

No. 61,720. Large bowl with raised figures of human face on each side, the nose and mouth being much more prominent than in similar vessels from Grave No. 1. This bowl shows decided evidence of being subjected to action of heat, being scorched and blackened, and having a large proportion of the paint worn or scaled off. Painted in elaborate designs both inside and out. Found outside of burial urn. Depth, 4 inches; width, 94 inches.

No. 61,721. Narrow-mouthed pot or vessel, of peculiar shape. This peculiarity consists in a deep, broad groove extending from rim to bottom on one side. This may be a suggestion of the double shoe-shaped vessel, No. 61,706. Depth, $3\frac{1}{2}$ inches; width, $4\frac{1}{2}$ inches.

No. 61,722. Wide-mouthed bowl with an ernament consisting of a projecting turtle's head, well executed, on each side. It is ornamented also by broad raised bands, a flaring rim, a ring or pedestal for a stand, and three rings of incised dots, two of which rings extend entirely around the vessel, while the third is interrupted only by the turtle's heads. Colors red and perhaps originally black. Found outside of burial urns. Depth, $2\frac{1}{2}$ inches; width, $5\frac{1}{4}$ inches.

No. 61,723. Bowl with flat bottom and slightly concave sides, and incised pattern running entirely around on the outside near the rim. Colored like preceding. Found outside of urns. Depth, $2\frac{1}{8}$ inches; width, $5\frac{1}{4}$ inches.

No. 61,724. Hemispherical bowl with circular standard. Unornamented. Found outside of urns. Depth, 44 inches; width, 8 inches.

No. 61,725. Small, shoe shaped vessel with raised ornament representing the face of some animal (tiger?). Black, polished. Found in urn. Depth, $4\frac{1}{2}$ inches; width, $4\frac{1}{2}$ inches; length, 5 inches; width of mouth, $2\frac{1}{8}$ inches.

No. 61,726. Small, wide-mouthed shoe-shaped vessel. Unornamented and unglazed. Found outside of urn. Depth, 5 inches; width, 4\frac{4}{4} inches; length, 7\frac{1}{4} inches; width of mouth, 4 inches.

No. 61,727. Small, shoe-shaped urn, similar to last with the exception of a raised handle at small end. Front part missing. Found outside of urn. Depth, 5 inches; width, $4\frac{3}{4}$ inches; length, (?) inches; width of mouth, $3\frac{1}{4}$ inches.

No. 61,728. In form this vessel seems to be intermediate between the shoe-shaped and round styles. There is a slight vertical depression on the smaller end, and also two crescent-shaped ridges in imitation of the rope or chain ornaments found on the large, shoe-shaped urns. The material is either very old or poorly burnt, it being very "rotten." Depth, 5 inches; width, 6 inches; length, 7 inches; width of mouth, (?) inches.

No. 61,733. Diminutive, shoe-shaped urn, with raised ornaments at each end. Found in urn. Depth, $2\frac{1}{4}$ inches; width, $1\frac{5}{8}$ inch; length, $2\frac{1}{4}$ inches; width of mouth, $\frac{7}{8}$ inch.

No. 61,730. Similar to last. Unornamented. Found in urn. Depth, 2½ inches; width, 2 inches; length 2½ inches; width of mouth, 1¼ inch.

No. 61,729. Narrow-mouthed round vessel, with a series of vertical depressions and corresponding elevations running around the upper part. There is also a raised ornament, probably a head, on each side near the top. These ornaments are connected by a "rope ornament" extending entirely around the vessel. The combination of form and

ornamentation is different from that seen in any other specimen from Nicaragua. Depth, $6\frac{3}{4}$ inches; width, 8 inches.

No. 61,731. Miniature of round urn, unornamented and unpainted. Found inside of round urn. Depth, 1½ inches; width, 1¾ inches.

No. 61,732. Same as last.

No. 61,734, 61,735. Ornaments from a large, curiously shaped dish which served as a cover for No. 61,738, but had been broken to pieces by roots. These ornaments were intended to represent the head of some animal, and show considerable care in design and execution.

No. 61,736. Beak of parrot in clay.

Many legs of tripod dishes were found, bearing a general resemblance to those of Grave No. 1. Very few bones were found, and those were even more fragmentary than in Grave No. 1.

No. 61,740 is a rude carving of a face in stone, found inside of burial urn.