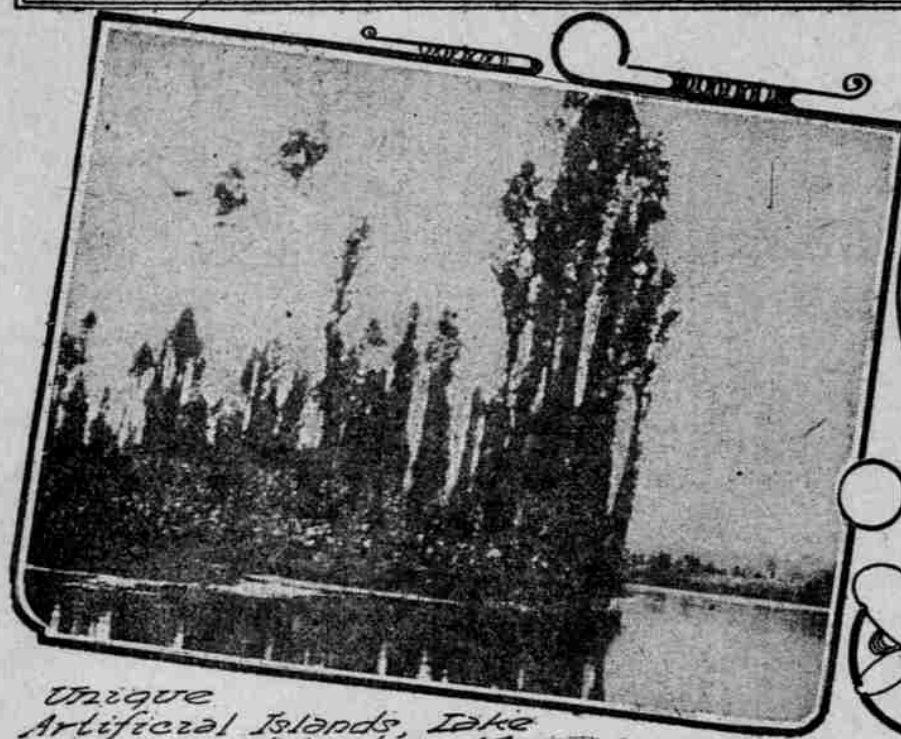


HUNTING FREAKS

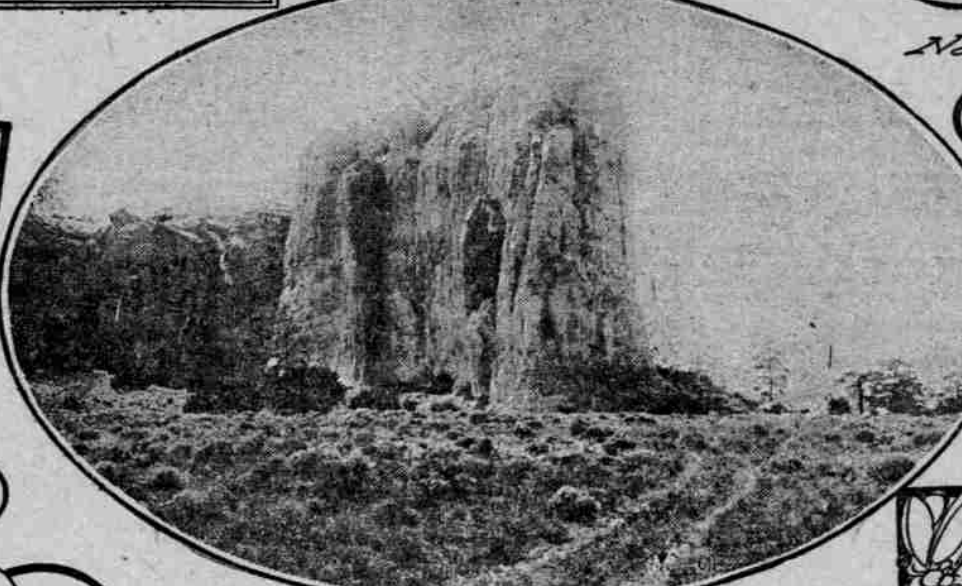
How Our Scientists Explore Jungles and Wilderness Facing Many Grave Perils.

NATURE'S SECRETS ARE SOUGHT OUT

Smithsonian Institution Sends Out Squad of Skilled Searchers, Who Penetrate Many Strange Lands—Some of the Perils and Difficulties of Research Work—Story of the Famous Rock, El Morro.



Unique Artificial Islands, Lake Xochimilco, Mexico.



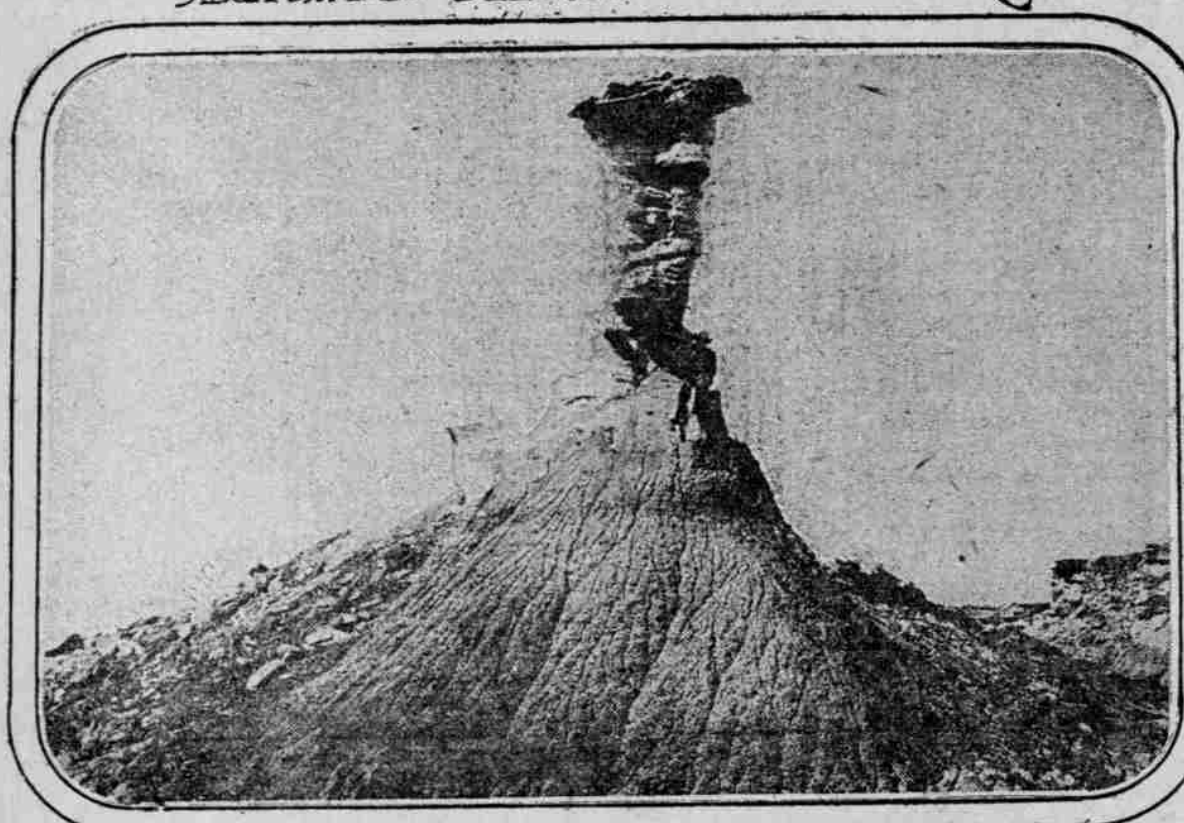
El Morro Rock, New Mexico



Natives of Algeria, Africa.



Cuna Indians, San Blas, Panama, discovered by Smithsonian Explorer.



Eagle Rock Monument, Fossil Forests Arizona

BY WILLIAM L. ALDORFER.

CRAWLING on his hands and knees through a snake-infested jungle in the heart of Africa, the explorer heard a slight rustling in the trees overhead, and a 100-pound weight came crashing down. Just as he was in the act of looking up it scraped his nose and buried itself in the ground. Had he moved one inch farther his skull would have been crushed like an eggshell. The weight was attached to a trap used by the natives of that country to catch wild animals. As soon as the bear, lion, or other animal touches the trap the act releases a spring and the weight kills the animal. That is only one of a thousand such incidents that happen to Uncle Sam's scientific explorers of the Smithsonian Institution in all parts of the world. Dr. Abbott was in Africa in the cause of science, and the story of his expedition is a combination of thrilling incidents from beginning to end. It is a typical story of the privations and hardships which men of science, not all over the world, cheerfully undertake in the cause of humanity, with the sure knowledge that they are taking a first-class chance of leaving this earthly sphere without a moment's warning.

The story of the life of the scientific explorer, particularly those employed by Uncle Sam at Washington, reveals more interesting and thrilling adventures than the average yellow-backed novel. Scientists as a rule are extremely modest persons, and when it comes to talking about their own exploits, will say little or nothing.

A Strange Aztec Village.

Recent explorations have led Smithsonian scientists into all parts of the world. In the past two years they have covered the greater part of East Africa, in Abyssinia and Algeria. Then over to South America, where they explored Argentina, Brazil and Peru; up into Mexico, Central America, and the Panama Canal Zone. From there over to the Aleutian Islands, and then to uninhabited and unexplored parts of British Columbia they have gone. Some have penetrated the barren wastes of Siberia, others have journeyed through Borneo and islands in that section. Still others have penetrated the unknown portions of forests in the Philippine Islands, where they found evidence of the existence of man thousands of years before the present inhabitants were born. Then on the ice-bound shores of the North, and the desolate wastes of the South pole guarded by that almost impassable Saragossa Sea made up of tangled seaweeds miles deep. The record of the many places explored in the known and

unknown world would fill a volume, and only a few may be touched upon in this story. All the work was done under the direction of Charles D. Walcott, Uncle Sam's chief scientific hunter at Washington.

While returning from Peru a few months ago, Alex. Hrdlicka, Uncle Sam's antiquity hunter, made a trip to an old Aztec village, about 15 miles from the City of Mexico. This village is one of the most interesting points in Old Mexico today, and yet this is the first time anything has been said about it. It is located on the shores of Lake Xochimilco, or the "Place of Flowery," one of the few old Aztec towns in Mexico. The village nestles on the shores of the lake and has a population of probably 1000 people, mostly descendants of the Aztecs. But the peculiar part about the place is the lake itself and the many unique cultivated islands it contains. The development of these islands is peculiar, and yet it is very simple from an engineering point of view.

An American Venice.

Many years ago some of the natives conceived the idea of building islands, which they called "chinampas," by sinking bound bundles of reeds so as to form rafts upon which earth was placed, and on this more bundles of reeds and soil were piled, until actual islands began to appear. Sometimes when the islands needed reinforcement to prevent their washing away, or caving in, willows were planted near the shores to form a firm bank and boundary. The islands, of course, gradually sank from year to year, but after being covered over with alternate layers of soil and reeds, a more substantial place of land was formed, which was capable of cultivation.

raised on the island fields are of the best quality.

Oldest Ruins in Mexico.

Following his discovery of these floating islands, the explorer made a trip to the great ruins of San Juan Teotihuacan, about 25 miles from Mexico City. These ruins are probably the oldest ruins in Mexico. There are two very large pyramids, one known as the Pyramid of the Sun, and the other as the Pyramid of the Moon. One of the graves was opened, and this proved to be of extraordinary interest. It was near the Pyramid of the Sun. In an oval-shaped cavity the explorers found the skeletons of a man and a woman with a number of dishes, rugs and knives. The skulls of these skeletons were artificially deformed. The great interest in this find was in the peculiar structure of the grave and the fact that an adult man and woman were buried together, indicating the sacrifice of the woman on the death of her husband. This is evidence that the old sacrificial rite, now done away with by the British government in India, that of burning the widow on the grave of the husband, was practiced by this ancient race of people many centuries ago.

The Cornucopia Skulls.

These skeletons also showed the artificial head deformation of the flat-head type practiced by the ancient inhabitants of these regions. This practice was carried out something after this fashion: The baby shortly after its birth was inclosed in a peculiar form of basket with a board attached to one end. This board was pressed down upon the forehead of the infant so that the infant's head would grow in a sort of conical shape. In fact, the ancients of that time showed a head shape in shape to an ordinary cornucopia. The extreme back part of the skull was forced out of its natural shape to an actual point. This was considered a mark of distinction and indicated aristocratic birth.

Another interesting and valuable find was that of the great ruins of the temples and city of Pachacamac, about 18 miles south of Lima. This place was once a great religious center. It is much like the Egyptian Thebes and the Mohammedan Mecca to which pilgrims flocked from all parts of Peru. After the destruction of the Temple of the Sun by the Spaniards the place became a desolate pile of ruins with thousands of graves of pilgrims who had come from widely separated regions and been slaughtered by the Spaniards. The valley of Chicama, near Trujillo, with the neigh-

boring country, was once the seat of a powerful people known as Chimú.

Indian Mummies Found.

Walter Hough is another of Uncle Sam's scientific hunters. His particular hobby has been the Pueblo Indian, and he has contributed more than 20,000 specimens of these Indians to the museum. He has worked along this line for more than 12 years, and during that time has probably explored more ancient village sites and caves in Arizona and New Mexico than any other living man. A short while ago Dr. Hough made a trip to the ancient ruins on the southern slope of the White Mountains in Arizona, where he discovered a great cave more than a quarter of an acre in extent, filled with all kinds of articles which the Indians had placed there in honor of their gods hundreds of years ago. In another cave he found a number of mummies. This cave was located back of a row of stonebuilt houses, and was filled to the roof with cast-off objects of the early inhabitants, from which could be traced all details of their daily life—hundreds, maybe thousands—of years ago. The cave was a veritable museum, where everything was preserved in the dry air of that region.

While on this trip Dr. Hough had a narrow escape. In fact, the whole party would have lost their lives had it not been for quick action. While on their search the party was caught in a canyon during a cloudburst. A wall of water more than ten feet high came rushing down the canyon without a moment's warning, and, according to a description of one of the members, it sounded as if a hundred glaciers had broken loose and all were coming down at one time. As it was, the tent and all provisions were carried away, including a large sum of money carried by Dr. Hough. The party scrambled for safety on the mountain side, with nothing worse than wet skins. The torrent, as it rushed down the canyon, carried big trees and immense boulders, terrific hailstones all the while pelting the explorers. In this same section Dr. Hough made a valuable find of the ancient pit dwellers, who hundreds of years ago lived on the mountains of New Mexico. Everything tended to prove that the former inhabitants were an entirely different class of people from anything ever heard of before. They were barbarians of the low type.

The Petrified Forests.

During the past year George P. Merrill, another scientist-hunter, explored little-known parts of the petrified forests in Arizona. He gives an interesting description of his trip.

"For a quarter of a century this region has been known as a wonder-

land," said Dr. Merrill. "Stories of 'fossil forests' are common throughout many parts of the great arid region lying between the front range of the Rocky Mountains and the Pacific Coast; fossil trees in full leaf, with fossil birds singing songs in their branches," etc. As a matter of fact, however, such a thing as a fossil forest of standing trees is quite unknown in Arizona or elsewhere.

In the Yellowstone Park and among the Bad Lands of the upper Missouri there are many silicified stumps standing where they grew, but they are merely stumps a few feet in height and quite devoid of branches. So, too, in Arizona, the 'forest' is not a forest, as the word is commonly used, but an assemblage of silicified logs, much like that which would result from the sinking and silicification of a boom of logs at a modern sawmill. Logs squared ended as if sawed, of all sizes and dimensions, are scattered in greatest profusion over the plains, and piled up in the ravines, while the ground is actually paved with fragments of Jasper and carnelian, which have flaked from the larger masses through the action of heat and cold.

"The first forest I found lying in the gulches and scattered over the plain on the west side of a mesa. This forest is a wreck—that is, it consists of a vast assembly of log fragments weathered out of the higher bluffs in the mesas which rolled to the lower levels. In this process the fragments became disconnected and separated, so there are few continuous sections of more than a few feet in length. The exposure to which these sections have been subjected has, however, in part, made up for the shattering. Under the intense sunlight of Arizona and the polishing action of the wind the fragments have taken on hues of a diversity and brilliancy that defy description. Of particular interest is an enormous log lying at the top of the mesa and some half mile to the east, from beneath the central portion of which the soil has been washed, leaving a bridge of sagatized wood spanning a chasm of 80 feet. This log is of still greater interest, as it is in the place of its original entombment, and hence less broken and shattered than those on the plain below.

"The second and third forest lies at a considerably greater height than the first. But either of these gives a better idea of the abundance and enormous size of the trees which nature has preserved through the process of burial and resurrection. Trunks occur of all sizes up to five or more feet in diameter, and from 60, or even 100 feet in length. The Rainbow, like the first forest, is geologically a wreck, and for the same reason. But what a

wreck and what colors! The richest of reds, yellow and purples, all heightened by the polish from the wind-blown sand, each new discovery more beautiful than the first, until the eye actually wearies from the mere superabundance of material.

"The chemistry of the process of petrification or silicification is interesting. The solutions permeating these buried logs were once alkaline, and as the logs gradually decayed their organic matter was replaced molecule by molecule, by silica. The wood has not turned to stone, but has simply been replaced by mineral matter, mainly silica. The brilliant red and other colors are due to the small amount of iron and manganese deposited, together with the silica, and superoxidized as the trunks are exposed to the air. The most brilliant colors are therefore to be found on the surface, and the smaller fragments are more likely to be colored throughout than are the larger.

Isle of Pines Explorations.

"For the past few years Dr. J. Walter Fewkes has been carrying on explorations in Arizona and Southwest Colorado and work on the Isle of Pines, near Cuba. He made a trip to the Isle of Pines shortly after the close of the Spanish-American War, and another only a short while ago. Little was known of the former Indians of Cuba prior to the Spanish-American War, notwithstanding it is the largest of the Antilles. In the words of Dr. Fewkes:

"Although the Isle of Pines was discovered by Columbus on his second voyage, he reported the existence of Indians on the island. But the character of those Indians must have been very low in the scale of human intelligence. Not far from the capital on the way to Nueva Jersona I found a cave called the cave of the Indians. Excavations in the floor of this cave brought to light many human bones and one or two skulls, which showed that the Indians had been buried there in former times. It also proved that Indians of this island probably lived in caves and were fishermen, who depended principally on fishing and hunting for a living. A number of other caves were investigated, but few remains were found. At different points we discovered sunken reservations called cacimbas, said to have been built by the former Indian inhabitants. These were large round holes five or six feet deep and three to four feet wide. Although most of the people said they were dug out by the earlier Indians, others said they might have been used in the manufacture of tar and turpentine."

An African expedition to Algeria was

undertaken by the Smithsonian Institution in 1911, for the purpose of making simultaneous observations of the sun there and in other parts of the world, including Washington. Dr. Abbott is Uncle Sam's sun scientist, and he has probably covered the greater part of the earth's surface trying to unveil the secrets of the action of the sun on the earth.

From his work and that of other scientists along the same line it is almost certain that phenomena similar to volcanic action occurring periodically on the surface of the sun do have a direct influence upon the earth. For instance, during the past year there were numerous spots visible on the surface of the sun. The theory is that theristum spots are the direct or indirect cause of physical disasters on this planet. Last year a number of sun spots appeared and at the same time happened the great Mississippi floods and floods in other sections of the world. This was followed by the unusual flow of icebergs from the north, resulting in the great Titanic disaster. About the same time occurred the extremely warm weather in Alaska. A number of such instances happened all over the world, earthquakes, volcanic disturbances, etc.

El Morro Rock.

One of the greatest curiosities of the modern world is the El Morro Rock in Western New Mexico. The latter part of last year F. W. Hodges, another of Uncle Sam's scientific explorers, made a thorough investigation of this rock. The rock has the appearance of a great castle, hence its Spanish name, El Morro. Mr. Hodges gives an interesting story of the rock. He said:

"A small spring formerly existing at the rock made it a convenient camping place for the Spanish explorers of the seventeenth and eighteenth centuries, and historically the most important is that of Juan de Onate, colonizer of New Mexico and the founder of the city of Santa Fe in 1598. It was in this year that Onate, on his return from a trip to the head of the Gulf of California, visited El Morro and carved this inscription: 'Passed by here the officer Don Juan de Onate, from the discovery of the South Sea, April 16, year 1598.'

The work of the Smithsonian scientists covers a large field, and the number of scientific explorers constantly on the hunt throughout the wide world is ever on the increase, so that in an article of this kind only the most recent work can be touched upon.

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