

realize that so condensed a piece of sun-fire should ever become dim or die at all. He is seldom killed by hunters, for he is too small to encourage much of their attention, and when pursued in settled regions becomes excessively shy, and keeps close in the furrows of the highest trunks, many of which are of the same color as himself. Indian

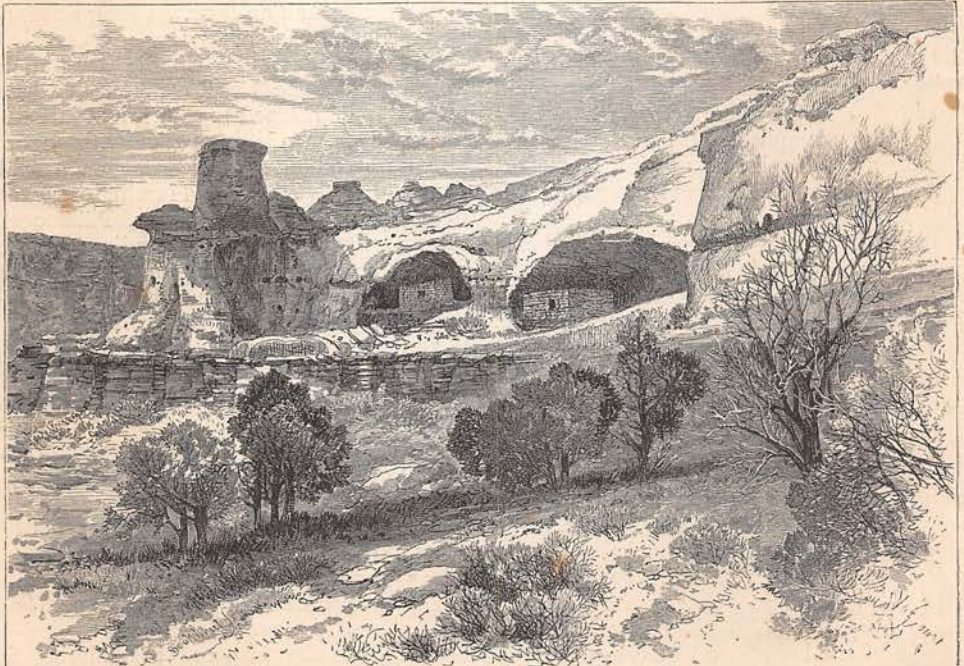
boys, however, lie in wait with unbounded patience to shoot them with arrows. A few fall a prey to rattlesnakes in the lower and middle zones. Occasionally he is pursued by hawks and wild-cats, etc. But, upon the whole, he dwells safely in the deep bosom of the woods, the most highly favored of all his happy tribe. May his tribe increase!

THE CLIFF-DWELLERS.

OUR ancestors named this the New World. They grouped their cabins upon its shores, believing themselves to be the first who had planted colonies within its primeval forests. After several hundred years' possession, we discover that successive and unnumbered civilizations had, possibly, flourished and decayed upon this continent before Columbus crossed the sea. Archæologists have examined fortifications in the prairies, have unearthed cities in the valleys, found sacrificial altars on the bluffs, and burial mounds by the water-courses, showing that the so-called New World is the mausoleum of a prehistoric race,—the cemetery of lost tribes, whose crumbling habitations are their only headstones.

Of late, blown over the plains, come stories of strange newly discovered cities of the far south-west; picturesque piles of masonry, of an age unknown to tradition. These ruins mark an era among antiquarians. The mysterious mound-builders fade into comparative insignificance before the grander and more ancient cliff-dwellers, whose castles lift their towers amid the sands of Arizona and crown the terraced slopes of the Rio Mancos and the Hovenweep [pronounced Höv'-en-weep].

A ruin, accidentally discovered by A. D. Wilson of the Hayden Survey several years ago, while he was pursuing his labors as chief of the topographical corps in Southern Colorado, is described to me by Mr. Wilson



ANCIENT CAVE-DWELLINGS ON THE McELMO.

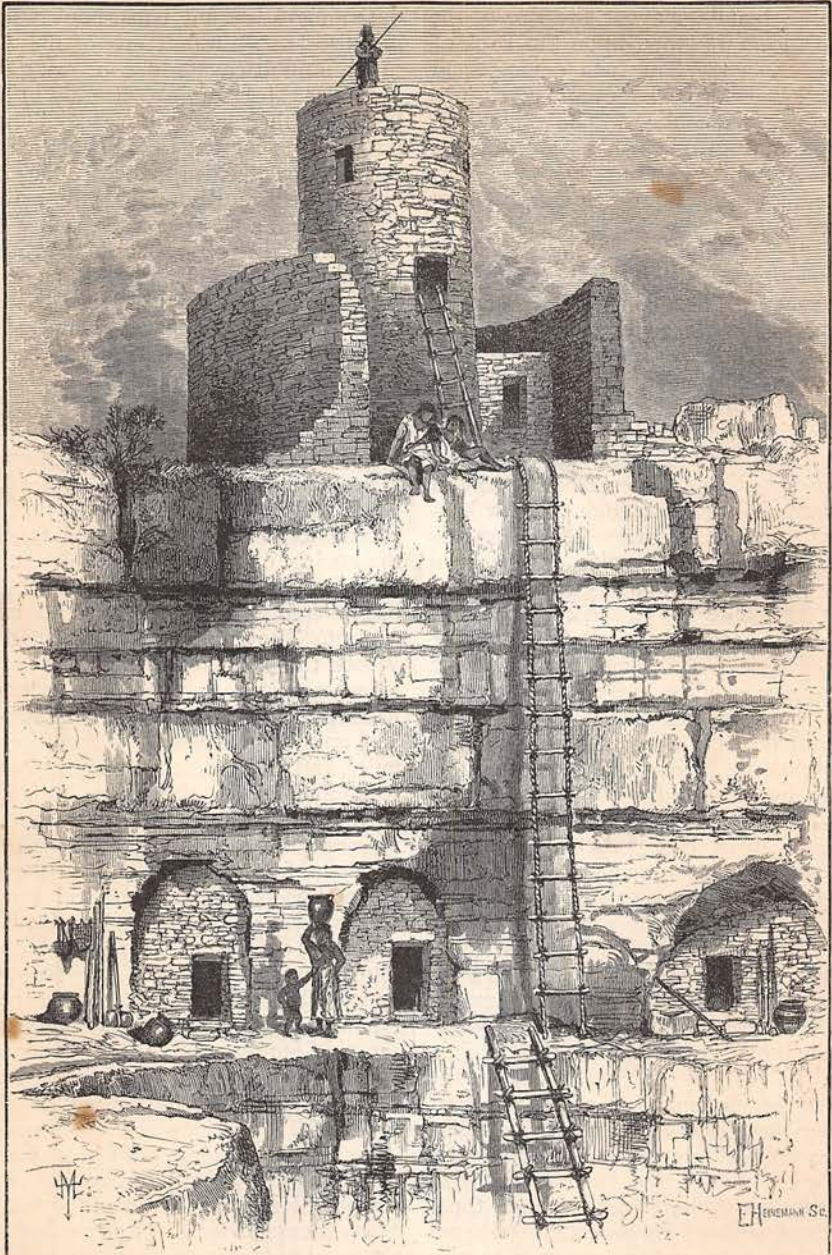
as a stone building, about the size of the Patent-Office. It stood upon the bank of the Animas, in the San Juan country, and contained perhaps five hundred rooms. The roof and portions of the walls had fallen, but the part standing indicated a height of four stories. A number of the rooms were fairly preserved, had small loop-hole windows, but no outer doors. The building had doubtless been entered originally by means of ladders resting on niches, and drawn in after the occupants. The floors were of cedar, each log as large around as a man's head, the spaces filled neatly by smaller poles and twigs, covered by a carpet of cedar-bark. The ends of the timber were bruised and frayed, as if severed by a dull instrument; in the vicinity were stone hatchets, and saws made of sand-stone slivers about two feet long, worn to a smooth edge. A few hundred yards from the mammoth building was a second large house in ruins, and between the two strongholds rows of small dwellings, built of cobble-stones laid in *adobe*, and arranged along streets, after the style of the village of to-day. The smaller houses were in a more advanced state of ruin, on account of the round stones being more readily disintegrated by the elements than the heavy masonry. The streets and houses of this deserted town are overgrown by juniper and piñon,—the latter a dwarf wide-spreading pine which bears beneath the scales of its cones delicious and nutritious nuts. From the size of the dead, as well as the living, trees, and from their position on the heaps of crumbling stone, Mr. Wilson concludes that a great period of time has elapsed since the buildings fell. How many hundred years they stood after desertion before yielding to the inroads of time cannot be certainly known.

The presence of sound wood in the houses does not set aside their antiquity. In the dry, pure air of Southern Colorado, wood fairly protected will last for centuries. In Asia cedar-wood has been kept a thousand years, and in Egypt cedar is known to have been in perfect preservation two thousand years after it left the forest. The cedars throughout the territories of the southwest do not rot, even in the groves. They die, and stand erect, solid and sapless. The winds and whirling sands carve the dead trees into forms of fantastic beauty, drill holes through the trunks, and play at hide-and-go-seek in the perforated limbs until, after ages of resistance, they literally blow away in atoms of fine, clean dust.

On the Rio San Juan, about twenty-five miles distant from the city of the Animas, Mr. Wilson discovered the following evening a similar pile, looming solemnly in the twilight near their camping-place. The scene as described was weird in the extreme. As the moon arose, the shadows of the phantom buildings were thrown darkly across the silvery plain. The blaze of camp-fires, the tiny tents, the negro cook, the men in buckskin hunting garb, and the picketed mules, made a strange picture of the summer's night, with background of moonlit desert and crumbling ruins, on whose ramparts towered dead, gaunt cedars, lifting their bleached skeletons like sheeted ghosts within the silent watch-towers of the murky past.

In the summer of 1874, a division of the Hayden Survey, specially detailed for the work, under the direction of W. H. Jackson, started to find, and investigate thoroughly, the ancient cities of the south-west. They have brought back the first authentic and official information ever received upon the subject. They report the ruins found by Mr. Wilson to be on the northern edge of an immense settlement, which once extended its dense population far down into New Mexico. The area covered is several thousand square miles, and embraces the adjoining corners of Colorado, Utah, Arizona and New Mexico, the most southerly ruins showing much the finer specimens of architecture. The region is remote from civilization, and the nearest railroad point between two and three hundred miles distant. From Fort Garland, the way leads across a trackless desert, dotted by sage-bush and stunted grease-wood, and enlivened by rattlesnakes, horned toads and tarantulas. In patches, the alkali rests on the sand in fleecy flakes, like new-fallen snow, and over all the sun beats down in tropical fury. The streams formed on the western slope of the Rocky Mountains have cut long cañoned valleys through nearly horizontal beds in the southern part of the desert, and have gashed the underlying rock to a depth sometimes of many thousand feet. The river-beds are for the most part dry, except when in spring the snows come from the mountains in a brief, cool flood, which, disappearing, leaves only pasty, brackish dregs in the pockets of the rocks. Very rarely there are found living springs trickling down the cañon-side, marked by the mosses and leaflets that even in deserts find out and dwell beside the tiniest rill.

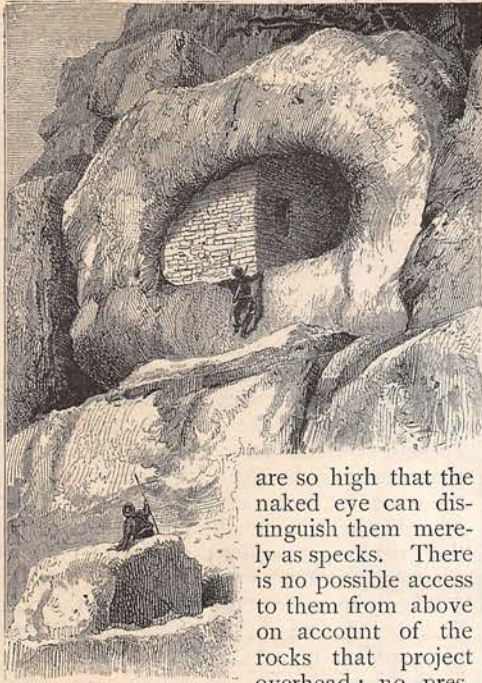
Bounded by the Rio Mancos, the La Plata and the Rio San Juan, is a triangle



RESTORED TOWER AND CLIFF-HOUSES.

embracing an area of six hundred square miles which does not contain a drop of water. Around the edges of this triangle is a wide-spread net-work of ravines crusted with ruins. The San Juan and the La Plata have quite a width of bottom-land between their sides, but the Rio Mancos runs like a brooklet along its narrow path, shut in by sheer walls thousands of feet in height.

On the terraces of the more open cañons are multitudes of picturesque ruins; in the bottom-lands, the remains of towns; in the wilder cañons, houses perched upon the face of the dizzy chasm. In an encampment, one thousand feet above the valley of the Rio Mancos, are single houses, groups of two and three, and villages, according to the width of the shelf they occupy. They



HONEY-MOON COTTAGE.

are so high that the naked eye can distinguish them merely as specks. There is no possible access to them from above on account of the rocks that project overhead; no present way of reaching

them from below, although doubling paths and foot-holes in the rocks show where the way has been of old trodden by human feet.

The cliffs are in some parts limestone, but more frequently sandstone, with alternating strata of shales or clay. The softer layers weather out, leaving caves, whose solid stone ledges serve as floors and roofs of the cliff-dwellings. A few houses are two stories, one showed four stories, but generally they are not higher than a man's head; division walls are built, beginning at the back of the opening and working outward to the front of the cave, which is so neatly walled by masonry of the prevailing stone that the artificial work is scarcely noticeable by a casual observer. Upon the summits of the loftier battlements are placed at irregular intervals round stone towers, supposed to have been signal-towers. The sketch on page 268 gives a better idea than words can give of "the ancient watch-tower of the cliffs." The curve of the aboriginal masonry is perfect; the side of the tower has fallen, and the summit is jagged by the gnawing tooth of time; but it stands boldly on the heights, and waits through the centuries the coming of the dead braves to light again its signal-fires. At present the roving Navajos,

excepting scattering Utes, are the only wanderers through the barren land.

In the McElmo cañon stands a ruin known as "Battle Rock." A huge boulder has fallen and rests on the wall of a straight fortification, and both boulder and wall are exquisitely wreathed about by wild vines. On the terrace beneath Battle Rock stands the remains of a round building plainly showing the ends of beams where the floor of the second story has been; on a bench, yet lower, ruined towers lean heavily against the sandstone bank, while on the very top of the embattled cliff are other walls surrounded by fringes of juniper, and from the pinnacle of the loftiest of the group a slender stem supports a



SECTION OF CLIFF SHOWING SITUATION OF THE TWO-STORY HOUSE OF THE RIO MANCOS, 700 FEET ABOVE THE RIVER.

tuft of pine outlined like a black flag against the sky. The country around this spot is



RUINS IN CAÑON DE CHELLEY.

strewn with flint arrow-heads lodged in the crevices and buried in the ground. All the arrows lie with their points toward the ruins. In none of the settlements have there been signs discovered of partially completed points, or anything to indicate that the cliff-dwellers were a warlike people, or that they fought with bows. The arrows are supposed to have been left by an invading horde who swept, in some remote time, over the whole country and waged fierce warfare upon the rich cities of the south-land.

The Battle Rock of the McElmo is not more beautiful than its neighboring "Hovenweep Castle," or literally, "The Castle of the Deserted Valley." On the surrounding headlands of the Hovenweep, as well as on the distant plateaus of the Dolores and other streams, are somber "cities of the dead" lifting their monumental tablets from the bare desert sands. According to our authorities, no bones have been found in these cemeteries, no signs of graves, but charred wood and ash-heaps are mingled with the sand. In all probability this ancient people were fire-worshippers who cremated their dead and fancied that the souls of their race fled as the sparks upward and found their heaven in the bosom of the blazing sun. The stones are mere memorials showing the spot where the dead were burned. The fact that the sun was their deity is substantiated by the *estufas* in their dwellings and in their cities. The buildings where their sacred rites were performed are of circular shape, depressed in the center of the floor, show marks of altar fires, are often triple-walled, with partitions extending from the center through the walls, like sun's rays, dividing the space into small apartments where their treasures were stored. The present Pueblo Indians of

New Mexico and Arizona are believed to be the remnant of the descendants of the conquered cliff men. The mud houses of the Pueblos are modeled rudely after the stone dwellings of the bottom-lands, and some signs of retrograde civilization link them to a better time. The seven Moqui cities of Arizona have *estufas* and the tribes are fire-worshippers. The Moqui towns are now in precisely the state of preservation that they were described by the invading Spaniards to be, nearly four hundred years ago. Assuming the Moquis to be lineal descendants of the cliff-dwellers, how vast a time the old cañon castles must have been deserted when even the Moquis have no knowledge of the grand homes of their ancestors! Regarding the age of the Pueblos, they were said by Coronado, at the time of the conquest, to look very old. Castañedo records that the inhabitants told him that the Pueblos were older than the memory of seven generations.

The ruins now made known to the public, at the time of the Spanish invasion, were spoken of as fabulous, and in 1681, in the journal of Don Antonio de Otermin, mention is made of vague rumors to the effect that eighty leagues distant there were *Casas Grandas*, which had long before served as fortresses. Albert Gallatin said: "There are said to be in these parts ruins of ancient buildings known as *Casas Grandas*, ascribed to the Azteques."

That the Pueblo Moquis are fire-worshippers, as were the cliff-dwellers, is made evident by an account in Davis' "Conquest of New Mexico." "Many curious tales are told of the superstitions of the Pueblos. It is said that Montezuma kindled sacred fires in the *estufas* and commanded that they be kept burning until his return. He was expected to appear with the rising sun, and every morning the inhabitants ascended to the house-tops and strained their eyes looking to the east for the appearance of their deliverer and king. The task of watching the sacred fires was assigned to the warriors, who served by turns a period of two days and two nights without eating or drinking, and some say that they remained upon duty until death or exhaustion relieved them."

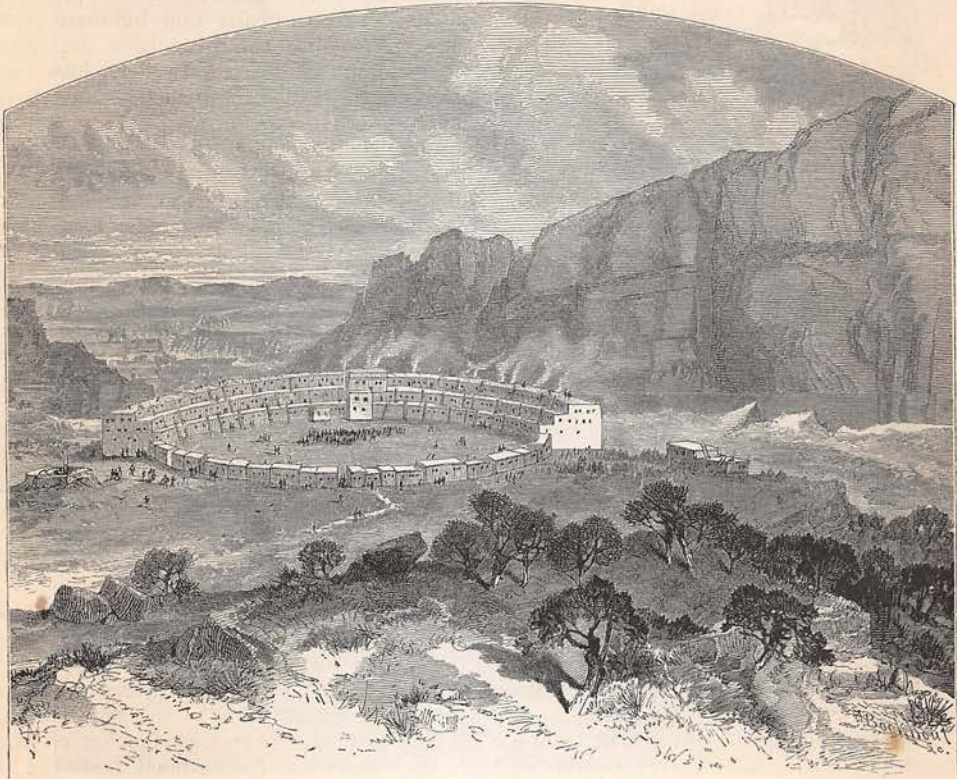
Espejo says: "In the Pueblos they represented, by means of pictures, the sun, moon, and stars, as objects of worship. When they saw the Spaniards' horses they were on the point of worshipping them as superior beings; they subsisted them in their most

beautiful homes and entreated them to accept the best they had."

Daviss says: "The houses are mud and stone, entered by means of outside ladders. I was shown their god Montezuma. It was made of tanned skin stretched on a circular frame nine inches in diameter; one-half was painted green and the other red; on the green part were holes representing eyes, on the red part pieces of leather for

now inaugurated must before long lead to clearer ideas concerning the lost tribes.

To return to the cliffs. Portions of the cañon walls are painted with pictorial word-writing and curious hieroglyphics. In one case inscriptions were seen back of a bowlder through the crevice, between it and the wall. The bowlder had fallen from above so many years ago that parts of it were imbedded in roots and trunks of trees, yet the writing



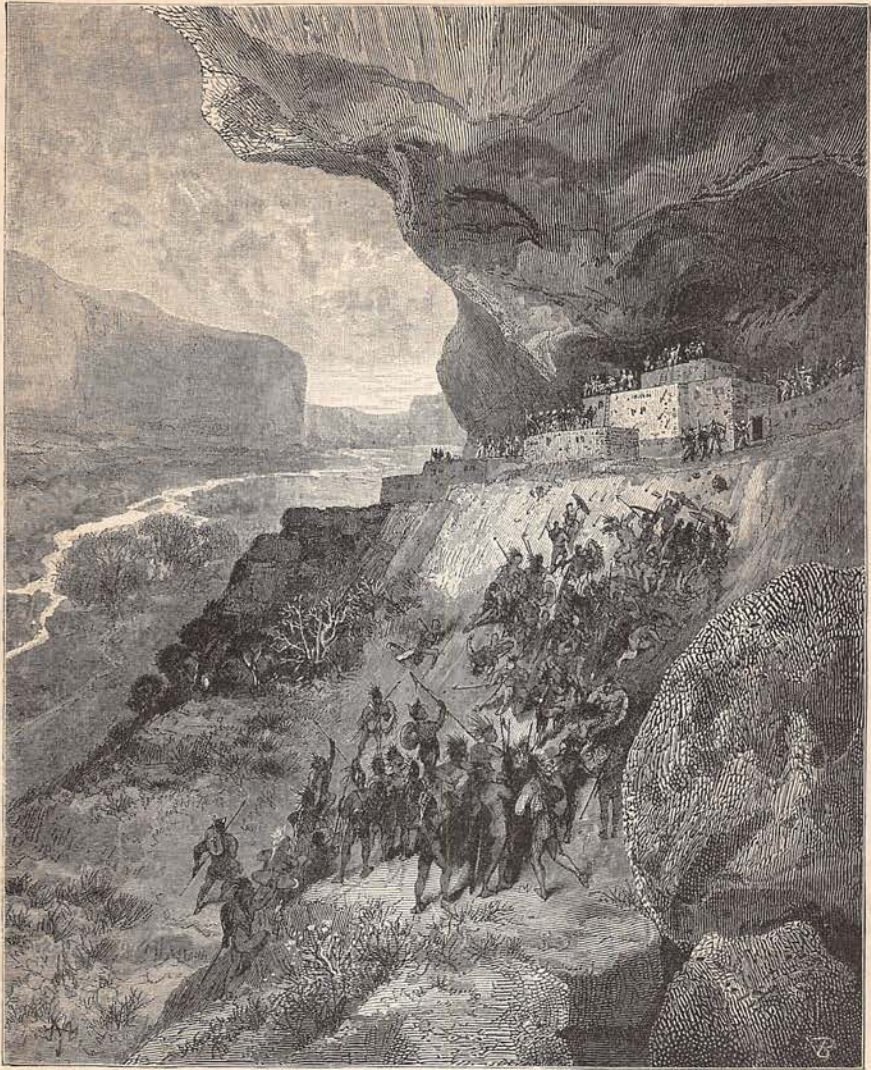
RESTORATION OF PUEBLO BLANCA.

ears and mouth. The people knelt around it and offered prayer. One of them told me this senseless thing was God and the brother of God."

One of the Hayden party who visited these Pueblos in 1875 says that at sunrise the inhabitants stand on the house-tops and stretch out their arms toward the east, waiting silently for the sun to rise above the horizon. When it appears they burst into a great shout and disappear within their homes. It cannot fail to be an interesting study to trace out the line of kinship between the Indians of the old Pueblos and the earlier residents of the stone buildings in the cañons. The investigations

back of it was fresh as though painted yesterday. The pottery found in all the ruins is similar in form and texture; it is thin, of hard finish and painted in colors that have lost none of their original brightness.

In a shallow cave of the Rio de Chelley, a few hundred feet above the river-bed, fifty exquisitely tinted arrow-heads and seven large jars were unearthed. The cave contains a house three stories high, having seventy-six rooms on the ground floor. The ruins are five hundred and fifty feet long. Within the work-room were large grind-stones and various implements of the stone age. The walls are plastered in white



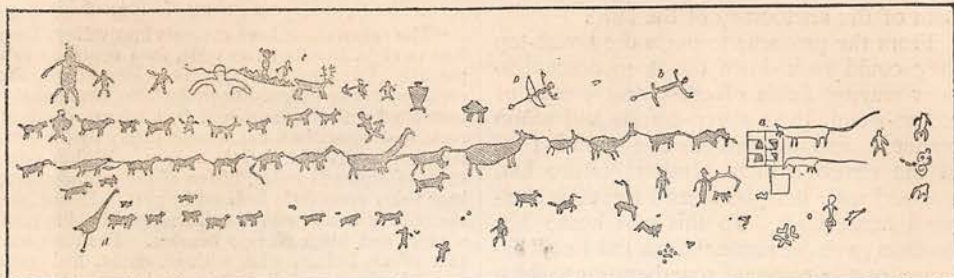
AN ATTACK ON A VILLAGE OF CAVE-DWELLERS.

cement of stucco-like finish. That it was spread on the walls by human hands is evident from the marks of the pores of the skin to be found on the surface. Occasionally the whole print of the hand has been left; one woman's slender fingers are thus preserved for the people of the nineteenth century; they seem to be extended as though pleading to be rescued from the horror of annihilation. Low down on the walls are the chubby palms of little children, with every crease and dimple preserved.

A very picturesque ruin of the Rio de Chelley has been ingeniously modeled in miniature, together with the face of the bluff

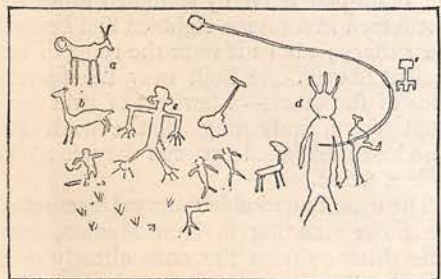
in which it rests. The worn steps up the rock, the cave, and crumbling masonry, are more perfectly reproduced by the sculptor's chisel, than is possible by pen or pencil. Duplicates of the design have been made in plaster, painted in the warm buff tints of the shaly sandstone. These are framed, and will be sold at their first cost by Professor Hayden to colleges, or private individuals, and will be invaluable in explaining the cliff ruins to students interested in all that pertains to the former inhabitants of North America. The models are about three feet by two in size.

Among the countless ruins of the Rio San Juan there is a circular cave two hundred



HIEROGLYPHIC ROCK INSCRIPTION OF THE SAN JUAN, SUPPOSED TO REPRESENT A MIGRATION OR THE TROPHIES OF A VICTORY. ABOUT ONE-TWENTY-FOURTH OF ORIGINAL SIZE.

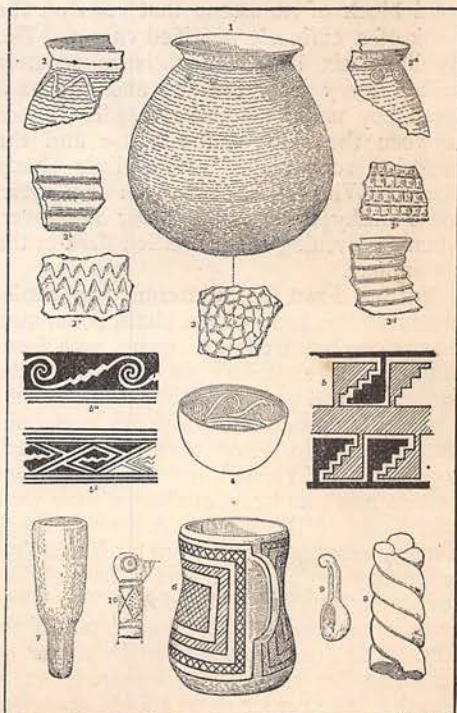
feet high, opening like a deep round tunnel in the cañon wall. Across the center of the cave a shelf of hard rock forms the foundation of a stately pile, which extends into the twilight of the cavern, midway up the height. It can be seen for the distance



SAME AS ABOVE. PART OF ANOTHER INSCRIPTION.

of a mile down the bend of the cañon. In the interior an open space probably served as a work-shop. Holes in the rock formerly supported the posts of their looms, while grooves in the floor mark where the workmen made their stone saws, and sharpened their clumsy stone axes. The front part of the lower floor is in one long apartment or promenade; the upper rooms have small windows, communicating doors leading into the back part of the cave. The mild climate excused the necessity of any house-covering other than the dome-like ceiling of the vaulted cavern. In a central room of the main building, a depression, bearing traces of aboriginal fires, marks what was once the kitchen-range of the manor: on smooth hot stones their cakes of acorn paste were baked; the stones yet lie beside the ash-heap. In the pit they roasted their sheep; the bones remain in a refuse heap outside. Whether plain corn on the cob, or succotash, was most relished by these specters we shall never know, although an

impression of a cob in the plaster on the wall proves that corn was raised in the time of the cliff-dwellers. Several of the apartments have marks of fires built against the back walls, where the smoke escaped overhead through the open roof. The house is bare, except much broken pottery, artistically painted; things of value have long since been carried away by the roving bands of Indians. The mansion presents an unusually imposing appearance. None of the neighbors boasted so big a cave, or so grand an entrance-hall. The family who



POTTERY OF THE SAN JUAN COUNTRY. SHOWING MODE OF DECORATION, ETC.

in the old time dwelt therein must have been of the aristocracy of the land.

From the promenade upon the house-top they could look down the steep descent to their waving fields of corn, and groves of cotton-wood, their sheep-corrals and piñon orchards, and upward to the grand roof of the cavern which Mother Nature had scooped with her giant hand for their sheltered homestead. To this cave-home Mr. Jackson gave the name "Casa del Eco," because of the resonant reverberations which caused the faintest whisper of the visitors to be repeated as though by hosts of phantom lips, within the shades of the gray old ruin.

In the time when Casa del Eco resounded with merry life, social distinctions I suppose existed as now. In prehistoric times, no more than in our times, could every one afford a palace. Poverty hid her wan face behind picturesque simplicity, and young people tried love in a cottage, and dwelt in dove-cotes beside their prouder kinsfolk. A tiny home, neat and trim as a Yankee kitchen, is perched on the heights of the West Montezuma, near its junction with the East fork. The house is built in an oval hole which has been weathered out of a solid block of sandstone that rests on the brink of a curiously stratified chasm. The dwelling, six by ten feet, is as securely tucked away from the sun and rain as a small boy under an umbrella. The space between the side of the house and the inclosing rock forms a nice little shady piazza. Who knows but from this eyrie, some dusky bride watched for her lover, when the evening shades settled dark in the cañon lane.

Further down the Montezuma, are settlements at the base of the bluffs, containing houses one hundred feet square, with foundation walls extending six feet below the surface of the ground. In one was found a stone ax, ground to an acute angle and shaped ready to tie on to a handle; small rope made of twisted rushes, a small unbroken bowl, and ears of charred corn were taken out of the ruins. A row of small houses, hanging over the brink of a narrow ledge high in air, threatens a barrack-like row three hundred feet below. The lower terrace has been dug out to a depth of six feet. The space is occupied by a row of tenement-like houses, four hundred feet in length. The corner room affords access to the row; communicating doors lead through the interior.

Mr. Jackson, in his late report, says:

"The cañon sometimes expands into valleys from four to eight hundred feet wide, then contracts to a passage of twenty feet. In the wider places, the rocks jut out in tongue-like projections, occasionally connected with the main-land by a narrow comb of rock, and sometimes cut away entirely by the erosive powers that chiseled the cañons. Within a distance of eighteen miles, fifteen of the promontories bear ruins upon their isolated heights. In one, the skeleton of a man was found, wrapped in shreds of a white and black Navajo blanket. The form was that of an Indian, who, without doubt, had wandered in there, and died alone in the cave shelter."

Of the multitudes who swarmed through the cañons and the plains, when the wonderful stone-cutting and tree-hewing were going on, when the towns were being built, and the country homes perched on the high places, there have been no bodily remains found, which could be identified as those of the cliff-dwellers. A single skull, petrified, with the brain-pan filled by solidified sand, was discovered in a ravine eighteen feet beneath the surface; above it were the ruins of two ancient houses, one built over the foundations of the other,—a few feet of drift separated them, indicating that considerable time had intervened between the periods of their erection.

The most remarkable ruins yet discovered, are those standing in New Mexico, some little distance from the ones already mentioned. They put to shame the primitive log-hut of our forefathers; the frame shanty of the prairie town; the dug-out of the mining regions; the adobe shelter of the Pacific slope. In size and grandeur of conception, they equal any of the present buildings of the United States, if we except the Capitol at Washington, and may without discredit be compared to the Pantheon and the Colosseum of the Old World. Thirty years ago, while on a raid against the Navajos, Lieutenant Simpson, of the staff of Colonel Washington, Military Governor of New Mexico, found some of the ruins of Chaco Cañon, the most southern of the ancient cities of the south-west. Mr. Jackson was fortunate in finding at Jemez an Indian who had accompanied Lieutenant Simpson in his visit. Hosta is past eighty, of thin and stooping frame; but he assured the Hayden party that he was as young as he ever had been, and could pilot them through the nearest cut to Chaco Cañon. He enlivened the journey by garrulous reminiscences of his former trip, and described Colonel Washington and his men as he remembered them. After crossing the New

Mexico line, the explorers report that singular optical illusions were frequent. The cheating mirage hovered before them, holding up green oases and shadowy walls, vine-draped and tree-embowered; the sand-hills, sage-brush and scant grass were magnified into mountains, forests and fields of maize.

The ruins are visible seven miles away, as one looks down from the continental divide, from which the cañons begin their way in furrow-like gulches. Near by are low mesas and buttes, and the Jemely Mountains, the San Mateo, and the Cerro Cabezon are in clear view. The ruins of the cañon are eleven in number, strung along at distances of from a quarter of a mile, to two miles from each other. In the rocks of Pueblo Pintado, Mr. Jackson discovered elaborate stone steps, where the rock had been carved into ladder-like rounds, which the hands could grasp around.

The Pueblo Penasco Blanca on the opposite side of the cañon is in form of an ellipse. The western half of the ellipse is occupied by a massive structure, five rooms deep, and the other half by a single continuous row of small houses, serving as a wall to inclose the court. The interior of the court is 346 by 269 feet; by adding the depth of the surrounding buildings, an exterior is obtained of 499 feet by 363 feet, whose circuit is 1,200 feet. The great depth of the *débris* indicates an original height of five stories. There are seven estufas on the west side.

The Pueblo del Arroya has wings about 135 feet in length, and the western wall of the court is 268 feet. Facing the center of the court are three circular estufas, one of thirty-seven feet in diameter, and three stories in height. Mr. Jackson made a remarkable discovery in this pueblo. He says: "About two hundred yards up the arroya are ruins, whose upper surface is mound-like, showing very faint traces of masonry. The stream has undermined one corner, exposing a wall at a distance of five or six feet below the level of the valley. No surface indications of the exposed wall are found. The arroya is here sixteen feet deep, but there is an older channel cutting in near the large ruin only half this depth. Below the remains of these walls, and extending out into the main arroya to a depth of fourteen feet below the surface, is an undulating stratum of broken pottery, flint chippings and small bones firmly imbedded in a coarse gravelly deposit."

The Pueblo Weji-gi is built of small tabu-

lar pieces of sandstone, arranged with a beautiful effect of regularity and finish. It is a rectangular structure, built around an open court. Its exterior dimensions are 224 by 120 feet; its height, three stories.

Near the Pueblo Una Vida, the cañon has a width of five hundred feet, perfectly level. Within the court of this Pueblo are the remains of the largest estufa yet found in any of the ruins. It measures over sixty feet on the inside from wall to wall; its upper plane is on a level with the floor of the court; it was evidently subterranean.

Nearly all the logs which supported the flooring are yet in position in the Pueblo Hungo Pavie. The height is four stories; the lower walls three feet thick; the estufa extends to the second story, and has a projection or porch built upon one side; the interior is twenty-three feet in diameter, and has six pillars of masonry built into the wall at equal distances.

The Pueblo Chetetro Kettle is 440 feet long and 250 feet wide, and presents remnants of four stories. The logs forming the second floor extend through the walls, a distance of six feet, and probably at one time supported a balcony on the shady side of the house. The sand has drifted far above the first floor, and completely blocked the windows. A coyote's hole exposed a wall beneath the surface that had been completely covered by drift. The masonry of this pueblo is unusually handsome,—built of very small pieces of a rich buff sandstone, arranged so compactly as to give the idea of a homogeneous surface. Mr. Jackson estimates that in the wall running around three sides of the building, 935 feet in length and 40 feet in height, there would be 2,000,000 pieces of stone for the outer surface of the outer wall alone. This surface multiplied by the opposite surface, and also by the interior and transverse lines of masonry, would form a total of 30,000,000 pieces embraced in 315,000 cubic feet of wall. The millions of pieces had to be quarried and put into position; timbers brought from a distance; ladders constructed, and plaster prepared, employing a large number of skilled workmen under good discipline a long time. When we consider not alone the immensity of these ruins now on the surface, but reason concerning the massive foundations of other older buildings under these, exposed by the chance burrowing of wild beasts, or the slicing down of banks by washes and arroyas, the mind, bounded by our little span of three score years and

ten, cannot fathom the obscurity of the deep-sunk ages of the past, filled by the works of so great an antiquity.

Not more than six hundred yards from the Pueblo Chettro Kettle is a handsome ruin which bears the musical title, Pueblo Bonita. It is built within twenty yards of the bluff on the level bottom-land, which extends in a sandy plain for some distance, watered by a shallow brooklet. The length of the Pueblo Bonita is five hundred and forty-four feet, its width three hundred and fourteen feet. It has been restored by Mr. Jackson, of the Survey, to what he deems its original form, which is presented in the last sketch. A study of the picture of the pueblo, as it was before its changes came, will, without doubt, be of more interest than a description of it in its ruined condition. In our second hundredth year of national existence we are confronted by tokens of a once powerful nation, who held our land before us. It is

natural that we feel an interest in the unknown race, and search every crevice of the past for mementos of the lost. Dr. Hayden and his corps of assistants have surveyed a rich field of antiquarian treasure. After their centuries of silent musings upon the river-banks, the old castles hear again the sound of human voices. The new lips speak a strange language. The pre-Columbian race, through whose dismantled homes the strangers wander, have passed into the shades of impenetrable oblivion, leaving only conjecture to tell, with uncertain tongue, her story of the cliff-dwellers.*

* The writer is indebted to Professor F. V. Hayden for special courtesies, to A. D. Wilson for verbal description, to W. H. Jackson and W. H. Holmes for sketches and valuable information. From the Government Report by these gentlemen are reproduced some of the illustrations of this paper. The editor desires to add his opinion that the present paper does not give Mr. Ernest Ingersoll deserved credit for discoveries among these ruins.

ART AT THE PARIS EXPOSITION.

BY A PAINTER.

THERE are from five to six thousand works of pure art in the galleries of the Exposition. Two-thirds of these are exposed by the French; England has seven hundred; Belgium and Italy four hundred each, all of the other countries being still less numerously represented. Not only in size, however, but in merit as well, the French collections are the most important of all, and there is little in them that one does not care to see, or which is not in some way interesting or instructive. One is here most struck by the landscapes, which are the chief glory of the French school. The subjects of the best of these are simple, thoroughly interpreted, and show a sincere sympathy for all that is most artistic and poetic in nature. No affectation is resorted to. They seem to have hit the point where realism and sentiment unite; there is enough of both, but not too much of either.

There is a spring landscape by C. F. Daubigny,—such a motive as may be found in almost any open country. A bluish-gray sky with strips of light cloud through it; in the distance low hills and fruit-trees in bloom; in the foreground blossoming apple-trees and the boughs of other trees not yet in leaf against the sky; and through the half-grown wheat, a peasant girl in a white

dress walks with her lover; near them a white butterfly settles and gives a key-note to the color of the picture, which is light but not in a high tone, in perfect harmony, the treatment bold and broad. It seems carelessly done, but how true it is, how full of thought and meaning, how necessary is every touch! At the same time, it has great sentiment. One feels not only the truth, but the subtle charm of this lovely day. One seems to be there, and to breathe the dreamy, half-warm, half-moist atmosphere. Another is a winter scene, which is one of the most impressive landscapes in the Exposition, having something really tragic in its tone. In this a road passes through deep snow toward the west, where small reddish clouds lie low on the horizon of a warm gray sky filled with wonderful light. Half-way up this road are some dark, straggling trees, about which great flocks of crows settle and crowd the fields. Another is a solemn twilight, the full harvest-moon rising over the trees. Simplicity, truth, strength, healthy sentiment and great imagination appear in all of this splendid collection of Daubigny's works; in each picture one feels that the author has taken in, and given, the essence of the scene as a whole.

Corot, another great imaginative painter,