MYSTERIOUS TULAROSA.

by John Randolph Spears
Correspondent of the *New York Sun*

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(1) PATTERSON: A RANCHMAN OF RENOWN.[1]

Text by John Randolph Spears

ALONG THE PLAINS OF SAN AUGUSTIN, NM

A Story of the Apaches that he Killed, the Phantom Gold that He Sought with Systematic Efforts, and the Dam that He Built Single-Handed to Make a Lake—Why They Let Him Do as He Pleases.

The first man of whom any definite mention was made to me after I arrived in Socorro, N. M., on the way to the valley of the Tularosa to examine the curious ancient ruins to be found there, was Patterson. I had explained my mission to two or three men in the sitting room, and had asked if anyone in town had been among the ruins, when one said:

Going to examine the ruins, are you? Going by the stage, I suppose? Then you'll stay all night with Patterson. You'll sit up all night talking to him. Patterson's a good 'un."

"*Indeed? Been digging in the ruins?"*

"*No, he don't care a cent for them. He was the first settler out that way. Wait till you see him: you'll not forget what I say about sitting up all night to listen to him."*

A little later, while talking to one of the real estate men of the town about its early days, the conversation turned on the Apache raids of Victorio[2] and Geronimo.[3] Said the man:

"*You're going over to the Tularosa by the stage, I suppose? Then you'll stay all night with Patterson. If you want any stories about. the Apaches, ask him. He's stood off the tribe single-handed. It's the truth. If you can get him to tell his experiences you'll sit up all night to listen."*

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[2] Victorio (1825-1880) — Apache warrior chief

[3] Geronimo (1829-1909) — Prominent leader of the Apache people

At Magdalena, where I was to get the stage, I fell in with a mining man who had had a lot of experience in the Rocky Mountain region, and I said it was interesting.

"*Yes, I suppose any Eastern man would call it so, but to us it is commonplace*," he said. "*But if you want to hear an interesting man tell a prospecting story, get Patterson to talking. You'll stop at his house the second night out from here*."

Next day I got into the little road wagon that alternates with a buckboard in doing duty as a stage over the Tularosa route, and found "Blunt" Armstrong, the driver, a pleasing companion. He knew just what to talk about: the subjects of interest to be found along the road, such as the widely scattered population, the mountains, the great plains of San Augustin, the game, and the ruins we were to find beyond the continental divide. After running them over briefly, he added:

"*But it's my idea that when we reach Patterson's tomorrow night, you'll say his lake is about the most astonishing thing in the country. There aren't any ten men, let alone one, who's had the grit he showed in making it."*

The route of the stage on the second day began in a region of tree-covered hills, where the air was fragrant with the odors of the pine and cedar, but after a few miles ran out on the great plain again, with its scant sagebrush and stunted daisies an inch or so high, and here it lay through a long, hot day's drive that led at last away from the plain again for a brief space among a few trees and under a great ragged precipice, from the foot of which it wound down through a long, narrow, barren valley, and then, just as the sun was dipping down toward the black lava ridge of the continental divide that loomed in the west, we turned around a knoll toward the plains once more, and there before us lay Patterson's—a low, flat-topped 'dobe-walled Mexican house, with a corral of wire and poles, and a few low sheds behind it, and beyond, glass smooth and crystal clear, a twenty-acre breadth of water. The whole was enclosed with a stout barbed-wire fence—the only appropriate fence for a desert home. Not a tree, not even a shrub, could be seen within miles of the place, while the only grass in sight was a sort of a scant fringe for one side of the pond. The further side was as barren as the hill of gravel that rose just at the left of the lake. It was a singular picture, for a barren bank to a sheet of water is rarely seen anywhere. On reaching the house, it was found no less singular than the general view of the place. No one came from either of the two doors that opened in the thick

mud wall of the front of the house. No face appeared at either of the three or four windows. There was neither cat nor dog nor other domestic animal in sight, but, instead of them, a lot of prairie dogs scampered about from hole to hole over the stretch of desert sand that lay between the house and the lake.

The stage driver began unhitching his horses and said that I would "*find the office in this end*" of the house. I entered the nearest door and found a hall twelve feet wide running to the rear of the house. There were a lot of bags of flour and grain piled on one side. The dust of the desert lay thick over them. A door at the left led into a room, say 12x15 feet large. There was a big lithograph of a whaling scene on one wall. There were beds in two corners, a washstand in the third, and in the fourth, beside the front and only window, was a table with pigeonholes at the back, while another lot of pigeonholes was hung on the wall. This was the Post Office. Everyone was free to come and help himself to his mail.

When the horses had been cared for, the driver led the way to the lake. It was really a pond or reservoir made by building a dam across a depression in the valley, which in that country is called a draw. We walked across the dam and found it 700 yards in length, and for more than half its length it averaged ten feet wide on top, seven feet high, and forty feet wide on the bottom.

"*What do you think of it?"* asked Blunt.

"*It's a fine piece of work. It looks like the roadbed for a railroad across a hollow. How many men did he employ while building it?"*

"*Not a d___d man—built it himself with a wheelbarrow only*."

"*What? More than a third of a mile of dam like that*?"

That's what. And a cloudburst washed half of it away, once, besides."

It seems incredible, but a dozen different men in a dozen different places told me the same story. Besides, when one has seen and talked to Patterson, it doesn't seem incredible, although it is probably the most remarkable piece of work that ever a man undertook single-handed. The water comes from beautiful white springs that almost spout up from crevices in the rocks at the head of the draw that has been made into a lake. The volume of water coming from them never varies, no matter how wet or how dry the season, and so the

ultimate source of the supply could be found only by a trained geologist, who could follow the crevices to some place in the mountains not affected by droughts.

But when one stands on the lake bank, he can scarce think of its springs or even of the charm which every body of sweet water has in the center of a desert. One looks almost continually at that huge dam and pictures the lone man as he fills his wheelbarrow in what is to be the bed of a lake, pushes it up to the top of the dump, turns the dirt out, and goes back for more, not hundreds of times, but thousands and tens of thousands of times.

As said, the whole ranch is enclosed by a stout wire fence. The fence runs away below the lake for a long distance—so far as to include the place where the stream from the lake sinks in the desert sand. In this way, the lake is made to yield Patterson an income from two sources: the water irrigates all the land he wants to cultivate with the aid of his two boys, and he sells water to the cowmen who come that way with their herds bound to the railroad—sells it at two cents a drink for each animal. But he does not cultivate much of the land. The altitude is 6,950 feet above the sea, and he raises oats and alfalfa only, Blunt said.

We watched the ducks and mud hens playing about on the pond for a half hour, and then Blunt announced that Patterson was coming. I could see a cloud of dust away at the lower end of the ranch, and, by the time he reached the house, a team with two men in it had emerged from the cloud. A few minutes later, I was shaking hands with Patterson.

Imagine a man about six feet high with broad shoulders, deep chest, and substantial limbs, with brown hair, a bushy beard streaked with gray, and blue eyes that have a curious side slant; with a gray soft hat, a dark vest, a white shirt, and blue overalls, and there is Patterson as he stood before me and made me welcome in a big and hearty fashion.

We went into the office, where Blunt and I sat on the edge of a bed while Patterson adjusted his spectacles and assorted the mail by the light of a silvered student lamp, going over the gossip of the road and Magdalena meantime, and then a bell in the other end of the house announced supper. We crossed the hall and passed through a bedroom to the dining room. The table in the center of the room was a picture—spotless white cloth and napkins of fine linen, silver knives and forks, glassware that sparkled, a great lamp fit for a parlor, and

generous heaps of fresh and cured food, while cream and granulated sugar stood beside the ample coffee pot—it was a picture that only people who have traveled over the American desert and have seen the rude exteriors of the homes there can fully appreciate. The dusty hall and the Post Office were Patterson's department of the house. This was Mrs. Patterson's domain.

Mrs. Patterson was a rotund, pleasant Mexican woman. She poured the coffee at one end of the table in silence, after the manner of her race. Two sturdy boys, one almost a man grown, sat on one side. I was told that the older had just "*come clear*" on a charge of shooting at a Mexican with whom he had quarreled, when "*he should have been sent up for missing him*," as Blunt said. The other lad is sheep herder for his father, and carries a revolver of the largest pattern, with plenty of cartridges, because "*men often get a start in life out of the flocks of sheep that graze about these plains*." This lad is assisted in his care of a thousand head by his oldest sister, a girl of 18, who, in spite of her rough life on the borders of the great plains, is a handsome girl and one, too, who in an emergency could help the lad use a revolver.

After supper, Patterson was willing to talk. Patterson came from Maine, and, like all the coast boys there, was a sailor. The lithograph of a whaling scene on the wall, wherein a whale was hoisting a boat in the air with its tail, was a pretty fair illustration of one of Patterson's sea experiences. He had been lifted by a whale's tail and had fallen on the whale's back, but he didn't like riding the beast very much. He left the sea to join the American army, and in the days after the rebellion saw a lot of service in Arizona and New Mexico. On leaving the service he carried his rifle and 2,000 cartridges with him, and that was his start in life in the region of the San Augustine plains. It was with this outfit that he introduced himself to the Apache Indians, beginning in 1870.

One reads now and then of men who settle on the frontier, and eventually, when people began to settle within forty miles of them, complained of the country being too crowded. The story is told as a joke, but Patterson is actually one of those frontiersmen. He showed it by settling in the country where he is now, when Socorro, one hundred miles away, held his nearest civilized neighbor. There were Apache Indians nearer—sometimes a good deal nearer. They did not want any white men in that region and they determined that Patterson should go. They were a bit cautious about carrying out their designs, however, for they had had a bit of trouble with him over on the Rio Grande, near a Mexican settlement, where Patterson got his wife. Patterson and another white

man were cultivating a patch of corn there, and the Apaches came down the river to make fodder of it. There were, it is said, about sixty of the Apaches, but Patterson and his friend stood back to back, and kept their rifles hot, and pretty soon it was all the survivors of the sixty could do to carry off the dead and wounded, and keep their ponies.

But when Patterson located a claim 100 miles from anybody, the Apaches held a war dance and, one day, a bunch (no one knows how many were in it), seemed to rise up out of the sand just out of the range of Patterson's rifle as he was at work out on the plain. Then they charged on him Indian fashion—ran from sage bush and sand hillock forward to other sage bushes and sand hillocks, behind which they could partly hide themselves. Moreover, they had a trick—when Patterson drew down his rifle on one, the rest (for they were spread out in a half circle) would jump up and run forward. Patterson saw through the trick at the first run, and thereafter an Indian fell every time the rifle was drawn down, but it was never the one at whom the weapon was first aimed. He drew down on one behind a hillock, and then quickly shifted his aim to one of the reds that were charging forward.

"*It took quick work: the sight was pretty coarse at every shot, but I aimed low, and didn't miss many,"* said Patterson, in telling the story. "*Of course, they were shooting at me all the time, and one of them hit me, too, but I didn't let them know it, and pretty soon it got too hot for them. You see, because I stood up and fired without shelter, and kept killing them while none of them hit me, they got scared, and thought I was some kind of a demon."*

"*How many of them did you get?"*

"*They said ten afterward*."

It was a game fight, and the truth of Patterson's story is vouched for by such men as A. B. Chase of Socorro, who was at one time connected with the Apache agency on the Tularosa, and often heard the story told by the Indians. Bu the Apaches were not satisfied with that fight. They came for him again in like fashion, and they only lost eight in that fight. There was no discipline among them that would hold them to the charge after Patterson's old rifle began to bark, and a brave fell at every discharge.

"*They knew Patterson after that*," as Patterson says. He killed but one thereafter, they say. Two braves came along one day, intending to sneak up and do some damage to the family at the house in Patterson's absence or at night. Not far away they met some Mexican sheep herders, who told them Patterson was not at home. So, they boldly started to make camp near the house, but they had scarcely dismounted when one fell over with a bullet in him, and the other fled in terror.

"*We had to shoot everything with long hair in those days*," said Patterson that night.

There have been some noted Indian killers in Arizona and New Mexico, and they had cunning and implacable foes in the Apaches—foes that could only be controlled by fear—but it is agreed on all sides that Patterson easily leads the entire field of Indian fighters. No other man, they say, ever stood off, single-handed and unsheltered, a host of from thirty to fifty well-armed savages, coming at him spread out new-moon fashion across the open plains.

When one says to him, as it often is said, that he does not know what fear is, he disclaims the compliment. "*Why, I never thought of leaving the house without a rifle in those days*," he says, "*and I built my house right out in the open, where there wasn't a tree or a bush that one of the Apaches could hide behind. I've several times seen two men start for town for supplies, and one came back, leaving the other dead with an Apache bullet in him. When I went, I always traveled by night and hid by day*."

After a time, the conversation turned on minerals and prospectors, and thereat Patterson told some of his experience as a prospector. Patterson is probably the worst-bitten victim of all the many made by that prince of grub-stake eaters and desert tramps, Peg Leg Adams of California.

One night, after Patterson had been comfortably settled in his ranch for some years and accumulated a neat bunch of cattle, three strangers rode up to the door and asked for shelter for the night. The asking is only a matter of form—strangers are always welcome at desert houses. After supper, the three began asking questions about the lay of the land round about in a way that showed some knowledge of the region, and eventually one of them said:

"We may as well tell this gentleman all about it and then he'll help us if he can. In 1865 I was in Arizona, where, in a small settlement, I met a Mexican who offered, for six horses, to pilot a party to a place where coarse gold could be washed out of the gravel in abundance. The story told by the Mexican was straight, and we at once made up a party large enough to resist an attack by the Indians, as we supposed, gave the Mexican his outfit, and started. We traveled east to the White Mountains—of that I am positive—and then northeast six or seven days, I have forgotten which. Then we entered a long, narrow canyon, up which we travelled to the top of the ridge, and there we saw directly east of us and across a pleasant valley that was spread out before us two sugarloaf peaks, side by side. But we did not stop to admire the scenery—we scarcely looked at it—for almost from our feet ran down a canyon, in which we found a stream of water, and, a few miles below the crest, the gravel, where the gold more than redeemed the promise of the Mexican."

How one man was said to have taken out forty pounds of nuggets in eleven days, how the provisions ran short, how some of the party went after more, how the Indians surprised the outfit, and how Adams alone of the party escaped after incredible hardships, need not be related in detail. He had never been able to work up nerve enough, he said, to try to find the region again until, with his companions, he arrived at the door of Patterson.

Patterson took it all in. He was not a liar himself, and the wiles of the desert bunco steerers[4] were then unknown to him. He told the Adams outfit all he could about the region and sent them away. Then he made haste to sell his bunch of cattle for $7,000 in cash and buy a prospecting outfit. He could see from the talk of the Adams party that they were not likely to find the gold-flecked gravel bed, and was sure that he could do it if anyone could.

With burros, bread, bacon, and beans, with pick and shovel and pan, Patterson went to each accessible point of the White Mountains, and from each of these points, one after another, he travelled northeast six and seven days, looking for a canyon up which to travel until at the crest he could see the two sugarloaf peaks beyond a pleasant valley. He was in no hurry; he was working the country systematically. Day in and day out, month after month and year after year, he followed the cold scent. There was not a canyon from the Sierra Latil to the

[4] Bunco steerer — Swindler

valley of the San Juan in Utah that he did not search, nor a divide that he did not cross. And yet, once only, in all that time, did the trail seem to get warm.

At Fort Wingate, a sutler's clerk told him a secret. An Indian, recovering from a spree, had come into the fort and begged for whiskey, for which, he said, he had nothing to pay, and which, moreover, the clerk was not allowed to give him at any price. The clerk explained the situation. The Indian begged again, and finally, in desperation, offered to plat the location of the gravel beds where his tribe obtained their gold in return for one drink of liquor. It was but thirty-five miles away, he said. The clerk had a private bottle. The Indian made the plan. Then he said that the gold was on the reservation, and that it was so well guarded that no one could reach it save by night with a guard. No white man had ever been there, he added, save on one occasion, when a party of nineteen, many years before, had come there, but all of them, save one, were killed by the tribe. In a few days he would come, he said, and guide the clerk to the spot, something he never did.

Patterson heard the story with wild interest. There were nineteen in the Adams party, and one escaped. Would the clerk show the plat of the location? He would, if Patterson would stake claims for him. Patterson would do that, and he made a copy of the plat. Then he searched every square mile within thirty-five miles of Fort Wingate, after which he searched many other square miles beyond the thirty-five-mile limit.

He reached the San Juan valley at last, and followed it through the Navajo reservation, in spite of the deadly hostility of the Indians, and he found the gold that some months ago created a furor in the mining camps of Colorado. He read of that furor at the time of it, and laughed at it, for he had panned the valley for a hundred miles, and knew that there was not enough gold for a poor man anywhere in it.

At last he gave it up—gave it up when every cent of the $7,000 had been spent.

"*I'd like to see Adams. I'd talk Sunday school talk to him*," he said, after recounting what is here written. "*If anybody tells you there is a rich placer diggings, west of the Rio Grande in New Mexico, you can tell him it is not true. I know. It cost me $7,000 to find out, but I don't mind it now. When I undertake anything, I aim to carry it through, and I prospected this region till I know the whole of it*."

Patterson may be heard from again. He is "*chasing the dollar through a flock of sheep*" now, as a number of other men of the region with Mexican wives are doing. Sheep have flourished in spite of the drought that has destroyed 75 per cent. of the capital invested in cattle ten years ago. The cattlemen, especially those having small herds, hate the sheep men. They say sheep drive cattle off the range, and cattle have had a bad enough time of it without the damage done by sheep. A half dozen cowmen told me that "*trouble is sure to come*." Trouble means a fight in which good marksmen shoot at each other. Both Patterson and Harry Delgar of Joseph, who represent the sheep interest, said that the cowmen might make trouble, but they guessed they would not.

Then Patterson may yet be heard of as the father of a town in spite of his love of the solitudes of the desert. His ranch stands just halfway between Silver City, at the end of a branch of the Southern Pacific Railroad and the Carrizo Valley, in the northwest corner of Socorro county. In the Carrizo Valley are some of the most remarkable coal beds of the Rocky Mountain region. Patterson says this coal formation is the extension of the beds now worked at Gallup. In any event, a New York party of capitalists are said to have the titles to sixty-two claims, of 160 acres each, working through the Interior Department at Washington. When the titles are perfected, a railroad will be constructed to Silver City to supply not only the southern New Mexico and Arizona region, now supplied at great expense from Gallup, but a great region in old Mexico as well. The half-way station on this new railroad—the station for repair shops, naturally, and because of the saw timber on the mountains round about the station for manufactures of various kinds—will be Patterson. The artificial lake, built at the expense of so much of one kind of sweat, will be the town reservoir. The wide breadths of arid gravel round about will become town lots that will rank in value as all town lots do in all New Mexican towns that lie in the air, that is, 7,000 feet above the sea level. Patterson once refused $30,000 cash for his ranch, and has regretted the refusal many times since. If he only had that money, he could find a home where there never would be any neighbors living within a hundred miles of him. But if Patterson's ranch becomes a railroad town he will cease to regret. The sale of town lots will enrich him until he can seek a home where there will be no neighbors within 200 miles.

Being a man of positive opinions and of tenacity of purpose as well, there is now and then some friction between Patterson and the other residents of the region. Mr. M[ontague] Stevens, the manager of the S. U. cattle ranch, is an Englishman, and likes dogs. Patterson thought Stevens a dude cowman and his pet dog a

dude dog. Stevens stopped overnight with Patterson for a time, but disgust with the dude dog—a pug—overcame even frontier hospitality, and Patterson "*talked Sunday school talk*" with the owner of the dog.

Sometimes able-bodied cattle break through the fence and reach the lake. In such cases, they are not unlikely to die from a bullet fired by Patterson. Naturally, the owners don't like it, and it creates a little feeling.

Then one of the rollicking cowboys who lived in Dark Canyon, only ten miles from Patterson, brought a housekeeper from one of the sporting resorts[5] in Magdalena, and Patterson, being the father of two young girls, did not hesitate to go over to Dark Canyon and express his opinion of such doings.

"*Patterson does have his ways*," said one who lived over in the Tularosa. "*In some communities he'd get killed, but not here. We know him, and even when we don't agree with him, we let him do as he pleases, because we know he thinks he's right*."

I repeated that sentiment to a man in Socorro, who also knew Patterson, and it made him laugh heartily.

"*I guess they do let him have his way*," said the man. "*Well, rather. He might get killed in some communities, that's so, but not within sight of his Apache burying ground—no, not where they know Patterson*."

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[5] Sporting resort — Brothel (euphemism)

(2) WHAT THE STAGE DRIVER TELLS YOU.[6]

Text by John Randolph Spears

Stories of the Apaches Told Among the Mountains of New Mexico.

Fort Tularosa. N. M., Aug. 8.—

There is something in the nature of a shock to the mind of an Eastern man when he hears upon first arriving in this region the stories told by cowboys and sheep herders about the Apaches. One reads Indian stories in the East, but they are stories afar off or of people who lived long ago. Here the story is told by the side of a fresh grave, so to speak, and "*So-and-so, who lives right over there*," was one of the principal characters.

While driving down the valley of the Tularosa Creek the other day, Blunt Armstrong, the stage driver, said, pointing to the steep side of a flat-topped mountain on the right:

"During the last raid of the Apaches, a band of them came across the top of that mountain on their way to destroy the improvements below here. It happened that a couple of Mexicans were herding a flock of sheep right up there that day, and neither herders nor Apaches knew of the approach of the other. Well, as the Indians came to the brow of that little precipice, they saw the herders and popped over the nigh one at the first shot. The other one started to run, and the Indians, a dozen strong, clambered down the bluff and took after him, and made three jumps to his two. As soon as they began to get close in, say within twenty rods or so, the Mexican turned round and tried to shoot at them with an old-fashioned muzzle-loading musket he had carried to shoot coyotes and panthers. But something was wrong with the blamed thing, and it wouldn't go off.

"That made the Apaches laugh, and with much noise they determined to take him alive and torture him. But the Mexican was game, and kept running and working away with his old musket until at last, "bang she went", and over went

[6] Published by the New York *Sun*, August 20, 1893, page 5; edited by Duncan S. Campbell, February 2019

the war chief of the band with a bullet in his head. As luck would have it, the chief had stopped chasing the Mexican—the capture of a single fugitive was too small a game for him, maybe, and the rest were ahead of him—and so, although he was hit by chance, the Indians concluded that all the motions and monkeyshines[7] the Mexican had been making with the gun were but preliminary to the magical destruction of their chief. With many cries and exclamations, they at once stopped the chase, and with the body of their dead chief made haste to leave the valley.

"As this incident was enlivening the upper part of the valley, another party of Apaches was hurrying down Apache Canyon their way to the Tularosa. The white people had good warning of their coming, and all escaped, though eleven Mexicans were caught in one bunch and shot down. One white woman with her husband had a close call, however. She had recently come from the East, and was so much of a tenderfoot as not to understand the real danger. The Indians were reported to be in a place that seemed to her a long way off. On hearing the report, she, with her husband, started for the rendezvous at Pat Higgins's ranch, but when well on the way she thought of her chickens that had been left at home. Nothing would do but to return and get them. The husband said the danger was rapidly increasing, but she was determined the Apaches should not have the chickens, and back the couple drove and got them. Then they drove up the trail again.

"They had just passed the mouth of Apache Canyon when Geronimo's band came out and started in chase. It was about three miles from the canyon to the Higgins ranch. The ranchman heard them coming, but he had a farm wagon and less than a mile the start. Of all the scenes in the Tularosa Valley, few were ever more thrilling than that, when a turn in the road revealed to the people at the Higgins ranch the ranchman leaning out over the front of his wagon, plying a blacksnake whip to the galloping team, while the wagon leaped and swayed from side to side, a long cloud of dust rolled smoking into the air, and a scattered gang of ill-favored savages came galloping behind, shooting their rifles and gaining at every jump. It was a hard race, but the ranchman won, his foolish wife lying in a dead faint on the bottom of the wagon box beside the coop of chickens."

[7] Monkeyshines — Mischievous or playful activity

Over north of here a grave is pointed out as that of an unknown white man. After the raid was over, a skeleton was found across a big red ant hill. A man had been captured, and then, by means of stakes and cords, bound alive across the home of a colony of red ants. There he lay helpless while the ants by slow degrees stripped away his living flesh.

A ranch over that way has two iron hooks on the shady wall of the house. These are pointed out to the stranger. The ranchman put them there that he might hang up a deer, an elk, or the carcass of a steer, as fresh meat was needed by the family. The Apaches came along and surprised the woman at home alone. Splitting open her ankles just above her heels, they hung her up alive with those hooks through the slits and left her there. Her husband, with a party of plainsmen, returned in time to save her life.

When one talks here of Gen. Hatch[8] or Gen. Crook[9] as an Indian fighter, the plainsmen snort with indignation. They say that these officers employed Apache scouts to find the Apache enemy, and did not see—would not believe when told of it—how they were imposed on. The scouts went out with full cartridge belts and came back with belts empty, having never really fired a shot. They gave their cartridges, with complete information about the troops, to the Apaches who were on the warpath, but lurking nearby. When men who had seen the Apaches in the valley of the San Francisco told Crook of it, the General said it could not be so, for his scouts had been there and found none. He would not send soldiers to investigate.

Gen. Miles,[10] however, employed Pueblo scouts and guides, and, moreover, did not go galloping around the mountains giving orders with a bugle. The most popular army officer in the Apache region is Miles.

The people here say that there is still danger from Indians in the Gila River region. The Indians are supposed to be at peace, and contented, but there are some desperadoes among the Apaches, as among mine camp whites. The Apache Kid, as a wild youth is known, is cited as an example. He raided his own

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[8] Edward Hatch (1832-1889) — US career soldier and Indian fighter; fought in Union Army in Civil War; 1876 commander in New Mexico; 1880 negotiated treaty with the Utes

[9] George Crook (1830-1890) — US career soldier; served in Civil War and subsequent Indian Wars

[10] Nelson A. Miles (1839-1925) — US general; served in Civil War, Indian Wars and Spanish-American War

people that he might carry off a girl with some ponies, not long ago, and when the girl eventually was returned home, she told a curious story of his having a belt with $1,800 in gold, which he wore constantly. The money was from a white man he had murdered. He goes to and fro across the Mexican border, according as whim or the proximity of pursuers dictate. He has had narrow escapes; several of his companions have been killed, but he is still at large.

Now and then, prospectors go out into the mountains and fail to return. Cowboys riding the frontier range fail to report. Skeletons, sometimes singly and sometimes two or three together, are found lying beside the remains of a camp fire. There is still a region of the United States where the stock must be staked close to the camp at night and a watch kept, if the venturesome party is small.

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(3) THE VANISHED PEOPLE OF TULAROSA.[11]

Text by John Randolph Spears

In local archaeology, the name **Tularosa** refers to a district in Catron County, New Mexico, adjacent to the community of Aragon (former name, Joseph), close to Tularosa Creek, and the site of Old Fort Tularosa.

Spear's 1893 visit to this then out-of-the-way location may have been prompted by his earlier travels that same year through the Isthmus of Panama. His interest in pre-Columbian artefacts is evident from the article that he subsequently devoted to the subject, which was illustrated with photographs taken from the 1888 Smithsonian publication "Ancient Art of the province of Chiriquí, Colombia" by William Holmes.

Additionally, Spears may have drawn on the 1888 fieldwork of Henry Hales, whose paper on "Prehistoric New Mexican Pottery" was published in the Smithsonian's 1892 Annual Report.

Note: There is an unrelated township of the same name in Otero County.

AN EXTINCT RACE WHICH BUILT THE ANCIENT WALLS IN THE TULAROSA VALLEY.

A Well-Formed, Long-Lived People Who Were Industrious and Frugal, but Probably Would Neither Fight Nor Pray—Beautiful Pottery—Hints as to Their Dress and Food—The Pictures on the Rocks—An Unfinished Tale of Real Life.

This is a part of the story of a race of people who for a long time, perhaps during several hundred years, inhabited a desert nook of the territory of New Mexico and then disappeared mysteriously, leaving neither written history not oral tradition among other peoples for the information of those who were to come after them, but, instead thereof, ruins of well-built houses, household utensils of rare beauty and excellence, personal ornaments that excite the wonder of the modern investigator, and other unmistakable signs which point to a curious, and, in some aspects, to a remarkable state of civilization. The story, so far as it

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can be read from such remains as are found, is that of a people who were tall, well formed, and had large brains. They were very likely almost a white-skinned race. They were at once farmers of rare skill and successful hunters. They were industrious and frugal. They gained wealth solely by manual labor. They probably had no god or religion, and were yet the prehistoric Quakers.

The tourist who would like to make a study of the ruins left by this ancient people should go to Socorro on the Santa Fe Railroad in New Mexico, and there take a train on a little branch road that runs thirty-two miles west to a mining camp called Magdalena. Magdalena is a sure-enough frontier railroad station, the supply depot for the cowmen and others who live scattered about over the desert, wherever a spring may be found, clear away to the upper waters of the Gila River. A semi-weekly mail service is maintained from Magdalena west across this region and the tourist can take the stage—a buckboard with one seat—or he can hire a rig at the livery stable. In either event, the destination he will seek is in the Tularosa Valley, on the west side of the continental divide and more than 100 miles away across the San Augustin plains. It is a journey of two and a half days. When in the valley, the tourist can stop with Harry Delgar, whose 'dobe house is known in the Post Office Department at Washington as the Post Office of Joseph, or he can stop with Mrs. Grossetete, a widow with a grown-up family, living in a 'dobe house at a point known to the War Department as Fort Tularosa. Both families are enthusiastic local archaeologists, and have been digging for so many years about the old ruins that their neighbors (the people who live within fifty miles) think they are cranks. Moreover, these homes are located right among the ruins, are built in part of materials formerly used by the prehistoric people, while the dooryards are littered with bits of ancient broken crockery, and the rooms of the houses are ornamented with curious and rare things that have been found from time to time in the ancient graves.

Perhaps the first thing to do in gathering the story of this ancient race would be to consider the locality in which they lived. It is certainly a most interesting locality to consider—a valley walled in by flat-topped, lava-capped mountains. Apparently, where one now finds the valley of Tularosa Creek was once a great mesa or steppe, a fairly level plain over 700 feet higher above the sea than the present bed of the creek. This plain was probably once the bed of a lake with volcanic mountains around it, for it was composed of a mixture of water-worn pebbles, sand, and broken lava, all cemented together into what mining men would all a light-colored conglomerate rock. By some means the water was

drained away, and then a volcano began working handy by, in such fashion that the elevated plain was covered over with a bed of lava from ten to twenty feet deep, in some places still deeper. Now this plain had a slight incline, apparently, toward the Gulf of California, and was moreover eventually split up the length of it by the earthquakes of the time. Thereafter, having obtained a start through the earthquakes, the elements did the rest of the work of cutting out the Tularosa Valley and its branches by erosion. The rain and frost wore and slit out a channel through the conglomerate, made a channel that was alternately cut out and filled up until, at last, there remained a valley that, from the head down to Joseph, will average less than a mile wide, and even this is cut into and contracted by many rounded promontories or hogsbacks of the conglomerate rock.

The Tularosa runs nearly to the southwest. The careful observer will see that the southerly bank for a good many miles below the source is the steeper, that the valley lies on the northerly side, where, too, about all the promontories mentioned lie. Cottonwoods and willows grow along the creek, while the mountain sides and even some of the mountain tops are covered with a scattered growth of varieties of cedar. It will be further noticed that the mountain sides slope up to various angles till the cap or crown of lava is reached. This cap invariably presents a perpendicular face—the top of every mountain shows a precipice fifteen or twenty feet high on every side. The flat black crowns of these mountains show with singular effect above the gray of the grass-covered conglomerate and the green of tree tops on the side below. In every aspect the region is picturesque and attractive to the eye. As will be demonstrated further on, the region has not materially changed since its ancient inhabitants vanished away. They cultivated the same narrow valley, hunted through similar groves in the canyons, and clambered over the same lava-covered mountain tops in search of game.

As one studies the remains of this people, the statement that the country has not materially changed since the ancient inhabitants disappeared seems very remarkable, for here within a range of ten miles are enough ruins of houses to hold 20,000 people, while the altitude is too great for the successful cultivation of corn (it is about 6,000 feet above the sea), the rainfall is so uncertain and limited in quantity that the region is practically a desert, and the supply of water for irrigation would not suffice for a section of land. Here was found, in fact, an open city, or, rather, a village many miles long, having thousands of inhabitants. Where did the people get the corn on which they subsisted, and

remains of which can be found in the ruins? They must have been very skillful farmers.

After considering the country in which the people lived, one naturally examines the sites chosen for their houses. As he travels down the valley for the first time, these [sites] will be pointed out by the stage driver.

"*See those stones over there—whole lot of them together? That's an old ruin. Up there beyond is another. See it?*"

The tourist will look and will see it, but if unaccustomed to examining such things will think, very likely, that the driver is guying him. To the ordinary eye, the signs of an ancient dwelling look more like a pile of rocks washed from a canyon than they do like anything arranged by human hands. Indeed, in many of the ruins, the surface indications have lost all semblance of human arrangement. There is merely a patch of earth covered more thickly with broken rock than the earth round about it is. Elsewhere, however, anyone can trace out walls in the surface stone, and, after having seen such a place, the tourist is ready to believe that the other patches of rock are also signs of ancient homes.

By the time one has seen a dozen such patches, the most prominent feature of the home site of the ancient builder is apparent. He always chose a ridge of some kind. On almost every promontory, ridge, or knob of ground along the Tularosa is an ancient ruin, and only on ridges or knobs have they been found so far. There are, indeed, ruins down low in the valley—there is one below Harry Delgar's house—but they were built on ground that would not be reached by high water, and the one near Delgar's is on a low knob that was probably once considerably higher than it is now. In the alluvial soil of the valley, the water has cut down knobs and filled in hollows that were prominent some hundreds of years ago when these houses were inhabited.

There is another interesting feature about these house sites. The sites, with one exception, have a sunny exposure. The first spots of ground to become bare after a snowfall are the spots covered with the debris of ancient ruins. It scarcely can be supposed that these elevated spots were chosen to enable the people to keep a lookout for an enemy. It was not, as will appear further on, a warlike people, and the sites, though high enough to be clear of water, were not, as a rule, high enough. to give a view across the country for more than a mile or

two. They chose sites that were warm and dry for their homes, and these two considerations seem to have alone prevailed, for some houses were built more than a mile from, and many hundreds of feet above, any possible supply of water that can now be found.

When one comes to examine the houses, the mystery surrounding this exterminated people becomes deeper and the interest more intense. That they should have chosen a desert country for their home is not easily explained. It will not do to say they, being peaceable, went there to escape the warlike tribes in fertile, well-watered regions, for the Apaches, who were unequalled in ferocity and warlike characteristics, afterward chose the very same region to live in. This strange people chose this country because they liked it, though none can tell why they liked it. But to find a reason for the construction of their houses in such forms as are found is very much more difficult—perhaps impossible. As said, the surface indications of a ruin show, at best, but traces of fallen stone walls. As a rule, the traces are very indistinct. A little digging, however, along the wall lines will show, in most cases, well-built walls made of rude broken rock—usually lava—such as can be found on any of the mountain sides. Some walls have been laid up with adobe mud, but most of them were laid dry. Some, too, were plastered. The most of the houses were small, contained less than five rooms, but there are some that show spaces of from a quarter to a half acre, full of adjoining rooms, while smaller ruins cluster close about the larger, like negro huts about a Virginia great house. In the small houses, and the houses situated alone, the rooms are rectangular, with the outer walls from twelve to eighteen inches thick, and the partition walls five inches thick and upward to ten or twelve.

Adjoining and forming a part of each of the larger structures is found one room built with its wall in a circle. This circle is always on the side or end of the house that faces the valley or the end of the ridge on which the structure stands; and, on the side of the ring that faces the end of the ridge the wall is cut through, as if for a hallway or entrance. There is not another place in any outside wall showing any sign of a doorway, and in all the rectangular structures the outer walls stand solid clear to the top of the ground. There was apparently no entry to them, save through the roof. But while the wall is in such cases now found to be solid, an examination shows that in many cases square holes like windows were left in these outer walls when they were built. These windows were afterward carefully filled in with flat stones. The tops of these square holes

were always flat rocks—the ancient masons knew nothing of the arch. That the walls were well built, however, will not be doubted by one who sees them.

A further examination of the ruins shows one reason for choosing dry sites. This ancient race of people were probably builders of dugouts very much better than the dugouts made in the Texas panhandle and the Indian Territory in these days. And yet it cannot be stated beyond dispute that the houses were dugouts, for, curiously enough, some have had two and some three stories at one time or another. On the ridge on which stands the S. U. cattle ranch headquarters, near Fort Tularosa, and on another at Joseph, may be found typical collections of these homes. In each one, excavations have been made to a depth of fifteen feet or more. Good walls of undressed stones were followed all the way down, but in no case was the bottom of the walls reached. The digging was carried down through earth as solid as that without the walls; but, at intervals of about five feet on the average, a well-laid floor of adobe clay was encountered. These floors were fairly level and about two inches thick. The ground on which they were laid had been well packed before the laying, for no place where the floor had sunk down or given way was found.

In spite of the apparently solid conditions of the earth beneath the various floors, however, skeletons of men, women, and children were found lying on the floors, together with a variety of jars, bowls, and other crockery and household utensils. In all cases, these skeletons were found placed on the floor in an orderly manner, with their heads to the east, and the crockery placed near at hand, after a definite plan. These bodies were plainly buried as found, and the earth filled in on top of them. That is to say, the floor of the original dwelling was more than 15 feet below the present surface of the earth—below a fairly level surface, too, although the collection of walls, the ancient tenement house, so to speak, was so long that it extended 200 feet or more, away to the brow of the ridge and on down the ridge side. Did the original builders here run a long tunnel into the ridge and divide it into rooms, which they eventually filled by digging down (stoping, as a miner would say) the roof when a higher story was to be created? or did they dig holes like cellars more than 15 feet deep, wall them up and roof them over, and live there until a death in the family made it desirable, according to their notions, to make a grave out of the room?

Both the Delgars and the Grossetetes believe that the ancient ruins were neither tunnels nor dugouts. They think the houses were originally built on the surface as it was then found, or at most with half the wall below the surface. It was in

this fashion that the ancient Zunis built. It is pointed out that these walls had windows in them—even the lower walls, fifteen feet below the present surface, had windows in them originally—that is, holes that seem to have been windows, and windows would not be built in a cellar wall fifteen feet below the surface of the ground.

Having built their one-story house, they lived there until it became necessary to turn it into a grave. Then they moved out, arranged the corpse and its wealth of pottery, beads, &c., and filled up the room with earth of some kind—sand from the creek bed, clay from the mountainside—according to circumstances not now to be learned. Then the house was left idle until another generation, seeking a house site, levelled off, but did not tear down, the old ruin, ran the walls up another story, laid a floor over the surface at the level of the top of the old walls, and moved in.

But, meantime, this hill on which the house stood, must have grown up outside the house to the top of the old walls, for it is now level up to the top of even the three-story walls that have been unearthed, and a good solid hill it is. It is a hill of earth like the rest of the hills there—earth of broken-down lava and broken-down conglomerate, while the material within the walls is, as said, sometimes different. If the walls were built up in the open air, how was the hill raised around them? Not by wash from the mountains, because some of the houses—notably that at the S. U. ranch—are on buttes. It was not by the dust driven by the wind, because there are rocks mixed with it, and because the effect of the wind, as of the rain, is to erode, cut down, these ridges. Did the people themselves build up the earth without as well as within the houses they transformed into graves? It may be so. The finding of buried skeletons outside the walls indicates that it is made ground there. They were industrious to a marvelous degree. The walls of the ruins at Joseph contain hundreds of cubic yards of stonework, and yet every bit of that stone was carried from a box canyon[12] a half mile away.

Some of the rooms in the old ruins were very large. One at Delgar's is fifty feet square. In the same ruin are others no more than 2x5 feet large. These look like hallways, but are, nevertheless, rooms, and were probably used for storing food, because several of them opened into a larger room in which three sets of stones for grinding grain were found arranged along a wall. The halls leading

[12] Box canyon — Narrow canyon with a flat bottom and vertical walls

from one apartment to another were very narrow—never more than two feet wide.

So far as one can see, there was no division of the larger structures into suites for the use of different families. Either some great man in the community occupied the great house with his family and servants, or else the people living there had no definite distribution of rooms among families. The distribution of skeletons on the various floors, however, would indicate that a number of families, having all things in common, occupied the larger houses. Skeletons of old and young, males and females, are found in all parts of the buildings, and some outside, but close to the walls and on a level with the floors.

The house roofs were undoubtedly flat. Tree trunks were cut and laid across the tops of these walls to support the roof. At the S. U. ranch one can still see the remains of the old roof timbers. They are placed about as people would place them now, and they must have been covered with poles and brush to support a roof of adobe earth, just as many roofs are now supported in the same region. The fact that these timbers are found at the present surface of the earth, and nowhere below it, is used as an argument to show that the house, as at first built, was a cellar more than fifteen feet deep.

There is no indication of a wall built for defense about any of the structures, nor has any warlike weapon been found about the houses. They practiced the arts of peace only. There is nothing that can be construed into indicating any thought of danger from an enemy, unless it be a curious structure on a mountaintop near Delgar's. One mile due south of Delgar's house that is, as said, built on the site of a great ruin, is a conical mountain rising nearly 1,000 feet above the creek bed. It has the usual cap of lava, which forms a perpendicular precipice about fifteen feet high all around the top. The ascent to the foot of this precipice is on every side steep, but to mount the precipice itself is well-nigh impossible without the aid of ladders, save at two points, one on the side toward the ancient ruin, and the other on the opposite side toward the stream. At these points, heavy blocks of lava have been piled to form the rudest kind of stairways. The stairways were as bad when in use by the builders as now, for one sees a plenty of broken crockery beside them—crockery that was broken because it was dropped when its bearers stumbled or slipped over those lava rocks.

On clambering up, one finds a flat top of an oval shape and about 60 feet wide by 300 long. It is rough and partly covered with grass and brush. Around the edge is a low wall, built of large blocks of lava, but there are, of course, openings in the wall at the two stairways. The blocks in this wall are so large that four strong men could not lift one, and yet they were apparently carried up to the top from the base of the precipice; such blocks are not found in great numbers on top of the mountains round about. Some of the blocks are four by five large on several faces.

Scattered along on the top of this mountain, at irregular intervals, are ten little rings or circular walls made of lava blocks. The rings are from six to eighteen feet in diameter, and the walls that are still standing are from two to three feet high. Nothing but a lot of broken pottery and a few tiny arrowheads has been found in these rings. The surface is not smoothed within the rings to any noticeable extent. Such a place as this might have served for a place of retreat when fleeing from an enemy, but it was too small to hold more than a small fraction of the people who lived in that valley, and those who went there would have soon died of thirst in case the mountain was surrounded by the enemy. It might have served for a place of worship, but no trace of idol or altar or sacrificial fire has been found.

It is a curious fact that no idol, or anything to indicate that these people had any religious notions, has been found. Harry Delgar, it is true, has a flat stone 3½ inches long by 1½ wide by ¼ of an inch thick, on one end of which are three holes that somewhat suggest the eyes and mouth of a human face, but it is so very crude that few who have seen the beauty of the painting on the crockery will believe that this stone was meant for an idol.

In connection with this point, it may be said that Mr. A. B. Chase of Socorro has a small rectangular piece of slate on which the semblance of a human face has been scratched, with a sort of border or frame around the face.

Although they probably lived when the Aztecs ruled Mexico, they had none of the Aztec temples, nor have any remains been found to indicate that they had much, if any, traffic with that warlike nation.

That they were agriculturists, however, is beyond dispute. Mention has been made of the finding of three sets of grinding stones in one room at Delgar's ruins. These stones are not unlike those in use among the Mexicans of today.

Imagine a flat rectangular sandstone, 12x20 inches large and 9 thick, slightly concave on top, and the under stone is fully described. The grain was probably boiled and then placed on this stone for grinding, as the Mexicans now do, for unboiled grain could not be rubbed down under the slender stone (a stone 10 inches long, 4 inches wide, an inch thick, and of diamond-shaped cross section) which the grinder dragged to and fro over it.

The big stone was usually blocked up with adobes until high enough for a woman to work over it when on her knees. The three mentioned were side by side, two feet apart and two feet from the wall. The women knelt between them and the wall when at work. A bowl for the grain was beside each, and one in front of each to catch the mush that was pushed from under the grinding stone.

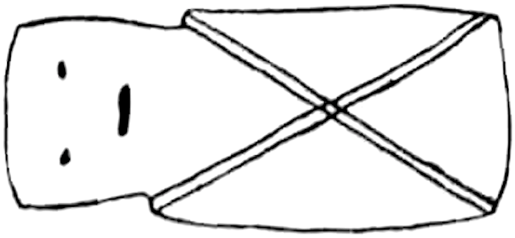
Beans and pumpkin seeds have also been found in the ruins. One room was covered six inches deep with beans in pods. It is fair to suppose they had a variety of vegetables, but tobacco must have been scarce, for only one pipe has been found. They had meat and eggs, however, for deer and turkey and squirrel bones that have been cooked and turkey eggshells are dug from the ruins. Deer bones were used for making both awls and needles. The latter averaged four inches long and a quarter inch thick at the eye—the ladies of this race were not noted for fine needlework, apparently.

They were, in fact, dressed in very rude materials, skins of animals, and, perhaps, coarse blankets and mats of rushes. Only one small specimen of woolen blanket has been found, and that was badly decayed, but many corpses were laid out on mats made of tules.[13]

In the center of the large rooms are usually found what some suppose to be the fireplace—square beds of sand enclosed by four dressed blocks of stone, say, two feet long by four or five inches large in section. In one room, five such fireplaces were found. And yet these blocks of stone show no traces of fire, while one mud enclosure in the corner of a room did show smoke and fire marks. That they built fires in their rooms is beyond dispute, for the walls are smoke-grimed, and coals are scattered over the floor. Perhaps the fireplaces were used by five different families. Such a practice is not unknown.

[13] Tule — Type of bulrush; said to be the origin of the name Tularosa

To the average tourist, a consideration of their pottery will be much more interesting than a study of the other articles of personal property. The illustrations that appear [in this article] show much better, than words can do, the shapes of the most important pieces of the potter's art. There were pots and jugs and canteens and bowls and dippers and mugs and, perhaps, lamps. All the things were made in the greatest variety as to size, shape, color, and quality of clay.



SO-CALLED IDOL, REDUCED ONE-HALF.

For cooking purposes, a pot that burned to a reddish-brown color was made by rolling out long ropes of the tempered clay, and laying or coiling them up into the desired shape, pressing the coils together so that they would adhere to each other as the work progressed. Such pottery experts as Prof. Holmes of the Agricultural Department think that about all the ancient American pottery was made in this way, the vessels that were to be of smooth surface having the ridges taken out of them with a paddle or the fingers as the coils were laid up. But, in the cooking pots, the outer surface was left rough, while the inner was made very smooth. There was economy in this: it required less fire to make a pot with a rough exterior boil, because it had a much greater heating surface. However, some smooth bowls were put over the fire, too: but these were of a very hard texture, and were probably used for roasting or parching grain, instead of boiling stews.

The cooking pots were naturally the coarsest, but that they were of beautiful shape is seen at a glance at the one illustrated. Nor were they without ornament, for most of them had rows of indentations in various regular forms, that were usually made by the thumb of the potter, but nevertheless produced an effect pleasing to the eye.

COOKING POT.

The bowls and pitchers were made sometimes in clay burned to a red color, and sometimes in clay that burned gray. These were, after a fashion, glazed over. One sample of a red bowl has been found in which the ornamental figures were put on by etching through the glazing. The shapes of the bowls were, perhaps, taken from divided gourds. The dippers assuredly were fashioned after gourd dippers. Just where the potter got all his ideas for shaping the pitchers and jugs may not be known, but many of them bulge in the exact form of the human breast, and occasionally are painted to increase the similarity.

Of the gray ware, many pieces are made in the form of a duck's body, although no duck's head has been found attached, except in one case. Possibly these duck-shaped jugs were made for lamps. Certainly, lamps were needed in those houses, and the duck-shaped jug would serve the purpose well—much better than any other purpose. The mouth, rarely over an inch in diameter, was too small for a pitcher, but just right for a lamp. Still, but one of these pieces has been found showing marks of oil or fire.

In size, all of the pottery from the ruins may be called small. No pitcher or canteen has been found that would hold two quarts, and rarely is a bowl found to hold more than that quantity. Most of the jugs hold less than a quart, and many of the cooking pots hold no more than a pint, while some that show plain marks of having been on the fire hold no more than a coffee cup.

One cannot think that this was a race of gluttons, as were most of the Indians found on the continent by early explorers.

But while the forms of the various pieces of pottery are so pleasing to the eye as to warrant one in saying that the potters were real artists, it must be said that they were artists of the ideal school when they came to details. An animal with its hind feet on the body and its fore on the neck of a water bottle

frequently served as a handle. The combination was not at all bad, but no one could say whether the animal represented was a wildcat or a bobtailed pig. So, too, for birds' heads. There was often a bird's head, unquestionably, but it might be that of a turkey or a Mexican parrot. One little lamp seemed to have been made to represent a young yellowhammer. The wings and spotted breast were fairly indicated by paint, but there the artist stopped. He would merely suggest an idea, and let the spectator dream out the details.

In examining the paintings on the pottery, the spectator is not unlikely to think that the artists got their ideas during thunderstorms. At least nine-tenths of the pieces are covered with zigzag markings that suggest nothing so much as the trail of an electric spark on a black cloud. Possibly this people worshipped the god of the storm cloud, and so painted their crockery, as they probably wove colors into their baskets, in imitation of the god's quickly vanishing footsteps! The old pottery sharps, like Prof. Holmes, would have us believe that about all ancient American pottery designing was developed from the designs in textile fabrics and basketwork, wherein the patterns were necessarily worked out with zigzag edges, and that is very probably the fact; but this particular race must have done its development work itself, for its designs were never so elaborate as those of the Aztecs, and never contained human or animal figures, as did those of some of the mound builders. In any event, the work was done with a free hand and no two pieces were ever turned out alike. Black was the most common paint used, but red, brown, green, and blue are found.

Specimens of the red paint have been found, it is supposed. At least, a red substance like that which modern carpenters call kell[?] is found in the graves. Pieces of unbroken pottery in any colors but black and white are very rare. When found, the colors are usually bright, and the whole piece is very attractive.

It will seem not a little singular to the investigator that the pieces of gray pottery appear to be, with few exceptions, unused. Out of over 350 pieces which I saw in various collections made by people in the region, not over ten per cent. showed any marks of use. One common white and black mug, with a rope-shaped handle, had been dipped into a shallow pool of water so often by a right-handed person that the paint was worn from the left side of the cup entirely, the glaze was gone, and even the mug wall was partly worn away. Another cup, that would have served better as a lamp, for it was in the shape of a snail six inches long, was in but little better condition. The fact that the pottery is nearly

all unused, together with the fact that as many as a score of pieces were buried by some bodies, indicate that these pots, &c., were the visible evidences of the wealth of the deceased. That they were highly prized is shown by repairs made in some pieces. Where the top of a pitcher was broken, it was ground down until the pitcher became a small bowl. Where a bowl was cracked, holes were drilled along the crack, through which a thread of sinew could be passed, shoestring fashion, to close the crack. Moreover, large pieces were buried beside adults and small ones beside children. But, what is more singular still is the fact that perfect jugs, small enough for a charm on a watch chain, have been found.

No furnace for the baking of this pottery has been found, but a number of pieces of matrices in which common pots had been encased for baking have been picked up. They were made of common adobe clay, tempered with sand; they had become like rotten brick in the fire, and they showed plainly the impress of the article that had been fired within them, even to the ornamental figures which had probably been painted on the article. They crumbled to powder so readily that none was preserved. Apparently, all articles of pottery were encased in matrices of rotten texture, and then buried in hot wood fires until sufficiently baked.

WATER BOTTLE.

Other evidences of wealth were found in various kinds of jewelry. Beads were very common, but are usually found in bowls beside the skeletons of women. They are marvelous little beads, apparently made of the finest clay, colored to bake red, black, or white, and pierced with holes so fine that no needle is small enough to go through them. It is conjectured that they were made by rolling the clay around a human hair and then baked, perhaps in a matrix, as was the pottery.

With the beads are found other ornaments, such as bits of the pearl oyster shell, which probably were brought from the Gulf of California, and curious little bone imitations of frogs, lizards, &c. There were bits of bone and ivory in the shape of a figure 8, and others in the shape of a slender arc of a circle, say an inch or more long. Then there were bracelets cut from large clam shells, brought from the seashore, and other clam shells cut into rude imitations of a frog. One of these was found with a couple of tiny bits of turquoise glued where eyes should be, but the glue failed when exposed to the sun and the eyes dropped off. Many bits of turquoise in the shape of a keystone are found, some an inch across.

Another article of interest found is the mortar. None with bowl more than four inches across has been found, though one very large pestle was dug up. The largest are made of lava, and these have pestles to match. Some are tiny. One found at Delgar's had a bowl but a half inch deep. It was of fine-grained flint, and had two pestles of agate and one of flint, all of different sizes. It is conjectured that the mortars were, among those people, used by the medicine men only.

As already intimated, this people had no arms fit for killing men. Hundreds of arrowheads are found, but rarely is one found more than an inch long. The largest one Delgar ever got was one and thirteen-sixteenths inches long by three-quarters of an inch wide over all. Most of them will fail to cover a man's fingernail out of sight, and some of perfect form are less than a half inch long. They are usually made of agate, flint, or volcanic glass (obsidian), and are of beautiful form. They were fit for killing fish, squirrels, and, at short range, turkeys. The largest ones would have served for deer or for men, but the large ones are so rarely found that one must conclude that venison was obtained by domesticating the deer. The abundance of turkey egg shells indicates that turkeys were also domesticated. Certainly, the utter absence of spearheads and large arrowheads is proof of the peaceful disposition of the race.

It is a singular fact that but three pieces of wrought metal have been found. Two were well-tempered copper punches, say three inches long and having eight-inch points. The third was a copper bell of the shape of an old-fashioned sleigh bell. This bell undoubtedly came from the Isthmus of Panama, where many such bells have been found in ancient graves. It was a long way from home, but it had been carried north by trade between ancient tribes. The work of the mechanics of this ancient people was done with tools of bone and stone. Even the big pine logs used for roof timbers were hacked down with stone axes.

A MUG.

Of the physical characteristics of the people, some idea can be had by a consideration of the skeletons found. An average male skull measured 20 inches in circumference and 6¼ inches in diameter, measured fore and aft through the forehead on a level with the tops of the ears. The upper portion of the left parietal bone was three-eighths of an inch thick. A skull that was cut through in the occipital part horizontally showed a thickness of half an inch. I heard of a skull three-quarters of an inch thick, but I did not see it, and doubt the story. But they were a thick-skulled race. All skulls show flat occipital bones, probably because the babies were lashed with their backs on boards (puncheons[14] split from logs) and stood up against the wall while their mothers attended to the housework.

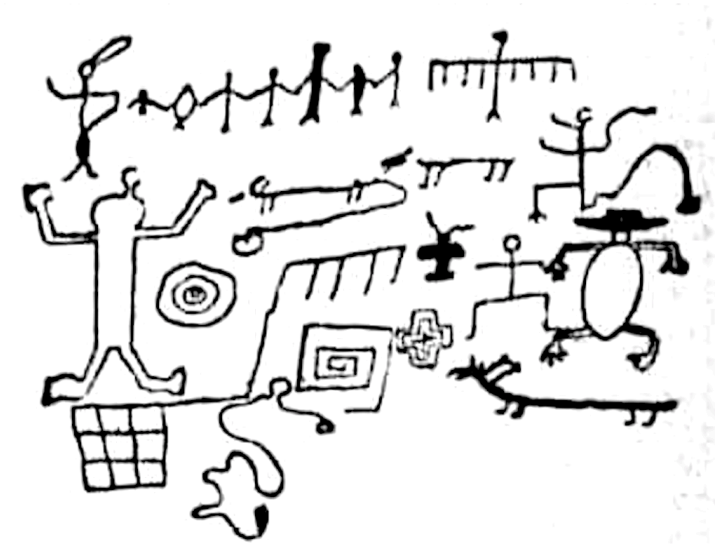
Judging by the bones of the limbs, the people were as large as the run of Americans and no larger, but the cowboys of the region will tell the tenderfoot of skeletons eleven feet long being found. There is a little reason to suppose that they were a light-skinned people. At least one red-haired skull and one with still lighter hair were found. Hair has been but rarely found, not over a half dozen times in all. In three cases it was black. Mrs. Dalgar found a woman's braided hair. The hair has all crumbled on exposure.

While it is apparent from the bones that they were, as a race, well-developed and finely formed people, there were cripples and monstrosities among them. For instance, the skeleton of a child having a head that indicated an age of 12 years or more had the body of an infant in arms. It is fair to assume from this that they were not of Spartan minds—they did not destroy their ill-formed

[14] Puncheon — Heavy wooden slab with the face smoothed

young. So, too, one can infer that they were kind to the aged. There are skeletons of very old people. Some skulls show teeth which have been worn away by long use. An examination of these teeth would lead one familiar with well-preserved teeth in old people of this day to suppose that the race was a very long-lived one—that many lived more than one hundred years. They certainly had good digestions, for the teeth rarely showed decay.

At a number of places throughout the region are found pictures carved in the soft faces of volcanic rocks. Because these rocks are still in place, it is certain no great change has been made in the valley since the people were there. Some of the carvings are on rocks now inaccessible to man, save by means of a rope from the top of the precipices. At other places the rocks are easily accessible. That this people made these pictures is reasonably certain from the fact that certain features of the pottery decoration (such as the involute, for instance) are reproduced on the rocks. The lines of the pictures consist of a series of small, shallow holes. If a sharp point of agate be placed against a lava rock and a blow struck on it with a hammer of any kind, the peculiar mark of the picture is made. There is, however, one set of pictures made apparently by a sharp metal point—a point that made a gash in, rather than a round puncture on the surface.



SOME OF THE PRINCIPAL FIGURES ON THE ROCK

Harry Delgar thinks the pictures in one place tell a story. There is a bird, with something to represent a nest, on a cliff. A man is nearby, and from him a trail leads along on top of the cliff toward the nest. *En route* along the trail toward

the nest, the man fell headlong, as a picture of a man, head down, far below shows. Then another man came along the trail and threw a rope to the one who had fallen, whereat the man who had fallen, being grateful for his rescue, depicted the whole scene, as best he could, on the rock. For the rest of the pictures, it may be said that the dancers are easily distinguished: there are women, one of whom has her hair in a topknot, and the other wears a hat of some kind; there is an antelope, distinguishable by his horns; there is an orator with a big plume or a fool's cap on his head; and there are other things not so readily understood. But the entire lot of pictures, while interesting as showing some of their habits—they were dancers, for instance, and robbed birds' nests— fails to tell where the people came from and, what is of more interest, the fate of the race in the end.

Of the origin of this race, little need be said. People who deem it essential to their religious faith to seek for the origin of all peoples in Asia, will find, perhaps, in the pottery, traces of Asiatic art, and will strive to show that a migration by the way of Alaska, or a Viking-like voyage across the Pacific was among the ancient possibilities. What the ruins actually show in the early history of the race is this only. They came to the valley of the Tularosa, as well equipped, at least, for this manner of life as they were when they disappeared. There was, in fact, retrogression on their civilization while in this valley, for the best pottery is found in the lowest stories of the old ruins; that is to say, in the rooms which were first turned into graves. It should be kept in mind that this people, when they built their homes, lived in them till death in the family made it necessary to turn the home into a grave. The dead were buried on the floor of the home and the room filled in with earth. On top of the rooms so filled in, other rooms were afterward constructed—floors were laid over the filling and the walls carried up, but how long a time elapsed before this was done, none can say. In some cases, the walls were perhaps high enough for several stories in the first place, and the new floor was laid as soon as the dirt settled over the corpse. In others, stone walls were built above the corpses. In any event, the bottom of the ruins is the oldest part of them. The bottom rooms of all have never been dug into, so far as known, because of the labor and expense. Major J. W. Powell's Bureau of Ethnology[15] had a young man out there to explore the region some years ago, but he hired three ignorant Mexican boys to dig up a collection of pots while he went hunting for ducks and turkeys. Of course, he

[15] John Wesley Powell (1834-1902) — US soldier, geologist and explorer; led 1869 expedition through the Grand Canyon; 1879 appointed director of Smithsonian Bureau of Ethnology; 1881 second director of the US Geological Survey

learned nothing of importance. Possibly a thorough excavation of one of the large ruins would tell the whole story.

The greatest mystery of all is, however, in the disappearance of the people. At first thought, one would say they were Aztecs, destroyed by the Spaniards. But they were not Aztecs; they were not Toltecs. A glance at the remains of the three races shows that. Moreover, these ruins lay scattered about as they do now when Coronado led his Spanish hosts up through New Mexico more than 300 years ago. One writer on New Mexican ruins, who had heard of but not seen those of the Tularosa, assumes that an earthquake destroyed the whole race. Others think an invading war party of savages destroyed and drove away the race. Neither theory will do, as a consideration of the remains will show. If an earthquake did it, how does it happen that the drystone walls, less than a foot thick, stood up during a trembling so severe as to kill a whole race? If an invading enemy did it, how does it happen that none of the skulls show marks of sword, spear, or battle ax?

It is observed that the skeletons found below the floors were all buried. They lie in an orderly manner, with blocks of wood under the heads, and with their crockery beside them, save in a few cases. In these few cases the skeletons appear to have been women, and the bodies seem to have been doubled up and squeezed down in a sitting posture into a small square hole dug in the clay. Such spaces as remained about the bodies were filled with river sand, and heavy stones were placed over the hole after the bodies were put in. These curious graves are found on all levels.

WATER JUG.

But above the level of the top floor, a different state of affairs prevails. There are a few orderly burials here, but many more skeletons are found in positions showing that there was no regular funeral. In the regular graves, the limbs were drawn together and the pots were placed beside the head, and not [in]frequently one pot was placed in the palm [of] each hand. Where more than one person [was] buried in a room (thirty were found in [one] room), the bodies were placed side by [side], heads to the east. Above the top floors, however, the bodies, as a rule, lie sprawling about in all shapes and directions. Some seem to have been thrown in a heap against the wall, as if water had flooded the place and washed them there.

In these localities, the pottery is found in all sorts of positions, and is for the most part broken. Curiously enough, too, many of those upper rooms seem to have been burned out—the roof beams have been burned off, for instance. In one room, an old man leaned against the wall with a pipe (the only one found, so far) between his jaws. In another, a baby, lashed to a split board, while its mother was sprawled out on the floor. In an interior room, a grinding stone was found on one side of a room. Behind it a woman had knelt at her work, while in front was the big bowl to receive the crushed grain. The woman had placed her left hand on the corner of the big stone and had put her right into the corn in a bowl beside her when death came, and so she was found, every bone perfect. In what form did death come to her? In what form did it come to the rest who lie scattered about in disorder, but without any mark of violence? How were these top stories filled with earth after the people were dead?

Some good people think they find remains here of the sinners destroyed by the flood of Noah's day. They think the wash of the flood filled the houses with debris as well as drowned the people. But they do not explain how many of the rooms were burned out as well as flooded. Others, seeing that it is a volcanic region, suggest that a huge crater may have opened, with no great violence, releasing such vast volumes of deadly gases as to destroy all creatures in the region. They cite the fact that ten per cent. of carbonic acid gas in the air is enough to destroy human life. These people think the common prairie fire may have destroyed the interior of the houses, and that the cloudburst of the region may have filled up the rooms. But they do not explain how boulders too large for four men to lift got into some of these same upper rooms, although none is found either in the walls or elsewhere in the vicinity of the ruins.

Still another theory of destruction is found in an epidemic or plague of some kind, engendered by their own habits in combination, perhaps, with an unusual season. The sanitary arrangements are unquestionably bad in the villages—extremely bad. No theory is so perfect that it may not be attacked, but all the things that appear to have been done—the burning out of rooms, the filling in of about all of them, even the transportation of boulders, may have been done by fear-stricken survivors, until, at last, none remained to tell the pitiful story of the destruction of a nation.

Perhaps someday, an antiquarian with sufficient leisure and money will be found to give these, and the other remains of prehistoric people to be found in New Mexico and Arizona, the thorough examination which the interest of the subject warrants. Perhaps the mystery of this region will then be cleared up, but now it is as impenetrable as it is interesting.

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