

and a man. Their heads are turned to the east, and this may commemorate the passage of the Aborigines of the Gila on their way south.



Many of the modern symbols are in imitation of the antique, and, doubtless, the medicine men of the present day resort to this mound to invoke their unseen spirits, and work the miracles which enable them to hold their sway amongst their credulous race. There are many more weird and mysterious looking places than this to be found along the banks of the Gila, and the first attraction to the modern Indian was, without doubt, the strange characters he saw inscribed.

Some of the boulders appear to have been written and re-written upon so often it was impossible to get a distinct outline of any of the characters.

We descended into the broad valley of the Gila, skirted on the south side of the table land, black with basalt pebbles, resting on a stratum of the carbonate of lime upon which the river impinged at every flood, and widened its valley.

The hills on the north side were of red and grey rocks, probably granite, irregular in form, varying from 500 to 1,000 feet. Finding no grass, we loosened our mules among the willows and cane.

November 17.—The route to-day was over a country much the same as that described yesterday. Wherever we mounted to the table lands to cut off a bend in the river, found them dreary beyond description, covered with blocks of basalt, with a few intervals of dwarf growth of larrea. Now and then a single acacia raised its solitary form and displayed its verdure in the black expanse. We crossed the dry beds of two creeks with sandy bottoms. Under the crust of basalt are usually sand-stone and a conglomerate of pebbles, sand-stone, and lime. This last is easily undermined by the river, and the basalt or lava then caves in.

The bottoms of the river are wide, rich, and thickly overgrown with willow and a tall aromatic weed, and alive with flights of white brant, (wing tipped with black,) geese, and ducks, with many signs of deer and beaver.

At night I heard the song of the sailors calling the depth of the water, and presently, Williams, Lieutenant Warner's servant, who had been missing all day, came out of the river with the hind quarters of a large buck, perfectly intoxicated with his unexpected success. Twelve miles back, he let his mule loose, went in pursuit of deer, and killed a buck. After lugging the whole of it for two miles, he lightened his load by leaving one-half.

We encamped down in one of the deserted beds of the Gila, where the ground was cracked and drawn into blisters. The night was cold, the thermometer at 6, a. m., 20°.

Latitude of the camp 32° 55' 52". Longitude of the camp 113° 25' 25".

November 18.—High wind from the northwest all day, showing that there was still a barrier of snow-clad mountains between ourselves and Monterey, which we must turn or scale.

Carson pointed to a flat rock covered with fur, and told that he had slaughtered a fat mule there. The names of several Americans were inscribed on the same rock.

After travelling some ten or twelve miles through the valley, we

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mounted to the table land, and at 12½ o'clock stopped to graze our horses at a little patch of dried spear grass. Leaving this, the ground, as far as the eye could reach, was strewed with the black, shining, well rounded pebbles. The larrea even was scarcely seen, and dreariness seemed to mantle the earth. The arroyo by which we descended to the river was cut from a bed of reddish pebbles 20 or 30 feet deep, and as we neared the river they were soldered together in a conglomerate of which lime was the cement.

We saw to-day on the rocks, other rude carvings of the Indians, but their modern date was apparent.

To-day there was a dead calm, about meridian intensely hot, and the dust rose in volumes as our party advanced.

We found the river spread over a greater surface, about 100 yards wide, and flowing gently along over a sandy bottom, the banks fringed with cane, willow, and myrtle.

Last night I took an involuntary plunge into it, for my mule sunk in a quick sand, while I was searching for a place to cross my party. To-night I took a swim, but found the waters disagreeably cold.

The chain of broken hills still continued on the north side, and when near our camp of this date, circled in an amphitheatre, with its arch to the north. The basaltic columns, rising into the shape of spires, domes, and towers, gave it the appearance, as we approached, of a vast city on the hills. The distance of the crown of this amphitheatre, determined by angulation, is — miles, and Francisco informs me, that against its north base the Colorado strikes. So at this point, which is about six miles below our camp of this date, the Gila and Colorado must be near together. The hills and mountains appeared entirely destitute of vegetation, and on the plains could be seen, only at long intervals, a few stunted tufts of larrea Mexicana, and wild wormwood, artemisia cana.

November 19.—The table lands were the same as those described yesterday, but the valley widens gradually, and for most of the way is six or eight miles wide, and the soil excellent. Some remains of former settlements in broken pottery, corn grinders, &c.; but much fewer in number than above. Nine miles from camp a spur of mountains of an altered silicious sand-stone came in from the southeast, sharp as the edge of a case knife, and shooting into pinnacles. At their base we passed for half a mile over the sharp edges of a red altered sandstone, dipping southwest about 80°, indeed nearly vertical.

On this spur was killed a mountain sheep, one of a large flock, from which we named it Goat's spur. We encamped on an island where the valley is contracted by sand buttes in what had been very recently the bed of the river. It was overgrown with willow, cane, Gila grass, flag grass, &c. The pools in the old bed of the river were full of ducks, and all night the swan, brant, and geese, were passing, but they were as shy as if they had received their tuition on the Chesapeake bay, where they are continually chased by sportsmen. The whole island was tremulous



HEAD OF THE MOUNTAIN GOAT.

C. B. Graham Lith.

with the motion of the mules grazing, and my observations were, therefore, not very satisfactory.

11 circum-meridian altitudes of procyon, and 12 altitudes of polaris, give the latitude of the camp, $32^{\circ} 43' 38''$.

November 20.—The table lands were of sand, and the bottom of the river constantly received deposits from them, which changed its bed frequently, as might be seen from the different growths of cotton wood marking the old land. Our road, about five miles from last night's camp, was traversed by a spur of coarse grained granite underlaid by old red sandstone dipping some 80° to the south and west. The direction of the spur was nearly parallel to those before noted, northwest and southeast, which is the direction of the axis of the maximum elevation of most of the mountains traversing the course of the Gila.

Our camp was pitched on a little patch of grass two miles from the river, night came on before the horses reached it, and they were without water for twenty-four hours; there was a pond near the camp, but so salt that the horses could not drink it.

At noon, the thermometer was 74° ; at 6, p. m., 52° , and at 6 o'clock the next morning, 19° , which has been about the average range of temperature for the last two weeks.

November 21.—To-day we marched only eight and a half miles, and halted for a patch of grama, which was an agreeable and beneficial change to our mules, that had been living on cane and willow for some days past.

The plains are now almost entirely of sand, and composed of sandy and calcareous loam with iron pyrites and common salt, covered sparsely with chamiza, larrea Mexicana, and a shrubby species of sage, (salvia.)

I observed at night for latitude and time, and there being two occultations of Jupiter's satellites, I was tempted to observe them with our inferior telescope, which only gave us another proof of its uselessness for the purpose.

November 22.—Mr. Warner and I started before the advance sounded, and climbed the sharp spur of a continuous comb of mountains coming from the southeast, to try if we could see the Colorado of the west. The mountains rose abruptly from the plains as they mostly do in this region, resembling in appearance large dykes terminating at top in a sharp ridge which a man could, at any part, straddle. They were of hard granite, pepper and salt colored, traversed by seams of white quartz. This spur gives the river Gila quite a bend to the north, and from that point to its mouth, which we reached at night, the river is straight in its general direction; but its course is crooked and dotted with sandbars, by incursions from the sandhills which now flank both its sides. The sand is brought down by the winds from the valley of the Colorado. Its volume seemed, I think, a little diminished, probably absorbed by the sand.

The day was warm, the dust oppressive, and the march, twenty-two miles, very long for our jaded and ill-fed brutes. The general's horse gave out, and he was obliged to mount his mule.

Most of the men were on foot, and a small party, composed chiefly of the general and staff, were a long way ahead of the straggling column, when, as we approached the end of our day's journey, every man was straightened in his saddle by our suddenly falling on a camp which, from the trail, we estimated at 1,000 men, who must have left that morning. Speculation was rife, but we all soon settled down to the opinion that it was General Castro and his troops; that he had succeeded in recruiting an army in Sonora, and was now on his return to California. Carson expressed the belief that he must be only ten miles below, at the crossing. Our force consisted only of 110 men. The general decided we were too few to be attacked, and must be the aggressive party, and if Castro's camp could be found, that he would attack it the moment night set in, and beat them before it was light enough to discover our force.

The position of our camp was decided, as usual, with reference to the grass. The lives of our animals were nearly as important as our own. It was pitched to-day in a little hollow encircled by a chain of sand hills, overgrown with mezquite.

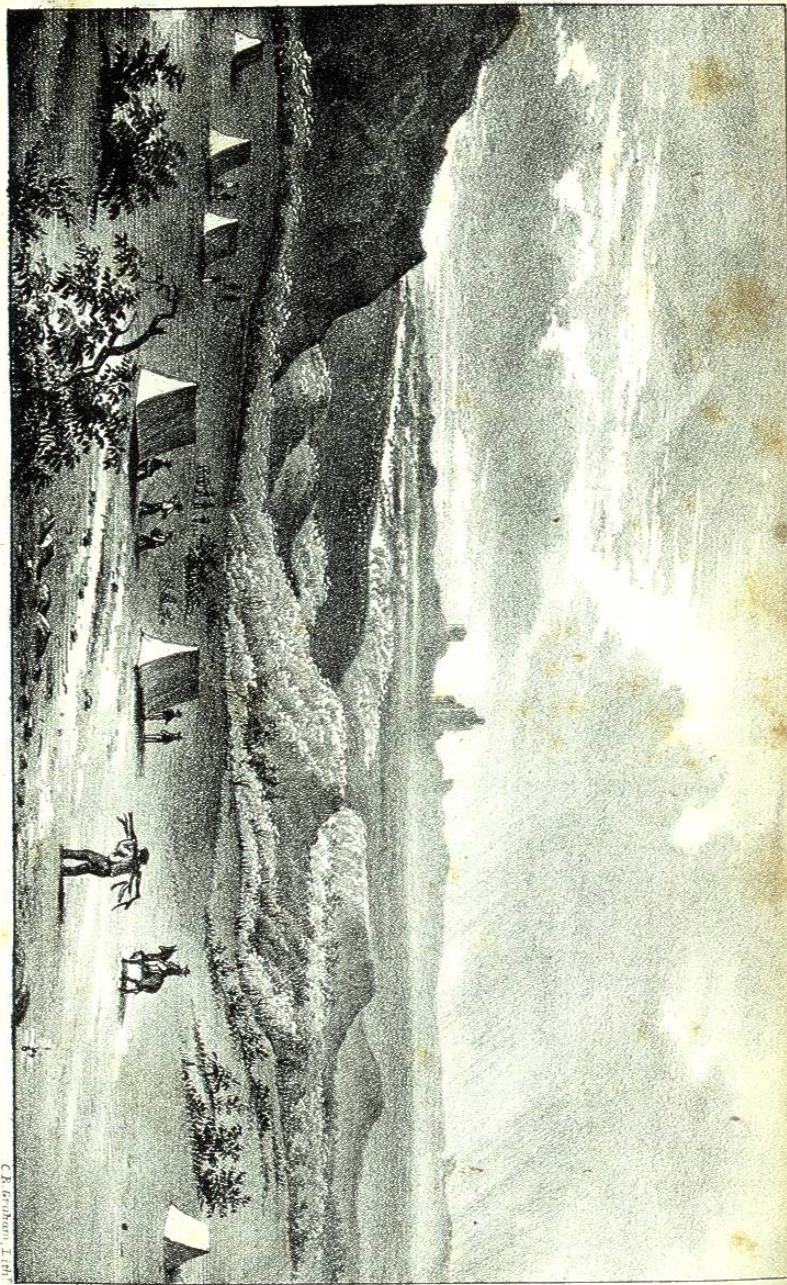
The sergeant of the general's guard was behind, his mule having broken down, and when he came in reported having seen two Indians about five miles back. For a short time we supposed this immense trail was a band of Indians returning from a successful marauding expedition in Sonora or California; but this conjecture was soon dispelled by the appearance of a mounted Mexican on a sand butte overlooking our camp, who, after taking a deliberate survey, disappeared. The camp was arranged immediately for defence, and a cordon of sentinels stationed on the sand hills.

The two howitzers did not arrive till nine o'clock, and the officer in charge, Lieutenant Hammond, reported he had seen large fires to the right, apparently five miles distant, on the opposite side of the Gila.

The general said it was necessary for him to know who occupied the camp, its force, character, and destination.

He ordered me to take my party and fifteen dragoons, for the purpose of reconnoitering. After beating about in the mezquite for some time, we struck a slough of the Gila, where grew some tall willows. Up one of these I sent a dragoon, who saw no fire, but whose ears were gladdened by the neighing of horses. He slipped down the tree much faster than he climbed it, quite enchanted with the hope of exchanging his weary mule for a charger. Instead of reporting what he had seen, he exclaimed, "Yes, sir, there are enough for us all." "Did you see the fires?" "No! but they are all on horses; I heard them neighing, and they cover much ground." He pointed in the direction, and after proceeding a short distance, we all heard distinctly the noise of the horses, indicating a large number.

Silence was enjoined, and we proceeded stealthily along for some time, when a bright fire blazed before us. I halted the guard, and with two dragoons, Londeau and Martinez, proceeded unobserved until within a few feet of the fire. Before it stood an armed Mex-



JUNCTION OF THE GILA & COLORADO RIVERS.

C. R. Gibson, Lith.

ican. I sent Londeau and Martinez with orders to assume the occupation of trappers, and ascertain whom, and what, the man guarded. The conference was short; other Mexicans advanced, and I sent in man for man. It was not Castro, as we expected, but a party of Mexicans with 500 horses from California, on their way to Sonora for the benefit of Castro.

I took the four principal men to the general, and left a guard to watch the camp and see that no attempt was made to escape. The men were examined separately, and each gave a different account of the ownership and destination of the horses.

The chief of the party, a tall, venerable looking man, represented himself to be a poor employé of several rich men engaged in supplying the Sonora market with horses. We subsequently learned that he was no less a personage than Jose Maria Leguna, a colonel in the Mexican service.

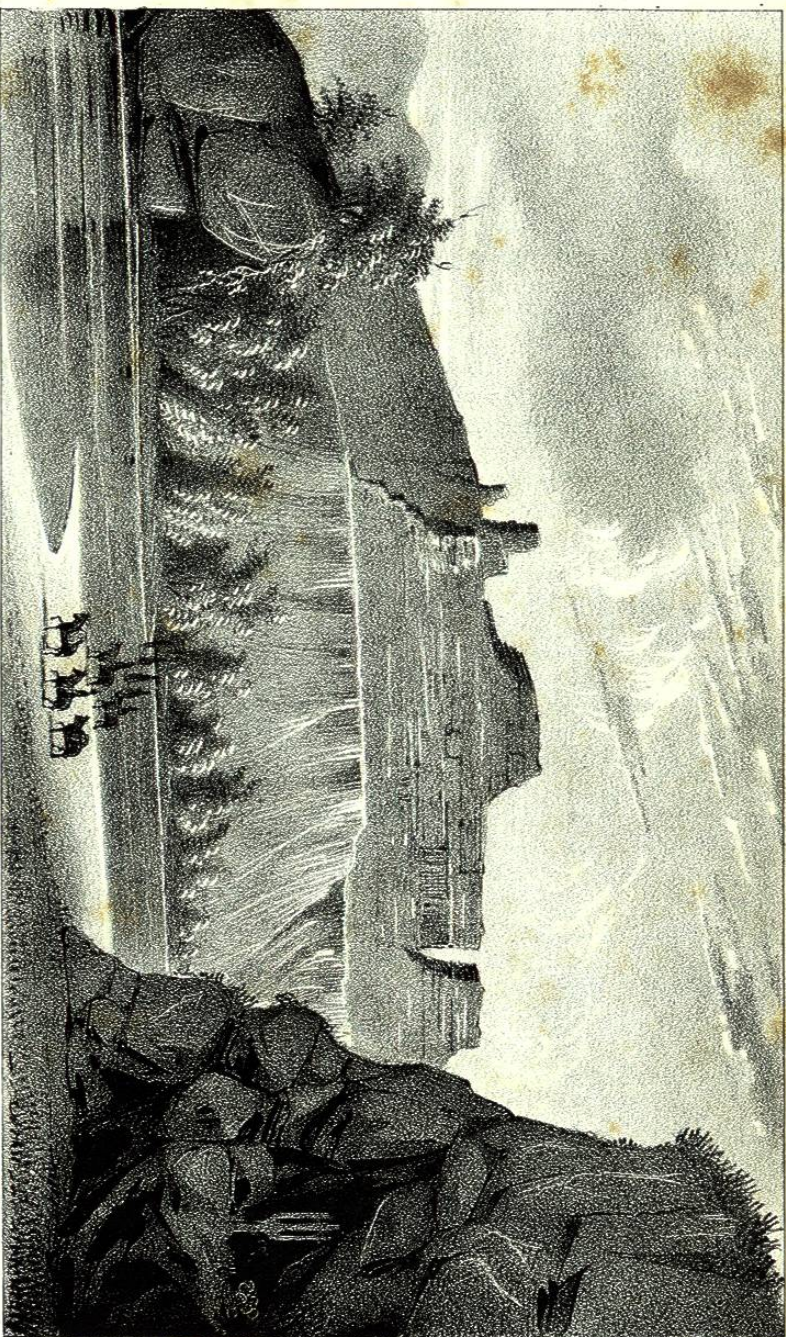
November 23.—We did not move camp to-day, in order to make a refit from last night's capture, and give our mules an opportunity to pick what little grass they could before taking the desert of 90 miles, which lies on the other side of the Colorado, and between us and water.

Warner, Stanley, and myself, saddled up to visit the junction of the Gila and Colorado, which we found due north from our camp, and about a mile and a half distant. The day was stormy, the wind blowing fiercely from the north. We mounted a butte of feldspathic granite, and, looking 25° east of north, the course of the Colorado was tracked by clouds of flying sand. The Gila comes into it nearly at right angles, and the point of junction, strangely chosen, is the hard butte through which, with their united forces they cut a cañon, and then flow off due magnetic west, in a direction of the resultant due to the relative strength of the rivers.

The walls of the cañon are vertical, and about 50 feet high, and 1,000 feet long. Almost before entering the cañon, in descending the Gila, its sea-green waters are lost in the chrome colored hue of the Colorado. For a distance of three or four miles below the junction, the river is perfectly straight, and about 600 feet wide; and up, at least, to this point, there is little doubt that the Colorado is always navigable for steamboats. Above, the Colorado is full of shifting sandbars, but is, no doubt, to a great extent susceptible of navigation.

The Gila, at certain stages, might be navigated up to the Pimos village, and possibly with small boats at all stages of water.

Near the junction, on the north side, are the remains of an old Spanish church, built near the beginning of the 17th century, by the renowned missionary, Father Kino. This mission was eventually sacked by the Indians, and the inhabitants all murdered or driven off. It will probably yet be the seat of a city of wealth and importance, most of the mineral and fur regions of a vast extent of country being drained by the two rivers. The stone butte through which they have cut their passage is not more than a mile in length. The Gila once flowed to the south, and the Colorado



VIEW ON THE GILA

C. B. Graham, lith.

One of the party, who had received some little favor from Carson in California, was well plied with brandy, but all that could be extorted from him was the advice that we should not think of going to the Puebla with our small force, counsel that our friend soon learned we had not the slightest intention of following.

The position of our camp, about one mile and a half south of the junction of the Colorado and Gila rivers, determined by 12 circum-meridian altitudes of sirius, 6 of saturn, and 12 altitudes of polaris, is latitude $32^{\circ} 42' 09''$. The longitude by one set of lunar distances, E. and W., $114^{\circ} 37' 09''$, which agrees with the chronometric determination of the same place, determined by assuming the longitude of San Diego to be $117^{\circ} 11'$.

The clouds, together with my military duties, interfered with taking a more elaborate set of lunar distances. An inspection of the individual observations for latitude will show that the latitude of the camp may be relied on, but I regret it was not in my power to measure the exact distance of our camp from the mouth of the Gila.

At night, passing my arm over the surface of the fur robe in which I was enveloped, electric sparks were discharged in such quantities as to make a very luminous appearance, and a noise like the rattle of a snake.

November 24.—We visited the camp of our Mexican friends, whom the general determined to release, and found there was a woman with the party in the agonies of childbirth. She was at once furnished from our stores with all the comforts we possessed. This poor creature had been dragged along, in her delicate situation, over a fearful desert.

The captured horses were all wild and but little adapted for immediate service, but there was rare sport in catching them, and we saw for the first time the lazo thrown with inimitable skill. It is a saying in Chihuahua that "a Californian can throw the lazo as well with his foot as a Mexican can with his hand," and the scene before us gave us an idea of its truth. There was a wild stallion of great beauty which defied the fleetest horse and the most expert rider. At length a boy of fourteen, a Californian, whose graceful riding was the constant subject of admiration, piqued by repeated failures, mounted a fresh horse, and, followed by an Indian, launched fiercely at the stallion.

His lazo darted from his hand with the force and precision of a rifle ball, and rested on the neck of the fugitive; the Indian, at the same moment, made a successful throw, but the stallion was too stout for both, and dashed off at full speed, with both ropes flying in the air like wings. The perfect representation of Pegasus, he took a sweep, and followed by his pursuers, came thundering down the dry bed of the river. The lazos were now trailing on the ground, and the gallant young Spaniard, taking advantage of the circumstance, stooped from his flying horse and caught one in his hand. It was the work of a moment to make it fast to the pommel of his saddle, and by a short turn of his own horse, he threw the stallion a complete somerset, and the game was secure.