



RAPHAEL PUMPELLY, 1900  
From a photograph by Elise Pumpelly Cabot

# MY REMINISCENCES

BY

RAPHAEL PUMPELLY

WITH ILLUSTRATIONS AND MAPS

IN TWO VOLUMES

VOL. I



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## CHAPTER XV

### I GO TO ARIZONA

WHEN I reached home, I found my dear mother happy in having resumed her painting at the age of nearly sixty, after an interruption of thirty years. She had learned to paint on porcelain. So I made the first practical application of my knowledge, in building a furnace to burn her plaques instead of having to send them to New York, where they were apt to be injured.

My father was now nearly eighty years old. With him as well as with my mother, my ties were very close, and the temptation to settle down in their companionship was strong. Still I knew that it was time that I should justify the large drain on the family purse caused by my six years abroad.

I had no prospect of employment. My brother, who was a civil engineer, had sent to me to Freiberg some rich specimens from a gold mine in Virginia, which he had been sent to examine, and I had rigged up an apparatus to test them by the chlorination process, then recently invented by Professor Plattner. I thought it might be of use to me to try the process in America. So I went to New York, to the owner of the mine, and got his permission to do what I liked.

I thought the owner was very kind in giving me a free hand with a mine which I supposed was active. But when I reached the Franklin, I realized that the kindness involved no sacrifice: for the property had ceased paying, and was abandoned to a caretaker. There was a large amount of tailings spread over a flat. I sampled these tailings by digging many holes to the bottom, and "quartering" down

the mass from each hole. I took samples from parts of the still-standing quartz vein. I assayed each of these samples. I mention these details because I have an impression that this may have been the first attempt at differential sampling in ores at mines in the United States. I don't remember now the percentage of gold, but what there was was chiefly contained in pyrites of iron and copper; the tailings would have to be roasted.

The caretaker was a very intelligent man, and there was a free colored man at hand who had had charge of the engine, and was a good mechanic. With their help I built a long flat open roasting furnace of old iron plates laid on brick. Wood was abundant, and we managed to roast a large quantity of tailings in this very primitive and imperfect manner.

We sawed planks and made cylinders about three feet high and a foot in diameter. These we filled with roasted tailings brought with water to a "wooly" consistency. Through a hole in the bottom I introduced chlorine gas, generated, I think, in old demijohns. The gold I precipitated with sulphate of iron.

The assays showed the tailings, and the ore visible in the vein, too poor to pay, but I was convinced that the process would be of value in the future.

The work had been interesting; it had cost me something in time and money, but it had been profitable in experience. In New York I gave the owner the bar of pure gold I had extracted: for it was his. He gave me a ten-dollar-gold piece for my trouble: there was no reason why he should give anything.

I went away prouder of that gold piece, as the first money I had earned professionally, than of later fees of thousands of dollars.

My stay in Virginia had also a human interest: it brought me into contact with some neighboring families and with the

negroes. I remember one elderly lady who was, I think, a niece of Chief Justice Marshall. I saw in her a type of the cultured Southern woman. The negro mechanic interested me much by his search for knowledge about the outside world. One day he asked:

"Mas' Pumpelly, you done bin in Rome?"

"Yes, Jim, I have been in Rome several times," I answered.

"You done see 'em throw de Christians to de lions?" he asked eagerly.

Here, too, I had a little experience that developed to me a new point of view. The day was warm, and I was sitting dreamily by a brook in the woods. A little turtle lay temptingly near me in the water and I caught him and laid him on his back. For some time I was amused by his struggles in trying to turn over. I teased him in different ways till at last he lay quiet. Then as I watched the helpless, harmless little thing, it occurred to me that the fun was all on one side. A wave of shame swept over me: for I was now a man; I had lived twenty-two years without having ever realized the meanness of tormenting lower animals. I had been in the habit of shooting them for pleasure, and of carrying the catch of fish, strung alive, on a forked twig run through the gills, without realizing the cruelty of it all. I had never come nearer to such a feeling than once, a few years before in Europe. I was walking in the country with a girl to whom I was much attracted by her looks and manner. There had been a rain, and there were many slugs—shell-less snails—crawling on the road. When I saw that that lovely girl was deliberately treading on one slug after another, I had a revulsion of feeling regarding her. But this had been because of the indelicacy of the act, not its relation to the feelings of the snails.

When I looked on the turtle, I was ashamed at the lateness of my awakening. I took the little animal tenderly in my

hand, begged its pardon, and placed him gently back in the water.

Since that time I have never shot game, nor caught fish except such as were needed for food in camp; and have always put them at once out of misery.

During this winter I spent several weeks visiting my uncle and aunt, Mr. and Mrs. Harmon Pumpelly, in Albany.

In Albany, I came to know Professor Hall, the great paleontologist, and Colonel Jewett, the Curator of the Geological Museum—an acquaintance that lasted, with both, through their lives. In the case of Colonel Jewett, this meeting was one of the critical incidents that determined my subsequent career. Mr. Wrightson, of Cincinnati, had asked Colonel Jewett to recommend a geologist to develop some mines in Arizona. This led to my appointment after some correspondence and a visit to Cincinnati.

It led also to a wild life of adventure, and to a pretty thorough education in human nature gained from contact with men of varied races and of every shade of character from the stalwart pioneer of the frontier to the gambler, the bully, and the frank cut-throat. In a general way, Mr. Wrightson warned me of the nature of the environment into which my acceptance of the post would lead me, but his description was, compared with the reality known later, like the faded print of a poor photograph. However, the prospect only strengthened my wish to go.

In the affectionate parting from my parents, my dear mother said:

“My dear boy, remember always to do your whole duty towards your employers.”

In St. Louis on the 8th of October, 1860, I bought my ticket “from Syracuse to Tucson, per Overland Mail Stage, Waybill No. 7 of this date.” I went by rail to Jefferson City, then the westernmost end of the railroad in Missouri. This

finished the first, and in point of time the shortest stage in a journey, the end of which I had not even tried to foresee.

I secured the right to a back seat in the overland coach as far as Tucson, and looked forward, with comparatively little dread, to sixteen days and nights of continuous travel. But the arrival of a woman and her brother dashed my hopes of an easy journey at the very outset, and obliged me to take the front seat, where, with my back to the horses, I began to foresee coming discomfort. The coach was fitted with three seats, and these were occupied by nine passengers. As the occupants of the front and middle seats faced each other, it was necessary for these six people to interlock their knees; and there being room inside for only ten of the twelve legs, each side of the coach was graced by a foot, now dangling near the wheel, now trying in vain to find a place of support. An unusually heavy mail in the boot, by weighing down the rear, kept those of us who were on the front seat constantly bent forward, thus, by taking away all support from our backs, rendering rest at all times out of the question.

My immediate neighbors were a tall Missourian, with his wife and two young daughters; and from this family arose a large part of the discomfort of the journey. The man was a border bully, armed with revolver, knife, and rifle; the woman, a very hag, ever following the disgusting habit of dipping—filling the air, and covering her clothes with snuff; the girls, for several days overcome by seasickness, and in this having no regard for the clothes of their neighbors;—these were circumstances which offered slight promise of pleasure on a journey which, at the best, could only be tedious and difficult.

For several days our road lay through the more barren and uninteresting parts of Missouri and Arkansas; but when we

entered the Indian Territory, and the fertile valley of the Red River, the scenery changed, and we seemed to have come into one of the Edens of the earth. Indeed, one of the scenes, still bright in my memory, embraced the finest and most extensive of natural parks.

Coming suddenly to the brow of a high bluff we found that we had been traveling over a table-land, while beneath us lay a deep and widely-eroded valley, the further limits of which were marked by distant blue hills. The broad, flat bottom-land was covered with a deep-green carpet of grass, and dotted, at intervals of a few miles, with groves of richly-colored trees. As a work of Nature it was as much more beautiful than the finest English park, as Nature had spent more centuries in perfecting it than the nobleman had spent days.

The fertile country reserved for the Indians was only partially cultivated by them. Although considerable success had attended the attempts to elevate these tribes, the ultimate result of the experiment was by no means certain. The possession of negro slaves by the Indians could not but be attended by even greater evils than the use of this labor among the white population.

Before reaching Fort Smith every male passenger in the stage had lost his hat, and most of the time allowed for breakfast at that town was used in getting new headgear. It turned out to be a useless expense, however, for in less than two days we were all again bareheaded. As this happened to the passengers of every stage, we estimated that not less than fifteen hundred hats were lost yearly by travelers for the benefit of the population along the road.

After passing the Arkansas River, and traveling two or three days through the cultivated region of northeastern Texas, we came gradually to the outposts of population. The rivers became fewer, and deeper below the surface; the rolling

prairie-land covered with grass gave way to dry gravelly plains, on which the increasing preponderance of cacti, and the yucca, warned us of our approach to The Great American Desert. Soon after our entrance into this region we were one morning all startled from a deep sleep by the noise of a party coming up at full gallop, and ordering the driver to halt. They were a rough-looking set of men, and we took them for robbers until their leader told us that they were "regulators," and were in search of a man who had committed a murder the previous day at a town we had passed through.

"He's a tall fellow, with blue eyes and red beard," said the leader. "So if you've got him in there, driver, you needn't tote him any further." As I was tall, and had blue eyes and a red beard, I didn't feel perfectly easy until the party left us, convinced that the object of their search was not in the stage.

The monotony of the route across the desert was somewhat varied by the immense republics, as they are commonly termed, of prairie dogs. The plains inhabited by these animals were covered by the low mounds raised over the entrance to their burrows, and separated from each other by a distance of only a few yards. At some distance from us, ahead and on either side, thousands of them were visible, each one squatting on the top of a mound, and regarding us with the most intense curiosity. As we came nearer, one after the other suddenly plunged its head into its burrow, and, after wagging its fat body for an instant, disappeared altogether. Here and there a solemn owl, perched at the mouth of the burrow, or a rattlesnake at the entrance, basking in the sun, showed that these dwellings were inhabited by other occupants than their builders. One can scarcely picture a more desolate and barren region than the southern part of the Llano Estacado between the Brazos and the Pecos

rivers. Lying about 4,500 feet above the sea, it is a desert incapable of supporting other plant or animal life than scattered cacti, rattlesnakes, and lizards. Our route, winding along the southern border of this region, kept on the outskirts of the Comanche country.

Here we were constantly exposed to the raids of this fierce tribe, which had steadily refused to be tamed by the usual process of treaties and presents. They were committing serious depredations along the route, and had murdered the keepers at several stations. We consequently approached the stockade station-houses with more or less anxiety, not knowing whether we should find either keepers or horses. Over this part of the road no lights were used at night, and we were thus exposed to the additional danger of having our necks broken by being upset.

The fatigue of uninterrupted traveling by day and night in a crowded coach, and in the most uncomfortable positions, was beginning to tell seriously upon all the passengers, and was producing in me a condition bordering on insanity. This was increased by the constant anxiety caused by the danger from Comanches. Every jolt of the stage, indeed any occurrence which started a passenger out of the state of drowsiness was instantly magnified into an attack, and the nearest fellow passenger was as likely to be taken for an Indian as for a friend. In some persons, this temporary mania developed itself to such a degree that their own safety and that of their fellow travelers made it necessary to leave them at the nearest station, where sleep usually restored them before the arrival of the next stage, in the following week. Instances had occurred of travelers in this condition jumping from the coach, and wandering off to a death from starvation in the desert.

Beyond the Pecos River the scenery became more varied. The route lay over broad plains, where the surface sloped

gently away from castellated and cliff-bound peaks. Here, from a hundred miles away, we could see the grand outlines of the Guadalupe Mountains, planted like the towers and walls of a great fortress, to render still more difficult the approach to the great wastes lying to the north and east.

Over the hard surface of this country, which is everywhere a natural road, we frequently traveled at great speed, with only half-broken teams. At several stations, four wild horses were hitched blindfolded into their places. When everything was ready, the blinds were removed at a signal from the driver, and the animals started off at a runaway speed, which they kept up without slackening, until the next station, generally twelve miles distant. In these cases the driver had no further control over his animals than the ability to guide them; to stop, or even check them, was wholly beyond his power; the frightened horses fairly flew over the ground, never stopping till they drew up exhausted at the next station. Nothing but the most perfect presence of mind on the part of the driver could prevent accidents. Even this was not always enough, as was proved by a stage which we met, in which every passenger had either a bandaged head or an arm in a sling.

At El Paso we had hoped to find a larger stage. Being disappointed in this, I took a place outside, wedged between the driver and conductor. The impossibility of sleeping had made me half-delirious, and we had gone but a few miles before I nearly unseated the driver by starting suddenly out of a dream.

I was told that the safety of all the passengers demanded that I should keep awake; and as the only means of effecting this, my neighbors beat a constant tattoo with their elbows upon my ribs. During the journey from the Rio Grande to Tucson my delirium increased, and the only thing I have ever remembered of that part of the route was the sight of a large number of Indian camp-fires at Apache Pass. My first

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recollection after this, is of being awakened by the report of a pistol, and of starting up to find myself in a room, where a number of people were gambling. I had reached Tucson, and had thrown myself on the floor of the first room I could enter. A sound sleep of twelve hours had fully restored me, in both mind and body.

I got up. No one noticed me. I looked on a novel scene. There were two or three men neatly dressed, and with delicate hands, who were dealing out cards. Their bearing was quiet and easy. The rest were a rough-looking lot of white men with unclean beards, two of them in a quarrel that might bring more shooting.

I walked out into the brilliant sunlight. Houses built of sun-dried mud bordered a vista that opened upon a vast, yellow-brown, desert plain; and, beyond, a mighty barren range of wonderfully sculptured mountain rose with a lofty majesty that cast its glamour over the whole scene.

I had no remembrance of having eaten for a week. So when I saw some men hurrying to a house where a man with a revolver stood ringing a bell, I turned to enter. The man stopped me.

"Fifty cents first!" he said, holding out a hand. There were jerked beef, and beans, and some things they called bread and coffee. You ate what was pushed to you; the memory of that pistol acted as a persuasion.

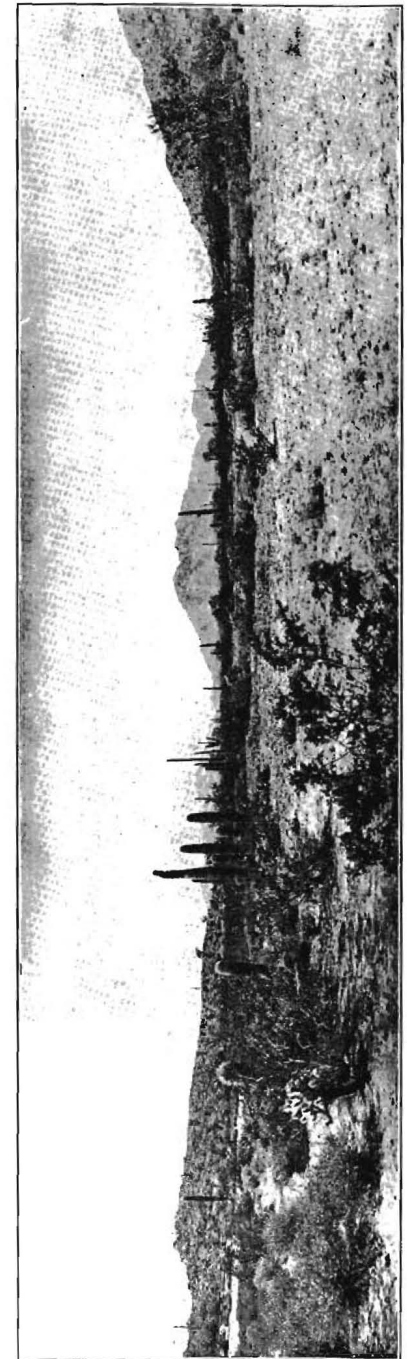
The curtain had risen on a new act in the drama of my life; Arizona was before me with its wide range of types of man and Nature.

Here I met with Lieutenant Bernard Irwin of the 7th U. S. Infantry (now General Irwin), who helped me to pass the time till I should start for Tubac.

My first thought was to make the necessary preparations for the journey to Tubac and the Santa Rita. Having soon succeeded in securing a place in a wagon which was to start



SANTA RITA MOUNTAINS, SEEN FROM LIVE OAKS ON GROSVENOR CLIFFS



IN THE GUNSIGHT MOUNTAINS NEAR AJO

in a day or two, I gave up the interval to seeing the little of interest in the town and neighborhood.

It was here that I first saw the effect of an extremely dry and transparent atmosphere. The sculpturing of the Santa Rita Mountains are distinctly visible from Tucson, a distance of more than thirty miles; and in the very dry season, as at the time of my visit, the tall pines on the summit could be clearly distinguished standing out against the sky.

Accustomed to judge of heights and distances in the atmosphere of the Eastern states and Europe, I did not hesitate, on being first asked to guess at the distance, to place it at less than ten miles.

The most interesting objects of curiosity in the town were the two great masses of meteoric iron which have been mentioned by the various travelers who have passed through this region. These had long lain in a blacksmith shop, serving as anvils, and nothing but the impossibility of cutting them had saved them from being manufactured into spurs, knives, etc. The largest mass, half-buried in the ground, had the appearance of resting on two legs; but, when removed, in 1860, it was found to be a ring of iron, varying from thirty-eight to forty-nine inches in its external diameter, and from twenty-three to twenty-six and one-half inches in its internal one, and weighing about 1,600 pounds. It lies now in the Smithsonian Institution at Washington.

Leaving Tucson early in the morning, we ascended the valley of the Santa Cruz by a sandy road. At first we passed a few patches of land cultivated by irrigation, but soon these were succeeded by the broad sandy plains characteristic of the region and relieved from absolute barrenness only by a great number of acacia trees, and a still greater abundance of cacti, of many and large varieties.

A few miles brought us to San Xavier del Bac, an ancient mission founded by the Jesuits for the conversion of the



Papago Indians. The mission building is still in tolerable preservation, with all the interior ornamentation and objects of worship of the chapel. The successors of the zealous founders had long since disappeared, but the Indians, with a feeling of mixed pride and superstitious reverence, guarded it according to their ability as a sacred legacy.

We passed several stock ranches, situated on the Santa Cruz River at points where all the water did not run underground. The houses had generally only one room, were built of sun-dried mud, and roofed with branches of the *mesquite* covered with a layer of mud.

We camped late at night about fifteen miles north of Tubac.

Early the next morning we were startled from sleep by the approach of a wagon, which turned out to contain the superintendent of the Santa Rita mines, Mr. H. C. Grosvenor, and a friend, who had come out to meet me.

As we continued our journey southward, the character of the country gradually changed.

For a short distance the bed of the Santa Cruz was filled with running water, and its banks supported a grove of large cottonwood trees, giving a welcome shade from the hot sun, while a heavy growth of grass covered the flat.

On our left rose the high, double-peaked Santa Rita, the highest of the mountains of Arizona south of the Gila River. A bold, precipitous spur, the Picacho del Diabolo, juts out into the valley, a promontory of naked rock, and a favorite post from which the Apache watched for the opportunity to make a raid.

Crossing the Santa Cruz, we passed the *Canoa*, a stockade house used as an inn, a place destined to see a massacre in the following year. A further ride of fourteen miles brought us to the old Spanish military post of Tubac. The restored ruins of the old village were occupied by a small mixed population of Americans and Mexicans, while, near by, a

hundred or more Papago Indians had raised a temporary camp of well-built reed lodges.

After breakfasting we left Tubac, and traveling eastward about ten miles, now ascending the dry bed of a stream, now crossing the gravelly *mesa*, we reached the *hacienda* of the Santa Rita mines, my destination.

At the time of my visit Arizona comprised simply the tract of country known as the Gadsden Purchase, having been bought of the Mexican Government, through our Minister, Mr. Gadsden, for \$10,000,000, to serve as a southern route for a railroad to the Pacific.

This region is crossed by parallel granite ridges, running generally north or northwest, and rarely more than sixty miles long and ten to thirty miles apart. The intervals between the mountains are occupied by plains rising gently from the center to the ridges on either side, and extending around the ends of these. Thus the whole country is a great plain, out of which rise the many outlying *sierras* of the Rocky range, as islands from the sea. Of these peaks probably none reach a height of 10,000 feet above the ocean, while the elevation of the plains increased gently from the level of the Gulf of California to about 6,000 feet at the divide between the Gila and Rio Grande.

In western Arizona and northwestern Sonora, over a belt reaching nearly a hundred miles from the Colorado River, the fall of rain is very small, and has not been sufficient to cut water-courses in the loose deposit of the plains. But further east, as we approach the higher land and the Santa Rita Mountains, the annual precipitation is greater, and broad valleys with canyons are everywhere cut deep into the plains, leaving these last to be represented only by the *mesas* or terraces remaining between the valley and the *sierras* on either side.

Properly speaking, the whole region in question has no

rivers excepting the Gila, the bed of which above its junction with the Salinas, during the season of high water, is navigable with small flat-bottom boats. The little rain that falls over a vast region fills the water-courses for only a few hours, after which what is not evaporated sinks, to follow its underground course through the loose material of the stream bed.

Where the water collects during the rainy season in natural rock tanks, or in clayey depressions in the soil, it quickly evaporates, leaving a crust of soda, lime, and potash-salts, which, spread as they often are over large areas of the desert region, aid in heightening the effect of the mirage.

Climatic influences have given a marked and peculiar character to the vegetation of this part of the continent. Toward the coast of the Gulf of California the plains are barren and arid deserts, where the traveler may ride hundreds of miles without seeing other plants than dry and thorny cacti. Granite mountains bordering these deserts are even more awful in their barrenness; neither tree, nor cactus, nor soil can be seen on their sides. The only supplies of water to be found, over an area of many thousands of miles, are in the mountains at a few points where the rains had left in natural tanks enough to last for a few weeks. During the rainy season, which sometimes failed, shallow pools were formed in slight depressions on the plains, to be exhausted after a few days' exposure to the fierce rays of the sun.

Further from the coast, the plains begin to show more vegetation. Gradually appear the *palo-verde*, the *mesquite*, and a greater variety of cacti, and on the hills scattered *saguaras* (the giant *Cereus*). Still further east appear *mesquite* and *palo-verde*, and gigantic columns of the *saguara*, covering the lowlands and foot-slopes of the Baboquiveri Range. Between the mountains and the peaks of the Santa Rita the character of the country changes; the plains are cut by deep valleys, which receive from mountain canyons the streams that have

done about all of the valley cutting in the region. All that here remains of the original plains are the *mesas*, or table-lands, lying between the river and the *sierras*.

These *mesas*, consisting of loose gravel and sand, retain much of the desert appearance, but they are clothed with a hardy grass and stunted acacias. In many of the valleys the bottom-lands have an extensive growth of bean-bearing *mesquite*, and large cottonwood trees, and in some places fine groves of ash shade the beds of streams in the neighborhood of running water.

On the hillsides, above the level of the *mesas*, are scattered the dwarf live-oaks peculiar to the country, the trees varying from twelve to twenty-five feet in height, and presenting the appearance of old apple orchards. Here, too, occur the yuccas and aloes with their tall flower-bearing stems. Higher up the mountain sides the oaks are mingled with cedars, and at an elevation of about 6,000 feet above the sea begin the few pine forests of this part of the Rocky Mountains.

The abundant growth of grass, and the mildness of the winters, render central Arizona a country well adapted to grazing. But away from the Gila River, excepting at scattered points, there is no land suitable for cultivation, owing to the absence of water for irrigation. On the extensive bottom-lands of the Gila the ruins of long-fallen towns and of large aqueducts, and widely distributed fragments of pottery, indicate the former occupation of the region by an ancient and industrious population, related probably to the scattered remnants of the Moqui race, who are fast dying out in their strongholds on the high table-lands of the Colorado River, their last refuge from the more savage tribes by which they have been surrounded. The widely-spread traces of their arts, and the ruins of their many-storied buildings, sometimes built of stone, prove that this race once cultivated great areas of country which are now desert wastes.

## CHAPTER XVI

### LIFE AT SANTA RITA

THE *hacienda* of the Santa Rita mines, which was to be my home, lay in a broad and picturesque valley, shut in on the north by the lofty range of the Santa Rita Mountains, and on the south by high and castellated cliffs of dark porphyries and white tufa. Through the open valley, toward the west, the high hornlike peak of the Baboquiveri Mountain, its outline sharply cut on the clear sky, closed a vista over fifty miles of intervening country. The Santa Rita valley consists mainly of mesa-land, its outline broken by jagged rocks rising like islands from the plain, or by the round-backed spurs from the mountains. The surface of these spur hills is roughened by a network of many mineral veins.

The drainage from the mountains passes through the valley in a deeply-cut canyon, containing here and there a little water, while throughout the rest of the valley, with the exception of two or three small springs, water could be had only by digging. The tree growth was of scattered live-oaks and bean-bearing *mesquite*. A few cottonwoods occurred along the generally dry water-courses. The *mesa* is the home of a great variety of cacti, the yucca, and the *fouquiera ocotilla*, a resinous shrub sending up from the root a large number of simple stems, covered with sharp thorns, and in the season bearing beautiful flowers.

The whole valley and its inclosing hills were covered with abundant grass of several kinds, which, while of great importance to the country, gave it a parched appearance. The peculiar effect of this vegetation was heightened by the



SANTA RITA VALLEY

From a sketch by H. C. Grosvenor

abundance of the short columnar fish-hook cactus, the broad thorn-pointed leaves of the Spanish bayonet, and the tall lancelike stem of the century plant, bearing, in season, its gracefully pendant flowers.

The scenery of Arizona, dependent in great part on its climate and vegetation, is unique, and might belong to another planet. No other part of the world is so strongly impressed on my memory as is this region, and especially this valley. Seen through its wonderfully clear atmosphere, with a bright sun and an azure sky, or with every detail brought out by the intense light of the moon, this valley has seemed a paradise; and again, under circumstances of intense anxiety, it has been a very prison of hell.

A few days after my arrival at the mines, in company with Mr. Grosvenor, I started on a journey to Fort Buchanan, twenty-two miles distant. Our route lay in part through a rocky and gloomy defile, along one of the war trails of the Apaches leading into Sonora. From the countless tracks in the sand it was evident that a successful party of raiding savages had returned with a large drove of horses and mules.

A few miles short of the fort we stopped at the house of an Arkansas family, one of the daughters of which had escaped most remarkably a few months before from Indian captivity and death. She had been married the previous year, and had accompanied her husband to the Santa Rita Mountains, where, with a party of men, he was cutting timber. While alone in the house one day she was surprised and taken off by a small band of Apaches, who forced her to keep up with them in their rapid journey over the mountain ridges, pricking her with lances to prevent her falling behind. The poor woman bore up under this for about ten miles, and then gave out altogether, when the savages, finding they must leave her, lanced her through and through the body, and, throwing her over a ledge of rocks into a snow-bank, left her

for dead. She was soon conscious of her condition, and, stopping the wounds with rags from her dress, began her journey homeward. Creeping over the rough country, and living on roots and berries, she reached her home after several days. I was told that the first thing she asked for was tobacco.

Continuing our journey through the valley of a tributary of the Santa Cruz, we reached Fort Buchanan. This fort, like most of our military establishments in the Rocky Mountains, consisted simply of a few adobe houses, scattered in a straggling manner over a considerable area, and without even a stockade defense. What object the Government had in prohibiting the building of either block or stockade forts I could never learn. Certainly a more useless system of fortification than that adopted throughout the Indian countries cannot be well imagined. The Apaches could, and frequently did, prowl about the very doors of the different houses. No officer thought of going from one house to another at night without holding himself in readiness with a cocked pistol. During the subsequent troubles with the Indians, when the scattered white population was being massacred on all sides for want of protection the Government was bound to give, the commandant needed the whole force of 150 or 200 men to defend the United States property, while with a better and no more costly system of fortification this could have been accomplished with one-quarter that number, and the lives of many settlers saved by the remaining force.

The next day, after riding out with Lieutenant Evans to see some springs which were forming a heavy deposit of calcareous tufa, we started on the return journey. We had passed a little distance beyond a thicket about 500 yards from the fort when we met a man driving a load of hay. In a few minutes, hearing the report of a gun, we looked back; but having made a turn in the road, and seeing nothing, we rode on our way. Several days afterward I learned that

the man had been killed by Indians hidden in the thicket, and that the shot we heard was the fatal one. The Apaches were probably few in number, as they did not attack us.

The victim was a young man from the Southern states and a letter in his pocket showed that he had been to California to free and place in safety a favorite slave. On his way home, finding himself out of money, he had stopped to earn enough to carry him through, when he died the common death of the country. Four years later my successor, Mr. W. Wrightson, and Mr. Hopkins were killed at this same thicket by Apaches, who afterwards massacred the few soldiers left to garrison the fort.

The valley of Santa Rita had been, it is said, twice during the past two centuries the scene of mining industry; and old openings on some of the veins, as well as ruined furnaces and *arastras*, still existed. But the fierce Apaches had long since depopulated the country, and, with the destruction of the great Jesuit power, all attempt at regular mining ceased.

The object of the Santa Rita Company was to reopen the old mines, or work new veins, and extract the immense quantities of silver with which they were credited by Mexican tradition. In Mexico, where mining is the main occupation of all classes, tales of the enormous richness of some region, always inaccessible, are handed from generation to generation, and form the idle talk of the entire population. The nearer an ancient mine to the heart of the Apache stronghold, the more massive the columns of native silver left standing as support at the time of abandonment. It is not strange, therefore, when we consider how easily our people are swindled in mining matters, that in those times we found them lending a willing ear to these tales, and believing that "in Arizona the hoofs of your horse throw up silver with the dust."

A number of veins had been found and slightly opened. Most of them carried argentiferous copper ores, some had

galena rich in silver, and one had native silver. They were, however, thin veins. The problem was to explore them in hope of their enlarging into *bonanzas*. The company owned a large old Spanish grant covering extensive mineral possibilities, but they had but little capital. It was necessary to work up all the ore found during exploration. Then, too, a method had to be decided on for reducing the peculiar varieties of ore.

My education had been connected with processes for working on a large scale in furnaces built with fire-proof materials, and using elaborate machinery. The country offered no fire-proof materials. A thousand fire bricks had, indeed, been sent by wagon from the East, but the Comanches in Texas had killed the driver, burned the wagon and stolen the horses. We had no machinery. In vain I studied carefully Kerl's *Metallurgie* for methods used in out-of-the-way places. All were planned for elaborate methods of getting the greatest possible yield, and all demanded materials and machinery not open to us.

I realize now how valuable it would have been had Freiberg given a course on the simple methods of the ancients as described by Agricola in the sixteenth century, and by Pliny in the beginning of our era.

As it was, I was thrown back on such knowledge as I had of the fundamental principles of metallurgy. I found that the Mexicans used amalgamation for certain ores, and smelting for others; the greater part of ours were not well adapted to amalgamation, and we had no quicksilver. But in smelting they built furnaces of mud.

I took differential samples throughout the workings, on the veins, to determine the distribution of silver. Then I had the ores classified and, in the Mexican manner, broken to small size by hammers; and I assayed, by the blowpipe method, samples from the different piles.

We built furnaces, for both smelting and cupelling, of sun-dried mud bricks, much like those of the Mexicans.

Fortunately we had a large blacksmith's bellows. We had also an intelligent American carpenter, and, together, we rigged up a method of working the bellows by horsepower for blowing air into the furnace.

We made good charcoal from the *mesquite acacia*.

The pure minerals were very rich, the *fahlores* ranging 400 to 1,200 ounces silver per ton, and the galena from 80 to 170 ounces.

As prepared for smelting, the silicious *fahlores* averaged 176 ounces, and the lead ores 86 ounces.

My charges were made up of definite proportions of silicious *fahlore*, galena, cupel bottom, ironstone, and litharge, the charge weighing about 350 pounds. The silver concentrated in the lead and was extracted from it by cupelling.

We had, however, not enough ore to meet expenses, for the veins were thin, and our work was mere prospecting.

We were a small group at the Santa Rita. Grosvenor, the chief, proved himself a strong and lovable character, and was an artist and an engraver on wood.

Mr. S. Robinson, the bookkeeper, had studied medicine under Dr. Oliver Wendell Holmes, and had settled in Cincinnati. Like Grosvenor, and myself, Robinson had succumbed to the lure of the golden desert.

Our cook, named Schmidt, I think, was a German, a very poor cook, but a brave man.

These, with myself, are the *dramatis personæ* of the tragedy of the Santa Rita.

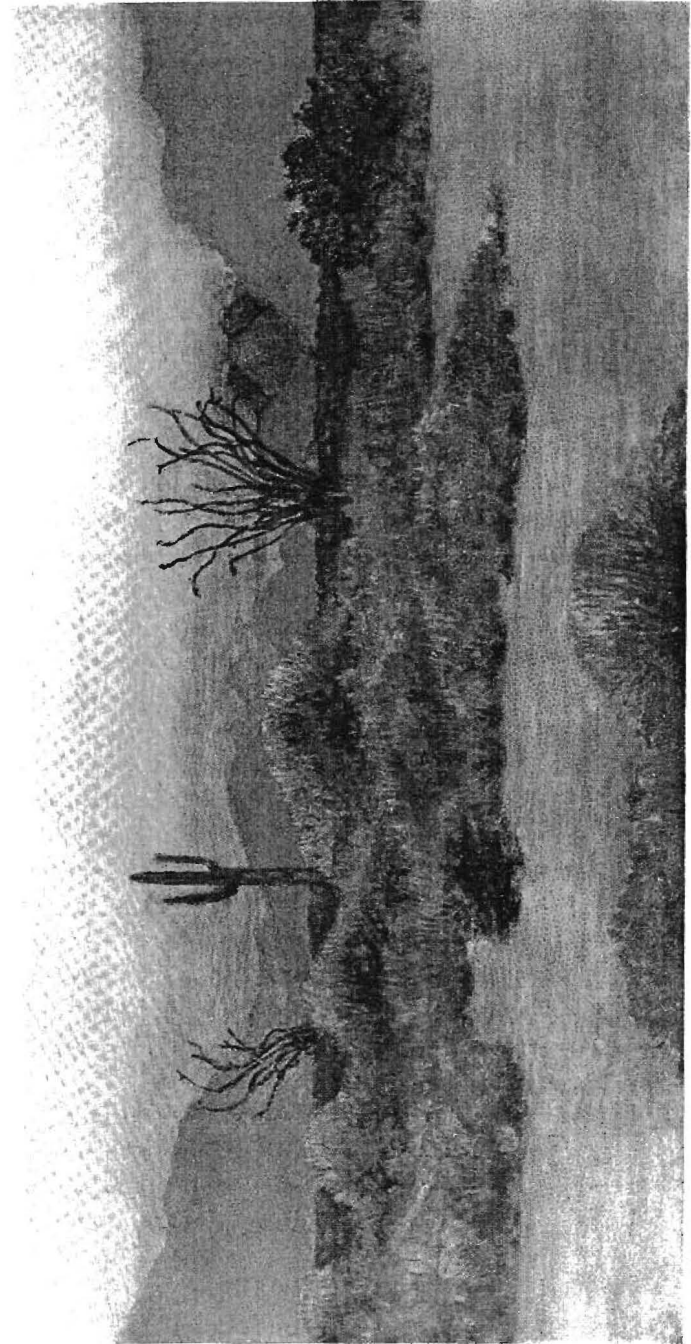
I look back on my life in the early months of my stay there as full of quiet charm and interest. In the semi-desert character of its peculiar plant and tree life, like that of all Arizona, south of the Gila, it was in most respects unique among the regions of the world. The weirdness of the

scenery by day, and yet more weird in the strong contrasts of the brilliant Arizona moonlight; the character of the outlaw American and Mexican inhabitants, and the human background of savage Apaches, all lent an undertone of adventure and of danger.

There were some forewarnings which lent excitement to the life. The population of Arizona, excepting a few widely separated American ranch owners and miners, was made up of outlaws. There were refugees from the vengeance of the San Francisco Vigilance Committee, and from the States, and there were escaped convicts from Australia. The labor element consisted of Mexicans, largely outlaws from Sonora. Back of these were the ever-present, rarely visible Apaches. Each of these elements was charged with bolts that might at any moment, at any place, strike from a clear sky. When I arrived at the mine the blacksmith, named Rogers, was an escaped convict from Australia. He was in the habit of having chills, and would come shaking to Grosvenor for quinine, which he could only take in a cup full of whiskey. His chills became so frequent that we grew suspicious. So one day the chief refused him his dose and told him he only wanted the drink. Rogers sprang across the room at Grosvenor with a drawn knife. Grosvenor parried the blow and knocked the man down, and we disarmed him.

There was no semblance of law or of constituted civil authority in Arizona. Every man was judge, jury, and sheriff; back of him was the quickly formed Vigilance Committee. I said Rogers must be hung at once. On the other hand Grosvenor made him stand up, and gave him fifteen minutes to be off the property.

A few days later one of our number walking in Tubac was hailed from a house by Rogers, who asked him in. Rogers opened a box and drawing out a string of human ears said: "Them's eighteen pairs of men's ears. I've sworn I'll make



SUNSET ON THE YUMA DESERT  
From a water-color by Margarita Pumpelly Smyth, 1915

it twenty-five, and two pairs is comin' from your mine; *sabe?*"

There was a sequel. Rogers had gotten an influence over a young man from the East who had gone to the bad. Together they waylaid and killed a man to get his horse and arms. This might have passed unnoticed if the victim hadn't been more popular than the two. Since he was, Rogers and his pal made off to Sonora. After some time a Mexican brought into Tubac a letter addressed: "To the Honorable *Alcalde* (Mayor) of Tubac." There being no *Alcalde*, honorable or dishonorable in Tubac, nor any other authority of any kind, the first-comer opened the letter. It was from the *Alcalde* of the city of Chihuahua. It said that two Americans had been seen together on horseback approaching the city, and since only one of them had entered leading a riderless horse, and carrying two guns, a search was made, and the body of the other man, shot in the back, was found in the brush. They were holding the man, who called himself Rogers, in jail, and they asked where they should deliver him. No one answered, because no one wanted Rogers.

Some time later word came, in a Texas paper I think, that a man, by the name of Rogers, had been found at the point of death by an old Mexican near El Paso del Norte across the river from Texas. The old man and his wife had taken Rogers into their house, and had nursed him back to health. In the night Rogers had killed the old man and his wife and daughter, to get the three or four dollars they had saved. The neighbors had tracked him, hung him up by his heels, and roasted him with a fire under his head.

Rogers was one of the very few white men that I have met through a life of ample experience of human nature in lawless environments who were thoroughly and meanly bad to the core.

There were two brothers from the East who were opening



a mine, San Pedro, several miles beyond Fort Buchanan. They had with them another American and a German mining engineer named Bronkow, and a number of Mexican workmen. One of the brothers went one day to the fort for supplies and returned to the mine late at night. In hunting for matches he stumbled over a man lying on the floor. Stooping down he put his hand into a pool of blood. In the dark he made his way into another room and, in his excitement, fell over another body.

Not finding matches he mounted his horse and hurried to the fort, distracted by the uncertainty as to whether his brother was one of the dead.

He reached the fort at daybreak. A number of soldiers, and Grosvenor, who happened to be at the fort, returned to the mine with him. They found that the bodies in the house were the brother and the other American. The mining engineer, Bronkow, was missing, but after a long search he was found in the bottom of a shaft, where he lay dead with a long rock drill run through his body.

The Mexicans were gone. They had killed the Americans and, after robbing the house, had escaped to Sonora with the horses.

The murdered men were all friends of Grosvenor. He brought away the miner's compass and a chemical thermometer as a memento of his German friend.

There was a young Easterner, a "tenderfoot" like me. We had heard so much of the Apaches ever since our arrival, and of their bloodthirstiness, that we were longing to meet them, for each of us had a rifle made specially for such an emergency. Mine had two barrels, one for a large ball and one for a small one; incidentally it only weighed something less than eighteen pounds.

We two had come in to dinner, having hitched our horses to the door posts. Suddenly a Mexican rushed in shouting:

"Los Apaches, los Apaches, they have stolen horses."

We were delighted. Here was our chance. We would overtake and shoot those Apaches. Nothing more easy.

In an instant we were in the saddle. About a mile off we saw two horses being driven off by two Indians. As we gained on them slowly we could see that the Apaches were really running with a peculiar swaying movement of the body. They were naked, their hair was streaming out behind.

By the time we were within less than two hundred yards of them the Indians and horses had disappeared beyond the dense thicket that bordered the course of a stream. Then suddenly the whole face of that thicket was alive with naked, painted Indians. They yelled and flourished lances and bows.

Our terrified horses stopped short and plunged, nearly unseating us. They wanted to go home as quickly as possible. So, too, did each of their riders, but each one of us was afraid of being thought a coward by the other. So, having heard that the proper thing was to dismount and shoot, holding the horse with your arm through the bridle, we jumped off and tried to take aim. We pulled the triggers; both missed fire.

The Apaches jeered; they jumped up and down slapping their backsides. It was our salvation that we were able to vault into our saddles instead of mounting by the stirrup.

As we started off there came a shower of spent arrows after us.

Those Indians could have killed us easily had they wished, but the Apaches had not as yet been roused to a just resentment for treachery on the part of our troops.

I think they were moved by a sense of humor, and by the apparent bravery of the two tenderfeet; for of course they didn't know why we hadn't run away at first.

This was a valuable lesson. It gave me respect for the Indian, and some insight into their nature. I felt humbled

by the knowledge that we owed our lives to the sense of humor on the part of an enemy we had so casually thought of killing and, let me confess it, of scalping too.

Not long after this three mounted Apaches stole some loose horses. We were in quick pursuit, four of us, when we came suddenly on thirty or forty unmounted Indians. They were running over a wholly open area covered with rocks one or two feet in diameter. The ground sloped gradually away from us, and on each side to ravines.

As soon as we saw them, they instantly disappeared from sight. Two or three musket balls whizzed past us, and the smoke showed that the enemy was lying flat, hidden behind the rocks. We fired at the places the smoke came from, and waited a few minutes to spot a head. Then we charged. Not an Apache was there. They had wriggled away under cover of the rocks into the ravines and off. Their tactics were masterly. They had evidently fired to concentrate our attention on one place, while they escaped.

Early in April, I think, we had bought forty head of cattle. Because they were new to the place we put them into one of the *corrals*, and turned thirty or more of our horses out, knowing that they would stay near the house. Everything seemed all right.

That evening, while we were at supper, a skunk boldly entered the room. We watched it with great respect while it passed by the table, hoping it would go out by the door beyond. But it walked into the large room that served for stores and office. At the far end the animal hid itself under a pile of bags of flour that stood on boards raised about six inches above the earthen floor. With a candle I located the skunk. I fired and killed; but too late, the enemy shot first.

How little we knew what that shot was to cost us! Our thoughts were occupied with the new aspect of the atmosphere.

I dragged out the skunk and, holding it by the tail, went out and hurled it forth to enliven the night air.

Then I placed under the pile of flour a saucer filled with materials for slow generation of chlorine gas. The effect was magical; the room filled with the fragrance of a really delicate perfume. We went to bed quite happy.

The light of the just rising moon showed one of the horses standing asleep in front of my window.

Looking out at daybreak the first thing we saw was a thin layer of snow covering the ground. Then we saw the tracks of several Apaches. Not a horse. A fine watch dog lay chained in his kennel at the gate of the *corral*, not fifty feet from the house. He was still there and alive.

The dead skunk lay at the very door of the kennel; it had landed under the nose of the dog, obliterating the odor peculiar to the Apache.

Snow was still falling very gently, and we saw that the tracks could be hardly an hour old.

The Indians had all our horses, except two or three that were away, so we set out on foot in pursuit. The horse tracks were plain, and we followed them easily for several miles, but they showed that the Indians were now mounted, and going rapidly. My heavy rifle grew heavier and heavier till I lay down exhausted. The rest of the party returned soon, with an old horse that had given out and been abandoned.

The skunk had had his revenge; the Apaches had our horses.

## CHAPTER XVII

TROOPS ORDERED EAST AND THE  
APACHE TERROR

THE incidents I have given were mere omens of what was to come.

Soon after the loss of our horses, there came word that the troops were ordered to abandon the country and go to the East to be employed in the war.

There were two bodies of these, one of infantry at Fort Buchanan, about twenty miles from us, and one of dragoons sixty or seventy miles away. These troops were the only protection that stood between us and the Apaches.

The news of the impending withdrawal caused great excitement among the small number of settlers who were scattered over the country.

To make the matter worse, the military began an uncalled-for war with the Apaches. In April, I believe, some Indians, of what tribe was not known, carried off a cow and a child belonging to a Mexican woman living with an American. Upon the application of the latter, the commandant at Fort Buchanan despatched a force of seventy-five men to the nearest Apache tribe. The only interpreter attached to the expedition was the American who was directly interested in the result.

Arriving at Apache Pass, the home of the tribe, the lieutenant in command raised a white flag over his tent, under the protection of which six of the principal chiefs, including Cochese, great chief of the Apache nation, came to the camp, and were invited into the tent.

A demand was made for the child and cow, to which the Indians replied, truly or falsely, that they had not been stolen by their tribe.

After a long parley they were seized. One of the number, in trying to escape, was knocked down and pinned to the ground with a bayonet. Four others were bound, but Cochese, seizing a knife from a cot, slashed his way through the canvas and escaped, with three bullets in his body, fired by the outside guard.

And this happened under a United States flag of truce!

At this time three of the most powerful tribes of the nation were concentrated at Apache Pass, and, when Cochese arrived among them, a war of extermination was immediately declared against the whites.

The next day they killed some Mexican prisoners, and in retaliation the five chiefs were hung in sight of their people. Our troops, after being badly beaten, were obliged to return to the fort.

In the meantime orders came for the abandonment of the territory by the soldiers. The country was thrown into consternation. The Apaches began to ride through it rough-shod, succeeding in all their attacks. The settlers, mostly farmers, abandoned their crops, and with their families concentrated for mutual protection at Tucson, Tubac, and at one or two ranches, and at a distant mine.

When, in addition to this, the news came of the beginning of the rebellion in the East, we decided that, as it would be impossible to hold our mines, our only course was to remove the portable property of the company to Tubac. We were entirely out of money, owing back pay to a considerable force of Mexican workmen, and to two or three Americans, and we needed means for paying for the transportation of the property, and for getting ourselves out of the country.

Our stock of ore was far too small to furnish the amount

of silver needed to meet these demands, and our main hope lay in the possibility of collecting debts due to the company. In pursuance of this plan I started alone, but well armed, to visit the Heintzelman mine, one of our principal debtors. The ride of forty miles was made in safety, and in the afternoon I reached the house of the superintendent, Mr. J. Poston. Not being able to obtain money (for no one could afford to part with bullion, even to pay debts) I took payment in ore worth nearly \$2,000 per ton, together with a little flour and bolts of cotton cloth. In the course of the afternoon this was despatched in charge of two of the most fearless Mexicans at the mine in Poston's service.

The next morning, April 24, 1861, I started homeward alone, riding a horse I had bought, and driving before me the one that brought me over. I had so much trouble with the loose animal that night found me several miles from our *hacienda*.

Only those who have traveled in a country of hostile Indians know what it can be to journey by night. The uncertain light of the stars, or even of the moon, left open the widest field for the imagination. Fancy gave life to the blackened yucca, and transformed the tall stem of the century plant into the lance of an Apache. The ear of the traveler listened anxiously to the breathing of his horse; his eye ever on the alert, before and behind, watched the motions of the horse's ears, and looked for the lurking place of an Indian.

Still, night was the less dangerous time to travel, for one was not as easily seen at a distance as by day. But after a few night journeys I found the nervous tension so unbearable that I always chose the daytime, preferring to run a far greater risk of death to being made the prey of an overstrained imagination. Then, too, in such a state of society as then existed, the traveler in the dead of night approached a solitary

house, perhaps his own, with much anxiety; it was uncertain whether he might not find only dead bodies.

About three miles from the *hacienda*, in the most rocky part of the valley, the horse in front stopped short, and both animals began to snort and show signs of fear. This may have been due to Indians or to a mountain lion. Both horses started off at a runaway speed, leaving all control over either one out of the question. Fortunately, the free horse, followed by my own, first made a long circuit, and then bounded off toward the *hacienda*. After a breakneck course over stony ground, leaping rocks and cacti, down and up steep hills, and tearing through thorny bushes, with clothing torn and legs pierced by the Spanish bayonet, I reached the house.

The wagon with the ore, although due that morning, had not arrived, and this was the more remarkable as I had not seen it on the road. When noon came, and the ore still had not arrived, we concluded that the Mexicans, who well knew its value, had stolen it, packed it on the mules, and taken the road to Sonora.

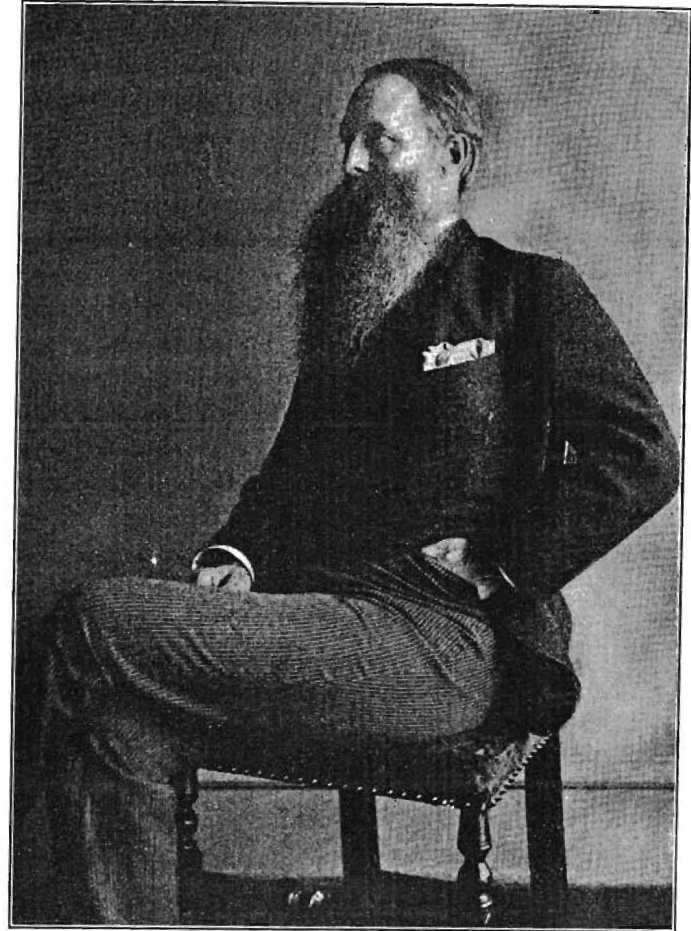
Acting upon this supposition, Grosvenor and I mounted our horses, and, armed and provisioned for a ten days' absence, started in pursuit. Each of us carried a carbine and two revolvers, and a blanket rolled behind the saddle. Our provisions were simple. Each had a bag of *penole*—powdered parched corn mixed with nearly half its weight of Mexican brown sugar; coffee, and a tin cup completed our outfit. We rode two miles to a point where the road turned to the right to set an easy grade over a spur of the *mesa*. To avoid this bend we rode straight ahead on a trail over the spur and descended to cross the narrow valley beyond. The wagon road crossed a few hundred yards further up, and then by an easy ascent joined our trail at the top of the *mesa*.

We were just crossing the bottom of the valley to climb the opposite hill when, looking up, we saw the missing wagon

just coming in sight and beginning the opposite descent. One of the Mexicans rode a wheel mule, while the other was walking ahead of the leaders. I noticed that neither of them carried their guns, which were probably left in the wagon. We had evidently judged our men wrongly, and when Grosvenor proposed that we should go on and come back with them I objected, on the ground that the Mexicans, seeing us prepared for a journey, would know at once that we had suspected them. We therefore decided to turn back, but taking another way homeward we quickly lost sight of the wagon. After riding a few hundred yards we dismounted at a spring, rolled a cigarette, and then rode home.

As the afternoon passed away without the arrival of the wagon, we supposed it had broken down, and at twilight Grosvenor proposed that we should walk out and see what had caused the delay. Taking down my hat, I answered: "All right, but to-morrow I've got to begin the smelting, and I want to finish to-night the map and record of the property needed for future use. After all, the Mexicans will send up if they need any help." My friend said: "You're quite right. I'll only go a little way for a walk." It was soon dark, and Robinson and I sat down to tea. By the time we left the table Grosvenor had been out half an hour, and we concluded to go after him.

I will diverge here to tell of a remarkable dream of Grosvenor's which recurred to us after the events which follow this point in my narrative. Grosvenor had told it early in the winter. He had been born in Ohio, and had never seen the sea. When he was a child he dreamed that he stood on the edge of the ocean. He saw a small black line rise on the horizon. He watched it and saw it rise slowly. A small black spot appeared under it. He said the thing then looked like an exclamation point. Then he saw that it was moving up and down. It held him fascinated. Days and weeks seemed



RAPHAEL PUMPELLY AT FORTY-SEVEN YEARS  
From a photograph by Mrs. Henry Adams, 1884

to pass as the thing slowly rose and fell. It rose higher each time than the time before, and grew ever longer and longer till it reached high toward the sky; and this continued till he knew that with the next descent the thing would crush him, but just before it could strike him he awoke.

Grosvenor said that after this the dream came back so often that he grew thin, and his health was affected by it. This lasted for years, the dream coming more rarely till it stopped its torments when he was in his teens.

Grosvenor told this so dramatically that it made a strong impression on us; the "exclamation point" became a household word with us.

About the beginning of April Grosvenor went alone to Tubac for the mail. When he returned he said:

"Pumpelly, I wish you would send some Mexicans to the Point of Rocks to look for tracks. When I got there I heard 'ha! ha! ha!' I couldn't see any one, but there must be Indians near."

The trackers returned without having found fresh tracks.

The next week Grosvenor went again alone for the mail. When he returned he said:

"Pumpelly, I wish you would take the trackers and look yourself. When I came near the Point of Rocks, I heard it again: 'ha! ha! ha!' There must be Indians around there."

So I went with the Mexicans. We found no fresh signs.

The next week Grosvenor went again for the mail. I met him as he returned in the afternoon. He said:

"Pumpelly, I want to take the Mexicans and search the place myself. I heard clearly the same shout: 'ha! ha! ha!'"

When Grosvenor came back before dusk, and I held his horse while he got off, he seemed downcast. As he passed to go into the house he turned to me:

"Pumpelly, *I have* HEARD *the exclamation,*" evidently referring to his dream.

Now I will resume my narrative after the delay of the wagon.

Accompanied by Robinson, and leaving the cook to take care of the house, I walked along the Tubac road. We were both well armed; and the full moon, just rising above the horizon behind us, brilliantly lighted the whole country. We had gone about two miles, and were just beginning to ascend the grade over the spur mentioned above when, hearing the mewling of our house-cat, I stopped, and, as she came running toward us, stooped, and took her in my arms.

As I did so, my attention was attracted by her sniffing the air and fixing her eyes on some object ahead of us. Looking in the direction thus indicated, we could distinguish near the roadside on the top of the hill the crouching figure of a man, his form for a moment just defined against the starlit sky, and then disappearing behind a cactus. I dropped the cat, which bounded on ahead of us, and we cocked our pistols and walked briskly up the hill. But when we reached the cactus the man was gone. Of Grosvenor we as yet saw nothing. Continuing our way at a rapid pace and full of anxiety, we began the long descent toward the *arroyo*, from which we had seen the wagon at noon. Turning a bend about half-way down, we caught sight of the wagon drawn off from the road on the further side of the *arroyo*. The deep silence that always reigns in those mountains was unbroken, and neither mules nor men were visible. Observing something very white near the wagon, we at first took it for the reflected light of a camp-fire, and concluded that the Mexicans were encamped behind some rocks, and that with them we should find our friend. But it was soon evident that what we saw was a heap of flour reflecting the moonlight. Anxiously watching this and the wagon, we came around a slight bend in the road, and had approached within about twenty yards of the wagon when we both started back—we had nearly

trodden on a man lying in the road. My first thought was that it was a strange place to sleep in, but he was naked. The first idea had barely time to flash through my mind, when another followed—it was not sleep but death.

As we stooped down and looked closer, the truth we had both instinctively felt was evident—the murdered man was Grosvenor.

For the first time I stood an actor in a scene of death, the victim a dear friend, the murderers and the deed itself buried in mystery.

His head lay in a pool of blood; two lance wounds through the throat had nearly severed the head from the body, which was pierced by a dozen other thrusts. A bullet hole in the left breast had probably caused death before he was mutilated with lances. Evidently he had not moved since he fell by the shot that took his life. He lay face down, and as the feet had been stretched out in stripping the corpse so they remained stretched out when we found him. The body was still warm; indeed, he could not have reached the spot when we left the house.

Grosvenor died at the place where he had heard, or thought he heard, the exclamation that he connected with his dream.

I have seen death since, and repeatedly under circumstances almost equally awful, but never with so intense a shock. For a minute that seemed an age we were so unnerved that I doubt whether we could have resisted an attack, but fortunately our own situation soon brought us to our senses. We were on foot, two miles from the house, and the murderers, whoever they might be, could not be far off, if indeed the spy we had seen had not already started them after us. Looking toward the wagon, I thought I could discover other bodies; but we knew that every instant was of great importance, and, without venturing to examine closer, we started homeward, the cat going ahead of us. There was only one

white man at the *hacienda*, and a large number of *peons*, and we did not yet know whether the murderers were Indians, or the two Mexicans, who might be in collusion with our own workmen.

If they were Indians, we might escape by reaching the house before they could overtake us; but if they were our Mexicans, we could hardly avoid the fate the cook at the house must already have met with.

Uncertain whether we were going away from danger or into it, we walked rapidly on constantly on the alert. In this manner we went on till we reached a place where the road lay for some distance through a dense thicket—the very spot for an ambush. We had now to decide whether to take this, the shorter way, or another which, by detaining us a little while longer, would lead us over an open country, where we could in the bright moonlight see every object within a long distance. The idea of being able to defend ourselves tempted us strongly toward the open plain, but the consciousness of the value of every minute made us decide quickly to take the shorter way. Nothing happened until, within a short distance of the *hacienda*, we began to hear Apache signals given and answered, and looking back we saw several Indians coming into view; but we gained the door safely, and found all as we had left it. The American, unaware of danger, was making bread; and the Mexicans were asleep in their quarters. We kept guard all night, but were not attacked.

Before daylight we despatched a Mexican courier across the mountains to the fort, and another to Tubac, and then went after Grosvenor's body. We found it as we had left it, while near the wagon lay the bodies of the two Mexican teamsters. Poston came in the forenoon with fifteen Papago Indians who were able to read the history of the whole of the murderous affair. The wagon must have been attacked

within less than five minutes after we had seen it at noon, indeed while we were resting and smoking at the spring not four hundred yards from the spot. A party of Indians, fifteen in number, as we found by the tracks, had sprung upon the unarmed Mexicans; the sand showed the marks of a desperate hand to hand struggle. When they had killed the men, the Apaches cut the animals loose, packed the empty bags and cotton cloth, and went to a spring a mile or two distant, where they feasted on a mule. A party was left behind to waylay such of us as might come out to meet the team. When Grosvenor neared the spot, he was shot by an Indian, who, crouching behind a cactus about ten feet distant, had left the impression of his gunstock in the sand. At the same instant two others lanced him through the throat. Knowing well that their victim would be sought by others, they had left the spy we had seen; and had not the cat directed our attention to him at the moment when he was moving stealthily away, thereby causing us to walk rapidly to the scene of the murder, and faster back, we could hardly have escaped the fate of our friend. We remembered that our dogs had barked all the afternoon with their noses pointed west. Both they and the cat had scented the Indians or the carnage.

During the day, April 26, 1861, Lieutenant Evans arrived with a force of nineteen soldiers, having with difficulty obtained the consent of his commandant, and soon after Colonel Poston reached the mines with a party of Americans. Graves had been dug, and, after reading the burial service and throwing in the earth, we fired a volley and turned away, no one knowing how soon his time might come.

I now foresaw a long and dangerous work before us in extracting the silver from the ore. We could, indeed, have abandoned the mines, and have escaped by accompanying the military, who were to leave in two weeks. But both Mr.



Robinson and myself considered that we were in duty bound to place the movable property of the company in safety at Tubac, and to pay in bullion the money owing to the men. To accomplish this would require six weeks' work at the furnace, crippled as were all operations by the loss of our horses and mules.

It was of the first importance that we should increase our force of Americans, not only for protection against the Apaches, but more especially against the possible treachery of our Mexican workmen, for at almost every mine in the country a part or all of the whites had been murdered by their *peons*. A man named Stickney, one of the party which had come that day from Tubac, was engaged on the spot. Partly in the hope of getting a small force of soldiers who should remain till the abandonment began, and partly to persuade two Americans who lived on the road to the fort to join us, I resolved to accompany Lieutenant Evans, who was obliged to return the next day.

Taking with me a young Apache who had been captured while a child, and had no sympathy with his tribe, I rode away with Lieutenant Evans, intending to return the next day. The wagon road lay for ten miles along a tributary of the Sonoita valley, then ascended the Sonoita for twelve miles to the fort, where a bridle-path across the hills shortened the distance some two or three miles, by leaving the road before the junction of the two valleys. To reach the house of the Titus brothers, whom I wished to see, we should have to follow the wagon road all the way; and as more than a mile of it before the junction of the valleys lay through a narrow and dangerous defile, on an Apache war trail that was constantly frequented by the Indians, Lieutenant Evans would not assume the responsibility of risking the lives of his men in a place where they would be at such disadvantage. While I felt obliged to acknowledge that it would be imprudent to

take infantry mounted on mules through the defile, it was of the first necessity that I should see the Americans living near the junction of the valleys. At the point where the hill trail left the road, bidding good-by to Lieutenant Evans, who, could he have left his men, would have accompanied me himself, I was soon alone with Juan, my Apache boy. As we neared the gorge I observed that Juan, who was galloping ahead, suddenly stopped and hesitated. As I came up he pointed to the sand, which was covered with fresh foot-tracks.

It was evident that a considerable party of Indians had been here within half an hour, and had suddenly dispersed in different directions in the hills. Our safest course seemed to be to press forward and reach Titus's house, now about two miles off. We were on good horses, and these animals, not less alarmed than ourselves, soon brought us through the defile to the Sonoita creek. We slipped our horses' bridles without dismounting, and refreshed them with one long swallow. We had barely left the creek when we passed the full-length impression of a man's form in the sand, with a pool of blood, and at the same instant an unearthly yell from the hills behind us showed that the Apaches, although not visible, were after us, and felt sure of bringing us down. Our horses, however, fearing nothing so much as an Indian, almost flew over the ground and quickly brought us in sight of Titus's *hacienda*. This lay about two hundred yards off from the road in a broad valley shaded by magnificent live-oaks.

As we rode rapidly toward the houses I was struck with the quietness of a place generally full of life, and said so to Juan.

"It's all right," he replied. "I saw three men just now near the house."

But as we passed the first building, a smith's shop, both

horses shied, and as we came to the principal house a scene of destruction met our eyes. The doors had been forced in, and the whole contents of the house lay on the ground outside, in heaps of broken rubbish. As I started to dismount, to look for the bodies of the Americans, Juan begged of me not to stop.

“They are all killed,” he said, “and we shall have hardly time to reach the road before the Indians come up. Promise me,” he continued, “that you will fight when the devils close with us; if not I will save myself now.”

Assuring the boy, whom I knew to be brave, that I had no idea of being scalped and burned without a struggle, I put spurs to my horse, and we were soon on the main road, but not a moment too soon, for a large party of Apaches, fortunately for us on foot, were just coming down the hill, and entered the trail close behind us. A volley of arrows flew by our heads, but in a few seconds our horses carried us out of reach, and the enemy turned back. Slackening our speed, we were nearing a point where the road crossed a low spur of the valley terrace when suddenly several heads were visible for an instant over the brow of the hill, and as quickly disappeared. Instantly guessing that we were cut off by another band of Indians, and knowing that our only course was to run the gantlet, we rode slowly to near the top of the hill to rest our animals, and then spurred the horses onward, determined if possible to break the ambush. We were on the point of firing into a party of men who came in full view as we galloped over the brow of the hill, but instead of Apaches they were soldiers and Mexicans. They had been burying an American who had been killed that morning. It was the impression of this man's body which we had seen near the creek. He had been to the fort to give notice of the massacre of a family living further down the river, and on his return had met the same fate, about an

hour before we passed the spot. An arrow, shot from above, had entered his left shoulder and penetrated to the ribs of the other side, and in pulling this shaft out a terrible feature of these weapons was illustrated. The flint-head, fastened to the shaft with a thong of deer-sinew, remained firmly attached while this binding was dry; but as soon as it was moistened by the blood, the head became loose, and remained in the body after the arrow was withdrawn. The Apaches had several ways of producing terrible wounds; among others by firing bullets chipped from the half-oxidized mats of old furnace heaps, containing copper and lead combined with sulphur and arsenic. But perhaps the worst, at short range, were produced by bullets made from the fiber of the aloe root, which were almost always fatal, since it was impossible to clear the wound.

On reaching the fort and seeing the commandant, I was told that he could not take the responsibility of weakening his force. As the troops from Fort Breckenridge were expected in a few days, I was led to believe that after their arrival I might obtain a small number of soldiers. But when, after several days had passed without bringing these troops, the commandant told me that not only would it be impossible to give us any protection at the Santa Rita, but that he could not even give me an escort thither, I resolved to return immediately with only the boy Juan. In the meantime a rumor reached the fort that a large body of Apaches had passed through the Santa Rita valley, had probably massacred our people, and were menacing Tubac. I was certainly never under a stronger temptation than I felt then to accept the warmly-pressed invitation of the officers to leave the country with the military, and give up all idea of returning to what they represented as certain death. But I felt forced to go back, and Juan and I mounted our horses. I had hardly bid the officers good-by when Robert Ward, an old frontiers-

man, joined us, and declared his intention of trying to reach his wife, who was in Tubac. As we left the fort a fine pointer belonging to the commandant followed us, and, as he had become attached to me, we had no difficulty and few scruples in enticing him away to swell our party. We took the hill trail, it being both shorter and safer, and had reached a point within three miles of the Santa Rita without meeting any fresh signs of Indians when the dog, which kept always on the trail ahead of us, after disappearing in the brush by an *arroyo*, came back growling, and with his tail between his legs. We were then two or three hundred yards from the thicket, and quickening our horses we left the trail and crossed the *arroyo* a hundred yards or more above the ambush: for such the dry tracks in the sand, where we did cross, showed it probably to be.

We reached our mines safely, and found that, although they had been almost constantly surrounded by Apaches, who had cut off all communication with Tubac, there had been no direct attack. Our entire Mexican force was well armed, a fact which, while it kept off the Indians, rendered it necessary that our guard over the *peons* should never cease. Nor did we once, during the long weeks that followed, place ourselves in a position to be caught at a disadvantage. Under penalty of death no Mexican was allowed to pass certain limits, and in turn our party of four kept an unceasing guard, while our revolvers, day and night, were rarely off our person.

We had now to cut wood for charcoal, and to haul it in, stick by stick, not having enough animals to draw the six-horse wagons. This and burning the charcoal kept us nearly three weeks before we could begin to smelt. Our furnaces stood in the open air about one hundred yards from the main house, and on a tongue of land at the junction of two ravines. The brilliant light illuminating every object near the furnace

exposed the workmen every night, and all night, to the aim of the Apaches. In order to obtain timely notice of the approach of the Indians, we picketed our watch-dogs at points within a hundred yards of the works; and these faithful guards, which the enemy never succeeded in killing, probably more than once saved us from a general massacre. The whole Mexican force slept on their arms around the furnace, taking turns at working, sleeping, and patrolling, receiving rations of whiskey, sufficient to increase their courage without making them drunk. This drink I made of equal quantities of alcohol and water flavored with dried peaches.

During the long weeks we were isolated only rare word came from Tubac, and none from the East. One day there came a letter from Fort Buchanan which showed how absolutely we were shut off from the world.