

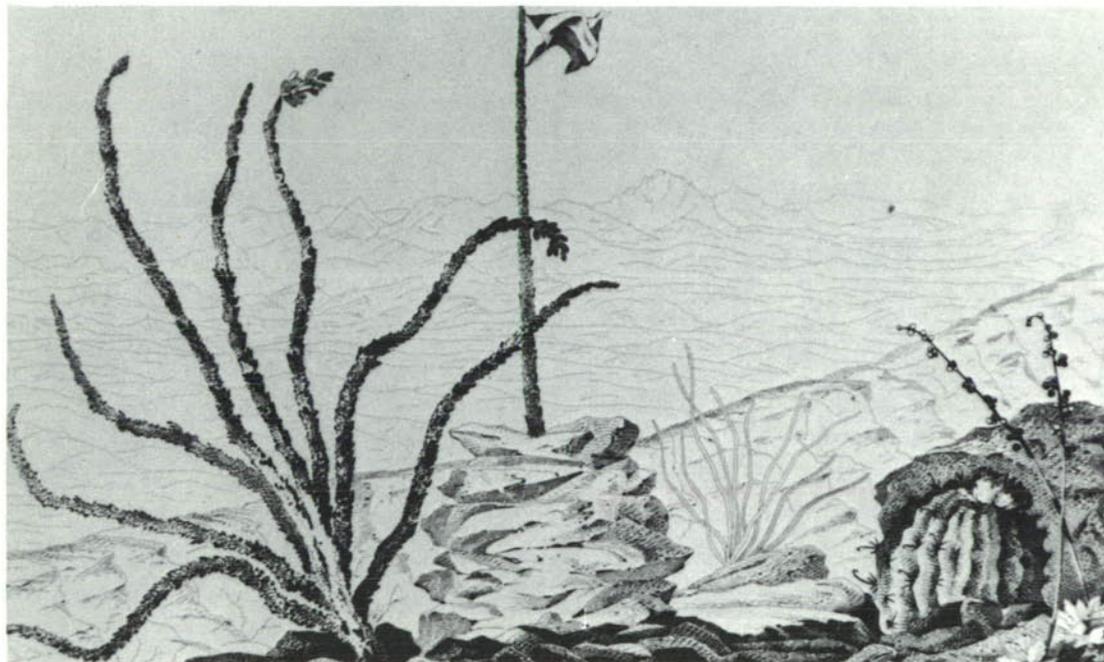
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# SURVEY OF THE UNITED STATES MEXICO BOUNDARY- 1849-1855

## Background Study

By

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U.S. DEPARTMENT OF THE INTERIOR



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## PREFACE

This study of the survey of the boundary line between Mexico and the United States from 1849 to 1855 was prepared in accordance with the Historical Resource Study Proposal CHAM-H-1a. This called for a gathering of documentary and graphic evidence of the boundary survey to aid in the preparation of an interpretive film to be used at Chamizal National Memorial.

Chapter 5 of this report was prepared to fulfill the requirements of Historical RSP CHAM-H-1. Originally it was intended to clarify the details of the meeting between Capt. E. L. F. Hardcastle and Señor Francisco Jiménez that marked the completion of the California boundary survey. This information was to be the basis of a diorama and possibly form a part of a motion picture script. Historical research revealed that the story as originally conceived had to be modified almost completely. The new version contained in the fifth chapter of this report ought to be of paramount concern in the development of certain interpretive features at Chamizal National Memorial.

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## ACKNOWLEDGMENTS

In the beginning the story of the original survey of the Mexican-American boundary appeared to be the most challenging report that I had undertaken in my brief time with the Division of History. It proved to be one of the most rewarding also. More importantly it provided me with the chance to work in the excellent Western Americana Collection of Yale University, the John Russell Bartlett Collection at Brown University, and of course the extensive resources of the National Archives. The research represented also a return to the history of the Southwest, after an absence of several years.

Many people contributed to preparation of this report. Mr. Archibald Hanna of the Western Americana Collection at the Beinecke Library, Yale University, provided most considerate help both during my stay and after my return to Washington. Miss Joan Hofmann fulfilled the highest standards in assisting me during my work at Yale and in processing the order for xeroxing of certain materials from the W. H. Emory Papers. Mr. Thomas Adams and Mrs. Hardy of the John Carter Brown Library at Brown University provided both aid and hospitality during the ten days that I worked in the Bartlett Papers. Finally the staff of the National Archives, and especially Miss Mary Johnson, provided so much help during my work there.

To several members of the Division of History I owe a special thank you. They suffered nearly as many hardships during the writing of this report as the original surveyors did in marking the boundary. To Ed Bearss, John Bond, Erwin Thompson, Ben Levy, and Anna Toogood, a sincere thank you for your patience and understanding. Chief Historian Robert M. Utley gave extensively of his knowledge and time to aid in solving one particularly thorny problem. Frank B. Sarles read the manuscript and discovered the many sins of style and grammar. Last, but certainly not least, a bow to Dorothy Junkin, who patiently transformed the rough draft into the final product you hold in your hands.

It could be assumed that with such a large number of able assistants the report would be without error. Such is not true; and I alone am responsible for the errors it contains.

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## CHAPTER 1

### To Designate the Boundary Line with Due Precision.

In order to designate the boundary line with due precision . . . the two governments shall each appoint a commissioner and surveyor, who . . . shall meet at the port of San Diego, and proceed to run and mark the said boundary in its whole course to the mouth of the Rio Bravo del Norte.

Extract from Article V  
Treaty of Guadalupe Hidalgo  
February 2, 1848

On September 14, 1847, Mexico City fell to the invading forces led by General Winfield Scott and the Mexican nation lay at the mercy of the United States. Along with the army came Nicholas Trist, President James K. Polk's peace commissioner, charged with the duty of drafting a treaty to end the war and define the new boundary between the two nations. It was two months before Trist could find a Mexican government willing to negotiate, and by that time he had been recalled because of an earlier failure in peace negotiations. The peace commissioner remained in Mexico City, however, and between November 1847 and February 2, 1848, negotiated the Treaty of Guadalupe-Hidalgo. The fifth article of this treaty described the boundary between the two nations as beginning three leagues out in the Gulf of Mexico and running up the deepest channel of the Rio Grande to a point where the river struck the southern boundary of New Mexico. The boundary line then was to go due

west along the whole southern boundary of New Mexico, "which runs north of the town called Paso," to its western terminus, then north to the first branch of the Gila River, down that branch to the Gila and down the Gila to its junction with Colorado River. From the junction of the Gila and Colorado the line was to go west to a point one marine league south of the southernmost point of the Port of San Diego.

Included as part of the treaty was a map by J. Disturnell, *Map of the United Mexican States, as Organized and Defined by Various Acts of the Congress of Said Republic and Constructed According to the Best Authorities*. Although known to be inaccurate the map was used to define the limits of New Mexico.<sup>1</sup> The boundary as delineated in the treaty was based on the following: (1) an exact initial point on the Pacific coast, (2) an arbitrary line between upper and lower California, (3) the beds of two rivers, the Gila and Rio Grande, (4) an erroneous map, and (5) a specific reference to the geographical point of El Paso del Norte, present day Juarez. To the officials designated by both nations to survey the boundary would fall the task of determining just where the actual line was to be.<sup>2</sup>

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1. This disregard for exactness was to create major problems three years later when the boundary between Mexico and New Mexico was to be determined on the ground.

2. William H. Goetzmann, *Army Exploration in the American West*, (New Haven, 1959), pp. 156-57. This introductory chapter will be

The treaty stipulated that a commissioner and a surveyor representing each nation meet in San Diego within a year after the exchange of ratifications and proceed to run the boundary from the Pacific to the Gulf of Mexico. The maps and journals of the Mexican and American Commissions were to be regarded as part of the treaty and binding on both countries. On January 16, 1849, President Polk appointed John B. Weller of Ohio as Boundary Commissioner. Weller, a loyal Democrat, had just been defeated for Governor of Ohio and the position was a reward for faithful service to the party. In a letter on February 13, 1849, Secretary of State James Buchanan wrote regarding the importance of the position of Boundary Commissioner:

This article places you in a highly responsible position; because it declares that the boundary line between the two republics which shall be run and marked by the joint commission shall be deemed part of the treaty, and shall have the same force as if it were inserted therein. The action of the commission, therefore, will be final and conclusive; and the President has full confidence that, in the discharge of your important duties, your conduct will be characterized by prudence, firmness and a conciliatory spirit. While he desires no advantage over the Mexican government, you will take care in running the boundary, that all our just rights under the treaty shall be maintained.<sup>3</sup>

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based not only on Goetz mann's excellent work, but also on Edward S. Wallace, *The Great Reconnaissance* (Boston, 1955), Robert M. Utley, "The International Boundary, United States and Mexico" (Santa Fe, Southwest Regional Office, National Park Service, USDI, 1964) and other works as cited.

3. *Report of the Secretary of the Interior in Answer to a Resolution of the Senate calling for Information in Relation to the Operation*

Despite Buchanan's high flown rhetoric, Weller was viewed by the incoming Whigs as a midnight appointee. The post of surveyor was given to Andrew B. Gray, who had served on the Texas commission during the United States-Texas Boundary survey in 1840. Brevet Major William H. Emory, whose *Notes of a Military Reconnaissance from Fort Leavenworth . . . to San Diego . . .*<sup>4</sup> marked him as one of the best informed on the area, was designated Chief Astronomer and Commander of the Escort.

Lt. Amiel Weeks Whipple and Lt. Edmund L. F. Hardcastle, of the Topographical Engineers, were designated to assist Emory in his work. A company of infantry and one of cavalry, approximately 105 soldiers, were provided to protect the surveyors during their labors.

Because the treaty required that he meet his Mexican counterpart by May 30, 1849, Weller lost no time in embarking for San Diego. Leaving on February 28, he arrived in Panama on March 12 but because of the rush of gold seekers to California found himself stranded there until May 13. During this time Major Emory made extensive

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*of the Commission Appointed to run and mark the Boundary Between the United States and Mexico.*, 31st Cong. 1st Session, Senate Executive Document 34, Parts I and II (1850), I, 4.

4. W. H. Emory, *Notes of a Military Reconnaissance from Fort Leavenworth, in Missouri to San Diego in California, Including Parts of the Arkansas, Del Norte, and Gila Rivers*, 30th Cong., 1st Sess, Sen. Exec. Doc. 7, 1848.

scientific observations which might be used in a map of that area.

Emory also expressed his disdain for the usual methods of avoiding fevers and cholera:

When we arrived in March, the summer or dry season was not ended, and the country was very healthy; but towards the latter end of April the rainy season set in, and with it came fever and cholera. Rejecting the sanitary precautions of abstemiousness usually resorted to in such cases I employed a good cook and purchased light wines, and, by a generous diet, myself and companions escaped all disease, although we were out every clear night observing . . . .<sup>5</sup>

The United States Commission reached San Diego in June, but the Mexican Commission, which had also suffered from the transportation crisis brought on by the gold rush, did not appear until July 3.

The Mexican Commissioner, General Pedro Garcia Condé, had drawn the first geographical map of Chihuahua and in the early 1840s directed the reconstruction of the National Palace in Mexico City. José Salazar Ylarrequi<sup>6</sup> had worked as an engineer prior to his appointment as Surveyor of the Mexican Boundary Commission. In addition there were two first-class engineers--Francisco Jiménez and Martínez de Chavéro. Agustín Garcia Condé and Ricardo Ramírez were engineers of the second class and Felipe de Iturbide, son of the former Emperor of Mexico, was

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5. William H. Emory, *Report on the United States and Mexican Boundary Survey*, 34th Cong. 1st Sess., House Executive Document 135 (2 vols., 1857), 1, 2-3. Hereinafter cited as Emory, *Report*, 1.

6. There are several variants of Salazar's name: Illarequi, Larrequi and Y Larrequi used in contemporary documents. In this report he will be called either Salazar or Salazar Ylarrequi.

interpreter and translator.<sup>7</sup> An escort of 150 soldiers under General Carrasco was to come from Sonora.

After a joint celebration of Independence Day, the Commissioners and Surveyors met two days later in an office secured by Weller and exchanged credentials. On July 7, survey operations began. Because the instruments of the Mexican party were not as accurate as those used by the Americans,<sup>8</sup> they depended on the services of the American Surveyors and limited themselves to checking the observations and calculations of the U.S. Topographical Engineers and certifying that the results were correct and acceptable to Mexico.

Emory placed three parties in the field. He headed the detachment that began making observations from which the initial point on the Pacific could be defined. A. B. Gray surveyed the Port of San Diego. Lieutenant Whipple, after several delays because of supply difficulties, left in September for the junction of the Gila and Colorado to determine the exact point where the two rivers met. This was to be the initial point at the western end of the line between the two Californias. The third party, under Bvt. Capt. Edmund L. F. Hardcastle, with help at times from A. B. Gray, explored the barren country between the two

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7. Jose Salazar Ylarrequi, *Datos de Los Trabajos Astronomicos y Topograficos Dispuestos en forma de Diario Practicados Durante El Ano de 1849 y Principios de 1850 Por la Comision de Limites Mexicana en la en La Lina que Divide Esta Republica de los Estados Unidos, (Mexico, 1850)*, p. 8. Hereinafter cited as Salazar Ylarrequi, *Datos de los Trabajos*.

8. *Ibid.*, p. 13. See also Emory, *Report*, l, 4.

points in the hope that the boundary line could be run through the use of flashes--gunpowder explosions at night--observed through surveying instruments.<sup>9</sup>

By early October Emory and Salazar had agreed upon the location of the initial point on the Pacific, using the observation of moon and stars to reach an accurate determination of longitude and latitude. On October 10, 1849, the commissioners of both countries met and approved the location of the initial point on the ground and on the map. Whipple meanwhile completed his observations early in November, despite the hordes of destitute gold seekers that demanded his aid. Salazar and General Condé came over from San Diego to verify the astronomical readings made by Whipple on "Capitol Hill" near the junction of the two rivers. The two engineers computed the latitude and longitude of the junction of the Gila and Colorado Rivers by direct measurement from the determined position of the observatory on the hill. With the two initial points established, all that remained was to connect them with a straight line on the earth's surface. The topography of the country did not lend itself to a rapid survey and the terrain presented a hostile environment which Major Emory described as follows:

The whole distance, about 148 miles, may be divided into two nearly equal parts, differing in character, but both

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9. Despite the assurances of Indian guides, Hardcastle was not able to find a location where both the junction of the Gila and Colorado and the initial point on the Pacific coast were both visible. Thus it was not possible to hasten the running of the line as Major Emory had hoped.

unfavorable to geodetic operations. The first, rising in steppes from the sea, devoid of water, and covered with spinous vegetation, attains in abrupt ascents the height of five or six thousand feet above the sea in the short distance of thirty miles. From this point for about thirty miles more, the country is occupied by a succession of parallel ridges, striking the boundary nearly at right angles, and separated by deep and sometimes impassable chasms. It then falls abruptly to near the level of the sea. The remainder of the line stretches across the desert of shifting sand at the head of the Gulf of California, destitute for the most part of both water and vegetation, rendering it impossible to mark the boundary in the usual manner on the ground.<sup>10</sup>

In addition to the hostile environment of desert and mountains delaying the final survey of the boundary, the American Commission was plagued by political machinations in Washington--a continent away. The Whig administration of President Zachary Taylor was actively involved in replacing Weller, a Democrat, with a deserving Whig. On June 20, 1849, Weller was officially succeeded by John C. Frémont, the renowned "Pathfinder." Frémont, however, was instructed not to deliver Weller's letter of recall until he was ready to enter upon the duties of the office. On arrival in California he delayed further while deliberating whether to take the job as commissioner or become Senator from California. Weller, meanwhile, was having trouble cashing drafts on the Government as rumors of his impending removal reached the merchants of California. In order to keep the American Commission going, Major Emory borrowed from local army posts to maintain his

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10. Emory, *Report*, 1, 4.

troops. Frémont finally decided to take the senatorial seat and neglected to give Weller his letter of recall. The jurisdiction over the boundary commission was transferred from the State Department to Interior Department in the fall. On December 18, 1849, Weller was dismissed by Secretary of Interior Thomas Ewing, and ordered to turn over all books and property to Emory, who was to serve as acting commissioner.

In January of 1850 Weller and General Condé agreed that "the present condition of California" precluded continuing the survey east from the Colorado and further agreed to adjourn to meet again in November at El Paso.<sup>11</sup> In late February Weller received the notice of recall. Emory, as Acting Commissioner, remained in California several more months and then returned to the East to demand funds to finish the work. Upon arrival in Washington he found funds were available, but the Corps of Topographical Engineers terminated his detail to the boundary survey. Before leaving the west coast, Emory had sent part of the survey instruments with Lieutenant Whipple via Panama and New York to El Paso where Whipple was to meet the new American commissioner and the Mexican contingent in November. A small group was left in California under the command of Captain Hardcastle, who,

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11. The gold rush to California had driven prices up to unbelievable heights at a time when the American Commission had no available funds. In addition the survey up the Gila would have subjected the Commission to the same constant demands of the overland gold seekers that had

with Francisco Jiménez and a Mexican group, was charged by the commissioners with the duty of completing the boundary determination and placing the monuments to mark it.<sup>12</sup>

The new Boundary Commissioner, John Russell Bartlett, was appointed on May 4, 1850, by President Taylor. Bartlett, from Providence, Rhode Island, was a prominent bibliophile and amateur ethnologist.<sup>13</sup> He had come to Washington in hope of receiving the post of ambassador to Denmark. When this was not available he was offered the boundary commission post and accepted it. With his appointment as Commissioner, a complete reorganization took place. The Whigs took full advantage of the situation to deluge Bartlett with applications and recommendations for positions on the survey. Often the talents cited as qualifying an individual for the commission were far removed from the needs of an organization charged with running a boundary through unknown territory.<sup>14</sup> Bartlett formed a large party

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bedeviled Whipple and his escort of dragoons during their stay on the Colorado.

12. A detailed discussion of this final phase of the boundary survey in California will be presented in a separate chapter of this report.

13. In 1842 Bartlett and Albert Gallatin, Secretary of the Treasury under Thomas Jefferson, were among the founders of the American Ethnological Society. Since 1836 Bartlett, in partnership with Charles Welford, had run a bookstore in New York specializing in foreign books and travel accounts. Goetzmann, *Army Exploration in the American West*, p. 168.

14. Some of the talents listed on the letters of recommendation included: "a true gentleman" "skilled in French," "Having a talent for

from these many applications.<sup>15</sup> On August 3, 1850, the main party left New York for Indianola, Texas. Bartlett and a smaller party left ten days later for the same port on the Gulf Coast.

The trip from Indianola to El Paso via San Antonio was a long and hard one. The young gentlemen of the commission found the daily camp life far less romantic than they had envisioned. Because of the slow pace of the march, Bartlett decided to push ahead to El Paso with a small advance party so that he could meet the Mexican Commissioner on November 1 as agreed. The new commissioner traveled in a closed coach "drawn by four fleet and powerful mules" and equipped with an arsenal of one double-barreled shot gun, one Sharps repeating rifle, two Colt's six-shooters strapped on the door and two pairs of Colt's five-shooters strapped to the two passengers. A pair of Derringers was issued to the driver. Bartlett's companion during most of the trip was Dr. Thomas A. Webb, who was not fond of riding a horse.<sup>16</sup>

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words," "a citizen of Providence," and so forth. John Russell Bartlett Correspondence, Volume 1 (May 1850-July 1850), Bartlett Collection, John Carter Brown Library, Brown University, Providence, Rhode Island.

15. *Ibid.*, Bartlett has been criticized by both his contemporaries and by historians for the number of employees on the commission. Yet he did not succumb to every request for a position. On June 19, 1850, ten United States Senators including A. P. Butler, W. S. Foote, G. E. Badger, R. M. Hunter and Henry Clay recommended a Thomas W. Jones for a subordinate position. Bartlett rejected the suggestion, noting that Jones was "a hanger-on in Washington and all wanted him out of the way." A man that can say "No" to ten members of the United States Senate was not totally lacking in discrimination in hiring.

16. John Russell Bartlett, *Personal Narrative of the Explorations and Incidents in Texas, New Mexico, California, Sonora and Chihuahua*,

On November 13 the advance party arrived at Franklin across from El Paso del Norte. Though he was nearly two weeks late for the appointed meeting, Bartlett learned that General Pedro Garcia Condé was still in Chihuahua City, a considerable distance to the south. Bartlett sent word of his arrival to Condé. In the interim he explored the country, made social calls on the leading citizens of El Paso, including General Conde's brother, and attended a round of banquets and collations.<sup>17</sup>

General Condé arrived on December 1 and the next day the American Commissioner called on him at his quarters. Bartlett indicated his desire to proceed to business immediately as the many engineers and scientific men in his party were eager to begin. Condé agreed and

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*Connected with the United States and Mexican Boundary Commission during the Years, 1850, '51, '52, and '53* (2 Vols., New York, 1854), 1, 48. See also John C. Cremony, *Life Among the Apaches* (San Francisco, 1868), pp. 18-19. Bartlett's work cited hereafter as Bartlett, *Personal Narrative*.

17. Bartlett celebrated Thanksgiving on the 28th with the officers of the military post at Franklin and members of the Commission. During the evening dispatches arrived from the East which included news of his daughter Leila's death. Leila had contracted dysentery in late summer, had not responded to treatment, and died on October 5. Bartlett did not receive the details of his daughter's illness until mid-1851. "Personal Journal," Bartlett Collection. The "Personal Journal" is not to be confused with the published *Personal Narrative*; it is basically the same but contains considerable extra detail. See also Correspondence, Vol. 4 (March to July 1851) for letters from Henry B. Anthony dated September 21 and October 3, 1850. Bartlett Collection.

indicated that he had only ten engineers and surveyors with him.<sup>18</sup> The following day Condé returned Bartlett's call and a 2 1/2 hour discussion of the business of the commission followed. It was also agreed that the meetings would alternate between the quarters of the two commissioners.

As the work began of placing on the ground the boundary described in the treaty it was discovered through astronomical observations that there were two major errors in Disturnel's map. The Rio Grande River was two degrees, about 115 miles, too far west and El Paso was shown nearly 40 minutes of latitude, approximately 30 miles, too far north. To John Russell, Bartlett and Pedro Garcia Condé fell the task of negotiating an equitable solution of the problem. In General Condé's mind the boundary should be laid down according to the lines of latitude and longitude shown on the Disturnel Map. The boundary line would begin on the Rio Grande thirty miles north of El Paso, continue west for one degree of longitude and then go north to the first tributary of the Gila. Bartlett, remembering his instructions, tried to maintain a conciliatory attitude toward Mexico, but also to protect his nation's interest. He pointed out that the southern boundary of New Mexico was shown on the map to run due west for three degrees from the Rio Grande

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18. Unlike the Americans, the Mexican personnel were much the same as they had been on the California side: Condé, his son, Iturbide, Jimenez, and Salazar.

and that the town of El Paso was placed only 8 miles south of the line on the map. He felt the boundary should be drawn as shown on the Disturnel map.

After much discussion the two commissioners compromised and in effect swapped latitude and longitude. Condé agreed that the boundary should run three degrees west of the Rio Grande before turning north to its junction with the Gila River or its tributary. Bartlett in return agreed that the southern boundary of New Mexico should be at  $31^{\circ} 22'$  North Latitude, 30 miles north of El Paso, rather than 8 miles north of El Paso at  $31^{\circ} 45'$ . The formal agreement was signed by both commissioners, the Mexican surveyor Salazar Ylarrequi and, under protest, by Lt. A. W. Whipple.<sup>19</sup>

Whipple had protested against any compromise that would deny the United States the Mesilla Valley to the north of El Paso Del Norte. Bartlett, however, felt the loss of the town and valley of Mesilla was not as important as retaining the mineral area of the Santa Rita Copper Mines, east of present day Silver City. Despite his objections, Whipple, under orders from the Commissioner, began astronomical observations to determine the point where  $32^{\circ} 22'$  North Latitude struck the Rio Grande River. At the same time Señor Salazar began his own series of observations to determine the same thing. After both had completed their work

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19. Whipple had been designated Acting Surveyor by Bartlett to replace A. B. Gray, who had not yet arrived at El Paso because of sickness. As Acting Surveyor, Whipple signed the agreement.

it was found that a difference of 31.55 meters existed between the two initial points. Salazar and Whipple agreed to split this difference of 103.5 feet. The initial point was established 52 feet south of Whipple's location and the same distance north of the point located by Salazar.<sup>20</sup> In a brief ceremony on April 24, 1851, a marker was placed at this point to locate where the southern boundary of New Mexico would strike the Rio Grande.

In May the Boundary Commissions of both countries moved to the Santa Rita Copper Mines where the climate was cooler. Work was started on the line west from the Rio Grande, but progress was slow as Whipple, serving as both astronomer and surveyor of the commission, discovered he lacked certain necessary instruments. Bartlett meanwhile was traveling over the country, exploring Indian ruins, and examining geological formations. On the way to the Copper Mines on May 2 he fell or was dragged off his mule and then kicked by the "malacious [sic] beast." Though his arm was injured Bartlett walked the two miles to where he had left his carriage and then traveled eighteen miles to the Copper Mines. The jolting of the carriage pained him exceedingly, but the nearest doctors were at the camp. An examination by Doctors Webb and Bigelow disclosed a fracture near the shoulder and for two weeks

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20. Official Journal of the United States-Mexican Boundary Commission, July 6, 1849, to October 8, 1852. Bartlett Collection. This is also available at the National Archives Record Group 76, Records relating to International Boundaries Southern Boundary (Mexico) 1849-60.

Bartlett was confined to his chair or cot.<sup>21</sup> This injury did not stop his traveling for long. On May 16 he left the Copper Mines on a trip to Mexico.

To the commissioner this was not a pleasure jaunt, but rather had four goals. First, to evaluate the condition of Cooke's Wagon Road toward the Gila River in connection with transporting supplies to the surveying parties as they moved down the river. Second, to determine what supplies of corn, flour, meat and vegetables were available in Sonora and if the Mexicans would supply parties on the Gila or at the Copper Mines. Third, to induce the Mexican people to renew their trade with the Copper Mines. Fourth, some members of the Commission and the military escort were suffering from scurvy and Bartlett hoped to obtain a supply of anti-scorbutics to counter this threat. The trip took a month and Bartlett went as far as Arispe, Sonora, before returning. He discovered the road established by Col. Philip St. George Cooke in 1846 was still in good condition, that there was no abundance of supplies in Sonora, and that the Mexican fear of the Apaches made resumption of trade with the copper mines unlikely. He was not able to find vegetables or fruits in large amounts.

Ten days after his return the commissioner acted to free a young female Mexican captive from three New Mexican traders who had purchased

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21. Bartlett, *Personal Narrative*, 1, 226.

her from the Pinal Apaches. He based this action on enforcement of the 11th article of the Treaty of Guadalupe-Hidalgo, which obligated the United States to free any Mexican citizens captured or sold by the Indians. Bartlett determined that he would return the captive, Inez Gonzales, to her family in Santa Cruz, Sonora, and informed General Condé of this. Condé agreed to this plan. The traders were sent on their way poorer by one captive and the herd of horses and mules that they had purchased from the same Indians.<sup>22</sup> Bartlett noted the presence of Mexican brands on many of the animals and confiscated them until the owners could come and claim their livestock. The day after liberating Inez, the Commissioner freed two young Mexican boys from the captivity of Apaches living near the Copper Mines. On June 28 these boys had fled to the tent of John C. Cremony, interpreter for the American Commission. He took them to Bartlett. Bartlett sent the two boys to Condé, who returned them to their parents. This seizure of their slaves did not please the Apaches led by Magnus Colorado. In a conference that followed, Bartlett made provision to buy the two boys from the Apache who owned them, thus maintaining the peace with the Indians who visited the camp almost daily.

Relations with the Apaches at the Copper Mines during the summer of 1851 degenerated rapidly. On June 17 Magnus Colorado visited

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22. An extended discussion of Inez Gonzales, her rescue and subsequent life, will be presented elsewhere in this report.

Bartlett for the first time. For a period of about six weeks the Indians remained in and about the area, showing all indications of friendly intentions. Several incidents, however, including the shooting of an Apache by a Mexican teamster and the rescue of the two boys, caused relations to become worse. In mid-August the Indians began a series of raids against the Commission and attempted to run off most of their horses and mules.

In addition to the increasing hostility of the Indians, Bartlett was faced with problems and dissension within the Commission. This was not a new development, but had plagued the Boundary Commission ever since its arrival in Texas in September 1850. Shortly after arriving in El Paso Lt. Col. John McClellan of the Topographical Engineers was relieved from duty and ordered to return to Washington to face charges brought by another member of the party. McClellan's replacement, Lt. Col. James D. Graham, was one of the senior officers of the Corps of Topographical Engineers and had graduated from West Point in 1817. Graham was appointed in October, but did not arrive at El Paso until mid-July of 1851. The reason for his delay was that he was assembling the necessary instruments to survey the boundary. Arriving with Graham was A. B. Gray, the official American Surveyor. Upon arrival at the Copper Mines, Gray examined the proceedings of the Commission and was horrified at the Bartlett-Condé agreement on the southern boundary of New Mexico. Believing that Condé had

duped Bartlett, Gray ordered all surveying work to cease until a new conference with the Mexican Commissioner could be held. At about the same time Colonel Graham, "chief astronomer and head of the scientific corps," ordered Whipple to report to him at El Paso, which also halted the boundary survey.

Bartlett soon found himself opposed by the three scientific men of the commission in respect to the southern boundary of New Mexico. All three felt that the boundary should run eight miles north of El Paso as shown on the Disturnel map. The requirements for a southern railway route also figured in their objections. Gray, as surveyor, refused to sign the agreement of April between the two commissioners. Letters flew back and forth between Washington and the Copper Mines as both sides tried to prove their point with the Whig Administration in Washington. Secretary of the Interior Alexander H. H. Stuart sided with Bartlett and ordered Gray on October 3, 1851, to sign the agreement and authenticate the maps. Before he was able to refuse he was removed and replaced by Major William H. Emory. Besides the acrimonious debate over the treaty line there was the argument over the extent of their respective authority between Colonel Graham and the civilians, Gray and Bartlett. As head of the scientific corps Graham believed that he was answerable only to the commissioner and was unquestionably the superior of the surveyor. Gray objected to this usurpation of his authority and

Bartlett supported him, refusing to allow Colonel Graham to attend conferences with the Mexican Commission. Colonel Graham retaliated by ordering Lt. Ambrose E. Burnside, the commissary officer, not to honor any requests for supplies from Bartlett. Once again Commissioner Bartlett wrote to the Secretary of the Interior. Stuart acted to remove Graham and replaced him with Emory, who was designated surveyor and chief astronomer.

On August 27, 1851, Bartlett, Gray, Whipple and approximately 50 men left the Copper Mines and set out to meet General Condé south of the Gila River to discuss initial point difficulties. On September 7 a meeting was held. Condé refused to concede that the initial point was in question. It was agreed that Lieutenant Whipple and Señor Jimenez would survey the Gila and Señor Salazar and Colonel Graham would survey the Rio Grande. General Condé "suggested that Col. Graham should be authorized by Mr. Gray to act for him on the Rio Grande"<sup>23</sup>--a suggestion that Gray, smarting under Graham's attacks on his authority, no doubt accepted with pleasure.

General Condé intended to accompany Whipple and Jimenez down the Gila, but first was going to Santa Cruz, Sonora, for supplies. Bartlett decided that he too could use some provisions, and would also be able to return Inez Gonzales to her family. Condé left for Santa Cruz and

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23. Official Journal U.S. Mexican Boundary Commission, Bartlett Collection.

Bartlett followed. Both parties got lost, but after some wandering found each other and together managed to find Santa Cruz.<sup>24</sup> Their arrival was an emotional one as Inez was reunited with her family. The American party remained there several days and on September 29 continued south when they found the needed supplies were not available at Santa Cruz.

This search for supplies took Bartlett and his small party south as far as Ures, Sonora, where the commissioner was struck down with typhoid fever. While Bartlett recuperated there, Dr. Webb, John C. Cremony, the Pratts--father and son both serving as artists to the expedition--and Mr. Thurber returned north via Santa Cruz and Tucson to the Pima Villages on the Gila River in hopes of joining Lieutenant Whipple. Whipple and his party had gone north from Santa Cruz in late September. They began a survey of the Gila River boundary to its junction with the Colorado. Learning that Whipple had passed through the Pima villages several weeks earlier, Webb and his party continued down the river and crossed the Colorado Desert to San Diego. Here they were reunited with Whipple, who had arrived a month earlier, on January 10, 1852. By December Bartlett had recovered his health and started towards San Diego via Guaymas, Mazatlan and Acapulco. He reached there on February 8, three days ahead of Dr. Webb, Cremony, and party.

About the same time that Commissioner Bartlett was arriving in Ures suffering from typhoid fever, Major Emory was in San Antonio

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24. While lost in a dead-end valley Bartlett was joined by Colonel Graham, who had left the Copper Mines several days after the main party and had been following them.

making some rather pointed comments about the organization he was joining:

I have yet to see how I am to accomplish the just and necessary objects of the expedition: for as I approach the scene of action they look gloomy. I hear nothing but dissensions, of debts without number and finally of the loss of most of the means of transportation growing out of the depredations of the Indians.<sup>25</sup>

The disaster which Major Emory anticipated in San Antonio was realized when he reached El Paso in late November. Commissioner Bartlett was not there and the last news of his whereabouts, now two months old, placed him at Santa Cruz, Sonora. It was assumed that the commissioner had later joined the surveying party on the Gila River. The conditions at El Paso were described very tersely by the Major in January 1852:

On my arrival here I found things more complicated than I had expected, a large party, half with Colonel Graham at this place, and the other half with Mr. Bartlett God-knows-where, the whole numbering one hundred and upwards, no money, no credit, subdivided amongst themselves and the bitterest feeling between the different parties. Little or nor work has been done, and yet the appropriation is all gone and that of new year anticipated.<sup>26</sup>

The Major felt it necessary to confer with Bartlett and considered trying to find him, but abandoned the idea when he realized that he

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25. Letter to Professor Louis Agassiz through Prof. Joseph Henry dated October 13, 1851. William H. Emory Papers, Western Americana Collection, Yale University. Cited hereafter as Emory Papers.

26. Draft of letter from Emory to James A. Pearce, El Paso, January 15, 1852, Emory Papers.

could be any place from San Diego to Washington, D. C.<sup>27</sup> Despite these problems, Emory began to survey the Rio Grande. He discharged many of the incompetent employees, organized the remainder into three parties so they could work on different sections of the boundary simultaneously, and assigned his assistants to head the sections.

On the surface, the problem of placing the river boundary seemed simple. The border was to run up the deepest channel of the Rio Grande from a point three leagues from its mouth to the southern boundary of New Mexico. Below Laredo this was a simple matter, but between El Paso and Larado the river passed through a series of canyons as the Rio Grande cut through the eastern portion of the Sierra Madres. The survey crews assigned to this portion of the line were in virtually unexplored country. The survey of "this desolate river" brought extreme hardship to the crews under Marine T. W. Chandler and Nathaniel Michler:

The sharp rocks of the mountains had cut the shoes from their feet, and blood, in many instances, marked their progress through the day's work. Beyond the Sierra Carmel the river seemed to pass through an almost interminable succession of mountains; cañon succeeded cañon; the

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27. Emory was also interested in "recovering" Lieutenant Whipple before he too went to Washinton. To this end he sent Mr. Edward Ingraham, one of his assistants, as far as the Pima Villages on the Gila in hopes of catching the Lieutenant. Ingraham failed to find Whipple and returned to El Paso and reported that Whipple's party and that of Webb had passed through the villages several weeks earlier. See letters to and from Emory and Ingraham in January and February 1852, Emory Papers.

valleys which alone had afforded some slight chances for rest and refreshment, had become so narrow and devoid of vegetation that it was quite a task to find grass sufficient for the mules.<sup>28</sup>

The conditions on this part of the river made it impossible to take the necessary astronomical observations. Emory therefore selected several points that could be reached by wagon to serve as astronomical observatories and supply depots. He then made the astronomical readings and computed the latitude and longitude. These points were then connected through lineal survey by the field parties.

From December until the following November, Emory and his men surveyed and marked on maps the boundary along the river. During most of this time the Mexican party was able to offer little help. They were even more poorly financed and equipped than the Americans and unprepared to maintain the pace set by Emory and his subordinates. On August 1 Salazar, who had become the Mexican Commissioner upon the death of General Condé the previous December, arrived at Presidio del Norte, one of the points selected as an astronomical observatory. Salazar requested that Emory join in signing all the maps of the river boundary that had been drawn. This would include the map depicting the initial point of the Bartlett-Condé agreement of the previous year. Emory's signature would bind the United States to the compromise.

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28. Emory, *Report*, L, 84-85. Emory used the reports of Chandler and Michler for the narrative of his report. This quote is from Chandler's account of the survey of the river through present day Big Bend National Park.

Before reaching El Paso, Emory had received specific orders to authenticate the agreement on the southern boundary of New Mexico. But the Major did not wish to do so, and it was August 28 when he finally signed the maps, but only as a "witness" to the agreement already reached. At the end of August Emory moved his instruments to Fort Duncan at Eagle Pass and began his observations to determine latitude and longitude of that location.

During the first eight months of 1852, Emory was constantly hoping that he would hear from the Commissioner, or, even better, that Bartlett would rejoin the main portion of the commission. Emory's concern was less for Mr. Bartlett than for the need to have his authorization to spend funds available to the Boundary Commission.

Bartlett, unaware of Major Emory's problems on the Rio Grande, spent the three months from February to May outfitting his small party for a return to El Paso. After a trip to San Francisco for supplies and excursions to the Napa Valley, San Jose, and the New Almaden quick-silver mines, he returned to San Diego in early May.<sup>29</sup> On May 28 Bartlett's party left San Diego for Fort Yuma and ultimately El Paso. To many men in the group the difficulties of travel on the desert

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29. Dispatches awaiting Bartlett on his return informed him of the removal of A. B. Gray and his replacement by Emory as well as the recall of Colonel Graham. Because of Gray's removal, Bartlett was compelled to pay off and discharge all of Gray's men reducing the strength of his party about 40 percent. Wallace, *The Great Reconnaissance*, p. 64.

between Yuma and the mountains east of San Diego were well known, but Bartlett, crossing the Colorado Desert for the first time, found the country "a dreadful one to cross--unquestionably the worst between the Atlantic and Pacific oceans."<sup>30</sup> Traveling at night to avoid the burning heat of the sun, the party reached Fort Yuma on the California side on June 9, but only after burying Lt. Col. Lewis S. Craig, who was killed by deserters on the 6th.<sup>31</sup>

Bartlett found the officers and men of Fort Yuma friendly. He also discovered the Yuma Indians, who were native to the area, were considerably less congenial. They stole an expensive horse and fourteen mules from the camp of the commission. After crossing the Colorado, then in flood, Lt. Amiel W. Whipple began to survey final eighty miles of the Gila River which he had been unable to complete the previous December.

The commissioner and a small group pushed ahead and spent several days at the Maricopa and Pima villages visiting with the Indians and investigating the local sights. The Casa Grande Ruins were viewed and sketched on a July day when the thermometer reached 119° in the

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30. Odie B. Faulk, "A Letter from John R. Bartlett at Camp Yuma, 1852," *Journal of Arizona History*, 6 (1965), 207.

31. Craig had commanded the escort of the Boundary Commission from November 1850 until his death and had traveled from El Paso to San Diego with Lieutenant Whipple's survey crew.

shade. Whipple joined Bartlett at the Pima Villages and together they continued toward Tucson, Tubac, and Santa Cruz. At Tubac, Bartlett was shocked to find that Inez Gonzales, the young lady rescued from the Apaches a year before, was living with Captain Gomez, Commandante of the Presidio. At Santa Cruz he found out that this liaison had come about without the consent of the parents. Despite several outraged conferences and letters, Bartlett was unable to dissolve the union. From Santa Cruz the commissioner and his party continued on toward El Paso, arriving there on August 17. The next day John R. Bartlett wrote to Major Emory expressing his pleasure at the progress made in the survey of the Rio Grande, his approval of any changes the Major made in heads of surveying parties, and promising to "proceed with all haste to join [Emory] at Presidio del Norte, or such other place as [he] may occupy as [his] quarters." Bartlett estimated that within a month he could complete the necessary work at El Paso and then would leave to join Emory.<sup>32</sup>

Like so many other schedules of Bartlett, this one went astray and he did not leave El Paso until October 8. Much to the disgust of Emory, he then took a circuitous route through Chihuahua, Mexico, to avoid hostile Indians.<sup>33</sup> Ironically Bartlett finally reached Ringgold

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32. Bartlett to Emory, August 18, 1852. Emory Papers.

33. Emory expressed his disgust to Lieutenant Michler in a letter dated Camp near Fort Duncan, October 26, 1852, in which he pointed

Barracks (Rio Grande City) just before Christmas. On December 22, it was decided to disband the commission.<sup>34</sup> The force behind this decision was the action of Congress in denying further appropriations for the Boundary Commission until the question of the southern boundary of New Mexico was solved to the satisfaction of the advocates of a southern railway route. The compromise with General Condé 18 months before continued to haunt the little commissioner from Rhode Island.

Both Bartlett and Emory returned to Washington, arriving there about February 1, 1853. By this time Congress had relented and authorized the completion of the survey of the Rio Grande below the disputed initial point. Work resumed in the spring, but under a new commissioner, Robert B. Campbell. With the change of administrations Bartlett was out of a job.<sup>35</sup> Again it was Emory who directed

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out that two wagon trains had come from El Paso by the direct route since Bartlett's arrival in El Paso and commented that the Indians in Mexico were worse than any the commissioner would encounter "on the road in question." Emory Papers.

34. Bartlett to Emory, Ringgold Barracks, December 21 and 23, 1852. Emory Papers.

35. Bartlett returned to Providence, Rhode Island, where he defended his administration of the Boundary Commission. He edited his extensive and detailed Personal Journal to be published as the two volume *Personal Narrative*, one of the best western travel accounts ever published. He served as Secretary of State of Rhode Island for 15 years, wrote several more books, aided John Carter Brown in organizing his collection of books on early Americana, and compiled the landmark catalogue of this collection. John Russell Bartlett died in

the work, aided by Lt. Nathaniel Michler, and surveyors Arthur Schott, Charles Radziminski, and G. Clinton Gardner. By September all but the placing of the boundary markers had been completed and Emory returned to Washington, leaving a skeleton crew behind.

In July of 1853 President Franklin Pierce moved to solve the smoldering dispute over the boundary with Mexico between the Rio Grande and Colorado River by purchase of the needed land. He dispatched James Gadsden of South Carolina to Mexico with instructions to secure the land needed for a southern railway route and to resolve several other problems. After several months of negotiation, the treaty was completed and signed on December 30, 1853. Gadsden returned to the United States in early January, proclaiming to the New Orleans custom officer: "Sir, I am General Gadsden.--There is nothing in my trunk but my treaty." After an extremely rough treatment in the Senate the treaty was approved by a narrow margin in April 1854 and in June it was formally ratified. For fifteen million dollars the United States acquired a southern railroad route and other concessions from Mexico. The boundary was precisely defined and nothing was left to later interpretation.<sup>36</sup> Full power was invested in the two boundary

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1886, a respected citizen of Providence, Rhode Island. Wallace, *The Great Reconnaissance*, p. 91.

36. Beginning on the Rio Grande at parallel  $31^{\circ}47'$ , the line was to run due west for 100 miles, then south to parallel  $31^{\circ}20'$ , and west again to the intersection of this parallel with the 111th meridian.

commissioners, and their work was to be considered an integral part of the treaty.

Major William H. Emory accepted the post of Commissioner and Chief Astronomer in August of 1854 and quickly began assembling a party to accomplish the job. In contrast to John R. Bartlett, Emory's organization was spartan. He planned to survey the line from either end toward the middle. Major Emory selected eleven skilled men of officer status for his party and three such men plus Lieutenant Michler for the western crew.<sup>37</sup> By the end of November, Emory was at El Paso ready to begin. Much to his pleasure he discovered that his Mexican opposite was Jose Salazar Ylarrequi who had served with him in California and on the Rio Grande survey in 1852. There was a high degree of cooperation and trust between the representatives of the two nations, with Salazar agreeing that Emory do the survey of the line by himself and he, Salazar, would verify the boundary points later.

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From that point it was to run in a straight line to a point on the Colorado River 20 miles south of its confluence with the Gila and up the middle of the Colorado to the already established southern boundary of California. William M. Mallory (comp.) *Treaties, Conventions, International Acts, Protocols and Agreements Between the United States and other Powers, 1776-1909* (2 vols., Washington, 1910), 1, 1121-25, as cited in Utley, *The International Boundary United States and Mexico*, p. 41.

37. Goetzmann, *Army Exploration in the American West*, p. 195. Each of the parties also had a military escort and a contingent of laborers.

By late March 1855 the boundary had been marked westward for 100 miles and south to parallel  $31^{\circ}20'$ , by the American party without any aid from the Mexican Commission.<sup>38</sup> The survey under Emory's direction was, for the most part, very routine. The Americans experienced no difficulty running the line west to its junction with the 111th meridian and placing pyramids of stone to mark the boundary wherever the availability of water and stone permitted. Only a few events occurred to mar the normality of the operations and Emory's composure. One was the non-appearance of the Mexican Commission. Another, related to the first, was the arrest of Salazar on suspicion of his relations with the disposed General Santa Ana in early summer. A third was the lack of communication with Lt. Nathaniel Michler, charged with surveying the line east from the Colorado to Dos Nogales, the point where the 111th meridian crossed the boundary line.

Lieutenant Michler, who suffered Emory's wrath for neither writing of his progress nor arriving at Dos Nogales in mid-May 1855, as Emory expected, was having his own problems in the survey of the western half of the Gadsden Treaty line. Michler had traveled to San Diego via Panama and marched overland to Fort Yuma, arriving there on December 9, 1854. Here he discovered that his surveying

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38. Emory to Robert McClelland, Secretary of the Interior, Camp at Latitude  $31^{\circ}20'$ , March 23, 1855. Emory Papers.

instruments had been damaged in transit. After repairing them he began surveying the Colorado River south of Fort Yuma as well as making extensive notes on the customs and daily life of the Yuma Indians. By March he was beginning to take readings to determine longitude and latitude of the new initial point, but weather conditions and the spring flood of the river disrupted this effort. On April 1 the observatory was back in operation. About the same time Capt. Francisco Jiménez<sup>39</sup> and his party appeared to work with Michler on the western line. The initial point had been established by April 10 and the two parties were ready to begin the projection of the line toward the 111th meridian. On April 26 an agreement regarding the method of surveying the line was signed by both engineers. Fifteen days later, after discovering that there was virtually no water for the first 125 miles, an eighth article was added. Jiménez and Michler agreed to cease operations at the western end of the line, proceed to the point near Dos Nogales, and trace the line west from that point as far as practicable.<sup>40</sup>

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39. Jiménez had been in San Diego with General Condé in 1849 as well as serving as Secretary to the Mexican Commission when the Joint Boundary Commission reconvened at El Paso in December 1850.

40. Proceedings of the United States Mexican Boundary Commission, 1850-57, Item 396, National Archives (NA), Record Group (RG) 76, Southern Boundary (Mexico) 1849-60, A preliminary inventory of Records Relating to International Boundaries (No. 170) has been prepared on this material. References to item numbers are based on this inventory.

The decision by Michler and Jiménez not to attempt the survey of the line from west to east was well founded. The boundary ran through some of the most desolate country in North America. There was only one spring that could be depended on--at Quitobaquito--midway on the 240-mile line. The only other water was that collected in natural rock tanks ("tinajas") after rainstorms.<sup>41</sup> For the first 25 miles east of the Colorado, the border crossed the Yuma Desert of shifting sand. Beyond that was a plain studded with jagged mountains and volcanic rock.

When Emory arrived at Dos Nogales in early May, Michler, Jiménez and their parties were traveling up the Gila on their way to Tucson and a meeting with the Major. Letters flew back and forth between Major Emory, Lieutenant Michler, and Lieutenant Patterson, commander of the escort with Michler. Emory demanded Michler hasten to his headquarters at Nogales and explain his delay. Upon his arrival Michler was able to justify his actions to Emory's satisfaction and he grudgingly withdrew his order to disband Michler's party.<sup>42</sup>

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41. Between the Colorado and Quitabaquito there were only two such natural tanks and from there to Nogales less than a half dozen springs or tanks.

42. Emory to Michler, Dos Nogales, June 13, 1855 (Draft). Emory Papers. The correspondence between Emory, Michler and Patterson during May and June can be found in the Emory Papers at Yale University.

On June 26 Michler and Jiménez began running the boundary westward. Lieutenant Michler and a small group worked the line while Captain Jiménez and another party went to Quitobaquito to set up an astronomical station to compute latitude and longitude. The advent of the rainy season filled the rock tanks along the border and made the survey routinely disagreeable, but not dangerous. Lt. Nathaniel Michler wrote Emory on October 14 from a camp near Janos, Chihuahua, that: "The tracing and marking of the Boundary line between the United States and Mexico, from the river Colorado to the intersection of the parallel 31°20' North Latitude with the 111th Meridian West from Greenwich have been completed."<sup>43</sup> Two months later, Emory was about to report the arrival of the last surveying party in San Antonio and the completion of the work assigned to it. With considerable pleasure Major Emory concluded: "The field work of the boundary commission is therefore at an end."<sup>44</sup>

There remained the business of signing the maps and publishing a report of the boundary survey. By January 1857 the former had been accomplished. Emory's Report of the survey was published in two parts in 1857 and 1859. In addition to the narrative of the survey the three-volume report included sections on the geology, botany and

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43. Michler to Emory, October 14, 1855. Emory Papers.

44. Letter from Emory to Robert McClelland, Secretary of the Interior, Washington, December 18, 1855. Emory, *Report*, 1, 35.

zoology, of the borderlands, plus excellent illustrations to accompany the various portions of the report. In the century since, this work has become increasingly valuable to not only scientists, but also to historians and anthropologists.

During the first half of 1856 the United States made the final payment to Mexico for the Gadsden Purchase and the present territorial limits of the nation were complete. It had taken more than six years to complete the survey of the boundary and most of the work had been done in the second half of that period. To one man, Maj. William H. Emory, must go the credit of completing the boundary survey. He had been in California in the last half of 1849 and the first half of 1850 while most of the work on the line between upper and lower California was performed. After an absence of a year, Emory returned to El Paso as Surveyor and Chief Astronomer in November 1851. During the year that followed he directed the survey of the Rio Grande border. When funds were withheld in the fall of 1852, all work ceased for six months, but in mid-1853 Emory returned with a small party and completed the river boundary survey. In August 1854 he was assigned to locate the Gadsden treaty line. During the first ten months of 1855 the line from the Rio Grande to the Colorado was located on the ground and monuments placed to mark it.<sup>45</sup>

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45. Major Emory was involved with the preparation of his report until 1858. In the summer of that year he was sent as Commanding

Emory's work on the international boundary was not performed in a vacuum. He was aided by other officers in the Topographical Engineers as well as many skilled civilian scientists and surveyors. In addition he had the cooperation of the Mexican Boundary Commission, which shared the job of surveying the line that divided the two nations. From the first meeting of the Joint Commission on July 6, 1849, until its final session on August 16, 1855, the dominant theme of the work was one of cooperation between the two nations. It is hard to document the friendly relations for they were built on small incidents: The loan of four mules to the Mexican Commission on July 27, 1849, the "cracking of several champagnes" between Lt. Cave J. Coats and General Corrasco on the banks of the Colorado in September of that year, dinner parties that Commissioner Bartlett and Condé gave for each other in 1850 and 1851, and the sincere pleasure that Emory and Salazar took in learning that the other was Commissioner for the

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Officer to Fort Arbuckle in the Indian Nation. By 1861 he was commanding troops at Forts Cobb, Smith, Washita, and Arbuckle. With the outbreak of the Civil War Emory realized that he could not hold the forts against the insurrectionists and withdrew to Fort Leavenworth with his entire command, without the loss of a man. The presence of these troops may have prevented Missouri from joining the rebellion. In 1862 Emory became a Brigadier-General of Volunteers and took part in several campaigns serving as a brigade, division and corps commander. After the War he commanded the Department of West Virginia and the Department of Washington from 1865-69. He then commanded the District of the Republican (1869-71) and Department of the Gulf (1871-75) and on July 1, 1876, retired as a Brigadier-General after forty-five years of service. He died in 1887 at the age of 76. *Dictionary of American Biography* (22 vols. New York, 1943), 6, 153-54.

survey of the boundary set forth in the Gadsden Treaty. In a larger sense both sides respected the professional ability of the other. Though there were periods of friction, the Joint Boundary Commission generally got along famously as understanding, teamwork, cooperation, and good humor smoothed over the rough spots. Lt. Nathaniel Michler could have been speaking for more than his party when he wrote Emory in July of 1856: "I take great pleasure in reporting to the commissioner the very agreeable relations both official and social, which constantly existed during a difficult work, with those gentlemen of the Mexican commission with whom we were so long and intimately associated."<sup>46</sup>

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46. From Michler's report to Emory on the survey of the boundary from the 111th Meridian to the Colorado, dated July 29, 1856, as cited in Emory, *Report*, L, 124. The rough draft of the report may have been written at Indianola, Texas, in December 1855, for Michler's party arrived there on November 30, 1855, and he was in Washington by January 10, 1856.

## CHAPTER 2

### A Most Singular Country

"We have had a rather rough time and traversed a most singular country."

Dr. C. C. Parry To Major Emory  
November 4, 1852

Most Americans knew very little of the vast territory won from Mexico in 1847 and even less of that gained by the Gadsden Purchase six years later. What knowledge did exist was from the narratives of Santa Fe traders, accounts of fur trappers, information gathered by military expeditions, travel accounts by private individuals, and a few scholarly works on Mexico. Military reconnaissance during the war added to the knowledge of the area, but much of it remained unknown except in the most general terms. Between 1849 and 1855 the men of the boundary survey were to move over, live upon, and become intimately acquainted with the borderlands. Their comments--in letters, diaries, communications to hometown newspapers, official reports and published travel narratives--would provide a detailed study not only of the region, but also of their reaction as men from the settled and temperate East encountering the unsettled and rugged Southwest.

To many the climate was the greatest change and of all the climatic elements it was the heat of the desert that was most

impressive. Lt. Cave J. Coutts was no stranger to travel across the Colorado Desert. He had come to California via that route in 1847, but in September of 1849 Coutts commented several times on the excessive heat, noting that near Vallecito a reading of 102° in the shade and 120° in the sun was recorded. Six days later, on the 27th, he wrote in his diary: "Day exceedingly warm. Thermometer 110°."<sup>1</sup> Lieutenant Coutts was the first of many individuals connected with the boundary survey to comment on conditions in the Colorado Desert. George Thurber, part of a small party traveling to San Diego in January 1852 to rejoin Commissioner Bartlett, included this succinct observation:

Few have ever crossed this waste without having cause to remember it. By the time we entered upon it, we had lost so many cargo mules that the most of us had given up our riding animals for the purpose of packing and were obliged to cross it on foot. The loose sand rendered walking doubly fatiguing . . . . We lost eight animals in our passage across and those who survived it, were reduced to mere skeletons.<sup>2</sup>

When deep into the desert the small party was caught in a sandstorm that left a vivid impression on John C. Cremony, interpreter and former Boston newspaperman:

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1. *From San Diego to the Colorado in 1849: The Journals and Maps of Cave J. Coutts*, ed. W. H. McPherson, (Los Angeles, 1932), pp. 13 and 24. Coutts was in command of the escort with Lt. A. W. Whipple at the Gila and Colorado Rivers.

2. Newspaper Releases relating to the Boundary Commission, 1 Volume, p. 49. Bartlett Collection. Cited hereafter as Newspaper Releases.

The day was intensely hot, and the most oppressive silence seemed to reign absolute. Suddenly a dark, dense and singular looking cloud arose in the west and moved toward us with incredible velocity. Great masses of heavy sand were lifted as if they were so many feathers and carried high into the air with extreme violence . . . . Our mules fell flat upon their bellies and thrust their noses close to the ground, our horses followed their example--none of us could stand against the force and might of the storm--and we too laid down flat, hauling a tent over us. In a few moments the tent was so deeply covered with sand as to retain its position, and every now and then we were compelled to remove the swiftly growing mass to avoid being absolutely buried alive.<sup>3</sup>

In late May, Commissioner Bartlett and a small party started back across the same desolate region. Before reaching the sandy waste, they camped at Santa Isabel in "one of the most lovely groves of large branching oaks that it had ever been our fortune to meet with. It is closely hemmed in on three sides by high hills, all of which are thickly wooded, while a clear mountain stream passes directly through it. Grass in abundance grew all around us, on which our mules were luxuriating."<sup>4</sup>

During the first ten days of June, Bartlett and his party no doubt thought longingly of this oasis as the thermometer ranged between 105° and 114° in the shade. Because of this heat they

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3. Cremony, *Life Among the Apaches*, pp. 125-26.

4. Bartlett, *Personal Narrative*, 2, 118. Santa Isabel is approximately fifty miles from San Diego.

traveled at night and "layed by" during the day. Even this was "almost as intolerable as traveling, for with the mercury ranging from 112-120° in our tents, sleep affords no refreshment, food is disgusting, and reading a fatigue. Generally there is a strong breeze, which, coming from off the heated sands, burns and parches the skin, if it does not bring a cloud of dust to add to the general discomfort."<sup>5</sup> On June 9 the party reached Fort Yuma on the Colorado. After a brief stay they continued up the Gila River Valley and here too they found the thermometer above 100° for several hours every day.

Upon leaving Gila Valley at the Pima Villages the weather became cooler, but it began to rain, and "with but two or three exceptions, it rained every day subsequently until we struck the valley of the Rio Grande."<sup>6</sup> Near Picacho Peak, a prominent landmark on the road to Tucson, Bartlett's party was caught during the night in a summer thunderstorm as:

natures light-house opened its portals, and the vivid lightning flashed around us so that the black mountain

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5. From a letter written at Camp Yuma, June 13, 1852, by G. T. (George Thurber) and published in the Providence *Journal*. Newspaper Releases, p. 51. Bartlett Collection.

6. Bartlett to Alexander H. H. Stuart, Secretary of the Interior, El Paso, August 1852. Letters Received Third U.S. Commissioner, Item 424, NA, RG 76, Southern Boundary (Mexico) 1849-60.

[Picacho], our beacon in this desert, seemed constantly before us . . . . Peals of the most terrific thunder burst upon us, leaving scarcely an interval of repose. Next came violent gusts of wind, accompanied by clouds of sand and dust, reminding one of the simoon. The wind was from the south and brought the sand directly in our faces. To avoid it was impossible . . . . Lastly came torrents of rain, and this terrific storm was at its height.

Slowly we journeyed on, drenched to the skin not withstanding our overcoats and Indian rubber garments.<sup>7</sup>

The trip to El Paso from San Diego was not John Russell Bartlett's first experience with the erratic weather of the southwest nor drenching summer downpours. In August and September of the previous year, the American party traveling to meet with General Condé were caught in a sudden heavy shower. Those without India rubber coats were drenched to the skin. The rain also made the ground very soft and the wagon train was forced to halt:

The mules had given out, the wagons were fast in the mud and it was impossible to proceed further . . . . It continued to rain very hard and beat through the tent. However a cup of coffee served as a most welcome stimulant--and we retired in the midst of rain and wind--and though the water dripped upon me and everything around was wet, I slept as comfortable as I ever did in camp.<sup>8</sup>

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7. Bartlett, *Personal Narrative*, 2, 286-87.

8. "Personal Journal," August 30, 1851. Bartlett Collection.

The next day, September 1, was spent drying out the bedding and tents, and giving the mules a chance to recover. On the second the wagon train passed near a range identified as Sierra Chiricahui by General Condé. There were heavy rains during the night of September 3, bringing more misery and difficulties to the party under Bartlett:

The tents and everything being very wet we did not leave till nine o'clock. The road and plain were very heavy and it was with the greatest difficulty that the wagons could get along so deep did the wheels sink into the earth--many times they became immovable requiring the help of several men to relieve them. The pack mules also experienced great difficulty in making their way over the soil.<sup>9</sup>

Though rain caused problems for the Boundary Commission during August and early September of 1851, the climate of the border between Mexico and the United States was generally dry and often very hot. As a result there was little vegetation and what did exist was sparse and strange to the men of the United States Boundary Commission, whose homes were in the well-watered eastern half of the nation. Not only the vegetation, but also the animal life elicited comments from members of the commission. There were, however, portions of the land that possessed water and vegetation in abundance. These small oases often brought forth

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9. *Ibid.*, September 3, 1851. This may have been in the San Pedro Valley of Arizona.

outbursts of descriptive prose as the homesick men of the commission described scenes that reminded them of what they had left behind.

The usual view of the land was presented by Commissioner Bartlett in a report to Secretary of the Interior Alexander Stuart on his trip to Mexico during early June:

My journey to Sonora gave me an opportunity to notice the country for a long distance over which the boundary line will pass, west of the Rio Grande. After passing *Ojo de Vaca* nothing but a vast plain presents itself, as far as the eye can reach, no mountains being visible westward. It is doubtful, therefore, whether there is water here. The Indians say there is none; but I shall recommend the exploring parties to examine the depressions in the prairies with the view of discovering springs of water. Portions of the valley of the river Mimbres might be cultivated to advantage to the extent of half a mile in breadth; but with this exception there is probably not an acre of land susceptible of cultivation from the Rio Grande to the San Pedro. The whole region south of the range of mountains which runs about twelve miles south of the Copper Mines is barren desert waste, without a single tree or bush with but three or four springs of water and destitute of grass, save the parched and dry musquit [sic], some three or four inches high.<sup>10</sup>

The third United States Boundary Commissioner expanded his view of the desolate nature of the country a year later when describing the near-completion of the Gila River boundary survey:

Although the entire boundary along the River Gila was not completed, it was a source of peculiar satisfaction

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10. *Report of the Secretary of the Interior*, 32nd Cong, 1st Session, Senate Exec. Doc. 119 (1852), pp. 413-14. Bartlett's letter was dated July 1.

to me that we had accomplished so much . . . .  
To cross a wilderness, such as it may in truth  
be called, from the Rio Grande to the Pacific  
Ocean, a distance of more than eight hundred  
miles, would at anytime be a labor of difficulty.  
But when this whole line is through a desolate  
region, with a scanty supply of grass for the  
animals; with large tracts destitute of water,  
and no means of procuring provisions; and  
furthermore, when nearly the entire distance  
is invested with hostile Indians, the work is  
one, for the near completion of which, we could  
not be too thankful.<sup>11</sup>

In this "desolate region" there were a few rivers whose valleys  
provided relief from "the barren desert waste" which Mr. Bartlett  
deplored. One of these was the Mimbres valley. Bartlett visited  
it on April 30 on his way to the new headquarters of the Boundary  
Commission at the Santa Rita Copper Mines:

When we reached the edge of the hills which bounded  
the valley of the river, our eyes were greeted with  
a sight truly refreshing. The plain or bottom for a  
mile in width was covered with a rich verdure, such  
as we had not seen since leaving the rich valleys  
near San Antonio in Texas. As we rode rapidly forward  
we noticed a herd of about 20 black tailed deer quietly  
grazing on the luxuriant grass of the valley. Disturbed  
in their solitude by the rattling of the carriage and  
the rushing of our horsemen they dashed away over the  
plains in single file, led by a large buck with extra-  
ordinary speed . . . .

Reached the River at 3/4 o'clock, being but four hours  
from Cooke's Spring 19 miles distant and pitched our  
tents beneath a grove of Cotton Woods, when all hastened  
to taste the water of the Mimbres . . . . It was not

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11. Bartlett, *Personal Narrative*, 2, 5-6.

more than 20 feet wide where we encamped, but was very clear and rapid. The water was soft and delightful to the taste, surpassing any we had met since we left the pure mountain streams on our journey to El Paso.<sup>12</sup>

This enthusiasm for rivers in the desert had waned somewhat in four months, or perhaps the commissioner had seen enough water during his rain-plagued search for General Condé. He gave the San Pedro River considerably shorter shrift:

On getting out of the cañon or ravine we entered a plain which extended about two miles, when we suddenly came upon the River San Pedro, so concealed by its steep banks of mud and brush, that we did not discover it until within 20 feet of it. The stream here was about 20 feet across and quite rapid. The water muddy, though soft and pleasant to the taste. The river resembled in appearance the Pecos, though much smaller. We were all exceedingly fatigued with this days march which one estimated at from 27 to 30 miles.

Tuesday, Sept 9. The valley of the San Pedro near our camp is anything but luxuriant; the grass is very scant and poor. A few stunted mosquit trees and bushes are thinly scattered about. The low hills approach within a mile of the river on the east side and on the west within a quarter of that distance. Sent several men to trace the stream up and down in search of grass, who, after several hours absence reported that they found pretty good grazing about 2 1/2 miles south of our camp, where I directed the whole party to move tomorrow.<sup>13</sup>

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12. "Personal Journal," April 30, 1851. Bartlett Collection.

13. *Ibid.*, September 8 and 9, 1851. Lieutenant Whipple determined the latitude and longitude of the camp established on the 8th: Latitude 31°54'31" and Longitude 110°11'41" or near present day St. David, Arizona.

Traveling over this land presented its own special problems which took a heavy toll of the mules that served as both mounts and pack animals. Upon arrival in San Diego in February 1852, George Thurber wrote to the Providence Journal describing his experiences, during a journey from the Pima villages on the Gila River to San Diego:

Below the villages of the Pimas and Maricopas the Gila makes a great bend, and the road, instead of following the course of the stream strikes across this bend, being a *jornada* of forty-five miles without water. Our first day's march across this, was one of the most difficult I ever experienced. The wind blew a gale, throwing the salt, with which the soil is impregnated, with fury into our faces, and rendering it almost impossible to see, while the icy chillness benumbed our poor beasts so that they had hardly strength to face the storm, and in the course of the day we were obliged to leave three of them victims to its severity.

From the Indian villages to the junction of the Gila with the Colorado, there is scarcely an object of interest to the traveler, save the picturesque forms of the distant mountain summits, some of which resemble domes and spires so perfectly that but little imagination is required to form a large city in the distance. From the scarcity of grass upon this portion of the route, our animals suffered severely, and scarcely a day passed without one or more giving out. We were obliged to cache everything except the provisions and few other articles absolutely necessary . . . . Such is the dearth of food for animals, that we were several times obliged to encamp with out other than than the dead leaves of cotton wood and willow trees, and mezquit [sic] and other shrubs.<sup>14</sup>

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14. Newspaper Releases, p. 48. Bartlett Collection.

After crossing the Colorado Desert and reaching Vallecita in California, Thurber describes how they left the wagon road and struck across the mountains to San Ysabel. Here they found the verdant valleys of the Pacific slope. All hardship was forgotten as the party marveled in "the luxuriance of the valleys and mountain slopes":

The change from the barrenness of the desert over which we had passed to the verdure and luxuriance of the valleys and mountain slopes was almost too great to seem real, and every new scene which the continued ascents and declivities brought us to called forth shouts of admiration--now we crossed a valley clothed with the newly sprung grass of all shades of brilliant verdure; now wound through a narrow pass down which tumbled a clear mountain stream; now clambered up a steep hill covered with wide spreading oaks; now crossing a ridge fringed with graceful pines, and all the while breathing the exhilarating sea air, it seemed like a new existence.<sup>15</sup>

Most of the border country, though arid, did possess sufficient springs, river valleys, or other sources of water that travel over them was possible. These places often served not only to refresh the traveler physically, but also mentally. However, there was one section of the border between the Colorado River on the west and Rancho Sonoyta on the east--that was so totally devoid of any redeeming virtue that it had been labeled Jornada del Muerto or Camino del Diablo by early travelers. And it lived up to both these names. In

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15. *Ibid.*, p. 49.

the summer of 1855 Lt. Nathaniel Michler and Señor Francisco Jiménez ran and marked the boundary across this forbidding territory. In his report to Major Emory the following year, Michler described the terrain in graphic terms:

The road continues along the course of the subterranean stream until you reach the Ranch de Sonoyta, thirteen miles and a half further on. From the junction to within a short distance of this place [the Colorado], a heavy road of one hundred and thirty miles, you look on a desert country. Near Sonoyta it is well covered with mezquite timber; in the valley to the east of the town there is some salt grass; but to the west, as far as the Colorado, scarce a blade is to be seen . . . . A dull wide waste lies before you, interspersed low sierras and mounds covered with black igneous rocks. The soil is a mixture of sand and gravel; the reflection from its white surface adds still greater torment to the intense scorching heat of the sun. Well do I recollect the ride from Sonoyta to Fort Yuma and back, in the middle of August, 1855. It was the most dreary and tiresome I have ever experienced. Imagination cannot picture a more dreary sterile country, and we named it the "Mal Pais". The burnt lime-like appearance of the soil is ever before you; the very stones look like the scoriae of a furnace; there is no grass, and but a sickly vegetation, more unpleasant to sight than the barren earth itself; scarce an animal to be seen--not even the wolf or the hare to attract the attention, and, save the lizard and the horned frog, naught to give life and animation to this region. The eye may watch in vain for the flight of a bird; to add to all is the knowledge that there is not one drop of water to be depended upon from Sonoyta to the Colorado or Gila. All traces of the road are sometimes erased by the high winds sweeping the unstable soil before them, but death has strewn a continuous

line of bleached bones and withered carcasses of horses and cattle, as monuments to mark the way.<sup>16</sup>

The only water in 130 miles was at several tinajas or rock tanks where rain water would collect during the summer and at the springs near Quitobaquito. It is a comment on the importance of water on the desert that Michler devotes part of two pages to a discussion of these sources of the precious element. The first water east of the Colorado was at Tinajas ALTAS, forty-five miles from the river:

These are natural wells formed in the gullies or arroyos on the sides of the mountains, by dams composed of fragments of rocks and sand washed down by heavy rains; they are filled up during the rainy seasons, and frequently furnish travelers with water for many months of the year, being in fact their only dependence. There are eight of these tinajas, one above the other, the highest two extremely difficult to reach; as the water is used from the lower ones you ascend to the next highest, passing it down by means of buckets. It is dangerous to attempt the highest as it requires a skilful [sic] climber to ascend the mountain, which is granitic origin, the rocks are smooth and slippery. Although no vegetation marks the place, still it is readily found. A variety of birds frequent the spot principally the small delicate humming-bird. The "palo de fierro" [iron tree] and the "palo verde" grow near the base of the mountains.<sup>17</sup>

Sixteen and a half miles farther on are the Tinajas de Tule situated in the mountains of the same name, "called so from the few scattered blades of coarse grass growing in their vicinity.

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16. Emory, *Report*, 1, 115.

17. *Ibid.*, 114.

The water here is found in an arroyo, walled in by huge high masses of granitic-rocks, which present a peculiar appearance, as they lie in smooth whitish lumps, huddled together in every possible way."<sup>18</sup> The springs at Quitobaquito were fifty-four miles from Tinajas de Tule.<sup>19</sup> Midway between these two was a low mesquite flat called Las Playas containing *charcos* or holes where rain would collect.

Lieutenant Michler also commented on the natural history of the boundary from Nogales to the Colorado River. The animals included: "what is called by the Mexicans 'El Scorpion', a large slothful lizard, in shape a miniature alligator, marked with red, black, and white belts--a hideous looking animal."<sup>20</sup> There was rattlesnake with a "tiger-colored skin [that was] exceedingly fierce and venomous [sic]" and many antelope. The lieutenant also repeated the legend of the antagonism of the roadrunner and the rattlesnake:

The paisano, or chapparal [sic] cock, surrounds his antagonist, while asleep, with a chain of cactus thorns; when the preparations are all made the bird flutters

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18. *Ibid.*

19. Michler described the springs at Quitobaquito as "fine springs running for the greater part of the year." *Ibid.*, 115.

20. *Ibid.*, 121. His reference is to the Gila Monster.

over the head of the snake to arouse it to action; the latter in vain efforts to escape is irritated to such a degree, by running against the barrier encompassing it, that it ends its existence by burying its fangs in its own body.<sup>21</sup>

Of all the plants and animals of the border the one which elicited the most comment was the Saguaro cactus. These tall desert plants with their upraised arms made, and still make, a deep impression on all who see them for the first time. To John Russell Bartlett it was "that remarkable cactus. Known as the *Ceraus giganteus* springing from the mountainside, and often from the crevices of rocks over hanging our path. They came on us quite sudden, hundreds or I may say thousands presenting themselves in one view."<sup>22</sup> Lieutenant Michler in his report to Emory described the fruit of the "Suwarrow" as delightful--"it is shaped like the pomegranate, and when opened, presents the same beautiful carnation red; the seeds are very small and numerous, and of a black color; only the pulp and seeds are eaten. The Pimos and Papagos use it as food."<sup>23</sup>

The climate was dry and it was hot. The weather was erratic--burning the traveler one day and chilling him the next. Seldom were the elements in moderation--either there was too much or too

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21. *Ibid.*, 122.

22. "Personal Journal," September 30, 1851. Bartlett Collection.

23. Emory, *Report*, L, 121.

little heat, wind, or rain. The land was desolate, bleak, dreary and sterile. It was damned by most and praised by few, yet there were verdant river valleys and sweet streams that elicited admiration and hosannas of praise. But above all, the land was angular, jagged, rugged, rough, hard, stark, stony, and vast. All these qualities impressed and even overwhelmed the men of the boundary commission.

To those who came to California in 1849, the mountains and deserts over which the boundary line was to run seemed "insurmountable obstacles" and "vast and almost impassable tracts." Yet these mountains and the Colorado desert with its lack of water and shifting sand could not be called rugged in view of what awaited the Boundary Commission when it began work on the western end of the line a year later.

John Russell Bartlett commented on the ruggedness of the western mountains as he made his way through Guadalupe in November of 1850;

Our way now continued through the narrow defiles of elevated hills. At one time in a deep valley, at another wending our way along the brink of a gorge the mountain rising some thousand feet above on one side, with the gorge on the other while at other times we were on the summit of a hill, overlooking all but the high towering Guadalupe itself . . . . the majestic bluff of this remarkable mountain was visible standing out in bold relief.<sup>24</sup>

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24. "Personal Journal," November 10, 1850. Bartlett Collection.

Ten months later, Dr. Thomas Webb, a member of the Boundary Commission, wrote describing his experiences clambering over the mountains of southern Arizona with Jose Salazar of the Mexican Commission. During the last half of September 1851 the parties of both Bartlett and Condé were wandering about trying to find Santa Cruz, Sonora, with little success:

We had a pretty tedious time of it, ascending and descending Mts. almost perpendicular such as we have never dreamed of attempting to scale and visiting many of the uninhabitable, & not a few of the deserted portions of this miserable region of Creation. Among other places we went to Tucson. San Javier de Alvercur, Tubac, the mission of Tomacacori [sic], San Lasaro [sic] & Calabasas, & as a matter of course we had an opportunity of seeing 'some lions', which I would not willingly have missed.<sup>25</sup>

The commissioner, himself, had opportunity to experience the disadvantages of travel over the poor roads that threaded through the mountains along the border while traveling between San Diego and the Colorado River. He described the land as "the worst between the Atlantic and Pacific Oceans":

The entire distance of 250 miles consists of hills, mountains and a desert of 125 miles. The hills are long, steep, sideling and rocky. Two wagons were upset and one abandoned--my little wagon bought in San Francisco came in with a broken axle tree, and other injuries and I may say that we were pretty well used up.<sup>26</sup>

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25. Thomas H. Webb to J. R. Bartlett, Santa Cruz, September 22, 1851. Correspondence July-December 1851, Bartlett Papers.

26. Faulk, "Letter from John Russell Bartlett," p. 207.

This bleak view of travel through the coastal mountains may have been prompted in part by Bartlett's experiences in crossing San Pasqual Mountain on May 29, 1852:

We had heard much of this hill, and were fully prepared to undertake the labor of passing it. . . . we all got out, and literally put our shoulders to the wheels. The driver, while he held the reins, braced up the wagon to prevent its upsetting, and Dr. Webb and myself alternately pushed behind or chocked the wheels. The mules tugged with all their strength and we moved steadily though slowly on, stopping every forty or fifty feet to let the animals rest. The road pursued a zig-zag course . . . which somewhat lessened the difficulty of ascent. But the steepness was not the greatest difficulty to encounter. This consisted of the 'sidling' places where the wagon could not stand upright, and required to be held up with ropes while ascending or descending. Then again portions of the road were very rocky, and much gullied by running water . . . . [The descents] were attended with more trouble than the ascents; for the wheels had to be locked and the wagons held up with ropes.

In this way we journeyed the whole day with little variation. San Pasqual forms part of a mountain ridge running north and south.<sup>27</sup>

Difficulty in travel because of the ruggedness of the terrain did not always mean mountains or deserts. It could also be the problem of crossing a river in flood, strange as that might sound in a land that was often described as arid. In June of 1852 the Colorado River was in flood. Lt. Amiel Whipple was faced with the

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27. Bartlett, *Personal Narrative*, 2, 116.

problem of moving the wagons, mules, and supplies of Bartlett's small party to the east side of the river. On June 12, he began this job:

It had been the practice to swim animals across the river, but the stream was now so much swollen and so rapid that it was impossible to do so now. They had therefor to be ferried over in the scow, a few at a time. The wagons were unloaded and taken over with their contents. But with the aid of all our men the progress in crossing was slow, for on several occasions the scow failed to reach the desired point on the opposite side and was then swept away by the current between two and three miles before a landing could be made. Then it had to be towed upstream with great labor until it reached some nook or low bank where the animals could be landed. In this way three hours were sometimes taken for a single crossing.<sup>28</sup>

Approximately three years later the Colorado again frustrated the work of the boundary survey. In March 1855 Lt. Nathaniel Michler was taking readings to determine the initial point of the Gadsden Treaty line twenty miles south of the junction of the Gila and Colorado. He established an observatory on a low knoll east of the river and began his work. Heavy rains on the upper Gila caused the Colorado to rise very slowly and the sloughs between the observatory and the camp began to fill up. Work continued as Michler hoped the water would recede. Instead it advanced. On March 19 the instruments were moved to a higher point 500 yards farther from the

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28. Bartlett, "Personal Journal," June 12, 1852. Bartlett Collection. During this same period, Bartlett and Maj. Samuel P. Heintzelman,

river. Michler's notes for the 20th contain this observation:

Compelled again to move the instruments and carry them up camp; every slough is filled, all rapidly rising, and several swimming deep; rafts built to transport the men over them; all the men in water up to their breasts, and instruments only kept dry by being carried on their heads. About noon all safely in camp; water within fifty feet of it, and everybody getting ready to leave. At sunset river still continues rising, and gradually approaches camp, but so slowly that we are in doubt. At 2 o'clock a.m. decided to take to the sand hills; the long roll was beaten, the camp struck, the train loaded, and all moved on the high plain. Behind us lay a desert of sand forty miles across, and in front was spread a sheet of water several miles in breadth. From fifteen hundred feet the Colorado widened to at least five miles.<sup>29</sup>

The river began to recede, but the bottom land was so boggy that it was "many days before we were able to reach our observatory."

The result was considerable delay in establishing the initial point on the Colorado and also in beginning the survey of the boundary east toward Nogales.

By 1849 most portions of the boundary had been seen by many travelers. Gold seekers had crossed the Colorado Desert by the thousands. Cooke's Wagon Road traversed the region between the Rio Grande and the Pima villages on the Gila River. A few brave

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commanding Fort Yuma, measured the velocity of the river and found it to be 5 1/4 miles an hour as compared to 2 miles per hour when low. On June 13 the river was 13 1/2 feet above its normal level. Bartlett, *Personal Narrative*, 2, 173-74.

29. Emory, *Report*, 2, 113.

travelers took "The Devil's Highway" that paralleled the boundary from Sonoyta to the Colorado. But one portion of the line few men had seen and even fewer traversed--the canyons of the Rio Grande above the junction with Pecos River. In 1852 Emory described this segment of the Rio Grande as "never having been traversed by civilized man, [because of] the impassable character of the river; walled in at places by stupendous rocky barriers, and escaping through chasms blocked up by huge rocks that have fallen from impending heights, where, if the traveller should chance to be caught in a freshet inevitable destruction would be the consequence."<sup>30</sup>

The reason for these chasms and rocky barriers was described succinctly and simply by Emory in his report:

[A branch of the Rocky Mountains] diverges about the head of the Pecos and running south with unequal elevation crosses the Rio Bravo between the 102nd and 106th meridian of longitude forming the great bend in that river, and producing one of the most remarkable features on the face of the globe--that of a river traversing at an oblique angle a chain of lofty mountains, and making through these on a gigantic scale what is called in Spanish America a canon--that is, a river hemmed in by vertical walls.<sup>31</sup>

The worst of these cañons were between Presidio del Norte and the Pecos River. Lt. Nathaniel L. Michler described the Rio Grande above its junction with the Pecos in his report of March 10, 1856:

The whole adjacent country is traversed by deep arroyos or cañons, intended by nature to drain the high plains

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30. *Ibid.*, l, 11.

31. *Ibid.*, l, 42

bordering on the river; they are in their appearance, but miniature creations of the same power which forced a passage for the Rio Grande. Their junctions with the river form large rapids or falls, caused by the rocks and earthy matter washed down them. These rapids are numerous, many of them dangerous, and will always prove insurmountable obstructions to future navigation. The force of the current is very great and for thirty miles above the mouth of the Pecos is one continual rapid; its average rate is nearly six miles an hour. The width of the river varies from 80 to 300 feet, and at a few points narrows down to 25 and 30, when confined between its rocky walls the channel is very deep.<sup>32</sup>

The survey of this portion of the river had been done by parties under the direction of Michler and M. T. W. Chandler, an assistant surveyor. The heroic work of mapping these trackless canyons of the Big Bend was performed by men clad in rags, often lacking shoes or sufficient supplies of food, under the constant threat of Indian attack, and with boats that were both leaky and far too fragile for the work required. Two letters from Marine T. W. Chandler written in November 1852 present a graphic picture of the hardships endured:

Major: I have with great difficulty and exertion brought the line to the entrance of a canon near this camp and after careful reconaissance made both by myself and Lieut. Green [Lt. Duff Green] I believe that the country in advance is impracticable to be surveyed with the means now at my disposal. My boats are unfit to transport the provisions necessary for the surveying party for more than one day and of course I must depend upon the mule train for supplies every night, you can judge of the impossibility of this when I say that during the last week, some of my men were without food for seventy-eight hours. Mr. Phillips

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32. *Ibid.*, 1, 78.

and I walked in one day more than forty miles without water except once finding a little in a rock and for more than forty hours were destitute of food.

We are, for the better furtherance of the survey on the Mexican side and it is the opinion of all that we had better take a trail leading by the Interior to Eagle Pass, known to some of the Mexicans, than to endeavor to find a crossing and make a very long march on the Texan side of the river. I send this and a letter of Dr. Parry by some of the men who prefer risking their lives in the remains of the best boat to walking with the train during the necessary long marches that are before us, suffering as they are from want of shoes and other clothing.

I write in haste . . . but expect (God willing) to report to you in person with my notes in about eighteen days.

I should add that I have made arrangements to connect this point by triangulation with the mouth of the Pecos should the men in the boat discover it within two days.

I am very respectfully  
Yr Obt. Servant<sup>32</sup>

Emory's reply on November 13 told him that he was on his way to intercept Mr. Bartlett in hopes of obtaining either money or satisfaction for the officers and men of the survey. He informed Chandler he could not refit his party and ordered him to discharge all who desired it and for the remainder to remain at Eagle Pass

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32. Chandler to Emory, Camp on the Rio Grande, November 4, 1852.  
Emory Papers.

and hold themselves "in readiness to resume the work if the Commissioner should furnish the means of so doing."<sup>34</sup>

Dr. C. C. Parry's letter enclosed with Chandler's told the Major that he had asked one of the boatmen, Abott, to take some notes on the character of the river to enable Emory to decide the best plan for fitting out another party to complete the work. Parry estimated they were less than 100 miles above the mouth of the Pecos and therefore below the distance ascended in boats by Lieutenant Michler:

We have had rather a rough time and traversed a most singular country the formation here is the same as that of the Pecos and Devil's river. I would come down in the boat if I thought it would offer any new features, but do not like to trust my collection to the risk of a capsized. It is concluded to leave here to-morrow on route for Eagle Pass by Santa Rosa and we hope to meet you there in at least 2 weeks date. I shall take a sketch of the country for you and will probably see more of interest than in following down this horribly desolate river.

Yours with Much Respect.<sup>35</sup>

On the 14th Mr. Abott arrived at Eagle Pass after a ten-day trip down the river in one of the India rubber boats from Chandler's camp below San Vecinte.<sup>36</sup>

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34. Emory to Chandler, On the road to Loreda [sic], November 13, 1852. Emory Papers.

35. Parry to Emory, Camp on the Rio Grande, November 4, 1852. Emory Papers.

36. Note dated Eagle Pass, November 14, 1852, To Emory, author unknown. Emory Papers.

By November 25 Chandler was at Fort Duncan with all his party:

I hasten to announce my safe arrival at this place with my party all safe except the effects of want of shoes and other clothing. Most of them lost everything in the boats on the river and have been without blankets or a change of clothes since the 16th of September--their feet covered only with raw cow-skin moccasins or left bare. Rations furnished me by Mr. Green enabled me, with a great curtailment of the usual issue, to bring the party in without much suffering from want of food. The merchants at this place are willing to take the orders of the men on their pay accounts for articles of clothing etc and I have done my best to assist them in covering their nakedness.

Our march after leaving the river was by a trail part of which had been followed last year by Colonel Lanberg . . . . I consider the road impracticable for wagons and very difficult for loaded mules and should prefer passing by this side of the river in the event of a renewal of the work.

We met a band of Comanches at Vado del los Comanches under Mano, they had just crossed the San Antonio road and had with them gold we supposed to be taken from the bodies of Americans murdered near Comanche Spring. Wildcat is living just above the town of Santa Rosa & did not let us pass without an explanation of our intentions.

Awaiting your orders here, I am preparing a report of the work done during the time I was employed on the river and shall as far as possible make a map of the line to the point of suspension.

The animals and other property of the commission, not lost in the boats, are still under my charge and will be retained until further notice.

I have the honor to be very Respectfully  
Your Obt. Sev<sup>37</sup>

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37. Chandler to Emory, Fort Duncan, November 25, 1852. Emory Papers.

A month after Chandler's letter the survey of the boundary was suspended for lack of funds and all the principals returned to Washington. In the spring, funds became available and the Commission returned to complete the survey of the Rio Grande. Lieutenant Michler was given the task of completing the work left undone by Mr. Chandler. Beginning about one hundred miles above the Pecos he encountered not only the same hazardous conditions that had forced Chandler to withdraw the previous fall but other complications. The party encamped at Lipan Crossing and prepared to launch the boats:

Upon trial, we found the boats, which were our only resource, would float--the only thing that could be said in their favor. The wood of which they were made was only partially seasoned, and the hot sun had so warped them that they presented anything but a shipshape appearance. The two skiffs were frail--a moderate blow would have knocked a hole in them--and the flat boat was unwieldy and unmanageable. The current was so strong that two good oarsmen could not stem it in a light skiff.<sup>38</sup>

Upon leaving Lipan Crossing the men entered the canyons-- "continuous and perfect walls of natural masonry, varying from 50 to 300 feet in height; the breadth of the river being extremely contracted, these structures seen from our boats, look stupendous as they rise perpendicularly from the water."<sup>39</sup> The river itself

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38. Emory, *Report*, 1, 77. The survey of the river was done during the spring and summer of 1853.

39. *Ibid.*

was a series of falls and rapids. The men in the fragile boats were driven along with little hope of escaping destruction or drowning should the boats be damaged or capsized:

Nor were these dangers imaginary--a serious accident, and one almost fatal to the success of the expedition and to the lives of most of the party, occurred the very first day after taking to the boats; notwithstanding every precaution had been taken, we were unable to avoid it, and our minds were most forcibly impressed with the truth that real dangers did exist. After having descended the river for a few miles an immense rapid presented itself to our view. The river here narrowed from nearly three hundred feet to the width of twenty-five both shores could be touched with the ends of the oars; an immense boulder divided the main into two smaller channels, leaving but a narrow chute for the boats to descend. The bottom was covered with large rocks, and over these the whole mass of water rushed, foaming and tumbling in a furious manner; a dangerous rapid was thus formed of several hundred feet in length extending from bank to bank. The two skiffs made the descent in safety although the waves rolled so high that each plunge filled them almost to overflowing. The flat-boat was not so fortunate; totally unmanageable; she ran square against the rocky walls, splintering and tearing away her entire front; such was the force of the blow that the crew were knocked flat on their backs and the boat hooks left firmly imbedded in the crevices of the rocks. Thrown back by the great swell, she commenced floating stern foremost down the rapid, gradually sinking. The men stuck to her faithfully, and the skiffs were put into immediate requisition; but by the expert swimming of two of the men, both Mexicans, who had dashed into the current ere the sound of the crash had died away, and seized her lines she was landed on the end of a sand bar which most providentially lay at the foot of the rapid; a few feet further, both men and boat would have been destroyed, and

our all--provisions and ammunition--irrecoverably lost, the perpendicular banks offering no foothold where to land.<sup>40</sup>

The boat was repaired and the survey continued the next day, although the flat-boat, was "bereft of all her fair proportions."

The survey of the Rio Grande was completed by September 1853. In June 1854 the Gadsden Treaty was ratified by both nations. By the end of November, Emory was in El Paso ready to survey the treaty line. During the next ten months this was completed. Though there were hardships, only the arid desert east of the Colorado and west of Sonoyta presented a major problem. Ironically, it was Lt. Nathaniel Michler--bedeviled by the Rio Grande in 1852 and 1853, and the flooding Colorado in March 1855--who was faced with a lack of water on the Yuma Desert during the summer of 1855.

In view of the hardships endured, the unsettled character of the country, and the often dangerous activities of the surveying crews, it is notable that there were very few casualties as a direct result of the work.<sup>41</sup> Most of the accidents were of a minor sort, such as the injury to Commissioner Bartlett in May 1851 when he fell or was dragged off his mule and kicked by the animal. The lack of a

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40. *Ibid.*, 79-80.

41. One of the few fatalities suffered during the boundary survey was on July 23, 1853, when Assistant Surveyor Walter Jones drowned twenty miles below Reynosa on the Rio Grande. Emory to Gen. R. B. Campbell, U.S. Commissioner, Mouth of the Rio Bravo, August 21, 1853 (ca). Emory Papers.

balanced diet posed perhaps the greatest threat to the health of the two Commissions. In June of 1851, Bartlett traveled to Fronteras, Sonora, in search of fresh fruits and vegetables to combat scurvy among members of the commission and the military escort. A report by John M. Bigelow, surgeon with the Boundary Commission, alerted the Commissioner to the threat of "scorbutic diseases in this climate":

Whether this tendency arises from peculiarity of soil or climate, or both conjoined is more than I am able to say. But from the knowledge and experience I have had with the members of the commission and of the escort under Colonel Craig accompanying us, I am satisfied that the predisposition to attacks of this disease is much stronger here than it is in the eastern portions of the United States. Although the members of the commission suffered less than the escort under Colonel Craig, among whom it is very manifest, twelve or fifteen cases have occurred, in the course of nine months, in a command of eighty men; yet in the survey of Mr. Thompson, from about the 15th of February to near 15th of May, two manifest cases occurred in a party of fifteen men. They were a good deal exposed to fatigue and moisture in surveying and traversing the Rio Grande, and their means of obtaining fresh provisions were also limited to a very considerable degree.

Dr. Stone, surgeon of the military post at Franklin, near El Paso, informed me that citizens of El Paso who belonged to the more elevated rank of society, and consequently had it in their power to supply themselves with such a diet as was required by their necessities, were subject to fatal attacks of this disease.<sup>42</sup>

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42. Senate Executive Document 119, p. 254. Bigelow to Bartlett, Santa Rita Copper Mines, June 19, 1851. *Report of the Secretary of the Interior*, 32nd Cong., 1st Sess.

Because of the nature of the work, the Boundary Commission lived under canvas. On rare occasions such as San Diego in 1849 and Santa Rita de Cobre in 1851, housing was available. In both cases it was less than the best. General Garcia Condé, the Mexican Commissioner, could find only a "miserable house in the Presidio, all living in a single room in which later was arranged all the instruments that [they] brought."<sup>43</sup> When the Joint Commissioner moved to the Copper Mines in 1851, some of the housing was described as "so much dilapidated that it seems to me to be a greater labor and expense to repair than build houses."<sup>44</sup>

During the six years that it took to complete the international line, the men of the boundary commission encountered a wide variety of weather and topography. In a desert land they were drenched by thunderstorms. The barren desert waste contained river valleys of incredible lushness that brought shouts of admiration. On the California desert the wind seared the skin, but at El Paso the Rio Grande froze in the winter. The boundary crossed rolling hills of sand and went down canyons whose walls rose perpendicularly from the river. It was all in all, a most singular country.

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43. Salazar, *Datos de Los Trabajos*, p. 12.

44. James Meyers, Quartermaster, to Bartlett, Copper Mines, April 21, 1851. Correspondence, March-July 1851, Bartlett Collection. Meyers went on to request the presence of carpenters tools, and material to do the work.

## CHAPTER 3

### Discontent and Disorder

#### "Discontent and Disorder Would Inevitably Follow"

Maj. W. H. Emory to Lt. N. Michler  
May 18, 1855

The problems which weather and terrain presented were only part of the difficulties that the men of the two commissions faced. Both sides at various times suffered from internal political and personal conflicts, the American Commission considerably more than the Mexican. In contrast, relations between the two parties were extremely cordial and several strong friendships developed between members of the two commissions. During Bartlett's tenure as commissioner there was a Pandora's box of problems to plague the work on the border, including labor troubles and, closely related to it, financial problems. The former served to complicate the existence of the commission. The latter severely hamstrung operations and ultimately forced a halt for six months. Compared to crossing the Colorado Desert, near-catastrophe in the canyons of the Rio Grande, drenching downpours in Arizona, or absence of water on the Yuma Desert, the political and economic problems of the two commissions were often, in their complexity, more difficult and troublesome.

From the very beginning the American Boundary Commission was plagued by an inordinate number of political problems and personality

conflicts. John B. Weller, from the time of his arrival in California until his removal six months later, was subjected to constant harassment by the administration of the opposition party. Weller on March 1, 1851, in a bitter letter to Secretary of the Interior Thomas Ewing, commented on the "fortunate" and "unfortunate" aspects of suspension of payment of his vouchers. He caustically commented on the Secretary of State's lack of knowledge of geography in directing a letter of instruction to him:

The letter to which you allude from the Secretary of State, under date 26th June, has never been received . . . . It may have been directed in the same way that his communication of the 15th March was directed, (San Diego, Mexico;) and if so, its failure to reach me is easily accounted for. A little knowledge of the geography of the country often times facilitates the transmission of letters.

It is unfortunate for me, although fortunate for the government, that letter was not received--unfortunate because its receipt would have justified me in withdrawing from the commission at once, and engaging in business more agreeable and much more profitable than the public employ; besides, I would not have made myself liable to suits for damages upon protested drafts.

It is fortunate for the government because its reception would have necessarily disbanded the commission, and suspended the work for an indefinite period . . . . In this event, instead of completing the line from the Pacific Ocean to the mouth of the Gila river, (except for placing the monuments at the points agreed upon,) as is now the case, the commission would have been broken up, and compelled to reorganize and reassemble at San Diego at some future day. This would have subjected the government to an additional expense of at least fifty thousand dollars. So that

whilst the failure of that letter to reach its destination may, as it already has, inflict injury upon me individually, the government has profited very much.<sup>1</sup>

Not only because of the nature of the work--laying down a boundary for newly acquired territory in a time of rising sectional differences--but also because the job of commissioner was considered to be a political appointment, the Boundary Commission was entwined in politics. The location of New Mexico's southern boundary was considered crucial to southern expansionists who hoped for a southern transcontinental railroad. The dispute over Mr. Bartlett's agreement with General Conde in 1851 halted the survey in December 1852 and precipitated an international crisis, which was ultimately solved by the Gadsden Purchase.<sup>2</sup>

The effect of domestic politics on the working of the American commissions was considerable. It resulted in the removal of Weller and his replacement by Bartlett. Besieged by jobseekers, Bartlett selected an excessively large number of employees. He led these "young gentlemen" across Texas to El Paso during the fall of 1850. Soon after the arrival of the party the glamour of western adventure wore off and complaints began.

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1. Weller to Ewing, San Francisco, March 1, 1850, *Report of the Secretary of the Interior*, 32nd Congress, 1st Session, Senate Executive Document 119, pp. 74-75.

2. Because of the complexity of this topic and the many facets, this report cannot discuss it at the length it requires. There have

Mr. W. Bausman wrote in January 1851 to complain of his appointment as a chain bearer at \$1.25 per day while others were receiving \$1.50:

I have rendered the Whig Party some service, a laborer for nine years in its service as the Editor of several public newspapers; in which profession it was finally my misfortune to suffer total, but honorable bankruptcy You are informed . . . that the people among whom I conducted these several enterprises did not suffer me to depart from them without flattering manifestations of popular approbation.<sup>3</sup>

The rate of pay also bothered another member of the commission, who commented that had he known it was to be "so economical an expedition" he would not have left his home and friends to live "in such a country as this." But to this "young gentlemen" it was not the pay, but hurt feelings that prompted his request to be returned to the East:

There are a number of young men, in this expedition, who are old acquaintances of mine; some of them old school mates, and my juniors in class. Now, so far as my merits are concerned I have nothing to say and if I cannot say

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been several good treatments of it, including: Odie Faulk, "The Controversial Boundary Survey and the Gadsden Treaty," *Arizona and the West*, 4, (1962), 201-27; Faulk, *Too Far North . . . Too Far South*, (Los Angeles, 1967); W. H. Goetzmann, *Army Exploration in the American West* (New Haven, 1959), pp. 173-79 and 186-195; and Edward Wallace in the first seven chapters of *The Great Reconnaissance* (Boston, 1955) discusses Bartlett's tenure as commissioner.

3. W. Bausman to J. R. Bartlett, Socoro, Texas, January 17, 1851. Correspondence, January to March 1851, Bartlett Collection.

more of theirs, it is not for me to say less. They, on what claims I know not, have preceded me and it is this, that wounds my pride and it is of this that I would like to speak were my tongue as quick to utter, as my heart to feel.<sup>4</sup>

In most instances, Bartlett's reaction to these complaints is not known. An exchange of correspondence in January 1851, however, reveals that he was not the total "humanitarian" some writers have made him out to be. Again the complaint was about rate of pay, \$720 per year. The writer of this undated letter complained that he as a topographer was receiving lower wages than mechanics and laborers, and the same pay as a "large number of young gentlemen who do not understand anything about surveying." He demanded \$1,200 per year or he would not be able to do the work required. The Commissioner's reply was detailed, answering his complaints in full, and closed as follows:

Understanding therefore, that you will not serve for less than \$1,200 a year, and are dissatisfied in other respects you are at liberty to leave the commission.

I will at once direct Messrs. Chubb and Schenck to stop the allotment to your wife.<sup>5</sup>

A week later Mr. Hesse replied to Bartlett's letter and begged to withdraw his complaint. Bartlett reinstated him, but on February 21,

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4. J. Thomas McDuffie to Bartlett, El Paso, Mexico, January 22, 1851, *ibid.*

5. Bartlett to Eugene Hesse, El Paso, January 18, 1851, *Report of the Secretary of the Interior*, 32nd Congress, 1st Session, Senate

Messrs. Hesse, Steinwehr, and Hippel tendered their resignations in consequence of "inadequacy of pay and dissatisfaction as to position." The resignations were accepted by Mr. Bartlett. This self-pruning of the commission went on for another few months, but still there was an inordinate number of employees burdening the payrolls.

A sense of the way the winds of politics were blowing caused the resignation of one of the more valued members of Bartlett's immediate party, Interpreter John C. Cremony. A week after Cremony arrived at San Diego in February 1852, he received a letter from Senator Jere Clemens of Alabama, Cremony's Lieutenant Colonel during part of the Mexican War, informing him that the appropriation for the Boundary Commission was in trouble. A proviso introduced by Senator John B. Weller of California, former boundary commissioner, might make money unavailable with the result that "we would be disbanded in the deserts without money or means of return to our friends and home in the East."<sup>6</sup> In view of this Cremony left the boundary commission in May of 1852.

In addition to political problems, there were also personality clashes within the commission, ranging from minor irritation to

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Executive Document 119, p. 191. Chubb and Schneck were bankers handling the Commission's accounts.

6. Cremony, *Life Among the Apaches*, p. 129.

proposals to settle disputes on the field of honor. Lt. Cave J. Couts commanded the escort for Lieutenant Whipple when he traveled to the junction of the Gila and Colorado in September of 1849. Couts' opinion of the lieutenant did not improve as time passed. On September 16 he confided to his diary that Whipple's disapproval of coarse talk about the campfire marked him as "being modest as a young maiden." Three days later it was Whipple's desire to receive all the credit for the observations at the mouth of the Gila. "That he wanted the Indians and emigrants to know and understand that he was going to do this and not me, because, what they heard was published to the world and from the world to the newspapers."<sup>7</sup> On the same day he also confided to his diary his disgust at Whipple's protestations against night marches: "Washington City dandies with white kid gloves, etc don't like roughing it anymore than having to get up early in the morning, saying nothing of losing a nights sleep."<sup>8</sup> Ten days later Couts' opinion had not changed. On October 1 he described Whipple's selection of a camp and added: "Take him away from his books, and he is not worth a tinker's d---n for anything under God's heaven. I now doubt his capacity for determining the position of the mouth of the Gila. With the aid of Dr. Parry he may succeed."<sup>9</sup>

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7. Couts, *From San Diego to the Colorado in 1849*, p. 11.

8. *Ibid.*, p. 12.

9. *Ibid.*, p. 29.

In addition to Coutts' lack of admiration of Whipple, there was the less-than-harmonious relations that existed between the three topographical engineers, Emory, Whipple, and Hardcastle, and the Chief Surveyor of the Boundary Commission, A. B. Gray. This antagonism continued for two years. In May 1851 Captain Hardcastle was writing to his superior, Major Emory, about Mr. Gray's claim that he had run, marked, and taken the topography along the boundary from the Pacific to the Gila:

Now I am of the opinion that this work had been done by myself and those immediately under my direction--except the producing and marking of the line by Yourself from the Pacific Coast to "Mon. No. 5" and none other. I shall claim it as due to myself and to those who have so faithfully aided me that the truth may be known, and I shall call upon you as my Commanding Officer to state the facts and I shall request of the Hon. Secy. of the Interior to be informed upon what data . . . he, Mr. A. B. Gray, can lay claim to work done by me. I trust you have taken steps to expose the falsehood.<sup>10</sup>

Emory acted to clarify this matter with Secretary of the Interior Stuart and presumably took great pleasure in doing so, for his admiration for Mr. Gray was limited.

The bitterness that existed in California during 1849 and 1850 was minimal in contrast to relations between the gentlemen of the survey during Bartlett's tenure. The problems started before the party reached the Texas coast. There was a series of disputes

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10. Hardcastle to Emory, Camp Stuart on New River, May 2, 1851. Emory Papers.

between Lt. Issac Strain<sup>11</sup> and Bvt. Lt. Col. John McClellan, Chief Astronomer. Conditions were not eased during the trip to San Antonio. Lieutenant Strain left the expedition there to return to Washington, where he preferred charges against the Colonel before the Secretary of the Interior. During the march from San Antonio to El Paso, McClellan and Quartermaster James Meyers became embroiled in a continuous debate over choice of camp sites, protection of the livestock, and issuance of supplies. Lieutenant Strain's complaints received a favorable response and Secretary Stuart wrote to Bartlett ordering McClellan's recall:

It having been reported to this Department that the habits of Bvt. Lt. Col. J. M. McClellan, U. S. Top. Engineers . . . are so bad as to render his continuance in the expedition a source of discredit to the Government and Country, you are hereby directed to take measures to cause him to return and report himself at this department.<sup>12</sup>

Stuart counseled Bartlett to allow the Colonel to be permitted to withdraw on basis of illness so as not to wound "the high toned and gentlemanly corps of which he is a member." Stuart noted that if McClellan declined he was to be relieved of duties and officially

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11. Lieutenant Strain (USN) was to command the flotilla of four iron boats that Bartlett planned to use on the Rio Grande and Gila Rivers, none of which were ever used. Strain did organize and command the cavalry detachment during the march to San Antonio. Wallace, *The Great Reconnaissance*, pp. 10-11.

12. Stuart to Bartlett, Washington, October --, 1850. Official Dispatches, Bartlett Collection. It is worth noting that references to "Major Emory" have been crossed out and the words, "the officer" substituted.

informed that a report has been lodged against him "for habitual drunkenness and conduct unbecoming an officer and a gentleman and that these charges will be preferred if he refuses to resign the position he now holds in the commission."<sup>13</sup> In early December a series of letters passed between Commissioner Bartlett and Colonel McClellan. Bartlett's attempts to secure his resignation on grounds of health failed. McClellan demanded to know the charges and by whom preferred as well as the names of the witnesses. On December 16, 1850, Bartlett notified him that he had been relieved of duty. Three days later McClellan acknowledged this and commented:

It is the first time an officer of the army has suffered punishment before conviction; and as I do not fear the charges preferred against me, I will have them tried, and give their author an opportunity to substantiate them. I will . . . take the small ambulance at its original cost, the amount of which you can deduct from what will be due me in the settlement of my accounts.<sup>14</sup>

Colonel McClellan returned to Washington, was not reprimanded, and was placed in charge of the Tennessee River Surveys. Lieutenant Strain was reassigned to other duties.

During the interim, after McClellan's departure, Lieutenant Whipple was appointed to fill his position. Early in the next year, news of the selection of Colonel James D. Graham to replace McClellan

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13. *Ibid.*

14. McClellan to Bartlett, San Elizario, December 19, 1850. *Report of the Secretary of the Interior*, 32nd Congress, 1st Session, Senate Executive Document 119, p. 31.

was received. This must have warmed the heart of Lt. Amiel W. Whipple in view of the letter he wrote to Graham the previous October. He proclaimed the Colonel "one of my best friends and in every situation in which fortune has placed me, my second thoughts have been would Col. Graham in my place have done as I have done."<sup>15</sup> Whipple then notes his pride in acquiring some of Graham's methods and habits of observation and expresses a hope that he might acquire a "tenth of your professional reputation." He continues "[I am] exceedingly well pleased with Col. McClellan. He is a man of science and has an excellent appreciation of character. Long as he remains my chief I have no fear for the credit of the corps."<sup>16</sup> Major Emory did not fare as well under the Lieutenant's scrutiny. "But I say it fearlessly--restore Maj. Emory to the position he has occupied and jealousy, lest some assistant may share in the credit due the work, will cramp if not defeat the operations of the survey."<sup>17</sup>

The arrival of Colonel Graham at El Paso in mid-July of 1851 was the beginning of another very trying time for John R. Bartlett. Colonel Graham came with certain views of his role in the work of

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15. Whipple to Graham, Piedro Pinto--138 miles from San Antonio. Enroute to El Paso, October 29, 1850. Correspondence, 1850, James D. Graham Papers, Yale Western Americana Collection, Yale University.

16. *Ibid.*

17. *Ibid.*

the American commission that conflicted with Bartlett's and made for bitter relations between the two men during the two and a half months they were together. Graham came to the commission with a fine reputation based on a long career in the military, dating from his graduation from West Point in 1817 and including the survey of the boundary between Maine and Canada in the 1840s. He also had the support of other officers and professional members of the commission besides Lt. A. W. Whipple: "If not already acquainted with Colonel Graham I think you will find him a pleasant gentlemanly companion and a man of high scientific abilities, affable and kind in his deportment, but enough of the \_\_\_\_\_ [not legible] to make him respected."<sup>18</sup>

From the beginning, when Graham sent Bartlett notice of his arrival and the clerk mistakenly enclosed the pencil draft instead of the formal letter, the men were at odds. Bartlett wrote in his "Personal Journal" on Tuesday, August 5, that Graham had called on him "by appointment":

About two hours were spent in his abuse of Maj. Emory, as much more time in praising himself, and the remainder or the time till 4 o'clock in defending his claim to a higher position with the Commission than that of principal surveyor. I did not recognize his claims. He was urgent to be introduced to the members of the Commission and his position and rank defined to them. I declined doing so until it was better understood between us, but at his request I consented to present him to the members tomorrow morning at 10 o'clock.

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18. M. T. W. Chandler to Bartlett, Fronteras Observatory, July 24, 1851. Correspondence July to December 1851, Bartlett Collection.

He said that he heard that many of the assistants were calling on and reporting to Mr. Gray, whereas they had not noticed him.<sup>19</sup>

Graham retaliated for Bartlett's refusal to consider him subordinate only to the commissioner by refusing to issue supplies to members of the commission not included on his roll of members. This exasperated John C. Cremony, and he wrote Bartlett enquiring "by what right he dares to refuse the necessary issue of provision to me, especially when approved by yourself":

For my future guidance in this matter I humbly request to be informed if Colonel J. D. Graham is the Quarter Master and Commissary of this Commission or not? And also whether your orders and desires are to be hereafter complied with by him. I am compelled to make this complaint to you as my head and Chief and the Comman [sic] Director of the Whole Commission in consequence of my being without food for some time, and according to appearances, likely to remain so for an indefinite period.<sup>20</sup>

The tension continued to build through the remainder of August and the first three weeks in September. The final explosion came at Santa Cruz, Sonora, on September 25. Graham and Bartlett were walking back from the village towards the camp. The colonel requested a drink of water and was invited into Bartlett's tent. Dr. Thomas Webb was present and the conversation turned toward the shortage of provisions. Webb blamed Graham for the problem since he had held provisions, intended

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19. "Personal Journal," August 5, 1851. Bartlett Collection.

20. Cremony to Bartlett, Santa Rita del Cobre, August 22, 1851. Correspondence July-December 1851, Bartlett Collection.

for the Copper Mines, at Fronteras and the large party with Graham was a serious drain on the scant supplies available. Graham stated he was under orders of the Secretary of the Interior to meet the Mexican Commissioner and told Webb not to get excited or in a passion. Webb replied that he was neither excited nor in a passion, but always talked loudly; inwardly he was not excited but calm as ever. The conversation continued with Webb repeating his charges that the commissary department was poorly run and Graham negligent. The Colonel continued to refer to Webb's passion:

The Doctor then said, "Colonel, if you say I am in a passion after what I have told you, you say what is false." The Colonel then rose from his seat greatly excited, and shaking his finger in Dr. Webb's face said, "Do you charge me with falsehood?"--to which the Doctor replied, "If you say that I was in a passion, after my explanation to you of my usual manner, you do say what is false."<sup>21</sup>

Charges of drunkenness, swearing, baby talk and black guardism were then exchanged by the two men. The result was a challenge by Colonel Graham to Doctor Webb to "settle the matter according to the rules of honor." Webb replied after a "night of calm repose" and declined "to take the field and endeavor to blow one another's brains out, or cripple one another for life."<sup>22</sup> Webb's reasons for declining to duel was that he had entered into obligations to discharge certain duties on the

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21. "Personal Journal," September 25, 1851. Bartlett Collection.

22. Webb to Graham, Santa Cruz, September 26, 1851. Correspondence, July-September 1851. Bartlett Collection.

boundary commission and until he had completed this obligation, "my time is not my own to trifle with, or to use in any manner which may interfere with these duties." He closed with the offer to receive "any apology which you may be disposed to make for the false accusation unexpectedly uttered against me in my tent at the interview to which you refer."<sup>23</sup>

A few days after this encounter, Bartlett, Webb, and a small party continued south in search of supplies. Graham returned to El Paso to begin work on the survey of the Rio Grande. In late November, Major Emory arrived to relieve him as chief astronomer and also to assume Gray's position as Surveyor. Bartlett, absent from operations along the Rio Grande boundary for almost eleven months, never again had contact with those individuals who had caused him so much provocation during the first year of his tenure as commissioner. In an undated memorandum among his papers he commented on several of the officers connected with the survey. For Whipple and Strain he had praise, and merely recited the cause for McClellan's removal, but Col. James D. Graham was another matter:

He did not report to me until 10 months after his appointment. He opposed too much--claimed precedence over all--retarded my operations and gave much trouble. I endorsed the correspondence between him and myself to the Department.

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23. *Ibid.*

The Cabinet and President sustained me and Graham was recalled.<sup>24</sup>

The advent of Emory as Surveyor and Chief Astronomer did not mark the end of harsh opinions from members of the commission toward Bartlett. Emory was quick to take offense at an article in the New Orleans Picayune during September 1851, which stated he had been ordered to report to Commissioner Bartlett to assist in the labor of the survey. To Emory, he was relieving Colonel Graham and was not an assistant to Mr. Bartlett, but a "co-equal." "I have seen rather too much service to be an asst. to any man that has not a pair of Epaulettes on his shoulders and who does not rank me in the Army."<sup>25</sup>

During 1852 Emory, involved in the survey of the Rio Grande, had a considerable amount to say about the absent commissioner in regard to the dire financial problems of the boundary commission. When Bartlett took a circuitous route to join him in the fall of 1852, Emory's wrath found expression in a letter to Lt. Nathaniel Michler:

Now then here I am without money, the checks repudiated at Washington and all authority placed in hands wholly and entirely irresponsible. Irresponsible because absent, and absent for purposes having no connection with the business of the Commission.

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24. Memorandum, no date. Letters of J. R. Bartlett, 1850-54 (Gift Lehigh University), Bartlett Collection.

25. Emory to Captain Cleary (?), New Orleans, September 28, 1851. Emory Papers.

For one whole year this has been the case and I cannot think the Honorable Secretary will expect me to perform any longer impossibilities . . . .

The pretext for this second trip of pleasure is the danger of passing along the road without an escort. Now the Indians in Mexico are worse than they are on the road in question, and two trains have passed along the road since Mr. Bartlett's arrival with either of which my assistants could have come, and the Commissioner himself if he had chosen.<sup>26</sup>

After a six-month suspension, the work resumed under a new commissioner, General Robert B. Campbell. Within a few months the Rio Grande boundary had been completed. In June 1854 the Gadsden Treaty was ratified by both nations and in September, Emory, now the Boundary Commissioner, prepared to leave for El Paso. He arrived there in late November and early the next month met with Señor Salazar, the Mexican Commissioner. The survey of the Gadsden Treaty line was so routine to be dull after the sometimes tumultuous events of the first five years. The only problems revolved around Lieutenant Michler's slowness in arriving to meet Emory at Dos Nogales in Arizona, the lack of support in the work by the Mexican Commission, and the arrest of Salazar by the government of Mexico.

In May of 1855, Emory, irritated by Michler's non-arrival as well as by his lack of communication, ordered him to do the following:

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26. Emory to Michler, Camp near Fort Duncan, October 26, 1852. Emory Papers.

send his three assistant surveyors to Emory along with all notes taken by the lieutenant; return with the remainder of the party to Los Angeles and disband; ship himself and the instruments to Washington; if there were more rations than necessary for the return to the coast to send 1,000 rations to Emory at Nogales; and finally, because of the discrepancy in salaries, to prevent the laborers of the two parties from visiting, for "discontent and disorder would inevitably follow."<sup>27</sup> Michler's reply on May 26 defended his actions. Emory still was not satisfied and ordered him to leave his train in Tucson and come to his camp with all papers relative to public property in his possession and a statement showing the wages paid and amount owed to the hired men of his party.<sup>28</sup> Apparently Michler's explanations in person were sufficient, for Commissioner Emory agreed to his continuing his work on the boundary west of Dos Nogales.

The lack of support by the Mexican party was mentioned several times in Emory's letters to Robert McClelland, Secretary of the Interior:

I regret again to call your attention to the failure of the Mexican Commission to perform its proper share in the expense and labour of surveying and marking this Boundary. So far we have received from them no assistance whatever and at last account, they had not left El Paso and the Indians had run off most of their animals from the Initial point within a few miles of that town.

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27. Emory to Michler, Camp at Dos Nogales near the 111th Meridian Longitude, May 18, 1855. Emory Papers.

28. Emory to Michler, Santa Cruz, June 1, 1855. Emory Papers.

When our estimates were made, and parties were organized it was on the assumption the Mexican government would contribute its portion of expenses, and furnish its portion of men. So far we have received no material aid from the Mexican Commission, and it is unjust to the U.S., particularly to the American Commission to be required to do the whole work.<sup>29</sup>

The failure of the Mexican Commission to aid in the work was traceable to a lack of funds and revolutionary activities in Mexico leading to the overthrow of Santa Ana. Because of his suspected identification with the deposed dictator, Salazar was arrested. Emory learned of this when he reached El Paso in late July. He wrote to the Secretary of the Interior on August 9 expressing his surprise in learning "that in the month of May last, the Mexican Commissioner was arrested by order of the Supreme Government of Mexico and carried prisoner to Chihuahua."<sup>30</sup> Five days later Salazar was back in El Paso. The Journal of the Commission for August 16 referred discreetly to the fact that he was "necessarily absent" during the survey of the line.

Despite Emory's unhappiness with Salazar and the Mexican Commission during 1855, relations between the two nations were far

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29. Emory to McClelland, Camp at Lat. 31°20', March 23, 1855. Emory Papers. This was perhaps the most serious verbal blast Emory took at the other commission. In May he commented that the Mexican Commissioner was still at El Paso.

30. Emory to McClelland, El Paso, August 9, 1855, Letters Received Fourth U.S. Commissioner, 1849-60, Item 425, NA, RG76, Southern Boundary (Mexico) 1849-60.

more cordial than those within the American Commission. From the first contacts in 1849, when the Americans helped unload the surveying instruments of the Mexican Commission, to the completion of the survey in October of 1855, there was constant cooperation and friendship between the two nations.

The Mexican Boundary Commission arrived in San Diego on July 3 1849. The next day they were invited by the Americans to join in the celebration of Independence Day. Commissioner Weller delivered an oration in honor of the event, and a dance was held in the evening "in order to celebrate it more."<sup>31</sup> Toward the end of July, Señor Salazar called upon Major Emory for the use of two or four mules to bring his wagons into camp and apologized for "the trouble I give and the faults I have committed." Emory replied that it gave him great pleasure "to comply with your request and I send at once to the grazing camp an order for a teamster to go up with four mules to meet you."<sup>32</sup> Emory's quick response to Salazar's request was illustrative of the fine relations between the Americans and the Mexicans less than two years after the war had ended. The companionship included not only the officers and men of the commission, but also the military men commanding the escorts. On September 30, 1849,

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31. Salazar, *Datos de los Trabajos*, p. 12.

32. Emory to Salazar, Camp Riley, ca. July 27, 1849. Emory Papers.

Lieutenant Coutts, whose jaundiced view of Lieutenant Whipple we have already read, was visited by Colonel Corrasco, commander of the Mexican escort, at his camp near the Colorado River:

Col. Corrasco came into camp today early. I had heard that he had left the upper landing last night and although wishing to see him, was quite delighted that he had left for fear that he would call on me for provisions. Such turned out to be the case. Hearing of me below, he broke straight for me, and provisions was [sic] the first thing. It was like drawing teeth, but I was bound to supply him upon the promise that he would return them in less than a month. I cracked a couple champagnes with the Colonel and he came near talking me to death, though touched it lightly. He went over all the battles of Mexico, particularly those wherein he acted so nobly, discussing the qualities of Scott and Taylor extensively. Thinks Taylor the greatest man in the world, and Scott the smallest. Taylor a humane general, and Scott a barbarian; that in a few years St. Louis will be the Capital of the United States, which will include all the northern continent. That in less than one hundred, Panama will be the capital and include the two continents, the western hemisphere, and about the same time there will be one grand battle fought, and the capital at Panama will be the capital of the world. His imagination is fanciful, if not flighty, he is a man of quick and lively temperament, active physically and always ready, passionate and irritable.<sup>33</sup>

One of the warmest relationships was between Major Emory, General Condé, and Señor Salazar. It began in California and lasted until the survey was completed six years later. When Emory took over as Acting Commissioner in February of 1850, Condé sent him a warm letter expressing his pleasure at his appointment and praising "your previous

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33. Coutts, *From San Diego to the Colorado*, pp. 25-26.

scientific pursuits and the knowledge you possess of the subject upon which we are engaged."<sup>34</sup> Emory's acknowledgment noted "the just and enlightened course you have pursued as commissioner" and indicated that he anticipated an agreeable association. Condé left soon after and Emory never saw him again as the General died in December of 1851 at Arispe, Sonora. Upon hearing of his death, Major Emory, in charge of the portion of the commission at El Paso, made the following comment in an order to the officers of the commission:

His long association with many in this commission has impressed them with a high sense of his justice, his virtues, and his abilities.

From the time of his landing at San Diego in June [sic] 1849 to the day of his death, his intercourse official and personal with the officers and men of this commission has been without reproach to him and has increased the respect entertained for his elevated character.

I therefore in the absence of the United States Commissioner as a mark of respect for the illustrious dead invite all Officers under my control, and all others belonging to the Commission to wear crape on the hilt of the sabre and on the left arm for thirty days.<sup>35</sup>

Major Emory wrote to Señor Salazar enclosing a copy of the order to his command and noting Condé's eminent service, integrity, and ability.

The respect that the Mexican Commission had for the Major during 1849-50 was summed up by Salazar in his published report:

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34. *Report of the Secretary of the Interior*, 31st Cong., 1st Session, Senate Executive Document 34; 2, 7.

35. Order to his Command, El Paso, January 20, 1851. Emory Papers.

Before concluding it is just that I manifest to Messers [sic] Weller, Emory and Gray and other individuals of the American commission for me and taking to me the liberty to do it for Mexico and the Commission the most sincere gratitude for the consideration and concern that they gave such repeated samples. To all we give a thousand regards, but to Mr. Emory who made himself indispensable, to give to him in particular the most expressive thanks for the services that so much from the heart he gave us. Never will I forget the smile that animated the grave face of this scientific soldier always when speaking to or seeing some of our Commission. This smile translated itself saying to us, "I am American, but without being a traitor could, like a brother of all men love the Mexicans, love the sister republic of Mexico."<sup>36</sup>

Señor Salazar took over the job of boundary commissioner on Condé's death and during 1852 he and Emory worked together on the Rio Grande. Their relationship was very cordial and, except for the problem of approving the initial point on the Rio Grande, there was little to mar the "happy harmony" of their work. Salazar in a private note to Emory commented on the cooperation and sacrifice that each side had made:

The happy harmony which has existed between the members of both Commissions since the beginning of our work has obliged them to make sacrifices in regard to the others. So it was in California firstly when Mr. Weller told to the General that he was not prepared for running the line as soon as the General wished. Captain Hardcastle was after in wait of Mr. Ramirez in San Diego. The past year we awaited Lieut. Whipple till he had

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36. Salazar, *Datos de los Trabajos*, p. 38.

fixed the initial point and in the demarcation of the line we waited also.<sup>37</sup>

In late August the two men agreed to divide the survey of the Rio Grande into six segments: the first and last parts to be surveyed by both parties, the second and fourth by the U.S. Commission, and the third and fifth by the Mexican Commission. Each nation was to have the right to send an officer as an observer with the other commission to make a general reconnaissance of the territory. In September of 1852 this agreement was approved by the two commissioners, Bartlett and Salazar.<sup>38</sup>

In the fall of 1854, each man took great pleasure in learning that the other had been appointed as commissioner to execute the survey of the Gadsden Treaty line. A note on November 30 contains Emory's "real pleasure" at learning of Salazar's position and his belief that: "It is an omen of rapid and successful completion of our labors." Two days later Salazar presented his respects and indicated his eagerness to "embrace" Emory. "Be welcome and receive my sincere regard."<sup>39</sup> This sincere regard for each other continued during the year that followed.

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37. Salazar to Emory, El Paso, April 17, 1852. Emory Papers.

38. Official Journal of the Boundary Commission, September 18 and 30, 1852. Bartlett Collection.

39. Emory to Salazar, San Elizario, November 30, 1854; Salazar to Emory, El Paso, December 2, 1854. Emory Papers.

Commissioner John Russell Bartlett, like Emory, developed extremely friendly relations with his Mexican counterpart, and this feeling was reflected throughout the two organizations. Though the commissioners began work immediately after their first meeting in December 1850, time was also given over to a series of dinners hosted alternately by General Condé and Mr. Bartlett. On February 21, 1851, Bartlett and the American Commission gave an extremely lavish affair to celebrate Washington's birthday. The house of James Magoffin, the largest in the area, was used and decorations were improvised by the American Commission. The walls were draped and curtained with alternate strips of blue, white, and red and green, white, and red to represent the national colors of both countries. At one end of the room the colors were woven and interlaced "in amicable and graceful festoons." Light came from candles in sardine cans attached to a hoop of a pork barrel. Four of these chandeliers illuminated the room and each, with its dozens of candles, was wrapped in cloth of a scarlet hue and suspended by several loops of the same material from a common center. The food sent a correspondent of the *Providence Journal* into rhapsodies of praise as he described the "substantial but epicurean" dishes set before the guests:

Bear's hams from the Copper Mines and pork hams from Virginia, venison from the Prairie and delectable fish from the Rio Bravo del Norte, mutton from the mountains, and beef from the vallies [sic], birds

and poultry from the pond, the lake, the river and the plain, cheese from England, maccaroni [sic] from Italy, potatoes from Chihuahua, and green peas from Dona Ana, Bordeaux from France and water from heaven.<sup>40</sup>

About eight in the evening the guests began to arrive and after the lavish meal, toasts were offered and honored by the guests. Dancing followed and more than sixty "lovely señoritas of Paso del Norte joined in to provide partners for the men from the boundary commission, the town, and the surrounding area." The dancing was characterized by "relish, gusto, esprit, animation, joy and hilarity." At the end of the evening "the guests dispersed to their various homes, delighted with their amusement and charmed by the courtesy and attention with which they had been treated."<sup>41</sup>

During the spring and summer, relations between the two nations continued to be cordial. The patience of the Mexican Commissioner was tried, however, by the delays in surveying the southern boundary of New Mexico. General Condé sent a strong complaint to Bartlett over this and particularly Whipple's withdrawal from the work at the end of June. Bartlett replied that he also was surprised by Whipple's actions. Had he known of Colonel Graham's order to Whipple to report to Frontera near El Paso, he would have instructed the Lieutenant

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40. Newspaper Releases, pp. 68-69. Bartlett Collection.

41. *Ibid.*

to make arrangements to assure there would be no interruption in running the line. After meeting at Santa Cruz in the last week of September, the members of the two commissions divided into several smaller parties. Señor Salazar and Colonel Graham went to survey the Rio Graham. Lieutenant Whipple, Mr. Gray, Señor Jiménez, and General Condé traveled to the Gila River. Mr. Bartlett and a small party continued south in Mexico in search of supplies for the Gila River survey crews. Dr. Thomas Webb summarized relations with the Mexican Commission in a letter to Bartlett: "I have seen much Mr S[alazar], as well as of Messers Jimenez and Aleman, and the more I see the better I like them. They are all very friendly disposed."<sup>42</sup>

The contrast of relations between the two commissions and the relations within the American party has already been noted. Another of the factors, besides politics and personalities, that created problems for the American commission was the dissatisfaction of the laborers. In California, in both 1849 and 1855, laborers unhappy with working for the Boundary Commission could desert to the gold fields, and many of them did. During the period that the survey was on the eastern end of the line near El Paso or working on the Rio Grande, the men remained and complained, rather than leaving.

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42. Webb to Bartlett, Santa Cruz, September 22, 1852, Correspondence, January-December 1852, Bartlett Collection.

Most of the reasons for complaint--poor pay, lapse in pay, personal jealousy, disillusionment with the work, or hardship--have already been discussed. Two other causes were poor food and what can only be described as a clash between eastern and western mentalities.

In early January 1851 a note was addressed to Commissioner Bartlett by 25 members of the Boundary Commission. Their complaint dealt with the quantity and quality of the supplies issued. They had no complaints about the sugar, coffee, salt, and soap, but they considered the rice inferior in quality and believed that it would be condemned by a board of survey. The pork, they charged, "was condemned at the military post and which we unhesitatingly say is unfit for use." The flour they felt was, on comparison, much inferior to flour that had been condemned as unfit for use at the military post at San Elizario, Texas, and would be injurious to their health. To these two-score-plus men, the beef issued them "would not be eaten by a man regardful of his life and health." Finally they had not been issued any bacon, saleratus, or hard bread, and frequent complaints to the Commissary, George F. Bartlett, had been ignored.<sup>43</sup>

John R. Bartlett responded immediately to the complaints. In a letter dated January 6, he pointed out that both he and the officers

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43. *Report of the Secretary of the Interior*, 32nd Congress, 1st Session, Senate Executive Document 119, p. 43. George F. Bartlett was the brother of the Commissioner.

and men of the military post at El Paso were supplied from the same source and that the food has been transported a long distance during the heat of the summer. In the days that followed, military men attached to the post near El Paso verified that the food served the men of the commission was the same as that served the soldiers and that it was a suitable quality. Whether convinced or not, the complaint by the men was not renewed.

J. H. Prioleau, 1st Assistant Surveyor of the Boundary Commission, formulated some rules of the camp for application to the survey parties working under his direction. He transmitted a copy of them to Bartlett with the comment that he had confiscated two decks of cards and burned them, though the owners claimed they were merely showing some card tricks. If Mr. Prioleau enforced the rules he read to the men, it is no wonder there was discontent in the ranks of the labor force:

Gentlemen:

As you are detailed under me for the purpose of which you may not be aware, I hereby make known to you the rules and regulations of our party and I shall immediately discharge any one from the survey who I am satisfied has broken anyone of them.

1st. There shall be no card playing or gambling of any description in tents or in quarters.

2nd. No young gentleman of the party shall associate more intimately than the exigencies of the services requires with any teamster, servant or cook.

3rd. Each person (except cooks, teamsters and servants) shall subscribe for \$5.00 to the mess acct and deposit the same in the hands of the Caterer.

4th. No teamster, cook or servant shall presume to sit down to any meal until all the Gentlemen of the party have finished.

I am solely responsible for the above orders, and I promulgate them, Gentlemen, for your own advantage and to preserve discipline on the survey. No party can go (as ours probably will) to the Gila River and the shores of the Pacific without discipline and if you associate and make familiar friends of the servants etc all discipline is destroyed and we will never get through with the survey on which we are ordered.<sup>44</sup>

From December of 1851, when Emory took effective if not actual control the work, until the completion of the boundary survey in October 1855, labor problems were minimal. During 1852 Emory discharged as many of the commission as he could afford to in order to cut down on operation costs. In the summer of 1853, when work on the Rio Grande frontier was completed, the crews were small and efficiently organized. The work on the Gadsden line was done with a very small force under tight financial controls. In each of the final two cases there were no problems of the type that plagued the commission during the first two years.

Closely linked with the problems caused by the employees were financial crises, especially during 1852. The fiscal problems caused

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44. Prioleau to Bartlett with enclosure, San Elizario, February 16, 1851. Correspondence, January-March 1851, Bartlett Collection.

by political intrigue during John B. Weller's term as commissioner have been discussed. Bartlett within a few months after reaching El Paso was beginning to have some financial difficulties, but nothing of an overwhelming nature. Most of his problems were the result of the large number of men employed on the Commission. Even with the natural decrease by resignation, the payrolls of the Commission remained large. With John Russell Bartlett in Mexico and California during most of 1852, the cumulative effect of his extravagant expenditures became the problem of Major Emory.

What saved Bartlett from the same embarrassment was the slowness of communications and the use of the appropriations for fiscal year 1852 as early as April 1851. In the colloquial expression of today, the commissioner had been "hanging paper" in New Orleans as well as in Texas since the end of 1850. Those who accepted his checks found them to have a distressing rubber quality when they tried to cash them. The banking firm of Chubb, Schenck, and Company of Washington, D. C., was acting as Bartlett's agent in handling the commissions accounts. The firm was also responsible for paying the allotments, that portion of each man's salary sent to his wife or other relative. On January 28, 1851, the firm informed Bartlett that they were disappointed in not receiving requisitions to make his accounts good. At that time his account was overdrawn by \$3,500 and would be nearly \$5,000 in the red by the end of the month. Chubb, Schenck and Company

closed the letter by threatening to suspend payment on checks and stop paying the allotments unless they received funds.<sup>45</sup>

Two months passed and in early April the banking firm did stop payment on Bartlett's drafts for a few days, but then the Secretary of the Interior transferred money from next year's appropriation to cover his accounts. Chubb, Schenck, and Company telegraphed their agents to resume payment of Bartlett's checks.<sup>46</sup> Apparently the appropriation for 1852 was sufficient to cover the drafts written by Bartlett and there was no more correspondence from the firm.

Within a month after taking over as Chief Astronomer and Head of the Scientific Corps, Emory had tightened the control of purchasing and supplies. Among other things, he instructed that no draft or order would be made by individuals under his command without his permission; no equipment or property was to be issued without the approval of the quartermaster and himself; no purchase or contract except through the quartermaster, and then only upon permission from Emory; and finally, quarterly returns and estimates of needs were

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45. Chubb, Schenck, and Company to Bartlett, Washington, January 28, 1851. Correspondence, January-March 1851, Bartlett Collection.

46. Chubb, Schenck, and Company to Bartlett, Washington, April 7 and 8, 1851. There were five letters sent by the firm to Bartlett on these two days. Correspondence, March-July 1851, Bartlett Collection.

to be submitted beginning January 1, 1852. The reasons for all these rules was stated briefly by Emory:

The appropriation for the survey of the Boundary being limited and the operations in the field depending wholly for their character and extent upon the means now on hand and on the appropriation hereafter to be made by Congress, it is necessary to enable persons at the Head of these operations to conduct them properly to know with exactness all the available means of the Commission.<sup>47</sup>

The increased control over expenditure of funds and issuance of equipment solved only part of the problem. There were still far too many employees and Emory could only prune the ranks of those under his command, leaving a considerable number in excess of his needs.

In April he submitted a requisition for \$35,000 to the Secretary of the Interior in order to continue the survey. Without it, he warned, "the parties now making rapid and successful progress in the business of running and marking the boundary must fall to pieces, and the work stopped, only to be resumed again at an immense expense of time and money."<sup>48</sup> In Emory's view the parties only remained together because they believed funds would be sent and that after the new appropriation passed they would be paid regularly. The problems

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47. These instructions dated December 24 were sent to Lieutenant Michler on detached service near Fort Duncan. Emory Papers.

48. Emory to Stuart, Frontera near El Paso, April 9, 1852. Emory Papers.

caused by lack of funds continued to grow as the leaders of the surveying parties wrote to the Major reporting the destitute conditions of their men and the impossibility of providing them with clothes or boots to continue the work:

I am exceedingly disappointed in finding that no money has been sent to this point for my use and I am compelled for the want of a very small sum, to retain in my camp three of the Mexican packers recommended by Mr. Magoffin, who have already proved themselves thieves and of whom I should rid myself immediately and thus save both their pay and rations . . . had I the means of paying them off.<sup>49</sup>

The men had not been paid since the previous July and there was increasing doubt among the laborers that they would ever be paid.

In a letter to Bartlett, the Major pleaded that if the Commissioner upon arrival did not have funds available, he should at least devise means of certifying the accounts of the men to quiet the apprehensions and insure ultimate payment by the government.<sup>50</sup>

Conditions among the parties continued to deteriorate. In early June Mr. Hippel, in charge of one of the surveying parties, informed Major Emory that he had used the money sent him to pay off several less desirable members of his crew. The condition of his crew was such that most of his men lacked shoes and some had only the minimal amount of clothing. To dramatize the total lack of supplies, Hippel

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49. M. V. Hippel to Emory, Camp near Presidio del Norte, May 15, 1852. Emory Papers.

50. Emory to Bartlett, San Elezario, June 1, 1852. Emory Papers.

noted that at present he had only three lead pencils left and none could be procured at Presidio del Norte.<sup>51</sup>

The financial condition of the commission worsened during the summer and fall. Bartlett sent a draft to Emory in September, but it was repudiated by Washington and only a portion of the money was sent.<sup>52</sup> In October, Lieutenant Nathaniel Michler went to Washington to straighten out the problems regarding drafts issued by Emory or others. The credit of the boundary commission had fallen so low that Emory, in a fit of despondency, began to talk of being arrested. In mid-October he wrote the Chief Clerk of the Department of the Interior: "God knows how the thing has happened, but unless relief is afforded I stand a chance of seeing the inside of a Texas jail and of seeing this work, now progressing so well with every prospect of being finished by the fourth of March, stopped and thrown again into confusion."<sup>53</sup>

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51. Hippel to Emory, Presidio del Norte, June 4, 1852. Emory Papers. In this letter Hippel repeated that he could not continue the survey unless he received supplies, though he was going to send a small party down the river to determine how difficult the passage would be. But continuation of the work hinged on Emory's arrival at Presidio del Norte with clothing for the men.

52. Emory to R. B. Campbell, Mouth of the Rio Bravo, ca August 31, 1853. Emory Papers.

53. Emory to George Whiting, Fort Duncan, October 15, 1852. Emory Papers.

When Commissioner Bartlett arrived in mid-December, work had been at a standstill for more than a month. The men of the commission had labored for a year or more without receiving a dollar from the government. The party at Presidio del Norte had panicked, fearing they would never be paid, and that they would be attacked by Indians. Emory had personally stopped the panic and promised they would be paid and discharged at Fort Duncan. He requested the commissioner to make good that pledge if there remained a dollar of unexpended funds.<sup>54</sup> By the end of December there was a total debt of \$43,439 including only salaries, and repudiated drafts by Bartlett and Emory. Knowing that a rider on the appropriation bill prevented further expenditures of funds on the survey until the controversy over the boundary line of New Mexico was settled, Emory and Bartlett agreed to suspend operations.<sup>55</sup>

The boundary commissions of both countries were plagued with a variety of problems ranging from political disagreement and intrigue through complaints by the labor force and a crippling lack of money. There was one element of the organization, however, which acquitted itself honorably through out the entire operation--the mule. From the Pacific to the Gulf of Mexico and back again these beasts of

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54. Emory to Bartlett, Ringgold Barracks, December 20, 1852. Emory Papers.

55. Not only had Congress acted to prevent further expenditure of money but Emory learned, to his total disgust, that a deficiency

burden carried on their backs or pulled in wagons most of the supplies for the Boundary Commissions of both nations--and did so with only the normal amount of mulishness. Mules labored through the sands of the Colorado Desert in 1849. Mules pulled and carried Bartlett and his party across Texas and ultimately into Sonora and California. Mules supplied the survey parties under Emory during 1852 and in many cases fell off the steep trails that they followed. Mules played a role in the work in 1853 and in 1855 when the boundary line was completed.

Yet the value of the mule was not often the cause of long descriptive passages in the correspondence of the men; rather, it was the matter-of-fact way they were mentioned that indicates their worth. Perhaps the best testimony to their value were two phrases used to describe especially rugged terrain--"it can only be traversed with mules" and "not even mules can reach this place." On two occasions the mule was the recipient of an extended comment.

On April 18, 1850, Bartlett, anticipating his appointment as Commissioner, wrote to H. G. Catlett of Austin, Texas, and made certain inquiries regarding transportation problems in Texas. Two months later Catlett replied in a long letter with specific recommendations

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appropriation that could have pulled him and the commission out of the fiscal morass was completely used up in paying off Bartlett's drafts strewn over most of Northern Mexico, California, and Texas during the first eight months of 1852.

for wagons and stock. He suggested that Bartlett buy his animals in Texas, and advanced the Mexican mule as the perfect animal: "Our Mexican mule [who] has to browse for a living upon brush, herbs, and scanty spears of grass is worth two fine large American mules that have always been accustomed to being fed on grain and are not acclimated." Horses from the east, in Catlett's view, would be "worse than useless." "If you could be content to dispense with a fine horse, you would find yourself much more servicable [sic] mounted upon a good mule."<sup>56</sup>

Bartlett did make use of mules both to pull his personal coach and as a riding animal. Mules also served as dray animals for the commission. There was considerable concern by the quartermaster and other members of the party regarding the poor condition of the animals during the eight months the commission was in Texas and New Mexico. A lack of corn in the diet of the mules was of great concern. There was a constant worry that without sufficient corn the animals would not be able to perform the tasks assigned to them. The mules of the commission, however, continued to do their work in a satisfactory manner and Bartlett in May of 1852 was praising the mule for his stamina on long journeys: "They endure fatigue better than horses, will thrive where horses will starve, and in case of accident or

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56. Catlett to Bartlett, Austin, Texas, June 23, 1850. Correspondence, May-July 1850, Bartlett Collection.

emergency, may be used to carry burdens or be harnessed to be a team."<sup>57</sup> His praise for his own team of "excellent animals" was even more profuse:

They had served me in my rapid journey to El Paso, and three times back and forth from that place to the Copper Mines. They had drawn my carriage in my first journey to Sonora, and subsequently, with four others, brought a loaded wagon from the Copper Mines to San Diego. Notwithstanding these journeys and their constant use since we had been in California, they were in as fine condition as when they left the shores of the Atlantic.<sup>58</sup>

Bartlett might have added that he wished that he could say the same for the human members of the United States Boundary Commission. Major Emory and Mr. Weller would have echoed the wish that the human members of their parties could have been as reliable as the trustworthy mule. During the six years it took to complete the boundary survey, the problems of politics and economics made the work more difficult than it would have been normally.

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57. Bartlett, *Personal Narrative*, 2, 111.

58. *Ibid.*

## CHAPTER 4

### The Unfortunate, The Miserable, and The Treacherous

"so unfortunate as to be stationed at Fort Yuma"  
Lt. N. Michler

"this truly miserable town"  
J. R. Bartlett

"they are said to be a very treacherous race"  
Lt. N. Michler

The population of the borderlands of Mexico and the United States during the period of the boundary survey was very small. There were a few towns along the Rio Grande, but between El Paso and San Diego the only settlement of any size was Tucson. After the Mexican War, United States citizens began to enter the area in greater numbers. This process was accelerated by the gold rush to California. Some travelers along the southern route decided the promise of possible riches was less sure than the actual opportunities offered in villages along the way. A major reason for the small population of the border area was the activities of the hostile Indians, chiefly Apache and Comanche, who viewed the Mexican people with a deep hostility and carried out a constant series of raids against them. During the survey of the boundary the members of the American Commission came in close contact with the newly arrived American citizens, the Mexican population that had lived on the land

for generations and the Indians, both hostile and friendly, who had been there for centuries. Each group would cause the commission problems, but it was the latter two that would elicit the comments.

Those citizens of the United States who had been residing along the border prior to the arrival of the boundary commission and the large numbers who came west with the gold rush provided few problems to the commission. In most cases they welcomed the transfer of the territory to the United States. The "Forty-Niners" who traveled the southern route to the gold fields did bedevil the party at the Colorado and Gila for supplies during the fall of 1849. The possibility of facing the same problem if the line was projected up the Gila in 1850 was partly responsible for the decision in February 1850 to adjourn to El Paso. In one instance, however, a major problem did result from the sudden influx of Americans into the villages and towns that prior to the war had belonged to Mexico.

When John R. Bartlett landed on the Texas coast in 1850, he hired teamsters to drive the wagons containing the food and equipment of the commission to El Paso. They proved to be an unruly bunch and during the course of the trip across Texas several men were shot, including Mr. Wakeman, the wagonmaster. Upon arrival at El Paso, Bartlett released most of the teamsters to shift for themselves. This proved to be a less than wise decision as some of them moved to Socorro, south of El Paso del Norte on the Texas side of the

river.<sup>1</sup> Here they began to terrorize the residents. Soon they had gained nearly total control of the town. They paraded in the streets arms in hand, intimidating and often killing anyone who opposed their plans to rob, murder, and loot.<sup>2</sup> On January 28 a man was knifed. The next day another was shot and the murderer, Alexander Young, helped to lay out the corpse. On the afternoon of the 29th, Young went about looking for a shotgun, possibly to commit further mayhem.<sup>3</sup> There were employees of the Boundary Commission at Socorro at this time. The activities of the ruffians menaced not only the men, but also the supplies located there. Appeals to the commander of the American detachment at San Elizario had elicited a negative response. He declined to provide troops to enforce martial law.

On January 29 events reached a climax when Young and several others attacked Mr. Edward Clarke, a member of the commission and

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1. Socorro had been established in 1682 after the Pueblo revolt by Piro, Tano, and Jemez Indians. By 1744 the population included 66 families, of which six were Spanish. Early in the nineteenth century a flood changed the course of the Rio Grande, placing the village on the Texas side. It was located about fifteen miles south of El Paso del Norte or Franklin. W. P. Webb, H. P. Carroll, etc., *The Handbook of Texas* (2 vols., Austin, 1952), 2, 292 and 633.

2. James Meyers to Bartlett, Socorro, January 30, 1851. Correspondence, January to March 1851, Bartlett Collection.

3. *Ibid.* G. F. Bartlett to J. R. Bartlett, Socorro, January 30, 1851. Correspondence, January to March 1851, Bartlett Collection.

son of Bartlett's political patron, Senator John Clark of Rhode Island. During the course of a Mexican dance or fandango they cornered the young man and stabbed him ten times, then shot and wounded a Mr. Gates who came to Clark's aid. Both Clark and Gates were believed to be unarmed at the time.<sup>4</sup> Clark died. Gates, with only a flesh wound in the leg, recovered. The four murderers fled the town, but three were quickly arrested and returned to Socorro. Young escaped into Mexico and a reward of \$400 alive or \$200 dead was offered for him. Meanwhile his three accomplices were brought to trial before Judge Bartolo of Socorro and a jury composed of six members of the commission and six of the prominent citizens of the town. The evidence against them was overwhelming, and the casual, almost arrogant, attitude of the three contributed to the jury's finding them guilty. Sentence was carried out the same afternoon. The three men were hanged from a tree in the village. Young was captured a week or so later. On February 12 he was tried, convicted, and executed for the same crime.<sup>5</sup> Faced with an outbreak of law and order, the remainder of the ruffians left the town and events returned to normal.

There was one other incident when a member of the Boundary Commission met with violent death at the hands of fugitives from

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4. *Ibid.*

5. Bartlett, "Personal Journal," February 1 and 13, 1851. Bartlett Collection. Bartlett in his *Personal Narrative*, 1, 157-58 and 163-64, discusses the events at Socorro.

justice. In June of 1852, a small party under Bartlett's command was traveling toward Fort Yuma. On the morning of June 5 the party met Lt. Thomas W. Sweeny at Sacketts Wells. Sweeny, in pursuit of two deserters from Camp Yuma, was riding toward the station at Vallecito to alert the commander there. He indicated that the two deserters were probably to his rear and they might either come into the camp of the commission or the party would meet them on the trail. Colonel Craig commanding the escort, replied that if they should meet the two men, he would try to apprehend them. During the march that night the Colonel did encounter the two deserters and after identifying himself called on them to surrender. They refused and indicated that they would resist any attempt to take them prisoner. Colonel Craig offered to intercede for them and have the men transferred to his command, but this was declined. He, along with Sergeants Quinn and Bale began to pursue the deserters and after five miles once again caught up with the men. Again, in most conciliatory terms, the colonel tried to induce them to surrender. The deserters, who were afoot, stopped, and Craig approached them, leaving his revolver and sword on his mule. The mule wandered off. Craig ordered Sergeant Quinn to go after it. After catching the animal, Quinn heard several shots, saw the Colonel fall, and noted that Sergeant Bale was not to be seen. Quinn tried to return to aid the Colonel, but the deserters fired at him and one shot struck Craig's

mount. Quinn allowed the mule to escape and, eluding his pursuers, rode to the camp of the commission at Alamo Mucho.

He arrived there after the main party had set up camp. A rescue party led by Lieutenant Whipple was organized to return to the point where the attack had taken place, some twenty-five or thirty miles from Alamo Mucho. Leaving camp at 1 p.m., they reached the place at 10 o'clock in the evening of June 6. At this time the party encountered an express rider from Fort Yuma to San Diego and apprised him of the probable fate of Colonel Craig and Sergeant Bale so he could alert the military to the west to be on the alert for the two deserters. After an hour's rest, a careful search of the area was made by moonlight. About a mile from the road, the corpse of the colonel was located:

[It was] extended on the ground and carefully covered with a blanket. Upon examination I found that he had been shot in the abdomen; the ball entering upon the left side, about midway between the groin and umbilicus coursing along, among & through the upper and exterior part of the thigh. The musket had been loaded with buck and ball cartridge; & whilst the ball caused the internal mischief, the buckshot and cartridge tore away the upper part of the pantaloons & other clothing and ripped open the abdomen so that a considerable portion of the bowels protruded from the wound.<sup>6</sup>

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6. Dr. Thomas Webb to Bartlett, In camp at Alamo Mucho, June 7, 1852. Correspondence, January to December 1852, Bartlett Collection. This account is taken from Webb's eight-page letter to Bartlett on the incident. Bartlett discusses the death of Craig in Volume 2 of his *Personal Narrative*.

Near Colonel Craig's body was the dead horse of Sergeant Bale, but the sergeant was nowhere to be found.

Craig's body was wrapped and placed in the ambulance for the return trip to the camp. At three in the morning the small party began the return to Alamo Mucho. After traveling about ten miles they met the missing Sergeant Bale. He related the details of Craig's death at the hands of Corporal Hays and Private Cordon. Sergeant had been shot in the leg, with the ball entering the body of his horse, which fell on him. The deserters disarmed him, but did him no further harm on his promise to remain quiet. They then continued west and Bale, after covering the body of the colonel, began to retrace his way. He became confused, lost his way, and wandered in the desert until the party under Webb and Whipple found him. The small group returned to the commission camp at Alamo Mucho, where Colonel Craig was buried. The advanced stage of decomposition made it impossible to take the body to Fort Yuma for a military burial.<sup>7</sup> After services for Colonel Craig, Bartlett's small party continued on to Fort Yuma, which had been recently re-established by Major Samuel P. Heintzelman.<sup>8</sup>

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7. *Ibid.* Ultimately the two men were caught by Indians in Southern California. They were turned over to the military, tried, condemned, and hanged for the murder of Colonel Craig.

8. In the fall of 1849, Lt. Cave Coats had labeled his escort camp for the Boundary Commission Fort Calhoun. In November 1850, Major Heintzelman with three companies of the Second Infantry arrived from San Diego and established a post called Camp Independence on the California side of the river. Because of supply difficulties the

When Bartlett saw it in June 1852, Fort Yuma was not very impressive and his comments reflected this. Two and a half years later, Lt. Nathaniel Michler described Fort Yuma<sup>9</sup> with considerable stress on the miserable housing afforded the officers and men:

Think of those officers and soldiers who are so unfortunate as to be stationed at Fort Yuma. Two companies of artillery now garrison the post; their quarters have heretofore been Mexican jacals--upright mezquite poles, plastered with mud and covered with a thatching of arrow-wood; like so much powder, a single spark ignites them, and they burn like a flash in the pan. Dust and rain, as well as the eyes of the curious, penetrate through the crevices, the sun only being denied admission. When I left they were engaged in building new quarters of adobes, (sundried brick). As every other comfort is denied them, their dwellings at least should be substantial and cool.<sup>10</sup>

While Lieutenant Michler could view the situation of the American soldiers at Fort Yuma as unfortunate, other members of the commission at other times used more derogatory terms to describe the citizens of Mexico who resided along the boundary. Their view of the Mexican people was in marked contrast to the high esteem in which the American Commission held the professional members of the Mexican Commission. Most of the comments that have survived were

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post was abandoned a year later. In February 1852, Heintzelman returned to the area and established Fort Yuma.

9. Fort Yuma is described here for it did not exist before the United States acquired the territory from Mexico. Other selected sites, which existed as part of Mexico, will be described in the portion of the chapter dealing with the Mexican people as seen by members of the Boundary Commission.

10. Emory, *Report*, p. 106.

made by members of the commission under Bartlett and reflect the large amount of time that was spent near the populated areas and the short span given over to actual work on the boundary.

Upon arriving at El Paso del Norte in November 1850, John Russell Bartlett began making social calls on the prominent citizens of the town. Very quickly both he and his immediate party developed some definite ideas about the mode of life followed in this, the first Mexican town they had visited. Prior to the arrival of General Condé, the American Commissioner and his party were treated to a series of dinners by the citizens of El Paso: "The dinner was served up in true Mexican style, with a great variety of dishes; and, with the exception of vegetables, of which there is a great deficiency in the country, the entertainment would have been creditable even in our Atlantic cities."<sup>11</sup>

The area near El Paso grew a large amount of grapes and other fruit, some of which was made into wines and brandy. John Russell Bartlett, often described as a non-drinker, pronounced the vino del pais (wine of the country) "an excellent article, the best I ever found at El Paso."<sup>12</sup> In the eyes of another member of the commissioner's party the area was "a great grape raising place and the dried grapes make good raisins. Pears are the best fruit raised here; three fine

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11. Bartlett, *Personal Narrative*, 1, 146.

12. *Ibid.* Emory in his *Report*, 1, 91, commented on the excellence of the wine of El Paso.

ones can be bought for five cents. Onions are the nicest I ever saw." He also commented on the Piñon nut, "a very small sweet, three cornered oblong nut."<sup>13</sup>

The agricultural products of the area were for the most part familiar to the men of the boundary commission, but the houses and the people elicited comment. To men from the east, the low adobe houses with their small windows, single door, and central patio were strange indeed. The people of El Paso did not impress the visitors from the east:

On the whole, the people of El Paso are the most primitive I ever saw, which is not remarkable when you consider their isolated position.<sup>14</sup>

The Mexican men are the homliest [sic] and most cowardly looking men I ever saw; while a great many of the women are very pretty.<sup>15</sup>

The prejudice reflected in the above comments unfortunately colored nearly every observation made by members of the boundary commission on the residents of Mexico and the border area. There were few compliments, and many criticisms bestowed by the boundary commission as they worked along the border during the first half of the 1850s.

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13. Newspaper Releases, p. 19. Bartlett Collection.

14. *Ibid.*, p. 15.

15. *Ibid.*, p. 20.

To Bartlett, a native of Rhode Island, the villages of Mexico were for the most part "miserable." In May 1851 he visited Bacuachi, Sonora, and his acid comments on this "truly miserable" town with its dilapidated houses and roofless church were typical of his general viewpoint: "I thought I had seen human wretchedness in its worst state, but here was a lower depth. A more degraded, filthy, destitute population than this can hardly exist. Their number is about one thousand."<sup>16</sup> Santa Cruz in September 1851 did not fare much better at the hands of Dr. Webb, Bartlett's close friend:

I hope you have no extravagantly exalted ideas of this place; but if you have, you had better lower your standards very materially without delay as it is a very poor town. You may obtain flour here, and perhaps a cow but little else . . . . The chief, I may say staple productions of this place are fleas, flies & mosquitoes, hogs, dogs and children; the first three are now in the height of their glory. I was obliged to abandon my bed & sit up all of last night to ward off the attacks of the fleas, and if you wish to have any comfort here, I advise you to encamp out, by all means, tho' I understand the Gen'l has obtained the refusal for you of a portion of one of the miserable apologies for rooms that are to be met with here.<sup>17</sup>

Not only the towns, but also the residents of the towns were subjected to the scorn of the commissioner and his friends. Much of

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16. Bartlett, *Personal Narrative*, 2, 277-78.

17. Webb to Bartlett, Santa Cruz, September 22, 1851. Correspondence, July to December 1851, Bartlett Collection.

the criticism was directed at the cowardice and fear of the people in facing the Apache Indians. To John C. Cremony, interpreter for the American Commission and veteran of the Mexican War, the residents of Mexico's northern frontier were less than admirable:

The Mexicans on the northern frontier are the very lowest and poorest of their countrymen. Living in hovels and sustaining themselves in some manner never yet determined or ascertained by any other people, almost wholly without arms or ammunition and brought up from the earliest infancy to entertain the most abject dread [sic] and horror of the Apaches . . . against whom it is useless to contend, and who is [sic] only to be avoided by flight or appeased by unconditional submission.<sup>18</sup>

Others echoed Cremony's comments. Bartlett took the time to record in his personal journal a long story he heard in Ures, Sonora, to illustrate the great cowardice of the Mexicans. John R. Bartlett also took exception to the lack of direct answers to direct questions. His particular complaint was the reply, "Quien Sabe":

In my intercourse and journeyings with the lower class of Mexicans, these same replies have been given to me a hundred times. Had I asked if the place [Chinapi] contained five hundred people, the answer probably would have been, "Quisas", Perhaps. But when they don't know what to answer the universal reply is "Quien Sabe". The proper expression, "No se", I don't know, is rarely heard even among intelligent people,<sup>19</sup> so habituated have they all become to the other form.

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18. Cremony, *Life Among the Apaches*, p. 38.

19. Bartlett, *Personal Narrative*, 1, 279-80.

One of the few sights that elicited admiration from Bartlett and others on the commission were the churches which dominated every town. Of these, San Xavier near Tucson was the best example, and it received extended comments from nearly everyone. In January 1852, George Thurber, along with Webb and Cremony, passed by the mission and described it in detail for the readers of the *Providence Journal*:

About forty miles from Tubac is the mission of San Xavier del Bac. This is the most highly finished and elaborately ornamented church I have ever visited, the mass of carving, painting and gilding which its interior displays, puts description at fault. It contains a multitude of saints from a foot in height to the size of life, some of them exceedingly well executed and several pictures of decided merit. This magnificent church was built from the produce of mission lands. A Mexican family occupies a portion of the mission building, and a few Indian families live in huts near by, whose miserable filthy dwellings stand in strange contrast with the costly, though useless temple.<sup>20</sup>

That summer Bartlett described San Xavier as "the largest and most beautiful church in the state of Sonora":

This church has more pretensions to Architectural beauty than any I saw in the country, although its general character is the same. It is elaborately ornamented inside and out, and contains many decorations new in architecture, partaking neither of the Greek, Roman, nor Gothic orders. Along the eaves is a row of queer looking creatures, the like of strange animals. The interior is gaudily painted, and from the profusion of gilding, one might suppose

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20. Newspaper Releases, p. 55. Bartlett Collection.

the mission to have possessed a gold placer. Around the altar and in the niches, are many wooden statues . . . about half are statues of old Spanish cavaliers and figures of Chinese mandarins. There are besides angels and archangels, or figures intended to represent celestial beings with wings, five or six feet high springing from the walls. This church was built toward the close of the last century . . . and is throughout in a good state of preservation.<sup>21</sup>

It is hard to comprehend why the members of the American Commission, who were visitors in Mexico and received only the most courteous treatment from the officials they encountered, would continually make such caustic comments about the people and the country. It may have been in part the result of extreme nationalism and the manifest destiny that was so prevalent in this era. Another and an uglier reason was covert racism. Emory in his report on the boundary survey devotes several paragraphs to discussing the reason for the downfall of the northern frontier of Spain and lays much of the blame on intermarriage of the whites and Indians. He views the result of such unions as "an inferior and syphilitic race" that tends toward infidelity and adultery. In Emory's view and perhaps less overtly in the view of others: "The only mode by which a country can be benefitted by the introduction of the white race is by the introduction of both sexes, which with the proper guards upon morals results in exterminating or crushing out the inferior races, or placing them in slavery."<sup>22</sup>

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21. Bartlett, *Personal Narrative*, 2, 298-99.

22. Emory, *Report*, p. 70.

Given the attitudes expressed by Bartlett, Cremony, Webb and others toward the Mexican common people, it would be hard to imagine that they would risk their lives or their security to aid such people. However, on two occasions in late June of 1851, they did just that. The relocation of the main camp of the Boundary Commission at Santa Rita del Cobre was done in order to have a cooler climate. It also placed the commission in the middle of the Mimbres Apache tribe. In early June these Indians began to visit the camp of the Boundary Commission on a regular basis. The relationship was friendly, but cautious, by both sides.

On June 27 some New Mexican traders arrived at the Copper Mines. Among their goods was a young Mexican girl, 15 years of age, whom they had purchased from the Pinal Apaches to the west. Commissioner Bartlett took her into his custody under the provisions of article 11 of the Treaty of Guadalupe Hidalgo.<sup>23</sup> Under the same article Bartlett confiscated the livestock of the traders, which had Mexican brands and had also been acquired from the Pinal Apaches. Backed by the military under Colonel Craig, Bartlett was able to enforce this act. The traders were, to put it mildly, upset at the commissioner's exercise of international law, but could do little about it. General Condé was

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23. This article prohibited the purchase or acquisition of any Mexican or foreigner captured by the Indians by an inhabitant of the United States as well as forbidding the purchase of livestock or property stolen from within Mexican territory by the Indians. It also

informed of the events. After a meeting on the 30th he dispatched a special messenger to Sonora to inform the citizens of the confiscated stock and allow them to come and claim any which belonged to them. The young captive was kept as a guest in the American camp until she could be returned to her parents in Santa Cruz, Sonora.

The girl was named Inez Gonzales. She had been captured on September 30, 1850, along with two other girls and a young boy. The other three captives had been purchased the previous winter by a band of traders. Inez, after her rescue, was dressed in material available in the commissary stores and spent her time sewing and reading the few Spanish books in the commission's library. Bartlett described her as "quite young, artless, and interesting in appearance, prepossessing in manners, and by her bearing and deportment, gives evidence that she must have belonged to a family well circumstanced in life."<sup>24</sup>

On the day after the rescue of Inez, a second event occurred involving Indian captives. During the afternoon of June 28 two young

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pledged the U.S. government to rescue and return such captives or property to their country or to an agent of the Mexican government.

24. *Report of the Secretary of the Interior*, 32nd Congress, 1st Session, Senate Executive Document 119, p. 418. The story of Inez Gonzales is covered in considerable detail in Bartlett, *Personal Narrative*, 1; Cremony, *Life Among the Apaches*; and in the manuscript material of the Bartlett Collection.

Mexican boys darted into the tent of John C. Cremony and hid themselves beneath his cot. Upon inquiry, Cremony found out that they had been captives among the Copper Mine (Mimbres) Apaches and were attempting to escape. Cremony determined to take the two boys to Bartlett and armed himself with two six shooters, placing another pair in his belt. He gave his Mexican servant, Jose, a double barreled shotgun and a carbine, which Jose slung over his shoulder. Thus armed they began to walk toward the tent of the commissioner. Soon they were surrounded by thirty to forty Apaches who demanded the return of the boys. Telling Jose to "place his back to mine, cock his gun and shoot the first Indian he saw bend his bow or give sign of active hostility," Cremony continued to walk slowly toward the commissioner's tent. Several members of the Boundary Commission came to his aid and the boys were turned over to Mr. Bartlett.<sup>25</sup>

One of the boys, Saverro Aredia, was from Bacuachi and about 13 years old. He had been a captive for six months. The other, Jose Trinfan, from Fronteras, was 10 or 12 and had been a captive of the Apaches for six years. They were sent to General Condé, who returned them to their families.

As a result of this rescue the Mimbres Apaches led by their chief, Mangus Colorado, came to see Bartlett and demanded the return

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25. Cremony, *Life Among the Apaches*, pp. 59-60.

of their property. When Bartlett refused, the Indians suggested that he buy the boys from their owner. Bartlett explained the provisions of the Treaty of Guadalupe-Hidalgo to the Apaches, but they seemed unimpressed. The Apaches then left the camp and for several days were not seen. In early July a conference between Bartlett, Mangus Colorado, Ponce, and Delgadito (two sub-chiefs) was held with Cremony translating.<sup>26</sup> After much debate an agreement was reached whereby a Mexican employee of the commission would buy the boys from their Indian owner and return them to their parents.<sup>27</sup> A price of approximately \$250 in trade goods was agreed upon and the incident was closed.

Inez Gonzales remained with the American Commission for three months. In late August the commissioner and a large party left the Copper Mines in search of General Condé, who was somewhere south of the Gila. Inez went along and after nearly a month of traveling and misadventures was finally reunited with her family. On September 20 two scouts of the combined party of Bartlett and Colonel Graham

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26. A transcript of this meeting can be found in Cremony, *Life Among the Apaches*, pp. 61-66; Bartlett, *Personal Narrative*, Vol. 1; and *Report of the Secretary of the Interior*, 32nd Congress, 1st Session, Senate Executive Document 119, pp. 423-25.

27. Some doubt has been expressed about the altruism of this employee, and evidence in the records of the Boundary Commission in the National Archives bears this out. On March 28, 1853, Bartlett wrote to Robert McClelland, Secretary of the Interior, requesting credit for \$288.05

discovered thirty or forty Mexicans near the San Pedro River. This large party was hunting wild cattle and included among its members the father,<sup>28</sup> two uncles, and several friends of Señorita Gonzales. They returned with the scouts to the American camp and here the reunion occurred:

The joy of all parties on again beholding the face of her whom they had supposed was forever lost to them was unbounded . . . . Tears of joy burst from all and the members of the Commission could not behold the scene without participating in the feeling manifested at the meeting of Inez and her friends and relatives.<sup>29</sup>

Upon arrival at Santa Cruz the commission was witness to a second joyful outburst as the residents of the village, which had been abandoned shortly after the capture of Inez and reoccupied six months earlier, greeted the girl they thought was dead. For several minutes

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which he spent to clothe the two Mexican boys and buy their release. By buying the boys, peace with the Apaches was maintained. "I therefore, with the advice and consent of General Condé directed a Mexican to give the owner of the boys an equivalent in goods which I purchased amounting to two Hundred and fifty dollars, with the understanding that the amount should be embraced in my bill . . . ." The total cost of rescuing, feeding and clothing the two boys was \$407.50, of which \$119.45 came from commission stores and \$288.05 from Bartlett's personal funds. Letters Received, Third U.S. Commissioner, 1850-1860, Item 424, NA, RG 76, Southern Boundary Mexico, 1849-60.

28. Whether this was Inez's actual father or not is open to question, Dr. Webb wrote to Bartlett from Santa Cruz on the 22nd that General Condé commented that Inez has a mother, "but no father." Condé then explained that her real father had died and her mother had since remarried. Correspondence July-December 1851, Bartlett Collection.

29. Bartlett, "Personal Journal," September 20, 1851. Bartlett Collection.

there were only tears and embraces. This return and reunion had a profound effect on the members of the commission and "big tears as they rolled down their weather-beaten and bearded faces, showed how fully they sympathized with the feelings of our Mexican friends."<sup>30</sup> Several days later Bartlett and a small party departed south into Mexico. The American Commissioner no doubt felt extremely pleased that he had so gallantly returned the young lady to the loving arms of her parents. He may have even seen in Inez some of his children in far distant Providence, Rhode Island.

Ten months passed and Bartlett arrived in Tubac, south of Tucson, on his way to El Paso. The commandante there was Captain Gomez, whom Bartlett had met at Fronteras in May 1851. But much to his surprise here also was Señorita Inez Gonzales, living with Captain Gomez. Bartlett investigated and discovered, to his horror, that the union was without benefit of clergy. An interview with Inez was arranged and, with the captain present, the young lady seemed very ill at ease. The Mexican captain promised the commissioner that Inez would return to Santa Cruz with her mother, who was visiting in Tubac. When the commissioner's party arrived in Santa Cruz, there was the mother, but no daughter. Bartlett discussed the matter with the village priest, but the priest could do nothing. Bartlett then wrote a letter to the

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30. Bartlett, *Personal Narrative*, 1, p. 410.

governor of Sonora requesting his intercession on behalf of Inez. Bartlett's despair over the fate of Senorita Gonzales is understandable, but after leaving Santa Cruz he dropped the cause. No further reference to her is made in either his personal journal or the published narrative.

In 1862, John C. Cremony, who had served as interpreter from 1850 to 1852, passed through Arizona with the California Column. Cremony filled in more details on Inez and provided the happy ending:

Some months after the Commission left on its way toward California, Inez attracted and secured the admiration of a Captain Gomez in the Mexican Regular Army, and at the time in command of the frontier town of Tubac. The relaxed state of morals among the Mexicans seemed to warrant the poor girl in becoming his mistress for a time, but he subsequently made amends by marrying her and legitimizing the two fine boys she had bore [sic] him.<sup>31</sup>

Captain Gomez died during the late 1850s and by 1862 Inez was living in Santa Cruz, had married the Alcalde, and borne him two children:

In 1864, it was again my lot to be within fifty miles of Santa Cruz . . . . My trip to Santa Cruz offered me the opportunity to visit Inez, who I found to be the respected wife of the chief and most influential man in that little community. She has an affectionate husband, who is by no means cramped for this world's goods; is surrounded by a fine and promising family of three boys and a girl, and is universally esteemed for her many excellent qualities.<sup>32</sup>

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31. Cremony, *Life Among the Apaches*, pp. 56-57.

32. *Ibid.*, pp. 57-58.

Cremony expressed the hope that this subsequent history of Inez would be received with pleasure by all former members of the commission, "and by none with more interest than Mr. Bartlett and Dr. Webb."<sup>33</sup> We can assume it was.

After Bartlett had turned the two young Mexican boys over to General Condé, he had the problem of maintaining friendly relations with the Apaches who lived in the area. These Indians viewed the loss of their property with less than enthusiasm. Bartlett solved that problem buying the two boys from their owner. He realized that if the Apaches became hostile the situation of the Boundary Commission would be very hazardous. Maintaining friendly relations with the Indians was a problem that existed during the entire six years of the boundary survey.

Members of the Boundary Commission made constant observations on the Indian tribes they encountered. Some were superficial, while others provided excellent ethnological information on the tribes of the borderlands.<sup>34</sup> Ethnology was not given the same importance in Emory's report as were the other disciplines, but nevertheless there is considerable information on the Indians of the borderlands. Emory

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33. *Ibid.*, p. 58.

34. This report will not attempt to treat with every Indian tribe contacted during the work of the Boundary Commission, though nearly every one received at least passing comment. Instead it will discuss

made several observations on the hostile tribes encountered during the survey of the Rio Grande in 1852. Lt. N. Michler made comments on the Indians of Texas, California, and Arizona during the years from 1852 to 1855. Bartlett, whose interest in ethnology and the red man was considerable, made constant comments on the Indians he encountered during his travels through the Southwest and Mexico. He also collected a basic vocabulary for each tribe he encountered, using a printed form furnished by the Smithsonian Institution.<sup>35</sup> In the published and unpublished work of members of the Boundary Commission there is a wealth of material on the primitive people of the borderlands.

The Yuma Indians resided along the Colorado to the north and south of where the boundary line strikes the river. The tribe, though generally friendly to Americans during the 1850s, did on occasion commit depredations against emigrant trains and were not above stealing horses from the unwary Americans. Lt. Cave J. Couets noted that the Indians near the junction of the Gila and Colorado were very numerous, but entirely harmless. They did use cunning in extracting large sums from the emigrants crossing the Colorado. "They have a raft for this

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only five tribal groups: Yumas, Pimas and Maricopas, Papagos, Apaches, and Comanches, ~~Lipan~~ Apaches.

35. The form consisted of 200-210 commonly used words. The vocabulary sheets prepared by Bartlett are now part of the National Anthropological Archives of the Smithsonian Institution.

purpose, and before setting out make all pay who cross in it-- afterwards, and while passing over, make them pay again frequently as often as three times--and after landing them on this side, still call for pay again."<sup>36</sup> Coutts noted that the Yumas were better off economically and attributed it to the robberies and outrages committed against travelers.

During six months in 1851-1852, members of the Boundary Commission had contact with the Yuma Indians on three separate occasions. In December 1851 the survey crew of Lt. A. W. Whipple and A. B. Gray reached the Colorado. They found the Yumas and Cocopas "glorying in the belief that they had driven away the small detachment of U.S. Troops stationed among them."<sup>37</sup> The Indians treated the surveyors with respect, and the vigilance of Colonel Craig gave them little chance for hostile action. Another reason for the friendly reception by the Indians may have stemmed from an action taken by Whipple two years earlier. The surveying crew needed rafts to cross the Colorado River and the only ones available were owned by the Yumas. A conference was called to bargain over use of the rafts. In the midst of the meeting a young girl approached and whispered to her father, Juan Antonio, a Yuma chief. She said that Whipple in the fall of 1849 had

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36. Coutts to Emory, Santa Isabel, September 17, 1849. Emory Papers.

37. Report of Lieutenant Whipple to Colonel Graham on the Survey of the Gila, San Diego, January 10, 1852. Correspondence January-December 1852, Bartlett Collection.

found her in a state of hunger and had given her a watermelon and a mirror as a present. Whipple recalled the incident and the next day the Yumas took the surveying party across the river.<sup>38</sup>

A month after Whipple and Gray passed through the area, the party of Webb, Mr. Cremony, Mr. Thurber, and others reached the Colorado. Mr. Thurber commented on the mode of dress of the Yuma women:

On our road to the boats we passed near one of their villages and saw a number of their women, who dress in a peculiar and graceful costume. This consists of a sort of skirt composed of strips of willow bark intermixed sometimes with strips of colored cloth. These are fastened to a girdle at the waist, and extend down to the knees, and being made very full behind give their figures that rotundity so very much prized by our city belles a few years ago.<sup>39</sup>

Thurber commented on the hostile acts of the Yuma Indians ascribing the reason to the poor treatment by the emigrants. Their mode of attack was to club their victims to death after first professing friendship.

In June of 1852, Bartlett and a small party passed through the territory of the Yumas. During the night of June 11 the Yuma Indians came into the camp and stole fifteen horses and mules. Among

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38. Frank Wheaton, "The Boundary line: Trials and Adventures of the Surveyors as described by General Frank Wheaton," *Arizona Daily Citizen* (Tucson) July 27, 1895, as cited in Faulk, *Too Far North Too Far South*, p. 92. Even if less than totally accurate, the story is an interesting one.

39. Newspaper Releases, p. 39. Bartlett Collection

these was a \$300 horse given Bartlett by A. B. Gray, which had made the journey from Kentucky to El Paso and then on to San Diego. The loss of the mules was more crucial as they could not be replaced and were needed for the trip to El Paso. This event caused Bartlett to write despairingly to a friend: "so begin the difficulties of our overland journey. With warlike tribes all the way to the Rio Grande, it will be running the gauntlet to get across."<sup>40</sup>

In December 1854 Lt. Nathaniel Michler arrived at the Colorado to begin work on the Gadsden Treaty line. During the first four months of 1855 he had ample opportunity to observe the habits, appearance and customs of the Yuma Indians.<sup>41</sup> As a result, his report to Emory on the survey of the boundary includes a long description of the Yuma Indians. According to Michler the Yumas were treacherous, practicing craft, cunning and midnight attack. Their weapons for hunting and war were bows, arrows, clubs, and knives. The men's sole article of clothing was the breechclout, the women dressed much as described by Thurber. Michler made brief comment on the religion, government, recreation, music, houses, and agriculture of these

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40. Faulk, "Letter from John R. Bartlett," p. 210. Information on this can also be found in Bartlett's "Personal Journal" for June 11 and his *Personal Narrative*, Vol. 2.

41. Emory included Michler's report within his own on the boundary survey. Michler devoted five pages to a discussion of the Indians. Emory, *Report*, 1, 107-12.

Indians. He also left a fine description of the physical appearance of the Yumas:

They are of the medium height, well formed and slender; not muscular . . . active and clean limbed; their features not disagreeable, although they have large noses, thick lips, and high cheek-bones; their chests are well developed and figures manly, indicating activity but not strength. The women are under the medium height: their figures are fine and plump; the bust is well developed, the mamma firm; the arms finely moulded; the hands small and pretty; the legs beautifully formed and well rounded, and nicely turned ankles; the feet are naturally small . . . . altogether they present a very voluptuous appearance. Their deportment is modest and their carriage and bearing erect and graceful. They all travel on foot, and when going long distances at a slow trot.<sup>42</sup>

In contrast to the Yuma Indians, the Pimas and Maricopas, who were related to Yumas, were on constantly friendly terms with the Americans during the entire decade of the 1850s. During the gold rush of 1849, the Pimas and Maricopas fed many of the travelers on the southern overland trail. Located on the Gila River, the Pima Villages were situated in the same general area as the present day Gila River Indian Reservation. Other members of the tribe resided along the Gila and Salt River near present-day Phoenix. The Maricopas were located west of the Pimas on the Gila. The first contact the men of the boundary survey had with these two tribes was in the fall of 1851, when Whipple and his party passed down the river on their way to California. A month later Webb, Thurber, Cremony and company

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42. Emory, *Report*, 1, 109.

paused at the villages for four days. Thurber in one of his articles for the *Providence Journal* described the agricultural activities of the Pimas and Maricopas in considerable detail. They had immense fields under cultivation, used irrigation to water them, and each field was fenced. They raised pumpkins, corn, cotton, and beans. Because of the many emigrants who had passed through the villages during the previous two years, the Pimas and Maricopas had become expert bargainers and set a high price on the goods they offered for sale to the commission.<sup>43</sup>

In July 1852 Bartlett stopped in the Pimas Villages on his way to El Paso. He also found the Indians friendly and spent his time exploring the region around the villages, including Casa Grande. On page 293 of his personal journal, Bartlett sketched the mode of construction of a Pima house plus a description of how it was built.<sup>44</sup> During his sojourn with the Pimas and Maricopas, the commissioner met Francisco Dakey. When Whipple and Gray passed through the area the previous December, Gray had written Bartlett of Dakey, describing him as "a good Indian. You will find him intelligent and communicative--and valuable as a judge--should you have occasion for one."<sup>45</sup>

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43. Newspaper Releases, p. 55. Bartlett Collection.

44. See illustrations at end of report.

45. Gray to Bartlett, Camp 33 on the Gila at the Mouth of the Salt River, December 4, 1851. Correspondence July to December 1851, Bartlett Collection.

At first Bartlett was quite happy with Francisco. He had breakfast with the commissioner and impressed him not only with his table manners, but also with his mode of dress, intelligence, and desire to serve.<sup>46</sup> Later Bartlett's opinion changed as Dakey made a pest of himself, demanding shirts, beads, calico, and trinkets from various members of the party. Worst of all he asked constantly for whiskey.<sup>47</sup>

In 1855 Lieutenant Michler traveled through the land of the Pimas and Maricopas on his way to meet Emory. He commented that the Pimas were further advanced agriculturally and had more comforts than any "uncivilized Indian tribe I have ever seen." In addition to the crops mentioned by Thurber, Michler mentioned sugar, peas, and wheat as products of Piman agriculture. He also noted the fine horses, mules, oxen, cows, pigs, and poultry that the Pimas possessed. By 1855 the Indians were worried that the rights and titles to their lands might not be respected by the United States.<sup>48</sup>

Later that summer Michler passed through the land of the Papagos. These Indians lived along the boundary and west of the Snata Cruz river. He noted the contrast between the poverty-stricken village of Sonoyta

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46. Bartlett, "Personal Journal," July 2, 1852. Bartlett Collection.

47. Bartlett, *Personal Narrative*, 2, 220.

48. Emory, *Report*, 1, 117. Michler apparently conveyed this concern to Emory, for on August 11, 1855, Emory wrote to General Garland at Fort Bliss in regard to the land and water rights of these peaceful tribesmen on the Gila. Emory Papers.

and the comparative comfort of the Papago villages nearby:

This tribe is comparatively well off in worldly goods; they plant and grow corn and wheat and possess cattle and many fine horses. Nature supplies them with numerous useful plants which grow spontaneously; from the suwarrow (*Cereus Giganteus*) and pitaya they make an excellent preserve by simply boiling the fruit down without sugar and also a candy of the same material. They collect from a low bush growing wild, seeds called 'Chie' which are coated with a gummy substance; placed in water these become partly dissolved and make a cool and refreshing drink, a refreshment much needed in that warm country.<sup>49</sup>

In a land with little water the Papagos lived some distance from the water sources. The women brought the water to the village in ollas, or earthen vessels, carried on their heads. It was stored in large ollas sunk in the ground and capable of holding many gallons.

In sharp contrast to the sometimes hostile Yumas, the friendly Maricopas and Pimas, and the peaceful Papagos, are the other two tribal groupings: the Apaches, and the Comanches-Lipan Apaches. Both tribes viewed the Mexicans as their traditional enemies and could not understand the American concern for raids against the Mexicans. At first they viewed the Americans as allies, but when this did not work out, they included them among their enemies.

In the 1850s, to be an enemy of the Apaches was to be an enemy of the people who controlled the territory between the Rio Grande and

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49. *Ibid.*, l, 123.

the 111th degree of longitude along the borderlands. The total domination of this area by the Apaches and its effect of the survey of the boundary was indicated by Emory in a letter to the Secretary of the Interior from San Diego:

I think it also proper to inform the Department for the benefit of the operations from the Paso del Norte. That authentic information has reached here that the Mexican frontier towns of Fronteras & Santa Cruz which have always been counted on by the officers of the Commission to furnish supplies have been ravaged by the wild Indians, and deserted by the inhabitants: and the means of subsistence of the Pimos [sic] Indians have been eaten out by the Emigrants. In addition to the American Emigration a dense stream of Sonoranians and other Mexicans is now passing over a portion of the same route into California desolating the herbage and means of subsistence as they pass. Five thousand & upwards have already penetrated the country this season and it is estimated by intelligent men that fifteen thousand more are in movement in the same direction.<sup>50</sup>

During the first few months that the commission was at El Paso del Norte, they were subjected to several raids on their stock and faced a potential threat to members of the survey crews. This was accepted as part of the hazards of the work and pursuit of the raiders was carried out, usually unsuccessfully. In March the astronomical party at Frontera Observatory requested that guns be issued to them because observations were frequently made from the

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50. Emory to Ewing, San Diego, April 2, 1850. Emory Papers.

summits of surrounding mountains and "danger of life from the Indians is not at all improbable."<sup>51</sup>

In April the headquarters of the commission was moved from El Paso to the cooler climate of the Copper Mines. Though this put them in the center of the Mimbres or Copper Mine Apaches, it didn't seem to bother John R. Bartlett. About June 17, Mangus Colorado visited the camp for the first time. The Commissioner presented him with a suit of blue broadcloth with a scarlet stripe down the legs and brass buttons. A white shirt and red silk sash completed the outfit.<sup>52</sup> Bartlett also had several of the Apache leaders as dinner guests. It appeared, at least to the commissioner, that good relations had been established with the Apaches. His trust in the excellence of the relations was shown by the fact that the livestock of the commission was grazing in the valley of the Mimbres River eight miles from the camp and totally at the mercy of the Apaches. Bartlett told the Apaches that they must show their friendship by protecting the herds from "bad Indians." This the Apaches did faithfully. Bartlett felt his concept of Indian control was working:

I am firmly of the opinion, which I have always entertained, that kind treatment, a rigid adherence

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51. George Pierce (writing for Lt. A. W. Whipple) to J. R. Bartlett, Frontera Observatory March 3, 1851. Correspondence January-March 1851, Bartlett Collection.

52. Wallace, *The Great Reconnaissance*, p. 35.

to what is right, and a prompt and invariable fulfilment of all promises, will secure the friendship of the Apaches, a tribe of Indians which has the reputation of being the most hostile and treacherous to the whites of any between the Rio Grande and the Pacific. It is the intercourse of unprincipled traders and emigrants who sow the seeds of intemperance and vice among them, which has created most of the difficulty heretofore experienced . . . . That they feel the greatest hatred towards the Mexicans is true, and they certainly have reason for entertaining a strong antipathy to them. Acts of treachery of the grossest and unwarrantable nature have been practiced by the Mexicans toward them; . . . they are not forgotten by the Apaches. Revenge with them, or a desire of retributive justice, as in our own case we should term it, increases as the events recede which gave rise to the feeling or desire.<sup>53</sup>

The peace with the Apaches lasted less than a month and a week. During the last days of June and the first week of July two events occurred which damaged relations with the Indians, although the break did not come for another month. The first was the rescue of the two young Mexican boys. The second was the death of an Apache at the hands of a Mexican employee of the commission named Jesus Lopez.<sup>54</sup> In another conference with the Apaches, Bartlett was able to dissuade

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53. Bartlett to Stuart, Santa Rita Copper Mines, July 5, 1851, *Report of the Secretary of the Interior*, 32nd Congress, 1st Session, Senate Executive Document 119, p. 421.

54. Senor Lopez proved to be a heavy burden to Bartlett. On July 26, 1852, he got drunk and attacked a respectable woman in Santa Cruz, Sonora. He was arrested by the Mexican authorities and Bartlett, joyful to be rid of him, left Jesus to the mercy of the Mexican courts. Bartlett, *Personal Narrative*, 2, 319.

them from demanding Jesus' life as compensation, but did agree that all wages earned by Lopez should be paid to the family of the dead Indian.

By the end of July, Bartlett's attitude toward the Apaches had changed and he was requesting an increase in the military escort. Failure to do this, in Bartlett's view, could result in loss of supplies, the capture or death of the parties, and destruction of the surveying instruments. On the 28th Colonel Craig lost a few mules. On August 7 ten mules were stolen from the observatory at Frontera, and four days later 25 were stampeded from near Colonel Craig's camp. On August 17 fifty mules disappeared from a pasture six miles from the Copper Mines. A week later the Apaches, aided by a group of Navajo Indians, descended on the commission and tried to strip it of the rest of the mules and all its beef cattle. They nearly succeeded. The attempt on the riding stock and mules was thwarted, but 94 head of beef cattle guarded by Mexican herders were captured as well as 22 head owned by a Mr. Hay, who was working the gold mines near the camp.<sup>55</sup> Pursuit was made by a party led by Lieutenants Whipple and Smith. Most of the cattle were recaptured.

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55. This list of losses is from Bartlett, *Personal Narrative*, 1, 343-52, and *Report of the Secretary of War Communicating, in Compliance with a resolution of the Senate, the report of Lieutenant Colonel Graham on the subject of the boundary line between the United States and Mexico*, 32nd Congress, 1st Session, Senate Executive Document 121,

To add insult to injury, one of the raiders was Delgadito, who a month previous had been professing his friendship to Bartlett.

Delgadito did not escape unscathed from this encounter with the Americans. Among the pursuers under command of Whipple were John C. Cremony and Wells, the Commissioner's carriage driver. When the force caught up with the Indians, the Apaches divided, some giving battle while others drove the cattle on. Delgadito remained behind and poured abuse on the Americans. Turning his bare backside toward them he slapped it disdainfully. Among the weapons of the American party were several Wesson rifles which were accurate at a distance of 400 yards. One of these, belonging to Cremony, had been fitted with fine sights and "a good marksman could hit the the size of his hat eight times out of ten at three hundred and fifty yards." Wells was an excellent shot. Cremony gave him the rifle, told him to approach as near as possible, and "bring the rascal down." Wells moved to a point within 260 or 270 yards of Degadito "who at that moment was slapping his buttocks and defying us with the most opprobrious language. While in the act of exhibiting his posteriors, . . . he uncovered them to Wells, who took deliberate aim and fired. This mark of attention was received by Delgadito with an unearthly yell and a series of dances and capers that would

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pp. 25-26. Cited hereafter as Report of the Secretary of War, 32nd Cong, 1st Sess, SED 121.

put a maitre de ballet to the blush."<sup>56</sup> John C. Cremony, the narrator, adds that he later learned "that the ball from Wells's rifle gouged a neat streak across that portion of Delgadito's person denominated as the 'seat of honor'. His riding and general activity were spoiled for several weeks."<sup>57</sup>

Soon after Delgadito got his just reward, the commission left Santa Rita del Cobre and proceeded west toward a meeting with General Condé. During the fall of the year Lieutenant Whipple commanded a party surveying the Gila River, which in its upper portion passed through Apache country. "Notwithstanding the recent hostility of the whole tribe of Apaches, Colloteros [sic], Pinal Llenos, and Tontos through which we passed without escort nothing but kindness was received from them."<sup>58</sup>

Emory upon arrival at El Paso became the recipient of Apache hostility. There were daily depredations against the military and civilians along the line. He requested two companies of dragoons be detailed to act as escort for the working parties. As Emory and his survey crews moved down the Rio Grande, their Indian antagonists became Comanches rather than Apaches. When Bartlett returned to

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56. The source of this story was Cremony, *Life Among the Apaches*, pp. 82-83.

57. *Ibid.*, p. 84.

58. Report of Whipple to Colonel Graham, San Diego, January 10, 1852. Correspondence January-December 1852, Bartlett Collection.

El Paso in August 1852, he found conditions even worse as the Indians ran off horses, mules, and livestock:

But it is not our animals alone that are in danger; we are so hemmed in by the savage, that it is unsafe to go from place to place except in bodies of from six to ten persons well armed; for the wiley enemy lies concealed by the road side ready to pierce the passing traveler with his deadly arrow when he least anticipates it.<sup>58</sup>

The Comanche Indians posed a constant threat to the work of the commission on the Rio Grande in both 1852 and 1853. On several occasions, parties abandoned the line for fear of Indians. In September and October 1852, Emory had to reorganize one surveying party that panicked because of the presence of Comanches or Lipan Apaches. Another after being surrounded by the Indians had to retire to the hills and call for aid.<sup>59</sup> Arthur Schott's party on September 30 had reached the left shore of the Rio San Pedro after marking 20 miles of the boundary over rugged country while being followed by about 25 well-armed and well-mounted Lipan Indians. The opposite bank of the San Pedro "seems to be entirely occupied by these wicked hunters," according to Schott.<sup>60</sup> Emory's attitude

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58. Bartlett to Stuart, El Paso del Norte, August 1852, Letters Received from the Third U.S. Commissioner, 1850-60, Item 424, NA, RG 76, Southern Boundary (Mexico) 1849-60.

59. Emory to Stuart, Camp near Fort Duncan, October 1, 1852. Emory Papers.

60. Schott to Emory, Camp on Arroyo San Filipe, October 1, 1852. Emory Papers.

toward Indian attacks is summed up in his reply to Schott: "To withdraw is to invite attack. In case of future problems place yourself in a strong position and send for aid." Emory himself had many contacts with the "rascals" and developed a definite Indian policy:

We . . . encountered many adventures . . . , but I shall not trouble the reader with any reference to these rascals; or our adventures with them, except to say that I never trusted them, and during the last year of my experience with them I gave orders to permit none to come into any camp under my orders, and to kill them at sight. By taking this harsh, but necessary step, I was the only person passing through this country who did not incur difficulty and loss. The Mexican commission was robbed repeatedly, and on more than one occasion was in consequence obliged to suspend its operations.<sup>61</sup>

In 1855 Emory followed the same policy with the Apaches, and though the boundary ran through the center of "Apacheria" and cut across their raiding trails into Mexico, he was not molested.

In retrospect, the members of the boundary commission suffered more from the threat of Indian attack than from actual attack. There were raids on their horse herds by the Apaches and the Yumas and the constant menace of the Comanches and Lipan Apaches, but during six years there was only one Indian attack. This occurred while Commissioner Bartlett was on his way to join Emory. Bartlett left El Paso

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61. Emory, *Report*, L, 88.

in October 1852 and, pleading the danger of travel through Texas, took a route through Chihuahua.

Bartlett left El Paso on October 8. Ten days later about halfway between the crossing of the Rio Carmen and Chihuahua City, the Comanches struck. A mile from the previous night's camp, Bartlett, Webb, Pratt, and several others riding ahead of the wagons passed a small ravine. The mounted party had gone about 100 yards farther and the lead wagon had passed the ravine when the Indians attacked. Bartlett and the others turned their mounts and rode back toward the wagon train 150 to 200 yards away. The Comanches were trying to break the line of wagons and stampede the mules. The teamsters, however, held their animals under control while firing at the attackers. Failing in this the Comanches dashed towards the rear of the train and made a furious charge on the Mexicans who were driving the nine mules and horses not being used. All three of the herders were unhorsed and one was wounded by an arrow. The wounded man hung onto his bridle, but an Indian charged upon him and plunged a lance into his heart. Two members of Bartlett's party fired at the Comanche, knocking him from his horse. Two other Indians rushed in, threw his body across a mule ridden by one of them, and carried the wounded Comanche out of the battle.

The fight was now confined to the rear of the train, where the Comanches had cut off the last wagon and were attempting to run off

the six mules. Separated from the remainder of the train by 300 yards, the wagon was extremely vulnerable. The teamster brought the lead mules around and tied them to the wagon. This made it impossible to stampede the team unless the harness could be cut. Seizing his rifle, the teamster joined in the fight. Firing from both sides was heavy, but there were no more casualties as the Indians were moving and darting about and the members of the wagon train were under cover. The five Mexican soldiers furnished by Colonel Langberg<sup>62</sup> provided considerable aid and were instrumental in preventing the capture of George Thurber by the Comanches.

Mr. Thurber had wandered from the train prior to the attack to collect some botanical specimens. He was some distance from the main force when the Comanches attacked. The Indians made a dash at him with their lances poised, but Thurber held the Indians at bay with his revolver, and the fire of the soldiers drove them off. Having been foiled in this, the Comanches withdrew, pursued by six or eight of the men. They soon gave up the chase, fearing an ambush by the Indians. The nine mules and horses at the rear of the train were lost to the attackers, but except for the one herder there were no casualties and the wagon train continued on.<sup>63</sup>

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62. Col. Emilio Langberg was a Swedish soldier of fortune with the Mexican Army.

63. The narrative of the attack on Bartlett's party is from his "Personal Journal," October 18, 1852, Bartlett Collection, and the *Personal Narrative*, 2, 412-14.

The hostility of the Comanches and Apaches against the commission may have given its members a better understanding of why the inhabitants of Northern Mexico were so fearful of these savage tribesmen. The land was hard and often this was reflected in the actions of the people. The Indians who had come to the land first, the Mexicans who had maintained a marginal existence there for generations, and the newly arrived citizens of the United States all adapted to the land in their own way. Each in different ways affected the work of completing the survey of the international boundary.

## CHAPTER 5

### The Prolongation of the Line

"A previous act of the joint commission had devolved the duty of putting up the monuments on two engineers, one to be selected from each side; it was now proposed that the prolongation of the line should be confided to the same hands."

Emory to Stuart  
September 25, 1851

On Saturday, July 7, 1849, the joint commission to run and mark the boundary between the United States and Mexico met for the second time. They ordered the two surveyors to present a plan to ascertain the southernmost point of the port of San Diego, the initial point upon the Pacific coast, the initial point at the junction of the Gila and Colorado Rivers, and the mode of surveying and marking the line between these two points. On July 9 the surveyors suggested the following plan: both parties should make surveys to define upon the ground the southernmost point of the port of San Diego and the two initial points and "the latitude and longitude of the two extreme points to be determined for the purpose of obtaining the azimuth and correct course, preparatory to its demarcation upon the ground." Each nation would pursue its own method to arrive at the required result. When both were satisfied and had

agreed, the demarcation of these points (by monuments or other method) would take place.<sup>1</sup> This plan was accepted by the commissioners.

On October 10 the commissioners met and approved the location of the initial point on the Pacific based on astronomical determinations by Major William H. Emory and José Salazar Ylarrequi.<sup>2</sup> A month earlier Lt. Amiel W. Whipple had left for the junction of the Gila and the Colorado to begin observations at that point. By mid-November he had completed the work of determining the point where the Gila joined the Colorado River. On November 29 he contacted Señor Salazar, who had worked with Emory on the Pacific side and was now encamped at the lower crossing of the Colorado. The next day Salazar examined the work done by Whipple and approved it.<sup>3</sup> General Condé, the Mexican Commissioner, was present at the Colorado with his party. Commissioner John B. Weller was ill in San Diego and did not arrive. Condé suggested that since both nations agreed upon the initial point at the Gila and the Colorado, an American party should be sent to the eastern end of the line

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1. Copy of Proceedings of the Joint Boundary Commission, 1849-50, Item 397, NA, RG 76, Southern Boundary (Mexico) 1849-60.

2. *Ibid.* Meeting of October 10, 1849.

3. *Report of the Secretary of the Interior*, 31st Congress, 1st Session, Senate Executive Doc. 34, pp. 33-34.

and together the two parties would travel along the boundary to San Diego.<sup>4</sup> Lieutenant Whipple returned to San Diego with the agreement signed by Condé and himself, acting for the American Commissioner, and the proposition by Condé to complete the work. On December 16 Emory informed Weller of his approval of Whipple's work and suggested that as he had already marked the line for about five miles from the coast, General Condé's proposition be modified so that the Mexican party continue the line from the mouth of the Gila and the Americans project the azimuth from the Pacific coast.<sup>5</sup>

Events conspired against this plan advanced by General Condé and modified by Emory, for the American Boundary Commission was plagued by a lack of funds. Weller's appointment was challenged by the incoming Whig administration of Zachary Taylor, and in June 1849 it was decided not to honor drafts drawn by him for the work of the boundary commission. The Whigs also began searching for a deserving party member to replace Weller, when they could find cause to remove him. News of both these actions reached

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4. *Ibid.*, p. 34. They would, presumably, place monuments and determine the correctness of the azimuth taken by Whipple.

5. Emory to Weller, Camp Riley, December 16, 1849, *ibid.*, p. 36. Whipple had projected the line east for a mile from the Colorado.

California soon after the arrival of Weller, and he was unable to cash government drafts in order to buy the necessary supplies or pay the workers. Adding to the problem was the gold rush to California, which had driven the price of labor and material out of sight, caused many employees to desert, and subjected the survey crews on the Colorado to the constant demands for supplies by destitute gold seekers. On December 12 Emory had been forced to stop his work on the western end of the boundary for lack of funds.<sup>6</sup> Condé and Salazar apparently remained encamped on the banks of the Colorado during the month of December, awaiting a reply from Weller. On January 3, 1850, the American Commissioner reported that funds were entirely exhausted. He sent a message to his Mexican counterpart requesting an adjournment of the work, but expressing the hope that the work between the two initial points could be completed before this occurred.<sup>7</sup>

The commissioners met in late January, determined what remained to be done, and presented detailed instructions for the completion

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6. Emory to T. Ewing, Secretary of the Interior, San Diego, March 1, 1850. Letters Received, Fourth U. S. Commissioner, 1849-60, Item 425, NA, RG 76, Southern Boundary (Mexico), 1849-60.

7. Weller to John Clayton, Secretary of State, San Diego, January 3, 1850, *Report of the Secretary of the Interior*, 31st Congress, 1st Session, Senate Executive Document 34, p. 38. At that time more than \$11,000 was owed to members of the commission which Weller could not pay, nor could he provide them with funds to return

of the California boundary. During the meeting on January 28 the commissioners approved the findings of Whipple on the western initial point and the calculation of the azimuth or inclination of the line starting from the initial point on the Pacific to the initial point on the Colorado. All that remained was to place suitable monuments at both ends of the line and at specified points in between. On the 29th it was agreed that seven monuments should be placed along the boundary: one at each initial point, one on the left bank of the Colorado, one where the boundary crossed New River, and at three other points to be determined by the two surveyors of the commission. The surveyors were to proceed at as early a day as practicable to fix and determine the precise points where the three monuments should be erected. Two engineers, one from each nation, were selected to place the monuments at the points designated and be responsible for the construction of the monuments in conformity with the orders of the two commissioners.<sup>8</sup> Both the engineers and the surveyors were to submit reports that would be inscribed in the journal of the commission. The cost of construction,

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home. All he could do was provide certificates of amount due and an allowance to return to the point where employed.

8. The monuments at the initial points were to be of white marble and those at the intermediate points of cast iron. The marble monument on the Pacific was to be a pyramid or obelisk nine feet high on a block three feet on each side. The cast iron monuments were not to

transportation, and placing of the monuments on the line would be shared equally by both nations. Capt. Edmund L. F. Hardcastle and Capt. Francisco Jiménez were the engineers in charge of the placing of the monuments, with the proviso that if either one was unable to attend to his duties, the nation appointing him should select another to serve.

Because the American Commissioner was not prepared to send out the surveyor, Mr. A. B. Gray, to determine the three intermediate points where monuments were to be placed, at the time desired by the Mexican commissioner, another meeting was held on February 15. It was then decided to place one of the intermediate monuments on the main road leading from San Diego to Lower California. Because Major Emory, the chief astronomer, had marked the azimuth of the line on the ground at this point, it was agreed that he and Señor Salazar should proceed at once to designate exactly where the monument would be placed. The location of the other two monuments was left to the two engineers charged with placing the monuments.<sup>9</sup> It was also decided that nothing remained to be done on the western end of the line that had not been provided for and that the present

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weigh more than 400 pounds each. Copy of Proceedings, Joint Boundary Commission, 1849-50, Item 397, NA, RG 76, Southern Boundary (Mexico) 1849-60. The monument on the Gila was to be of smaller dimensions.

9. *Ibid.*, Meeting of February 15, 1849.

conditions in California made it impossible to continue the work beyond the mouth of the Gila. The commissioners agreed to adjourn and meet again on the first Monday in November at El Paso del Norte on the Rio Grande.

Emory and Salazar met on February 26 and erected a marker on the road to Lower California. This marker was described as "sufficiently durable to last until replaced by the Iron monument." Emory, prior to suspension of operations in December, had located five stations along the line between the initial point on the Pacific Ocean and Mount Tecate, one of which was near the road. Salazar verified this location as correct and acceptable to Mexico. The two men also agreed that the line should be prolonged east from station five on the mesa east of the Arroyo Tia Juana since it "most correctly marks the direction of the line of boundary."<sup>10</sup>

During March Emory and Salazar erected monuments along the 30-mile section of the line between the Pacific and Mount Tecate. Each monument was composed of stones and earth. The cost of these was shared equally by the two nations.<sup>11</sup>

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10. The agreement was contained in a letter from Emory to Ewing, San Diego, April 2, 1850. Letters Received, Fourth U.S. Commissioner, 1849-60, NA, RG 76, Southern Boundary (Mexico), 1849-60.

11. Through some misunderstanding Señor Salazar paid the entire cost of these monuments and Emory, without government funds, borrowed the sum from the Army Quartermaster Department in order to pay the

Prior to the completion of this work, the two commissioners had left San Diego. Weller departed on February 19 for San Francisco. On the first of the next month he wrote to Secretary of the Interior Ewing acknowledging the letter of December 19 removing him as commissioner. Emory had been appointed acting commissioner and Weller indicated that he would turn over to the Major all the books and papers when Emory arrived in San Francisco.<sup>12</sup> On March 4, General Carrasco, commander of the military escort, General Condé, and most of the Mexican employees left by steamer for Mexico.<sup>13</sup> A month later, Señor Salazar and his party also departed for Mexico. Emory was left in San Diego with a reduced American commission, no money, and poor credit.

By mid-April 1850 the situation of the boundary survey was as follows. The line had been marked on the ground for 30 miles from the western end and five miles or less from the eastern end. The entire Mexican contingent had left for Mexico City on their way to El Paso. The old commissioner, Weller, was in San Francisco and a

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Mexican Surveyor before he left with his party for Mexico City on April 4. *Ibid.*

12. Weller to Ewing, San Francisco, March 1, 1850, *Report of the Secretary of the Interior*, 32nd Cong., 1st Session, Senate Executive Doc. 119, p. 74.

13. Emory to Ewing, San Diego, April 2, 1850. *Letters Received*, Fourth U.S. Commissioner, 1849-60, Item 425, NA, RG 76, Southern Boundary (Mexico), 1849-60.

new commissioner had not yet been appointed. The American commission under the charge of Emory was "without one cent of money, without a hoof or wheel for transportation."<sup>14</sup> Acting under instructions of Secretary Ewing dated January 8, Emory had reduced the number of employees to a minimum, a not-too-difficult task since many had already deserted and gone north. The small group that remained included the three topographical engineers--Lieutenant Whipple, Captain Hardcastle and Major Emory--plus the civilian, A. B. Gray, and several assistants. Emory intended to dispatch Whipple with the heavier surveying instruments to El Paso via New York, and send Gray and two assistants directly to El Paso as soon as funds arrived. Hardcastle would remain in California to complete the work on the boundary and place the monuments as ordered by the joint commission.<sup>15</sup> Whipple left for the East during April but the rest of the party stayed in California, for without funds they were unable to leave. On April 10 Ewing wrote, promising funds, but by June 30 they had not arrived. Emory testily pointed out that two steamers had come since he received the letter of April 10, but

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14. *Ibid.*

15. *Ibid.* Hardcastle and Jiménez had agreed on February 23 to meet at San Diego on January 1, 1851, to place the monuments along the line.

there still were no funds: "The commission is still here stripped of everything unable to move, with its debts accumulating."<sup>16</sup>

Funds apparently did become available soon after this, for during the late summer Hardcastle operated along the line east of the point where Emory and Salazar had stopped in late March to the east base of the mountains bordering the desert.<sup>17</sup> The major concern during this work was to complete the topographical survey of the boundary, but no doubt Hardcastle and his small force also placed temporary monuments as they prolonged the line. In September Hardcastle returned to San Diego, presumably to see Major Emory before he departed for Washington. Emory on September 27 ordered Hardcastle to go to the Gila and Colorado, note the topography of the land on either side of the boundary, and run the line west from the river junction. Five days later Hardcastle departed for the Colorado River with a command of the 2nd Infantry, going to establish the post of Fort Yuma near the junction of the rivers. The command, because of lack of forage, halted at Vallecito, sent the wagons back to San Diego for additional forage, and waited there for their return. Hardcastle was compelled to wait with them as they could not provide

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16. Emory to Ewing, San Diego, June 30, 1850, Letters Received, Fourth U.S. Commissioner, 1849-60, Item 425, NA, RG. 76, Southern Boundary (Mexico) 1849-60.

17. Hardcastle to Emory, San Diego, January 18, 1851. Emory Papers.

him with an escort to continue. Because of this delay he did not reach the Colorado until November 26.<sup>19</sup>

He began at once to carry out the instructions of Emory to run the line westward. The attempt was unsuccessful because of the lack of water and forage between the Colorado and New River, approximately forty miles to the west. The sandy Colorado Desert, the poor condition of his animals, and the impossibility of using wagons over the shifting sands compounded his problems. As a result he was able to extend the line no more than eight miles from the Colorado. From this point, stake number two, Hardcastle could distinguish Signal Mountain on the desert west of New River and decided that the line would pass over it. Because the mountain was visible for some distance, he was able on his return to San Diego to locate the approximate point where the line crossed the Emigrant trail.

The journey to and from the Colorado, plus the work done there, also provided the young officer with some ideas on how to run the boundary line when he met with Captain Jiménez. His plan was not to run the line continuously across the desert, but rather to

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19. *Ibid.* Though eight weeks, even with a two-week delay mentioned by Hardcastle, seems excessively long for a journey of less than two hundred miles, which others had covered in much briefer periods of time, it apparently was acceptable to both Emory and Hardcastle, as no further mention of the time taken is made.

establish the point where the line crossed Signal Mountain and then observe fires at night from the east and west and by this process determine the location of the monuments on the emigrant trail and at New River.<sup>20</sup>

Hardcastle intended to present this plan to Jiménez when they met, as agreed, on January 1, but two and a half weeks after this date neither Jiménez nor any other representative of the Mexican government had appeared. Hardcastle wrote to Emory inquiring what course he should follow regarding the placing of the three monuments whose location had not been specified.<sup>21</sup> Emory's reaction upon receiving the Captain's inquiry was to request permission of Secretary of the Interior Alexander Stuart to instruct Hardcastle to proceed as if Jiménez were present and erect all seven monuments at one time. He also suggested that he be permitted to instruct him to "fill up a gap in the topography of the line, caused by the unavoidable failure of

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20. *Ibid.* The description of Hardcastle's work on the Colorado is taken from his letter to Emory on January 18, 1851.

21. Both Hardcastle in his letter of January 18 and Emory in his letter to the Secretary of Interior on March 15, 1851, use the number three in relation to the monuments still to be located, though Emory and Salazar had placed a marker on the road to lower California and the commission had specified four other locations.

his animals in crossing the desert, and by the failure of water in New River, which forced him to leave the line."<sup>22</sup>

The course of action advocated by Emory in regard to the absence of the Mexican engineer was unnecessary. The Mexican representative arrived on March 18 and Captain Hardcastle called on him at once. Instead of Jiménez, as expected, it proved to be Dr. Ricardo Ramírez, who had been zoologist and botanist on the commission the previous year.<sup>23</sup> Four days before the doctor arrived the cast iron monuments for the intermediate points had arrived in San Diego. Hardcastle determined to go first to the Gila and Colorado and place the two monuments there, run the line west to the mountains, and then return to the initial point on the Pacific and run the line east to completion.<sup>24</sup>

The day after Ramírez' arrival the two men had their first formal meeting and reached an agreement for completion of the boundary that approximated Hardcastle's plan, with the one difference that the engineers would run the line as far as New River and then return to

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22. Emory to Stuart, Washington, March 15, 1851, Letters received from the Fourth U.S. Commissioner, 1849-60, Item 425, NA, RG 76, Southern Boundary (Mexico), 1849-60.

23. Dr. Ricardo Ramirez also served as an Engineer Second Class on the Mexican Commission in 1849-50 and in the fall of 1849 was working with Whipple in the determination of the junction of the Gila and Colorado. Salazar Ylarrequi, *Datos de los Trabajos*, pp. 8 and 38.

24. Hardcastle to Emory, San Diego, March 28, 1851. Emory Papers.

San Diego and extend the line east from the initial point to New River. Ramirez and Hardcastle also agreed on the location of the other monuments: one where the boundary crossed the emigrant trail east of New River, another on the wagon road leading into Lower California (already located by Emory and Salazar), and the third where the boundary crosses the road leading from Rancho Otay to Rancho Jesus Maria.<sup>25</sup>

The two met again on March 20 to inspect the five cast iron monuments. The monuments conformed to the specifications drawn up by the Joint Commission on January 30, 1850. Captain Hardcastle reported that the marble monument for the initial point on the Pacific had not yet arrived. He also explained that, though the monument for the point near the junction of the Gila and Colorado had arrived, it was not of marble but of cast iron, though of larger dimensions than those intended for the intermediate points. Hardcastle informed Dr. Ramirez that under the agreement drawn up with Jiménez on February 23, 1850, he had been responsible for ordering the monuments after the Joint Boundary Commission had adjourned. Hardcastle

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25. Official Journal of the Boundary Commission, September 18, 1852. John Russell Bartlett Collection. Another copy of the Official Journal is in RG 76, Southern Boundary (Mexico) 1849-60, in the National Archives. The minutes of the meetings between the two men were transmitted by Captain Hardcastle to Commissioner Bartlett on November 12, 1851, from Washington, D. C., and read into the record the following September when Bartlett returned to El Paso.

soon realized that it would not be practicable to transport a heavy marble monument across the desert to the junction of the two rivers. Emory, as acting commissioner, agreed and a monument made of iron was ordered for the initial point on the Gila and Colorado. Ramírez accepted this explanation and modification and the meeting adjourned.<sup>26</sup>

When Ramírez arrived in San Diego, Hardcastle had nearly completed his plans to leave for the Colorado to begin placing the monuments. He delayed his departure to meet with his Mexican counterpart and did not dispatch his wagons with the two monuments to be placed near the junction of the rivers until March 25. Ramírez had authority to draw men for his escort from the Commandante at St. Thomas in Lower California and sent a dispatch on March 19 for that purpose. Captain Hardcastle remained in San Diego until March 30, hoping to see the Doctor started and to hear news of the marble monument. On the 30th he attached a postscript to his letter to Emory, informing him that the monument had arrived in San Francisco but because of its great weight could not be brought down by the steamer which arrived that morning. Hardcastle made arrangements for the monument to be

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26. Official Journal of the Boundary Commission, September 18, 1852. Minutes of meeting of March 20, 1851. Bartlett Collection. Cited hereafter as Official Journal with date of meeting between Hardcastle and Ramírez.

sent south as soon as possible, either by steamer or sailing vessel.<sup>27</sup> A few days after attaching the postscript, he left for the Colorado River to erect the two markers. Ramirez remained in San Diego and planned to leave within a week with the two monuments to be placed on the desert near the Emigrant Trail and New River.

On April 10 Hardcastle arrived with his party at the junction of the Gila and Colorado.<sup>28</sup> He began immediately to place the two monuments: one near the junction and the other on the left bank of the Colorado. On the 14th he met with Ramirez. They inspected the placing of the monuments and agreed that they were correct. The two men then decided that Captain Hardcastle and his men would run the boundary and Dr. Ramirez' party would be responsible for chaining or measuring the line from the Colorado to New River.<sup>29</sup> Hardcastle had hoped he could run the line by taking sightings at night on Signal Mountain, as he believed the line would pass over this height; but he discovered, when he took more detailed readings, that it would

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27. The weight and size of this monument was a constant complaint of Hardcastle in his letters to Emory. He closes his postscripts by noting: "What a great mistake it was to have a marble monument of such dimensions--one piece alone weighs 5 tons and is so unwieldy that it will be difficult to get here and more difficult afterwards to put in position." Hardcastle to Emory, San Diego, March 28, 1851. Emory Papers.

28. Hardcastle to Emory, Camp Stuart on New River, May 2, 1851. Emory Papers.

29. Official Journal, April 14, 1851. Bartlett Collection.

not. The only other choice was to produce the line continuously, that is, to move across the desert taking sightings to front and rear and using triangulation to maintain a straight line. Hardcastle organized a party of five men, including himself and his assistant, Edward Ingraham. With two pack mules, they began moving toward New River. The pace was slow. They covered only 13 miles the first two days as the intense heat and nearly impassable hills of drifting sand made the job extremely difficult. When the going became a bit easier, Captain Hardcastle left Mr. Ingraham to continue by himself and returned for a fresh supply of water. The only source of water along the 40-mile stretch of border was at First Wells.<sup>30</sup> Here on April 26 he met Ramirez again and learned that a young Mexican engineer, Jose I. Tamora, was in charge of the chaining party measuring the boundary.<sup>31</sup> Captain Hardcastle returned to New River and by the 29th had determined where the boundary crossed this intermittent stream. He went into camp near there and waited for Ramirez to join him.

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30. Hardcastle to Emory, Camp Stuart on New River, May 2, 1851. Emory Papers.

31. There is some problem with the chronology of events during April and early May while work on this portion of the boundary was being done. Hardcastle in his letter of May 2 to Emory indicates that "Mr. Ramirez did not reach the Colorado till the 26th of April, the day I had started with my wagons for New River." Yet the minutes of the Commission indicate a meeting near the Colorado between the two men on April 14 and agreement as outlined above. According to the Captain's letter the agreement by the Mexicans to chain the boundary was reached on the 26 and he expected the Mexican party to reach his camp by "tomorrow [May 3] or the next day." This writer can offer no explanation for this inconsistency of two primary sources.

On May 7 the representatives of the two nations met at New River. They placed a monument where the boundary intersects the emigrant trail, a distance of 61,640.7 meters or 38.5 miles from the marker on the west bank of the Colorado River. The same day a fourth marker was placed on "the left bank of New River at the distance of 2,785.8 metres from the preceeding [sic] or third monument."<sup>32</sup> The two engineers met the following day and decided, as previously agreed, that the most expeditious method of placing the final three monuments was to return to San Diego, install the marble monument on the Pacific shore, and then work eastwardly until the parties reached New River.<sup>33</sup>

The return to San Diego was the beginning of a month and a half of feverish work by Hardcastle and Ramirez to complete the boundary. On May 26 they met and placed the last two iron monuments on the wagon road to lower California, and on the road between Rancho Otay and Rancho Jesus Maria.<sup>34</sup> Six days later the engineers began to prolong

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32. Official Journal, May 7, 1851, Bartlett Collection. It is interesting that the Official Journal contains the inexact terms left and right rather than direction. An earlier reference to the "left" bank of the Colorado was to the monument on the west side of the river. However, the marker placed to the east of New River was also described as the "left bank." This usage is in contrast to the usual exact detail of the survey. The distance between the third and fourth monuments is about 1.74 miles.

33. *Ibid.*, May 8, 1851.

34. Official Journal, May 26, 1851. Bartlett Collection. The wagon road was 7,800.8 meters or 4.875 miles from the Pacific initial

the boundary line west from Mount Tecate, where the line marked by Emory and Salazar the previous year ended. Hardcastle, and possibly Ramírez, was also involved in moving the pieces of marble for the initial monument on the Pacific to the point south of San Diego. By June 3 this job had been completed with even the largest piece, weighing five to seven tons, at the site. The erection of the monument would take two or three days and Hardcastle estimated that by the end of the first week in June he would be able to join his assistants, Gardner and Ingraham, on the boundary line.<sup>35</sup>

G. Clinton Gardner was at the terminus of the line on Mount Tecate and Edward Ingraham was on the dividing ridge setting up a signal that would be visible from both New River and Mount Tecate. In mid-June, Hardcastle and Ramírez began to complete the line from Mount Tecate to New River. The work was done at night through the use of signal fires. The boundary line across the Tecate Valley was marked with monuments of loose stone. Because of the rough terrain and, to a lesser extent, bad weather, it took 24 nights before the exact point where the boundary crossed the dividing ridge was determined. On June 24 this was accomplished, and two days later everything was in readiness to complete the survey to New River. Fog on the first two nights made it impossible to see the fires. The 28th

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point and the second marker on the road connecting the two ranches was 12 miles from the same point.

35. Hardcastle to Emory, Camp at the Initial Point on the Pacific, June 3, 1851.

was clear and the surveyors were able to make considerable progress toward completion of the boundary. The next two nights were foggy again, so nothing was done. With provisions running low, Captain Hardcastle decided to return to San Diego for more supplies. By July 3 he was in San Diego, where he wrote Emory regarding the progress of the survey and expressed the hope that with favorable weather the survey would be finished before he returned with supplies.<sup>36</sup> On July 4 the boundary line was completed, though Hardcastle and Ramírez did not finish their work at New River until the 8th.

These few extra days were devoted to straightening out the boundary, as the line projected from the west had struck New River 1,864 feet south of the monument placed there in May to mark the boundary. This discrepancy presented no problem to Hardcastle and Ramírez. They agreed to move the monuments at New River and on the Emigrant Trail to conform to the final determination of the boundary from the Pacific.<sup>37</sup> In the eyes of Capt. Edmund L. F. Hardcastle

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36. Hardcastle to Emory, New San Diego, July 3, 1851. Emory Papers. The description of the survey of the boundary from Mount Tecate to New River is based on the above and on the Official Journal, June 1, 1851, which contains a narrative of events from June 1 to July 4.

37. Hardcastle had been expecting this problem for more than a month as he mentioned the possibility of changing the two markers to prevent any disagreement and to make everything "derecho" in his letter of June 3 to Emory. By July he had accepted this as fact and indicated that he and Ramírez had agreed to place the monuments at New River and the Emigrant Trail at points determined by running the

and Dr. Ricardo Ramírez, they had done a good job: "With the final result I am very well satisfied--being a disagreement of a little more than 1/3 of a mile--when I think of the difficulties & the means I had to overcome them."<sup>38</sup>

The two men returned to San Diego and on July 14 met at the initial point on the Pacific to deposit a bottle containing a piece of parchment testifying to the erection of the marble monument by them. It consisted of four separate pieces, together weighing nearly eight tons. To prevent the entire monument from settling, a masonry foundation six feet square and three-and-a-half feet deep was prepared and the monument placed on it.<sup>39</sup> The size and dimensions of the marble marker made an impressive sight to travelers on both land and sea. John Russell Bartlett visited the location in May of 1852 and described the monument in detail:

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line from the Pacific. The variance was blamed by Hardcastle, in his letter of June 3, on the instrument used for the survey from east to west. This "very imperfect instrument" was the only one light enough for work on the "waste of deep and plodding sands." Hardcastle describes the line from the east as an "approximation" and intended to verify and check the line by continuing it from the Pacific side eastward. Hardcastle to Emory, Camp at Initial Point of Boundary on Pacific, June 3, 1851. Emory Papers. See also letters from Hardcastle to Emory on July 3 and 17, 1851. *Ibid.*

38. Hardcastle to Emory, San Diego, July 17, 1851. Emory Papers.

39. Official Journal, June 16, 1851. Bartlett Collection.

It is an obelisk of white marble, resting on a pedestal, and is about twenty feet in height. It stands near the margin of the tableland, about two hundred yards from the seashore, and bears the name of the Commissioner, Surveyor and Astronomer of the two governments, together with the latitude and longitude . . . .

This monument stands directly opposite the Coronado Islands, and is seen from a great distance on land as well as by vessels at sea. On the tableland around and south of it grow large numbers of the beautiful agave.<sup>40</sup>

With this final formal action of July 14, the work of the two men was complete and they soon left San Diego. Captain Hardcastle departed for Washington with all the instruments that had survived the two years of use by the Boundary Commission. Ramírez returned to Mexico and little more is known of him. By mid-September, Hardcastle was in Washington. He met briefly with Major Emory, before the Major left for El Paso. Emory wrote to Secretary of the Interior A. H. H. Stuart from New Orleans and commented on the "very satisfactory conclusion of the work on the Pacific side": "The work was of a description involving a combination of astronomical and geodetic operations of the first class--the determination of a line connecting two points, since ascertained to be upwards of one hundred and forty-eight miles apart, and separated by precipitous mountains and a desert of shifting sand, without vegetation, and without water."<sup>41</sup>

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40. Bartlett, *Personal Narrative*, 2, 105.

41. Emory to Stuart, New Orleans, September 25, 1851. Emory Papers.

In the same letter Emory reviewed the history of the work on the California boundary from early 1850 to its completion in July 1851:

Early in the operations, when my line had been produced to Mount Tecate, about thirty miles, General Condé, the Mexican commissioner, signified his wish to move towards El Paso, to meet the joint commission which was by agreement to meet there on the first Monday in November 1850. A previous act of the joint commission had devolved the duty of putting up the monuments on two engineers, one to be selected from each side; it was now proposed that the prolongation of the line should be confided to the same hands. Having faith in the correctness of my determination, and entire confidence in the ability and integrity of Captain Hardcastle, . . . he was left in October, 1850, to complete the prolongation of the line, and put up the monuments. He has accomplished all that was left for him to do in the most satisfactory manner; and I now report to you his arrival in Washington, and that he produced the line to the end and found it correct; that he has obtained all the topography not heretofore obtained and that he has placed all the monuments on the line and that the same has been officially accepted by the officer delegated by the Mexican commission to accompany him; so that all appertaining to the boundary line on the Pacific side may now be considered as finally settled.<sup>42</sup>

Captain Hardcastle spent the next seven months in Washington finishing work on the maps of the boundary and survey. On June 10, 1852, he reported to the Secretary of the Interior that he had completed all duties assigned to him. The maps of the boundary were complete and awaited only the verification of the two commissioners.

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42. *Ibid.*

The survey of the boundary between Alta and Baja California was officially closed.<sup>43</sup>

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43. The details of the completion of the California boundary have only been alluded to by most historians, who terminate their narrative of the survey with Emory's departure from California. Several historians and writers have made a one- or two-line summary of the work completing the boundary line that is in conflict with the account given in this chapter. A careful check of sources both primary and secondary provided no substantiation for these brief accounts and resulted instead in the above narrative.

## CHAPTER 6

### Sources for Illustrations

A picture shows me at a glance what it takes  
dozens of pages of a book to expound.

Ivan Turgenev (1818-1883)  
*Fathers and Sons*, Chapter 16

In addition to the vast amount of written material resulting from the survey of the boundary between Mexico and the United States, there is also a considerable treasure of illustrative work. Both Emory's *Report on the United States and Mexican Boundary Survey* and Bartlett's two-volume *Personal Narrative* contain extensive illustrations. Bartlett's work includes pictorial representations of the more dramatic events during the two years he roamed the Southwest as boundary commissioner. The first volume of Emory's work is especially notable for its color plates and black-and-white sketches of scenes along the border and, most importantly, of individual and small groups of Indians. The second volume, divided in two parts, is given over to the scientific work of the commission and is filled with detailed drawings of the flora and fauna of the borderlands including cactus, birds, plants, reptiles, and fishes.

Though not connected with the boundary survey, a third book published in 1856 contains pictures of sites closely related to the

boundary survey. In December 1853, A. B. Gray, at one time Surveyor for the Boundary Commission, arrived in San Antonio to organize a party for a survey of a railroad route along the 32nd parallel. In late February Gray's party reached El Paso. During the next four months the small party of 13 men traveled across New Mexico and Arizona with several side trips into Mexico. When they reached the Colorado, they learned of the ratification of the Gadsden treaty which transferred the area they had surveyed to the United States. The party continued on to the Pacific coast, where they disbanded. Gray's comments on the area complement those of Emory, Bartlett, Michler, and others on the Boundary Commission. His report also contains illustrations depicting El Paso, the Rio Grande north or south of the town, Tubac, the mission of Tumacacori near Tubac, Tinajas Altas, Fort Yuma, and the junction of the Gila and the Colorado.<sup>1</sup> The art work was done by Charles Schuchard. The original sketches were destroyed in the fire at the Smithsonian in 1865.

Less than 30 years after Emory concluded his work on the Gadsden treaty line, it was necessary to resurvey the boundary. The original

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1. The original report, a scarce item, was reprinted with notes by L. R. Bailey, *Survey of a Route on the 32nd Parallel for the Texas Western Railroad, 1854. The A. B. Gray Report including the Reminiscences of Peter R. Brady who accompanied the Expedition.* Los Angeles,

markers placed by Emory and others had been destroyed or moved, and with the land filling up, a new determination was needed. In 1882 the two countries concluded a convention which was renewed in 1889. Between 1891 and 1896 the boundary was resurveyed and remonumented. In 1898 a report of this was published by the United States Government.<sup>2</sup> The photos in the report show the type of terrain that the original boundary commission had to traverse and might prove useful as a supplement to the work of Emory, Bartlett, and Grey. Supplementing this are several albums of photos in the Audio-Visual Branch of the National Archives that were taken during the survey.

A final source of material on the boundary survey is in the John Russell Bartlett Papers at John Carter Brown Library, Brown University. Here are 204 water colors and sketches by artists including Henry C. Pratt, John R. Bartlett, Seth Eastman, and Harrison Eastman. A considerable number are reproduced in Bartlett's two-volume work, but only as black and white drawings. In 1968, Robert V. Hine produced

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Westernlore Press, 1963. Brady was a member of Gray's party and wrote his reminiscences for a Tucson paper in 1898.

2. *Report of the Boundary Commission upon the Survey and Remarking of the Boundary between the United States and Mexico west of the Rio Grande, 1891-1896, Parts I and II.* Senate Document 247, 55th Congress, 2nd Session. Part two of this report is an album of one or more photographs taken of and from most of the 258 monuments along the line from the Rio Grande to the Pacific.

many of these drawings in color in his work entitled *Bartlett's West*.<sup>3</sup> During the fall of 1968 and the first months of 1969 a selection of the paintings was on tour through the United States. They were returned to the John Carter Brown Library in March of this year. Appendix I of this report contains a list and brief description of the paintings at Brown University compiled by the staff of the library.

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3. R. V. Hine, *Bartlett's West: Drawing the Mexican Boundary* (New Haven, Yale University Press, 1968).

## APPENDIX I

### A Few Notes on this Compilation

I have added a comments to the information already included in the inventory by the library staff. These are set off with brackets [ ] or if a footnote I have used multiple asterisks. \*

Lenard E. Brown  
April 1969

WATER COLORS AND DRAWINGS FROM  
THE JOHN RUSSELL BARTLETT PAPERS (1850-1852)  
IN THE JOHN CARTER BROWN LIBRARY, BROWN UNIVERSITY

\* \* \* \* \*

An identification list of works by

Henry Cheeves Pratt, 1803-1880  
Nos. 1-31

John Russell Bartlett, 1805-1886  
Nos. 32-173

Oscar Bessau, fl. 1852  
Nos. 174-181

Seth Eastman, 1808-1875  
Nos. 182-194

Harrison Eastman, b.ca. 1823  
Nos. 195-200

Unknown Artists  
Nos. 201-204

PROVIDENCE, RHODE ISLAND  
1962

## NOTE

The drawings and water colors listed here form part of the John Russell Bartlett Papers in the John Carter Brown Library, Brown University. In 1850 Bartlett was appointed by President Taylor as this country's member of the Commission to run the boundary line between the United States and Mexico. With him on the expedition, which lasted nearly four years, was Henry Cheeves Pratt, draughtsman and artist, who painted the water colors and made the pencil sketches (Nos. 1-31) described in this list. Bartlett is responsible for most of the sepia and pencil drawings (Nos. 32-173). During the latter part of his life John Russell Bartlett was closely associated with John Carter Brown in forming his noted collection of Americana. Bartlett later compiled, the first printed catalogues of the Library. After his death in 1886 Bartlett's personal papers became part of the Library.

Among the Papers were found eight drawings in pencil and Chinese white (Nos. 174-181) drawn from Bartlett sketches by the French artist, Oscar Bessau, who was working in Washington, D. C., in 1853.

Seth Eastman, an Army officer, topographical draftsman, and painter, is described by John Francis McDermott, Seth Eastman (1961), as the most effective pictorial historian of Indian life in the nineteenth century. The thirteen Seth Eastman water colors were copied in 1853

from sketches by Bartlett while Eastman was stationed at the Office of Indian Affairs in Washington, D. C. Nos. 182-193 in the Eastman group were given to the Library in 1947 and are recorded in McDermott's book. No. 194 was later found in the Bartlett Papers.

Harrison Eastman, primarily known as an engraver and lithographer, also painted in water color. He was working in San Francisco in 1853 at the time John Russell Bartlett was in that area, which may be the reason some of his paintings were found among the Bartlett Papers.

#### REFERENCES

- John Russell Bartlett. *Personal Narrative of Explorations and Incidents in Texas, New Mexico, California, Sonora, and Chihuahua, connected with the United States and Mexican Boundary Commission, during the Years 1850, '51, '52, and '53. In Two Volumes, with Map and Illustrations.* New York, 1854.
- John Francis McDermott. *Seth Eastman Pictorial Historian of the Indian,* Norman: University of Oklahoma Press, [1961].

HENRY CHEEVES PRATT, 1803-1880

1. Fort Yuma, Colorado River  
Water color. 9 3/4" x 9 1/8" (Bartlett, Narrative, V.I., front, lithograph, signed by H. C. Pratt, del.)
2. Castle Mountain Pass, Texas  
Sepia. 9 1/4" x 11 1/2" (Bartlett, Narrative, V.I., p. 91, woodcut) [National Geographic]\*
3. Church at El Paso del Norte, Chihuahua  
Sepia. 9 x 11 1/4" (Bartlett, Narrative, V.I., p. 189, woodcut) [NG], [Doubtful if done by Pratt]\*\*
4. Valley leading to Santa Cruz, Sonora  
Water color. 9 7/8" x 13 7/8" (Bartlett, Narrative, V.I., p. 402, lithograph, signed by H. C. Pratt, del.)
5. Magdalena, Sonora  
Water color. 9 3/4" x 13 7/8" (Bartlett, Narrative, V.I., p. 431, woodcut)
6. The Mission of San Diego - April 1852  
Pencil sketch signed by H. C. Pratt. 4 1/2" x 7". (Cf. Bartlett Narrative, V.II, p. 103, woodcut).
7. Junction of the Colorado & Gila Rivers  
Water color. 9 3/4" x 14" (Cf. Bartlett, Narrative, V.II, p. 158, woodcut) [NG], (Also sepia by John Russell Bartlett, No. 66)
8. View on the Gila River - Arizona  
Water color. 14" x 10" (Cf. Bartlett, Narrative, V.II, p. 205, woodcut) [NG]

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\*In 1965 the *National Geographic* took photographs of some of the John R. Bartlett Collection of paintings. Mr. Andrew Poggenpohl, Art Editor of the *Geographic*, made the arrangements. The pictures that were photographed have been marked [NG].

\*\*Comments on the authenticity of artist or further identification of the paintings are by Mr. Thomas Hardy, Librarian, John Carter Brown Library, in a conversation with the author in November 1968.

22. Casas Grandes, Chihuahua Mexico  
Water color. 9 3/4" x 14" [NG]
23. Duape, Sonora, Mexico  
Pencil sketch. 4 1/2" x 7"
24. Organ Mountains from the Rio Grande  
Pencil sketch. 5 1/4" x 8 1/4"
25. View near Chalco Grando, on the Road between El Paso -  
Chihuahua by H. C. Pratt, Nov 1852. Pen and ink sketch.  
4 3/8" x 6 3/4"
26. Valley leading to Santa Cruz from the North  
Pencil sketch. 4 1/2" x 7 1/8"
27. View near R. Santa Maria Chihuahua  
Pencil sketch. 8 1/4" x 11 1/2"
28. View near Mule Spring - Picacho de Mimbres  
Pencil sketch. 4 7/8" x 7 7/8"
29. Maricopa Village  
Pencil sketch. 4 3/8" x 7 1/8" [NG]
30. [Unidentified mission church.] San Xavier  
Water color. 10" x 15" [NG]
31. [Unidentified view of mountains.]  
Water color. 10" x 14"

JOHN RUSSELL BARTLETT, 1805-1886

32. Picacho de Mimbres or Mule Mts.  
Pencil sketch. 7" x 10" (Bartlett, Narrative, V.1, p. 219,  
woodcut)
33. Mission of San José Texas  
Pen and ink sketch. 7 3/8" x 10 1/4" (Bartlett, Narrative, V.I,  
p. 42, woodcut)
34. Camp in Snow Storm on Delaware Creek, Texas.  
Pencil and sepia wash. 10 1/8" x 15 1/8" (Bartlett, Narrative,  
V.I, p. 112, lithograph)

35. Guadalupe Mountain, Texas  
Pencil and sepia wash. 9 1/2" x 13" (Bartlett, Narrative,  
V.I, p. 118, woodcut.) [NG]
36. Giant of the Mimbres  
Wash in sepia, pencil and color. 9" x 12" (Cf. Bartlett,  
Narrative, V.I, p. 224, woodcut) [NG]
37. Giant of the Mimbres near Santa Rita  
Sepia. 9 1/2" x 13" (Bartlett, Narrative, V.I, p. 235, woodcut)
38. Presidio at the Copper Mines  
Pencil sketch. 7" x 10" (Bartlett, Narrative, V.I, p. 235, woodcut)
39. Fronteras - Sonora.  
Sepia. 9 5/8" x 13" (Cf. Bartlett, Narrative, V.I, p. 265, woodcut)
40. Sand Stone column near Arispe  
Wash and pencil sketch. 7 5/8" x 9 1/2" (Bartlett, Narrative,  
V.I, p. 280, woodcut)
41. Guadalupe Pass, Cooke's Road, Sonora  
Sepia. 11 1/2" x 15 7/8" (Bartlett, Narrative, V.I, p. 296, where  
lithograph is signed "J.R.B.Del.") [NG]
42. Burro Mountains, Chihuahua  
Pencil sketch. 6 1/4" x 8 1/2" (Bartlett, Narrative, V.I, p. 364,  
woodcut)
43. Sugar Loaf Mt. Sonora  
Pencil sketch. 6 1/4" x 9 5/8" (Bartlett, Narrative, V.I, p. 366,  
woodcut.)
44. Rocky Cavern near Arispe.  
Pencil sketch. 9 1/2" x 13" (Bartlett, Narrative, V.I, p. 368,  
woodcut)
45. Rocky Cavern, near Sugar Loaf Mountain  
Pencil and wash. 9 5/8" x 12 1/4" (Bartlett, Narrative, V.I, p. 368,  
woodcut)
46. Chiricahui Mtns.  
Pencil sketch. 7" x 10" (Bartlett, Narrative, V.I, p. 369, woodcut)

47. La Punta de Sauz  
Pencil sketch. 6 3/4" x 9 1/2" (Bartlett Narrative, V.I, p.370,  
woodcut)
48. Santa Cruz from the West, Sept. 25, 1851  
Pencil sketch. 9 1/2" x 13 1/8" (Bartlett, Narrative, V.I, p. 408,  
woodcut)
49. Entrance to San Ignacio Church  
Pencil sketch. 5 3/8" x 5 7/8" (Bartlett, Narrative, V.I, p. 419,  
woodcut)
50. Magdalena, Sonora.  
Pencil sketch. 9 5/8" x 13" (Bartlett, Narrative, V.I, p. 431,  
woodcut)
51. Date tree at Ures  
Sepia. 4 3/4" x 7 3/4" (Cf. Bartlett, Narrative, V.I, p. 441,  
woodcut)
52. Manzanillo on the Pacific Coast  
Pencil and wash. 7 5/8" x 11 1/2" (Bartlett, Narrative, V.I, p. 496,  
woodcut) [NG]
53. Acapulco  
Pencil sketch. 9 3/4" x 13" (Bartlett, Narrative, V.I, p. 500,  
where lithograph is signed "J.R.B.Del.") [NG]
54. Acapulco, Mexico  
Pencil and wash. 8 1/4" x 13 3/4" (Bartlett, Narrative, V.I, p. 500,  
where lithograph is signed "J.R.B.Del.") [NG]
55. Casas Grandes - Ruins, Chihuahua from the East  
Pencil and sepia wash. 9" x 14 1/4" (Cf. Bartlett, Narrative, front.,  
where lithograph is signed "J.R.B.del.")
56. Geysers. No. 1. Vulcania March 23, 1852  
Pencil sketch. 9" x 11 5/8" (Cf. Bartlett, Narrative, p. 40, where  
lithograph is signed "J.R.B.Del.")
57. Geysers--California.  
Sepia. 11 3/8" x 15 7/8". (Bartlett, Narrative, V.II, p. 40, where  
lithograph is signed "J.R.B.Del.") [NG]

58. Napa Valley California  
Pencil and wash. 9 1/2" x 13" (Bartlett, Narrative,  
V.II, p. 50, where lithograph is signed "J.R.B. Del.") [NG]
59. Fort Point & Golden Gate San Francisco - March, 1852  
Pencil sketch. 9" x 11 5/8" (Bartlett, Narrative, V.II,  
p. 54, woodcut)
60. Quicksilver Furnaces New Almaden  
Pencil and sepia wash. 11 1/2" x 16" (Bartlett, Narrative,  
V.II, p. 58, woodcut) [NG]
61. Ascent to the Quicksilver Mines, New Almaden, California  
Pencil and sepia wash. 17 1/2" x 12 3/4" (Bartlett, Narrative,  
V.II, p. 62, where lithograph is signed "J.R.B. Del.") [NG]
62. Monterey, April 15, 1852  
Pencil sketch. 9" x 11 5/8" (Bartlett, Narrative, V.II, p. 73,  
woodcut)
63. San Diego, Feb. 21, 1852  
Pencil sketch. 9 3/4" x 12 7/8" (Cf. Bartlett, Narrative,  
V.II, p. 95)
64. Crossing the Pecos  
Pencil and sepia wash. 9" x 12" (Bartlett, Narrative, V.II,  
p. 98, woodcut) [NG]
65. Initial point, February 19, 1852, San Diego  
Pencil sketch. 9 3/4" x 13" (Bartlett, Narrative, V.II,  
p. 105 woodcut) [NG]
66. Junction of the Gila and Colorado Rivers looking up the Gila  
Pencil and sepia wash. 11 1/4" x 15 3/4" (Bartlett, Narrative,  
V.II, p. 158, woodcut) (Also in water color by Henry C. Pratt,  
No. 7) [NG]
67. Pagoda Mountain - River Gila  
Pencil and wash. 4 3/8" x 9 3/8" (Bartlett, Narrative, V.II,  
p. 188, woodcut)
68. Big Horn Mountain, River Gila  
Pencil and sepia wash. 12 3/4" x 18" (Bartlett, Narrative,  
V.II, p. 198, where lithograph is signed "J.R.B. Del.")

69. Pimo Indian Weaving  
Pencil sketch. 4 1/2" x 7 1/4" (Cf. Bartlett, Narrative, V.II, p. 225, woodcut) [NG]
70. Interior of a Pimo Store House  
Pencil sketch. 2 x 3 1/8" (Bartlett, Narrative, V.II, p. 236, woodcut)
71. Pimo man & Maricopa woman  
Pencil sketch. 5 1/4" x 7 1/4" (Bartlett, Narrative, V.II, p. 238, woodcut)
72. Pimo villages & cultivated fields with the desert between the Gila and the Salinas. Pencil sketch, signed by J. R. Bartlett. (Bartlett, Narrative, V.II, p. 249, woodcut)
73. Fragments of pottery - Rio Gila  
Pen and ink sketch. 9" x 5 1/4" (Bartlett, Narrative, V.II, p. 255, woodcut)
74. Casas Grandes Rio Gila  
Pencil and sepia wash. 11 1/2" x 15 3/4" (Bartlett, Narrative, V.II, p. 274, where lithograph is signed "J.R.B.Del") (Also in water color by Henry C. Pratt, No. 10) [NG]
75. Tucson, Arizona  
Pencil and sepia wash. 12 3/4" x 18 1/8" (Bartlett, Narrative, V.II, p. 292, where lithograph is signed "J.R.B.del.") [NG]
76. Ground plans of the Casas Grandes, Chihuahua  
Pen and ink sketch. Two separate drawings. Top 5/8" x 2". Bottom 2 1/4" x 2 1/4" (Bartlett, Narrative, Top. V.II, p. 257, bottom V.II, p. 359, woodcut)
77. Fragments of ancient Pottery from Casas Grandes, Chihuahua  
Water color. 9 x 5 5/8" (Bartlett, Narrative, V.II, p. 360, second plate, woodcut)
78. Fragments of ancient pottery from Casas Grandes, Chihuahua  
Pen and ink sketch. 9" x 5 1/4" (Bartlett, Narrative, p. 360, first plate, woodcut)
79. Antiquities from the ruins of Casas Grandes, Chihuahua  
Pencil sketch. 9" x 5 7/8" (Bartlett, Narrative, V.II, p. 362, woodcut)

80. Casas Grandes, Chihuahua  
Pencil and sepia wash. (Bartlett, Narrative, V.II, p. 365,  
where lithograph is signed "J.R.B.del.") (Also in water color  
by Henry C. Pratt, No. 11) [NG]
81. Military Post El Paso. Texas  
Sepia. 8 1/8" x 11 3/8" (Cf. Bartlett, Narrative, V.II, p. 383)  
[NG]
82. Organ Mountains New Mexico  
Pencil and sepia wash. 13" x 18 1/4" (Bartlett, Narrative, V.II,  
p. 392, where lithograph is signed "J.R.B.del.") [NG]
83. El Paso, Texas  
Sepia. 8 7/8" x 11 1/4"
84. Camp at small lagoon on the Gila  
Pencil sketch. 8 1/2" x 14"
85. Cañon, near Copper Mines, New Mexico
86. Quicksilver Mine. Tunnel & Shaft, New Almaden, April 3, 1852  
Pencil sketch. 9" x 11 1/2"
87. Quicksilver Mines, New Almaden, California  
Pencil and sepia wash. 11" x 15"
88. Casas Grandes from S. E. corner  
Pencil sketch. 8" x 13"
89. Casas Grandes, Chihuahua, from West, August 1852  
Pencil sketch. 8" x 13"
90. Ruins of Casas Grandes, Chihuahua  
Pencil sketch. 8" x 13"
91. Casas Grandes, Chihuahua  
Pencil sketch. 8" x 13"
92. Pluton river, near the Geysers  
Pencil sketch. 9" x 11 3/4"
93. Basin of the River Gila  
Pencil sketch. 8 1/2" x 14"

94. On the Gila  
Pencil sketch. 8 1/4" x 17 3/4"
95. View on the Gila 2d Camp from Fort Yuma  
Pencil and sepia wash. 13" x 18"
96. View on the river Gila  
Pencil sketch. 9 1/2" x 14 3/8"
97. Valley of Russian River, North of San Francisco  
Pencil and wash. 7 3/4" x 10 3/4"
98. On the Salinas - North of the Gila, New Mexico  
Pencil and wash. 7 1/4" x 11 7/8"
99. [Unidentified church.]  
Pencil sketch. 4" x 7"
100. [Unidentified church.]  
Pencil sketch. 7 1/4" x 10 1/4"
101. San Lazaro 8 or 10 miles from Santa Cruz  
Pencil sketch. 7 1/8" x 12 3/8" Signed "J.R. Bartlett" (Also  
water color by H. C. Pratt, No. 21)
102. Granite Masses - Waco Mountains, Texas  
Pencil and sepia wash. 13" x 18 1/4" [NG]
103. An encampment  
Pencil sketch. 9 1/8" x 14 1/4" [NG]
104. View near Guadalupe river - Fredericksburg  
Lampblack and wash. 9 1/2" x 13"
105. Aug. 15, 1852. Mountains on Correlitas Road 40 Miles  
from El Paso. Pencil sketch. 8 1/2" x 12 5/8"
106. Gila Mountains  
Pencil sketch. 8 1/4" x 13 1/4"
107. Rio Diabolo looking east May 30th 1851  
Pen and ink sketch. 7 1/2" x 10"
108. Sketch from Sathé road looking South between Santa Maria &  
the Sand Hills. Sepia. 7 1/4" x 10 3/4"

109. Cañon between Bacuachi & Arispe  
Pencil sketch. 8 1/2" x 14"
110. Salado. Exhibiting the character of the country 50 miles  
s.w. of El Paso. Pen and ink sketch. 4 1/2" x 13"
111. Pallisade Mountain 1750 high from camp  
Pencil sketch. 9 1/2" x 13"
112. Chihuahua from the high Bank on the opposite side of the  
River. Pen and ink sketch. 9 3/4" x 14"
113. Camp near the Geysers, California  
Pencil and sepia wash. 11" x 15" [NG]
114. Grass Valley, California  
Pencil and wash. 9 3/4" x 13" (Doubtful Bartlett)
115. Camp in the cañon of Guadalupe  
Pencil sketch. 9 1/8" x 23 1/2"
116. Prairie on fire - from the Rio Grande to Corpus Christi,  
Texas. Pencil and sepia wash. 10" x 12 3/4" [NG]
117. Fording a Stream. Packmules sink in a quicksand  
Pencil and sepia wash. 10" x 12 3/4" [NG]
118. View in California  
Lampblack. 7" x 11 3/4" (Probably H. B. Brown) [NG]
119. Sacramento Plain & Butes from the foot hills  
Pencil and wash. 7" x 11" (H. B. Brown probably)
120. [Unidentified Indian]  
Pencil sketch. 13" x 18"
121. [Unidentified Indian]  
Pencil sketch. 11" x 7 1/2" [NG]
122. [Unidentified Indian]  
Pencil sketch. 10" x 7 1/4" (Probably H. B. Brown) [NG]
123. [Unidentified Indian]  
Pencil sketch. 7 1/4" x 6" [NG]

124. Pimo Indian woman  
Pencil sketch. 9" x 4 1/2"
125. Wallahoo Chief  
Pencil sketch. 10 1/8" x 7 1/4" (H.B. Brown) [NG]
126. Diegino Indian Taken at San Luis Rey Cal  
Pencil sketch. 9" x 5"
127. Chino Village near Monroeville California  
Pencil and wash. 6" x 12" [NG]
128. Chinoh Council House Group Gambling Near Monroeville Sal  
[Sacramento] River. Lampblack. 11 1/4" x 16" [NG]
129. Pass-Cookes road where the waggon broke  
Pencil sketch. 9 1/2" x 13 1/4"
130. Feby 5th evening at camp 2d day from the Rio Grande  
Pencil sketch. 10 1/2" x 14 3/4"
131. [Unidentified sketch of mountains and rocks with two  
figures in foreground at left.] Pencil and wash.  
9 5/8" x 12 1/2"
132. View taken 100 miles from above the valley  
Pencil sketch. 9 1/2" x 13"
133. [Unidentified sketch of mountains and rocks]  
Pencil sketch. 9 5/8" x 13 1/4"
134. [Unidentified sketch showing boats in river, buildings,  
mountains in distance, and four little animals in foreground]  
Pencil sketch. 12 1/4" x 15"
135. [Unidentified sketch of mountains, buildings, and river]  
Pen and ink sketch. 9 3/4" x 14" (Possibly Tucson)
136. Tacotah Chief  
Pencil sketch. 10 x 7 1/4" (Probably H. B. Brown) [NG]
137. Meteorite - Hacienda de Concepcion  
Sepia and wash. 4 5/8" x 9" [NG]

138. Meteorite at Tucson  
Sepia and wash. 4 1/2" x 9 1/4" [NG]
139. Pottery from Casas Grandes, Chihuahua  
Pen and ink sketch. 9" x 5 1/4"
140. Pottery from the Gila and Salinas  
Pen and ink sketch. 9" x 5 1/4"
141. [Unidentified personage]  
Pencil sketch. 6" x 5"
142. [Flowering cactus]  
Water color. 8 1/8" x 6 3/8" [NG]
143. [Flowing cactus]  
Water color. 13 x 9 1/2" [NG]
144. [Sketch of fishermen drawing net.]  
Sepia. 8 x 11 1/4"
145. Pass in Hueco Mountains  
Pencil sketch. 9 1/2" x 13"
146. Desert sandy plains with drifts of low bushes here  
& there. Pencil sketch. 3 1/2" x 13"
147. [Unidentified mountains]  
Pencil sketch. 8 5/8, x 12 7/8"
148. [Two cactus plants]  
Water color. 8" x 6 3/8"
149. Flower of the Cereus Giganteus - the great Cactus  
Pencil sketch. 8 1/4" x 13 1/4"
150. Yucca bush 9 ft high  
Pencil sketch. 12 1/2" x 8"
151. Yucca tree in Mexico  
Pen and ink sketch. 8" x 5"
152. Live Oak Creek  
Pencil sketch. 9" x 14"

153. Valley of the Mission of San Diego, looking towards the Sea. Pencil sketch. 8 1/2" x 14"
154. Sculptured Rocks near the Gila  
Sepia and white. (Bartlett, Narrative, V.II, p. 196, No. 1) [NG]
155. Sculptured Rocks. Rio Gila  
Sepia and white. (Bartlett, Narrative, V.II, p. 196, No. 1 top here, bottom 2 in book; No. 2 bottom one here is top one in book)
156. Sculptured Rocks. River Gila  
Sepia and white. (Bartlett, Narrative, V.II, p. 196, No. 3)
157. Sculptured Rocks Gila River  
Sepia and white. (Bartlett, Narrative, V.II, p. 196, No. 2, the bottom two) [NG]
158. Sculptured Rocks River Gila  
Sepia and white. (Bartlett, Narrative, V.II, p. 206, No. 4, top one here is bottom one in book; bottom one here is bottom right in book.)
159. Sculptured Rocks. Rio Gila  
Sepia and white (Bartlett, Narrative, V.II, p. 206, No. 6, top two)
160. Sculptured Rocks. River Gila  
Sepia and white (Bartlett, Narrative, V.II, p. 206, No. 5)
161. Sculptured Rocks. River Gila  
Sepia and white. (Bartlett, Narrative, V.II, p. 206, No. 4, bottom one here is top one in book; No. 6, top two on this are bottom two in book)
162. Ocus [portrait of Indian woman]  
Pencil sketch. 10 1/8" x 7 1/8" [NG]
163. [Floor plan of unidentified building]  
Rough pencil sketch. 8 x 10 3/4"

164. [Map of the Gila River from Rio San Pedro to Colorado River showing the route of Bartlett Expedition No. v 5-24, 1852] [Inset map of River Salina, Gila, and Indian trail] Pencil sketch. 8 1/4" x 10" [NG]
165. Fig-Pomegranite - Date & Cotton wood. Nov. 6th [Recto] Pencil sketch. 7 1/4" x 10"
166. [Unidentified portrait of man with a beard standing at desk] [Verso] Pencil sketch. 10" x 7 1/4"
167. Industry Bar Cal. [View of miners at work beside a river] [Recto] Pencil sketch. 9 1/2" x 14" (Doubtful if J.R.B.)
168. [Interior of Church] [Verso] Pencil sketch. 9 1/2" x 14"
169. Quaco Lepin [portrait of Indian woman] Pencil sketch. 14 3/4" x 10 1/4"
170. [Sketch of a gorge] Pencil sketch. 12 1/4" x 7 1/2"
171. Sketch Book. Signed on cover: John R. Bartlett San Francisco, California March 1852. 9" x 11 3/4". Contains six pencil sketches.
- (a) Yanos August 1852
  - (b) Geysers looking up. (Tuesday) March 23, 1852
  - (c) Napa Valley from the Obsidian Hills March 25, 1852
  - (d) View from McDonald's house March 22, 1852
  - (e) Residence of Joseph W. Osborne Esqr. Napa Valley. March 25, 1852
  - (f) Los Angeles April 1852
172. Sketch Book. 9" x 11 1/2". Contains twenty-four pencil sketches.
- (a) Meteorite, or mass of native iron at the Hacienda de Concepcion, State of Chihuahua
  - (b) Parras. Dec. 1, 1852
  - (c) Battlefield from hill where Washington battery was placed.
  - (d) Hacienda of Buena Vista & valley leading to Saltillo December 1852
  - (e) Saltillo December 1852 [NG]
  - (f) Rincondada Pass looking East from the Rancho del [space] Decr. 1852

- (g) Rinconada from Ampudia's Fort looking East  
Decr. 1852
- (h) Rinconada Pass, looking West
- (i) Water Falls - Organ Mountains Sept. 27. 1852
- (j) Organ Mountains near Fort Fillmore September 27. 1852
- (k) [Unidentified sketch of mountains]
- (l) Sulphur Volcano - March 23. 1852
- (m) [Unidentified sketch of mountains]
- (n) Rinconada Pass - Mitre mountains on the left - Saddle  
Mountains in the distance December 1852.
- (o) Rinconada from Bishop's Palace
- (p) Monterey, from the East looking towards the Rinconada  
December 11. 1852
- (q) Fort Yuma, Junction of the Colorado & Gila rivers June 12.  
1852
- (r) June 10, 1852. North side of Gila - Lt. Whipple's Camp
- (s) Sculptured Rocks near the Gila June 22d 1852
- (t) Big Horn Mountain South of River Gila June 23. 1852
- (u) Sculptured Rocks near the Gila June 27. 1852
- (v) Sculptured Rocks near River Gila June 27. 1852
- (w) Tucson, Sonora from the S.W. July 18. 1852
- (x) Guadalupe Pass looking East Aug 3. 1852

173. Drawing Book. 9" x 12". Contains eleven pencil sketches
- (a) Great cañon of the Gila. Oct. 27. 1851
  - (b) June 22d Gila valley & plain looking N. West from Big  
Horn Mountain
  - (c) March 31, 1852 San Isabel - California
  - (d) May 24. 1852. Wood Valley 1st day from San Diego California
  - (e) Mission of Cocospera. Sonora
  - (f) Gila - looking N. West from Camp January 23. 1852
  - (g) Battle ground of Sacramento - near Chihuahua sketched  
Oct 22. 1852
  - (h) Ojo Caliente Oct 16 1852
  - (i) From Luguna de Patos (looking West) Chihuahua October 14.  
1852
  - (j) Sept. 2. 1851. Pass through Sugar Mt. looking towards  
the Chihuahua Mts.
  - (k) Chihuahua approaching from the North 5 miles distant  
Octr. 22 1852

Oscar Bessau, fl. 1852

174. Hermosillo, Sonora, Mexico  
Pencil and Chinese white. 7 1/4" x 10 5/8" Signed:  
"Osk Bessau from a Sketch by G. Bartlett" (Bartlett,  
Narrative, V.I, p. 468, lithograph) [NG]
175. Mazattan  
Pencil and Chinese white. 7 3/8" x 10 1/2" Signed:  
"Osk. Bessau from a Sketch by J. R. Bartlett" (Bartlett,  
Narrative, V.I, p. 486, lithograph) [NG]
176. Casas Grandes - Chihuahua  
Pencil and Chinese white. 7 1/8" x 10 1/2" (Bartlett,  
Narrative, V.II, p. 348, upper picture, woodcut.)
177. Casas Grandes Chihuahua  
Pencil and Chinese white. 7 1/8" x 10 1/2" (Cf. Bartlett,  
Narrative, V.II, p. 348, lower picture, woodcut.)
178. Copper mines from the North  
Pencil and Chinese white. 7 3/8" x 10 5/8" [NG]
179. Mission of Carmel, near Monterey. April 16, 1852  
Pencil and Chinese white. 7 3/8" x 10 1/2"
180. At Lost Camp Texas Sept 13, 14, 15, 1851  
Pencil and Chinese white. 7 1/4" x 10 1/2" Signed on verso  
of print: "Oskar Bessau from a sketch by G. Bartlett"
181. Mount Moyacina - or Mount Helena of the Russians March 21, 1852  
Pencil and Chinese white. 7 3/8" x 10 1/2" Signed: "Osk Bessau  
from a Sketch by G. R. Bartlett"

Seth Eastman, 1808-1875

Water colors drawn from sketches by John Russell Bartlett

182. Cañon leading to Magdalena Sonora  
Water color. 9 1/2" x 12 1/4" (McDermott, Seth Eastman,  
No. 114) [NG]

183. Camping in a storm on the Mexican Plateau  
Water color. 9" x 12 1/4" (McDermott, Seth Eastman,  
No. 115) [NG]
184. Bufa del Cobra High Bluff, [Santa Rita Copper Mines]  
Rocky Mountains, 1800 feet Above the Valley. Water Color.  
9 1/8" x 12" (McDermott, Seth Eastman, No. 110)
185. View from Camp near the boundary line 4th day from Fort  
Webster. Water color. 9 1/4" x 12 1/8" (McDermott,  
Seth Eastman, No. 108)
186. Pass at the Pitoncillo, Chiricahui Mountains in the  
distance. Water color. 9 1/8" x 12" (McDermott, Seth Eastman,  
No. 105) [NG]
187. Santa Rita del Cobra (Copper Mines) Rocky Mountains New Mexico  
Water Color. 9 1/4" x 12 1/4" (McDermott, Seth Eastman,  
No. 112)
188. Vallecita, California  
Water color. 9 1/4" x 12 1/8" (McDermott, Seth Eastman,  
No. 109) [NG]
189. Camp near Lake de Los Patos, Chihuahua  
Water color. 9 x 12 1/4" (McDermott, Seth Eastman, No. 106)  
[NG]
190. Great Cañon River Gila  
Water color. 9 1/2" x 12 1/4" (McDermott, Seth Eastman,  
No. 107) [NG]
191. Fording Devil's River Texas  
Water color. 9 3/4" x 11 3/4" (McDermott, Seth Eastman,  
No. 113)
192. Village of the Pima Indians River Gila  
Water color. 9" x 12" (McDermott, Seth Eastman, No. 116)  
[NG]
193. Cañon leading to the Copper Mines Santa Rita del Cobra  
Water color. 9 1/2" x 12 1/4" (McDermott, Seth Eastman,  
No. 111)

194. Santa Cruz Valley  
Water color. 9" x 12" (Not in McDermott; Seth Eastman)

Harrison Eastman, b.ca. 1823

195. View Across the Boundary Line from Sugar Loaf  
Water color. 12 1/4" x 16 1/2"
196. Quicksilver Mines, New Almaden Cal.  
Water Color. 7 1/2" x 8 1/4" [NG]
197. Discovery of Gold in a trench, Sacramento River, California  
Water color. 8" x 7 1/4" [NG]
198. Sutters Fort, California  
Water color. 8" x 11 1/2" [NG]
199. Nappa Drawn at one sitting  
Water color. Portrait of Indian girl. 8" x 7 1/8"
200. [Indians around camp fire]  
Water color. 8 3/4" x 11 7/8" [NG]
201. [Unidentified scene of cliffs and beach with wagon at left]  
Water color. 6" x 9 1/4"
202. Chief Chetramockaha, Klalau Tribe, Puget Sound from the  
Daguerreotype by L. Louis Shaw  
Water color. 10 3/4" x 9 3/4"
203. [Western Coral Bean or Chilicote]  
Water color. 11 1/2" x 9 1/2"

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ILLUSTRATIONS

PLATE 1

Outline map of the United States--Mexico Borderlands  
showing the major natural features and some of the towns  
which existed during the survey of the international  
boundary.



PLATE 2

Monument on the west bank of the Rio Grande. In the resurvey during the 1890s the monuments were numbered consecutively from east to west. Photo from *Report of the Boundary Commission upon the Survey and Remarking of the Boundary Between the United States and Mexico west of the Rio Grande 1891-1896*, 55th Congress, 2nd Session, Senate Document 247, Part II. Here after cited as *Report on Survey and Remarking of Boundary, 1891-96, II*.

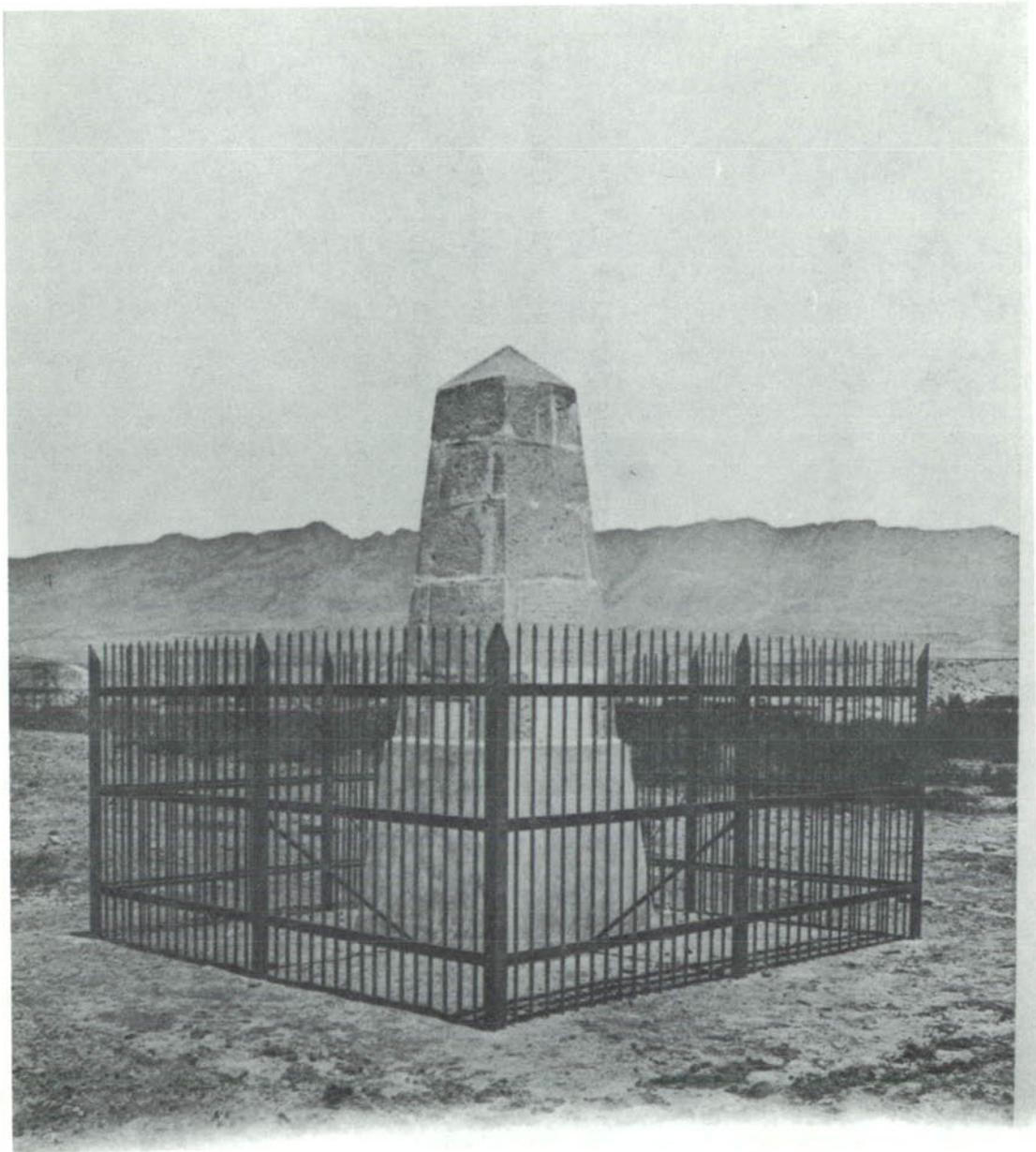
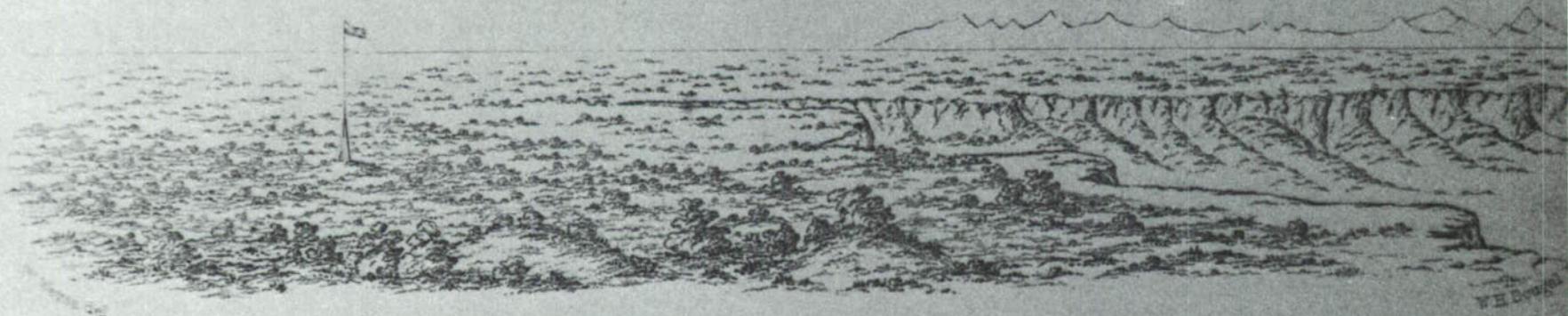


PLATE 3

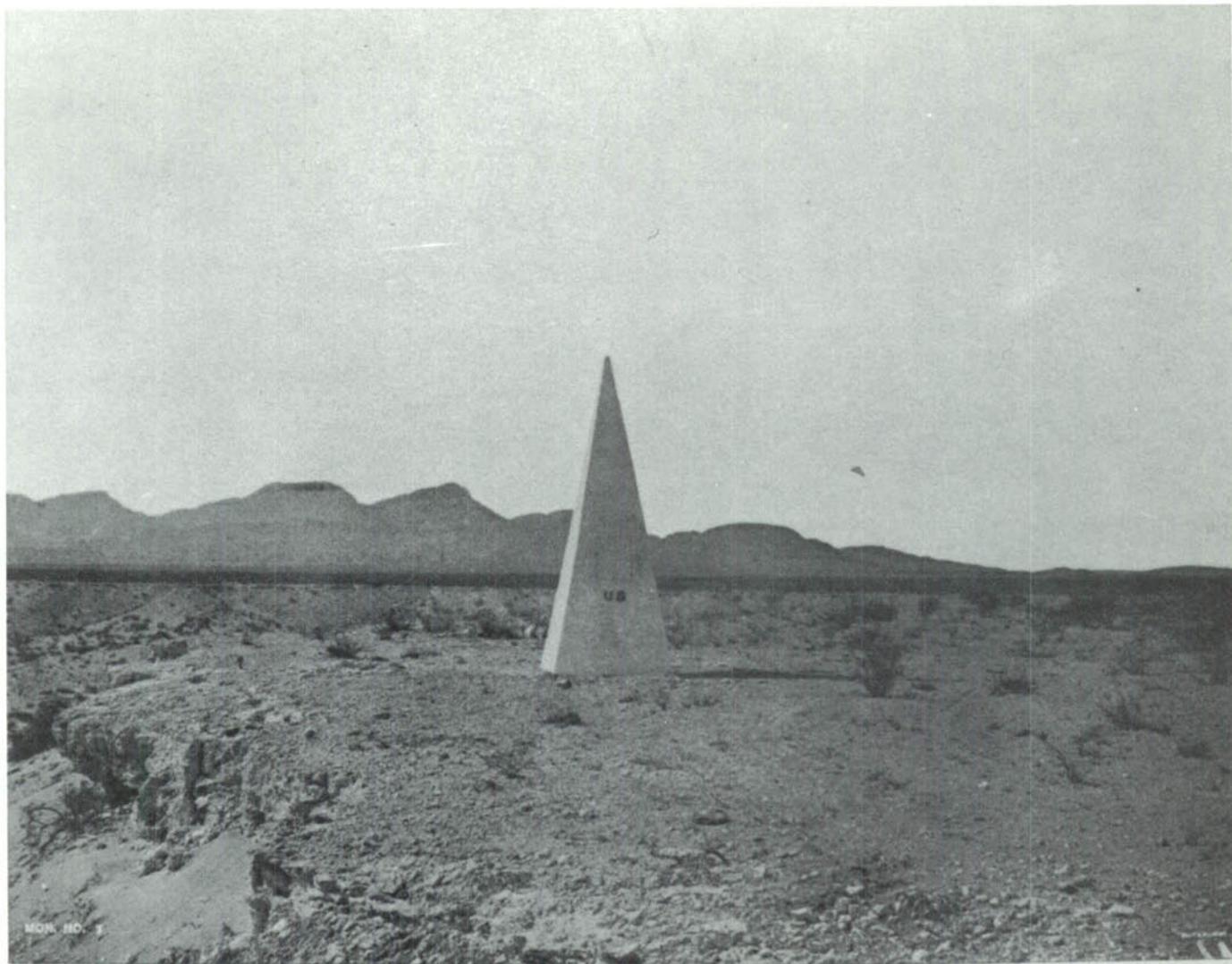
This view from monument III looking west along parallel  $31^{\circ}47''$  is from the point where the line first strikes the mesa. "The line here leads over an apparently endless level table-land, which is very sandy and generally without grass, but thickly covered with clumps of bushes and small sand-hills four or five feet high." Emory, *Report*, 1, 97  
Plates following page 100 of *Report*.



VIEW FROM MONUMENT N° 3—LOOKING WEST ALONG THE PARALLEL OF 31°-47'

PLATE 4

This view from *Report on Survey and Remarking of the Boundary, 1891-96*, II, is of the same general area as the previous plate. The mountains • to the rear and left may be the ones shown on the right of plate III.



MON. NO. 3

MONUMENT NO. 3 (STONE), VIEW TO THE S. W.  
Edge of mesa.

MONUMENTO NO. 3 (MAMPOSTERÍA), VISTA AL S. O.  
Orilla de la mesa.

PLATE 5

Monument 11 is on the site of the old monument southwest of the  
Potrillo Mountains. Photo from *Report on Survey and Remarking of  
Boundary, 1891-96, II.*



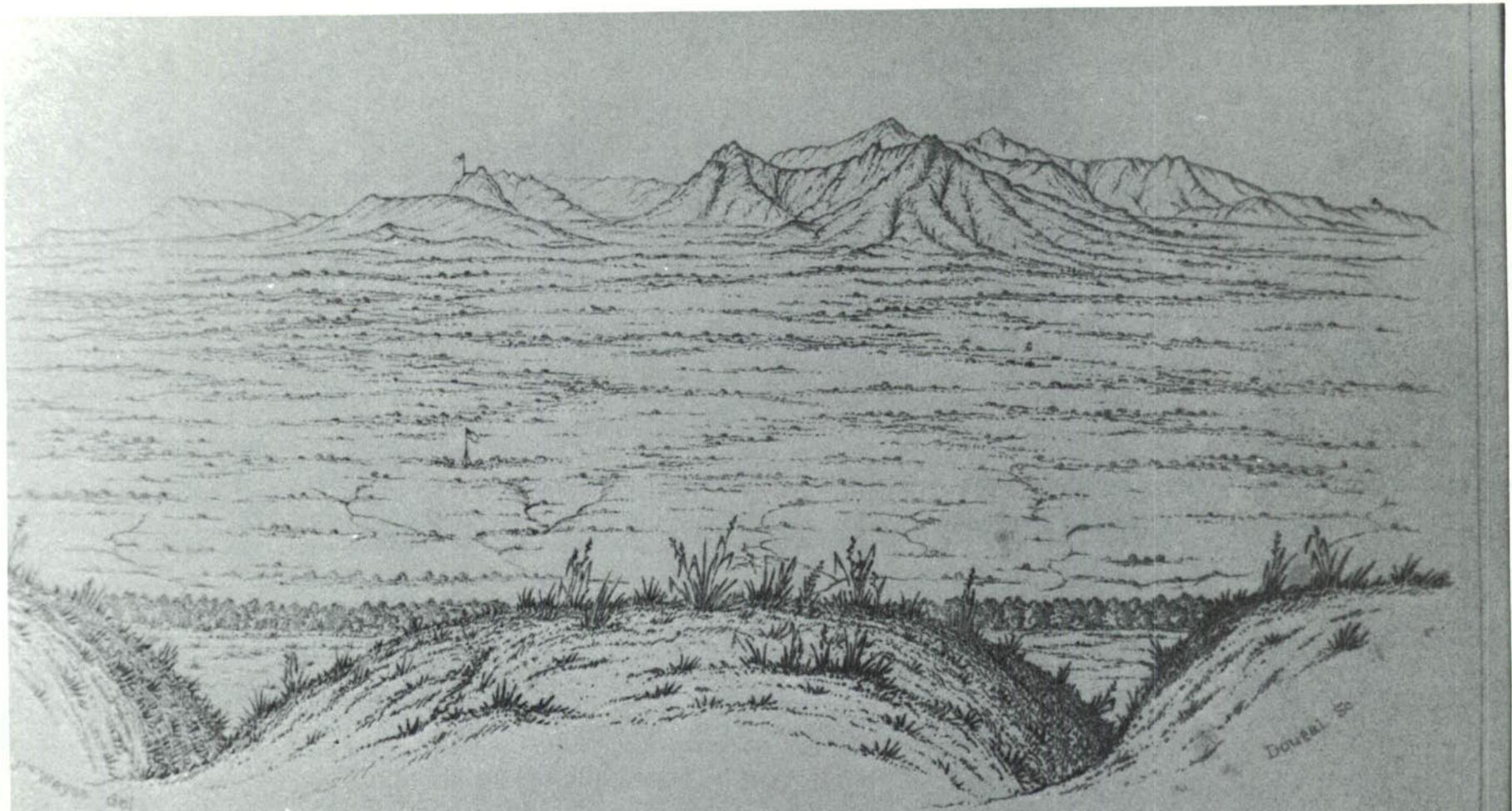
MON. NO. 11

MONUMENT NO. 11 (STONE), VIEW TO THE N. E.  
Site of old monument southwest of Potrillo Mountains.

MONUMENTO NO. 11 (MAMPOSTERÍA), VISTA AL N. E.  
Lugar del antiguo monumento al sur oeste de la Sierra del Potrillo.

PLATE 6

Looking west along the boundary from the Rio San Pedro in 1855  
Emory, *Report*, 7, Plate following p. 100. Compare this to the next  
illustration taken from the same location looking in the same  
direction.



VIEW FROM THE MONUMENT ON THE RIO SAN PEDRO, LOOKING WEST ALONG THE PARALLEL 31° 20'

PLATE 7

Looking west from the San Pedro River in 1895 (ca.) *From Report  
on Survey and Remarking of the Boundary, 1891-96, II.*



MONUMENT NO. 98 (STONE), VIEW TO THE W.  
West of San Pedro River.

MONUMENTO NO. 98 (MAMPOSTERÍA), VISTA AL O.  
Al oeste del Río de San Pedro.

PLATE 8

Looking east from the Sierra del Pajarito in 1855. Emory, *Report*,  
7, plates following p. 120.



VIEW FROM MONUMENT N° XIX, ON THE SIERRA DEL PAJARITO, LOOKING EAST TOWARDS THE MONUMENT  
AT THE INTERSECTION OF 111<sup>TH</sup> MERIDIAN AND PARALLEL 31°.30' NORTH.

PLATE 9

Photograph taken in same general area as proceeding looking in the same direction. *Report on the Survey and Remarking of the Boundary, 1891-96, II.*

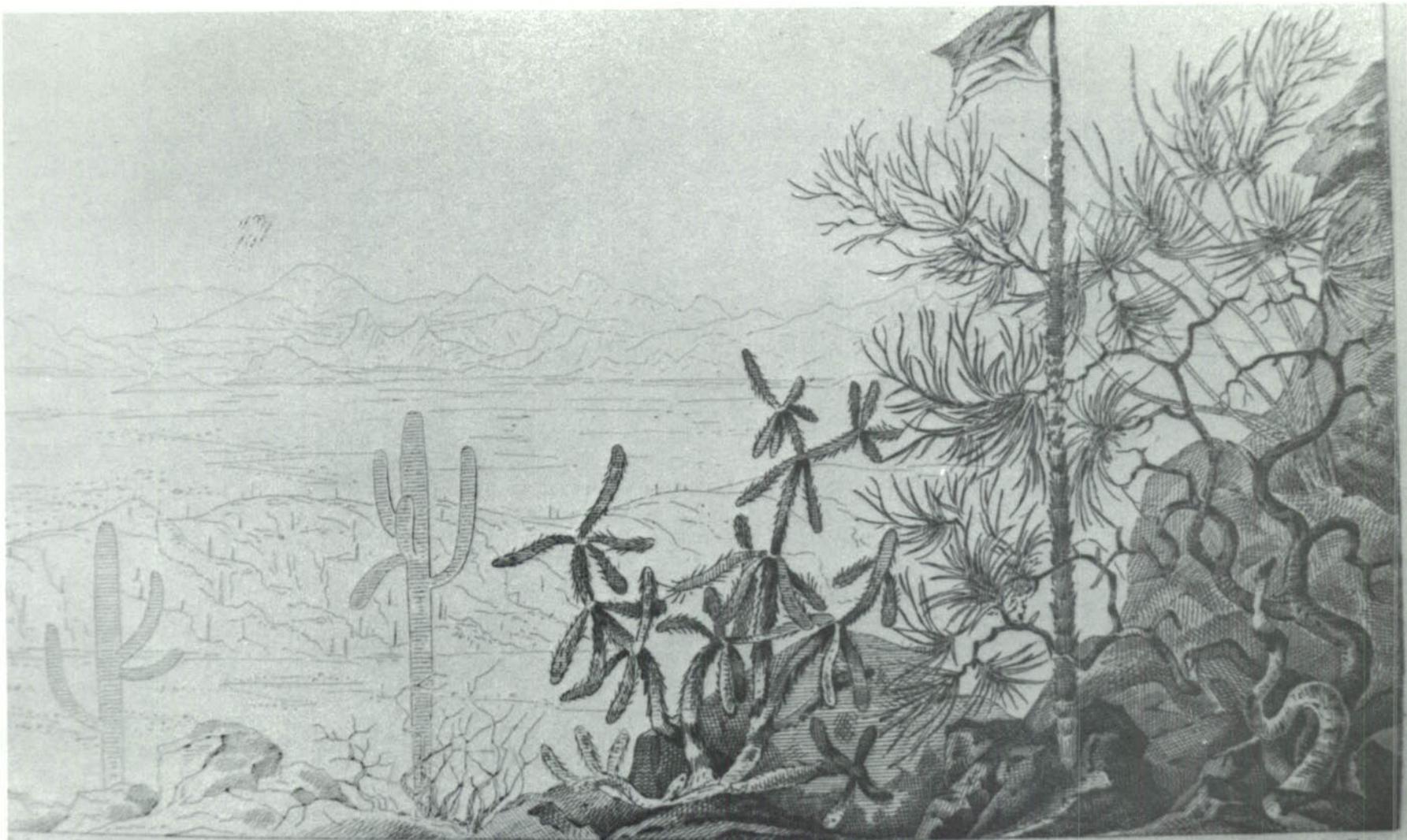


MONUMENT NO. 129 (STONE), VIEW TO THE E.  
On ridge of Pajaritos Mountains.

MONUMENTO NO. 129 (MAMPOSTERÍA), VISTA AL E.  
En contrafuerte de la Sierra del Pajarito.

PLATE 10

View from the monument on the east ridge of Sierra de la Nariz showing the spiny vegetation common in the desert mountains between Nogales and Sonoita to the west. Emory *Report*, 1, plates following p. 120.



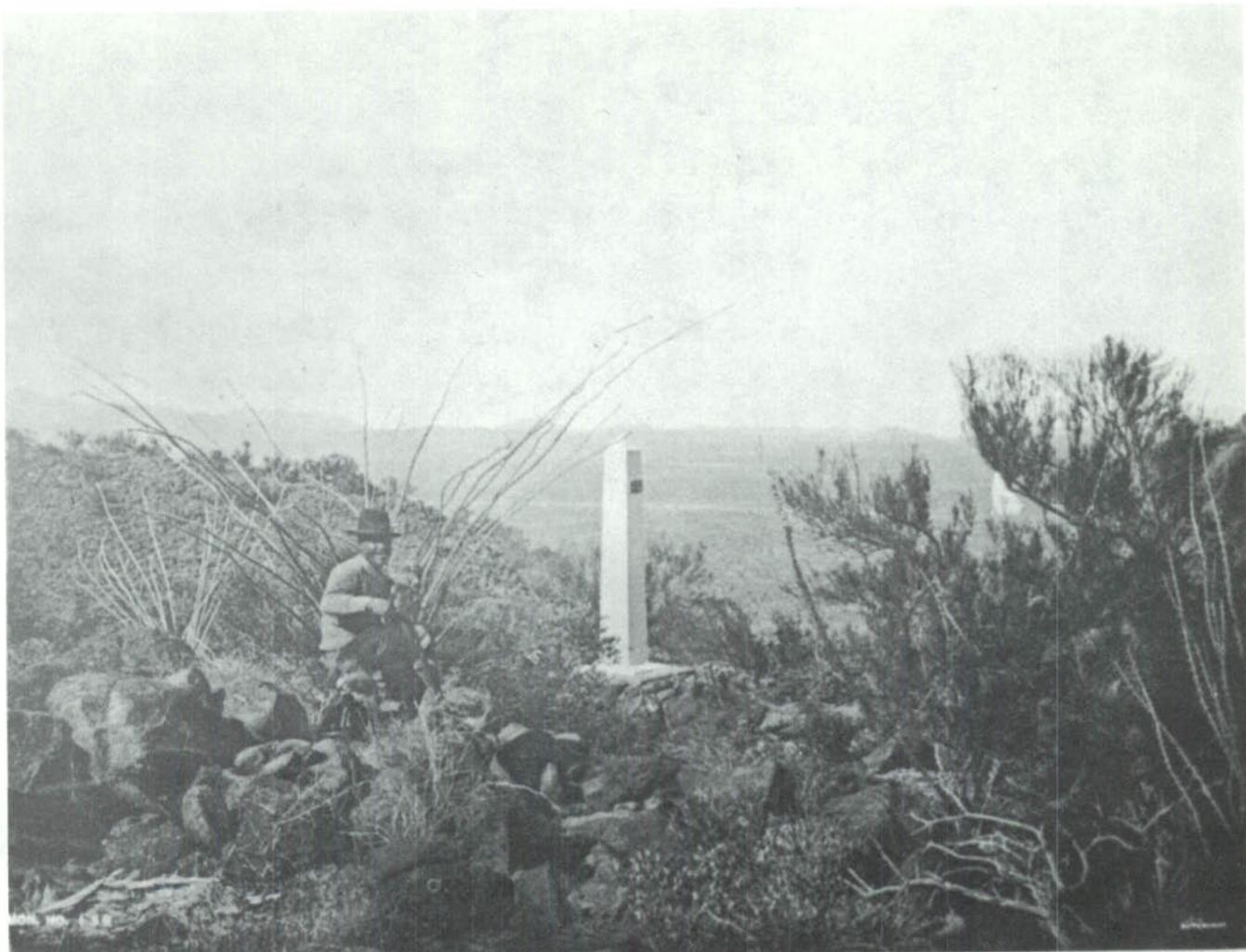
Del.

Dougal En.

VIEW FROM MONUMENT N<sup>o</sup> XII ON THE EAST RIDGE OF SIERRA DE LA NARIZ, LOOKING EAST TOWARDS MONUMENT N<sup>o</sup> XIV

PLATE 11

Photograph taken in the Nariz Mountains showing monument 159. Note rocky and rugged terrain as well as the scrub brush common to the desert mountains.



MONUMENT NO. 159 (IRON), VIEW TO THE N. W.  
On spur of Nariz Mountains.

MONUMENTO N<sup>o</sup>. 159 (FIERRO), VISTA AL N. O.  
En espaldón de la Sierra de la Nariz.

PLATE 12

Lesna Mountain is west of the Tecolote Valley and east of Organ Pipe  
National Monument and just north of the international boundary.

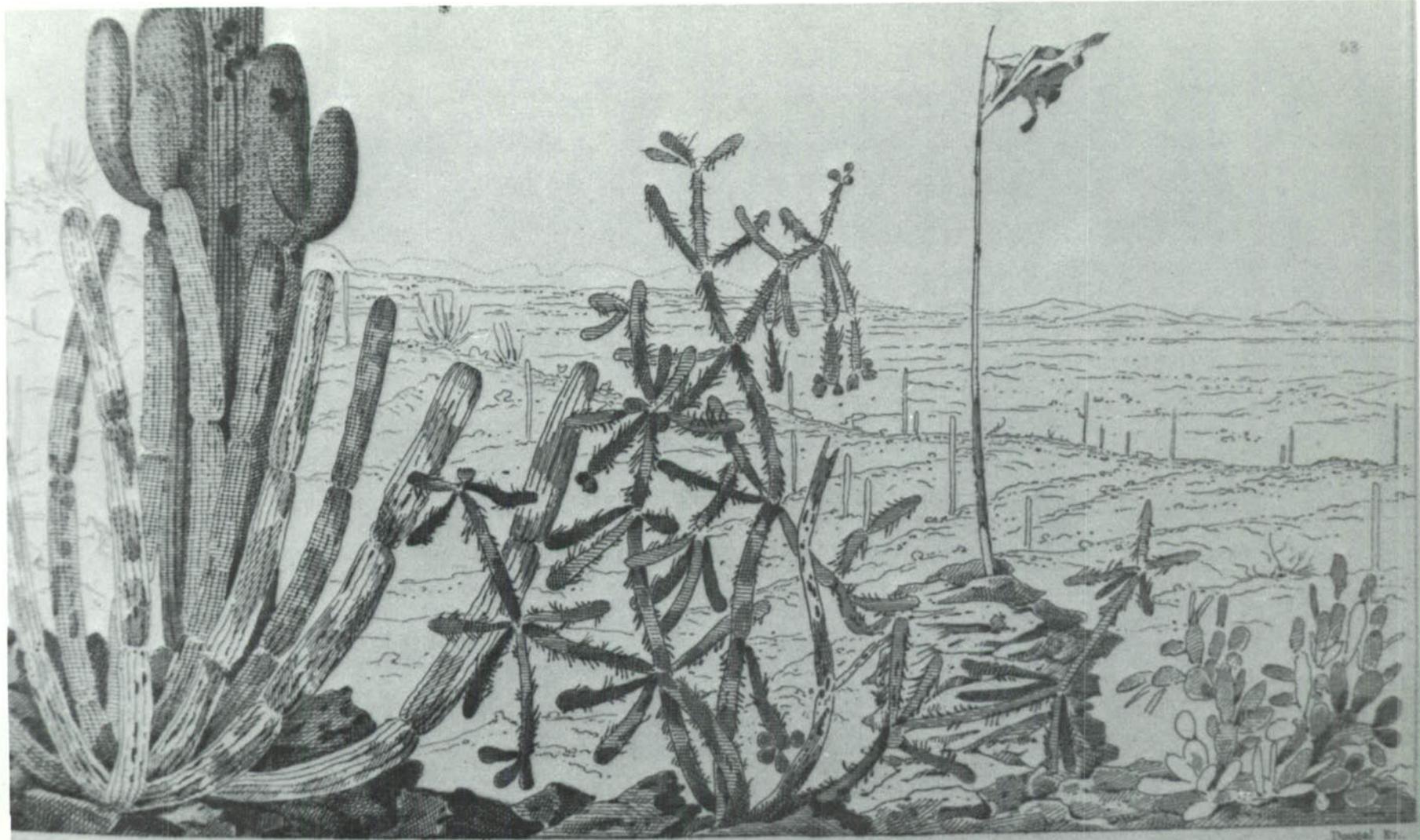


MONUMENT NO. 153 (IRON), VIEW TO THE W.  
On Lesna Mountain, very precipitous.

MONUMENTO NO. 153 (PIERRO), VISTA AL O.  
En el cerro de la Lesna, muy escarpado.

PLATE 13

This plate from Emory's *Report* (following page 120) contains four different types of cactus from left to right: the Organ Pipe, Saguaro, Cholla, and Prickly Pear.



VIEW FROM MONUMENT N<sup>o</sup> VII NEAR LOS OJOS DE QUITOBAQUITA, LOOKING EAST TOWARDS MONUMENT N<sup>o</sup> IX.

PLATE 14

This view taken in the 1890s is near Quitobacquito Springs, just as the previous one. These springs were one of the few reliable sources of water along the boundary between Yuma and Sonoita, Arizona.

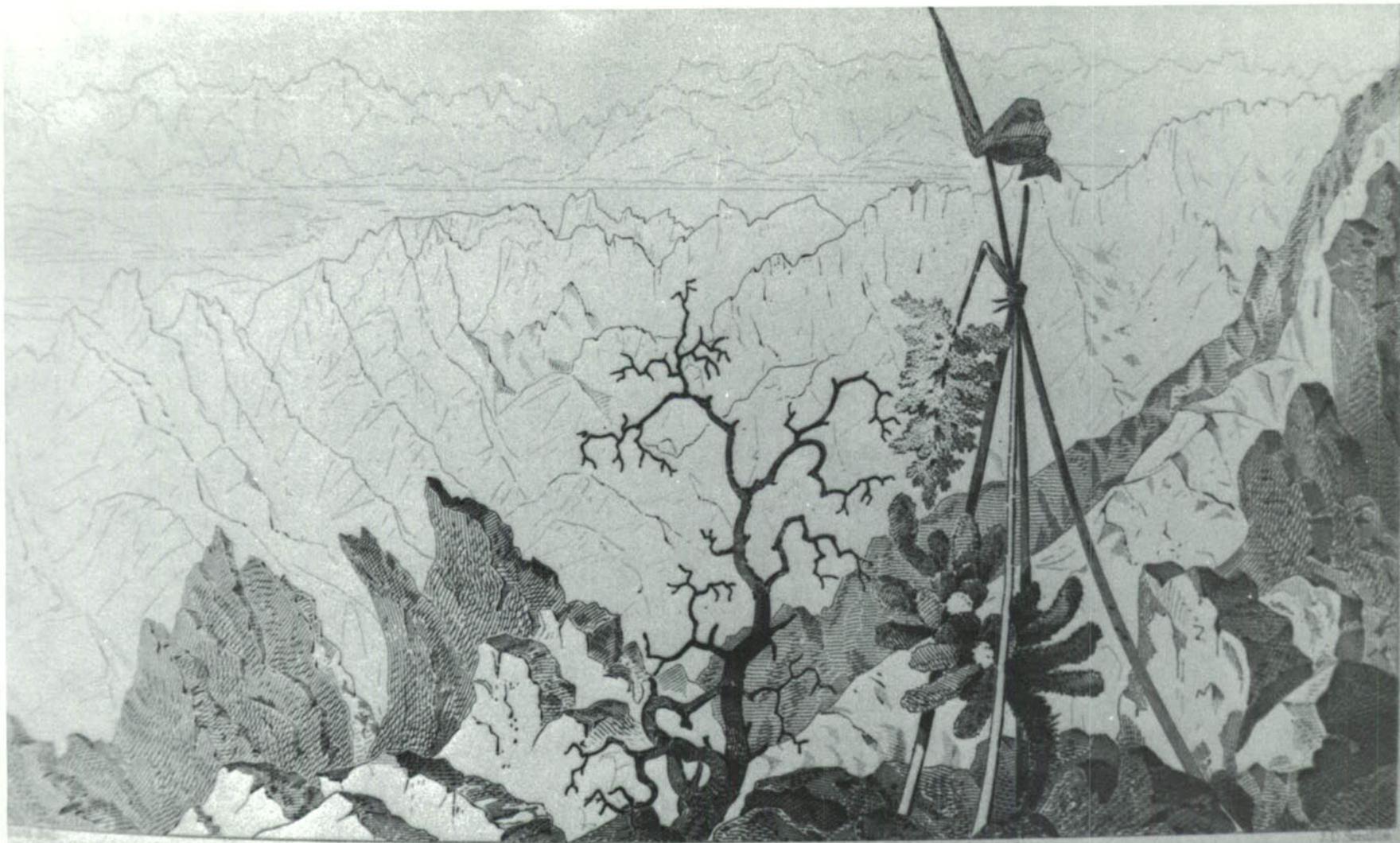


MONUMENT NO. 172 (IRON), VIEW TO THE W.  
Near Quitovaquita Springs.

MONUMENTO NO. 172 (FIERRO), VISTA AL O.  
Cerca de los Manantiales de Quitovaquita.

PLATE 15

Note the rugged terrain of the Sierra del Tule. This sketch, Plate 57, from Emory's *Report* following page 120 depicts the type of western mountain ranges crossed by the boundary line.



VIEW FROM MONUMENT N° V, ON THE SIERRA DEL TULE LOOKING WEST TOWARDS MONUMENT N° IV

PLATE 16

Monument 186 placed by the resurvey of the boundary during the 1890s is located on the crest of the Tule Mountains. This photo and the preceding sketch depict the same general area. *Report on the Survey and Remarking of the Boundary, 1891-96, II.*



MON. NO. 186

MONUMENT NO. 186 (IRON), VIEW TO THE S. W.  
On crest of Tule Mountains.

MONUMENTO NO. 186 (PIERRO), VISTA AL S. O.  
En la cresta de la Sierra del Tule.

PLATE 17

Monument 4 on the Sierra Tinajas Altas was located by Lt. N. Michler during the summer of 1855. This sketch from Emory's *Report* again dramatizes the hostile rugged terrain the boundary crossed.

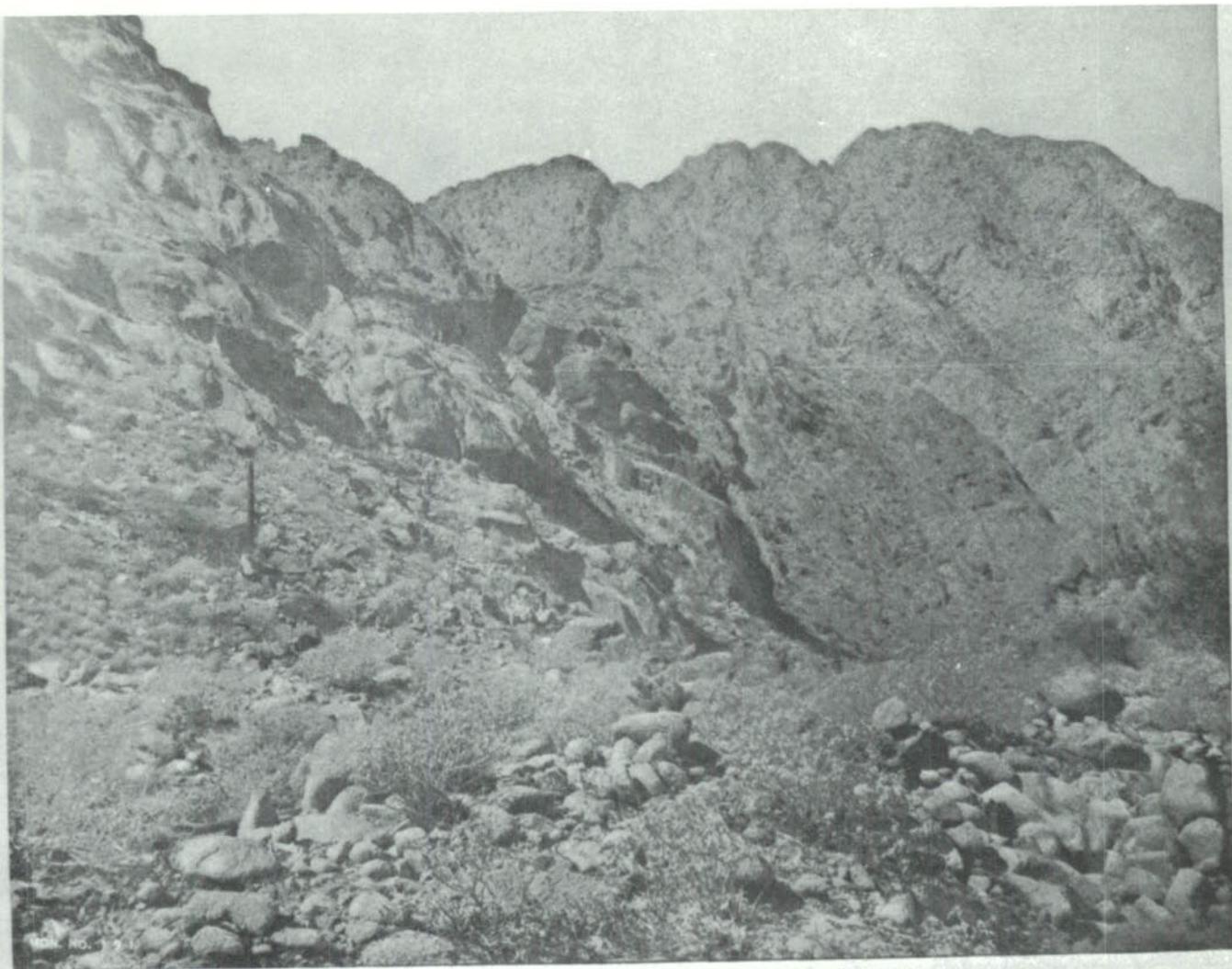


VIEW FROM MONUMENT N° IV LOOKING WEST TOWARDS MONUMENT N° III

PLATE 18

A comparison of this view and the preceeding one indicate  
that they were made from nearly the same spot on the boundary.

*Report on Survey and Remarking of the Boundary, 1891-96, II.*

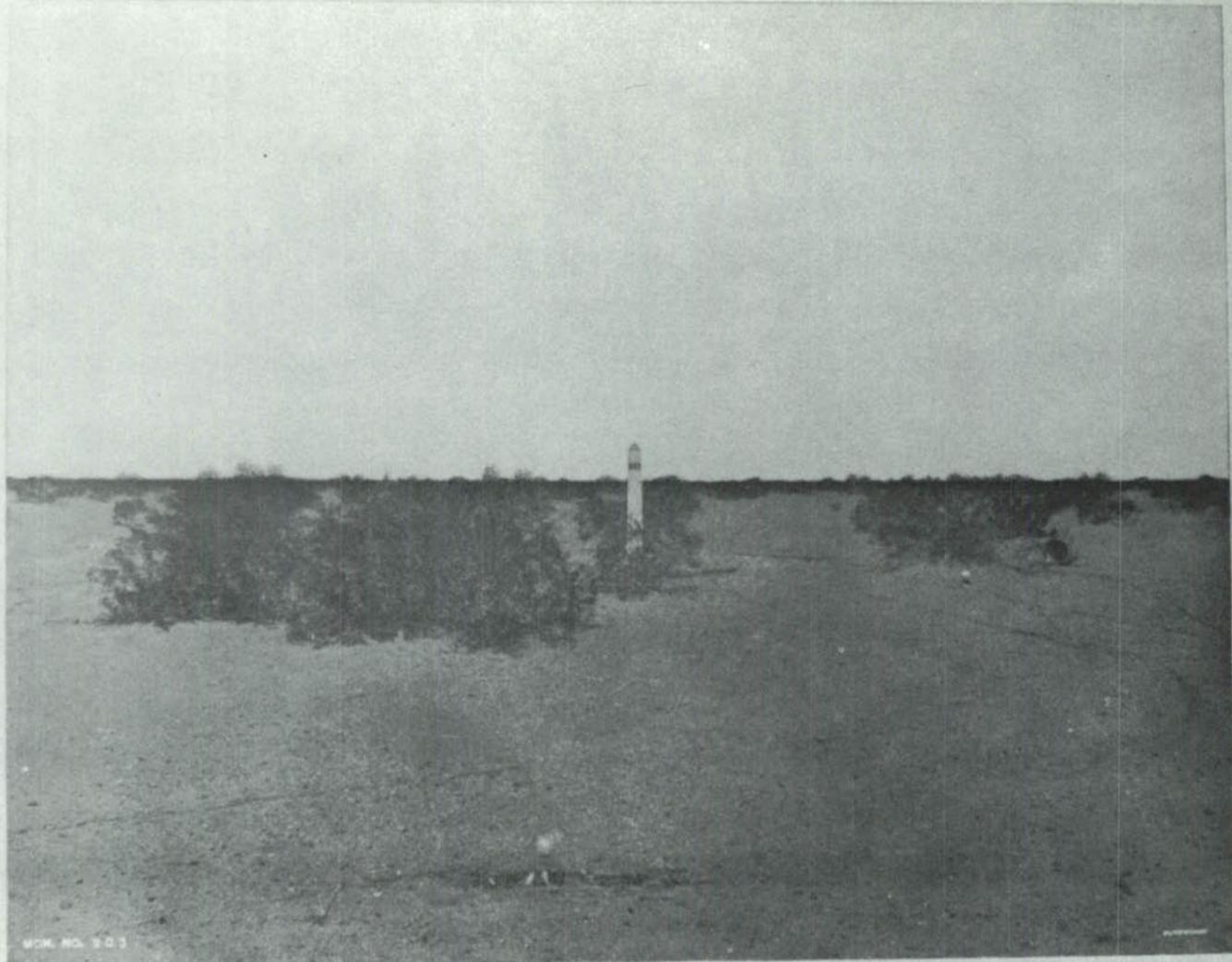


MONUMENT NO. 191 (IRON), VIEW TO THE W.  
On crest of Tinajas Mountains.

MONUMENTO NO. 191 (PIERRO), VISTA AL O.  
En la cresta de la Sierra de las Tinajas.

PLATE 19

Michler described the Yuma Desert as a "dull wide waste." The soil "a mixture of sand and gravel; the reflection from its white surface adds still greater torment to the intense scorching heat of the sun." This photo from the 1891-96 survey and remarking of the boundary bears this out.



MONUMENT NO. 203 (IRON), VIEW TO THE W.  
On Yuma Desert.

MONUMENTO No. 203 (FIERRO), VISTA AL O.  
En el Desierto de Yuma.

PLATE 20

On the Colorado Desert between New River and the Arizona border.  
Note the flat barren conditions in the area, the only vegetation  
being low bushes.



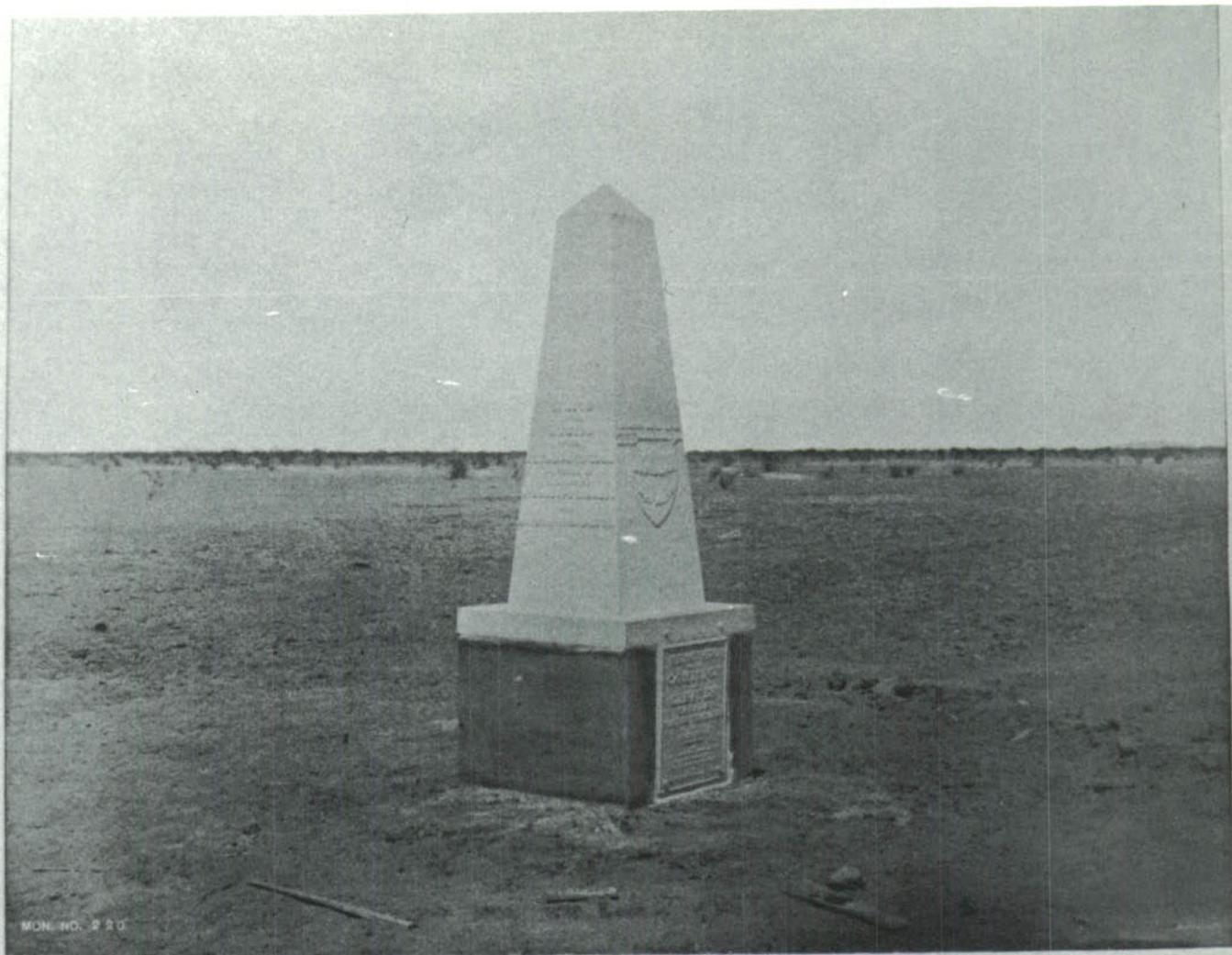
MON. NO. 211

MONUMENT NO. 211 (IRON), VIEW TO THE S. W.  
On Colorado Desert.

MONUMENTO NO. 211 (FIERRO), VISTA AL S. O.  
En el Desierto del Colorado.

PLATE 21

Site of the monument placed east of New River on the Emigrant  
Trail by Captain Hardcastle and Dr. Ramírez in May 1851.



MONUMENT NO. 220 (IRON), VIEW TO THE N. E.

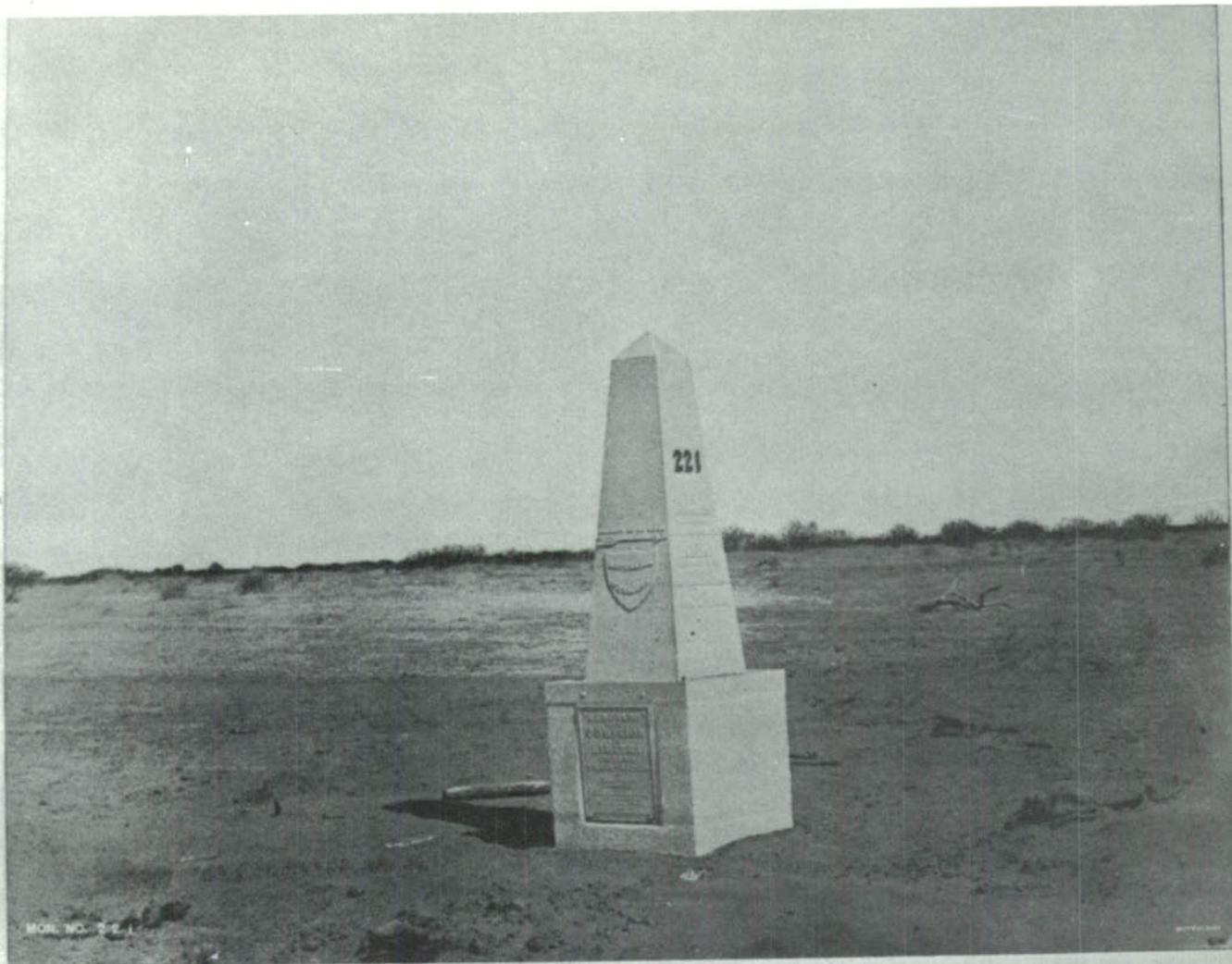
East of New River.  
Old iron monument repaired.

MONUMENTO No. 220 (FIERRO), VISTA AL N. E.

Al este del Río Nuevo.  
Antiguo monumento de fierro renovado.

PLATE 22

This monument west of New River replaces the iron monument placed there over forty years before in 1851.

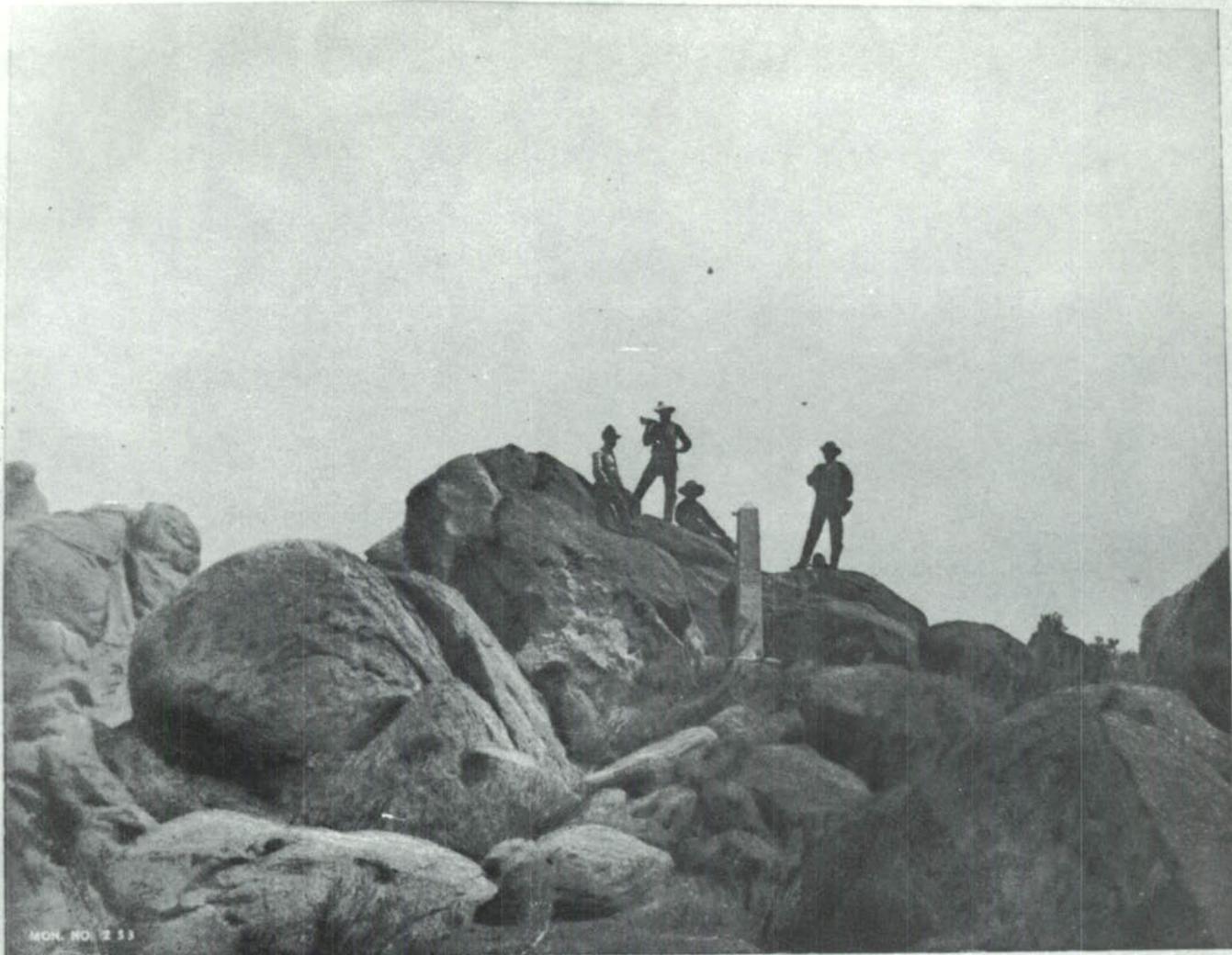


MONUMENT NO. 221 (IRON), VIEW TO THE N. W.  
West of New River.  
Old iron monument repaired.

MONUMENTO NO. 221 (PIERRO), VISTA AL N. O.  
Al oeste del Río Nuevo.  
Antiguo monumento de fierro renovado.

PLATE 23

An example of the rocky and rugged terrain of the mountains west of the Colorado Desert in Southern California. *Report on Survey and Remarking of the Boundary, 1891-96, II.*



MONUMENT NO. 233 (IRON), VIEW TO THE N.  
On ridge near Jacumba Spring.

MONUMENTO NO. 233 (FIERRO), VISTA AL N.  
En contrafuerte cerca del aguaje de Jacumba.

PLATE 24

In the 1890s as in the 1850s the mule proved to be an invaluable aid in surveying and marking the boundary between the United States and Mexico.



MONUMENT No. 241 (IRON), VIEW TO THE N.  
On high ridge.

MONUMENTO No. 241 (PIERRO), VISTA AL N.  
En contrafuerte elevado.

PLATE 25

The initial monument on the Pacific. The first monument established by the Boundary Commission in 1849, it was recut in the 1890s and an iron fence built to protect it from souvenir hunters. *Report on Survey and Remarking of the Boundary, 1891-96, II.*



MON. NO. 258

MONUMENT NO. 258 (MARBLE), VIEW TO THE N. W.  
Old initial monument, recut.

MONUMENTO NO. 258 (MÁRMOL), VISTA AL N. O.  
Antiguo monumento inicial, labrado de nuevo.

PLATE 26

A color sketch of the church on the plaza of El Paso del Norte  
as seen by an artist with Emory during the 1850s. Emory, *Report*,  
1, opposite p. 92.



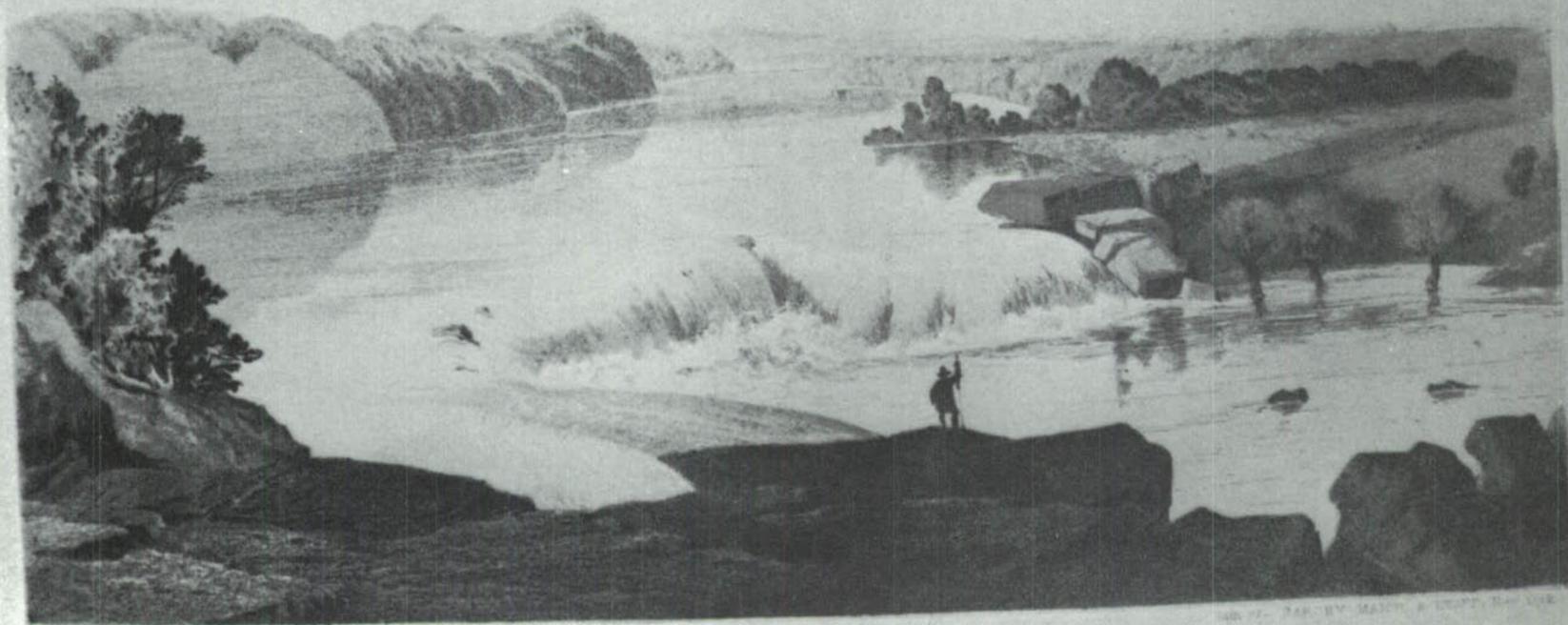
View of the Plaza

View of the Plaza

THE PLAZA AND CHURCH OF EL PASO.

PLATE 27

The Rio Salado flowed out of Mexico to join the Rio Grande. These falls were about seven miles from the mouth of the river. Emory, *Report, 1*, opposite p. 66.

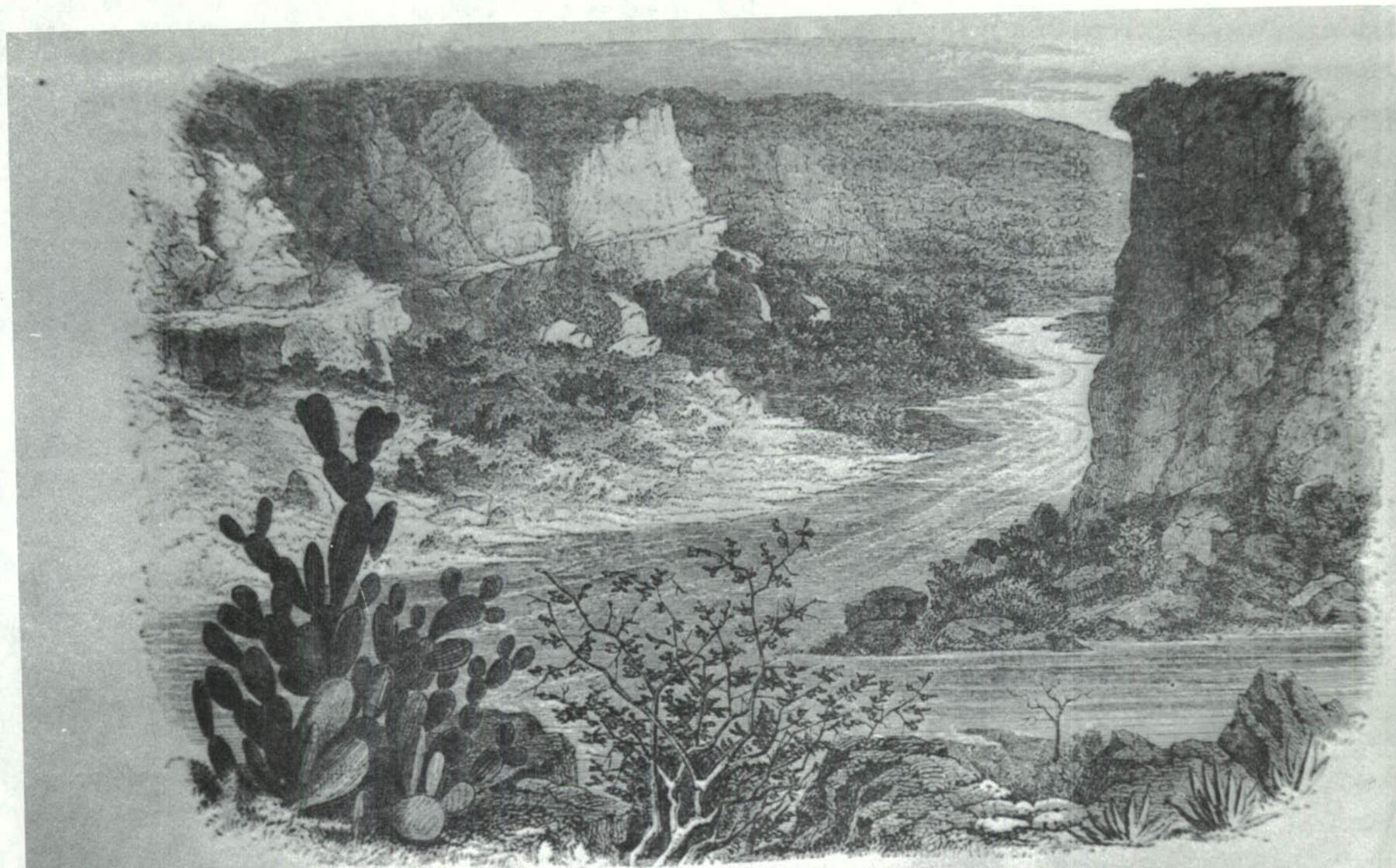


NO. 12. FALLS OF THE RIO SALADO.

FALLS OF THE RIO SALADO.

PLATE 28

Black and White sketch showing the junction of the Rio Grande and Pecos Rivers. Emory, *Report*, 1, 78.

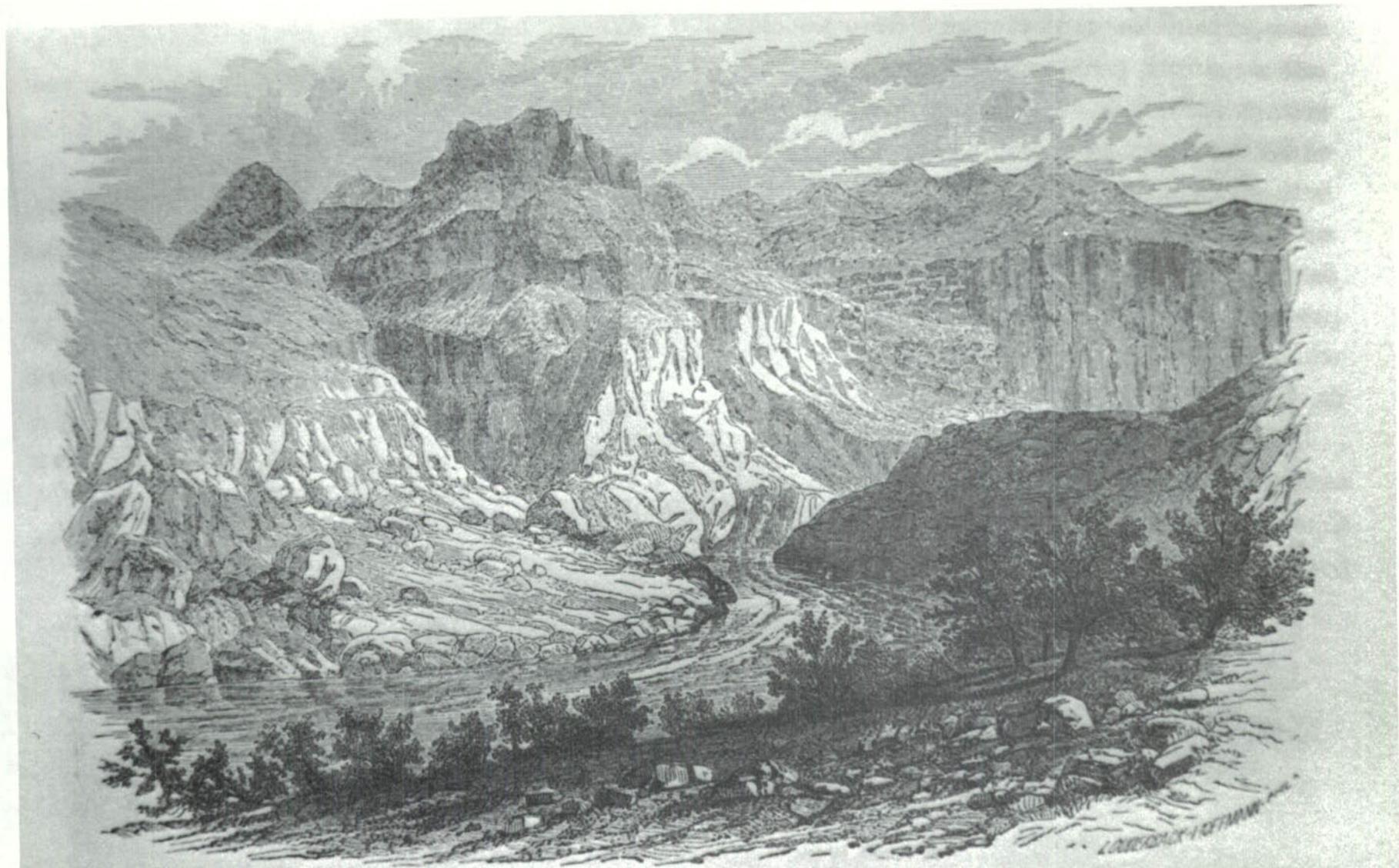


Junction of the Rio Bravo del Norte and the Pecos.

abundant. But few varieties of game were seen: the wild turkey in large numbers, and some fox

PLATE 29

The northernmost of the canyons in the bend of the Rio Grande below El Paso. It was terrain such as this that worked such hardship on the parties of M.T.W. Chandler and Lt. N. Michler during the survey of the river in 1852 and 1853. Emory, *Report*, 1, 81.



Entrance to Cañon Bofecillos, Rio Bravo del Norte.

rapids occur where the river leaves the cañon, and the country loses entirely the features which

PLATE 30

The Lipan Apaches and the Comanches were a constant threat to the survey crews along the Rio Grande. Emory, *Report, 1*, opposite page 78. This color print details the dress of the Lipan Apache warrior.



A. Schott. del.

DR. J. RAPSON, MANAGER & ENGRAVER

LIPAN-WARRIOR.

PLATE 31

Color plate showing the style of dress of the Yuma Indians on the Colorado. According to Lt. Nathaniel Michler, Leach, the figure on the left, was considered the "belle" of the tribe. Emory, *Report*, 2, opposite page 110.



Arthur Debon, del.

Lith of Sarony & C<sup>o</sup> New York

YUMAS

FIGURE TO THE LEFT, PORTRAIT OF LEACH.

PLATE 32

Lt. Michler commented on the dress of the Papagos as follows: "The women are better dressed than most Indian women; they all wear skirts of manta or calico covering body from the hips down." This color sketch opposite page 122 of Emory's *Report* illustrates this very well.



Illustration by G. S.

THE J. BONDY MASON & COMPANY, THE PAO

PAPAGO

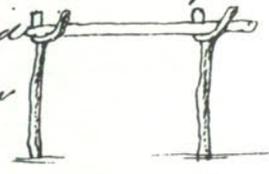
PLATE 33

This page from Bartlett's "Personal Journal" contains a sketch and description of how a Pima house is constructed. Often John Russell Bartlett included sketches in his journal as he recorded the day to day events during the two and a half years he was away from his home and family. A reading of this will reveal the meticulous detail found in the "Personal Journal."

lined with brush, among, which is a goodly share of mesquite. This being very thorny is an excellent preventive against animals and will besides keep out men, better than any other fence.

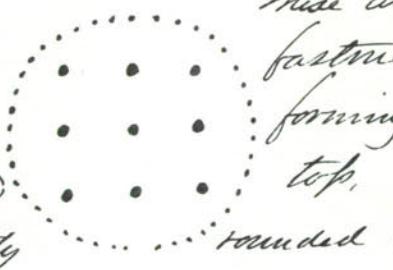
Their houses are built of stakes, poles and grass straw. In the small houses four upright stakes with crotches at the top, are inserted in the ground. In larger habitations, nine are used, being three on each side and one in the centre. Across

. . . the tops of these other sticks are laid  
. . . after this manner. Next a row  
. . . of poles is inserted into the

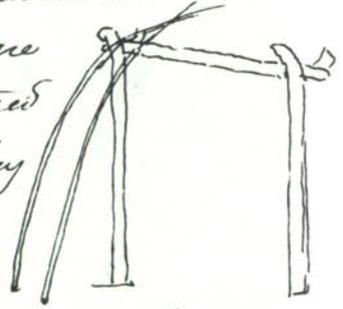


ground a few feet outside of the larger upright stakes and bent over towards the centre, and fastened to the horizontal beams.

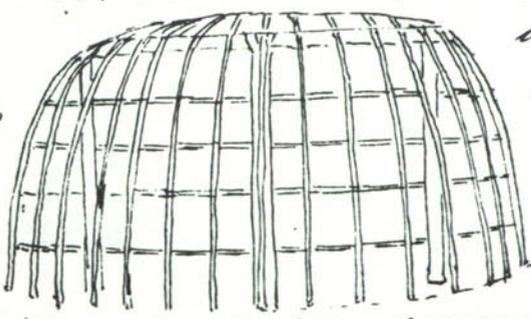
These are then united and in the centre; not a circular or rounded but a flat or slightly



These are fastened forming top.



roof. Poles are then horizontally interlaced between these two and so then straw or rushes drawn in large masses as to shed the rain and protect them from

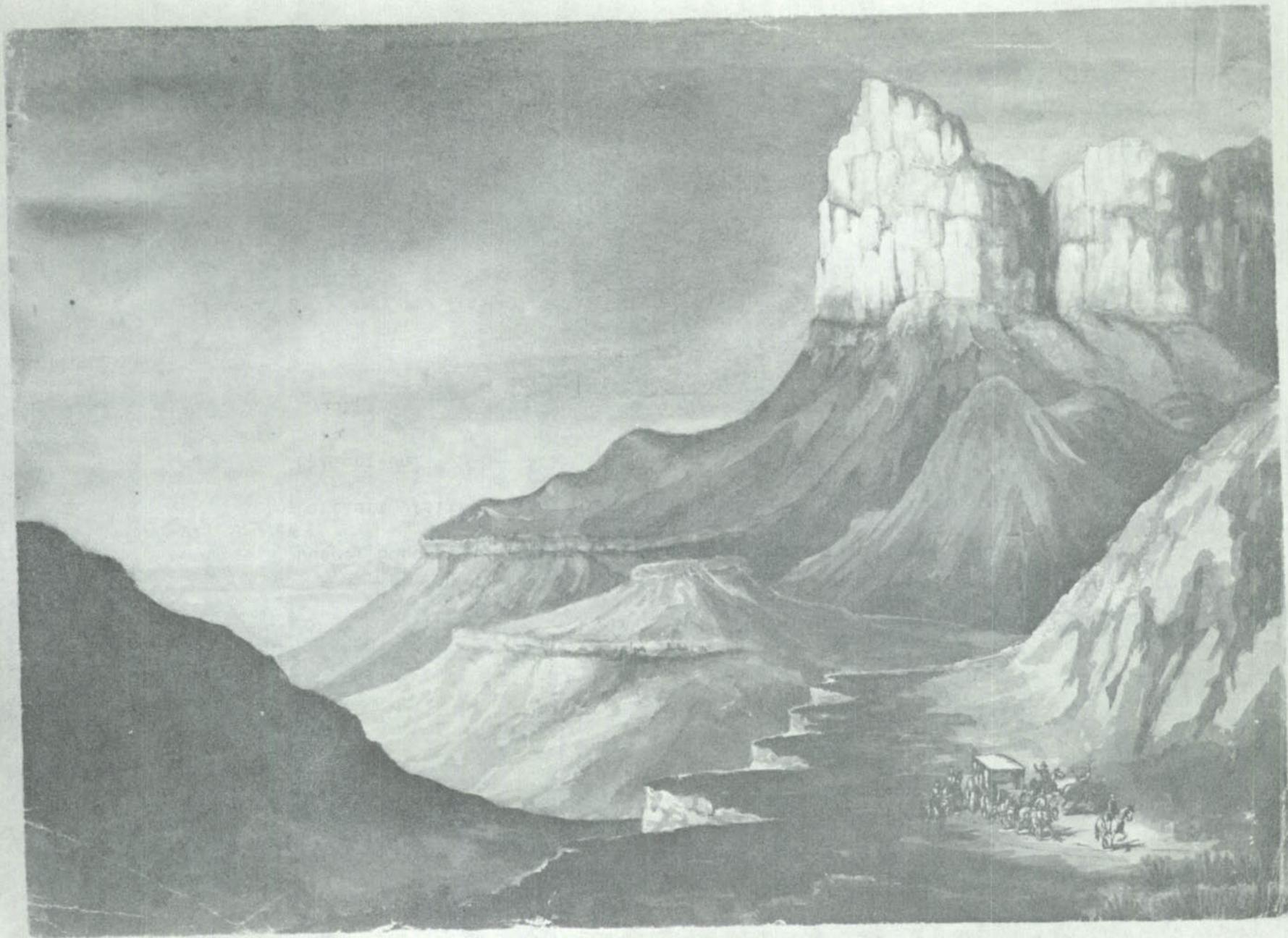


the intense heat of the summer's sun. An opening for a door is left in the centre about three feet in height to crawl in at. These habitations are about five feet in height (say 5 to 6), hence not high enough to stand erect in; in fact they are not intended to walk about in, but to sit and sluff in. Their cooking is done outside; and in truth the greater portion of

PLATE 34

The eight drawings that follow are from the Bartlett Collection at Brown University. In each case the drawing number refers to the list contained in Appendix I.

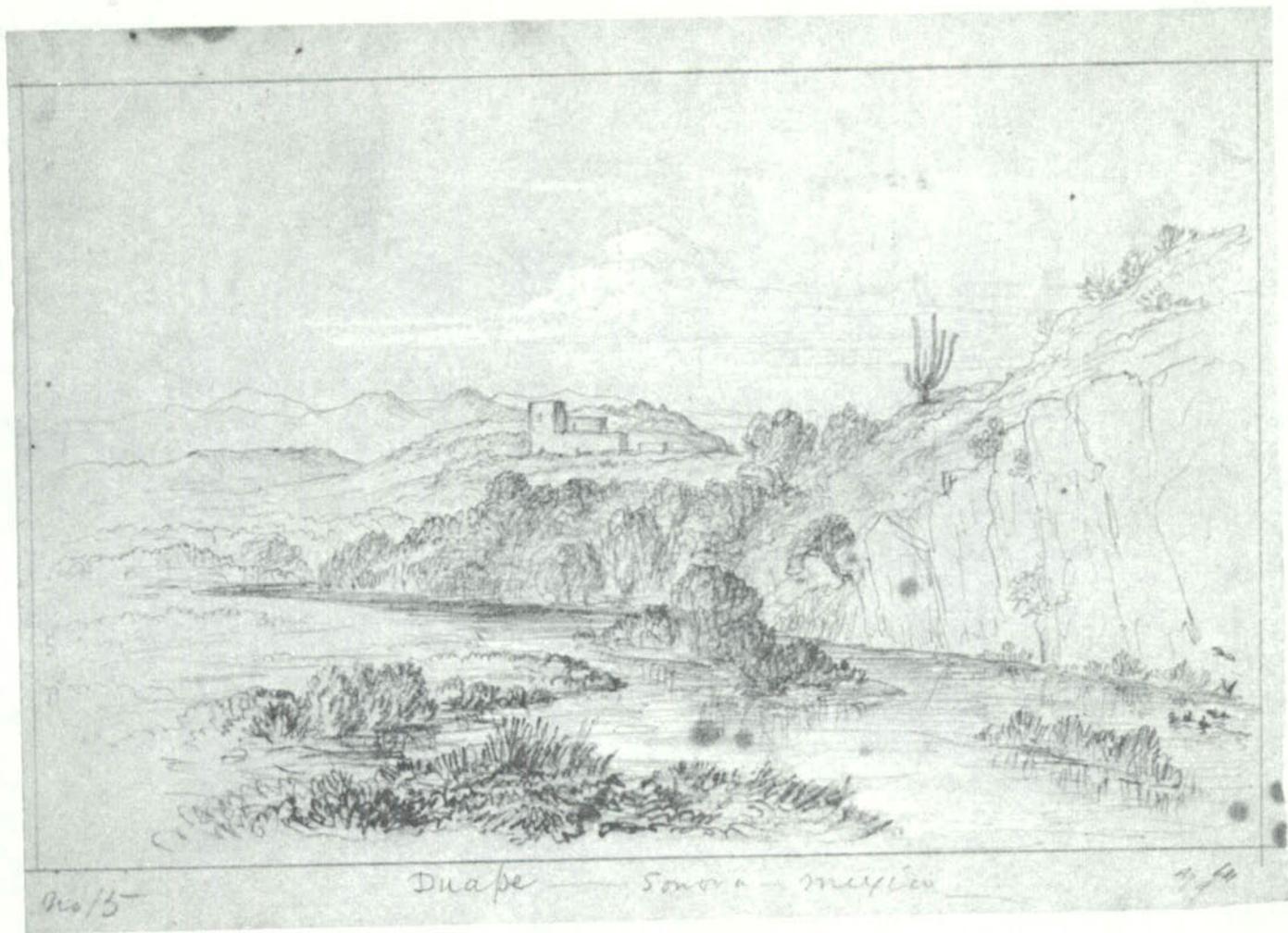
Bartlett described the Guadalupe Mountains, shown in drawing 35, during his trip through them in the fall of 1850. "Our way now continued through the narrow defiles of elevated hills. At one time in a deep valley, at another wending our way along the brink of a gorge the mountain rising some thousand feet above on one side with the gorge on the other."



35. Guadalupe Mountain, Texas  
Pencil and sepia wash. 9 1/2" x 13" (Bartlett, *Narrative*, V. 1, p. 118, woodcut.)  
(Brit. Draw. 5)

PLATE 35

Duape, Sonora, was typical of the small Mexican villages that Bartlett visited during his trips in Mexico. Number 23 in the collection.



23. Duape, Sonora, Mexico  
Pencil sketch. 4 1/2" x 7" (Bart Draw. 102-s)

PLATE 36

Santa Rita del Cobre, the Copper Mines, was headquarters of the Boundary Commission from April to August 1851. This water color by Seth Eastman, done from a rough sketch made at the scene, shows the village in the center and the camp of the commission to the left. Bartlett Collection, #187.



187. Santa Rita del Cobra (Copper Mines) Rocky Mountains New Mexico  
Water color. 9 1/4" x 12 1/4" (McDermott, Seth Eastman, No. 112) (Bart. Draw. 188)

PLATE 37

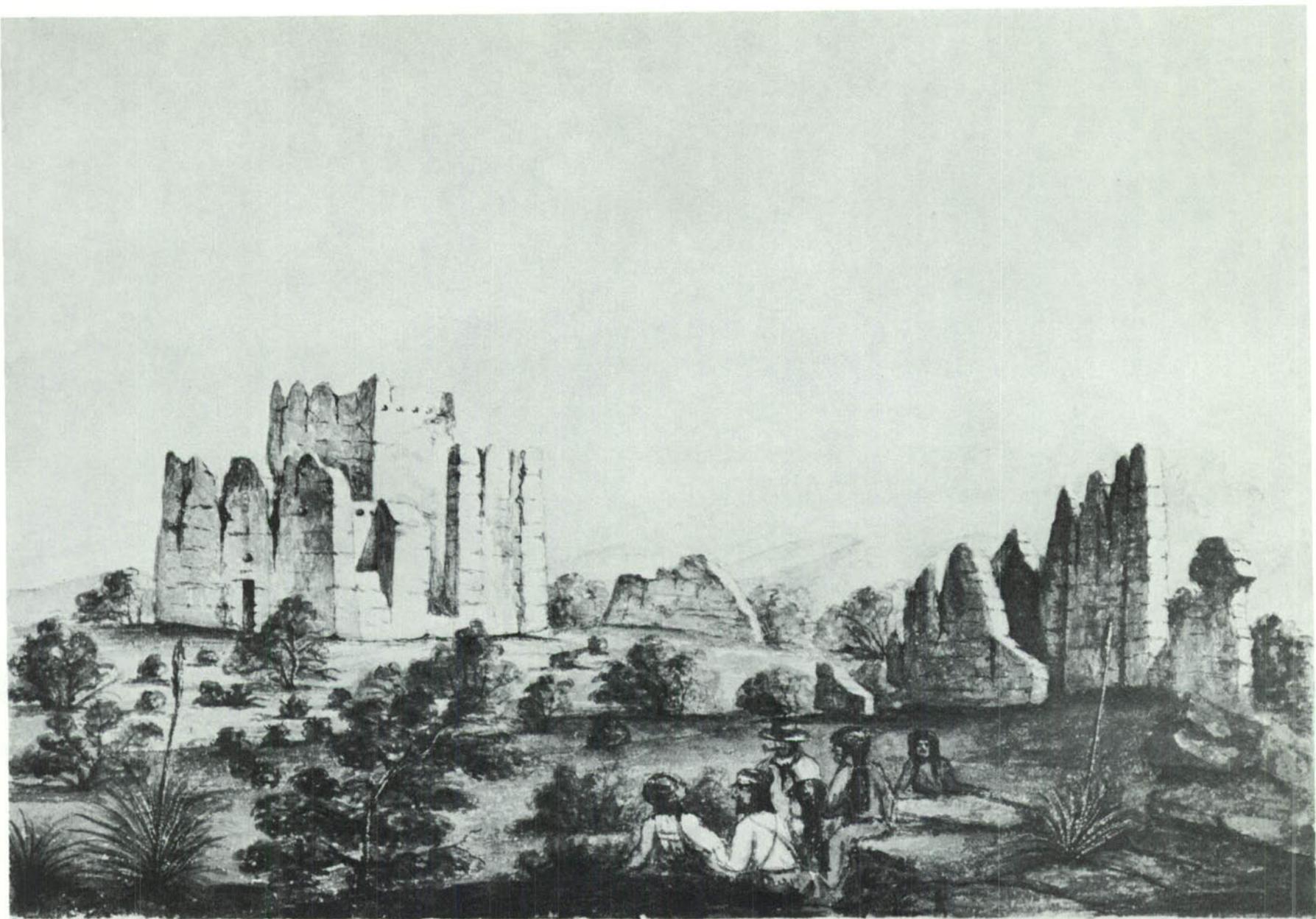
In June of 1852 Bartlett and his party traveled up the Gila on their way back to El Paso. This black and white sketch by Bartlett (#95) shows the second encampment above the fort at the junction of the Gila and Colorado.



95. View on the Gila 2d Camp from Fort Yuma  
Pencil and sepia wash. 13" x 18". (Bart. Draw. 87)

PLATE 38

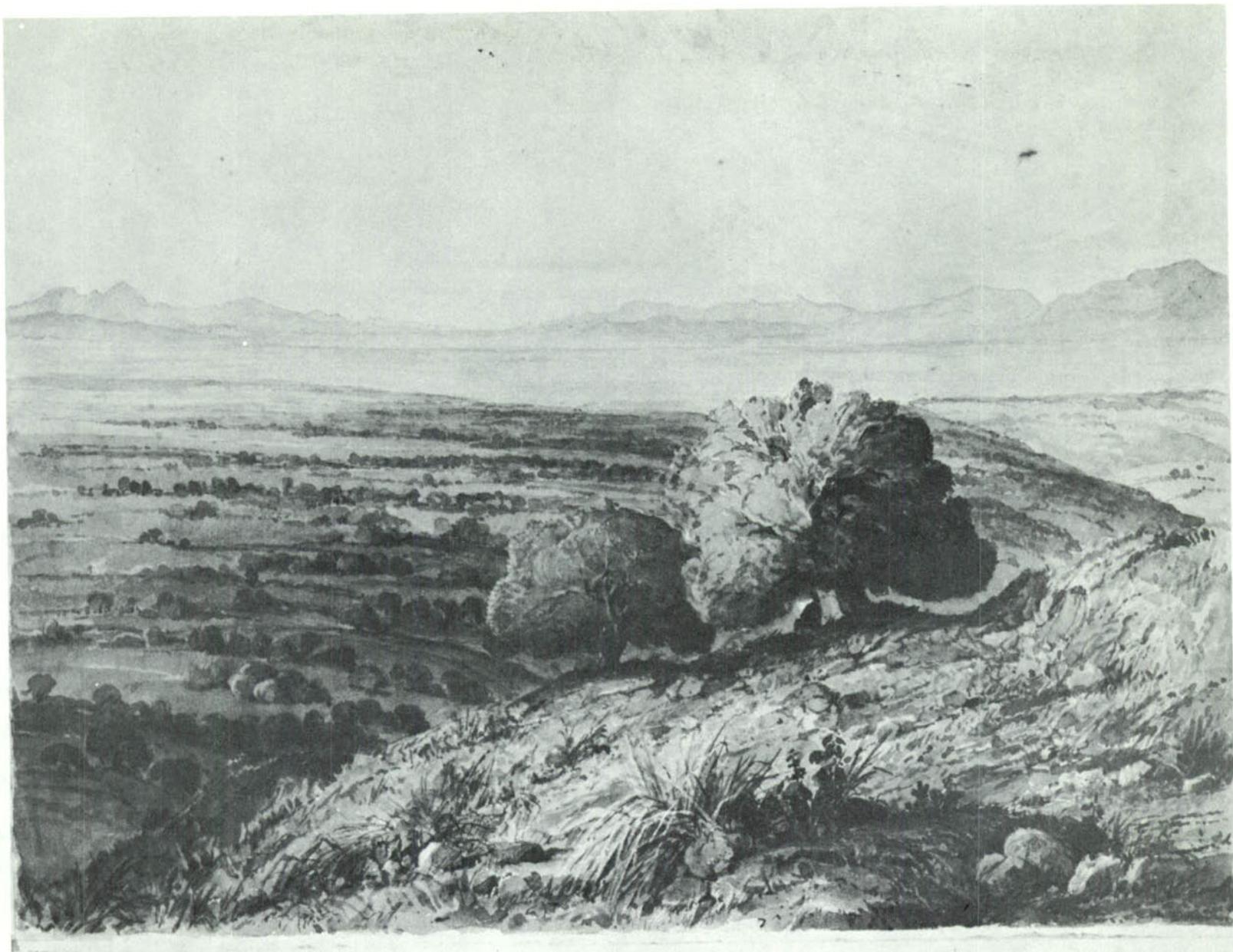
Casa Grande near present day Coolidge, Arizona, has been a landmark for travelers along the Gila since seventeenth century. This water color by Henry C. Pratt was done on a July day when the temperature reached 119° in the shade. Drawing #10 in Bartlett Collection.



10. Casas Grandes, near the river Gila - Arizona  
Water color. 10" x 14" (Cf. Bartlett, Narrative, V. II, p. 275, lithograph.) (Bart. Draw. 55)  
(Also in sepia by John Russell Bartlett, No. 74)

PLATE 39

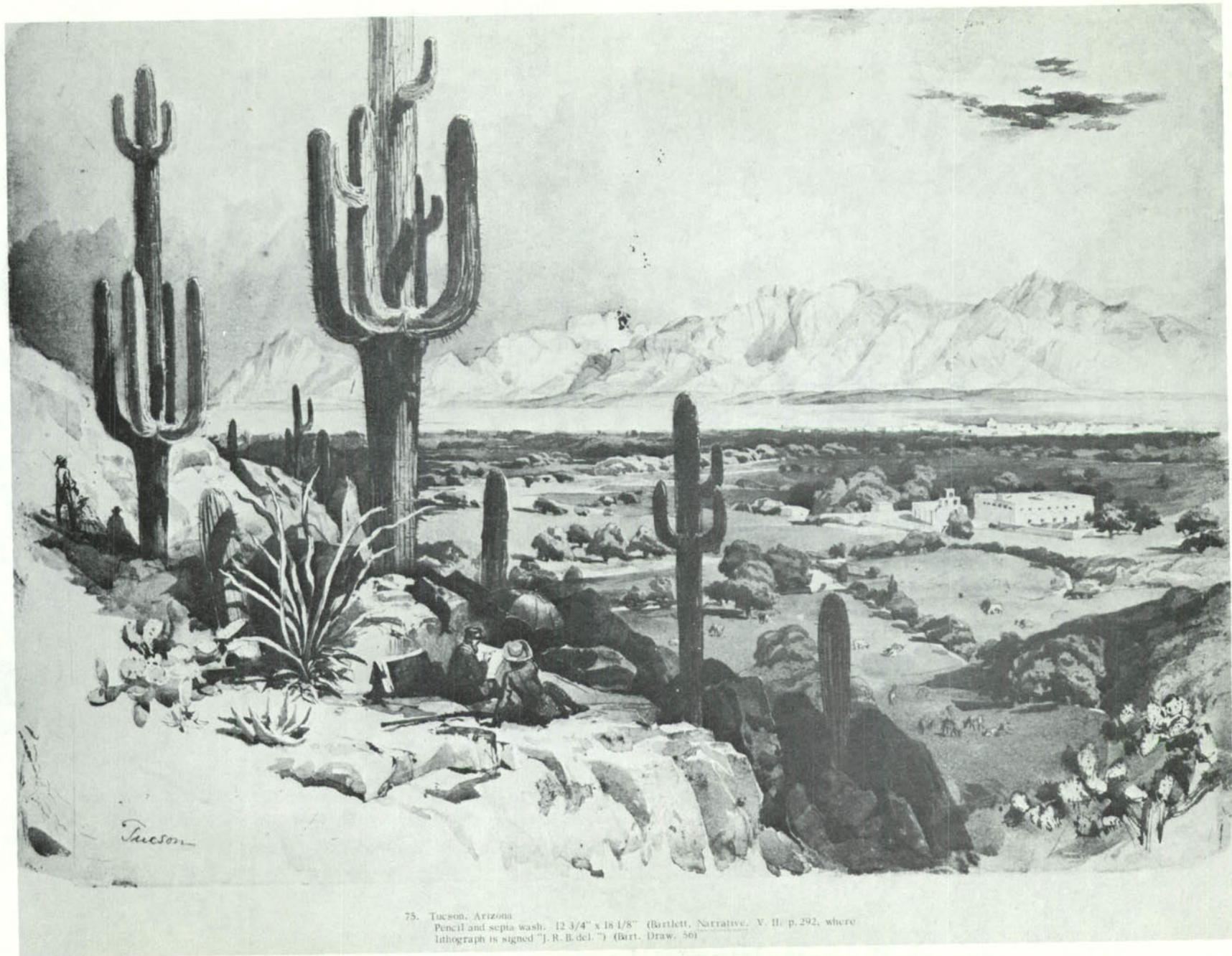
Drawing #194 of the Santa Cruz Valley by Seth Eastman is a water color showing some portion of this river valley, possibly near the town of Santa Cruz, Sonora.



194. Santa Cruz Valley  
Water color. 9" x 12" (Not in McDermott, Seth Eastman) (Bart. Draw. 195)

PLATE 40

Tucson, Arizona (Sonora) as it appeared in 1852. It appears that this view is from Sentinel Peak looking east toward the Santa Catalina Mountains. Drawing #75.

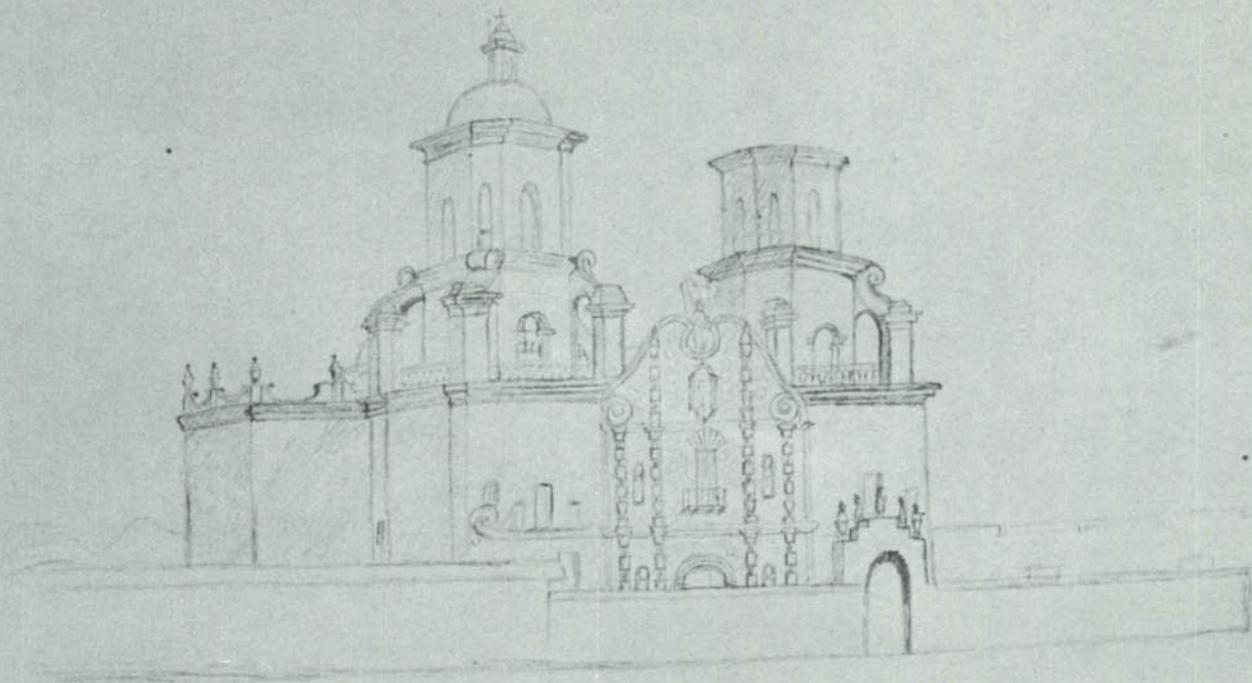


75. Tucson, Arizona  
Pencil and sepiá wash. 12 3/4" x 18 1/8" (Bartlett, Narrative, V. II, p. 292, where  
lithograph is signed "J. R. B. del.") (Bart. Draw. 56)

PLATE 41

San Xavier del Bac, the White Dove of the Desert, is nine miles south of Tucson on the Papago Reservation. Both Bartlett in his narrative and George Thurber in his letters to the Providence Journal described this magnificent building in some detail. It remains in a fine state of preservation today. Drawing #19.

*Small wood cut*



*Church of San Xavier del Bac. Sonora*

19. Church of San Xavier del Bac. Sonora  
Pencil sketch. 5 1/2" x 9 1/4" (Bart. Draw. 92-s)

