

AN ABSTRACT OF THE THESIS OF

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The United States Army was a major force in discovering, exploring, mapping, and describing the American West. Army expeditions often included astronomers, surveyors, botanists, and other nonmilitary specialists.

Carl Julius Adolph Hunnius came to the United States as a youth during the Civil War. Upon arrival, he joined the Union Army and served in the Charleston, South Carolina, area. Hunnius was content to perform the usual military duties expected of a private, but in the course of drawing sketches of enemy troop positions, his talent for mapping and surveying was discovered. Soon thereafter, Hunnius was attached to the Army's head engineer at Charleston, planning and supervising the construction of fortifications in the area.

Little is known of Hunnius's life immediately following his Civil War service. In 1867 he again enlisted in the Army; this time he

was sent to Fort Larned, Kansas.

As before, he did nothing to draw attention to his talents, but some of his drawings were shown to officers. As before, Hunnius was put to work drawing plans and surveys. In time, he was transferred to the office of the chief engineer of the Department of the Missouri at Fort Leavenworth, Kansas. There he drew maps from the survey notes of Army exploring expeditions on the Great Plains.

Following his discharge in 1869, Hunnius was hired as a civilian employee of the chief engineer at Fort Leavenworth. He continued to produce high quality maps and charts, and in 1876 he participated in two expeditions into the Indian Territory and Texas.

Funding shortages caused the Army to terminate Hunnius's position in 1876. He then operated a combination toy and book business in Leavenworth until 1909.

Hunnius is best known for the high quality of his maps of the Great Plains. Many of his drawings show physical features on the plains prior to large-scale settlement. Hunnius's many talents made his services valuable to the Army on the frontier in the 1870s.

ADO HUNNIUS, GREAT PLAINS CARTOGRAPHER

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CHAPTER I

ARMY ENGINEERS AND A YOUNG IMMIGRANT

Carl Julius Adolph Hunnius is best known as an Army cartographer of the Great Plains.¹ His legacy, however, transcends routine mapmaking and includes drawings, journals, meteorological observations, and recordings of other scientific data. Preserved in several repositories in Kansas, they comprise what one historian described as "an indelible record of his presence in the West."²

Ado Hunnius (he never used his first two names) was a German immigrant to the United States who became known in his day for his exacting draftsmanship. In nine years with the United States Army he drew a number of early, detailed maps of the West and Southwest; recorded some of the earliest descriptions of the Great Plains in his journals; drew early sketches of people, wildlife, and military posts in Kansas, Texas, New Mexico, and the Indian Territory; and collected ethnological specimens for a German museum. His renown has increased as historians have made use of his maps, sketches, and journals.

Although Ado Hunnius is a name known to some students of plains cartography and military history, his achievements are overshadowed by those of the familiar heroes of the American West. But as researchers have studied his papers, maps, and illustrations, his reputation has grown and his exploits have become more widely known and appreciated.

The explorer has always loomed large in American history. Figures such as Daniel Boone, Meriwether Lewis and William Clark,

Zebulon Pike, Jedediah Smith, and John Wesley Powell became a part of the mythology of the American West relatively soon after their explorations ended.

It is not generally realized, however, that thousands of others who were less prominent also explored, charted, and described the American West. Some first surveyed a certain region. Others were not the discoverers of the territory they explored, but came later to provide additional information. Still others accompanied renowned expeditions and painstakingly performed the astronomical observations, collected the samples of plant and animal life, gathered the specimens of rocks and fossils, or carried out the mundane details that enabled their famous comrades to achieve their successes.

The federal government sponsored most of the exploring and surveying of the West by both civilian and military authorities. Beginning with the Lewis and Clark expedition of 1804-6, the national government assumed an active role in the discovery and exploration of the unknown territory west of the Mississippi River. The initial experience of constructing an expedition demonstrated to President Thomas Jefferson and the United States Army that the nation needed an exploring agency.

During Jefferson's presidency, four additional parties explored the newly-acquired Louisiana territory. Each of these expeditions depended on Jefferson's personal interest for support; no institution existed to undertake or finance such explorations. In 1816, however, the Army Corps of Engineers added topographical engineers to their ranks. Two years later the "topogs" were mustered into the newly-formed Topographical Bureau. In 1838 the War Department

established a separate Corps of Topographical Engineers.

The General Survey Act of 1824 authorized surveys for a wide variety of improvements. This emphasis on public works, however, led to an institutional neglect of western exploration. From the 1820s until the 1850s individual topographical engineers such as John C. Fremont explored the Louisiana Purchase and the territory acquired during the Mexican War, even though the focus of the Corps of Topographical Engineers remained on eastern projects.

In the 1850s the Corps' policy shifted and emphasis gravitated to exploration and roadbuilding. By that time, though, other federal agencies such as the Office of Pacific Railroad Explorations and Surveys had appropriated many of the Corps' functions. Once more the accomplishments of individual members of the Corps substituted for agency-wide policies. "Despite the lack of a unified policy and central direction, the apparently episodic history of topog expeditions . . . provided the necessary link between the first explorations of the mountainmen . . . and the civilian scientific specialists who undertook a rigorous study of western natural history and resources after the Civil War."³ During the war, the Corps of Topographical Engineers was re-absorbed into the Corps of Engineers.

Military explorers crossed the Great Plains and the West for a variety of reasons. In 1842 John C. Fremont surveyed the Oregon Trail west from Saint Louis. When war with Mexico over Texas appeared imminent, Congress authorized three expeditions under Stephen Watts Kearny, James W. Abert, and William H. Emory to survey and map the Southwest. After the war, topogs mapped the new boundary with Mexico and later defined the country's northern border. Between the Mexican

and Civil Wars a number of expeditions traveled to the Southwest to examine, measure, and take samples from the country. Topographical engineers working for the War Department's Office of Pacific Railroad Explorations and Surveys searched for potential northern, central, and southern transcontinental railroad routes.

This paper is the study of one of these explorers. Ado Hunnius first saw the Army as an attractive alternative to a menial job. He did not join the Army on the strength of his drawing, mapping, astronomical, or scientific abilities. In each of his two terms of service, however, his commanders discovered these talents, removed him from his unit, and reassigned him to more specialized technical duties with Army engineers. Following his second tour of military service, he remained in the Army's employ as a civilian draftsman for seven additional years.

Hunnius impressed those who worked with him and supervised him by his fine, detailed work. Historians have come to rely on his many drawings of military posts and physical landmarks on the Great Plains and the prairies of the Southwest as valuable early representations of those areas. Students of military affairs and the West have marveled at the detailed maps he created, cartography that still stands out from maps prepared by his contemporaries.

Hunnius never rose above corporal in the Army and held only the position of draftsman in the ranks of civilian employees, but his maps, drawings, astronomical observations, collecting efforts, and writings have been used and published in an impressive number of works on the Midwest and Southwest. The work he did truly advanced the knowledge of

the frontier.

Carl Julius Adolph Hunnius was born in Leipzig on 24 October 1842 to Friedrich Wilhelm Carl and Caroline Friedrike Bertha (Arndt) Hunnius. He was the first child of a family that would later include two brothers, Carl Gustav and Carl Alexander Benno, and one sister, Bertha Caroline, who survived infancy.

His mother was born in 1823; like her eldest son, she would emigrate to America and would die in Leavenworth, Kansas; she passed away in 1900. His father, a resident of Leipzig, was born in 1810 and died when Ado was ten years of age.

Ado's siblings were Bertha Caroline, born in 1845; Carl Gustav, born a year later; Sophie Heline, born in 1848 but who died three months later; and Carl Alexander Benno, born in 1851.⁴

As a youngster, his mother called him Ado; from that time on, he was never called by his first two given names. He was baptized 8 November 1842 at Saint Thomas Church in Leipzig. Except for Church records, all contemporary sources show his first name as Ado or Adolph.

Hunnius was confirmed 16 March 1856 at Saint Nicholas Church in Leipzig. He took his first communion five days later.⁵

Little is known of his family life as a child. One incident that occurred in his youth is of interest. He recalled as an adult: "In 1860 a Russian Maj. General Carl Hunnius visited Leipzig and paid a visit to my mother. He was introduced by the Russian Consul at the city of Leipzig[,] was in full uniform, an Aide-de-Camp of the then Zar [sic] Alexander II."⁶

Hunnius obtained the standard German military education,

including military training and drafting. Later in life he mentioned that his education included a little chemistry and math.⁷

At the completion of his studies he received permission to travel to the United States and England for two years to study American and English languages and customs. Whether he ever meant to return to Germany is unknown, but if he wanted to go back he never mentioned it in any of his writings, nor is there any evidence that he ever returned to his homeland in later life.

Family legend, with its attendant inaccuracies, states that upon his arrival in America at New York City, Hunnius enlisted in the First New York Infantry and stayed until he became a sergeant and an adviser to a colonel. From there he transferred to a combat unit.⁸ Official Army records show, however, that he was never in the First New York and did not advance higher than corporal. A biographical sketch by his son Carl given to the Kansas State Historical Society after Ado's death says he came to the United States in 1861, was an assistant street commissioner in New York, then joined the Fifty-fourth New York Infantry Regiment.⁹ Neither of these accounts is borne out by extant records.

Military and pension records in the National Archives show him serving from 12 April 1864 through 14 April 1866 in Company E of the Fifty-fourth New York Infantry and from 30 March 1867 through 31 August 1869 in Company D of the Third United States Infantry.¹⁰

Hunnius's own journals, written sometime after 1875, mostly confirmed the official records.¹¹ In his Civil War account, he stated that he had arrived in the United States on 2 April 1864 at New York aboard the side-wheeler steamship Teutonia. Passenger arrival lists of

the Bureau of Customs show the arrival date of the steamship as April fifth and list one "A. Heunnius," male, age twenty-two, mechanic, as a passenger.¹²

After disembarking he stayed three days in a boarding house on Greenwich Street in New York City. He had \$25 in gold which translated to \$45 in greenbacks due to wartime inflation. Nonetheless he remarked in his diary about what he thought were high prices in America. He obtained employment at a drugstore owned by a Mr. Hofman as a janitor and bottle-washer, for which he was partly paid in board and room.

Hunnius frequently saw soldiers go by the store who had money and these men kept urging him to join the Union Army. One Saturday when Hunnius was not working, he went to City Hall Park and met some Union soldiers of German birth. The fact that there were many of his countrymen in the Army persuaded him to become a soldier. The German soldiers took him to their enlistment booth, that of the Fifty-fourth New York Infantry Regiment, but he did not sign up that day. He went back to the pharmacy and announced his intention to Hofman and his wife. They neither encouraged nor discouraged him, so the next day Hunnius joined the Fifty-fourth Regiment and received an enlistment bonus of three hundred dollars.¹³ Ado Hunnius, only a few days' resident in the United States, had joined the Union Army in the middle of the worst war in the history of the nation to that time.

NOTES TO CHAPTER I

¹For the purposes of this paper the term Great Plains is defined as the states of Montana, North Dakota, South Dakota, Wyoming, Colorado, Nebraska, Kansas, Oklahoma, New Mexico, and Texas.

²Harmon Mothershead, "The Journal of Ado Hunnius, Indian Territory, 1876," Chronicles of Oklahoma, 51 (winter 1973/1974):451.

³Frank N. Schubert, Vanguard of Expansion: Army Engineers in the Trans-Mississippi West, 1819-1879 ([Washington, D.C.:] Office of Administrative Services, Office of the Chief of Engineers, 1980), p. xi. This book is a condensed history; the best publications on Army engineers in the West are two full-length works by William H. Goetzmann: Army Exploration in the American West 1803-1863 (New Haven: Yale University Press, 1959) and Exploration and Empire: The Explorer and the Scientist in the Winning of the American West (New York: Alfred A. Knopf, 1967).

⁴"Hunnius, Schwabe, Weber," Records of the A. Hunnius Family of Leavenworth, [ca. 1900] (Subgroup I, box 1) [hereafter Family records], Adolph Hunnius collection, MSS Dept., Kansas State Historical Society (Topeka) [hereafter Hunnius coll.].

⁵St. Joseph's Church register, [1869?-1940?], Family records, Hunnius coll.

⁶[Family list], Family records, Hunnius coll.

⁷Ado Hunnius to Prof. C. Robetschek, United States Brewers Academy, New York City (draft letter), 3 June 1901, p. 1, 1901 (folder 8), Correspondence (ser. A, box 1), Papers of Ado Hunnius (Subgroup II) [hereafter Hunnius Papers], Hunnius coll.

⁸Forrest Hintz, "The Remarkable Diary of Carl Junius [sic] Adolph Hunnius," The Wichita Eagle-Beacon, 2 Jan. 1976, in Leavenworth County clippings, 6:42, Library, Kansas State Historical Society [hereafter KHi]; "Ado Hunnius Died Last Night, Was City Pioneer," The Daily Times (Leavenworth, Kans.), 22 Feb. 1923, p. [1] (Topeka, Kans.: KHi, newspaper microfilm L1151, n.d.).

⁹Mothershead, p. 451.

¹⁰Ibid., p. 452.

¹¹Autobiographical Account of His Civil War Service (1864-5),

[after 1875], vol. 1 (ser. D, box 1) [hereafter Civil War Autobiography], Hunnius Papers, Hunnius coll.

¹²File 236, Str. Teutonia, 5 Apr. 1864, roll 239, Passenger Lists of Vessels Arriving at New York, Records of the U.S. Customs Service (record group 36), (Washington, D.C.: National Archives and Records Service, M237, 1962).

¹³Civil War Autobiography, Hunnius Papers, Hunnius coll.

CHAPTER II

HUNNIUS IN THE CIVIL WAR

The Fifty-fourth New York Infantry was a part of the First Brigade of the First Division, Eleventh Army Corps. After the Battle of Gettysburg, the Corps was split. It was to South Carolina, still in rebellion, that Ado Hunnius and the other recruits of the First Brigade were sent.

After his enlistment, Hunnius learned by talking with the other men that Captain Wertheimer's Company E was considered the best unit in the regiment. Hunnius asked to join that company and was accepted. The evening of the same day, the company issued him one pair of light blue pants, two pairs of "underdrawers," two woolen shirts, two pairs of stockings, one blouse, one cap with insignia, one knapsack, one haversack,¹ one canteen, and one overcoat.

With the other new recruits, Hunnius was shipped to Hart Island in Long Island Sound, remaining on the island about two weeks. Although his companions were petty thieves and bounty jumpers, he suffered no harm. One day the troops were marched to a steamer and transported to the New York City shore. There they boarded a gunboat, destination unknown.

On board ship the following day, Hunnius asked two sailors where the ship was headed, and they replied that their destination was Alexandria, Virginia. The vessel arrived the next day.

The following morning after bathing and sleeping, the soldiers marched by regiments to Camp Distribution, Virginia, where Hunnius was placed in a group with former hospital patients, soldiers returned from furlough, and re-enlistees. He was introduced to Captain Wertheimer of Company E, the unit of his choice.² At the same time Hunnius also met Captain Kozlay, a Hungarian, and Sergeant Bauer who drilled the recruits.³

Near the barracks was a small building, perhaps a commissary, where soldiers could purchase extra food. There Hunnius ate his first piece of pie, which he described as "wonderfull in taste as in price, only 25c per piece. but 'Que voulez-vous,['] as the French say, What are you going to do, if you go into the war, one might be killed and never had any 'American pie.'"⁴

One day, many of the men were ordered into the woods and told to cut down the trees. Neither Hunnius nor the man paired with him had ever attempted to topple a tree before. After a considerable time, all the nearby trees had been felled by the other men, but Hunnius's tree hardly looked the worse for wear. The other men laughed and jeered at the novice axehandlers. With blisters on his hands, Hunnius finally explained the situation to an officer, who accused the two men of laziness. Afterwards, however, the officer sent an experienced soldier to show the men how to cut down the tree.

After about ten or twelve days at Camp Distribution, the men were marched back to the embarkation point, "Soldier's Rest," where they boarded a steamer to take them to Fort Monroe, Virginia. There Hunnius shared a large tent with twenty-four others and complained of being required to sleep on one side because of insufficient floor

space. They were near a Confederate prisoner-of-war camp and the noise of the sentinels kept Hunnius awake each night. While there, he tasted oysters for the first time, apparently to his satisfaction.

That evening, a number of men including Hunnius warmed themselves at a campfire when someone threw oyster shells into it. The shells exploded and burned one man, who accused Hunnius of doing the throwing. "I denied it, but he jumped right at me and there was a fight in which, as everybody was rather mad, went for me."⁵ The officers accused Hunnius of throwing the oysters; he denied it. Hunnius told the officers that he had never seen the effect of heat upon oyster shells until that evening and that he was only defending himself from the other man. The officers ordered everyone to their tents and the matter was forgotten.

The men prepared to leave the following day but soon returned, as there were no ships to transport them. Shortly thereafter, the soldiers were again ordered on the march. They waited near a hospital for several hours before being ordered to go to the wharf and board a small sidewheel steamer. Once aboard the ship they traveled south escorted by two gunboats. The next day, off the coast of North Carolina, Hunnius fell asleep on the deck of the boat and was badly sunburned, as were many of the other men. The marine life off Cape Hatteras consisted of "A great many sea fishes, sponges, several large turtles."⁶

The next evening they arrived near Charleston, South Carolina, and stopped a while among the fleet blockading the city's harbor. The following morning they continued south and arrived that afternoon at Hilton Head, South Carolina, near Savannah, Georgia. They disembarked

and Hunnius complained of the numerous sand fleas there.

Hunnius and the others boarded another boat and were taken to Folly Island, where they arrived the afternoon of April twentieth. By this time Hunnius's face and skin were blistered from the effects of the sun and reflections from the water. The recruits left the boat at Fort Delafield, South Carolina, and marched under the United States and New York state flags. Hunnius noted that this was the first time he had seen the New York flag.

After considerable marching the troops reached the camp, located in a large grove near Little Folly Creek. Hunnius was introduced to his tentmate, a man about his age.⁷ He received a cartridge box, forty cartridges, a bayonet, and a belt. The new recruits were drilled daily, primarily in picket, patrol, and skirmish. One of the commands was "ground arms" and Hunnius "thought it funny to have soldiers drilled regularly to surrender."⁸

At camp the men were fed apple pies made of dried fruit; fresh meat twice a week, generally with rice or dried vegetables in a soup; bacon and beans; and split peas. The pies were made by the cooks using government rations but sold secretly and the money pocketed by the kitchen staff. Hunnius performed kitchen-police duty several times and described the kitchen and its utensils. The company commander always inspected the kitchen before each meal. Interestingly enough, Army regulations specified that the soup had to boil at least five hours before serving. Cooks and kitchen police were awakened at four o'clock in the morning, one hour earlier than the rest of the troops, to prepare breakfast. At that meal the men received a tin cup of soup and a piece of meat about the size of a man's fist. Supper consisted of

coffee or tea and bread or crackers. The bread was very soft and spoiled easily; the crackers, commonly called hardtack, were issued for about five days at a time, and the men were commanded not to eat more than six per day. Hunnius preferred to make the bread last as long as possible so he could save the hardtack, as three pieces each at breakfast and supper were not enough to keep him from being hungry.

The Sunday after his arrival, Hunnius underwent his first inspection. The previous day he was taught how to make a box to fit into his knapsack and how to roll or fold his belongings so they could fit into it. He was issued a new rifle, model 1855, and a bayonet with a fluted blade. All the brass had to be shined on this equipment and the leather had to be blackened and shined. He complained that this care of his weapons took a great deal of labor. The recruits were also taught how to sling and unsling their knapsacks on command, as well as various rifle drills.

Hunnius described in great detail the inspection and the various exercises that were performed. As he was being scrutinized, the captain looked into his cartridge box. Seeing that Hunnius still had his percussion caps wrapped in the same way they were issued, the captain told him to store them unwrapped in his cartridge box. "The Orderly Sergeant eat me up pretty near with his eyes. Nobody told me about that."⁹ After the inspection of cartridge boxes was completed, the captain inspected the knapsacks and their contents. Hunnius reported that he did fine until the order to sling knapsacks was issued. In his haste, he knocked off his cap and later was reprimanded by the captain for his clumsiness.

While encamped there, Hunnius learned how to wash his clothing

using a scrub-board and a palmetto leaf stem for a scrubber. He also discovered that knowing how to darn cloth was a handy skill. At this camp there were no Class A tents (the large ones that held many men), but instead much smaller shelter tents, stout pieces of cotton, about five by five feet square, that could be buttoned together, similar to a modern army shelter half. The men slept on saplings wrapped in their blankets and used their overcoats as pillows.

Hunnius and his fellow soldiers kept occupied as they scavenged for other scraps of cloth and used them to make front and rear tent flaps. Usually there were only rudimentary tools such as pocket knives with which to work. Hunnius wondered what officers did to pass the time, but of course was never able to determine.

After about two weeks in camp, Hunnius first saw the brigade commander, Brigadier General Alexander Schimmelfennig.¹⁰ The general was very interested in firing "war-rockets" against the Confederates, particularly the cavalry, which at the time was about two miles away.¹¹ The rocket to be used measured about thirty inches long and about four and one-half inches in diameter. It was made of thin cast iron, pointed at the front, and filled with "small projectiles in point and heavily charged with powder which is used to fill and drive rockets with."¹² The weapon was placed in a V-shaped trough, which was elevated on three legs. A fuse was lit, the rocket was ignited, and the projectile was launched "with a fearful screeching noise" toward the woods where the Rebels hid, causing the cavalry to scatter and its horses to go wild.¹³ General Schimmelfennig rode away satisfied.

A few days later the general returned with many officers of other regiments to have some more fun. All the preparations were made

and the rocket was ignited. Somehow, though, something went wrong. The rocket, instead of going forward, went backward, bounced on the ground several times, and flew into some woods directly behind the Union camp. Although Hunnius did not report that it exploded, the men became afraid and the officers abruptly rode away. According to Hunnius's journal, this type of rocket warfare was never again attempted by his regiment.¹⁴

At the end of May, Hunnius was assigned to perform guard duty at the brigade bakery. The guard detail lasted three days, and when not at post the men were expected to assist the bakers in their work. Hunnius described the bakery as a very busy place, but heavily infested with rats. The soldiers made traps and killed a number of the vermin, but there were so many rodents they never stopped entering the premises.

The beach area where Hunnius camped interested him, particularly the lapping of the waves and the peaceful sounds of the wind blowing through the palmetto and pine trees.

One day in early June, the men were ordered to move their camp closer to the landing and farther from the swamp. Hunnius and his companions gathered all the nails and other hardware they could salvage. As hatchets and hammers were scarce, they went to an abandoned camp in search of discarded tools or objects, but found few. They did, however, fashion a rudimentary hammer from an iron rod they discovered. The next morning, the company moved to their new campground. Hunnius was placed as a guard. It was rumored that the shelter halves were to be replaced by four-man tents.

The rumor proved true. Hunnius described the arrangement of

tents into a standard military order.

This new camp was not nearly as pleasant as the former one because the days were hot and the ground was devoid of trees. Hunnius described evenings as "delightfull cool on account of the Seabreeze. But the Musquitoes were awfull[;] they were so bad that every man had a Musquito Bat issued to him."¹⁵ Because of the insects, the company avoided the use of candles at night. The soldiers tried smoking out the mosquitoes with burning gunpowder, but that provided only minimal relief. Bathing in salt water and allowing the salt to dry on the skin also helped a little.

The incessant wind blowing the sand caused problems with the granules penetrating the food. The wind-driven sand also caused the ground to shift, making the tents unsteady. Hunnius noted, though, that the sand was excellent for cleaning purposes. The men drilled on the beaches at low tide as the hard packed sand offered an excellent surface for military maneuvers.

The 55th Massachusetts Infantry, a black unit; the 104th New York Infantry; and the 74th Pennsylvania Infantry camped near Hunnius and his 54th New York Infantry Regiment. Although the Fifty-fifth Massachusetts was "colored," Hunnius stated in his journal that the unit was in some undescribed way different from a regular Army colored regiment.¹⁶ Hunnius praised them as superior soldiers and related how they drilled voluntarily on their own time. He pronounced this regiment so good none of the others equaled it in military precision.

Visiting the sutler's store one day, Hunnius was amazed to hear in perfect Saxon German a request concerning how he wanted his coffee. Upon inquiring, he discovered that the black sergeant who asked the

question had formerly been a waiter at the Confectionary of Felsche in Leipzig and had served Hunnius many times as a young man. The waiter had read about black regiments in the Union Army and emigrated to the United States to join one.

About this time, Hunnius made the transition from recruit to regular soldier: He stood regular guard duty. He said little about the activity itself, but talked considerably about the chafing, uncomfortable, and despised stock that was worn around his neck above the collar of the dress uniform. He mentioned that the orderly sergeant was equitable in assigning special duties, such as this one, which made the jobs less odious. Picket duty, he noted, was the most agreeable. It was designed to patrol from dusk to dawn to ensure that the units were not attacked by Confederates traveling down the Folly River. While on picket duty, Hunnius heard his first cicadas sing. He also discovered sea crabs and described how fast they could run, how they could be caught, and how delicious they tasted. About this time, the men were issued India rubber blankets to keep them protected from the rain. The soldiers also used the blankets to collect rainwater for drinking.

One day in June, the entire regiment was ordered out and paraded about halfway from the camp to the picket line. There they were met by the 55th Massachusetts and the 104th New York regiments. Upon arrival, they learned that the purpose of the assembly was to witness the execution of a member of the Fifty-fifth. The doomed soldier had a disagreement with his captain, and in his anger the enlisted man shot at the officer, wounding him. The soldier had been court martialed, convicted, and sentenced to die. The men of the 54th, 55th, and 104th

formed three sides of an open square. The provost marshal and the provost guard arrived, followed by an ambulance in which the condemned soldier sat on a coffin with two chaplains. Following the ambulance was the convicted soldier's company. After its arrival, the provost marshal ordered the man to stand at his previously-dug grave. The coffin was removed from the ambulance and placed beside the enlisted man. The sentence and execution order were read to him, his eyes were bandaged, and "something white" was pinned on his blouse over his heart.¹⁷ The firing squad assembled and, upon command, executed the soldier. His body was placed in the coffin, the assembled companies filed past the site, and then the regiments marched back to their quarters. Hunnius recalled the heat of the day and how exhausted the soldiers were from the ordeal.

Prior to the execution, Hunnius was ordered to bring the rifles to be used by the executioners to the provost-marshal's office. Hunnius and other members of the detail were required to clean the weapons and present them to the provost marshal for inspection. The officer examined them very closely and upon approval could be heard personally loading each. Nine of the weapons were loaded with a ball and cartridge; the other rifle was filled only with powder and a wad.

On July first, Captain Wertheimer called the company from their tents and picked a group of men that included Hunnius. These were ordered to bring their haversacks and three days' rations, given bacon, hardtack, coffee, and sugar, and told to be on call. About eight o'clock that evening they marched in front of the officers' tents past the other companies. The men were told that they would cross the Stono River to John's Island and that the others would follow or meet them on

James Island. The companies trooped to Battery Mahan, South Carolina, where they embarked onto camouflaged boats, each vessel holding about twelve to fourteen men. Hunnius, with the others, began rowing:

Here I found out that pulling an oar is a very nice thing to look at but to handle is quite different, it does not be a very long time to raise the most beautiful blisters, besides when one does not strike the water right, one may strike the back of his head or his nose on something hard on the boat.¹⁸

The men's inexperience delayed the crossing. The intent was to float with the tide inland, but by this time it was dark and the tide was flowing toward the ocean. It was decided that they should go ashore. The landing point, chosen in haste, required the men to leap from the boat into five feet of water, which they did. Hunnius reported that although the men got drenched in the water and the soft mud, they held their rifles up to protect them and emerged at a place called Lone Tree.

Hunnius and two other men went on reconnaissance to locate a road. After some searching, they found it and discovered that cavalry had recently passed. The rest of the men advanced to the road while the main body hid on the east side of it.

Once more Hunnius was placed in the lead group to scout the country about a mile ahead for roads and Confederate troops. The detail crossed one road and Hunnius climbed a small hill, where he saw a Southern camp about one-half mile ahead. He quickly returned to the sergeant commanding the detail and reported his find. The sergeant retraced Hunnius's footsteps to view the camp. The detail then returned to the command and reported their discovery.

Four companies were dispatched to hide near the road and ambush the Confederates that undoubtedly would traverse it. After about two

hours the Southern patrol consisting of about one to two dozen men ambling along the road was spotted about a mile away. Suddenly the Confederates were alarmed and began firing into the woods. The Union soldiers also began shooting and a skirmish began. Two Rebels were wounded but were helped along by their comrades. Now that an alarm had been given, the Union forces became aware of a larger force attacking them. At nightfall, the Northern troops retreated to their earlier position. Once more Hunnius and the other two scouts remained behind to survey the road where the fighting occurred. Hunnius commented, "We stuck it out, but I really must say I for my part did not fancy that part of the business at all, in fact I was scared but dared not show it."¹⁹

During their retreat to the main body, they discovered a man missing. Knowing that Confederates might be near, hollering for him was unthinkable. Hunnius and the sergeant retraced their steps, leaving the remaining soldier stationed along the road. About three hundred steps back they heard a noise, and upon investigating they found the missing man in a cistern. Apparently he had lost his footing and tumbled in, unnoticed by the rest of the party. Together again, the group continued traveling toward the Union forces, but in the dark lost their way. They came to a camp but could not tell whether it was Union or Confederate. They were discovered and challenged. The camp turned out to be Union artillery. The scouting party was directed to their regiment about two miles away, and arrived at the company area about two o'clock in the morning of July third.

The unit had camped in the village of Legareville, South Carolina, and the next day troops explored the area. The town was used

as a summer resort for the rich of Charleston and consequently was uninhabited. The large two-story, elevated frame residences impressed Hunnius.

Later in the morning the men ferried across the Stono River in small rowboats. A "monitor"--already a generic name for an ironclad ship--and some schooners came up the river along with some transport steamers with troops from Hilton Head. Hunnius and the others landed on Battery Island, a small wooded tract. During the night the Confederates shelled the gunboats, but the Union troops did not return the fire.

Early the next morning, July fourth, Companies A and E advanced along the road through the island, traveling about two miles before halting. Hunnius's Company E was sent toward some woods adjacent to the road. Soon after entering the forest, where vision was difficult, they received some shots from an unknown direction and several Union soldiers were wounded. The men returned the fire, but could not tell where to aim and were ordered to quickly retreat. Other companies joined them to assist as the troops continued along the road. At the village of Grimballs, South Carolina, the Confederates started to shell them. The nearby gunboats and a monitor started to fire at the Confederate fortifications, particularly Fort Trenholm, South Carolina. Near noon there was a general advance with Companies A and E in the lead. Crawling, the Union forces advanced. The Confederates, in their emplacements, did not fire. The Northerners came closer to the Rebel lines and had just been given the order to charge when they heard the Confederate bugler blow his horn. Union Captain Blau ordered his troops to lie down.²⁰ The Confederate volleys went over their heads

and did much harm to the men behind them, then the first group rose and charged into the Southern trenches. The advance was a success and the Rebels retreated. The Northerners captured a few prisoners, but time was of the essence as the Confederates continued to shell the Union troops.

That afternoon Hunnius and his comrades were about two miles from the front. Other Southern prisoners were brought back including a Confederate major. The officer requested that he surrender to a Union colonel, but none to be found, he was introduced to a major instead. Immediately the Southerner produced a concealed pistol and began to pull the trigger. Before the gun fired, however, Captain Blau shot him.

The men camped near a wooded area. The gunboats continued to barrage the Confederates and a monitor scored some direct hits.

In the evening, a detachment was ordered to Legareville to guard it in case Confederate troops should try to invade through the village; Hunnius was part of that group. They came to Battery Island where a hospital was established. Hunnius was surprised by the number of men who were there. The detachment, fourteen strong, arrived in Legareville and found a large force already there. The new arrivals were ordered to a large house at the end of the village where they could keep an eye on the countryside. Nothing unusual happened that day, and obeying their orders, they remained in the village until nightfall, then retreated to the landing.

Hunnius noted in his diary that there had been heavy shelling all that day and the next, July fifth; Union troops continued to shell John's Island.²¹ The area was one of great activity: soldiers marching

on Coles Island, transports arriving filled with men, gunboats proceeding down the rivers, and the arrival of a monitor. The ironclad was partially disabled so that its gun turret could not rotate, requiring the entire ship to maneuver before a shot could be fired.

All at once Hunnius and the others could see Confederates swarming into the village. The nearby Union gunboats began shelling the buildings and one of the structures caught fire. Soon several buildings were burning. As soon as the shooting began, the Southerners ran from the village. Later that day the Confederate cavalry returned, this time much more cautiously. Some of them came near the landing where Hunnius and the others were ensconced and fired a few shots into the building housing the Union troops. Not wanting to give away their position, the Northern soldiers did not return the gunfire. The Confederates then saw a Union rowboat approach the landing. They began firing at it as other Southern troops moved from the village toward the shore. The boat landed alongside the house where Hunnius and the others were hiding, and the soldiers quickly climbed aboard. The Confederate cavalry saw them but curiously did not fire at them. The Union troops, however, shot at and struck a few Southern soldiers. Hunnius and the others transferred from their rowboat to a gunboat which was firing at the Rebels and the village. Around four o'clock that afternoon the detachment landed at Fort Delafield and rejoined the regiment, which was just landing in another boat. Several storehouses at the landing had been burned, destroying mostly commissary supplies.

Once all the men had returned to their regiments, they were marched to the beach and ordered to undress and bathe, as their clothes were infested with cloth lice. The clothing was burned and they were

issued new uniforms.

Hunnius stood guard duty at various stations, often for as long as a week at a time. Mosquitoes continued to be a problem; Hunnius told of a variety of nettings and practices used to keep the insects away, including sleeping in coffins with netting over them. The soldiers cooked in a deep hole with little flame so the Confederates would not notice the smoke from their fires. Meals consisted of coffee or tea with hardtack and a little bacon in each ration, cooked individually. Tobacco became somewhat scarce and the men used dried tea leaves instead. The pickets were drawn from the entire regiment, allowing men of different companies to become acquainted. To relieve the boredom when not on duty, the men told stories about the war and their other combat experiences.

The fort at Kiawah Island was essentially a powder magazine surrounded by moats and equipped with dummy guns made of palmetto branches covered with India rubber. Besides the powder, there were some of General Schimmelfennig's rockets and launchers, as well as a large supply of hand grenades.

In addition to guarding the "fort" proper, there was also an advance position about one-half mile away. Hunnius once had to guard this post and he noted that "It is a very funny feeling to know if something should happen[,] to be certainly a 'goner' either being shot or captured, because one could not get across the bridge."²² He was not given a countersign so he could not divulge it if captured, and was told to watch for Rebels crawling past him. On the other hand, he was told not to shoot at every moving object lest they be alligators, turtles, or wild hogs and the shots would alert the enemy. To further

unsettle Hunnius before he left, the sergeant of the guard asked if Hunnius had appointed someone to write to his parents in case of his death.

After he was gone I can say I kept my Ears and Eyes well and wide open that night. It is wonderfull what many thoughts pass at such a place through a mans brains. That there was any amount of danger was certain because from time to time, a man did not come back from that post, we all knew this, also that there was about 4 miles off in the woods a strong Rebel Cavalry Picket. They occupied an Estate and had posts out on the road leading towards us. One bad thing was the sentinel must not walk up and down but stand right still behind that tree. That night passed and nothing happened[.] I must say I did feel very much relieved as daylight came and I had crossed the Bridge and was in the Fort. Then every body came up and shook hands and asked about ever so many things, and the man who had to take the post the next night, was always the most inquisitive.²³

The semitropical climate began to wear on the men, particularly when several cases of diarrhea and dysentery erupted. About the only remedies were quinine and whiskey, issued every second day. Hunnius had both diseases, but managed to avoid going into the hospital by treating himself. Although he considered the hospital to be very good, other soldiers shunned it and tried every alternative rather than report there. It was commonly believed that too many who were admitted did not leave alive.

To escape the burning sun, Hunnius requested to be put on a detail to go to Dog Island Fort Number One, even though the fort was in a swamp and the air was heavy and unhealthful. Hunnius did not do well there, however, and the commanding officer sent him back to picket duty on Mille Coles. While on guard duty he observed the Confederate shelling of Morris Island. Hunnius fainted on his last tour of guard duty and was allowed to lie there most of the day. One of the officers suspected him of goldbricking, but the sergeant of the guard told

regimental authorities that Hunnius was truly sick, even though he risked censure for posting an ill guard. The sergeant noted that all of his men were sick to some degree and that he had remained awake through Hunnius's watch to ensure that security was maintained. Later the principals involved had to report to regimental headquarters and verify the story. Hunnius was scolded for doing guard duty while ill and at the same time praised for the way he stood guard duty while sick!

Suffering from typhoid, Hunnius was carried to the hospital, where he was treated by the regimental surgeon and a nurse by the name of Hinshaw, whom Hunnius praised highly. The fever caused the loss of his hair. The doctor prescribed a potion which made Hunnius rather tipsy. His care must have been effective because he regained both his appetite and his hair and began to feel much better. He remained in the hospital about three weeks, and while there he made splints and rolled bandages to pass the time. He also assisted with several amputations. Many of the soldiers in the hospital were there because of wounds suffered in the expedition to James Island.

There was a singing club in the regiment under the direction of the sergeant major. The men who sang were very good and sang most evenings. Because they performed near the hospital, Hunnius was able to listen to them while confined.

While in the hospital, Hunnius met the regimental chaplain, a man he described as "a dimit and always more or less afraid, shortsized man."²⁴ The men would often visit the chaplain's tent to obtain reading material, usually tracts or similar works. Those who got on the chaplain's good side were often invited to partake of a little

whiskey that always seemed to be near. Once a month on the beach the chaplain would hold services, both in English and in German.

Increased attention was given to drilling. At about the same time, a number of wounded and former prisoners who had been members of the regiment returned. Hunnius gained a new tentmate, an Englishman by the name of Marsh. The addition of this non-German-speaking partner forced Hunnius to begin speaking English, a needed learning experience for him. The men were also issued regulation hats and gloves, which were often used at dress parades. Although despised, the new equipment made the unit much more professional looking, Hunnius admitted.

One day an uproar within the regiment resulted from an unexpected event. Until this time, vacancies in the officer corps had always been filled by promoting a first sergeant from within the regiment. This time there were four vacancies. As expected, two officers were selected from within the regiment by the promotion of sergeants, but instead of filling the other two positions in the same way, the Army transferred in two new officers, and Americans at that! The existing officers went to the regimental commander and threatened to resign if the old procedures were not reinstated. The commander went to brigade headquarters to report on the state of affairs.

The general commanding the brigade came to the regiment and the men were called into formation. Word had been disseminated among the companies that if the new officers were installed, the enlisted men would stack their arms in protest without being ordered to do so, knowing that their officers would not object. The warrants for the new officers were read and as soon as the two unwanted officers stepped forward all the men stacked their rifles and removed their cartridge

belts. The general declared that what had been done was a mutinous act and ordered the Fifty-fifth Massachusetts to guard them. When the Massachusetts troops arrived, they learned of the situation. Agreeing with their comrades' actions, the Fifty-fifth refused to guard them and were sent back to their tents. The new officers, realizing the ugliness of the situation and the dim prospects of immediate improvement, ordered their belongings sent to the boats. They left late that day.

Later the same day the general reappeared and told the men of the Fifty-fourth that they were bad soldiers for disobeying, but because they had not refused to perform any duties they would not be punished. He also said that he would ensure that future promotions were from within the regiment's own ranks. The men gave three hearty cheers and took up their arms again. The matter was closed.

Hunnius noted that many of the men in the regiment had previous military service in Germany, some of it at a much higher rank than they had achieved in the United States Army. He concluded that their German military experience made it difficult for these immigrants to advance in the American forces. Although he did not mention discrimination, it was obviously on his mind.

In August, several skirmishes occurred on Seabrook Island beyond Kiawah Island and occasional injuries were inflicted on the Union troops. One day Hunnius's company was ordered on a night expedition. The thirty-five men in his company were rowed to the island in small boats. Once ashore, they moved along a narrow path in dense woods on a trail used only by Confederate pickets. The darkness was so pervasive the men got stuck several times and once left the path and went into

the swamp. After considerable difficulty, the column reached "The Estate," a two-story plantation mansion with outbuildings. The men were instructed to attack preselected buildings on signal, as it was believed that Rebels were inside them. When Hunnius and the other two men in his group broke into their assigned building, they all fell into the cellar as the structure's floor had been removed. Believing each other to be the enemy in the total darkness, the three attempted to capture each other. Hearing the commotion the other soldiers ran to the building and one lit a match. The three inside realized what had happened and grinned sheepishly with embarrassment. The other men in the company made considerable light of the incident.

About half an hour later, the company began marching again. All the buildings they passed were empty. When daylight broke, the group found themselves marching through abandoned fields. At a distance they could see Southern cavalry. They progressed to the beach, meeting a detachment of reinforcements there.

On the way back, Captain Wertheimer complimented Hunnius and the other two despite the teasing of the other men. The company commander also told Hunnius that he had done a fine job during the earlier James Island expedition.

While in the water on their return, the men discovered an immense turtle. Later the turtle was found dead. That evening the company enjoyed turtle soup and the next day pancakes made from turtle eggs.

Marching along the beach that morning, Captain Wertheimer once again was cordial to Hunnius and invited the private to talk with him further in his tent, an invitation Hunnius accepted occasionally but

not often due to the large amount of time he spent on company duty.

The campground of the 104th New York Regiment was surrounded by cacti, both for aesthetic and protective reasons. It was also a great attraction for the men from the other regiments, few of whom had ever seen this kind of plant before.

One evening Hunnius and others of a detachment were ordered to unload ammunition from an incoming ship. Most of the ammunition was in hundred pound loads so the night was long and the work burdensome.

Payday was a time of great excitement. Hunnius received pay for five months at thirteen dollars per month. Paydays were so infrequent that some of the men were paid ten months' wages.

About the same time, the men of the company were assembled and they were allowed to vote, either for Abraham Lincoln or George McClellan. Even though he was not a citizen, it is likely that the officers permitted Hunnius to vote, though his journal entry does not indicate that he exercised the franchise.

Near the end of October, the regiment moved to approximately the same place they had encamped the previous May, only a little farther up the Folly River. This time, however, there were more fortifications in the area.

During the latter part of October, Hunnius was detailed for picket guard over Front Coles Fort Number Two, South Carolina. Because the fort itself harbored many sand fleas, sand flies, and mosquitoes, the guards posted themselves in tents ringing the post. During the day one sentinel walked on the breastwork surrounding the emplacement. Inside there were three wooden cannon made of logs and boxes used as decoys. However, live ammunition in the form of rockets and hand

grenades was stored within the walls. The inside of the fort measured about thirty feet across.

At night there were three guards along Big Folly Creek, several nearby watching James Island, plus one on the bridge connecting the fort to the island. The Confederate cavalry had a sentinel of their own on the other side of the bridge about fifty feet away. Sometimes at night the troops on the opposite sides signaled to each other or sent food, tobacco, or newspapers from one end of the bridge to the other. Naturally the officers of each force discouraged such contact.

Occasionally Hunnius talked with the men of the Second South Carolina Artillery on the opposite side of the bridge, since that unit was also mostly German. Suddenly the Confederates stopped all such exchanges, Hunnius learned, for reasons that were never understood.

During the daylight hours, a tall pine tree served as a lookout and spikes were driven into its trunk to ease climbing. While a lookout in this tree, Hunnius observed the Southerners reinforcing their positions and drew a diagram of it, mostly to ease his boredom. When his watch was finished he showed the drawing to the sergeant of the guard. The sergeant ordered him back up into the tree to continue drawing as much as he could observe, particularly activity toward the village of "Secessionville." Later, an officer arrived to inspect. Asking the sergeant for news, he was told about the Rebel activity reported by Hunnius and that Hunnius had made a drawing of the vicinity. The officer, an aide to General Schimmelfennig, brigade commander, asked to see the diagram. After examining it, he climbed the tree to observe the situation firsthand. Upon descending he asked Hunnius many questions, took the sketch book, and promised to return

soon.

The next day while on a detail, Hunnius was told that a regimental officer was asking about him. When he was introduced to Captain A. vonLuettwitz, the officer asked Hunnius about his skills in drawing, sketching, compass surveying, and the like.²⁵ Hunnius was also asked whether he would be interested in a staff position. He replied that such an opportunity would interest him very much. Captain VonLuettwitz took his name.

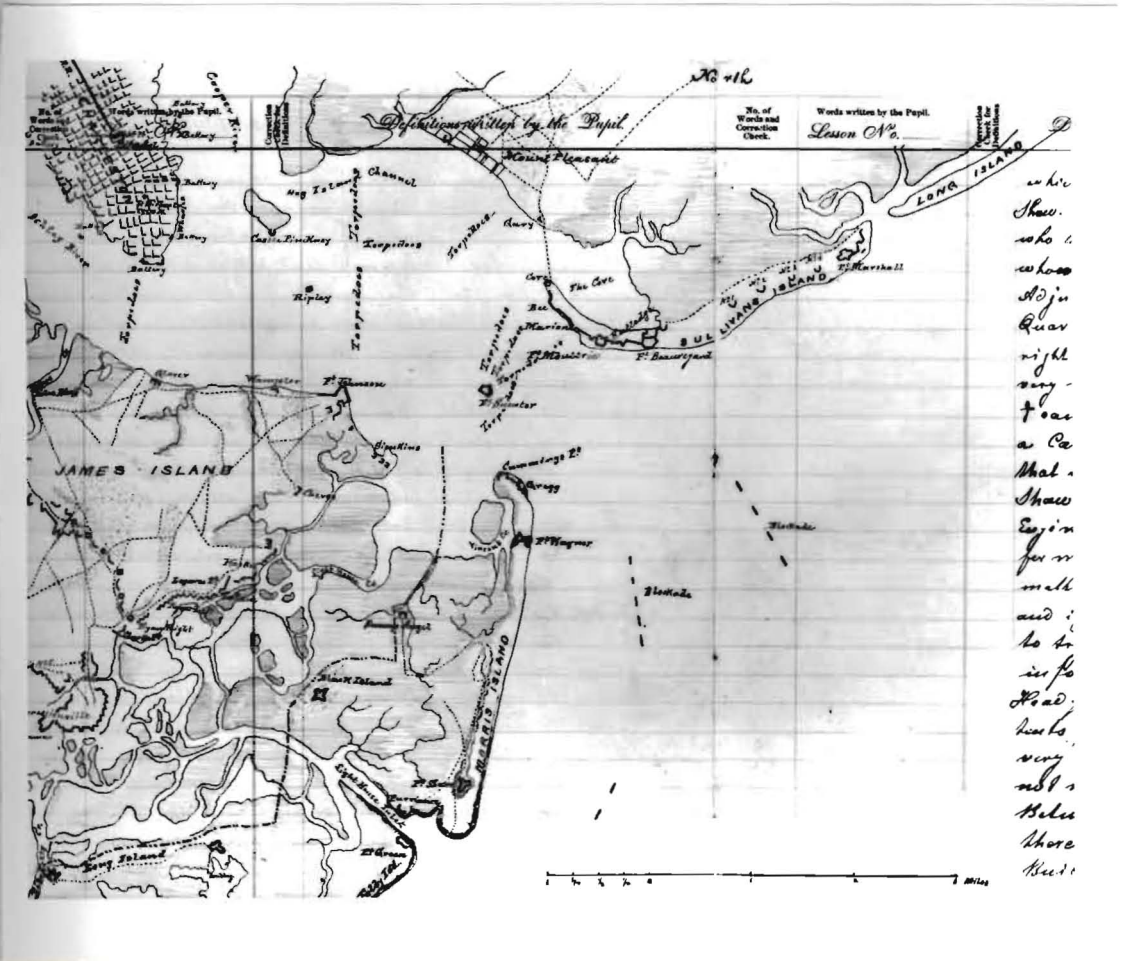
The next day, Hunnius returned to picket duty at Front Coles. While on guard duty, he found a cookbook in an abandoned house. The men passed the time discussing recipes and imagining grand dinners.

Two days later Hunnius was relieved from duty and given orders to report to regimental headquarters. He bade farewell to his mates as they told him that he most likely was being transferred out of the regiment.

Late that afternoon Hunnius reported to the orderly sergeant, who sent him to Captain Wertheimer. The latter was in a bad mood and rebuked Hunnius for deserting the company for "that Headquarters job."²⁶ The commander said he had been observing Hunnius for some time and had plans to promote him at the first opportunity, but he could not promote any man who turned his back on his company.

The next morning Captain Wertheimer accompanied Hunnius to regimental headquarters. There Colonel Kozlay talked very kindly to Hunnius and told him he had seen his sketch book.

On 9 November 1865 Hunnius was detailed to Captain VonLuettwitz, district topographical engineer for the Northern District of the Department of the South, for duty.²⁷ Hunnius arrived at regimental



Fortifications in Charleston Harbor, 1865.

Photograph of original in Hunnius's Autobiographical Account of His Civil War Service (1864-65), [not before 1875] (ser. D), 7:18, Papers of Ado Hunnius, MSS Dept., Kansas State Historical Society.

headquarters at Fort Shaw, South Carolina, and reported to Captain VonLuettwitz. The captain took him to the general's tent and introduced him. Hunnius then had to see the adjutant general, who assigned him quarters in an "A" tent near Captain VonLuettwitz's office and very near the signal station. His meals were furnished by the clerk's mess and he was issued a carbine and a saber.

At the engineer's office, Hunnius was kept busy drawing and copying maps, making drawings for fortifications, and producing sketches from the observations of Confederate deserters.

Headquarters consisted of fifteen to eighteen tents arranged in a tight square. Between Fort Shaw and the beach were many wooden buildings containing the quartermaster and commissary stores and ordnance blockhouses. Nearby the First Colored Regiment guarded the area. Behind the fort encamped Battery C of the Third Rhode Island. A navy camp lay one-half mile to the north.

The fort had palisades on the ocean side to protect it from the tides. The fortifications boasted three iron cannon; in addition, the area was protected by shore artillery.

Hunnius reported that it could be quite exciting watching the various defensive positions, particularly when enemy activity was reported. Outside the various fortifications security was less certain. In case of attack, soldiers were advised to find the nearest cover and hope for the best.

Hunnius helped superintend the construction of breastworks that he designed, as well as the reconstruction of other fortifications. This construction work was done at night by large numbers of troops. To see what was happening, the Confederates were continuously exploding

shells over the site, adding to the anxiety. The Northern soldiers were well within Rebel range and Hunnius described the danger of shells exploding precisely on or over their positions. To make matters worse, the bombproof part of the fort was so full of sand fleas as to make it a horror to be within it.

The soldiers tried to construct a new redoubt, Battery Seymour, but the Confederate shelling was so close and so accurate the fort was never completed.

Many of the Union positions were so dangerous as to be uninhabitable. The garrison on Block Island was constantly under fire and was rotated only when the sky was darkest.

In early December an expedition started from Fort Wagner through Lighthouse Island toward Battery Haskell, South Carolina. The group did well until they approached the Confederate fort, then because of the low tide their boat beached ten to fifteen yards from the fort. Some of the men disembarked to wade the distance, but their sounds gave them away and the Southerners commenced a withering musket fire. The Union troops fired the cannon they carried on one of their boats, but the recoil split the ship's bottom and it began to sink. The expedition retreated. Twenty were wounded and twelve were missing from the foray.

Approximately one week later, a naval expedition against Fort Fisher and Wilmington, North Carolina, was formed. Seventy-five vessels were to participate, but the attack was halted for reasons Hunnius did not specify. Two weeks later a similar force was assembled. It attacked and the fort was taken.

The same day the navy ships departed, another foray to the south

was mounted. Most of the infantry troops on Folly Island were transported to the Port Royal entrance. At Hilton Head they were joined by a large number of additional troops and they traveled up the Broad River. This was known as the Pocotaligo Expedition, designed to cut the Charleston and Savannah Railroad near Coosawhatchie and Talkehatchie, South Carolina. Hunnius described the area through which they traveled as all water and swamp. Both sides inflicted many casualties, but the Northern forces succeeded in cutting the railroad, a flanking motion to help General William T. Sherman take Savannah. The intent was to draw the attention of the Confederates away from that city, and to drain troops from Charleston. Hunnius was sent aboard a dispatch boat loaded with mail to go back to Morris Island, where they landed on December twenty-fourth.

Approaching the island, they could see that the situation was hot. From December twenty-third through Christmas Day, the Northern army and naval forces fired steadily at Charleston and its defenses. The night of the twenty-fourth/twenty-fifth was particularly severe and there were several large fires in the city. In turn, the Union positions were raked by gunfire from the Confederate forts on James Island.

The first week of the new year, 1865, saw the capture of two blockade runners, both English vessels.

About two o'clock in the morning of January fifteenth the ironclad Patapsco was blown up by a torpedo. Only two seamen survived.

A few nights later the men were aroused by a signal rocket and orders to "fall in." They came out of their tents to find Rebels standing right in the center of the headquarters area. Union soldiers

were instructed to shoot anyone making the slightest movement. Apparently there was an imminent Confederate attack, and these men on picket duty had decided to desert the Southern army, or so they told the Northerners. The deserters took a boat to Morris Island, landed, and proceeded to the headquarters tents before being seen. After that time, there were greatly increased pickets and patrols around the Union camp. The deserters predicted more Rebels would leave if the chance presented itself. They also told the commanding general that there were few troops on James Island and that those that were there quickly moved from one position to another when firing to give the illusion of a larger force.

One night Hunnius was awakened and quickly dressed, because he had been summoned by the general. Upon arrival in the commander's tent he found a tall stranger who someone introduced as General Sherman from Savannah. Hunnius was ordered to make many drawings for a planned Union expedition in early February. The Northern troops were to go to John's and James Islands, and to create a disturbance to draw the Confederates towards them as a diversion. About that time, Hunnius returned to Folly Island to locate part of the camp of the Fifty-fourth New York Regiment, which had moved. Returning in a heavy storm, Hunnius found the going difficult and the boatsmen unwilling, but he arrived safely at headquarters.

Immediately after his arrival in camp, the palisades began crumbling and the shoreline caved into the sea. Furiously tents and equipment were moved to higher ground.

On February eighth, the troops began their expedition to John's and James Islands. Hunnius and the brigade headquarters crossed at

Fort Green, South Carolina, and from there they rode to Folly Landing. Boats then took them to Kiawah Island, where they rode to Seabrook Island. They traveled by road over Hanlover Cut to John's Island, where they camped for the night. Captain VonLuettwitz's topographical maps were found to be in error when the troops had trouble locating a specific road and a bridge.

The next morning, February ninth, they met the Fifty-fourth New York troops. The combined forces marched north and camped near a church on a bridge over Church Creek.

That night, it was reported that a large Confederate force was heading towards them, so on the morning of the tenth the troops were anticipating a fight. The force was marching through heavy underbrush. Hunnius stooped to pick up some equipment he dropped when a bullet whistled overhead, striking the man marching behind him. Several others were also wounded by gunfire. The men crouched into position, supported by an artillery barrage. After the shooting stopped, the men retreated to the Church Creek bridge.

That evening and the next two days the troops marched from place to place to deceive the enemy. There were a few short fights but no major action. The following day, the men fell back toward Legareville, and on the fourteenth Hunnius was ordered back to Morris Island with all kinds of dispatches and letters. He was instructed to pack everything in the engineer's office in case a quick movement was required.

Hunnius and his companions were stunned on the morning of the seventeenth by a series of explosions from the direction of Charleston. They witnessed several steamboats exploding and the railroad bridge

being blown up. The Confederates were evacuating the city.

The next morning, February eighteenth, Hunnius arrived at Fort Wagner with all of the engineer's equipment as the Union fleet entered the harbor. He was transported in a small boat to Fort Sumter. There he intended to raise the Union flag, but another group landed just ahead of them and did the honors. The fort by this time was a large heap of rubble and sand.

Hunnius was then rowed to Charleston and found that the streets near the landing were deserted with only a few sentinels in view. A little farther inland, he came upon a large devastated area, the result of Union bombardment. He was shown to the Citadel, home of the military academy, that afternoon. There was much work to be done, sketching marches and copying maps and he remembered working until after midnight that night. During the night, Union troops from James Island entered the city and camped on the Citadel green and adjoining streets. Brigade headquarters was established there and all attached to it were ordered to sleep in the complex with loaded arms. At that point no one was sure what the Confederates might do. As days progressed, however, no hostile action occurred and several officers moved to quarters in abandoned houses. The headquarters clerks received rooms in the Citadel.

As Hunnius's workload diminished, he was allowed to tour the city. North of the Citadel, the railroad depots had been burned and the locomotives disabled, but overall damage was minimal. More destruction was evident south of the academy, but even so there were many areas remaining in good condition. Toward the Battery, destruction was very severe, but the battery itself remained relatively

undamaged. Saint Michael's Church, whose spire was a Confederate signal post, was unharmed but the buildings around it were demolished. Everything was destroyed from the Ashley River to the Cooper River.

Slowly people returned to the city. Restaurants and stores began to open, but prices were high because of the scarcity of goods. After a couple of weeks, shipments from the North began arriving and prices moderated. At the time of Hunnius's arrival, a \$1 Union gold piece fetched \$5000 in Confederate paper money.

Hunnius's old regiment, the Fifty-fourth New York, occupied a damaged stone building just south of Saint Michael's Church. He paid them a visit several times.

At nightfall, all of the streets of the city were guarded by the provost guard, and all activity was halted; no group larger than two people was allowed to congregate. The Union Army was very fearful of Confederate attack, and the large number of deserters that were entering the city was cause for still more alarm. Everyone in the Union forces was on the lookout for suspicious activity.

On February twenty-eighth, the troops were paid, done partially to bring a medium of exchange into the city. Afterwards, Hunnius reported, local merchants were much more cordial to the occupation forces.

March eleventh through eighteenth saw Hunnius make a survey of the fortifications constructed by the Confederates on Sullivan's Island.

The last weeks of March were busy ones for the Union troops. A map showing naval defenses of Charleston Harbor was discovered and the Northern forces searched for and defused the torpedoes planted by the

Confederates. Hunnius was assigned to this duty and daily circled the waters in a small boat. That month they raised 263 weapons without a mishap.

Those residents of Charleston who had endured the siege had harrowing tales to tell of the battle. They were universally ill-clad, mostly shoeless, and always hungry.

About this time brigade headquarters moved to 14 King Street, a two-story house with a garden. The engineer's office was across the street in a two-story frame house in the midst of a grove of trees with the office and Hunnius's sleeping quarters on the second floor. Hunnius found a brass bed in the house which he appropriated for his own use, even though he had to use straw for a mattress. Later he located a hammock which he found preferable. Cooking was done in a separate kitchen at the rear of the house. Captain VonLuetwitz stayed in an elegant home with many of the trappings of the rich people who formerly occupied it.

For a while, members of the Fifty-fourth were detailed as brigade guards and were housed in a building behind the engineer's office. One of Hunnius's former colleagues was an accomplished flutist. His playing would attract many blacks who would dance to the music.

On April fourteenth, the fourth anniversary of the surrender of Fort Sumter, South Carolina, there was a great celebration at the island post. At noon Hunnius was able to sail there, where three boatloads of visitors from the North had assembled. The original flag that had been hauled down by the Confederates on that same day in 1861 had been returned. Major Anderson, the commander on that date, hoisted

it after a speech by Henry Ward Beecher. Then the ships in the harbor saluted Old Glory. "[I]t was just earsplitting but grand," wrote Hunnius.²⁸

Two days later the troops learned that Abraham Lincoln had been assassinated, and there was much panic. The soldiers were very scared, particularly of the deserters in the city, and braced for the worst. It was later learned that the deserters, too, were terrified that the soldiers would attack them. Even the Southerners admitted that the death of Lincoln would hurt them in the long run. The news of the assassination caused an uproar for about a week, then the situation quieted.

On April twenty-first Hunnius was given a pass to survey the defenses constructed by the Confederates about four miles north of the city. On his way he found some companies of the Fifty-fourth New York camped in the northern outskirts of Charleston. When he surveyed the "North Intrenchments" he was very impressed by their construction.²⁹

Hunnius became friends with a Jewish family who invited him to spend Passover with them. He found the celebration to be very interesting.

Near the wharf, the Union soldiers bought oysters very inexpensively. Former slaves removed the animals out of the oyster boats by the basketfuls and threw them into boiling water. The oysters would open on contact with the water and the blacks quickly would use knives to remove the meat. The layered bundles that the freed slaves carried on their heads impressed Hunnius. Many of them wore clothing from their former masters' wardrobes.

Early in May, Hunnius was ordered to make maps of all the

fortifications surrounding Charleston. He found the defenses nicely kept, mostly made of sod, with the gun platforms in very good condition.

Near the Chisholm Mills in the Ashley River, Hunnius found a torpedo boat, actually a submarine, thirty-five feet long and seven feet high in the middle. The craft was cigar-shaped and covered with sheet iron. A pole projected from the front, and at the end of the pole was a torpedo to be placed near a Yankee ship. A hatchway at the top provided access. The sub was propelled by a hand propeller and the crank was turned by the crew of four. In 1863 just outside Charleston Harbor a boat such as this succeeded in sinking the Union ship Ironsides. Unfortunately the submarine was too close to the explosion and its crew drowned along with that of the Union vessel.³⁰

In conjunction with his survey of fortifications, Hunnius was sent to James Island to survey the line of entrenchments south from Wappoo Creek. He found the former Confederate strongholds in excellent condition with room to hold eighteen cannon.

On May thirteenth, Jefferson Davis was brought through Charleston on a steamer. He had been captured in Georgia.

In June, Hunnius did much surveying, including Fort Sumter. He found it difficult to diagram the famous post in its ruined condition. Much of the work was done by a civilian, but there was still a considerable amount for Hunnius to do.

On June thirtieth Hunnius was paid. At this point Hunnius's narrative autobiography ends, but from notes inserted into the final volume, it seems obvious that he intended to finish the story at a later date.

On July twenty-second, Hunnius was transferred back to the Fifty-fourth New York Regiment and transported to Orangeburg, South Carolina, to join the unit. At Orangeburg, Hunnius found the unit bivouacked in five places around the community. He camped near town close to the railroad, and while there he performed guard duty, apparently no longer a dangerous task. His camp was removed to a location farther from town. He mentioned unloading guns in extremely hot weather. The men of the Fifty-fourth were inspected in Orangeburg, then marched back to their camps. On the way back Hunnius encountered a wasp's nest. While exploring for supplies he discovered some watermelon and sweet potatoes, both of which were most likely new to him; he said he enjoyed them. He was also assigned to picket guard duty in town.

Hunnius was detailed to the Quartermaster Department and seems to have been quartered at the rear of the Baptist Church in town. He may have gone into the country and become intoxicated. He mentioned baby alligators and water moccasins, and saw his first bowling alley in Orangeburg. He also served as commissary clerk as well as the inevitable guard duty, this time guarding prisoners. He sold flour in exchange for whiskey. He became ill and it was found that he had broken a bone, perhaps in a finger. While sick, he was treated by a civilian rather than a military doctor.

During the time he stayed in Orangeburg, he participated in the regiment's singing society and copied music for them. The Fifty-fourth New York Regiment also had a glee club of twenty-seven members, which included him.

On Christmas Day, 1865, he traveled on a supply train to

Barnwell, South Carolina, and from there to several other places, sometimes enduring hardship along the way due to lack of food or to poisoned supplies.

In January he was again posted to Charleston and quartered in the Citadel. He mentioned the lack of fireplaces and how chilly the building was. About this time he was promoted to corporal.

The regiment was sent to Mount Pleasant, South Carolina, and officially mustered out on 14 April 1866. Hunnius was discharged a corporal, having served two years and two days. From Mount Pleasant he could look out over the bay and view Sullivan's Island and Fort Sumter.

Hunnius was taken from Mount Pleasant to New York where he once again camped on Hart Island as he had as a new recruit. Enroute there was a fire on the ship, but he did not mention any casualties. On Hart Island he was in due time released and paid \$100; neither his notes nor his military record gives the actual date that he left the Army's custody.³¹

NOTES TO CHAPTER II

¹Autobiographical Account of His Civil War Service (1846-5), [after 1875] (series D, box 1), 1:3, Papers of Ado Hunnius (Subgroup II), Adolph Hunnius collection, Manuscripts Department, Kansas State Historical Society (Topeka) [hereafter Civil War Autobiography]. Unless otherwise specified, the text of this chapter is taken from these journals. This narrative is substantiated by John Johnson, The Defense of Charleston Harbor, Including Fort Sumter and the Adjacent Islands, 1863-1865 (Charleston, S. C.: Walker, Evans & Cogswell Co., 1890).

²Edward Wertheimer was commissioned 25 Apr. 1862 and dismissed 28 Feb. 1865. New York (State), Adjutant-general's Office, Annual Report, 1866 (Albany: Office of the Adjutant General, 1866), 2:132; U.S., Adjutant-general's Office, Official Army Register of the Volunteer Force of the United States Army for the Year 1866 (Washington, D.C.: U.S. Government Printing Office), pt. 2, p. 504. He should not be confused with Regimental Adjutant W. Wertheimer or a corporal in Hunnius's company with the same surname.

³Eugene Arthur Kozlay was born in Germany and was a resident of New York (West Point?) when commissioned. He was a colonel in the 54th New York volunteers from October 1861 until 18 Mar. 1863 and again beginning 19 Mar. 1864. He was named brevet brigadier general of volunteers 13 Mar. 1865, and mustered out on 14 Apr. 1865. He died 1 Apr. 1883. Francis B. Heitman, Historical Register and Dictionary and Register of the United States Army, from Its Organization, September 29, 1789, to March 2, 1903 (Washington, D.C.: U.S. Government Printing Office, 1903), 1:608; New York (State), Adjutant-general's Office, A Record of the Command Officers, Non-commissioned Officers, and Privates, of the Regiments Which Were Organized in the State of New York and Called into the Service of the United States to Assist in Suppressing the Rebellion, Caused by the Secession of Some of the Southern States from the Union, A.D. 1861, As Taken from the Muster-In Rolls on File in the Adjutant-General's Office, S. N. Y. (Albany: Comstock & Cassidy, 1864-1868), p. 407; New York (State), Adjutant-general's Office, Annual Report, 1866, p. 131; U.S., Adjutant-general's Office, p. 503.

⁴Civil War Autobiography, 1:16. Except for inserted material within brackets, all quotations by Hunnius in this chapter are exact transcriptions of his original entries.

⁵Ibid., p. 20.

⁶Ibid., p. 22.

⁷In his autobiography, *ibid.*, p. 26, Hunnius states that his tentmate's name was Metz. This is probably an erroneous recollection as the name of his tentmate while at Fort Larned, Kans., was Metz. There was a private by the name of Netz in the 54th New York Infantry, however this soldier was not in Company E. New York (State), Adjutant-general's Office, Annual Report of the Adjutant General . . ., 1901 (Albany: James B. Lyon, state printer, 1901), p. 766.

⁸Civil War Autobiography, 2:14.

⁹*Ibid.*, p. 28.

¹⁰Alexander Schimmelfennig was commissioned a colonel in the 74th Pennsylvania Infantry on 30 Sept. 1861 and was named brigadier general of volunteers 29 Nov. 1862. He died 7 Sept. 1865. Heitman, 1:864.

¹¹Civil War Autobiography, 2:28.

¹²*Ibid.*, 2:28--3:2.

¹³*Ibid.*, 3:2.

¹⁴*Ibid.*, p. 3.

¹⁵*Ibid.*, p. 8.

¹⁶*Ibid.*, p. 14.

¹⁷*Ibid.*, p. 27.

¹⁸*Ibid.*, 4:1.

¹⁹*Ibid.*, p. 7.

²⁰Gustav (or Gustavus) Blau was commissioned 9 Dec. 1862. U.S., Adjutant-general's Office, p. 503.

²¹Civil War Autobiography, 4:27.

²²*Ibid.*, 5:6.

²³*Ibid.*, pp. 8, 10.

²⁴*Ibid.*, p. 20.

²⁵Adolphus vonLuetwitz (also spelled vonLuttwitz in some sources) was born in Prussia and commissioned a second lieutenant on 1 Sept. 1862, while a resident of Kansas. He was promoted to captain on November 1st of the same year and was mustered out on 18 Sept. 1865. On 30 Aug. 1867 he joined the 3d U.S. Cavalry, was commissioned a first lieutenant on 26 Jan. 1870, and was cashiered on July 8th of that year. Reinstated on 8 Sept. 1874, he retired 5 May 1879 and died 29 Mar.

1887. Heitman, 1:989; U.S., Adjutant-general's Office, p. 503; New York (State), Adjutant-general's Office, Annual Report, 1866, p. 132.

²⁶Civil War Autobiography, 7:13.

²⁷Ibid., p. 15.

²⁸Ibid., 9:9.

²⁹Ibid., p. 11.

³⁰Cf. St. Louis Post-Dispatch, 18 Feb. 1917, Sunday magazine, p. 11.

³¹Civil War Autobiography, notes inserted into vol. 9.

CHAPTER III

A RE-ENLISTED SOLDIER IN THE WEST

According to family tradition, Ado Hunnius became an assistant to the New York City street commissioner, but possibly restless with civilian life he rejoined the Army in New York as a surveyor on 30 March 1867.¹ The enlistment register described him as twenty-four years of age; five feet, nine inches tall; with green eyes, light hair, and a fair complexion.² He entered the Army a private for a three-year term, and was mustered in by Captain Freidley.³ In his diary he simply stated, "About 12 o'clock I [en]listed again. [Q]uartered in Castle."⁴

Though the following day was a Sunday, Hunnius's first day in the Army was hardly restful. He commented, "Sergeant Delaney made me work like hell."⁵

On Monday, April first, Hunnius underwent a medical examination, obtained uniforms, received a haircut, and purchased several unspecified articles from the sutler. He may have been moved to Fort Columbus, New York.

The next day Hunnius was given another examination and was issued a haversack and canteen. That night the Army transported the recruits from Government Island to the Erie Railroad; in the transfer two men were left behind. Hunnius spent two hours on guard duty.

The next morning, April third, the men boarded a train. That night they changed trains, possibly because of an equipment breakdown.

Hunnius and his comrades may have been stranded most of the night of the third and fourth, for he wrote in his journal that he was sleepless all night due to being on guard duty. By four-thirty in the afternoon of the fourth they arrived at Indianapolis where they remained until nine o'clock that evening.

They arrived in Saint Louis at ten o'clock in the morning on a very cold April fifth and they departed at three o'clock for Leavenworth, Kansas, with Hunnius again on guard duty.

At mid-morning they arrived at Fort Leavenworth, Kansas, where the men were quartered in barracks. Hunnius lamented that he was only given one meal.

Perhaps the deprivation of rations was a fitting introduction to the life of a soldier on the western frontier. Mosquitoes, uncooperative pack animals, poor food, cholera and other diseases, dust and dirt, extremes of temperature and humidity, poor and ill-fitting clothing, and a lack of sanitary facilities were daily inconveniences. If these difficulties were not enough, there was also the constant danger from Indian attack. It is little wonder that the desertion rate was high. The numerous fights reported by Hunnius in his journal underscore the tensions generated by these harsh conditions.

April sixth, Hunnius's first full day at Fort Leavenworth, clearly demonstrated some of the problems common to frontier troops. The men were ordered into formation after someone tried to break into a house, and four men were missing and presumed deserted. That evening someone tried to steal Hunnius's blanket. Finally about midnight the men moved to other quarters.

On April eighth Hunnius was assigned to Company D of the Third

United States Infantry stationed at Fort Larned, Kansas. The Third Infantry, headquartered at Jefferson Barracks, Missouri, possessed a distinguished record of service on the frontier. In 1827 the regiment established Fort Leavenworth. Following the Civil War, the Third was sent to Kansas, staffing two-company posts in Kansas and Colorado and Indian territories.⁶ Company D was commanded by Captain John McLean Hildt, at that time on detached service at the United States Military Academy. In McLean's place at Fort Larned was the second in command, First Lieutenant August Kaiser.

Hunnius noted that a dance was held that evening at Fort Leavenworth.

In his diary for April ninth, Hunnius complained of the cold at Fort Leavenworth all day. He was assigned to a detail to gather wood; later he went to the quartermaster for a stove.

The next day the men had the stove in operating order and bunks and tables arrived for their quarters.

Hunnius's activities at Fort Leavenworth were varied. On April eleventh he reported washing in the Missouri River, grinding a knife, and being issued clothing. On this day the records of Company D report his assignment to it.⁷

April twelfth, four months prior to his formal transfer to a drafting position, Hunnius first mentioned any cartography work. In addition to the drilling, firewood detail, and other work required of him at Fort Leavenworth, he noted, "I made a drawing for Sergt[.] Mullberry."⁸

Members of General Winfield Scott Hancock's expedition in search of hostile Indians reported to Fort Larned that some unidentified

tribesmen were camped on the south fork of the Pawnee River. Soon thereafter twelve chiefs, very hungry, came to the fort.⁹

Hunnius did not work on April thirteenth, suffering from what he termed a "counterfit dripper,"¹⁰ possibly a venereal disease or a virus with similar symptoms. He was given a large bottle of medicine by the doctor, but rejected the medicine twice, probably vomiting it.

Hunnius returned to the surgeon the following day, April fourteenth. Again his body rejected the medicine repeatedly.

As Hunnius was still in great pain on the fifteenth, the doctor ordered an injection every three hours.

On the morning of the sixteenth, Hunnius went to the doctor three times for injections. He was told his problem was getting worse.

He nearly got into a fight with another soldier over a knife. Additional information on the incident was not recorded in his journal.

His pain was so much worse the following day that the doctor increased his injections to one every two hours. While in the hospital, he made a drawing for the steward there.

The troops were issued bedsacks that afternoon.

The frequency of injections given Hunnius changed to four on April eighteenth while his pain continued. The following day brought no change in his condition or treatment.

Hunnius's medication must have been successful, for the number of injections he received diminished to two on April twentieth. After dinner some new cavalry recruits arrived. Fights continued between the soldiers, obviously a common occurrence.

Hunnius was returned to duty on Easter Sunday, April twenty-first. After morning inspection, he gathered flowers all

afternoon, surely specimens for the Leipzig museum.

Before breakfast the next day Hunnius had to go to the commissary for beef. After breakfast the men in Company D drilled and, later, their knapsacks, carbines, and scabbards were inspected.

Hunnius spent Tuesday, April twenty-third, on fatigue duty (unspecialized manual labor) in the hospital garden until late in the afternoon when he and the company drew muskets and equipment.

The company drilled most of the morning. After dinner their marching orders were given and they were issued bedsacks and two days' rations. Part of the Thirty-seventh Infantry left that day on detached service.

Hunnius and his fellow soldiers were awakened at three o'clock the morning of Thursday, April twenty-fifth, and two hours later were marched to Leavenworth. At eight o'clock they left Leavenworth, arriving at Fort Riley, Kansas, at five o'clock that afternoon. Hunnius commented that there had been "much humbug."¹¹ Despite the long march, Hunnius reported to the office quarters at seven-thirty in the evening for fatigue duty.

Hunnius described the morning of April twenty-sixth as a fine one. After breakfast he made a drawing of Fort Riley, and by mid-morning he was drilling. Dinner consisted of hominy as Hunnius noted the detachment troops were very hungry. After the meal they may have been punished for not promptly assembling into formation.

Evening found Hunnius on guard duty, but he was out of tobacco, for him a serious problem. That afternoon a sentinel shot a prisoner in the leg. Company E of the Third arrived at Fort Riley on their way to Fort Leavenworth.

Because of Sunday inspection, performed by the commanding general himself, Hunnius was on guard duty longer than usual. Afterward Hunnius fried ham with crackers for dinner.

He commented on the storms of April twenty-ninth. One soldier by the name of Anthoni was fighting with several men. Another soldier lying in his tent was bitten by a prairie dog. Four Indians were seen in the camp, but their purpose there is unknown. More importantly for Hunnius, he signed up for additional tobacco.

At ten o'clock the next morning the recruits were mustered for inspection. After washing their clothes in the Republican River they may have visited Salina, Kansas, and returned to Fort Riley the same day, as Hunnius drew a sketch of the town consisting of one house and two dugouts. He commented that the landscape was flat prairie with no trees. Later in the day he received his pound of tobacco.

Hunnius spent the morning of the first day of May on post guard duty at the flagstaff; he may have also guarded the commissary storehouse.. For an unexplainable reason he noted in his diary, "Gen. Gispy liked to put me in the Gard House for 24 hours and 2 hour hanged up by the thumbs."¹² Being outside, it was natural that Hunnius remarked on the bitterness of the cold. While on patrol the guards apprehended two prisoners, and that night Hunnius again walked guard duty at the flagstaff.

The next afternoon he helped load ammunition, tents, and rations on wagons as the detachment was to start for Fort Larned the following day, May third. The same day he "took the engraving of the monuments," the meaning of which is uncertain, but probably referring to the recording of information from survey markers.¹³

The night of the second and third was a short one as the recruits packed their gear at four o'clock in the morning and left Fort Riley at six o'clock. Shortly after noon three cars of a railroad train near them jumped the track but no one was injured. They resumed travel at three o'clock and arrived in Salina four hours later. The evening was stormy while they camped on the Saline River.

From Salina, Hunnius's detachment left about seven o'clock the next morning, traveling nine miles over the prairie in three hours and resting near a small creek. Having marched eighteen miles by four o'clock in the afternoon, sixteen of those on the open range, the group stopped. They had no coffee, but the Thirty-seventh Detachment gave them some.

On May fifth they made better time, traveling twenty-one miles in six hours before arriving at Fort Harker, Kansas, and joining Company D. That evening, a very cold night, Hunnius again was selected for guard duty. There was no guardhouse for protection.

In contrast to the preceding night, the day of May sixth was warm. Hunnius was ejected from his tent, perhaps because it was needed by one of the other companies who went on another expedition. He noted that they "fixed" the guardhouse, possibly constructing a crude shelter. Hunnius's guard duty ended at sundown, he having only walked his post one hour during the day. At sunset Company D's new second lieutenant, J. W. Hannay, presented himself to the men with a kind of speech.

Hunnius spent the next morning, a very warm day, sweeping the company street and drilling. He requisitioned a jacket and other clothing and carried them from the quartermaster's stores that



Map of the Great Plains and Southwest Showing Selected Forts.

Robert Knecht, 1987

afternoon.

May ninth was much the same. Hunnius spent the morning sweeping the company area, packing his knapsack preparatory to the day's inspection, and sleeping most of the day. He helped another soldier carry wood.

Because of heavy rains there were no roll calls the next day, May tenth. Hunnius and the other men dug drainage ditches and repaired tents all day. India-rubber blankets were issued to the men the next day, but that evening there was a heavy thunderstorm and, despite the blankets, everyone was soaked.

Sunday, May twelfth, found everyone still wet from the thunderstorm, and because of the rains there was no inspection. Hunnius was detailed to pursue two deserters.

The postponed inspection was held the next day and a drill party was selected. A corporal in Hunnius's detachment who had been reduced in grade and one other man deserted, and three men were ordered to search for them, which they did without success.

Hunnius obtained pork from the commissary the morning of the fourteenth, loaded two wagons with wood, then swept the company street. Continuing fatigue duty that afternoon, he helped carry sand away from the drainage excavations and make minor repairs on various buildings in the camp. That afternoon General William T. Sherman arrived. Hunnius and the members of his detachment obtained ammunition as they were to depart the next day.

On Wednesday, May fifteenth, the detachment left at six o'clock in the morning. Just outside Fort Harker the men had to ford a creek. After marching eighteen miles they camped. There was a rumor of a

party of three hundred Indians supposedly on the warpath nearby. Hunnius stood guard in heavy rain.

The next morning began for Hunnius at four o'clock when his shift as a guard resumed. A number of buffalo were seen by the guards. Hunnius was assigned to guard a prisoner, and while on duty he lost his pipe.

Later in the day Hunnius became part of a detachment sent to Giroux, Kansas, a distance of twenty-eight miles. On the way the group rested at Cow Creek.

Early on May seventeenth, they struck their tents and marched nine miles in two hours. Hunnius's diary is illegible at this point, but it appears the soldiers may have marched to the site of an Indian battle and that Hancock, commanding the Army's actions against hostiles on the plains, may have conferred with Indians near this point, possibly concerning two white girls who had been captured by the Indians.¹⁴ Afterwards they marched quickly and camped at five o'clock that afternoon. Hunnius noted the lack of water in the ground and the abundance of it falling from the sky.

General Hancock, commander of the Department of the Missouri with headquarters at Fort Leavenworth, had left that post with artillery and six companies of infantry on the last day of March in pursuit of the Kiowa, Cheyenne, and Arapaho Indians, reported to be west of Fort Larned. At Fort Riley he was joined by Colonel George Custer and the Seventh Cavalry. From there they went to Fort Larned and conferred with a delegation of Indians. Hancock was tricked by the Indians who left in the middle of the night, making Hancock furious. He ordered Custer to pursue them. Custer's troops burned the Indians'

tents but failed to apprehend any of the braves or their families.

Hancock and his troops then went to Fort Hays, Kansas. On May seventh they left Fort Hays for Fort Harker, meeting with Hunnius's detachment enroute.

Hunnius and the other men in his detachment began marching at six-thirty on the morning of May eighteenth. Hunnius was corporal of the guard and arrived with his prisoners at Fort Larned at ten o'clock, when the detachment was dismissed. Once more Hunnius was quartered with his company, though he did not attend roll call that evening.

Little was done on May nineteenth as Hunnius was ordered on a fishing detail.

He found himself on guard duty once more on the twentieth. When not at their posts, the guards discussed Gettysburg and other Civil War experiences.

The guards were relieved the next morning, and afterwards Hunnius received a pair of trousers, a trenchcoat, a set of drawers, a shirt, and a pair of shoes from the quartermaster. About noon he was paid, and later he spent the afternoon fixing an officer's tent.

Hunnius was detailed to police duty the morning of May twenty-second; at noon the escort returned from Fort Dodge, Kansas. The afternoon was spent repairing tents, but later Hunnius was dispatched to look for a soldier by the name of Uglitz who presumably had deserted.

A sore throat caused Hunnius to report on sick call the next day, which caused him to be designated room orderly. He and another corporal swept the grounds around their tents. Heavy rain fell all day. That evening they were served turtle soup. Private Uglitz was

apprehended and placed in the guardhouse.

Another rainy day followed on the twenty-fourth as Hunnius began a drawing but stopped because of the weather. Buffalo was consumed for dinner; later Hunnius read some newspapers as he sipped illegal whiskey. Lieutenant Kaiser tried but failed to locate the illicit spirits.

Guard duty was Hunnius's lot the next day. The previous night, Hunnius reported, the guards had participated in a fracas with Indians.

He continued on guard duty the next day, May twenty-sixth, a day of heavy rains. His secret supply of brandy eased the discomfort. Some civilians' tents collapsed in the storm.

Hunnius covered barracks roofs with logs and tarpaulins the following day. Later he moved Lieutenant Kaiser's tent and those that had broken, and that afternoon he finished the job by washing the windows. He visited the post sutler.

On Tuesday the twenty-eighth, Hunnius repaired sidewalks and prepared for escort duty.

The job as an escort began the next day. At mid-afternoon they stopped on the banks of Mill River, and after supper the men tried unsuccessfully to trap a buffalo.

In the morning of May thirtieth Hunnius dragged logs. The escorts began traveling at two o'clock in the afternoon and arrived at Fort Larned that evening. That night one civilian shot another.

No inspection was held the next day because of the wet weather. Hunnius obtained a book from the post sutler. After dinner he had to transport rations from the commissary to the company area, a very wet task. That evening a detail returned from the stone quarries.

Saturday the first of June brought a trip to Fort Zarah, Kansas, for picket post detached service, half of the way in wagons and the remainder on foot.¹⁵ For once the weather was co-operative. Upon arrival at the fort the soldiers killed some prairie chickens for food and Hunnius obtained additional rations from the sutler. Metz, his partner, was sprayed by a skunk.

Elsewhere on the plains, the situation presented to the military was hardly enviable. To the southwest Satanta stampeded the horses and cattle at Fort Dodge. Hancock's expedition went from Fort Larned to Fort Hays, a two days' journey due north. Upon crossing the Saline River the soldiers discovered a recent Indian camp, ate elk, and killed many rattlesnakes, which they called "prairie eels."¹⁶ Soldiers came down with scurvy. The men hunted buffalo and wild onions for food as many deserted from the Seventh Cavalry with horses and arms. A scout reported about five hundred Indians, supposedly Cheyenne, near Lookout Station and Downer's Station. Custer grouped three hundred men for a night attack but no Indians were found; it was supposed that the scout sighted buffalo instead of Cheyenne.¹⁷ Mistakes in observation were common: At one point Custer was mistaken for James Butler Hickok.

Also on June first, Custer left Fort Hays for Fort McPherson, Nebraska. From there he was to go to Fort Sedgwick, Nebraska, then south again to Fort Wallace, Kansas.

Lieutenant Brewster, an officer of the Seventh Cavalry, discovered a nearly-empty mess chest probably taken by deserters. At the Republican River they found a small, fresh Indian trail. They pursued thirty to forty Indians about two miles away and found the Indians had stage-horses. Between the Republican and Platte Rivers the

soldiers found many antelope for food. They received rations when they reached Fort McPherson, then they traveled twelve miles up the Platte to near Jack Morrow's Ranch for forage. On the way they saw many graves, a number of them of unidentified people killed by Indians.

The Dakota chief, Pawnee-Killer, arrived at Fort McPherson, as did General William T. Sherman.¹⁸

At Fort Larned, Hunnius noted in his journal that good weather continued on June second. Another party started in the morning to meet an unidentified major, and Hunnius apparently returned to Fort Larned. In the afternoon he swam and fished; about six o'clock that evening the escort from the Thirty-seventh Detachment arrived.

Guard duty beckoned the next day, June third, along with drilling. The day, however, was not without its recompense: Hunnius noted in his diary that he enjoyed a beer. Guard duty continued that night.

On Tuesday, June fourth, the stable of the mail station burned to the ground. Hunnius commented on the many mosquitoes in the area. The men drilled again in the evening, but prior to that he enjoyed a swim in the river, which was rising.

That evening, Hunnius could hardly sleep because of the mosquitoes. Tormented, he arose early, and that morning, June fifth, picked greens with another soldier. Before noon there was more drill, and after dinner they covered the roof of the barracks with earth. After supper Hunnius went swimming and partook of a beer and crackers.

On June sixth, Hunnius was put on whiskey patrol, an enforcement duty that surely disgusted him, given his love of strong drink. He also went to the mail station by way of the stone quarry. He and a

soldier named Jim guarded civilians. Hunnius fired his rifle at a wolf but did not hit the animal. Later in the afternoon he was "prowling" through the civilian camp near the quarry.¹⁹

He captured a goat for dinner the next day and drilled before the meal. With the mail run came news of Indians' scalping four Mexicans and three soldiers. Ten men, including Hunnius, moved to the roundhouse to protect it. While he was on guard duty from ten to eleven o'clock in the morning, there was heavy rain and darkness. In the afternoon he loaded soil on a wagon to fill some holes in roofs.

Drilling and covering barracks roofs with earth again occupied Hunnius's time on June eighth, but heavy rain late in the morning stopped his outdoor work. At noon a colored cavalry regiment arrived. Hunnius complained of considerable pain in his right hand, the reason for which remained unexplained. He was on guard duty that evening.

The regular Sunday morning inspection on the ninth was postponed until afternoon. Hunnius was on picket duty in the quarry. It was wet and he was forced to march a considerable distance through water; while there he killed a rattlesnake. That evening the soldiers and civilians performed several plays.

On Monday, June tenth, Hunnius and others marched to Fort Zarah. That evening General Butterfield and his wife arrived at the post, as did Hunnius's comrades from Fort Larned. His hand was much worse. He swam following supper and noted the river was high and swift. Apparently there were several fires near the roundhouse. Hunnius obtained cheese from the sutler and walked guard duty at night.

The following morning saw Hunnius on fatigue duty where he killed a snake. That evening he noticed a curious cloud formation and

plenty of mosquitoes. He was on guard duty after midnight but afterward he slept outside the roundhouse.

He went to the stone quarry where he worked on June twelfth. On the way he noted the rising water in the stream. That evening he was again on guard duty.

On June thirteenth Hunnius noted that the civilians would no longer allow soldiers to cook in their cookhouse. Meanwhile the rising waters of the creek caused the bank to give way and inundate the prairie. After supper Hunnius loaded and unloaded materiel, while that evening a soldier drowned and was never found. Once more Hunnius was a guard and while on duty he reported the mosquitoes were awful.

There were three fires outside and one inside the camp. Hunnius spent the entire day, a warm one, at the stone quarry. That evening Hunnius stood post guard duty.

A large thunderstorm broke about four o'clock the next morning, June fifteenth. Three tents, including Hunnius's were toppled by the storm and the cook's tent was damaged. Hunnius and the others on guard duty that morning were not relieved. The water in the creek was higher than ever and rain continued in the evening. Once again Hunnius was on guard duty that night.

Also on June fifteenth, the Hancock command moved south fifty miles through "[v]ery badly broken country."²⁰

Hunnius's guard relief came on Sunday morning. He later bathed while at the same time a cavalry trooper was grounded. Hunnius again was on guard duty in the afternoon. A civilian was chased by Indians near the point where Walnut Creek enters the Arkansas River south of Fort Zarah. There the man and his horse sank in quicksand.

On Monday, June seventeenth, a large wagon train arrived as Hunnius picked greens that day. Two civilians were killed by Indians. Hunnius was allowed by General Schutz's adjutant to drink some whiskey that afternoon. He stood guard that night.

A fight between two soldiers for an unexplained reason began the following morning, June eighteenth. On his way to the quarry Hunnius and the others saw beasts they thought to be buffalo. Because of the murders by Indians, he noted in his journal, civilians in the area were very scared. Once more Hunnius pulled guard duty that night.

He completed guard duty about noon the following day. He came close to shooting five Mexicans that day but the reason was not given in his diary. After dinner he swept around the barracks, then he washed some clothes. The afternoon brought a large fight at the mail station. Hunnius's guard duty was from two o'clock to three o'clock that morning.

On June twentieth, Hunnius made a sketch of the terrain as seen from Fort Zarah. Hunnius and two others were called to Lieutenant Thompson, who accused them of leaving the post without permission. He said that the next time it happened they would be court martialed. In the afternoon Hunnius obtained some whiskey, and after supper he swam. Again he stood guard after midnight.

Hunnius went to the stone quarry the next morning. Two soldiers went to hunt buffalo but found none, so after dinner Hunnius and a civilian went antelope hunting. The other man did not want to go and wandered away. Hunnius was involved in a verbal altercation with another soldier. The troops feared an attack by Indians that night, and while on guard duty Hunnius saw some buffalo and felt many

mosquitoes.

Civilians moved into the fort on June twenty-second, but Hunnius was unconcerned enough to swim in the evening.

The usual Sunday inspection was held the next day. A black escort killed a dog and H. B. Kohl, a hospital steward and later a pharmacist in Hays, Kansas, was reported to be in a very bad mood. Hunnius again went for a swim in the evening.

With ten men, Major Elliott went to Fort Sedgwick with dispatches to General Sherman and General Augur.²¹ Sixteen wagons with Will Comstock as their guide escorted Lieutenant Sam Robbins to Fort Wallace.²²

Hunnius was detailed to fetch wood on June twenty-fourth, and during the afternoon he cleaned the area near the roundhouse. Hunnius practiced with his rifle and swam in the evening. There was a skirmish between Mexicans and Americans and the Indians; about sixty of the latter were killed.

That day Custer was attacked by Indians, who used mirrors to signal, but they could not stampede his horses. One man was killed.²³ "Boots and saddles," the cavalry call for mounted formations, was sounded after the Indians passed. Lieutenant Hamilton was surrounded by approximately two hundred to three hundred Indians.²⁴

An interpreter was sent to find Pawnee-Killer, who agreed to come to the fort and talk.²⁵ Other prominent Indians included Chief Thunder-and-Lightning, a Dakota, about whom it was said he "makes fools talk," and Chief The-Man-Who-Walks-Beneath-the-Ground.²⁶

Hunnius was at the stone quarry on June twenty-fifth. In the afternoon the men there shot a buffalo.

The next day he again was on guard duty at the stone quarry where he dropped his bayonet in the well and could not retrieve it.

The same day a wagon train returned from Fort Wallace. Lieutenant Robbins, commanding the escort, had been attacked by Cheyenne.²⁷

Surprisingly, on June twenty-seventh there was no duty, presumably because of the heat. Before noon Hunnius received a drink of rum from a hospital steward, and at noon two ambulances arrived from Fort Larned with pay for the troops. Hunnius swam and made two drawings, one of Fort Zarah and one other, in the afternoon. For once he was not on guard duty that night.

Major Elliott returned. The Indians, he said, were busy with "arrows, counting coup, signaling, [and] scalp[s]."²⁸ Elliott also remarked that the colored troops were good Indian fighters. Charley Bent, the son of Colonel William Bent and a Cheyenne mother, may have been one of the Indians seen by Elliott.²⁹ Lieutenant Kidder and the troops were missing and feared lost. There were many desertions and fights with deserters.

On Friday the twenty-eighth Hunnius was once more at the quarry, where the quartermaster inspected them. Hunnius retrieved his bayonet from the well.

Kidder's trail was found and the twelve in the party were discovered murdered; there may not have been time for any kind of resistance. Red-Beard, a friendly Dakota who acted as their guide, was also killed. Pawnee-Killer's band was suspected.

Again the next day Hunnius went to the quarry. The soldiers working there had to march to the site because all the teams had been

sent for wood and poles. While there he thought he lost his knife. Later he swam.

No Sunday inspection was held on the thirtieth of June. A soldier was accidentally shot. Hunnius made some drawings of the post and enjoyed some whiskey and cigars. A large wagon train arrived, and Hunnius obtained fourteen cartridges of ammunition.

At one o'clock in the morning on July first Hunnius's guard relief arrived. Seven hours later he left the post. Hunnius and the other travelers ate dinner at the Ashley River and arrived in camp at nine o'clock. The wagonmaster brought his wife along, who was hurt. Hunnius bunked with another man.

Tuesday the second was a very hot day. Hunnius did his laundry and his bunkmate escorted a wood-gathering party. Hunnius was on guard duty, but tours were rotated often to prevent the contagion of cholera from those from Fort Larned. Hunnius was sent back to Fort Larned at nine o'clock in the morning. The Nineteenth Kansas regiment was under guard at Fort Zarah and many of that unit were dying from cholera.

Back at Fort Larned, Hunnius had nothing to do the next morning. After dinner he spent the afternoon digging a cellar under Lieutenant Kaiser's new adobe house. He went for a swim in the evening, again mentioning the oppressive heat. The lieutenant ordered the men to report to the hospital should they experience diarrhea. The company received three new recruits.

July fourth brought thirty-three guns firing at sunrise. Hunnius spent the morning picking greens for dinner and at twelve-thirty that afternoon more guns were fired. Dinner consisted of better fare than usual with beer. There was no dress parade.

At three o'clock in the morning on July fifth the men were under arms on the parade ground. "There was a chair hoisted up on the flagstaff," probably a reference to a soldier punished by being whipped while seated on a stool suspended from the flagpole.³⁰ At eight o'clock in the morning, fourteen men were sent for wood for Lieutenant Kaiser's new house. Later that day Hunnius worked as a cook and loaded wagons. He arrived home about nine o'clock that evening. There was a commotion concerning two pistols stolen. Cartridges were issued to Hunnius and other soldiers.

Rainy weather meant nothing to do on Saturday, July sixth. Hunnius won a one-dollar bet with another soldier. Two of his comrades were sick, presumably with cholera. Hunnius asked the doctor for salt or pills to treat the disease, but the latter refused saying Hunnius would not catch it. The assurance made him feel better.

Sunday, July seventh, included the usual inspection. At one o'clock that afternoon Hunnius's friend, McCartey, died; a civilian was also dead from cholera. Hunnius, too, was sick, as were many in the company. Lieutenant Kaiser was officer of the day and during his charge a dispatch was sent to Fort Harker for a doctor and medicine. Once more the men were paraded under arms, this time at three o'clock in the afternoon.

Hunnius slept all morning the next day, then went to the doctor and obtained medication. Ten men of his company were also sick. After dinner they dug a sink, and Hunnius complained of the heat.³¹ The Indians drove away the cattle near the roundhouse and killed the herder. The alarm was sounded and the men turned out to fight, but by then there was no sign of either the Indians or the cattle.

There was nothing to do on July ninth. A fellow soldier came down with cholera, but apparently the case was not severe. The Tenth Cavalry was sent on a scouting expedition. Hunnius was scheduled for guard duty the following day.

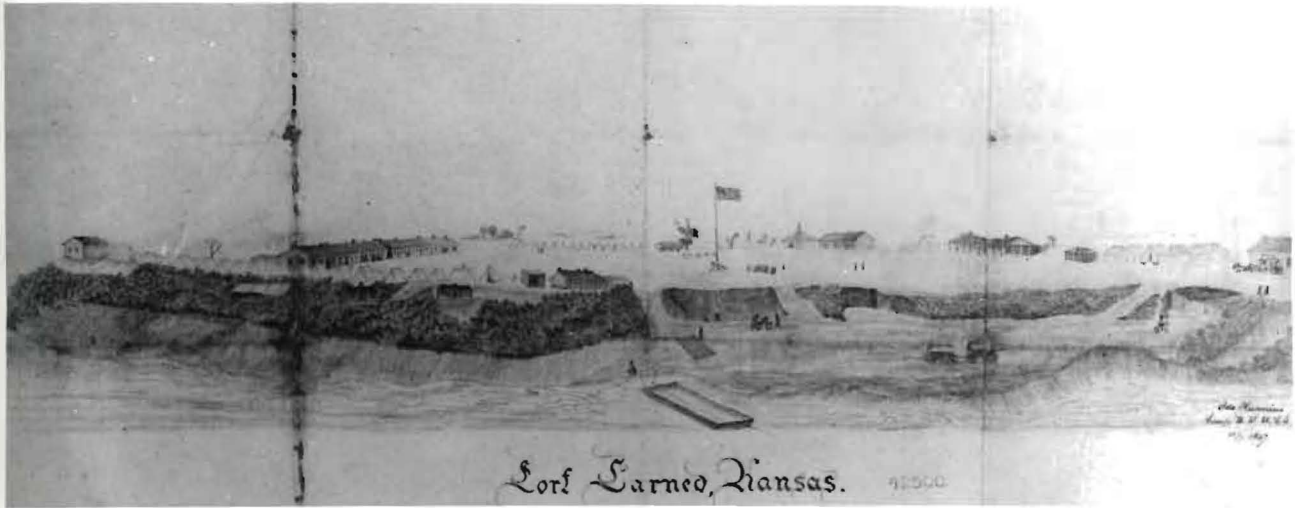
Hunnus began the following morning on guard duty at the sutler's store. His actual patrol time was not until evening, which left the day free but filled with rain. A member of the Tenth Cavalry died of cholera.

The following day, July eleventh, Hunnius's notes indicate that the rain continued. The orderly sergeant received a large wagon train full of flour and a new recruit arrived. General Sherman was to come to the post; the quarry party returned. Three deserters, who left scared of cholera, were sent to Fort Dodge. Despite these events, Hunnius claimed he had nothing to do.

Hunnus did not have duty on the twelfth, but he made a drawing of Fort Larned. Another civilian died that day. In the evening two buffalo came near the fort.

During the night several wolves tried to enter the cookhouse, a dugout in the old bed of Pawnee Fork Creek. A large wolf succeeded in entering but was shot by the cook. Hunnius spent the morning of the thirteenth on kitchen police (KP) where he found the wood very difficult to chop.

The following day, a Sunday, Hunnius spent being inspected and on guard duty. The wife of one of the civilians died giving premature birth. The foreman of the civilian workers who was also Hunnius's laundress died of cholera; the stricken woman had been in an ambulance which was attacked by Indians. The Indians also assaulted the daily



Fort Larned, Kansas. Drawing by A. Hunnius, 12 July 1867.

Kansas State Historical Society

wood-gathering party.

Hunnius worked all day July fifteenth clearing the area around the quarters and loading dirt. His friend, Brown, escorted a party to Fort Dodge as another comrade became sick and was taken to the hospital, supposedly suffering from cholera. A party left Fort Wallace for Fort Hays, and cavalry troops under Captain Hamilton of the Seventh Cavalry moved separately and covered 150 miles in three days. Hamilton's rear guard was attacked near Downer's Station and two men were killed.³²

The next day Hunnius made a drawing of Fort Larned from the opposite side of Pawnee Fork Creek near the stage crossing.

Hunnius again was on KP the following day. About ten o'clock in the evening wolves once more attempted to gain entry to the kitchen. This time when Hunnius and the cooks awakened there were three of them in the room. The men shot at them from their bunks. They found one animal dead outside, but the others retreated toward the river, leaving behind a trail of blood.

On July eighteenth Hunnius was on guard duty at the roundhouse. In the afternoon a heavy thunderstorm broke. Even though he was clothed in a blouse, overcoat, and India-rubber blanket, he was wet. Later he "translated and learned the Pope."³³ An ambulance went for a sick man a mile away in the direction of Fort Zarah.

The next morning Hunnius dug potatoes for dinner as part of a fatigue party, and that afternoon he did his laundry. The men were warned by Lieutenant Kaiser to be on guard for wolves and skunks.³⁴

Hunnius was on police duty the morning of the twentieth. Later he helped bring a load of dirt to Major Kidd's quarters. In the afternoon he received the company's rations and in the evening swam

with a friend. In accordance with orders, each man swam alone while the other remained on the lookout for Indians.

Sunday, July twenty-first, brought the customary inspection. Hunnius wrote a letter to a Mr. Hillebrand and after sundown he and Lieutenant Kaiser went on a walk. Kaiser told him he was impressed with him and that Hunnius should be named the next lance corporal. The captain asked Hunnius all about his Civil War service.

The next day was warm and the evening full of mosquitoes; again Hunnius was on guard duty. Meanwhile Hunnius's comrade, Metz, went on escort to Walnut Creek; Major Ginn shot a buffalo; and tobacco and butter were confiscated from a civilian.

After guard mount on the twenty-third, Lieutenant Kaiser and Hunnius swam in the afternoon; in addition the escort from Fort Dodge returned. Hunnius and several other soldiers were promoted to lance corporal.

At Fort Zarah the following day "Big Jack" died.³⁵ Hunnius worked through the afternoon preparing quartermaster records and was also room orderly, nevertheless he found time to swim twice that day. Lieutenant Kaiser was ordered to Fort Zarah on detached service commanding a picket party. Command of the company was left in the hands of Second Lieutenant John P. Thompson.³⁶

Hunnius was on guard duty on July twenty-fifth, another very warm day. He accompanied a haying party and performed escort duty.

After his relief from guard duty, Hunnius washed his "pantaloon."³⁷ Once again the day was extremely warm. General Glover arrived at the fort, and after retreat Hunnius and his friend Beck went on a walk and swam. A Miss McDermot left for Junction City, Kansas.

Hunnius began the morning of July twenty-seventh with a swim; later he laundered a shirt and received a shave. After noon a heavy rain fell. One soldier lost his revolver, for which there was an intensive search. Hunnius reported that the fort's supply of butter was exhausted. One of the non-commissioned officers was sick and wanted someone to perform watch overnight.

Sunday, July twenty-eighth, meant the usual inspection. In the afternoon and again in the evening Hunnius went for a swim, possibly with Lieutenant Thompson. That evening there was a big dance on post.

Hunnius was on guard duty all the next day. In the evening the cavalry horses were inspected, and Hunnius's Company D's mules were examined afterward. One of the sergeant's rifles exploded, apparently doing little damage. The Nineteenth Kansas Cavalry was officially at post, but as there was still cholera at the fort most of the members of the regiment actually stayed near Fort Zarah.

After his guard duty was finished on July thirtieth, Hunnius went for a swim and noted that the creek was very high. His friend Beck was escorting a group to Fort Zarah. In the evening a dress parade was held and everything was readied for inspection.

The review was held the next day. Afterward Hunnius did some laundry and loaded corn. He left about one o'clock for Fort Zarah on escort duty. In a fight with Indians he captured a horse. Two Indians were killed and two soldiers were wounded. He arrived at Fort Zarah at midnight, then had to unload the wagon. Once finished, he could hardly sleep for the mosquitoes.

At ten o'clock on the morning of August first Hunnius and the others started back to Fort Larned. They arrived at six o'clock in the

evening, very tired.

The next day Hunnius bathed and requisitioned new underwear, a shirt, and a pair of stockings. He helped some buddies pitch a tent, and in the afternoon loaded and unloaded wagons. His quarters were whitewashed. At retreat they had to obtain new equipment for moving in tents.

Hunnius was on guard on the third. He obtained a book from the post library, then went to the Thirty-seventh regiment and returned. He was formally promoted to corporal about noon. There were some weapons fired at one post because of some loose horses. Hunnius broke his pipe.

The next morning, a Sunday, another corporal was moved into Hunnius's quarters. Hunnius was ordered to report to a Lieutenant Brown who was to order him to the engineers. In the afternoon a corporal committed suicide. That night a dress parade was held.

There was no fatigue duty on August fifth. Hunnius spent his morning fixing his bunk and working on his uniform. After noon he completed the guard report, and in the evening he marched on dress parade.

He spent the next morning drilling and the rest of the day in the commissary storehouse peeling potatoes. There was no dress parade but general court-martial sentences were read. Later he went for a swim.

On the seventh Hunnius was on guard duty, where he completed the guard report. In other events of the day, Major Kidd went to Fort Zarah, there was once again no dress parade, two prisoners were captured, and the soldiers heard that an officer at Fort Zarah had

deserted.

The men learned the next day that five soldiers of the Thirty-seventh Regiment and four blacks of the Tenth Cavalry had left without leave. Apparently the deserters took ten guns and a box of ammunition but no horses. After guard mount Hunnius washed, then went swimming. There was the usual dress parade, and Major Kidd arrived at the post.

On 9 August 1867, according to military pension records, Hunnius was assigned to the Office of the Chief Engineer of the Department of the Missouri at Fort Leavenworth under First Lieutenant Micah R. Brown as a civil engineer.³⁸ While employed in that office he did surveying, drafting, mapmaking, and lithographing.³⁹ One source describes him as the chief draftsman for the Department of the Missouri.⁴⁰ Officially, he was detailed on special service as clerk at the headquarters of the Department of the Missouri.⁴¹ Interestingly, Hunnius's diary does not mention this reassignment; since the date was supplied many years later, it may be erroneous. According to his journal for that day Hunnius definitely did not relocate from Fort Larned to Fort Leavenworth. Instead, he noted that he was room orderly and that the day was very warm. He swam, and in the evening following "Taps" three shots were fired at a skunk.

The next morning Hunnius received a five-dollar check from the post sutler with which he purchased tobacco and matches. The soldiers drilled in the morning, and later Hunnius received rations and went for a swim in the forenoon. In the evening the usual dress parade was held. Also that day Hunnius completed the guard report and borrowed a book on Indian customs from the library.

The eleventh of August started with Sunday inspection. Hunnius was again on guard on a day that was stormy and dusty. At sundown a gun was fired and in the evening a dress parade was held. At eight o'clock in the evening Hunnius and Lieutenant Kaiser went to the corral.

In the middle of the night it began to rain. Five deserters from the Thirty-seventh Regiment returned the next day; they had been apprehended on Plum Creek. After his guard mount was finished, Hunnius went swimming and the usual dress parade was held.

There was no fatigue duty the following day, Tuesday, August thirteenth, consequently Hunnius went swimming twice. The fifer of the Thirty-seventh Regiment, who apparently had been absent without leave, returned and surrendered to authorities. Hunnius's company received a new recruit.

Hunnius was on guard duty the following morning and assisted in the surveillance of fifteen prisoners. He obtained a hat, arms, and other equipment to be worn beginning the first day of September. No dress parade was held.

After his guard duty, Hunnius repaired some coats. A big evening was planned at the post and no dress parade was held.

There was no fatigue duty that day but that morning at drill call Hunnius was involved in a dispute with another corporal about drilling. In the afternoon Hunnius swam. He noted that much lumber arrived at the post. A soldier named Sloen showed Hunnius's detail-work to the topographical engineer.⁴²

The next day, a Saturday, Hunnius took two swims and repaired a gun cover for a comrade. In the evening there was a large ball.

On Sunday, August eighteenth, Hunnius was inspected. In the morning he washed his clothes and swam. A soldier by the name of Brown wanted him to be on guard but the non-commissioned officer, Sergeant McDonnel would not allow him to do it.⁴³ At dinnertime an escort from Fort Dodge returned.

The following day, another very hot one, Hunnius guarded twenty prisoners. He endeavored to make a drawing of the headquarters building.

After his guard duty ended on the twentieth, Hunnius went swimming. Later he made the drawing he had intended.

On Wednesday, August twenty-first, an escort with two murderers went to Fort Harker. In the morning Hunnius went for a swim. He finished the plan he was drawing for headquarters in the adjutant-general's office. He noted that the quartermaster was going to assign him to a draftsman's job.

The next day Hunnius was appointed room orderly. At noon he reported to Captain Rockwell for duty as a draftsman, but still at Fort Larned. He had a new drafting table made for him, but it arrived too late to do any work on it. He noted in his diary that he did not answer roll call, but Sergeant Howard told him that his new position did not exempt him from such activities. He went for a swim in the evening.

Hunnius started August twenty-third by swimming, then "had an invitation to Lever from Brock."⁴⁴ He drew plans for the quartermaster's storehouse in pencil.

Once again the next day Hunnius swam first thing in the morning, and by his own admission he did not do much before noon. In the

afternoon he drew a ground plan for soldiers' quarters.

Sunday, August twenty-fifth, brought the usual inspection, this time of Companies A and B with hats and other equipment. Hunnius worked on the plans for quarters.

He finished the quarters drawings the next day and began work on a "40 inch scale" plan of Fort Larned.⁴⁵ In the late evening he completed a plan of officers' quarters for the post mason.

The morning of the twenty-seventh he began work at six o'clock, finished the Fort Larned plans, and made an ink drawing of the design. He borrowed money to buy a cigar, and after sunset went through the fort looking unsuccessfully for an engineer by the name of Petch.

The next morning Hunnius again attempted to locate Petch, then he finished inking the plan of Fort Larned because Lieutenant Brown had ordered him to remain with Captain Rockwell and finish it. When it was finished, Captain "B." and Rockwell took it to Fort Harker.⁴⁶ Back in his quarters, Hunnius got into a big fight with another soldier, received a five-dollar check from the sutler, and afterward found and spent time with Petch.

About seven o'clock in the morning of August twenty-ninth, Hunnius and Petch went about three miles up Pawnee Creek and conducted a survey. They returned about one o'clock that afternoon, and afterward he made a perspective view of Fort Larned.

Though the next day was very stormy, Hunnius's quarters were whitewashed. He made some rolled maps for Major Kidd and at five o'clock began preparing for the next day's inspection.

Inspection with review was held at seven o'clock the morning of the thirty-first and it went well. Later in the day Hunnius prepared

another map for Major Kidd, broke the bowl of his pipe and purchased a replacement for one dollar, disagreed with another corporal about company matters, and borrowed a book from the library.

He stood inspection on Sunday, September first, and later drew a sketch of Fort Larned. At one o'clock in the afternoon a delegation of Kiowa Indians entered the fort, probably about the same time the weather began turning colder. Regimental returns indicate that Hunnius was assigned to work in the camp's timber reserve on this day, undoubtedly chopping wood for the post's needs.⁴⁷

The next morning, Hunnius did his laundry. Later he and another man surveyed farther up Pawnee Creek, returning about one o'clock. He swam and went fishing later in the afternoon. Sometime during the day Hunnius discovered his shirt had been stolen. A party from Fort Zarah arrived in camp.

On the third of August Hunnius made a drawing of the proposed guardhouse. In the evening he saw that the planet Jupiter had four moons. Also that day the wife of one of the officers of Company K, Thirty-seventh Infantry, was buried; she and her seven-month-old infant had died of cholera. To add to the misery, there was an influx of grasshoppers.

The next morning, a Wednesday, Hunnius went into the hills to take bearings and distance readings, after which he cleaned his instruments. He arrived too late for dinner and had to settle for only coffee. After noon he received some whiskey from a sergeant for lettering a discharge certificate. That night he noted that Jupiter had only one moon.

Hunnius enjoyed beefsteak for breakfast on the fifth, a day that

brought a ferocious dust storm. Captain Rockwell returned from Fort Harker. Hunnius received permission to work until six o'clock that evening, consequently he finished all of his pending projects and obtained the accoutrements to his equipment.

The following day he worked as a clerk preparing various quarterly documents and several letters. Because his transit malfunctioned, he was forced to substitute a lantern obtained from the post sutler.

He continued to work on reports the next day, September seventh. Because of his duties as an astronomical observer, Hunnius did not get any supper that evening. "We put out North line," he recorded.⁴⁸ The Cheyenne chiefs Black Kettle and Little Raven, as well as several Comanches, came to the fort that day.

September eighth, a Sunday, was very windy, and in the morning Hunnius helped skin a snake. Later he and another soldier named Page carried the map box to Lieutenant Brown's quarters. After dinner Hunnius fixed four flanges for windows broken by the Indians and when that job was completed he swam. Company D received a new drum, and three companies of the Thirty-seventh Infantry and the Seventh Cavalry camped at Fort Larned on their way to Fort Union, New Mexico.

At seven o'clock in the morning on September ninth, Hunnius and others in the engineer's office began surveying the Fort Larned reservation, but less than two miles out they were caught in the rain. Because of the weather that afternoon only the infantry detachment fixed points on those two miles. Hunnius borrowed some more books from the library. Indian commissioners were at the fort, and Company G of the Third Regiment arrived. It was a very cold night for summer, the

temperature plummeting to forty-seven degrees.

The survey party commenced at seven o'clock the following morning and traversed fifteen miles. Hunnius complained that his boots bothered him and mentioned the heat of the day. That night, Lieutenant Brown would have liked Hunnius and the others to take astronomical readings, but thought it better to let them sleep.

September eleventh was dark and stormy. Page and Hunnius made three maps of the Fort Larned reservation. Hunnius wrote, "Page and me had to write Special Orders 113 before Dept. of the Missouri."⁴⁹ Six people were killed when an ammunition train exploded between Forts Larned and Dodge.

Hunnius worked on maps of Hancock's expedition all the following day and through the night. He did not make any astronomical observations that evening.

He continued working on the drawings of Hancock's expedition throughout the day of September thirteenth. In the evening there was an eclipse of the moon; Hunnius's attempts to define and record his observations were unsuccessful.

Saturday, September fourteenth, found him still working on the Hancock maps, but he found time to take three hours of observations that evening. He reported almost getting into a fight with the post artificer.

Hunnius was part of group that left Fort Larned about ten o'clock the morning of Sunday, September fifteenth, and arrived at Fort Zarah after sunset. They camped at the rear of the permanent quarters and Hunnius slept in one of the wagons. He had to fight the "priddle headed" mules with a rod; nevertheless, one escaped.⁵⁰

The next day was very windy. Hunnius and Page traveled to the site of the new Fort Zarah, meanwhile at noon the paymaster arrived at the older post. The two men left the fort to survey Walnut Creek to the Arkansas River. Their escort killed a buffalo about eight o'clock in the evening for food. Upon their return to Fort Zarah, Hunnius received four months' pay, \$56.50, from which he gave \$10 to the paymaster to be forwarded to the sutler at Fort Larned.

On Tuesday the seventeenth they killed a buffalo before breakfast. After noon they went out to survey the upper part of Walnut Creek, but their escort was so drunk they did not get to their objective and were forced to turn back. Later, Hunnius was involved in a major disagreement with Lieutenant Kaiser and black soldiers. There was "much excitement" when one soldier was hanged and another was pinned to the ground with a bayonet in his mouth.⁵¹ A heavy rain punctuated the drama of the evening.

The next day, Hunnius wrote, "The air looks like an old sock."⁵² After dinner the only precipitation was a fine mist, so Hunnius and his party returned to Walnut Creek to survey its upper reaches. Hunnius was named cook the previous night; he left to obtain milk for the mess. The colored soldiers shot a magnificent hawk.

Hunnius went fishing the morning of the nineteenth but didn't catch anything, so he and Page continued angling in the afternoon. They saw some "hair snakes."⁵³ Their escort killed a buffalo.

The two continued to fish the following morning. Hunnius caught nothing but his companion caught three. McCarty, a teamster, went to Fort Larned for supplies. Page corrected or recorded the Walnut Creek survey.⁵⁴ Hunnius killed a blacksnake. The snake had swallowed a

frog, but the frog escaped, only to be captured once more. In the afternoon Hunnius and Page again went fishing.

The morning of the twenty-first McCarty, the teamster, left them for an unexplained reason. Page and Hunnius caught no fish in the forenoon so Hunnius cooked rice in milk. A large herd of buffalo appeared and four were killed, even so about three o'clock that afternoon Hunnius and Page again went fishing. Hunnius caught three but could not pull them from the water; Page caught one. One of the fishes was stolen.

Major Kidd and his family, who had arrived the night before, left for Fort Larned the next morning as Lieutenant Brown arrived from there. Page and Hunnius fished in the afternoon, and several fish were caught for supper. Someone shot a "splendid" eagle that day.⁵⁵ The evening was reserved for celestial observations.

Hunnus arose at five o'clock the morning of the twenty-third to make more observations. About ten o'clock in the morning they began to survey the Fort Zarah reserve, but Hunnius started out in the wrong direction and they did not finish the work. No observations were taken that night because the stars were too high and the moon was not visible. There was a "big talk" between Brown and Kaiser that day.⁵⁶

Hunnus woke up at half past three the following morning to take observations. About eight o'clock Lieutenant Brown and Page went to Fort Larned, but first Brown ordered Hunnius to correct the Fort Zarah reserve drawings. Hunnius noted Lieutenant Kaiser's anger toward him but he did not know the reason. Paradoxically, Kaiser said he wanted to make Hunnius a corporal and then a sergeant. That afternoon Hunnius did laundry, and that night one of the scouts slept in his tent.

Hunnius finished surveying the upper line of the reserve the morning of September twenty-fifth and left the setting of corner stones to another. Hunnius's horse wandered off with him on it, but apparently he did nothing to redirect the animal. That night Lieutenant Brown and Page returned. They mentioned something about an Indian scalp but details are not noted in Hunnius's diary.

Lieutenant Brown left for Leavenworth on a stage the next day. In the afternoon Hunnius and Page corrected or recorded the lines of the Fort Zarah reserve.⁵⁷ Hunnius gathered twelve rattles from rattlesnakes, one pot, and three hairsnakes from the surface of the prairie.

On the morning of the twenty-seventh Hunnius started for Plum Creek on horseback and camped there. He later complained that his posterior was very sore.

Early the next morning a detachment that included Hunnius started for Fort Harker, almost all the way on horseback. They arrived about noon and camped near the fort.

The cavalry left them the twenty-ninth about noon. Later Hunnius pitched the tent and soldiers Burns and McCarty went to Ellsworth, Kansas, in an ambulance to meet four officers. Hunnius baked his first loaf of bread with no salt or grease and escorted a corporal and eight other men to an unspecified destination and returned.

Before noon the following day Hunnius nearly got into a fight with McCarty. Hunnius told McCarty if he [McCarty] struck him, he [Hunnius] would put McCarty in the guardhouse. Page and Hunnius made a copy of the plans for new Fort Zarah, and in the afternoon Hunnius

completed regimental returns. He baked more bread; this time it was "nearly good."⁵⁸ Lieutenant Brown arrived.

The first day of October saw Hunnius doing more paperwork. That night was very cold.

They readied all the wagons the next day for the trip to the office of the quartermaster. Hunnius and Page planned to sleep in a tent. Enroute, Lieutenant Brown felt very sick. The two enlisted men partook of a bottle of whiskey and Page became very drunk. Afterward they made some drawings, but then had to move their camp for an unspecified reason.

The morning of the third was quite cold. In the afternoon Hunnius and Page presented the ambulance and team to the quartermaster at Fort Zarah, and later they took observations for an hour. The two soldiers obtained whiskey in the adjutant-general's office, then slept in a small bed.

The following morning, a Friday, they awoke after sunup. After breakfast they visited the hospital steward from whom they obtained brandy. Seeing his condition, a lieutenant ordered Page to be totally sober by sundown. Hunnius and his partner began taking observations, but the weather became windy and cold which forced them to stop. They planned to leave the following Monday.

Because Hunnius and Page were visitors to Fort Zarah, they had no duties on October fifth. They were obligated to pay two dollars for board, however. At the fort that afternoon a black man was shot in the guardhouse.

On Sunday the sixth Page and Hunnius went to see Pat Burns and McCarty, the teamster. The day was chilly and windy. Hunnius had a

painful stomach cramp and received some medicine for diarrhea; by evening his discomfort had ended. Page fabricated a drawing of the powder magazine at Fort Harker following dinner. They made their nightly observations taking only thirty minutes.

At three o'clock on the morning of Monday, October seventh, Hunnius and Page left Fort Zarah for Fort Leavenworth. On part of the trip James Butler ("Wild Bill") Hickok accompanied them in their coach. Hunnius was very tired by six o'clock when they arrived in Leavenworth. They ate supper in the city and traveled to the fort in a hack. Following their arrival they celebrated with a big drink in the evening.

The next morning Hunnius was officially detailed on special service as a clerk at headquarters of the Department of the Missouri at Fort Leavenworth.⁵⁹ Page's official status is unknown, but presumably he, too, was assigned to duty at the fort. The two of them went to the engineer's office, unpacked their boxes, and arranged their effects. In the afternoon they had several drinks of beer. Outside, the afternoon and evening were very rainy.

On Wednesday, October ninth, Hunnius worked on regimental returns as a large number of recruits arrived at the post. Hunnius received a "new and full" detail dated the previous day assigning him to Fort Leavenworth.⁶⁰

On 24 October 1867 he met Bertha Baechle of Leavenworth, a Swiss immigrant. Her parents, Meinrad and Marie (Guenther) Baechle, either operated or worked in a hotel in Luttargen near Langenstein in Baden. She was born in Rheineck, Switzerland, on 24 November 1848, and was baptized on December eleventh of that year. She may have been a

Protestant, as the Church record of Saint Joseph's Church in Leavenworth noted, "Convert. Dec. 2d, 1869, St. Joseph's Church, St. Louis, Mo." The family emigrated to America the following year, settling first at Saint Joseph, Missouri.⁶¹ After having lost everything they owned in the Civil War, they moved to Leavenworth and started a hotel and boarding house.⁶² Unfortunately, Hunnius wrote nothing in his journal about what proved to be a two-year courtship.

A. F. Rockwell of the assistant quartermaster's office at Fort Larned requested on 7 March 1868 that Hunnius be detailed on extra duty in the Quartermaster's Department, his services as a draftsman being urgently needed.⁶³ Presumably this extension of his detached service had been requested by the engineer's office at Fort Leavenworth.

In his annual report for fiscal year 1868 ending June thirtieth of that year, Major W. E. Merrill, chief engineer for the Military Division of the Missouri, the Army command at Saint Louis responsible for the Missouri River valley and Great Plains, stated that during the year 479 maps had been prepared for issue and 623 maps had been issued. Among these was a map of Kansas and parts of adjoining states and territories by Hunnius.⁶⁴ One hundred copies of this map were lithographed on paper and 130 copies on muslin. Merrill remarked, "The muslin maps of Kansas have given great satisfaction."⁶⁵ In addition, maps of Colorado and Utah were drawn and sent to the lithographer. Merrill noted that many of the maps and tracings were for the use of the assistant adjutant general and the chief quartermaster at Saint Louis, indicating that many of the maps may have been of individual posts.⁶⁶

On 12 January 1869 the Headquarters Company of the Third

Infantry was transferred from Fort Zarah to Fort Larned. The company left Zarah at nine-thirty that morning and arrived at Fort Larned, thirty-five miles distant, at ten o'clock that evening.⁶⁷ Hunnius's official station was changed to Fort Larned on February twenty-eighth, even though he continued to work at Fort Leavenworth.⁶⁸

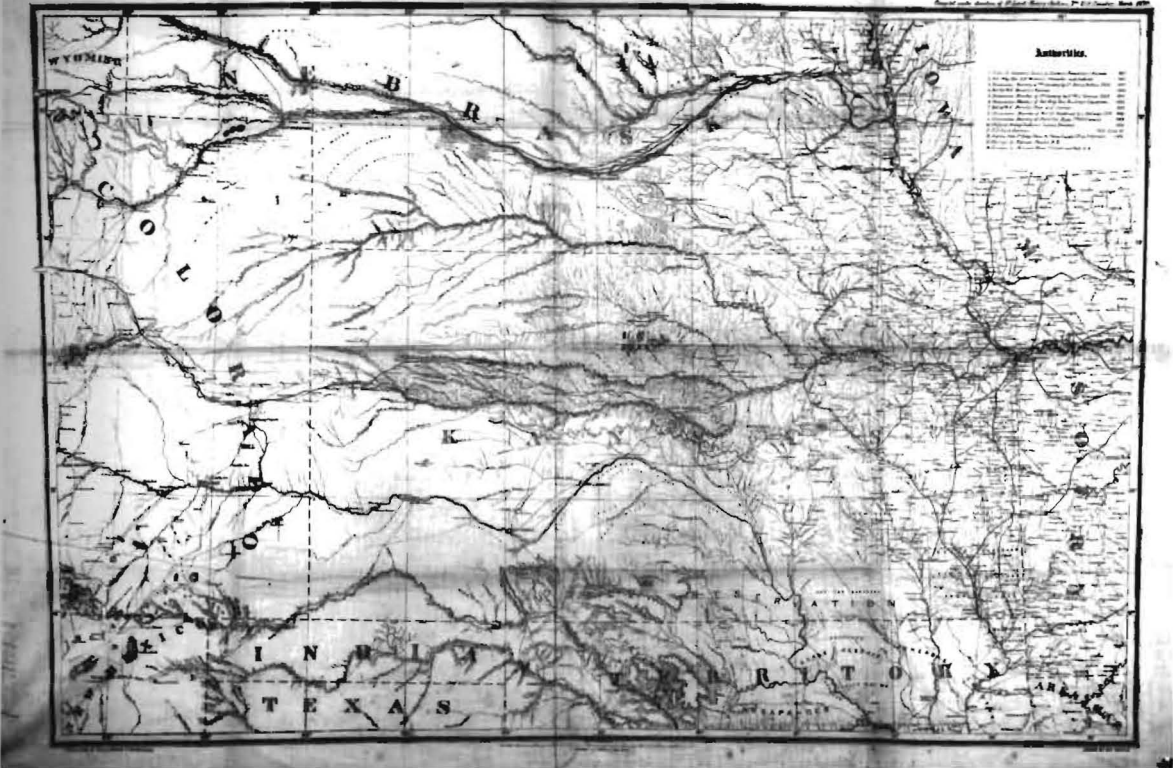
Hunnus was transferred to the detachment of "General Service Men" to be employed as a clerk at departmental headquarters at Fort Leavenworth, effective 1 April 1869.⁶⁹

Captain C. B. Phillips requested \$500 on June fifteenth from the appropriation for surveys for military defenses so he could hire two draftsmen at \$120 per month.⁷⁰ On July sixth he acknowledged the permission that had been granted to spend the funds.⁷¹ On July nineteenth he again requested authority to spend the funds by hiring two draftsmen, as he stated his need was urgent.⁷² Four days later he acknowledged receipt of a letter about the draftsmen.⁷³

On 11 August 1869, Captain Charles B. Phillips, chief engineer at Fort Leavenworth, was authorized by I. C. Woodruff of the Office of the Chief of Engineers in Washington, D.C., to employ two draftsmen at salaries not to exceed \$120 per month each for continued work on the maps already begun by the Department of the Missouri.⁷⁴

Hunnus was discharged a private on 31 August 1869 at Fort Leavenworth.⁷⁵ A new career, that of a civilian draftsman, awaited him.

MAP OF KANSAS
WITH PARTS OF NEIGHBORING STATES AND TERRITORIES.
DRAWN BY HUNNIUS OF SAN FRANCISCO, CALIFORNIA, U.S.A.



Map of Kansas, March 1870, drawn by Hunnius.
Kansas State Historical Society



NOTES TO CHAPTER III

¹This fact can be neither confirmed nor denied from records in the New York City Municipal Archives; Hunnius does not appear in correspondence from street commissioners in the mayor's or Board of Aldermen's records, nor does he appear in the 1866/1867 New York City directory. Kenneth R. Cobb, deputy director, Municipal Archives (New York City), to the author, 1 May 1986.

²Hunnus, Adolph, H-O surnames, 1867, Registers of Enlistments in the United States Army, 1798-1914, roll 33: vol. 65, Records of the Adjutant General's Office, 1780s-1917 (record group [RG] 94) [hereafter Adjutant General's records] (Washington, D.C.: National Archives and Records Service [hereafter NARS], microfilm M233, 1957); "Ado Hunnius Died Last Night, Was City Pioneer," The Daily Times (Leavenworth, Kans.), 22 Feb. 1923, p. [1] (Topeka, Kans.: Kansas State Historical Society [hereafter KHi], newspaper microfilm L1151, n.d.).

³1867 Feb.-Apr., Co. C, 3d Infantry, Regular Army Muster Rolls (box 74), [hereafter Co. C Muster Rolls], Adjutant General's records, National Archives (Washington, D.C.) [hereafter DNA].

⁴30 Mar. 1867 entry, Diary, Mar.-Oct. 1867 (ser. E, box 1) [hereafter Diary], Papers of Ado Hunnius, 1861-1926 (Subgroup II) [hereafter Hunnus Papers], Adolph Hunnius collection [hereafter Hunnus coll.], MSS Dept., KHi. The narrative for Hunnius's experiences during this period is largely taken from the entries in this diary.

⁵31 Mar. 1867 entry, *ibid.*

⁶The Third was the army's oldest infantry unit, established 3 June 1784, with men in the Pennsylvania State Militia; later, men from the Northwest Territory (what eventually became the states of Ohio and Indiana) joined the regiment in significant numbers. At first the regiment had no official name, but was known as the First American Regiment. The troops were sent to the Northwest Territory to protect the Indians and the settlers there from each other. In 1792 through 1794 the regiment by then renamed the First Sub-Legion, participated in the battles of Fort Recovery and Fallen Timbers against the Miami Indians. The First occupied the former British fort at Detroit, and at that time the Army again changed the unit's designation, this time to the First Infantry Regiment.

During the War of 1812 the First formed part of the Army of the Northwest and fought in the Battle of Lundy's Lane.

In 1815 the First Regiment was consolidated with the Fifth,

Seventh, Nineteenth, and Twenty-eighth regiments to form a new unit, arbitrarily numbered the Third Infantry Regiment. The Third rebuilt and occupied Fort Dearborn at Chicago and re-occupied Detroit. They also assumed control of the British fort on Mackinac Island and founded Fort Howard at Green Bay, Wisconsin. Meanwhile a detachment of the Third accompanied Zebulon Pike on his exploration of the West.

In 1826 the Third constructed Jefferson Barracks near Saint Louis; the next year the regiment established Fort Leavenworth on the Missouri River on the other side of the State of Missouri. Members of the Third were stationed throughout the southwest frontier during the late 1820s.

In 1840 the Third Infantry was sent to Florida to fight the Seminole Indians in the Second Seminole Campaign. Three years later the regiment returned to Jefferson Barracks. In 1845 the Third joined the Army of Observation in Louisiana and Texas.

During the Mexican War the regiment fought in the battles of Monterrey and Chapultepec. After the war, the Third fought the Apache and Navaho in Texas and New Mexico.

During the Civil War the Third Infantry fought at Bull Run; formed part of the Army of the Potomac; and battled the Confederates at Manassas, Antietam, Fredericksburg, Chancellorsville, Gettysburg, and Appomattox. In 1874, the Third Infantry Regiment was transferred to Holly Springs, Mississippi. U.S., Army, 3d Infantry, Public Information Office. The Third U.S. Infantry: A Tradition of Service to America (special supplement to Third Word). [Washington, D.C.: U.S. Government Printing Office, 1972. (D101.2:G93/1972)]

⁷1867 April, Third Infantry, January 1867--December 1875, roll 34, Returns from Regular Army Infantry Regiments, June 1821--December 1916, Adjutant General's records (Washington, D.C.: NARS, microfilm M665, 1968) [hereafter M665/34].

⁸12 Apr. 1867 entry, Diary, Hunnius Papers, Hunnius coll., MSS Dept., KHi. Except for inserted material in brackets, all quotations by Hunnius are reproduced using his original grammar, spelling, and punctuation.

⁹"Hancock Campaign," p. [1], *ibid.*

¹⁰13 Apr. 1867 entry, *ibid.*

¹¹25 Apr. 1867 entry, *ibid.*

¹²1 May 1867 entry, *ibid.*

¹³2 May 1867 entry, *ibid.*

¹⁴Whether this means captured by the Indians or returned by the Indians at this point is uncertain. The identity of the victims is likewise unknown. This date does not correspond with the documented accounts of the Alderdice, Brewster, German, or White families, all victims of Indian attacks or subjects of Indian captivity.

¹⁵Apr.-June 1867, Co. C Muster Rolls, Adjutant General's

County clippings, 6:42, Library [hereafter Lib.], KHi.); Ado Hunnius to Col. Ernest H. Ruffner, U.S. Corps of Engineers, Cincinnati, 18 June 1914, 1914 (folder 9), Correspondence (ser. A, box 1), Hunnius Papers, Hunnius coll., MSS Dept., KHi; Extract III, Special Order [SO] no. 173, Headquarters, Dept. of the Missouri [DMO], Ft. Leavenworth, Kans., quoted in Sworn statement, 14 Nov. 1891, file no. 2,709,621, Case Files of Pension Applications Based on Service in the Years 1817-1917 and 1921-1940 ("C and XC Series"), 1861-1942, Civil War and Later Pension Files, Records Relating to Pension and Bounty Land Claims, 1773-1942, Records of the Veterans Administration (RG 15) [hereafter HQ, DMO (RG 15)], DNA.

39 "Ado Hunnius Died Last Night."

40 George Walton, Sentinel of the Plains: Fort Leavenworth and the American West (Englewood Cliffs, N. J.: Prentice-Hall, Inc., c1973), p. 111.

41 Extract II, SO no. 23, Ft. Leavenworth, quoted in HQ, DMO (RG 15), DNA.

42 The actual spelling may have been Sloan.

43 The actual spelling may have been McDonnell.

44 23 Aug. 1867 entry, Diary, Hunnius Papers, Hunnius coll., MSS Dept., KHi.

45 29 Aug. 1867 entry, *ibid.*

46 The identity of this person is unknown.

47 September 1867, M665/34.

48 7 Sept. 1867 entry, Diary, Hunnius Papers, Hunnius coll., MSS Dept., KHi.

49 11 Sept. 1867 entry, *ibid.*

50 15 Sept. 1867 entry, *ibid.*

51 17 Sept. 1867 entry, *ibid.*

52 18 Sept. 1867 entry, *ibid.*

53 19 Sept. 1867 entry, *ibid.*

54 It cannot be ascertained whether the drawing was corrected or permanently recorded; the verb used in the original journal was fixed.

55 22 Sept. 1867 entry, Diary, Hunnius Papers, Hunnius coll., MSS Dept., KHi.

56 23 Sept. 1867 entry, *ibid.*

⁵⁷ Again, the source used the verb fixed and the exact connotation cannot be determined.

⁵⁸ 30 Sept. 1867 entry, *ibid.*

⁵⁹ SO no. 13, "Special Orders," Nov. 1861--Dec. 1870, 543:17, DMO, Issuances, General Records, Headquarters Records, DMO, Records of U.S. Army Continental Commands (RG 393) [hereafter General Records (RG 393)], DNA.

⁶⁰ St. Joseph's Church (Leavenworth, Kans.), Church register, [1869?-1940?] Records of the A. Hunnius Family of Leavenworth (Subgroup I, box 1), Hunnius coll., MSS Dept., KHi.

⁶¹ Jesse A. Hall and Leroy T. Hand, History of Leavenworth County, Kansas (Topeka, Kans.: Historical Publishing Company, 1921), p. 356.

⁶² 9 Oct. 1867 entry, Diary, Hunnius Papers, Hunnius coll., MSS Dept., KHi.

⁶³ 1868, "Registers of Letters Received," 1868-1896, 1:546, Correspondence, General Records (Rg 393), DNA.

⁶⁴ U.S., Congress, House. Annual Report of the Secretary of War, 40th Cong., 3d sess., 1868, H. Ex. Doc. 1, pt. 2, Serial 1368, p. 1196. This may be the same map by Hunnius that was published under date of 1870 March.

⁶⁵ *Ibid.*, p. 1197.

⁶⁶ *Ibid.*

⁶⁷ Jan.-Feb. 1869, Co. C. Muster Rolls, Adjutant General's records, DNA.

⁶⁸ Mar.-Apr. 1869, *ibid.*

⁶⁹ HQ, DMO (RG 15), DNA; SO no. 50, 12 Apr. 1869, p. 272, Issuances, General Records (RG 393), DNA; authorized by General Order no. 92, ser. of 1868, Headquarters, Adjutant-general's Office.

⁷⁰ P333, 10:355, "Registers of Letters Received," 1866-1870; Letters Sent Relating to Accounts and Returns; Correspondence Relating to Accounts, Property Returns and Claims, 1866-1870; Correspondence of Office Divisions, 1865-1870; Correspondence, 1789-1942; Central Office Records, Records of the Office of the Chief of Engineers (RG 77) [hereafter Corps records], DNA.

⁷¹ P340, 10:356, *ibid.*

⁷² P344, *ibid.*

⁷³p351, 10:357, *ibid.*

⁷⁴35:182, roll 35, Letters Sent by the Topographical Bureau of the War Department and by Successor Divisions in the Office of the Chief of Engineers, 1829-1870; Corps records (Washington, D.C.: NARS, microfilm M66, 1959).

⁷⁵Extract I, SO no. 159, HQ, DMO (RG 15), DNA. Documentation explaining his reduction in rank to private has not been found.

CHAPTER IV

A NEW JOB WITH THE SAME DUTIES

After his discharge from active duty in April of 1869, Hunnius was now a civilian employee of the Army.¹ From his journal entries, however, it appears that he did not work every day.² When applying for a pension in 1892 he stated that he had been "engaged as a Draughtsman and also as Assistant to Surveying."³

Hunnius kept a journal of his mapping and surveying activities, possibly to document his work for pay purposes. Although it is difficult to synthesize a coherent narrative from the sketchy entries in the diary, an idea of Hunnius's activities during this period can be ascertained. It should be remembered that relatively little of his work was done outside the engineer's office at Fort Leavenworth, Kansas; for the most part he traveled vicariously in his sketching and tracing of maps from the journals of surveyors throughout the Department of the Missouri. Much of his work consisted of copying and tracing maps to formats more easily used by those in the field. Often officers wanted specific portions of general maps enlarged so that they could lead expeditions more knowledgeably. Hunnius's duties often consisted of adding new or corrected information to existing maps, or drawing new maps that incorporated changes.

During June, Hunnius copied maps of Fort Harker and Kansas; of stage stations between Ellsworth and Sheridan, Kansas; and of Indian

expeditions by Alvord, as well as of a plan of buildings at Fort Dodge, Kansas. He also worked several days on a sketch of part of the Indian Territory and on a map of the trail to Medicine Bluffs surveyed by Lieutenant Jackson.⁴

In July, Hunnius made a map of the Indian Territory and plans of the cistern and water supply at Fort Riley, Kansas. Producing two additional maps of the Indian Territory filled his August workdays, and in September he corrected six maps of Nebraska and Dakota Territory. He drew a Kansas map and copied part of a plat of Fort Craig, New Mexico, in October.⁵

Lieutenant Colonel Woodruff wrote Department Engineer Charles B. Phillips in November that the Corps of Engineers saw the advantage in "placing in the hands of officers of the Army conducting scouting parties &c. outline maps of the country to be traversed, which may be filled in on the march and then sent to this office for the correction of existing maps."⁶ Woodruff requested outline maps covering that part of the department occupied by troops or subject to marches during the next season to the end of having the maps printed. He envisioned that the maps would replace the expedition journals required by the regulations.⁷ During the same month Hunnius corrected thirty maps of the West and the Indian Territory.

In December he corrected ninety-five maps of the Indian Territory, copied a map of the Fort Riley reservation, and placed Indian reservations and boundaries in forty-six maps of the West. He also started an original map of Fort Gibson, Indian Territory.⁸

Hunnius's journals for this period pertain almost exclusively to his work; little information on his personal experiences and feelings

is revealed in them. We know from other sources, however, that he and Bertha Bachle were married on 28 December 1869, by Father Albert Heimann and Father Benno Janssen, O.C.C., at Saint Joseph's Church in Leavenworth.⁹

The Treasury Department approved Phillips's accounts for spending money for "surveys of military defenses" on 31 January 1870.¹⁰

Hunnius finished his Fort Gibson map in January and made a copy of it. He also copied maps of Forts Leavenworth, Gibson, and Wingate, New Mexico; the new road from Fort Dodge to Camp Supply, Indian Territory; and part of his new map of Kansas. He also colored fifteen maps of the Indian Territory. During the months of February, March, and April he continued to work on his map of Kansas.¹¹ In addition to the Kansas map, he copied maps of iron and coal locations in Alabama, nine military reservations, and the new road from Santa Fe to Fort Wingate; corrected two maps of the West; and colored ten maps of the Indian Territory. He finished his map of Kansas in May; also that month he sketched on one of the sheets of the general map of the Department of the Missouri, drew three original maps of Fort Smith, Arkansas, and copied a building plan for Fort Reynolds, Colorado.¹²

The first of several shortages of funds that would plague the engineer office surfaced in May when Phillips received a May twenty-eighth communication from the chief of engineers; the letter stated "that the stoppage of the usual supply of funds from the appropriation for Surveys &c. will necessitate the discharge of his [Phillips's] draughtsman and prevent him from meeting the current expenses of his office."¹³

General Pope sent a copy of Lieutenant Jackson's map to

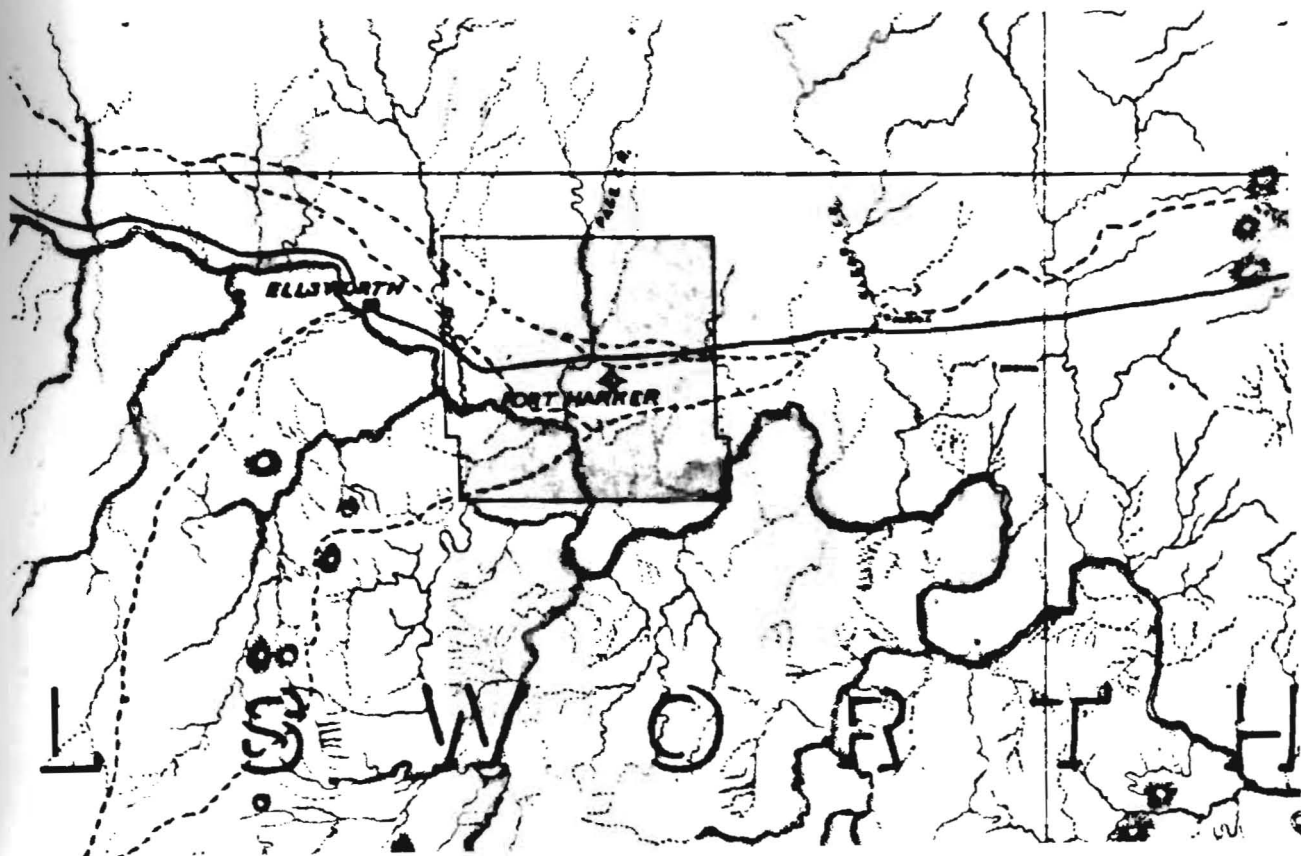
Washington on May thirty-first. William E. Merrill, chief engineer of the Military Division of the Missouri, described in a letter of June third the disposition of the map by his office.¹⁴ A reply containing the chief of engineer's remarks concerning Jackson's map was received from E. D. Townsend, adjutant general, on June twenty-first.¹⁵

During June, Hunnius drew maps of part of Fort Leavenworth, parts of the outline map of the department, and a map showing the stationing of troops along the Kansas Pacific Railway, and copied plats of his Fort Smith and Fort Leavenworth maps.¹⁶

Lieutenant M. R. Brown acknowledged receipt of the secretary of the interior's July first letter relating to the survey of the Creek and Seminole reservations. Brown could not say positively without more information whether thirty men and one noncommissioned officer would be enough to do the survey, but if thirty-one people were authorized, three should be sergeants. Brown said he presumed he had authorization to hire civilians to superintend the work as no noncommissioned officers were available. He listed instruments and books he needed, and the next day requested that two odometers be added to his list of instruments.¹⁷

Phillips protested the shortage of funds to hire personnel. In a letter of July seventh, he "states he has received an official copy of the report to the Secty. of War relative to his comm[unicatio]n to Actg Asst Adjt Genl, Dept of Mo. concerning want of funds for the engineer service. Explains the matter as he fears the Dept has misunderstood him &c."¹⁸

Phillips requested authority to hire a draftsman at \$120 per month from July first, to be paid from the surveys for military



Detail of the Campaign Map of the State of Kansas, 1872, drawn by Hunnius.

Kansas State Historical Society

defenses appropriation.¹⁹

Major J. B. Wheeler wrote on July fourteenth that the chief of engineers had received Phillips's letter and had authorized funds to hire one draftsman. On July twenty-fifth, Phillips was allowed to hire a draftsman at a maximum salary of \$120 per month, and he was subsequently ordered to send an estimate of needed funds and a proposed actual rate of pay.²⁰ On the twenty-ninth, Wheeler informed Phillips that five thousand dollars had been set aside from the appropriation for geographic surveys and military reconnaissance west of the Mississippi River for his activities, but the funds needed to be reported separately from other surveying accounts. Wheeler cautioned Phillips not to overspend.²¹

Most of Hunnius's time in July was spent on the outline map of the department. He finished plotting the area between 94 and 100 degrees west by 34 and 36 degrees 30 minutes north and began copying his new Kansas map, completed on August fourth, for Colonel George A. Custer. After finishing the copy for Custer, Hunnius made another copy for the troops along the Kansas Pacific Railway. He also copied one of his plats of Fort Smith and worked on the outline map.²²

On August seventeenth, Phillips requested "that the Department Quartermaster be directed to pay the enclosed vouchers for \$120 in favor Ado Hunnius for services to the Board convened by S[pecial] O[rder] no. 52, C[ommanding] G[eneral], D[ept. of the] Mo."²³

Hunnius finished three plats of the outline map in September, while at the same time he copied maps of Fort Gibson and the Leavenworth Arsenal. The next month he finished more of the outline map and began work on a fourth portion of it. He also corrected three

maps of the West and ten maps of the Indian Territory and colored state boundaries on fourteen others. November found him copying maps of Fort Selden, New Mexico; a proposed wagon road between the bridge, fort, and town in Leavenworth; and part of the Colorado surveys.²⁴

Lieutenant Ernest H. Ruffner became chief engineer at the headquarters of the Department of the Missouri on 12 December 1870, serving in that capacity until February 1881.²⁵ Ruffner had graduated first in the Class of 1867 from the United States Military Academy at West Point and was assistant engineer of the survey of the Northern Lakes. His superiors obviously held a high opinion of him, evident by the several projects given him during the period he was assigned to the Department of the Missouri. He was detailed to be superintending engineer of a military road from Santa Fe to Taos, New Mexico, from 1873 through 1876, in charge of constructing the military wagon road from Alamosa to Panot City and Fort Wingate, Colorado, in 1878 and 1879, and named assistant engineer of improvements of the Great Kanawha River in West Virginia on 2 October 1880.

In the course of the association between the two men, Ruffner consistently was highly complimentary and appreciative of the quality of Hunnius's work.

Hunnius finished the fourth sheet of the outline map of the department. He also copied plats of Fort Smith, corrected twenty-three maps of the New Mexico expedition, and corrected and colored one map of the territory west of the Mississippi River.²⁶

January 1871 was a busy month for him. He began preliminary work on drawings of Fort Leavenworth; drew and finished ground plans of Forts Larned, Dodge, and Scott in Kansas; and he began drawing a plan

of Fort Selden. He finished copying the fourth sheet of the outline map, drawings of buildings at Fort Selden, a plan of Fort Gibson, and fifty-five copies of a map of New Mexico and Arizona for the District of New Mexico engineer office. He also mentioned for the first time calligraphy ("scrollwork") done for officers.²⁷

In February Hunnius finished the Fort Selden plat and completed ground plans of Forts Hays and Zarah, Kansas. Again, calligraphy took a considerable part of his time, as did drawing plans for officers' quarters and ornamental brickwork done for Lieutenant Ruffner and other officers. During February he also copied a map of the Second Battle of Bull Run and colored one Indian Territory map.

The next month Hunnius continued working on drawings of officers' quarters; plats of Forts Riley and Scott, and Fort Sill, Indian Territory; the arsenal at Little Rock, Arkansas; the northwest part of Leavenworth; and Camp Supply. He also pursued calligraphic projects and colored three maps of the Indian Territory.

During April, Hunnius drew ground plans for Forts Union and Stanton in New Mexico and plans of a door for the headquarters building at Fort Leavenworth, and copied his maps of northwest Leavenworth and Fort Scott. In addition he colored and corrected forty-three maps of the Indian Territory, thirteen maps of Arizona and New Mexico, and a map of Indian reservations west of the Mississippi River.

Most of his duties during April and early May, however, pertained to astronomical work. He cleaned and brightened compasses, barometers, and odometers; packed boxes of field instruments; and checked azimuths.

He returned to cartographic work on May fifth, surveying

officers' quarters; drawing plans of Fort Wingate; and measuring and plotting houses at Fort Leavenworth. He also copied maps of Fort Leavenworth, corrected and colored five maps of the West, and surveyed for a railroad from the end of track to the bridge over the Missouri River at Leavenworth.

Surveying and measuring continued to take a considerable part of Hunnius's time in June. He continued surveying the route of the proposed railroad line and determining its grade and he measured the post hospital. Copywork included the Fort Leavenworth cantonment and reserve and Fort Riley. As an aside in his journal, he mentions "17 year locusts in Arsenal. The trees full of them laying eggs."²⁸

In July, Hunnius fixed, drew the position of, and listed 255 stars based on the American Almanac. He also surveyed and drew plans and specifications of the officer's mess and chapel at Fort Leavenworth.²⁹ In addition he copied maps of Fort Sill, Indian Territory, and copied and corrected a map of the march of the Sixth Cavalry from Fort Richardson to Fort Sill. The final three days of the month were spent "on lithograph stone," the first time lithography was mentioned, and completing quarterly reports.³⁰

After catching up on reports and correspondence, Hunnius drew a projection showing roads from western Kansas to Fort Union and worked on part of a sectional map of Kansas. Surveying during August included a half-mile-long rail line and other projects at the fort, during which time he noted, "[I]t was terrible hot."³¹ A couple of days were spent lithographing, and products included an engraving of the Fort Leavenworth reserve. Some of the maps he copied during the month were Beaver Creek, a proposed wagon road, and a plat of Fort Lyon, Colorado.

He filled other maps with information from travels of surveyors. In addition to all of this, he performed astronomical observations.

Astronomy continued to occupy most of his time during September, usually beginning at seven o'clock in the evening and lasting until two or three o'clock in the morning. Despite his nightly duties, he found time to draw plans and specifications for a rod water gauge and to begin sketching a township map of Kansas. He made 420 copies of the two Battles of Bull Run map and three copies of a township plat.

In October, Hunnius drew large maps of Fort Riley and its railroad and bridge. Most of the month, however, was spent on a detailed map of Kansas. When he wasn't working on these projects, he copied plans of the Fort Lyon post hospital and installed the river gauge he designed.

As in the previous month, the map of Kansas was the major project in November. Hunnius did find time to make four copies of a "Williamsburg Survey."

December found him drawing plans of the Fort Marcy, New Mexico, hospital; copying plans of Forts Leavenworth and Cummings, New Mexico; correcting his map of Kansas; and preparing the lithographing stone for engraving.³²

During the winter season, Hunnius's office prepared the usual maps, drawings, and tracings as required by the department.³³ He completed the first part of his detailed Kansas map and copied ground plans of Forts Riley and Dodge in Kansas, Reynolds in Colorado, and Stockton in New Mexico in January of 1872. February saw Hunnius lithographing parts of the Kansas map and copying plans of Forts Wallace, Kansas, and Marcy and Selden. Engraving lithography stones

kept him busy most March days. Other maps drawn during the month included "Kansas Progress" maps and tracings of Fort Wallace.³⁴

In the spring, Ruffner commanded a detachment of engineers from Company E of the Battalion of Engineers. This group, one sergeant and four privates, wanted to learn how to take reconnoitering notes, so Ruffner assigned them to the Sixth Cavalry on the march from Fort Riley to Fort Hays. Upon arrival at Hays, two were ordered to survey the area near the post. Two others were sent to the Eighth Cavalry, camped near the Canadian River, and from there down the Canadian and across the Staked Plains to the headwaters of the Red River, a total of about eight hundred miles.³⁵ The other man was temporarily assigned to Camp Supply. Ruffner was pleased with the men's performances. Their presence caused commanders of scouting expeditions to see that relatively untrained personnel could do the "engineering work" that many officers had felt too technical for their troops. Ruffner claimed that the journals written by the trainees were within one per cent of complete accuracy.³⁶

During the spring, Ruffner visited all the posts in the northern part of the department and taught officers how to use instruments and keep notes. Topographical mapping was an area in which Ruffner placed increased emphasis, and he issued orders mandating the disciplining of commanders who neglected this function.³⁷ Maps of each post were made and forwarded to the Military Division of the Missouri.³⁸

Hunnius drew projections for the map of the Department of the Missouri, including Kansas, New Mexico and northern Colorado, while later in the month he drew two maps of the Colorado mountains. On April eighteenth, the office was closed because of the celebration of

the opening of the Missouri River railroad bridge at Leavenworth. Toward the end of the month, Hunnius traced maps of the Osage lands in Kansas and Fort Wallace; he engraved the latter map prior to lithographing.³⁹

During the summer, the Sixth Cavalry, commanded by Lieutenant Colonel Neill, scouted western Kansas, and the Eighth Cavalry under Colonel J. I. Gregg explored the headwaters of the Red River.⁴⁰

Sometime during fiscal year 1872, Ruffner compiled and submitted a report on the determination of the difference of longitude between the observatory of the lake survey at Detroit and the observatory at Fort Leavenworth.⁴¹ In his regular report, Ruffner noted the initiation of a series of maps at a scale of four miles to the inch by his office to show all that was known about a given area and to afford opportunity for addition, correction, and revision. Working from the land survey township plats, his staff compiled maps of areas where military operations might conceivably take place: Kansas west of the Sixth Principal Meridian, Colorado, the Chickasaw Nation, and part of New Mexico. In all, the information on over two thousand township plats was transferred to these new maps. During the year five sheets of Kansas, one of the Chickasaw Nation, and three of Colorado were produced to the new scale, and less-detailed maps of Colorado, New Mexico, and the Department of the Missouri were made. Because Hunnius learned lithography during the year, Ruffner put him to work printing the Kansas sheets. Ruffner noted that the Kansas maps were made available right before the annual surveying season with tracings of the unpublished maps furnished upon request to installations and other users.⁴²

The expedition to the Staked Plains was still in the field at the time Ruffner compiled his report, but he hoped that results of the survey would greatly increase knowledge of that area.⁴³

No other surveys were made during the year except some resurveying at Fort Stanton.

During the year, the office distributed 569 maps throughout the department. Total expenditures for the fiscal year amounted to \$5485.

The Staked Plains survey ended, the scouts in the Eighth Cavalry under Colonel Gregg and Captain Young having traveled over eight hundred miles crossing the Plains, traveling through northern Texas, and thence to Camp Supply, learning much about the headwaters of the Red River in the process.⁴⁴

In July, Hunnius copied maps of the area south of Forts Lyon and Reynolds, plus Fort Sill and the Osage strip in southern Kansas. He also filled in corrected boundary lines on the original map. He noted in his journal that he was absent on the twenty-third of the month due to a "terrible rain storm," and another of his notes stated that there was a tornado that day.⁴⁵

As August began, Hunnius plotted the impending scouting expedition from Fort Dodge up the Arkansas River and back. He also drew the intended route of Company C of the Sixth Cavalry on a map of Kansas for its commander, Captain Madden.⁴⁶

Four civilian surveyors and a thirty-man escort left Fort Wallace that day for six weeks' duty to locate and survey the headwaters of the Republican River.⁴⁷ Ruffner was very unhappy with the results, calling the men's work "indifferent" and feeling that he could not trust their surveys.⁴⁸ He promised to check their accuracy

as future parties traversed the area.⁴⁹

On August sixth, Hunnius compiled a table of distances from Fort Hays to Fort Riley. He also calculated comparative routes from Fort Dodge to Camp Supply and drew a topographical map of those routes. At the end of the month, he plotted the route of Company H of the Sixth Cavalry. While doing these tasks, he also copied maps of Justo Esquedo Number Twenty-five, a claim in Texas, and reproduced his map of the territory from Fort Dodge to Camp Supply. He also colored a map of Kansas highlighting railroad lands.

The results of the expedition of the Sixth Cavalry continued to occupy Hunnius during September. He plotted the route of Company E as well as added new information to the maps showing the area from Fort Dodge to Camp Supply. He also surveyed and drew a map of the Chickasaw lands in the Indian Territory and added the course of the Canadian River to an existing railroad survey map.

The following month, Hunnius spent several days creating a map of Texas, then plotted the march of Captain Bryan and troops from Fort Gibson to the Cheyenne Agency. He mapped the expedition of Company F of the Sixth Cavalry, and also during the month made a reduced-size copy of the Atchison, Topeka and Santa Fe Rail Road survey from Fort Dodge to Fort Lyon.⁵⁰

Hunnius's first child, a son by the name of Ado Benno Carl, was born October twenty-fifth. The following day, Hunnius copied a topographical map showing the Chickasaw lands and the Missouri, Kansas & Texas Railway.

In November, Hunnius drew five maps showing the lines of the Santa Fe Railroad in western Kansas for the railroad, which were sent

to its offices in Chicago. He also worked on maps of the Chickasaw land survey; the road from Pueblo to Trinidad, Colorado, and from there to Cimarron, New Mexico; and the southern Kansas boundary on a map of the state. His calligraphy was put to good use lettering the title pages of topographical maps of the Chickasaw land survey; Fort Sill; and the Missouri, Kansas & Texas Railway. He also was called upon to copy his Chickasaw land-survey map for the Corps of Engineers, and he made corrections on their original Kansas map.

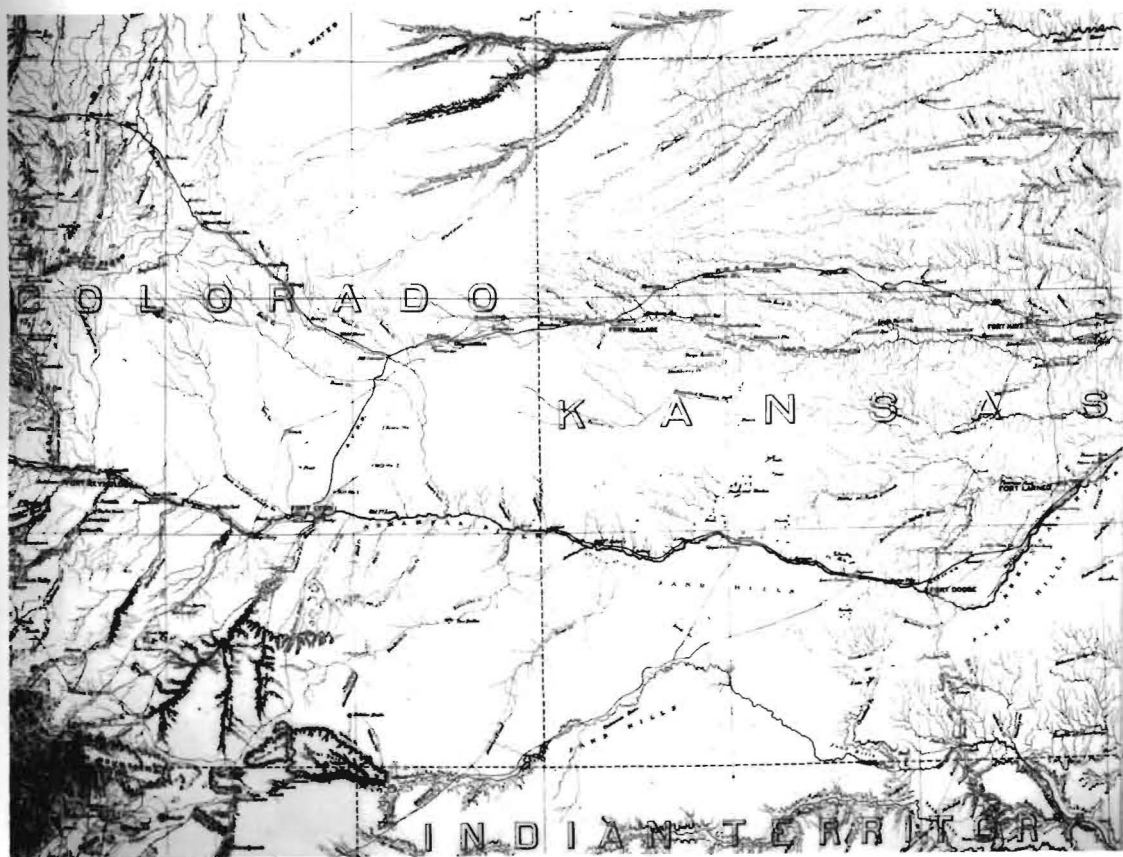
From December sixth through thirteenth, Hunnius drew maps of Sergeant Lichtenberg's expedition to the Staked Plains of Texas. Later in the month, he drew a map of New Mexico.⁵¹

The Fort Leavenworth engineer office continued work on its set of comprehensive maps of the Department of the Missouri during the winter season.⁵² Hunnius participated in this project by engraving the lithographing stone.⁵³

With revisions of survey maps and maps of areas not available the year before, Ruffner and his staff completed his detailed map of the Chickasaw Nation. The map was later lithographed by authority of General Sheridan.⁵⁴

Hunnius continued the work of engraving the departmental map, and sent sheet number two to the printer. He copied the map of the Staked Plains survey and made a map of New Mexico using Colton's map of the territory as a base.⁵⁵

An act of Congress passed in March provided for the construction of a military road from Santa Fe to Taos. Ruffner was placed in charge of this work, to be assisted by Lieutenant Morrison of the Sixth Cavalry, acting engineer of the District of New Mexico. The two



A portion of the map of the Department of the Missouri, 1873.

Kansas State Historical Society

officers had earlier surveyed the route and had prepared a project proposal that had been approved.

In the spring, the Department of the Missouri printed the Colorado and western Kansas section of the map of the department at a scale of approximately sixteen miles to the inch. When this map was finished, work began on the New Mexico portion. The map was finished and sent to the lithographer during fiscal year 1873.⁵⁶

In April, Hunnius finished his map of New Mexico as far as thirty-seven degrees north latitude. He drew a map showing the expedition of Captain Rafferty and Company M of the Sixth Cavalry and prepared a map showing the route of Major Dodge's march from Fort Dodge to Medicine Lodge Creek and return; he also made copies of this map. He drew another map of Dodge's expedition from Fort Aubrey, Kansas, along the Cimarron River to the mountains near Raton, New Mexico. On the nineteenth of the month, Hunnius's mule was stolen. Toward the end of April he drew a campaign map of five sheets showing the route of the Sixth Cavalry, then he plotted Major Dodge's trip to Bluff Creek and finished all the topography on the Fort Dodge sheet of the Kansas map. In addition, he made two copies of the map of Rafferty's march and copied five squares of the New Mexico map.

His work in May consisted of plotting Rafferty's march, engraving his map of New Mexico for lithographing, and copying the parts of the New Mexico map pertaining to the Fort Tularosa area and that part of the territory west of the Rio Grande.⁵⁷

On 2 May 1873, Ruffner was sent to Pueblo, Colorado, by R. Williams, acting adjutant general at Fort Leavenworth, to survey the headwaters of the Rio Grande and southwest Colorado generally.⁵⁸ The

party went from Pueblo to Fort Garland, then up the Rio Grande to the 107th meridian. From there they explored the upper reaches of the river, the mines at Animas Park and on the Lake Fork of the Gunnison River, then to Fort Garland, Colorado. After re-outfitting, the expedition returned to explore the headwaters of the Gunnison River. Leading the expedition was Ruffner's assistant, H. G. Prout.⁵⁹

In June, Hunnius traced the New Mexico map, presumably on stone for lithographing. He also located the expeditions from Fort Lyon to Cimarron Canyon, Sargent, and Mud Creek and return trips, and he mapped and copied the scouting expeditions of Captains Tupper and Dodge of the Sixth Cavalry from Fort Dodge to the Cimarron River and back. The road from Forts Selden to Stanton was charted, as were the scouts (scouting expeditions) from Fort Dodge to Lawrenceburg, a settlement in Barber County, Kansas.⁶⁰

During the year Ruffner continued collecting data for a general military map of the Department of the Missouri using engineer-trained soldiers assigned to the various exploring parties.⁶¹ He continued working to accurately determine latitude and longitude of various military installations. His office began a survey of the boundaries of the Fort Tularosa military and Indian reservations.⁶² Other work in New Mexico and southern Colorado included examinations of roads by Lieutenant Morrison from Santa Fe to Pueblo and from there to Forts Garland and Wingate, and the return to Santa Fe by another route.⁶³ In addition, Major Price and a battalion of the Eighth Cavalry covered over five thousand miles surveying New Mexico.⁶⁴ Various surveys were taken of the road from Fort Dodge to Camp Supply and a map was made, to the great satisfaction of its users.⁶⁵

The detachment of engineers assigned to Ruffner continued to assist him in surveying the Great Plains. At Hays, two were ordered to survey the westernmost extent of settlement in the area near the post.⁶⁶

Ruffner expressed his satisfaction with the system of having scouts do those observations needed to make accurate maps. He particularly commended Major Dodge of the Third Infantry at Fort Dodge for his surveys of southwest Kansas; the Sixth Cavalry charting the line of settlement in Kansas; and Lieutenant H. P. Perrine, Sixth Cavalry, and Private George Bentley, Third Infantry, who produced extremely accurate data on the landforms near Fort Lyon.⁶⁷ Similarly, surveys of military roads in New Mexico were very useful.⁶⁸

In all, 577 maps were produced by the office during the year.⁶⁹ Ruffner completed a number of astronomical studies in fiscal year 1873 redefining the latitude and longitude of cities and military posts in Kansas and Colorado.⁷⁰ His total expenditures for the fiscal year were \$12,271.⁷¹ The thirty-six surveys conducted by Ruffner's office during the year covered 9085 miles.

July began with Hunnius drawing a map showing the journey of Lieutenant Harper from Camp Supply to the Cimarron River and back. He also sketched maps of roads from the Rio Grande to Fort Tularosa and from Fort Wingate to Santa Fe, and the return by way of Albuquerque, New Mexico. He mapped scouting trips from Fort Lyon to Emery's Ranch with return via the Purgatory River; from Fort Dodge to Clear Water, Kansas, and back; from Fort Dodge to Sun City, Kansas, and return; and from Fort Dodge to the Smoky Hill River. He added the Potawatomi Indian Reservation in the Indian Territory to the maps of mail routes

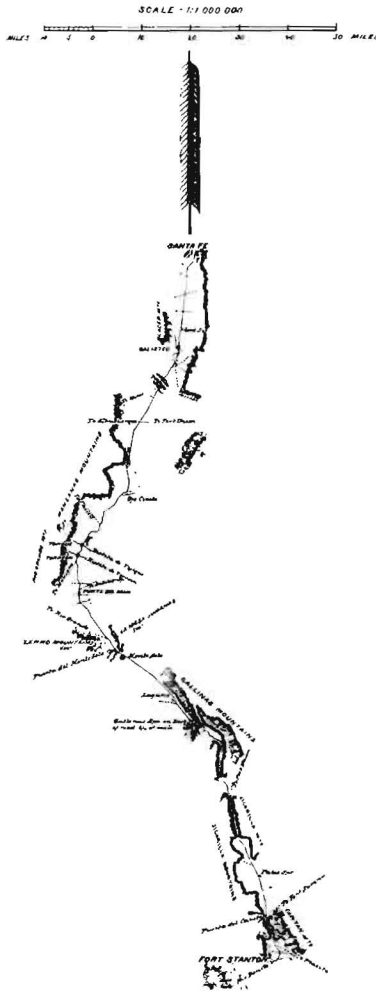
in the territory, Arkansas, and the map maintained in the chief engineer's office. He finished a plat of the Colorado surveys, then copied a map of the Osage and Cherokee reserves showing settlements removed, a part of the plat of the Fort Leavenworth reservation, and forty-one maps of the Potawatomi Reservation land surveys in the Indian Territory.

Hunnius was extremely busy in August. He drew maps showing scouts from Camp Supply and return, Fort Lyon to Two Butte Creek, the camp of the Sixth Cavalry to Fort Hays and the Ninnescah River, Fort Dodge to Cimarron and return, and a scout from Fort Dodge in search of lakes; roads from Fort Selden to Craig and from there to Fort McRae in New Mexico, Santa Fe to Fort Stanton, from Fort Selden to Fort Bayard in New Mexico via Fort Cummings, Fort Union to Fort Lyon; railroad stations west from Fort Wallace; and Indian campaigns in Kansas. He also copied maps showing journeys from Forts Lyon and Dodge. He remarked on August thirtieth that the temperature was 101 degrees at noon and 103 degrees an hour later.⁷²

On August eleventh, Ruffner went to Washington, D.C., by order of the chief of engineers.⁷³ Three weeks later, while carrying out the instructions of the chief engineer in connection with the military road from Santa Fe to Taos, Williams asked Ruffner to visit Denver, Pueblo, Fort Garland, and Colorado Springs, Colorado.⁷⁴

The summer scouting season continued to test Hunnius's speed at cartography. During the month of September, he completed maps of expeditions from Fort Dodge to Camp Supply and Medicine Lodge City, Kansas, from Fort Dodge to Cimarron, from the camp on the Ninnescah River to Medicine Lodge City and return, from Camp Supply to the

MAP OF ROAD
 FROM
SANTA FE TO FORT STANTON
 FROM NOTES TAKEN BY SERGEANT G. A. LICHTENBERG, COMP. D. BATT. OF ENGINEERS



"Map of Road from Santa Fe to Fort Stanton," 1873, drawn by Hunnius. Map forms part of "Roads and Scouts in District of New Mexico," season of 1873. National Archives, Cartographic and Architectural Branch (Alexandria, Va.), Records of the Office of the Chief of Engineers (record group 77), Civil Works Map Files, W-177

Kansas State Historical Society photograph

Canadian and Cimarron rivers and back, and from Fort Lyon to the Granada and Dodge Road; roads from Fort Tularosa to Fort Bayard and from Old Fort Wingate to Camp Apache, Arizona, and New Fort Wingate; a campaign map showing the area from a camp on the Ninnescah River, and he added scouting trips to the general campaign map. Copying work included a diagram of township sixteen, range eight west of the Sixth Principal Meridian, used for copying land plats to be sent to Washington and a map of the Fort Union timber reserve.

The pace continued into October. In that month, Hunnius drew maps of the scouts from Fort Lyon to the Granada and Fort Dodge Road, from Camp Supply to the Cimarron River, from Fort Dodge to Cimarron and return, from the camp on the Ninnescah to Fort Hays, from Fort Dodge to Fort Lyon, and from Fort Dodge to Captain Tupper's company and back; the routes from Fort Lyon and Granada to Fort Union and from Fort Union to Taos, and from there to Plaza del Alcalde, New Mexico; a plat of land surveys in the Indian Territory; and a township map of Colorado.⁷⁵ He made copies of maps of scouts from Camp Supply to the Cimarron and Canadian rivers, from Fort Dodge to Camp Supply and Medicine Lodge City and return, from Fort Dodge to Punished Woman Fork and the Cimarron River and return, from the camp on the Ninnescah River to Medicine Lodge City and return, from Fort Lyon to the Granada and Dodge Road, from Fort Dodge to the Cimarron River and Beaver Creek, and from the Osage lands to the Cimarron River. Hunnius also colored the New Mexico sheet of the departmental map.

The only activity recorded for November in Hunnius's journal is his work on the Kansas and Colorado section of the departmental map. Similarly, little activity was recorded for December, yet in that month

he drew maps of trails from Fort Bayard to Fort Tularosa and from Fort Garland to Fort Wingate.⁷⁶

On December twenty-seventh, Ruffner was ordered to Springfield, Illinois, by order of the commander of the Department of the Missouri for temporary service there.⁷⁷ The length of his detail there is unreported.

As time allowed, work continued during the winter season on the department's detailed map of the Indian Territory.⁷⁸ Hunnius spent January "[e]ngraving and drawing on stone [the] Preliminary Map of the Surveys in Colorado made on Reconnaissance in the Ute Country. Asst. H. G. Praut comdg."⁷⁹

After thirty-four days of work, Hunnius sent his engraving of the Ute-country map to the printer in Saint Louis on February fourteenth. The remainder of the month was spent in placing the survey of the Potawatomi lands on the Indian Territory map, making 229 plats of Chickasaw lands, and inking his engraving of the Chickasaw map.

Also during the winter Hunnius, described by Ruffner as his "principal draughtsman," worked for six weeks lithographing the map of the Ute country to accompany Ruffner's report.⁸⁰ He also completed "a very handsome sketch of the Philosopher's Mounts, so called, a portion of the same reconnaissance."⁸¹

On 21 February 1874, Ruffner submitted his "report on the Reconnaissance of the Ute Country made during the season of 1873. The accompanying map has been lithographed in his office and there have been prepared copies enough for present use. It is hoped that the report will be considered of interest enough to be published and copy prepared for the printer is also forwarded and should it not be printed

should like to have that copy returned. When being informed of the intended printing of the Report, he will have copies of the map struck off to supply the edition and they will be forwarded in time to be bound with the Report."⁸² John Pope, commander of the Department of the Missouri, forwarded Ruffner's report to W. W. Belknap, secretary of war. Pope requested "special commendation" of Ruffner for "very valuable and thorough work."⁸³ Pope also requested funding to allow Ruffner to complete the job by examining the route from Fort Garland to Fort Wingate via the Conejos River and the heads of Rio Chama and Rio Puerco; the "Lost Trail," an Indian road, from the Los Pinos Indian Agency south to the "lower agency," approximately 107 degrees west; and territory north and west of Animas and Baker's Parks, the "so-called Uncompahgre region."⁸⁴

On March fifth the departmental commander directed Ruffner to Santa Fe at his request for duty connected with the Engineer Department, i.e., completion of the military road from Santa Fe to Taos.⁸⁵ Ruffner was to return to Fort Leavenworth as soon as the work was completed.⁸⁶

Hunnius was kept busy in March. He inked maps of Potawatomi lands and sixty townships along the northern boundary of the Indian Territory, plotted the trail traveled by Sergeant Lichtenberg from Fort Bascom, New Mexico, over the Staked Plains, drew a map of the route from Fort Garland to Fort Wingate and the journey from the Black River to the Staked Plains and return, and sketched a map of the area along the road traveled from Albuquerque to Forts Craig, Tularosa, and Wingate.

Hunnius spent the month of April sketching maps of roads:

Albuquerque to Santa Fe, Fort Stanton to Fort Selden, Fort McRae to Fort Stanton, Fort Union to Fort Stanton, Fort McRae to Fort Bayard, and Fort Bayard to Fort Selden. Other maps that he created during the month included one of scouts from Dowling Mill to the Black River and the Guadalupe Mountains, a total of 289 1/2 miles, and from the camp on the Black River to Fort Davis, Texas, a distance of 482 miles.

May began with Hunnius mapping Campbell's survey of Fort Leavenworth.⁸⁷ On May tenth, W. M. Dunn, Jr., acting assistant adjutant general of the Department of the Missouri, directed Ruffner to return from Santa Fe in order to complete duties assigned in his earlier orders, specifically work on a direct wagon route from Fort Garland to Fort Wingate.⁸⁸ This project, assigned to Lieutenant G. S. Anderson, concentrated on the section from Conejos, Colorado, to the headwaters of the Chama and Puercos Rivers. The next day, Ruffner submitted a plan for examining the practicality of the road.⁸⁹

One week later Ruffner, "[i]n camp [on the] Santa Fe and Taos Road," reported the completion of the military road from Santa Fe to Taos was so far along that wagon traffic would be allowed beginning on the twenty-third.⁹⁰ He requested that a Board of Survey be appointed to examine and report on the road.⁹¹ On June twenty-third, the secretary of war was reported to be of the opinion that the convocation of a board was unnecessary.⁹²

Hunnius spent the rest of May finishing a map of the Fort Leavenworth reservation and making a ground plan including the railroad route.

In June, Hunnius drew maps of expeditions south of Fort Stanton and the road from Fort Wingate to Camp Apache. He copied 148 land

plats of the Indian Territory and lettered the title page to a set of maps of roads and scouts in New Mexico.⁹³

During fiscal year 1874 ending June thirtieth, Ruffner emphasized organizing the method of gathering survey data as well as developing a way to arrange the information collected. Improvements in these processes were in part required because of the great improvement in the quantity and quality of information obtained by scouts throughout the department. The number of miles traveled during the year increased two and one-half times from the previous year.

Some projects undertaken during the year were surveys of Fort Tularosa military and Indian reservations, unfinished because of sloppy work by civilian contractors, the large distances involved, and the imminent removal of the Indians; the regions from Fort Tularosa to Fort Wingate, Fort Bayard, and Camp Apache; Pike's Peak; a direct wagon-road between Fort Garland and Fort Wingate; the country south of Fort Stanton; and a resurvey of the boundaries of Fort Leavenworth.⁹⁴ The reconnaissance of the headwaters of the Rio Grande, Gunnison, Grand (Colorado), and Arkansas Rivers in southwest Colorado was completed and Ruffner's report, Reconnaissance of the Ute Country, was published.⁹⁵ In addition, a map showing the area surrounding Fort Sill was completed.⁹⁶ Ruffner stated in his annual report that he believed that all of the military roads in the department had been surveyed.⁹⁷

Ruffner also supervised the composition of a manuscript volume of data on roads and expeditions in New Mexico. This volume, for which he was commended, was sent to the Engineer Department in Washington.⁹⁸ His other major project, the military road from Taos to Santa Fe, was completed except for a short stretch that could not be finished because

of want of funds.⁹⁹ The Engineer Detachment under Ruffner's command continued to provide valuable assistance in New Mexico.

July began with Hunnius producing 7 Kansas camp maps, 411 Indian Territory land-plat maps, 6 maps of the Indian campaign in southern Kansas and Indian Territory, a map of settlements to be protected, and a map of land surveys in northwest Kansas. He also copied maps of scouting parties including part of the Lichtenberg survey of the Staked Plains.¹⁰⁰

Hunnius began his work in August by lettering the heading of the map of the scouting expedition of Captain Young over the Staked Plains. He drew maps of land surveys in Kansas; scouts from Forts Dodge, Lyon and Bayard; journeys from Fort Bascom to Fort Sumner, New Mexico; Major Upham's route from Fort Gibson to Caldwell; adding the results of the scout from Camp Supply to Kiowa City, Kansas, on the Indian Territory map; and plotting 160 townships in the Indian Territory. Copywork for the month consisted of a map showing a proposed Indian reservation for the Tularosa Apache, maps of 1874 campaigns in the Indian Territory, and outline maps of the road from Santa Fe to Taos.

During the month of August, the grasshopper plague visited Leavenworth and was noted in Hunnius's journal. From his entries, it appears that the first warning was sounded on the twenty-fourth of the month and the first "hoppers" arrived two days later. Hunnius noted on the twenty-eighth, "[C]loud of grasshoppers."¹⁰¹ On September sixth, a Sunday, Hunnius wrote, "Deep ditches 24 in. wide 3 feet deep along S. of Parade Ground to catch hoppers."¹⁰² The next day he recorded, "Grasshoppers moving from S. to N. Officer's Q[uarte]rs[,] covered over roofs."¹⁰³

In September, Hunnius mapped troop movements from Fort Stanton to Rattlesnake Spring through the Guadalupe Mountains, from Fort Dodge to the Dry Cimarron and return (405 miles), from Grinnell Station in Kansas to the Republican River and return, from Camp Plummer, New Mexico, to Fort Lyon and return, and from Fort Hays to the Republican River and return. He also plotted colonels Dodge and Holland's trip from Fort Wingate to Prescott, Arizona (285 miles), and copied maps showing the expedition over the Staked Plains by Captain Young.

Hunnius began October by drawing 160 townships on the departmental map of the Indian Territory, tracing part of the same map, preparing the lithographing stone for the Indian Territory map, and engraving the map on stone. He also expanded the map west to the 105th meridian.¹⁰⁴

Ruffner stated on October twenty-third that he had funds remaining for completing the survey of the Santa Fe to Taos military road. He indicated that he wanted to close the account.¹⁰⁵

Hunnius continued work on the engraving of the Indian Territory map into November. From the eleventh through the fifteenth of the month, he traveled to Fort Lyon and Las Animas, Colorado, for a survey. While there he "laid out ground" [surveyed] for a railroad on the reservation.¹⁰⁶

After he returned, he continued work in early December on the engraving of the Indian Territory map.

On 15 December 1874, General Pope forwarded a letter of Ruffner's concerning the "best instruments and methods for conducting reconnaissance within the Department."¹⁰⁷ Pope remarked, "The capacity of Lieutenant Ruffner and the results of his work are so well known and

have been so valuable that I fully confide in his views on the subject and concur in them."¹⁰⁸

Hunnius spent the remainder of December extending the information on the Indian Territory map as far west as Beaver Creek, reducing the scale of the various scouting maps, and engraving the northwest part of the Indian Territory except for part of the Washita River and Wolf Creek on the lithographing stone.¹⁰⁹

During 1874, journals containing total surveys of more than 15,000 miles were submitted to the department engineer's office.¹¹⁰

As the year 1875 began, Hunnius kept busy. During January he drew reduced-scale editions of the east part of the War Department map of the Indian Territory and the Union Pacific Railway survey. He also drew details of the eastern portion of the Indian Territory on several maps, in one instance supplying information on the region from Fort Smith to Walnut Creek. He reduced the outline map of the department to a smaller scale, and he determined the latitude and longitude of the east boundary of the Indian Territory and drew part of the boundary on the departmental map. He worked on the northern part of the east sheet of the Indian Territory map and added the Grand River to it, then he plotted the Missouri, Kansas, & Texas Railway from Fort Gibson to the Red River and southern Kansas on the lithograph of the Indian Territory map. At the same time he copied a map of Major Upham's route from Fort Gibson to Caldwell, and he engraved the northeast portion of the Indian Territory map for lithography.

On January twenty-third, Hunnius noted, the stables at Fort Leavenworth burned. Two days later, he copied part of the plan of Fort Leavenworth showing the location of the burned building. The same day

he added topographical information to the Indian Territory map, and the following day prepared the stone for printing the northeast part of the map. The remainder of the month was spent engraving it.

Hunnius spent most of February working on the Indian Territory engraving. He did, however, draw land plats of the Fort Sill reservation on those days when on account of a storm it was too cold to work with the engraving stone. When he again began engraving, he worked on township squares in the northeast quadrant of the map.

Early in March, Hunnius finished the engraving of the northeast part of the Indian Territory map. He then turned his attention to drawing land surveys in the Fort Sill area and plotted the path of scouting expeditions from the Canadian River to Fort Washita, Indian Territory, a distance of 37 1/2 miles; from Washita to Fort Sill and return, 282 1/2 miles; between Camps Two and Three on the Washita, six miles; from the camp on the Washita to Tierra Amarilla, 71 3/4 miles; from Tierra Amarilla to Arroya Bonita on Starker Creek, 45 1/4 miles; from there to Battle Creek, 108 3/4 miles; thence to Clear or Brush Creek, 122 1/2 miles; from Clear Creek to Fort Sill and the camp on the North Fork of the Red River, 167 3/4 miles; from there to the cantonment and home, 213 1/4 miles; from Camp Supply to the permanent camp on the Washita River by Captain Chaffee, 99 1/2 miles; from the camp on Elm Fork to Fort Sill by Major Compton of the Sixth Cavalry, 123 1/4 miles; from Oasis Creek to Adobe Walls, 83 1/4 miles; from Adobe Walls to Big Clear Creek and return, 68 1/2 miles; from Adobe Walls to Palo Duro Creek and return, 66 1/2 miles; from Adobe Walls and Kit Carson Creek to the Staked Plains and part of the return trail, 120 1/2 miles; from the camp on the Washita River to McClellan Creek, Wolf

Creek, and Adobe Walls by Lieutenant Baldwin, 219 1/4 miles; from Fort Sill to the camp on the Sweetwater River by Major Compton's Sixth Cavalry, 138 3/4 miles; from the camp on the Washita to Turkey Creek and Adobe Walls, 71 1/4 miles; from Turkey and Kit Carson creeks to Palo Duro, 51 1/4 miles; from a branch of Battle Creek to the camp on the Salt Fork of the Red River, 94 miles; from Canon Blanco to the North Fork by Lieutenant Baldwin's Fifth Infantry, 96 1/2 miles; from the Cantonment on the Sweetwater (later Fort Elliott), Texas, to the supply camp on the Washita by General Miles, 19 1/2 miles; from Fort Washita to Oasis Creek and return to Camp Fall Leaf by Lieutenant Baird, 53 3/4 miles; and from the camp on the Washita to Camp Supply by Captain Evans, 201 miles. At the end of the month, Hunnius traced part of the Indian Territory for the southeast portion of the general map, finished the land surveys on the map, finished the reduction of a Texas map, and worked on the lithographing of the southwest part of the Indian Territory map.

Hunnius's projects in April were more time-consuming but less numerous than in the previous month. He prepared the lithographing stone and finished the land-survey engraving for the southwest part of the Indian Territory map; wrote the calligraphy at home for the title page of the Ute-reconnaissance map; drew a reduction of the map of Lichtenberg's 1873 trip from Fort Bascom to Camp Supply; and finished the extension and northwest corner of the Indian Territory map.

Early in May, Hunnius finished the original of the southeast corner of the Indian Territory map and made the tracing for the transfer on stone of the southwest quarter of the map.¹¹¹

In the spring of 1875, Ruffner was ordered to accompany the

departmental commander to Saint Louis and back.¹¹²

Hunnius spent June finishing the southeast portion of the Indian Territory map and tracing corrections for the area from the Canadian River to the cantonment and Indian campaigns in 1874 in the southwest quadrant on the lithographing stone. Other mapping work consisted of platting the reservation of the Quapaw, Peoria, and Seneca Indians. He spent the twenty-second and twenty-third of the month whitewashing offices.¹¹³

The four-sheet map of the Indian Territory in process for three years was completed during the fiscal year, aided considerably by troop maneuvers in the Indian Territory pursuing hostile Indians. The Fort Garland to Fort Wingate wagon-road survey was completed during the year and manuscript maps of the territory were finished.¹¹⁴ A map of portions of Texas, New Mexico, and the Indian Territory, including the Staked Plains, was prepared to show expeditions of Mackenzie, Miles, and Davidson.¹¹⁵ Corrections were made to the map of Texas, Kansas, and the Indian Territory.¹¹⁶

In the four years of Ruffner's tenure as chief engineer at Fort Leavenworth he and his staff executed 75,000 maps, attempting to establish a uniform topographical diagram of the Department of the Missouri based on land survey plats, railroad surveys, boundary surveys, existing military maps, and reliable maps by private publishers.¹¹⁷ Interestingly, Ruffner noted in his annual report that an appropriation from the army's contingency fund for fiscal year 1876 would allow him to continue to hire his principal draftsman, Hunnius, and to finish pending work "as will bring the office to a state that it can be closed if necessary."¹¹⁸ Perhaps the departmental engineer

realized that in times of fiscal stringency his activities would be deemed inessential by higher commands.

Hunnius began July by drawing land plats on the southwest portion of Kansas on the state map. He also corrected a map of Kansas, Nebraska, and Colorado.¹¹⁹

On 13 July 1875, another son, Herman, was born.¹²⁰

Hunnius had been working on surveys of the South Platte River in range sixty-eight west of Colorado but stopped "to get information regarding Fort Garland from Lieutenant Ruffner."¹²¹ Afterward he worked on detailed sheets of the Ute reconnaissance from Camp Twenty-eight over Pancho Pass and six sheets of Prout's scout beginning at Camp Twenty-two.¹²²

During the months of July, August, and part of September, Lieutenant Ruffner supervised the construction of the remaining unfinished segment of the Taos and Santa Fe road as a civil-works appropriation by Congress for fiscal year 1876 allowed the work to be finished. A few steep grades on the previously-completed sections were improved. This road reduced the distance from Santa Fe to the railhead at Fort Garland from 312 to 150 miles. Ruffner cautioned his superiors that the existing road from Taos to Fort Garland was old and in much need of restoration and suggested a ten thousand dollar appropriation be made to rehabilitate the route. His recommendation was endorsed by the department commander and forwarded to Congress.¹²³

In August, Hunnius worked on five sheets of plats of Camps Twenty-eight to Thirty-five in the Canon City, Colorado, area and traced portions of Texas showing the old and new cantonment. He also proofread and colored the proofs of the map of the Indian Territory.¹²⁴

Responding to an article in the 16 September 1894 Scientific American, Hunnius related that on 18 August 1875 a detail of soldiers was sent from Fort Sill down Cache Creek to cut timber and protect an engineer party measuring a telegraph road to Texas. They were ambushed by Kiowa and Comanche the following day and were completely surrounded by Indians who prevented any escape for the day. One of the soldiers wrote a message requesting assistance, placed it in a tin can, and tied the can to the tail of a dog who accompanied them. He then sent the dog back to the fort. The Indians spied the dog and at first shot at it, then saw the can and thought the soldiers had tied it to the dog's tail in fun. The dog made it back to the post where the message was read and help was dispatched.¹²⁵ Hunnius ended the month by resuming his work on the Colorado land surveys that he had started in July.

Early in September, he finished the Colorado land-survey maps and then measured the military prison at Fort Leavenworth in preparation for drawing plans of it. Other work during the month included coloring sixteen maps of the Indian Territory; lettering the title page and the atlas of maps of the wagon road from Fort Garland to Fort Wingate, both done at home; and copying his map of the Philosopher's Mountains, his list of Indian tribes in the United States for General Pope, and part of the ground plan for the Fort Leavenworth prison.

Hunnius spent most of October copying sheets from the atlas of the wagon road between Forts Garland and Wingate. He also made a tracing showing the position of Camp Supply, Fort Sill, and Cantonment, added Indian and military reservations to a map of New Mexico for General Pope, and created a map showing Pueblo, Fort Wingate, and Fort

Garland. He finished the title page of the atlas of the wagon road from Fort Garland to Fort Wingate.¹²⁶

On October ninth, Ruffner forwarded applications for authority to pay expenses incurred by several journeys that he made from Camp La Joya to Santa Fe from July twenty-ninth through August fourteenth during the construction of the Santa Fe to Taos road.¹²⁷

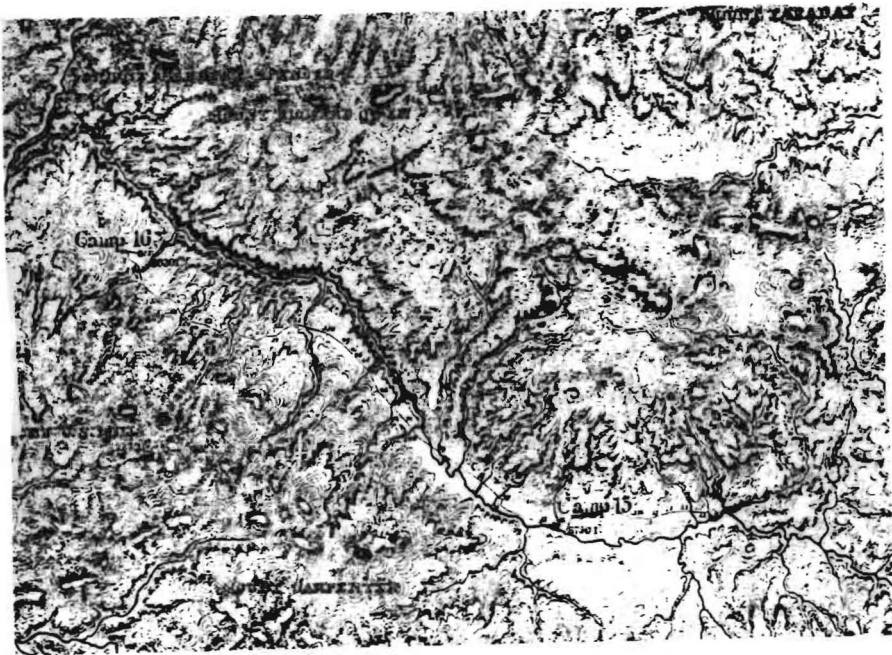
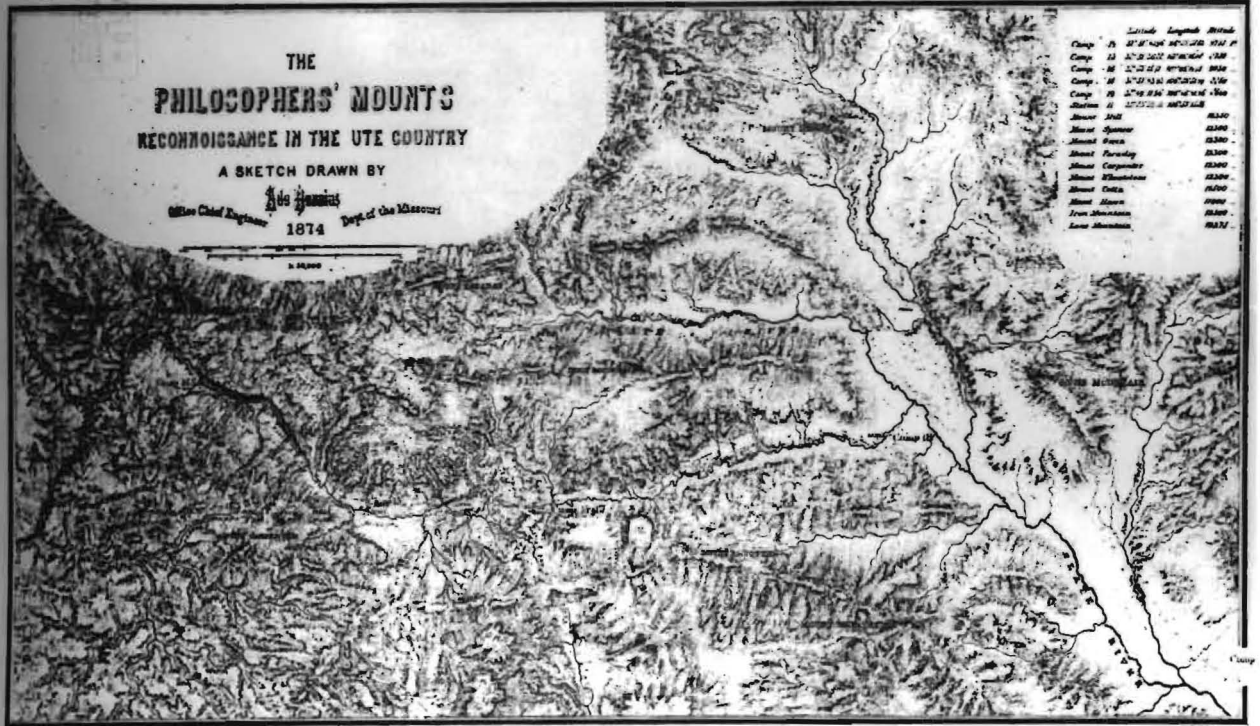
Hunnius made a map of the Santa Fe to Taos Road, created the title and border of a map of the San Juan mining region, and surveyed the Fort Leavenworth wood reservation with a Leavenworth County surveyor named Simons in November.¹²⁸

Ruffner applied for appointment to West Point as a professor of mathematics in November 1875. As no reference to teaching experience appears in summaries of his military service, his application was apparently denied.¹²⁹

In November, the department published its atlas of forty-six maps of the Ute-country expedition to southwest Colorado, as well as two special maps by Hunnius, Sketch of the San Juan Mining Regions and The Philosopher's Mounts.¹³⁰ The latter was drawn by Hunnius on his own time and was more detailed and finished than regular work completed under a deadline. Ruffner described it as "perhaps the handsomest specimen of topographical drawing ever executed in this office."¹³¹

In December, Hunnius finished thirty-three maps of the Indian Territory and topographic maps of the Santa Fe and Taos Road, and platted maps from the notes of a survey of the Fort Leavenworth timber reservation. He also colored maps of the Indian Territory and organized the survey notes in the office.¹³²

On 3 January 1876, Ruffner requested permission to send Hunnius,



General and detailed photographs of The Philosophers' Mounts: Reconnaissance in the Ute Country, 1874, by Humnius.
Kansas State Historical Society photograph

"his draughtsman," to Wichita to measure the road from there to the Cheyenne Agency, Indian Territory.¹³³ The assistant adjutant general of the department, R. Williams, approved the request two days later with the stipulation that Hunnius would, upon completion of this duty, return to Fort Leavenworth.¹³⁴ It was noted that the Quartermaster's Department would provide him necessary transportation. In the meantime, he copied a map of the Panhandle, International and Great Northern Railroad lands.

Hunnus left Leavenworth for Wichita on January sixth, as the expedition was to be from Wichita to the Kiowa and Comanche Reservation near present Fort Sill.¹³⁵ There were two routes.

One was by stage through the Choctaw and Chickasaw nations. The other and less frequented route was by way of Wichita, Kansas, through the Cherokee Outlet, the Cheyenne and Arapaho reserve and the reservation of the Wichitas and other affiliated tribes. The distance by either route was practically the same; however, the first route passed through thirty miles of territory, in which danger from hostile Indians was to be apprehended, while the other one presented the danger of Indian attack from the moment the Kansas border was crossed until Fort Sill was reached. No matter what route was chosen none of the streams were bridged, and when even small creeks were swollen by heavy rains the fords were impassable.¹³⁶

Hunnus left Wichita on Monday, 10 January 1876, with Billy Dixon, a noted explorer and scout, as his driver. It was so cold they either had to walk or freeze to death. The road south from Wichita was quite good and there was ample forage and other amenities. Hunnius sketched their noon camp along the banks of the Chickaskia River. Later that afternoon they arrived in Caldwell, "a little one Street City of about 15 or 20 houses."¹³⁷ They spent the night there, and the next morning Hunnius made a drawing of the town.



*Caldwell as seen from the North East corner of the street,
on the east side are only a few houses and some barns.*

Caldwell, sketched by Hunnius, 1876.

Kansas State Historical Society

Tuesday forenoon the road was good and Hunnius described bluffs, prairie dogs, and snowbirds. The route deteriorated north of Pond Creek, however, and the crossing was steep. They spent the night at Hopkins' Ranch, twenty-five miles south of Caldwell.

Before noon on the twelfth, they crossed the Salt Fork, Nine Mile or Wild Horse Creek, and Sand Creek. Hunnius remarked about the number of prairie dogs and their fearlessness. By late afternoon the road had become very sandy and difficult to traverse. They spent the night in a ranch owned by a Mr. Bright, having traveled twenty miles that day.

On Thursday, January thirteenth, they saw sand hills for the first time; Hunnius remarked on the cutting east wind. They crossed Hackberry Creek that morning, and to kill time Hunnius sketched a grave of victims of an Indian massacre. They spent the night at Buffalo Spring Ranch, having traveled almost seventeen miles.

Friday morning, they bought supplies at Lee and Reynolds, traders to the Cheyenne and Arapaho Agency at Camp Supply. Hunnius visited a beautiful plateau about a mile farther south, and they visited the grave of Pat Hennessey, killed in the same ambush as those whose graves Hunnius drew the previous evening. The party crossed Turkey and Little Turkey Creeks and viewed the remnants of several ranches burned by Indians. They stayed the night at one of these sites that had been rebuilt, Red Fork Ranch. They had covered sixteen miles that day and were 135 miles from Wichita. While there they met the stage going north.

Rain fell the following day, Saturday, January fifteenth, when the party crossed Kingfisher Creek, sixteen miles from Red Fork Ranch,

and saw the Twin Hills, seven miles from the creek. By noon they were surrounded by hills with some timber. As the hills gave way to prairie once again, they sighted the agency buildings, twenty-nine miles from the ranch. Hunnius went to the post office to learn the way to the fort. They crossed the Canadian River and went a couple of miles beyond until they reached the "New Post."¹³⁸ They had traveled 167 miles from Wichita. Hunnius and his companions were issued bedding and gear and fell asleep, thoroughly wet from the rain.

Everything was still damp the next day, but the rain had stopped. Hunnius made a few drawings before breakfast, and following the meal he borrowed a horse and went to the Indian agency at Darlington, Indian Territory. He became acquainted with several people there and discussed the acquisition of various specimens for the museum in Leipzig.

He was given a few artifacts the next day. While at Darlington, he visited the Indian school and was impressed by the scholarship and behavior of the children. He also observed older Indian men and women. At the trader's store he purchased three pieces of Indian craft work, but when the trader learned it was for a museum he returned Hunnius's money. Hunnius also bought several items for the museum directly from the Indians.

At 8:25 the following morning, January eighteenth, they left. On the way north the party stopped at the trading post and the mission school to procure supplies and say goodbye. The weather was cold and stormy, and the dampness of Hunnius's overcoat from the previous deluge did not make him any more comfortable. Because of the cold, the wind, and Hunnius's numb fingers, he could not take compass readings. He

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Jan. 16th 1876 Mission Building drawn from South of Hunnius

Cheyenne and Arapaho Agency, Indian Territory.
Mission Building, drawn by Hunnius, 17 Jan. 1876.

Kansas State Historical Society

described the storm as a "hurricane", and because of its severity he did not sketch their campsite at Kingfisher Creek.¹³⁹ The party managed to reach Red Fork Ranch by nightfall, cold and wet, where they shared quarters with a transient family. Hunnius did not sleep because of the cold and the smoky fire in his room. Instead, he sat by the fire and read until daybreak.

The next morning, Wednesday, January nineteenth, Hunnius ascended the sand hills near the ranch and sketched what he saw. Once they were on the road, he discovered that the tall grass made his compass observations impossible. They ate dinner at Buffalo Springs Ranch, and in the afternoon Hunnius searched for the grave of J. Wilson, another victim of Indians.¹⁴⁰ They spent the night sleeping in one of the wagons near the ranch.

Before leaving Thursday morning, the rancher gave Hunnius some glycerin for his parched lips. Hunnius in return gave apples to the man's children. After lunch they arrived at the Skeleton Creek or Gilchrist Ranch where they stayed the night. There was a surprising amount of traffic on the road. That afternoon Hunnius made drawings of the ranch.

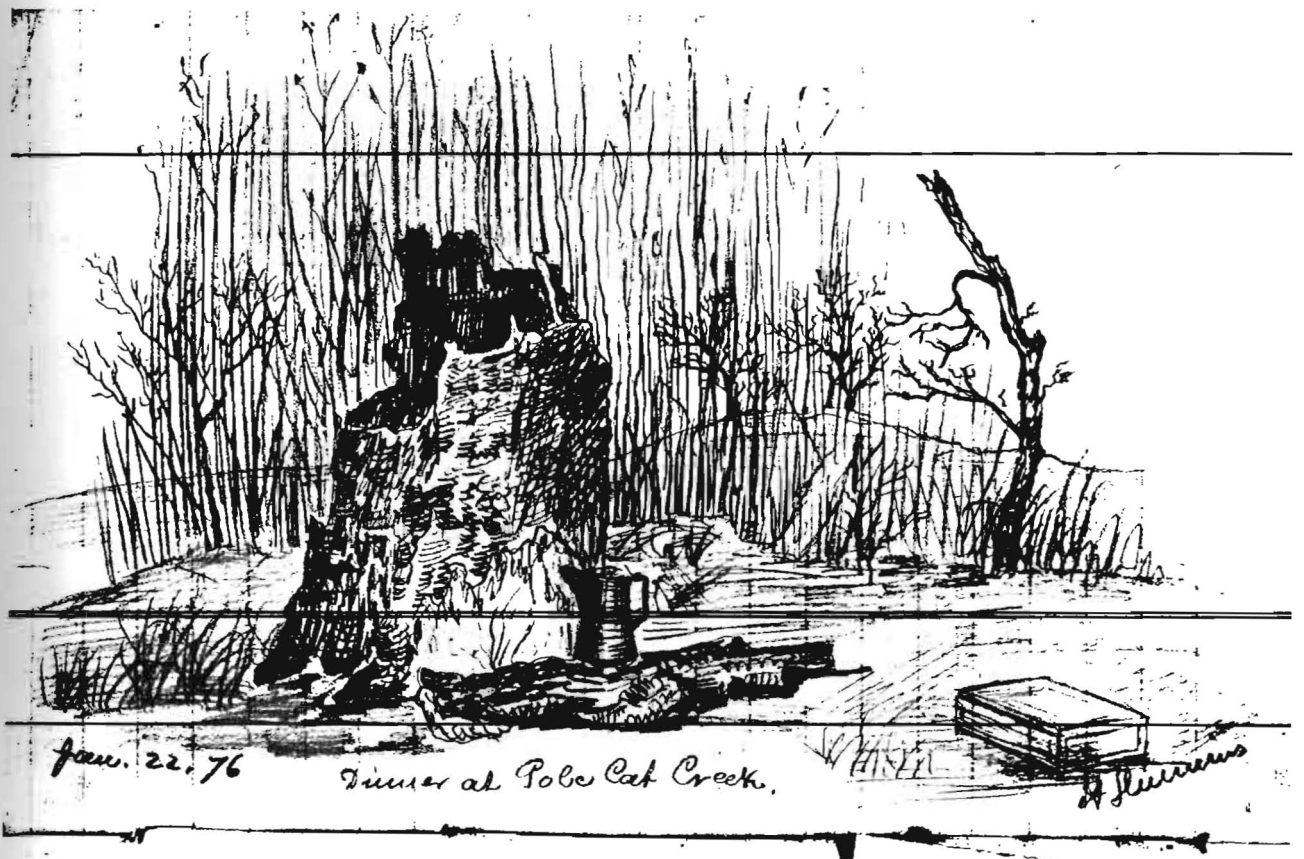
Friday, January twenty-first, was wet with a strong northwest wind, and because of the heavy rains Hunnius could not take the full complement of compass readings. He discovered he had left his coat at Skeleton Creek Ranch and had to rely on his India-rubber raincoat. They arrived at Hopkins' Ranch on Pond Creek after traveling twenty miles. Learning that Kansa Indians were camped nearby, Hunnius went with Hopkins to buy samples of their crafts. Hunnius drew two diagrams of the ranch for Hopkins. That evening the Indians visited, dressed in



Hopkins Ranch and Station on Pond Creek, I.T.

Hopkins' Ranch, Indian Territory, 1876, sketched by Hunnius.

Kansas State Historical Society



Dinner at Pole Cat Creek, Indian Territory, 1876, by Hunnius.

Kansas State Historical Society

their finest.

On Saturday morning Hunnius went back to the Indians' camp to try to purchase some leggings he wanted for the museum. Finally the owner agreed to sell them for twelve dollars. Hunnius thought this a steep price, but paid anyway. The group left and headed north amidst a stiff northwest wind and more mud and rain. By noontime the rain had lessened somewhat, but the dampness made lighting a fire most difficult. Hunnius sketched their stopping place and an abandoned ranch nearby. By late afternoon they were in Caldwell. Their trip north covered about 111 1/2 miles.

The northwest wind was still blowing Sunday morning and Hunnius claimed to be almost frozen to death when they reached Wellington. To lighten the burden on the horses, the men removed the wagon cover and wrapped it around themselves to keep warm. Hunnius was impressed with Wellington and its brick and stone buildings.

When he awoke Monday morning, January twenty-fourth, Hunnius noticed that windows and other objects were frozen inside his room. He then realized that the quilt that covered him was very thin and stiff. With his knife he ripped it open and found four sheets of paper for batting, an "invention regular Yankee style!"¹⁴¹ Once he and the others began traveling, they found the roads very rough. They crossed the Ninnescah River about noon and about an hour later "passed through the City of London, 3 vorlorn old Houses a Hotel in the same condition and an big stable or barn, it is the biggest fraud to call this place London. [A]fter passing the last house of this big City you have about 1/2 mile public square, on east and west no limits at all, then you come to a church or schoolhouse or two combined under one roof with two

privets for accomodation."¹⁴² Hunnius remarked on the sunflowers and high prairie grass. By mid-afternoon they crossed the Cowskin Creek bridge; Hunnius noted the country was "well settled and . . . neat and comfortable."¹⁴³ At 4:15 they crossed the Arkansas River bridge, noting the ice in the river. Ten minutes later Hunnius took his final reading at the depot in Wichita. He turned over his letter of instructions to the Indian agent there, settled his accounts, got a shave and haircut and went to the Occidental Hotel for dinner. After eating he visited several men, then went to bed at ten o'clock.¹⁴⁴ The trip was completed on the twenty-sixth when Hunnius returned to Leavenworth.

Following his return, Hunnius finished his map of southern Colorado and northern New Mexico and plotted a map of his trip to the Cheyenne Agency.¹⁴⁵

Sixteen maps of the wagon road from Fort Garland to Fort Wingate and a report on communication between southern Colorado and northern New Mexico were completed on 26 January 1876, and printed during the fiscal year.¹⁴⁶ "The map giving all the latest information regarding roads and settlements in Northern New Mexico and Southern Colorado, which has been considered of especial value by the department commander, accompanied this report."¹⁴⁷

Early in February, Hunnius completed the map of his expedition from Wichita to the Cheyenne Agency and plotted a map showing the route from Camp Supply to Cantonment based on the survey of the sergeant major.

On February fourth, Ruffner requested authority to enlist men to keep the Engineer Detachment's strength at three non-commissioned

officers and eight privates. Until that time, he requested that five privates first class be detailed to him.¹⁴⁸ On March sixth, the adjutant general advised the commander of the Department of the Missouri that Ruffner's request for privates first class could not be granted.¹⁴⁹

Undaunted, Ruffner proposed a survey of the heads of the Red River. He planned to leave April twenty-fifth for Camp Supply and Fort Elliott, Texas. Upon arrival, he stated, he would need a cavalry escort and small detail to provide security and manual labor for carrying instruments. He thought it would be best to establish a base camp in the main canyon about ninety miles from Fort Elliott so they could work in both directions from it. Ruffner proposed to run a stadia line throughout the entire distance surveyed and check up by astronomical latitudes and, if possible, time determinations.¹⁵⁰ These he said he would do himself. He proposed that Sergeant G. A. Lichtenberg run a prismatic compass and odometer line through the main course of the Red River. "Ado Hunnius will take topographical sketches and work up the notes of the prismatic compass line in the field."¹⁵¹ Ruffner proposed that Lieutenant C. A. H. McCurdy of the Third Artillery accompany the party as a volunteer to provide illustrations. He stated he would like Lieutenant F. D. Baldwin of the Fifth Infantry to be in charge of all reconnaissance and that he had received the assent of Colonel Nelson Miles to Baldwin's participation. Ruffner planned to personally work on geology and wanted the medical officer to study botany and zoology. He proposed to be gone about two months, thinking that most of the area could be surveyed and mapped in that length of time. He promised to make arrangements for transportation

and housing at Camp Supply and Fort Elliott. Finally, he proposed to close his Fort Leavenworth office while he was gone.¹⁵²

Hunnius spent the remainder of February drawing a map of the territory from Fort Sill to Cantonment based on the survey by Corporal Holland, a projection of the departmental map at a scale of thirty-two miles to the inch, and a new sized map of the Kansas portion of the Department of the Missouri map. He also copied the outline map of southern Colorado and northern New Mexico and extracts from the map of the Fort Garland to Fort Wingate Road, and he lettered geographical names on the office copy of the Kansas map.

In March, Hunnius plotted the routes of scouts from Cantonment to Palo Duro and Camp Supply, and he drew a map showing the south boundary of Fort Leavenworth, as well as adding telegraph lines to existing maps. At times during the month, he worked on the departmental map. One day he produced a reduced map of the Texas panhandle; apparently he didn't like it, for in his journal he remarked "no good."¹⁵³ Hunnius noted on March twenty-fourth that a snowstorm dumped twelve inches of snow on Leavenworth.

He began April by making a map of the Mora land grant in New Mexico. A couple of weeks later he noted that he was called upon to execute a drawing for a cemetery headstone. He also copied a map showing Colonel Gregg's route over the Staked Plains.¹⁵⁴

Ruffner requested of his superiors in the Department of the Missouri that he be allowed to conduct the survey from Fort Elliott to the main canyon of the Red River, now known as Palo Duro Canyon, and from there to the heads of Blanca and Palo Duro Creeks. From there he proposed traveling to the headwaters of Tule Creek and then back to

Fort Elliott. He also suggested measuring the distance between the Canadian and Red Rivers. Enroute, Ruffner proposed, the party would record latitudes and longitudes by means of astronomical observation, prepare compass courses to guide future travelers, draw topographic sketches, and find sources of fresh water.¹⁵⁵

Two days later on April seventeenth, Ruffner received the approval of the department commander. He was given permission to take Lieutenants Frank Baldwin and Thomas M. Woodruff. Commanders at Camp Supply and Fort Elliott would be instructed to provide assistance. Ruffner was told, however, that it was not practical to take a medical officer on the journey.¹⁵⁶

Two days later, Ruffner proposed his survey to the chief of engineers in Washington, to begin when funds were appropriated. He mentioned that planning for the expedition would keep his staff at Fort Leavenworth busy.¹⁵⁷

In this survey, Ruffner confirmed observations made as many as twenty years earlier. He also added significant data on the watercourses, meteorology, geology, ornithology, and topography of the region.¹⁵⁸

Hunnius drew maps of the post wood reserve showing the area cut and the east boundary; the 92 1/2-mile road between Camp Supply and Fort Elliott; the 70 1/2-mile route between Big Springs and Sweetwater, Texas, surveyed by Meier; the road from Big Springs to Fort Elliott by Rolland (19 miles); and the road from the new cantonment at Fort Elliott to the North Fork of the Red River, also surveyed by Sergeant Meier.¹⁵⁹

Ruffner was placed in charge of the Red River expedition and would be responsible for the stadia line, astronomy, geology, and water

color sketches.¹⁶⁰

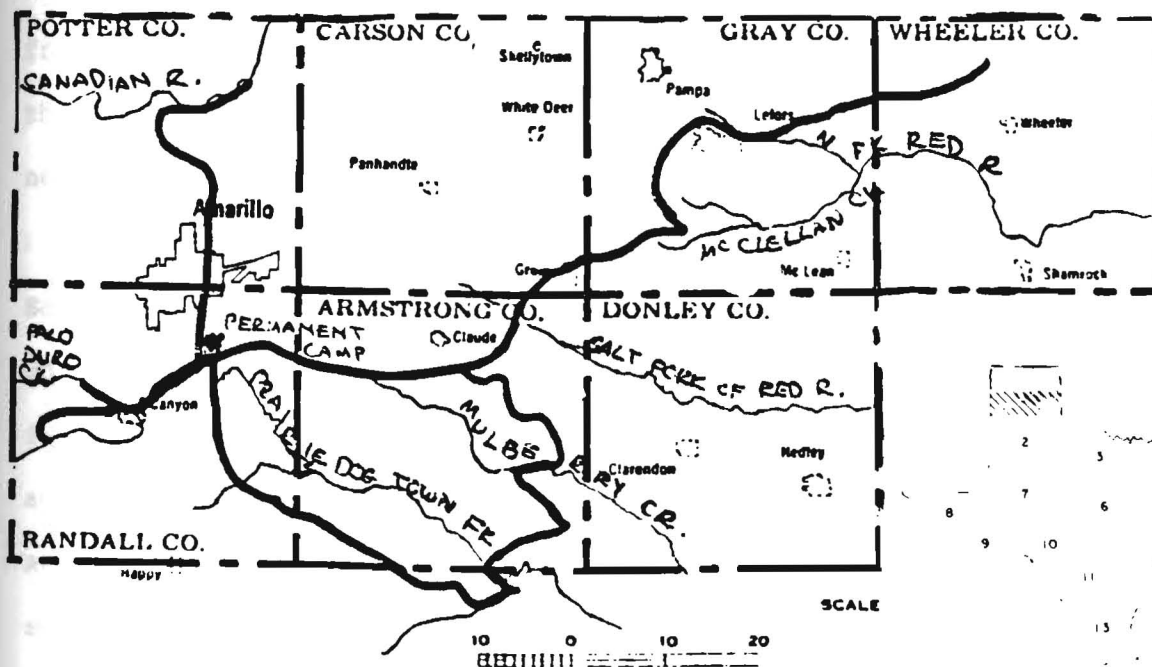
According to the journal he kept, Hunnius left Leavenworth by train on 25 April 1876. He met Lieutenant Ruffner; First Lieutenant Frank D. Baldwin of the Fifth Infantry commanding the escort; Second Lieutenant C. A. H. McCauley of the Third Artillery assisting in topography and assigned the collection of ornithological specimens; Second Lieutenant Thomas A. Woodruff, also of the Fifth, assigned responsibility for natural history collections and an assistant on the stadia line; Dr. J. H. Mendenhall, "a gentleman accompanying our party, scientific work";¹⁶¹ and Sergeant Gustav A. Lichtenberg of the battalion engineers--Company D--responsible for the prismatic compass line and the meteorological record.¹⁶² Hunnius's responsibilities were for drafting work, making sketches of the topography, assisting with the stadia line, and meteorology.¹⁶³ The group traveled to Kansas City, where they changed to the Santa Fe bound for Topeka, Kansas.¹⁶⁴

The next day, Wednesday, April twenty-sixth, Hunnius arrived at Dodge City, Kansas. Ruffner ordered him to take hourly barometer readings and compare them with the official weather observer's instruments. For an unstated reason Hunnius nearly got into a fight in a Dodge City saloon.¹⁶⁵

On Thursday the twenty-seventh, he left for the Southwest by Army ambulance and wagons, but soon the party encountered badly drifting sand hills. Hunnius sketched the terrain while complaining of mosquitos and discovered that no rations had been drawn for him.¹⁶⁶

On Friday, April twenty-eighth, the expedition camped at a redoubt on the south side of the Cimarron River.¹⁶⁷

The following day the group crossed into the Indian Territory



Map of the Staked Plains Expedition, 1876.

Robert Knecht, 1987. Based on "Red River Survey 1876" map by T. L. Baker, Panhandle-Plains Historical Review, 58 (1985):6.

and passed by Buffalo Springs, Red Hole, Gypsum Creek, Soldier Creek, Dog Soldier Creek, and Sand Creek, arriving nine miles from Camp Supply.¹⁶⁸ After an unsuccessful attempt, Hunnius sketched the area near the camp. Following dinner Ruffner also painted one of the vistas from the area, and everyone commented favorably on Ruffner's work. At that, Dr. Mendenhall made them admire his evening's work: a pair of newly-darned drawers!¹⁶⁹

In the morning of Sunday, April thirtieth, Hunnius washed in Sand Creek and found the water very hard. He also noted the many mosquitos, the hot sun, and the lack of wind: "[I]t is not so nice as it could be."¹⁷⁰ Their travels found them going through Devils Gap, and later they pitched tents and camped just west of Camp Supply.¹⁷¹ At the post, Ruffner wrote that he had not received the instruments sent to Fort Dodge and that he would wait at Camp Supply until they arrived.¹⁷²

On the first day of May, the group moved into the camp proper, where Hunnius described his accommodations as much better and more permanent.¹⁷³ That evening a large dress parade was held in honor of the Fifth Cavalry band, which was there temporarily.¹⁷⁴

On the second, the instruments arrived, and afterward Hunnius stated his intention to take at least six readings per day.¹⁷⁵

The following day, they left Camp Supply and crossed Wolf Creek, finding much blowing sand and desolate country. Hunnius remarked that there was little grass but much timber along Wolf Creek, where they camped. He sketched the camp while Ruffner drew a watercolor sketch.¹⁷⁶

Thursday May fourth brought rain, consequently the travelers

huddled together. As they traveled, they saw the Antelope Hills and during this time they encountered a storm with drifting sands. They crossed North Commission Creek and later saw the famous turkey roost.¹⁷⁷ That night they camped at South Commission Creek. Sergeant Lichtenberg and Mr. Sullivan found an old Indian saddle and gave it to Hunnius for the Leipzig museum.¹⁷⁸

On Friday they crossed the Canadian River and passed Springer's Ranch. Later Hunnius collected grasshopper specimens. They crossed the Washita River and he gathered whippoorwill eggs. He read Harper's Monthly while complaining about the poor weather.¹⁷⁹ Later, Hunnius sketched a ranch near where they camped.¹⁸⁰

On 6 May 1876, Hunnius and Army engineers, teamsters, and a military escort arrived at Fort Elliott.¹⁸¹ There Billy Dixon and other civilian scouts joined the party.¹⁸²

That night, Hunnius complained, it was so windy that the wind came through the floor. With a hard bed and only an India-rubber "blanket," the night was a long one. The observatory tent was blown down in the night, but the telescope was unharmed. The next day Hunnius procured an Indian headdress for the museum in Leipzig.

The group's escort returned to Camp Supply on May eighth. Hunnius helped some of the officers survey a north-south line.

The next day, several of the men rode from camp to establish monuments for triangulation while Hunnius refigured some of the calculations and went to a quarry several miles northwest of the post to hunt fossils. He found none, but picked up an antelope horn instead. On the return trip, he saw many quail and discovered the almost-abandoned "upper town," Sweetwater, a community that once had

forty to fifty buildings. Hunnius finished the day by compiling reports.

He spent the morning of the tenth copying some astronomical computations and that afternoon he climbed a number of the sand hills, unsuccessfully trying to find a vantage point from which to sketch the fort. The post blacksmith gave him a flint spear point for the museum, and later in the day he plotted a future scout of Sergeant W. M. Meyer to the mouth of McClellan Creek. As Meyer was being sent as an escort with horse thieves to Fort Sill the next day, Hunnius gave him ten dollars with which to buy articles for the museum and small moccasins for the Hunnius children.

The Red River expedition left Fort Elliott about noon on May eleventh, and prior to departure Hunnius was issued a canteen and an old carbine. The group consisted of a wagonmaster and seven six-mule teams; an escort of one sergeant, two corporals, and fifteen cavalry troops; an infantry detachment of one sergeant, two corporals, one trumpeter, and ten privates; and guides Billy Dixon and the Indian-Mexican Teodoso, in all fifty-two men, eighty-four animals, and two dogs. They began their surveying work that afternoon, suffering much discomfort.¹⁸³ That night they camped at Cottonwood Creek, 12 1/2 miles west of Fort Elliott.¹⁸⁴

Hunnus sketched the camp immediately after breakfast the next day. They stayed at the same camp at night and used the extra twenty-four hours to regroup.

Saturday, May thirteenth, was marked by a variety of problems. Their efforts at triangulation proved troublesome; the steep and sandy terrain slowed the group considerably and they were hours behind

schedule arriving in camp at Big Springs on the North Fork of the Red River.¹⁸⁵ Their march that day covered 9 1/2 miles.¹⁸⁶

Following a nighttime thunderstorm that was more thunder and lightning than rain, Hunnius left camp with "Wilson" to make topographical sketches of the Staked Plains.¹⁸⁷ Hunnius described the terrain as level with short grass, punctuated by swampy depressions and spectacular canyons. He gathered several snake specimens. After their return to camp, Lieutenant Ruffner asked him to plot Sergeant Lichtenberg's notes of the surveys run that day.

On Monday, May fifteenth, Hunnius with Billy Dixon; Lieutenants Baldwin, Woodruff and McCauley; and two cavalry troops went to locate the battlefield where Baldwin on 8 November 1874 rescued the German sisters and fought the Cheyenne. They never definitely located the site, but they explored several canyons and a large cave.

Early the next morning, they shot a buffalo, which furnished meat for several days. Later that morning, Hunnius sketched the plains from a promontory and remarked on the extreme heat.

The morning of May seventeenth, a fine breakfast of buffalo meat was expected. During the night, however, someone must have stepped on the handle of the pan containing the meat, as it was found on the ground covered with ashes and sand. In the morning Hunnius sketched Mulberry Creek. He viewed several impressive canyons that day.

The next day Hunnius and the guide, Teodoso, again followed Mulberry Creek and were rewarded by a spectacular vista of the Red River canyon. Riding west, they joined the main party. In all, the two men traveled about thirty-two miles that day. A rainless windstorm blew in that evening, threatening to blow down the tents. In the

evening Hunnius mapped the two Mulberry Creek trips.

The party did not move to a new camp on the nineteenth. Hunnius scouted as far as he could up Dry Creek Canyon and noted that the weather was much more pleasant this day. It was anticipated that the following day they would get as far as the permanent camp. Hunnius caught a bullfrog and a salamander.

The next day they traveled parallel to Palo Duro Canyon and a mile or less distant from it, occasionally crossing side canyons. They established their permanent camp near the main canyon.

Hunnius spent most of Sunday May twenty-first checking the stadia calculations made by others; they were found to be correct.

Hunnius's horse broke loose from his halter the following morning and a lively chase ensued. After catching the beast then eating breakfast, Hunnius again worked on the stadia observations from Fort Elliott to the camp. A severe dust storm in the afternoon caused the men to take cover. Hunnius sketched the campsite, and that evening took astronomical observations.

Hunnius worked on the azimuth of the stadia readings all day Tuesday the twenty-third. He prepared for the next day's scout northward to the Canadian River.¹⁸⁸

The next morning Lieutenant Woodruff, Dixon, Sergeant Lichtenberg, one corporal, six cavalry and one infantry soldiers, sixteen mules, and Hunnius started north. After eleven miles they camped at a site picked by Teodoso with relatively plenteous wood, grass, and water. "For dinner we had Antelope and Tomatoes, which latter I can eat now like a good fellow. I waded the Creek to get some dry driftwood; by my return I had only three leeches on one foot."¹⁸⁹

A thunderstorm with much rain guaranteed that their gear would be wet the next day, Thursday, May twenty-fifth. They only traveled five miles, but about halfway there, Hunnius saw Canyon Blanco. He also collected several insects. That night, a fierce rainstorm descended on them.

Because everything was wet from the two storms, they remained at camp that day also. The creek by the camp was running very swiftly and very deep; later in the day, however, its level fell several inches per hour. Several men of the party went exploring up the stream, but Hunnius was ordered to collect butterflies, which he did during the morning. He killed a rattlesnake for a specimen in the afternoon.

Saturday, May twenty-seventh, they started in a southwesterly direction toward Tierra Blanco Canyon. Hunnius was assigned the job of reading the odometer, prismatic compass, and stadia rod. About one o'clock in the afternoon, they stopped at a desolate place about one mile south of Ojo Frio. Hunnius mapped the Palo Duro Canyon, explored by Lieutenant Ruffner the previous day. He also drew a sketch of their makeshift mess tent and a topographical drawing of the area surrounding the camp. No antelope were caught for food, and they relied on hardtack furnished by the Army, which Hunnius said tasted like rancid oil. Once more, a thunderstorm struck during the evening. He complained of a bad cramp in his left leg, a result of overexertion.

Because of the pain in his leg, Hunnius was pleased to be relieved of scouting duties the next day. While he remained at camp, he tried to update the official record book. The scouting party returned from Agua Punta with a small antelope that had become separated from its mother.

Monday, May twenty-ninth, they completed their circle and returned to the first camp west of the permanent camp. To keep flies away from the antelope meat, Lieutenant McCauley constructed a storage place with mosquito netting.

The next day they returned to the permanent camp where they learned that those who were left behind had conducted a successful buffalo hunt. Hunnius described the permanent campsite as desolate and dirty and said everything was covered with sand. To get away from the grit, he swam in the creek, which was very deep. Teodoso was badly burned from the explosion of a shell cartridge in his hand.

Before noon on Wednesday, May thirty-first, Hunnius mapped their previous-day's trip and that of Lieutenant Woodruff north to the Canadian River, a distance of only twenty-eight miles, according to Sergeant Lichtenberg's notes. Lieutenant Ruffner gave orders for Hunnius and Lichtenberg to run a stadia line at four o'clock the next morning. The wind and dust again made the camp oppressive, and Ruffner vowed to move their location once the mail courier found them.

Hunnius was awakened at three o'clock the next morning and left camp about five o'clock. Private Replogle and Hunnius, with Dixon as guide, started for the south side of Palo Duro Canyon, heading due south. After passing several dry lakes, they discovered about eleven o'clock the trail once followed by General Nelson A. Miles nine miles from camp.¹⁹⁰ All the while,

Lt. Ruffner sent several messages up to me complaining about stations to[o] big, or Prairie Dog holes or ants' nests, and at least twice about my stooping down to watch his signals. I forwarded a rather uncivil note to him which he answered in a rather cutting and sharp way. I had stepped into prairie dog hole and hurt my leg. Was in much pain. [L]eg was swelling badly. Of all of which Lt. Ruffner did not know anyway, he wrote that he would discharge me on the spot, then

and there, but he would allow me to follow the column. But nothing was said by him afterwards. He demanded his note back and tore the same up.¹⁹¹

When the signal flags were placed, the men went back to the new permanent camp in the canyon about three miles west of the former one. Hunnius received two letters from his wife. The evening was surprisingly pleasant and without wind or mosquitos.

On Friday, June second, reveille was again sounded at three o'clock, and less than an hour later Hunnius and his party were retracing the previous day's steps toward the signal flag, where they arrived about six o'clock. Their surveying and marking work went exceptionally well that morning, although at one point they thought they had lost the trail; from then on they marked it by burnt buffalo chips. They stopped for dinner at eleven o'clock. Lieutenant Woodruff was very sick from the heat and was in an ambulance. They found water in the vicinity and Hunnius stated that this was best water he had tasted since leaving Fort Elliott. Teodoso shot a buffalo, which sufficed for dinner. Hunnius was issued six quinine pills that day. An observatory tent was erected and observations taken.

During the night a thunderstorm struck with heavy wind and much lightning. Hunnius regretted not digging a drainage ditch around his tent, nevertheless he placed his gear as high as possible and dressed, fearing the tent would be blown away. The next morning was cold. Hunnius climbed to the top of the canyon and drew some sketches; in the process he was almost attacked by a hawk guarding her nest. That afternoon, a supply train arrived. Hunnius copied astronomical observations and worked with Sergeant Lichtenberg on stadia readings. That evening he talked with Dr. Mendenhall and tried to stay warm.

At dawn on Sunday, June fourth, the air was cold as Hunnius copied more astronomical notes. Various groups left the camp, some to hunt buffalo, others to survey the area. Hunnius drew the camp.

The next morning, Hunnius went with one of the surveying parties down the canyon to read stadia rods. He saw a buffalo and sent word of the fact back to camp, as their meat supply was exhausted. The exploration continued past the mouth of Canoncito Blanco and the site of the 1874 Battle of Palo Duro Canyon, where they found many abandoned Indian lodge poles. Hunnius noted the strata of rock in the canyon and commented on the dryness, the heat, and lifelessness there. Back in camp by midafternoon, he and others continued their observations through the day and night. Hunnius noted an apparent grasshopper invasion.

Lieutenant Ruffner ordered that there would be no surveying on June sixth, so Hunnius used the free morning to do laundry. During the afternoon he copied surveying observations for Lieutenant Ruffner. That evening it hailed.¹⁹²

The caravan left the canyon at three-thirty the morning of the seventh. It traveled over the Staked Plains all day, doing survey work the whole time. Their camp that evening was on the rim of a canyon with swiftly running water below. Hunnius noted, "[T]o fetch a bucket full into Camp is regular convict labor."¹⁹³ The party could see the Red River from their camp, which Ruffner named Camp Cent. Hunnius mapped their travels that day. Exploring the Red River canyon Ruffner and his party found a small cave.

Reveille was once more at two o'clock the next morning. For three miles the train went south, then they turned east until they

found the Red River canyon. They descended about 1400 feet, using ropes to hold the wagons. Hunnius described the scenery as "sublime."¹⁹⁴ The bottom of the canyon was about one-half to three-fourths of a mile wide with very red sand. They camped at a place called Pleasant Valley within the canyon at the confluence of Tule Creek and the Red River. That afternoon Hunnius climbed about two hundred feet of the north wall, from which point he sketched the camp. He noted the presence of gypsum and clay in the rock and the mesquite and cedar trees. The canyon was full of tarantulas and centipedes, and the temperature was more than one hundred degrees by afternoon.

The morning of June ninth, Hunnius, Lieutenant Ruffner, Dixon, four cavalry troops, and an ambulance started on a four-day scout up Tule Canyon. They took atmospheric readings every hour. Hunnius described the country as very broken, and in the afternoon he made a topographical sketch. By the end of the day they had traveled over twenty-eight miles, eventually passing through the mouth of the canyon. Although it was windy and Hunnius could not smoke his pipe, the ground was covered with high grass, which allowed for soft sleeping.

They awoke at three o'clock the next morning, Hunnius noting that early mornings are the favorite times for Indian attacks. They continued to the head of Tule Creek, then retraced their steps, stopping for dinner at the previous night's campsite. In the afternoon Ruffner told Hunnius that he thought they would be back at Leavenworth by July fourth or fifth. Ruffner was afraid that no appropriation to continue Hunnius's employment was forthcoming and that he would be free to leave before the end of the expedition. Hunnius assured him he would stay until they returned to Leavenworth. The afternoon was very

hot; all found some sort of shelter to protect themselves from the sun. They camped on Scare Creek in Tule Canyon, but Hunnius moved higher to escape the mosquitos.

The morning of Sunday, June eleventh, was cool. Ruffner, Dixon, and two soldiers went to the main canyon for exploring and drawing. That afternoon, Hunnius collected grasshoppers as specimens.

The party awoke to rain about two o'clock that night. They broke camp and, cold and wet, rode back to the main party at the mouth of Tule Creek, arriving there by midmorning. Hunnius obtained some tobacco from Dixon, and Sergeant Lichtenberg gave him an Indian ornament for the museum. During the afternoon surveys were made; later Hunnius captured butterflies.¹⁹⁵

They found the Red River the morning of Tuesday, June thirteenth, about three-fourths of a mile past their campsite. The main river canyon was about one-half-mile wide. For the first two miles they followed the river, then ascended the canyon walls, a very steep rise of two hundred feet; according to the surveying team it took twelve mules to hoist each wagon. "Then we came on a large wide rolling and hilly stretch for about 3 miles and thence we had to ascend the second big and high [bluffs]," but the second climb was much less steep.¹⁹⁶ Later they gently descended to Battle Creek. Hunnius commented on the color of the sandstone and the petrified cedar and cottonwood he saw. They camped at the creek. Ravenous, Hunnius happily described the dinner he ate, which included potatoes for the first time since leaving Camp Supply. The camp itself was fairly dust-free with short grass on a flat several miles wide. The creek was named for a battle fought nearby in 1874 between General Nelson Miles

and the Indians. Many buffalo were in the area and a hunt was held, but none were killed. Through Lieutenant Baldwin's kindness, Hunnius enjoyed a drink of whiskey. He complained of having to do virtually all the surveying work for his team, as his regular partner was sick with diarrhea and the replacement was too inexperienced to be of help. He drew a sketch of their camp showing tents and instruments that afternoon. There was some excitement that evening as Lieutenant Woodruff failed to return from his sketching excursion and fires were lit at prominent places to signal him. He returned, but no explanation was given by Hunnius for his lateness.

The next day the surveyors took a northwest course across the plains. Four hours later, they found themselves in a range of rocky and steep foothills, and two hours later still they were at the edge of a canyon. They zigzagged along the inclines descending and ascending various summits and chasms, and by midafternoon they arrived at Mulberry Creek, where they camped. The supporting party took the road due north from the previous night's camp to this one, also a difficult journey. Several bears were sighted, including one shot for meat. The scouts were cut by the thorny mesquite and sharp sunflower stalks they encountered. Wilson, one of the civilian guides, four six-mule teams, one sergeant and five soldiers, and some of the cavalry left for Fort Elliott. In the evening, Hunnius mapped the day's trip.

Hunnius wrote that the two o'clock in the morning reveille on June fifteenth was so early he could hardly awaken. They quickly discovered to their dismay that the two lead mules of the ambulance had escaped. It was too dark to search for them, but as soon as daylight broke several groups left to find the beasts. Dixon, Hazen, and

Hunnius found the mules' trail. The cavalry troops were sent after the animals; later the soldiers returned with the opinion that, from their trail, the mules had returned to Fort Elliott. Ruffner decided to lay over another day at this camp. In the afternoon some of the cavalry were sent to the fort to inform soldiers there about the missing mules. Hunnius gave them his map of the Indian Territory to guide them. Ruffner that night discharged the ambulance driver, blaming him for the loss of the mules.

The next morning they traveled along a creek for a short distance, then ascended the bluffs. At the top was a fine view downstream of the canyon. Hunnius described the terrain as grass-covered hills, some steep. Many buffalo were observed. After one last ascent, they found themselves on the north rim of the Mulberry Creek canyon. By midday they reached their May seventeenth campsite, thus completing a great circle around the Red River and Palo Duro Canyon. Ruffner talked to Hunnius about paying the infantry for rations. Although the officer regretted having to ask an employee for reimbursement, he realized that resources were severely limited and that he, too, did not have enough rations to supply Hunnius. Ruffner talked to him that afternoon about staying in camp while the lieutenant and several others explored the Red River canyon, as Ruffner thought Hunnius's horse was not hardy enough to make the trip.

The morning of June seventeenth, Ruffner, Dixon, three cavalrymen, and a pack mule left for the Red River canyon. Hunnius and several others remained behind to place stadia rods along Mulberry Creek. After crossing the stream many times without incident, he and his horse suddenly found themselves mired in quicksand. Both managed

to extricate themselves with much effort. They ended their surveying about twelve-thirty. Hunnius described the country as a strange mixture of very rough and fairly even terrain, heavily wooded in cottonwood, with clear water in pools and streams.

With Teodoso, Hunnius went on a short survey of the North Fork of Mulberry Creek the next day. After returning, he worked on his journal for the first time since May twenty-eighth. Lieutenant Woodruff and Sergeant Lichtenberg left to explore a creek discovered the previous day, and Lieutenant Ruffner's party returned from the Red River about noon. After noon, a fierce thunderstorm dropped rain and hail upon them, and by its conclusion most of the tents had collapsed and some of the journals were water-damaged. Hunnius received a letter informing him of several Indian artifacts acquired by others for the Leipzig museum. Astronomical observations were taken.

The expedition started traveling north-northeast on the nineteenth. Hunnius reported seeing thousands of buffalo surrounding them. The group did not follow the trail they had used in May, instead the guide, Wilson, took them on a route more to the east. They crossed the Salt Fork of the Red River at midmorning. Hunnius retraced about three and one-half miles of the route looking for his lost pocket knife, one he had carried since his 1864 military service in South Carolina. He found it at the last place he had stopped to make a sketch. The group stopped three miles east of the Salt Fork at Whitefish Creek, where they saw buffalo hunters in a grove of trees. After dinner, Hunnius mapped the day's journey and learned that the missing mules had been found by buffalo hunters and brought to Fort Elliott. There were thunderstorms in the late afternoon and evening.

Buffalo remained plentiful the next day, and the party saw evidence of a rich harvest by the hunters. A private was injured when his horse, traveling at full gallop, stumbled and fell on him. They camped near the junction of the North Fork of McClellan Creek and the main creek. There, timber and fresh water were plentiful. In the afternoon Hunnius mapped the day's route and did laundry. It was very hot: 108 degrees in the shade and 128 degrees in the sun. A rattlesnake was caught for the specimen collection. The original intention was to preserve it alive, but after it twice attempted to escape it was killed.¹⁹⁷

Hunnius and the other members of the expedition left early the morning of the twenty-first, crossed the North Fork of the Red River, and returned to Fort Elliott at 11:20, having traveled 885 miles.¹⁹⁸ Hunnius described the area from the last camp to the fort as having rich, black soil but few trees. After arriving at the post, he paid Company H of the Nineteenth Infantry \$2.25 reimbursement for meals on the journey and arranged for meals at the fort.¹⁹⁹

Hunnius spent much of the next day "getting civilized": improving his appearance, buying supplies, and writing his wife.²⁰⁰ He purchased a buffalo robe for the museum and later relieved Sergeant Lichtenberg of the duty of making astronomical observations. In the morning they calibrated the stadia rod.

Hunnius left Fort Elliott June twenty-third as part of a train of three wagons and three ambulances. Several civilians, witnesses at an upcoming court-martial of Lieutenant Colonel Henry Clay Bankhead, accompanied them.²⁰¹ Before their departure, Billy Dixon gave a photograph of himself to Hunnius. They moved quickly and by

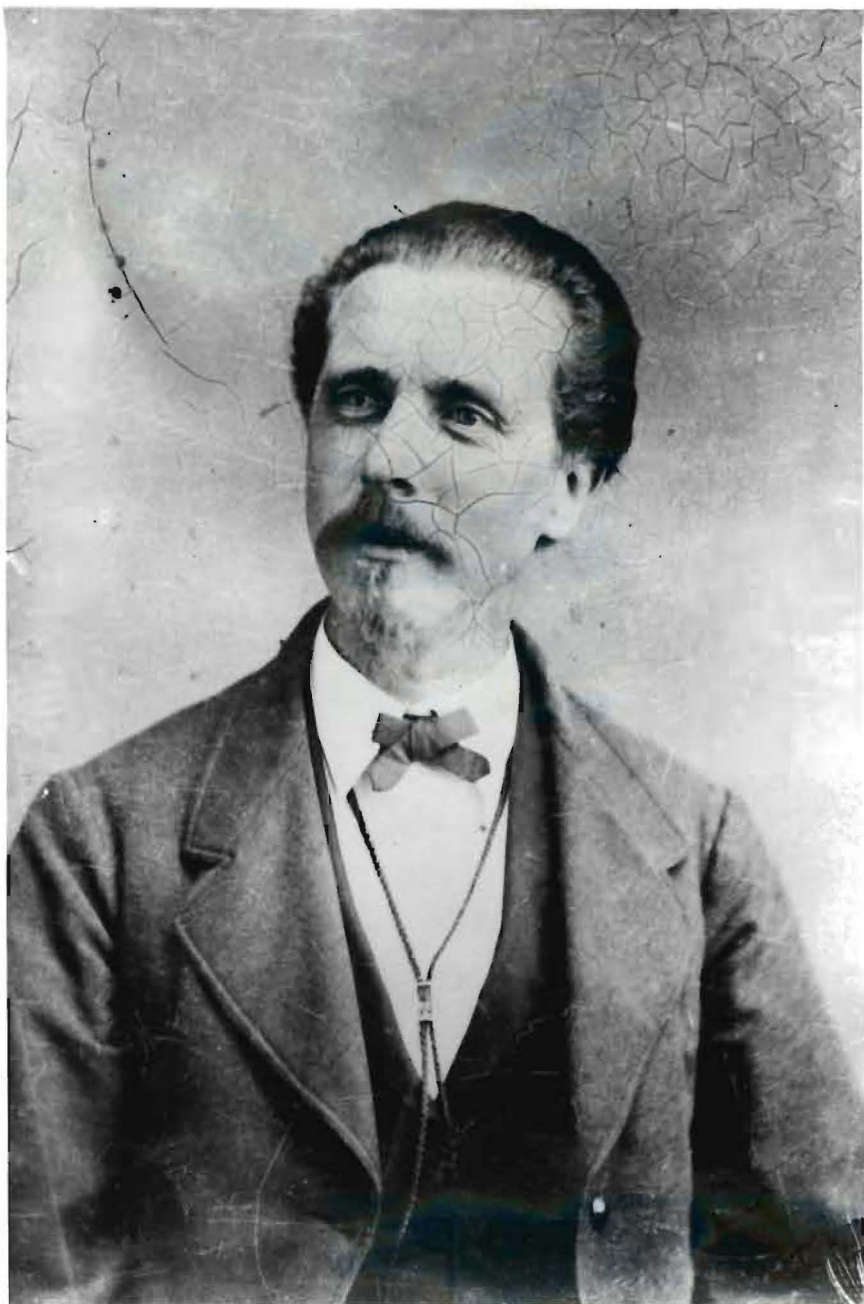
nine-thirty crossed the Washita River. Hunnius noted that Whelan's Ranch had added a corral since the detachment was last there. The group's mercury barometer broke enroute, but the mercury was saved. They arrived about noon at Springer's Ranch, which Hunnius later sketched, and spent the night there.

Hunnus was awakened about midnight, and from that time the heat and mosquitos made sleep impossible. The travelers unsuccessfully burned smoky fires to repel the insects. On their way the next day toward a midday stop at South Commission Creek, they noticed larger herds of buffalo than previously seen and beautiful views of the Antelope Hills. At one o'clock they reached the Willow Springs Mail Ranch, where they camped. That evening Hunnius sketched the site. The day had been hard on the animals because of the sandy ground.

The next morning, Sunday, June twenty-fifth, they began early, crossed Wolf Creek at six o'clock, and by 9:45 arrived at Camp Supply. They learned that day that the missing mules had been caught near Buffalo Creek. While at the camp, Hunnius ate and stayed with Mr. and Mrs. Moeller. Hunnius's efforts to obtain moccasins for his children were unsuccessful as no Indians had been near the camp while he was gone.

They left Camp Supply the next morning. Enroute they met a large emigrant train full of women and children going to Arizona. Hunnius made a drawing and collected fossils at Devil's Gap. They had dinner at Buffalo Spring, made a rest stop at Snake Creek, and stopped for the evening at Redoubt Creek Ranch.

Hunnus had a very good dinner and slept amid many mosquitos. The insects proved too bothersome, however, and the group rose at two



Ado Hunnius, ca. 1876.

Kansas Collection, University of Kansas Libraries

o'clock in the morning on the twenty-seventh. They halted to eat and rest the animals at the old redoubt and at the head of Bear Creek where many fossils were collected. They observed a large herd of Texas cattle, and camped at the Bluff Creek Mail Station, where Hunnius was so tired he slept on the ground most of the afternoon and evening.

Everyone's humor changed for the better on the twenty-eighth, as it was the last day of the journey. The day began with everything soaked by a rainstorm, and intermittent mist and rain continued all day. They all kept their eyes on Fort Dodge in the distance and eventually arrived at the Dodge House about noon.²⁰² Including the miles traveled by wagon to Fort Elliott, the total journey from Dodge City and back was 1255 miles.²⁰³ Hunnius noted many improvements in Dodge City since his last visit, including a new addition to the hotel, new buildings and signs, and newly-painted houses and shops. There was now a city hall above the jail and a stockyard was half-finished. Dodge was excitedly preparing for the possibility of the Texas cattle trade being diverted west from Wichita. While at Dodge City, the surveyors worked on calibrating their instruments. Hunnius wrote his wife, borrowed ten dollars from Ruffner for expenses, and purchased a copy of Scribner's magazine. All but Dr. Mendenhall went to Fort Dodge to obtain transportation orders. Part of the group left that day, and Hunnius went to the depot to see them off. Hunnius spent the night at the Army signal office recording observations.²⁰⁴

To ease his boredom, Hunnius drew a sketch of the office early in the morning, and later he made drawings of the jail and church. He visited Boot Hill and noted that all but five people buried there were buried without coffins ("in boots"²⁰⁵). He purchased a Panama hat to

shield his head from the sun. He described Dodge City as having seven hundred residents and said the capacity of the Dodge House was ninety. He paid his room and board bill--nine dollars for ten meals and two nights--and arranged to ship his Indian saddles to Leavenworth by express. The signal sergeant excitedly handed Hunnius Ruffner's telegram asking the draftsman to bring the chronograph which Ruffner forgot. The sergeant was quite upset about having to pay for the telegram when another erred, and he vowed to prefer charges against Ruffner. While there, Hunnius saw Texas cattle driven across the Arkansas River and loaded onto boxcars, and he termed it a spectacular sight. He noted that because of the cattle trade, a bank would soon be required there. He turned the instruments over to Sergeant Lichtenberg and checked his baggage. The train was three hours late, and he did not leave until 12:15 the next morning.

On the train, Hunnius could not get a berth in the sleeping car, consequently he was very uncomfortable. He awoke as the train stopped in Hutchinson, Kansas, and was impressed by what he saw. He also examined Burrton, Kansas, through the train window and judged it to be about the size of Dodge City. He noted the crops in the vicinity. The train pulled into Newton, Kansas, forty-five minutes early the morning of June thirtieth, having made up the time lost prior to Dodge City. He had breakfast at the Fred Harvey restaurant in Florence, Kansas, and dinner at Topeka, where he bought a pair of moccasins for his son Carl and changed railroad lines. At Lawrence, Kansas, he noted that the Massachusetts Street bridge across the Kansas River was out, but the railroad bridge was sturdy. While there, he bought a rattle for Herman, a thimble and case for his wife, and a needle box for Anna. He

arrived at Kansas City at four o'clock, noting that much of the countryside near the city had been inundated. He changed trains and left for Leavenworth forty minutes later.²⁰⁶

Ruffner concluded in his report that the results of the survey confirmed that the map of the Indian Territory drawn by his office was indeed correct.²⁰⁷

The group arrived in Leavenworth at six o'clock in the evening of 30 June 1876.²⁰⁸

The map of the Indian Territory in four parts was printed and distributed to Indian, military, and civilian authorities.²⁰⁹ Several favorable comments about the map were received.²¹⁰

Work continued on the general, detailed map of the Department of the Missouri. Kansas and parts of Colorado, New Mexico, and the Indian Territory were completed.²¹¹

Little field work was done during fiscal year 1876 because of the lack of funds.²¹² Ruffner noted that the total number of miles included in journals was only one-third that of the previous year. Scouting was hampered because of the departure of the Fifth and Sixth Cavalry Regiments and their replacement by the Eighth and Ninth Cavalry, the lack of serious Indian trouble requiring Army travel through and surveys of the region, and the fact that most troop movements were over well-surveyed routes.²¹³

In the office, Ruffner was assisted only by Hunnius, but the appropriation for the latter's employment lapsed at the end of June 1876. Ruffner noted that during the fiscal year the road from Santa Fe to Taos had been completed under a special appropriation from Congress. He proposed that it be extended north to Fort Garland, Colorado, where

there was a connection with the railroad.²¹⁴ Ruffner ended his annual report with the note that all work was suspended because of no funds on hand or appropriated for the expenses of his office.²¹⁵

Hunnius was released from Army employment on 30 June 1876 because the Army had no funds appropriated by Congress in fiscal year 1877 for employment of draftsmen.²¹⁶ Hunnius went into business in the city of Leavenworth selling toys and operating a newsstand.²¹⁷

NOTES TO CHAPTER IV

¹Harmon Mothershead, "The Journal of Ado Hunnius, Indian Territory, 1876," Chronicles of Oklahoma, 51:452.

²Journal of Map and Drawing Work, 1869-1896 (ser. G, box 1) [hereafter Map & Drawing Journal], Papers of Ado Hunnius (Subgroup II), Adolph Hunnius collection [hereafter Hunnius Papers], MSS Dept., Kansas State Historical Society (Topeka) [hereafter KHi].

³Sworn statement, 20 Feb. 1892; no. 2,709,621; Case Files of Pension Applications Based on Service in the Years 1817-1917 and 1921-1940 ("C and XC Series"), 1861-1942; Civil War and Later Pension Files; Records Relating to Pension and Bounty Land Claims, 1773-1942; Records of the Veterans Administration (record group [RG] 15) [hereafter Case File no. 2,709,621 (RG 15)]; National Archives (Washington, D.C.) [hereafter DNA].

⁴June 1869, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

⁵July-Oct. 1869, *ibid.*

⁶Lt. Col. I. C. Woodruff, Engineers, Office of the Chief Engineer (Washington, D.C.) [hereafter OCE] to Capt. Charles. B. Phillips, Corps of Engineers [CE] (Ft. Leavenworth, Kans.), 23 Nov. 1869, 35:434-35, roll 35, Letters Sent by the Topographical Bureau of the War Department and by Successor Divisions in the Office of the Chief of Engineers, 1829-1870, Records of the OCE (RG 77) [hereafter OCE Records] (Washington, D.C.: National Archives and Records Service, microfilm M66, 1959) [hereafter M66/35].

⁷*Ibid.*

⁸Nov.-Dec. 1869, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

⁹Dept. of the Interior, Bureau of Pensions, Circular, 15 Jan.--4 May 1898; "Declaration for Widow's Pension," 1-5 Mar. 1923; Questionnaire, 2 Jan.--1 Apr. 1915; Case File no. 2,709,621 (RG 15), DNA. "Ado Hunnius Died Last Night, Was City Pioneer," The Daily Times (Leavenworth, Kans.), 22 Feb. 1923, p. [1] (Topeka, Kans.: KHi, newspaper microfilm L 1151, n.d.). There is little verified information about Bertha Baechle and the Hunnius marriage, as well as personal information generally on other members of the Hunnius family. Some speculation has been offered about family details in various

sources, but in this study the writer has preferred to emphasize the documented record throughout, and wishes to continue that practice here and reduce speculation to a minimum.

¹⁰OCE to A. M. Gangewer, acting 3d auditor, Treasury Dept., 31 Jan. 1870, Letters sent, 4th Division, no. 4, p. 473, Letters Sent Relating to Accounts and Returns; Correspondence Relating to Accounts, Property Returns and Claims, 1866-1870; Correspondence of Office Divisions, 1865-1870; Correspondence, 1789-1942; Central Office records [hereafter Office Divs. Corresp.]; OCE records, DNA.

¹¹Ado Hunnius, Map of Kansas and Adjoining States and Territories (Fort Leavenworth, Kans., [U.S. Engineer Dept.]) March 1870.

¹²Jan.-May 1870, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

¹³2:321, 1870, "Registers of Letters Received," Correspondence, General Records, Headquarters [HQ] Records, Department of the Missouri [DMo], Records of U.S. Army Continental Commands (RG 393) [hereafter Correspondence (RG 393)], DNA.

¹⁴No. 428, *ibid.*

¹⁵No. 397, *ibid.*

¹⁶Jan.-May 1870, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

¹⁷B1441 and B1442, 10:60, "Registers of Letters Received," Office Divs. Corresp., OCE records, DNA.

¹⁸P406, p. 363, *ibid.*

¹⁹P416, p. 364, *ibid.*

²⁰Maj. J. B. Wheeler, Engineers (Washington, D.C.), to Phillips, CE, HQ, DMo, 25 July 1870, 36:75-76, M66/35.

²¹Wheeler to Phillips, 29 July 1870, p. 108, *ibid.*

²²Jul.-Aug. 1870, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

²³2:363, 1870, "Registers of Letters Received," Correspondence (RG 393), DNA.

²⁴Sept.-Nov. 1870, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

²⁵"Manuscript of The History of Fort Leavenworth," p. 171, Library, KHi. This source refers to Ruffner as a colonel, however he was a lieutenant at this time. Ruffner did not become a lieutenant

colonel until 1903. Francis B. Heitman, Historical Register and Directory and Register of the United States Army, from Its Organization, September 29, 1789, to March 2, 1903 (Washington, D.C.: U.S. Government Printing Office, 1903), 1:850.

²⁶December 1870, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

²⁷7-9 Jan. 1871, *ibid.*

²⁸9 June 1871, Jan.-June 1871, *ibid.*

²⁹This chapel was the original St. Ignatius (Catholic) chapel on post, built in 1870. Henry Shindler, "Fort Leavenworth, Its Churches and Schools," Diocese of Leavenworth, Historical Sketches of Parishes and Churches within the Diocese (Leavenworth, Kans.? ca. 1943), A:145-152.

³⁰28-29 July 1871, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

³¹14 Aug. 1871, *ibid.*

³²July-Dec. 1871, *ibid.*

³³U.S., Congress, House, Annual Report of the Secretary of War, 42d Cong., 3d sess., 1872, H. Ex. Doc. 1, pt. 2, Serial 1559, p. 1122.

³⁴Jan.-Mar. 1872, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

³⁵U.S., Congress, House, Annual Report, 1872, p. 1122; U.S., Congress, House, Annual Report of the Secretary of War, 43d Cong., 1st sess., 1873, H. Ex. Doc. 1, pt. 2, Serial 1598, p. 1221.

³⁶U.S., Congress, House, Annual Report, 1872, p. 1122.

³⁷*Ibid.*, p. 101.

³⁸U.S., Congress, House, Annual Report of the Secretary of War, 44th Cong., 1st sess., 1875, H. Ex. Doc. 1, pt. 2, Serial 1676, 2:1235.

³⁹April 1872, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

⁴⁰U.S., Congress, House, Annual Report, 1875, 2:1235.

⁴¹U.S., Congress, House, Annual Report, 1872, p. 101.

⁴²*Ibid.*, p. 1122.

⁴³*Ibid.*

⁴⁴U.S., Congress, House, Annual Report, 1873, p. 1221; 1875,

2:1235.

⁴⁵Ibid.; 23 July 1872 and page inserted following 7 Mar. 1871 entry, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

⁴⁶1-5 Aug. 1872, *ibid.*

⁴⁷U.S., Congress, House, Annual Report, 1872, pp. 1122-23; 1873, p. 1221.

⁴⁸Ibid.

⁴⁹Ibid.

⁵⁰Aug.-Oct. 1872, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

⁵¹Oct.-Dec. 1872, *ibid.*

⁵²U.S., Congress, House, Annual Report, 1873, p. 1221.

⁵³January 1873, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

⁵⁴U.S., Congress, House, Annual Report, 1873, p. 1221.

⁵⁵March 1873, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

⁵⁶U.S., Congress, House, Annual Report, 1873, p. 1122.

⁵⁷Apr.-May 1873, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

⁵⁸No. 419, Jan.-June 1873, 8:340, "Letters Sent," 1869-1898 [hereafter "Letters Sent"], Correspondence (RG 393), DNA; U.S., Congress, House, Annual Report, 1873, p. 115.

⁵⁹This description of Proust, a civilian, denies the family's claim that Hunnius was assistant engineer to Ruffner. U.S., Congress, House, Annual Report, 1873, p. 1223.

⁶⁰7-28 June 1873, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi. Mary E. Montgomery, "Lawrenceburg," La-Le vol. [20:89], Little Known or Extinct Towns in Kansas, unprocessed microfilm, MSS Dept., KHi.

⁶¹U.S., Congress, House, Annual Report, 1873, p. 115.

⁶²Ibid.

⁶³Ibid., p. 1221.

⁶⁴U.S., Congress, House, Annual Report, 1875, 2:1235.

⁶⁵U.S., Congress, House, Annual Report, 1873, p. 1222.

⁶⁶Ibid., p. 1221.

⁶⁷Ibid., p. 1222-23; U.S., Congress, House, Annual Report, 1875, 2:1235.

⁶⁸U.S., Congress, House, Annual Report, 1873, p. 1222-23.

⁶⁹Ibid., p. 1222.

⁷⁰Ibid., p. 1223.

⁷¹Ibid., p. 1224.

⁷²July-Aug. 1873, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

⁷³No. 759, July-Dec. 1873, 9:123, "Letters Sent," Correspondence (RG 393), DNA.

⁷⁴No. 827, 9:174, *ibid.*

⁷⁵Probably the present town of Alcalde, N. M.

⁷⁶Sept.-Dec. 1873, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

⁷⁷No. 1201, July-Dec. 1873, 9:456-57, "Letters Sent," Correspondence (RG 393), DNA.

⁷⁸U.S., Congress, House, Annual Report of the Secretary of War, 43d Cong., 2d sess., 1874, H. Ex. Doc. 1, pt. 2, Serial 1637, 2:624.

⁷⁹Jan. 1874, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi. Except for insertions in brackets, all grammar, spelling, and punctuation in quotes from Hunnius's written sources are as originally written.

⁸⁰U.S., Congress, House, Annual Report, 1874, 2:624.

⁸¹Ibid.

⁸²H173.74, 1874, 1:478-79, "Registers of Letters Received," Correspondence (RG 393), DNA.

⁸³John Pope, commander, DMO, to W. W. Belknap, secretary of war, no. 167, 10:119 (Jan.-June 1874), "Letters Sent," Correspondence (RG 393), DNA.

⁸⁴Ibid.

⁸⁵5 Mar. 1874, no. 196, 10:139 (Jan.-June 1874), "Letters Sent";

"Registers of Letters Received"; Correspondence (RG 393), DNA.

⁸⁶5 Mar. 1874, no. 196, 10:139 (Jan.-June 1874), "Letters Sent," Correspondence (RG 393), DNA.

⁸⁷3 Jan.--4 May 1874, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

⁸⁸W. M. Dunn, Jr., acting assistant adjutant general [ass't AG], HQ, DMO., 10 May 1874, no. 360, 10:260 (Jan.-June 1874), "Letters Sent," Correspondence (RG 393), DNA.

⁸⁹M297, 2:441, 1874, "Registers of Letters Received," Correspondence (RG 393), DNA.

⁹⁰M315, 2:447, *ibid.*

⁹¹*Ibid.*

⁹²M108, 2:13, *ibid.*

⁹³23 May--24 June 1874, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

⁹⁴U.S., Congress, House, Annual Report, 1874, Serial 1636, 1:124-5; 2:623.

⁹⁵Ruffner's report has been published as 43d Cong., 1st sess., 1873, H. Ex. Doc. 193, Serial 1610; U.S., Congress, House, Annual Report, 1874, 1:124-5.

⁹⁶U.S., Congress, House, Annual Report, 1874, 2:608.

⁹⁷*Ibid.*, p. 622-23.

⁹⁸*Ibid.*, p. 624.

⁹⁹*Ibid.*, 1:104-5.

¹⁰⁰July 1874, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

¹⁰¹28 Aug. 1874, *ibid.*

¹⁰²6 Sept. 1874, *ibid.*

¹⁰³7 Sept 1874, *ibid.*

¹⁰⁴July-Oct. 1874, *ibid.*

¹⁰⁵M764, 20:506 (1874), "Registers of Letters Received," Correspondence (RG 393), DNA.

¹⁰⁶11-15 Nov. 1874, Map & Drawing Journal, Hunnius Papers, MSS

Dept., KHi.

107 Pope to A. A. Humphreys, chief of engineers, 15 Dec. 1874, no. 1135, 11:509 (July-Dec. 1874), "Letters Sent," Correspondence (RG 393), DNA.

108 Ibid.

109 17-29 Dec. 1874, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

110 U.S., Congress, House, Annual Report, 1875, Serial 1675, 1:133.

111 Jan.-May 1875 Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

112 No. 350, 12:268-69 (Jan.-June 1875), "Letters Sent," Correspondence (RG 393), DNA.

113 June 1875, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

114 U.S., Congress, House, Annual Report, 1875, 1:133.

115 Ibid., 2:1112-13.

116 Ibid., 2:1112.

117 Ibid., 2:1233-34.

118 Ibid., 2:1238.

119 1-8 July 1875, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

120 Dept. of the Interior, Bureau of Pensions, Circular, 15 Jan.--4 May 1898, Case File no. 2,709,621 (RG 15), DNA.

121 19 July 1875, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

122 19-26 July 1875, *ibid.*

123 U.S., Congress, House, Annual Report of the Secretary of War, 44th Cong., 2d sess., 1876, H. Ex. Doc. 1, pt. 2, Serial 1745, 3:723-24.

124 7-16 Aug. 1875, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

125 Hunnius to Scientific American (draft), 1894 July 20, 1894 (folder 3), Correspondence (ser. A, box 1), Hunnius Papers, MSS Dept.,

KHi.

¹²⁶October 1875, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

¹²⁷M1299, 23:472; M1304, M1305, 23:474, "Registers of Letters Received," Correspondence (RG 393), DNA.

¹²⁸November 1875, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi. Simons is not listed as the Leavenworth County surveyor from 1855 to 1921 and was probably an employee. Jesse A. Hall and Leroy T. Hand, History of Leavenworth County Kansas (Topeka, Kans.: Historical Publishing Co., 1921), pp. 190-96.

¹²⁹A357, 23:27, "Registers of Letters Received," Correspondence (RG 393), DNA.

¹³⁰U.S., Congress, House, Annual Report, 1876, Serial 1743, 1:124.

¹³¹Ibid., 3:719.

¹³²December 1875, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

¹³³M1, 1876, 1:347, "Registers of Letters Received," Correspondence (RG 393), DNA.

¹³⁴R. Williams, ass't AG, HQ, DMO., to Chief Engineer's Office, DMO., 5 Jan. 1876, no. 7, 15:5 (Jan.-June 1876), "Letters Sent," Correspondence (RG 393), DNA.

¹³⁵3-6 Jan. 1876, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.

¹³⁶Mothershead, pp. 452-3.

¹³⁷Ibid., p. 454. The original journal forms part of the series "Diary . . . 1876, Indian Terr., Sketches of Agency and Mission of Cheyenne and Arapaho Indians," 10-24 Jan. 1876 (ser. K, box 2), Hunnius Papers, MSS Dept., KHi.

¹³⁸Mothershead, p. 460.

¹³⁹Ibid., p. 465.

¹⁴⁰In accordance with most of Hunnius's diary entries and military terminology, the term dinner here refers to the noon meal; the evening meal is called supper.

¹⁴¹Ibid., p. 471.

¹⁴²Ibid., p. 472.

- 143 Ibid.
- 144 Ibid., pp. 451-72.
- 145 27-29 Jan. 1876, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.
- 146 U.S., Congress, House, Annual Report, 1876, 1:124, 3:720. The report was published as 44th Cong., 1st sess., 1875, H. Ex. Doc. 172.
- 147 U.S., Congress, House, Annual Report, 1876, 3:720.
- 148 M142, 1:391, 1876, "Registers of Letters Received," Correspondence (RG 393), DNA.
- 149 M291, 1:430, 1876, *ibid.*
- 150 Ruffner, 15 Apr. 1876, p. 2, File 1876:1254 (box 22), "Letters Received," 1871-1896; Correspondence of General Record Division Exclusive of That Relating to Accounts and Returns; Office Divs. Corresp.; OCE records; DNA. A stadia line survey uses a transit or other surveying tool coupled with a graduated rod to compute distances rather than physically measure them on the ground. T. Lindsay Baker, comp. & ed., "The Survey of the Headwaters of the Red River, 1876," Panhandle-Plains Historical Review, 58:2 (1985).
- 151 Ruffner, 15 Apr. 1876, p. 2, "Letters Received," OCE records, DNA.
- 152 Ibid., pp. 1-2.
- 153 21 Mar. 1876, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.
- 154 9 Feb.--17 Apr. 1876, *ibid.*
- 155 Baker, p. 3 (n. 5).
- 156 Platt to Ruffner, 17 Apr. 1876, "Letters Received," OCE records, DNA.
- 157 Ruffner to the chief of engineers, 19 Apr. 1876, *ibid.*
- 158 U.S., Congress, House, Annual Report, 1876, 3:721.
- 159 17-22 Apr. 1876, Map & Drawing Journal, Hunnius Papers, MSS Dept., KHi.
- 160 U.S. Army, CE, "Atlas of Detail Sheets of the Survey of the Head Waters, Red River, Texas, Conducted by First Lieutenant E. H. Ruffner, Corps of Engineers, Chief Engineer, Department of the Missouri, May and June 1876," Index, Q301, Civil Works Map File (HQ), OCE records, Cartographic & Architectural Branch, National Archives (Alexandria, Va.) [hereafter Q301]. These maps have been reproduced in

Baker.

¹⁶¹Carl Julius Adolph Hunnius, "Survey of Red River, April 25--June 30, 1876," ([Lawrence, Kans.: University of Kansas,] microfilm, n.d.), from original (RH MS VLT C49); "Transcript, 'Survey of Red River, April 25--June 30, 1876,' The Second Survey," p. 40 (folder 3), Carl Julius Adolph Hunnius collection (RH MS 153) [hereafter "Survey of Red River"], Regional History Division, Kenneth Spencer Research Library, University of Kansas (Lawrence) [hereafter KU-S]; Q301. The transcript contains inaccuracies. A copy of the transcript forms Subgroup III (box 5) of the Hunnius collection, KHi. Hunnius's original journal of the survey has been published in Baker, pp. 53-111.

¹⁶²"Survey of Red River," p. 40, KU-S; Q301.

¹⁶³Q301; Baker, p. 8.

¹⁶⁴"Survey of Red River," p. 40, KU-S.

¹⁶⁵Ibid., p. 42.

¹⁶⁶Ibid., p. 43.

¹⁶⁷Ibid., p. 45.

¹⁶⁸Ibid., p. 46.

¹⁶⁹Baker, p. 56.

¹⁷⁰Ibid., p. 57.

¹⁷¹"Survey of Red River," pp. 48-49, KU-S.

¹⁷²M591, 1:508, 1876, "Registers of Letters Received," Correspondence (RG 393), DNA.

¹⁷³"Survey of Red River," pp. 50-51, KU-S.

¹⁷⁴Baker, p. 58.

¹⁷⁵"Survey of Red River," p. 51, KU-S; Baker, *ibid.*

¹⁷⁶"Survey of Red River," pp. 53-54, KU-S; Baker, p. 60.

¹⁷⁷"Survey of Red River," pp. 55-56, KU-S.

¹⁷⁸Baker, p. 61.

¹⁷⁹"Survey of Red River," p. 57, KU-S.

¹⁸⁰Baker, p. 62.

¹⁸¹Ibid., pp. [1]-3.

182 Ibid., pp. 3, 19.

183 Ibid., pp. 63-67.

184 Ibid., p. 10.

185 Ibid., pp. 67-68.

186 Ibid., p. 10.

187 Ibid., p. 68. Wilson is probably Lemnot I. Wilson, formerly a Kansas buffalo-hide hunter. Ibid., p. 120, n. 63.

188 Ibid., pp. 68-77.

189 Ibid., p. 78.

190 Ibid., pp. 78-83.

191 Ibid., p. 83.

192 Ibid., pp. 84-87.

193 Ibid., p. 88.

194 Ibid., p. 89.

195 Ibid., pp. 89-93.

196 Ibid., p. 94.

197 Ibid., pp. 93-104.

198 Ibid., pp. 16, 104.

199 Ibid., p. 104.

200 Ibid.

201 An extensive search of available biographical compendia, officers' biographical registers, regimental histories and returns, histories of the frontier Indian campaign, post correspondence and returns, and related records has failed to produce any information concerning a court-martial of Bankhead.

202 Baker, pp. 104-109.

203 Ibid., p. 16.

204 Ibid., pp. 109-110.

205 Ibid., p. 110.

206 Ibid., pp. 110-11.

207 Ibid., p. 17.

208 30 June 1876, Map & Drawing Journal, Hunnius Papers, MSS
Dept., KHi.

209 U.S., Congress, House, Annual Report, 1876, 1:124.

210 Ibid., 3:719.

211 Ibid., p. 720.

212 Ibid., 1:124.

213 Ibid., 3:720.

214 Ibid., 1:124.

215 Ibid., 3:724.

216 June 1876, Map & Drawing Journal, Hunnius Papers, MSS Dept.,
KHi.

217 "Ado Hunnius Died Last Night."

CHAPTER V

A CAREER BEGUN AND ENDED

After Hunnius left Army employment in 1876, he started a combination toy store and newsstand at 410 1/2 Shawnee in Leavenworth, Kansas.¹ Later his firm changed its merchandise to books and stationery and it became a state textbook agency.² In 1893 his son Carl opened one of the first jewelry stores in Leavenworth at the same location.³

Ado Hunnius continued his cartographic activities even though he was no longer doing this kind of work on a full-time basis. In 1876 he drew an extremely detailed map of Leavenworth showing individual lots and buildings, which was published.

His two younger children were born during this period: Ernst on 9 June 1877 and Elisabeth on 6 July 1884.⁴

Hunnius continued to draw maps for railroads, schools, municipalities and other entities. He also did a considerable amount of custom calligraphy, such as lettering diplomas for the schools of Leavenworth and nearby communities.⁵

He also must have done some cartographic work for the United States Army in Leavenworth, for in his journal of map work is a 19 September 1877 entry showing the receipt of one hundred dollars from the United States Engraving agency for "map sheet number two."⁶



Plan of the City of Leavenworth, Kansas, by Ado Hunnius, 1876.

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Another activity that kept him busy during these years was the transcribing of articles. In his collection of papers at the Kansas State Historical Society are longhand copies of articles from Harper's Weekly, and accompanying the transcripts are illustrations that he drew. No reason has been given for the existence of these copied articles, but it is quite possible that he was using the magazine to perfect his English.

Similarly, he also copied a considerable number of letters, reports, and other documents from the War Department's The War of the Rebellion series.⁷ This writing was probably done as part of a research project on the history of the Fifty-fourth New York Infantry Regiment that Hunnius produced for the Fifty-fourth Infantry veterans' association.

Hunnius also wrote a number of poems.⁸ Most of these verses have patriotic themes, although several ridicule Kansas prohibition or pertain to other subjects. He also wrote many stories and essays, usually concerned with Indians or the West.⁹ His historical narratives and reminiscences were published in several area newspapers.

In July and August 1882, Hunnius worked on a map of part of the city of Leavenworth at a scale of five hundred feet to the inch for the Leavenworth Water Works Company, and for this work he was paid fifty cents per hour. From September through December of that year he worked on an unidentified seventy-sheet atlas.

In 1883 he drew five plans of the location of the government building in Leavenworth and a plat of the city's three-acre waterworks in February, a survey and plat of the Leavenworth waterfront and a map of the Leavenworth business district for publisher Daniel Anthony in

May, three drawings of wrought iron for highway bridges in June, and pipeline drawings for an atlas in October. The only entry in his journal the following year is calligraphy he executed for a memorial resolution.¹⁰

His business moved to 114 North Fifth in 1886.¹¹

In April and May 1888, Hunnius drew a set of maps of the profile of the Leavenworth and Denver Short Line Railway east from the Colorado state line. In June he lettered thirty-five high-school diplomas and an officer's diploma and drew a number of maps of the Colorado and California Short Line Railway. For the next several years he again did calligraphy for the high school's diplomas.¹²

Also in 1888 his son Carl became an apprentice to J. A. Schmidt, a watchmaker in Leavenworth. After two years Carl changed employers and went to work for W. A. Kirkham.¹³

Ado Hunnius was naturalized in Leavenworth County District Court on 6 October 1890.¹⁴ Twenty-six years had passed since he arrived in the United States. Why he did not apply for naturalization soon after his military service is another of the mysteries surrounding his personal life.

In 1891 he did some lettering for the Knights of Pythias and he also created a resolution honoring General George A. Forsyth. Mapping work during the year included a map of Mountain Home, Idaho.¹⁵

In late October 1891, Hunnius applied for a military pension based on injuries received as a result of his military service.¹⁶ The physicians that examined him certified that he suffered from varicose veins and ulcers in the left leg.¹⁷ A pension was granted which continued until his death.¹⁸

In 1893, Carl graduated from the Horological Institute of Peoria, Illinois, and soon afterward he opened a jewelry store in the same building as his father's business. The year after the store opened robbers stole his entire inventory.¹⁹

From 1893 through 1896 Ado Hunnius lettered diplomas for a fee. The diplomas were from schools throughout the United States, indicating that he probably was under contract to a diploma company. He continued to letter certificates for the Leavenworth Board of Education and occasionally created diplomas for others such as the Army Staff College at Fort Leavenworth, Kansas.²⁰

Hunnius attempted to re-establish contact with his Civil War comrades of the Fifty-fourth New York Infantry. He wrote to the Theodor Koerner Liedertafel, a musical organization of which he was a member, in October of 1894 asking about old friends in the Fifty-fourth. Francis J. Werneck, president of the regimental organization, replied on October twenty-first with answers to some of Hunnius's questions, including information that Colonel Kozlay and Captain Blau, under whom Hunnius served, were both dead. Werneck invited Hunnius to become a member of the Fifty-Fourth veterans' association.²¹ Hunnius followed Werneck's letter with a telegram timed to arrive at the organization's annual meeting on October twenty-seventh.²² In January of 1895, Hunnius applied for membership in the association and was accepted. In a letter notifying Hunnius of his acceptance, Werneck noted that the beloved Captain Wertheimer, under whom Hunnius served, was still living but in poor health.²³

For the next six years Hunnius wrote a chronological history of the Fifty-fourth Regiment and submitted it in installments to the

association in New York for reading at their meetings. In his narrative he combined his own recollections of the war with official documents gleaned from The War of the Rebellion.

In 1896 Hunnius moved his business from 114 North Fifth to 104 South Fifth in Leavenworth. Carl's jewelry store also moved to the same location.²⁴

The Fifty-fourth Regiment veterans' association's leaders and membership presented a medal to him in 1897 in honor of his exceptional work on the history of the unit.²⁵ During the same year Hunnius drew a map of Leavenworth County, Kansas, showing school-district boundaries. He completed a similar map the next year showing locations of schoolhouses in the county.

His son Ernst graduated from the Bradley Horological Institute in 1900 and began to work for Carl in his jewelry store.²⁶

Hunnius went back east and visited his surviving comrades in 1900.²⁷ He continued to revise his map of Leavenworth County school-district boundaries until its final revision in July 1902.

Ernst married Sarah Weisman in 1905, and sons Oscar and Tracy were born in 1907 and 1909 respectively. Sarah died in 1910.²⁸

In 1909 Hunnius retired from business at the age of sixty-seven. His son, Carl, continued his jewelry business at the same location.²⁹

Hunnius's hobby in his later years was collecting weather data and making predictions, which were deemed highly accurate.³⁰

He applied for a "70 year allowance" in the fall of 1912.³¹ In December of that year he was elected to active membership in the Kansas State Historical Society by its Board of Directors and was appointed by the society's president to the committee on portraits and views.³²



Ado Hunnius, 1897.

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Apparently he failed to renew his membership the following year, as no further record of his membership has been found.

Hunnius's military knowledge, his experiences with Great Plains history, and his cartographic abilities were well known in the community. The General Service Schools at Fort Leavenworth borrowed his Civil War maps and other documents relating to the Army of the Potomac for instructional purposes in 1921.³³

He submitted historical accounts of events on the plains to The Daily Times of Leavenworth and The Kansas City Star. Several of his reminiscences were published, but he was angered by the Star on at least one occasion by the rejection or lack of a response to his submissions. In 1914 the Kansas City newspaper rejected his story about events on 20 September 1867 at Fort Zarah. At the same time, the paper had doubts about his narrative of Billy Dixon's story told 8 June 1876. On 1 June 1914, Hunnius had a mild stroke while visiting the Kansas City Star offices.

In a letter to his former supervisor, Ernest H. Ruffner, he mentioned that he had obtained letters of commendation from all the engineers under whom he worked except Ruffner. Hunnius asked him to send him such a letter to add to his collection.³⁴ The former chief engineer assented and wrote him a commendation on June twentieth of that year. Ruffner related in his cover letter an incident that happened on 19 June 1876 when, against his better judgment, he allowed Hunnius to ride back three and one-half miles in search of Hunnius's lost pocket knife. Ruffner also mentioned a sketch Hunnius made of Mrs. Ruffner from a photo. Ruffner enclosed the beginning of an account of the Battle of Adobe Walls for Hunnius to read.³⁵

It is unfortunate that the surviving papers of Ado Hunnius have very little personal information on his wife and family. Perhaps a reflection on his German heritage, his journals are almost exclusively devoted to business; he wrote very little about his children and still less about his wife. However, he and Bertha must have been loving and considerate parents, because at the time of his death all of the children, though adults, were still living with their parents. One also would surmise that Ado was congenial enough as a businessman that his son Carl would want to stay in the same building as his father, even through a change in location.

Hunnius died at 8:20 A.M. on 21 February 1923 at the age of eighty years, five months, at his home.³⁶ Lobar pneumonia of one and one-half weeks' duration was given as the cause of death. J. J. O'Donnell handled funeral arrangements.³⁷

Services were held Saturday February twenty-fourth at Saint Joseph's Church in Leavenworth. Burial was in Mount Calvary Cemetery.³⁸ At the time of his death Hunnius's sons Ernst and Carl were jewelers, and Herman was a foreman at the Abernathy Furniture factory in Leavenworth. His daughter Elisabeth had married Albert S. Hatton, a Leavenworth grocer and confectioner. Grandsons were Oscar and Tracy, sons of Ernst, and his granddaughters, Herman's children, who were named Beatrice and Cecilia.³⁹

On March first, Bertha Hunnius applied for a widow's pension based on Ado's military pension.⁴⁰

Ernst was stabbed 31 October 1933 by two men attempting to hold up the jewelry store; he died the following day.⁴¹ Bertha died 8 October 1940 in Leavenworth. Carl passed away on 18 February 1941, and

Elisabeth died in a Leavenworth nursing home on 26 March 1972. Ado Hunnius's granddaughter, Beatrice Lorenz, lives in Kansas City, Missouri, and has little information about her grandfather. Her sister, Cecelia Yarnevic, lived in Sun City, Arizona, in 1978. Ernst's two sons, Oscar and Tracy, were not located at the time of Elisabeth's death in 1972.⁴²

Hunnius's talents for drawing and cartography were noticed by others during both of his Army enlistments, with someone each time informing higher authorities. In each instance the end result was that Hunnius found himself relieved of the mundane duties of the common soldier and placed into service working on maps and drawings. Both of his commanders in the engineer offices, Captains VonLuettwitz and Phillips, praised his work, as did other engineers for whom he worked as a civilian.

It is unfortunate that the details of Hunnius's year between enlistments are unknown. If, as family tradition suggests, he was employed in some job involving engineering or drafting, it seems unlikely that he would have left to rejoin the Army as an infantry soldier. More plausibly he was unemployed or employed in a menial job that made the Army seem like an improvement. Maybe, as a single young man, twenty-five years old, he desired to experience life on the American frontier.

Whatever his motive, he again joined the military service in the late summer of 1867. As before, his abilities as a draftsman and artist came to light belatedly and almost accidentally. Once he began working in the engineer office, however, his talents came to the

forefront.

Formal personnel evaluations as we know them were not written for enlisted members of the military or contract civilian employees in the 1860s and 1870s, of course, and were it not for the good quality of his work and his maps that have survived, Hunnius would never appear in the records of the chief engineer of the Department of the Missouri. As a private or corporal and a contract employee, Hunnius's position barely warranted mention in correspondence. But he was mentioned, not only in letters to his commander's superiors, but also in his supervisors' annual reports, and favorable comments were made about his work. Captain Ernest Ruffner described him:

He is a wonderfully good draftsman. I have never seen his equal in all these later years. I have a number of his drawings which I show to those I wish to form some idea of what good drawings are. He made me a pen and ink sketch which has always hung in my parlor and is shown to those to know what it is to do such work. I have never seen its equal.⁴³

On 15 December 1874, General John Pope forwarded a letter of Ruffner's concerning the "best instruments and methods for conducting reconnaissance within the Department." Pope remarked, "The capacity of Lieutenant Ruffner and the results of his work are so well known and have been so valuable that I fully confide in his views on the subject and concur in them."⁴⁴ Surely some of the credit given Ruffner was due his draftsman.

In an edited edition of Hunnius's 1876 Indian Territory journal, Dr. Harmon Mothershead commented:

Hunnius was a master at his trade. His maps are a work of art [sic]; his sketches were compiled in small notebooks with a pencil while he was on the trail. Working in the wind, the rain or the freezing confines of the wagon and with only a campfire for light and warmth, Hunnius's descriptions are very detailed and beautifully done.⁴⁵

Commenting on Hunnius's map Sketch of the Philosopher's Mounts, Ruffner noted, it "was more elaborate and finished than I have been able to expect from him in the regular course of work where one thing has followed another in rapid succession. The 'sketch' is perhaps the handsomest specimen of topographical drawing ever executed in this office."⁴⁶

In an article written after his death, The Daily Times of Leavenworth stated that Ado Hunnius "achieved a reputation for the superior quality of his work on maps of our western country."⁴⁷

In an age when poorly-paid draftsmen worked laboriously over minute details such as the shadows of individual bolts in a bridge drawing, what set Hunnius apart?⁴⁸ What did this man do that distinguished him from his contemporaries? Surely part of the reason is that Hunnius's work has survived when the productions of some of his peers did not. His son Carl gave his maps, diaries, and other papers to the Kansas State Historical Society soon after his death in 1923. Later his granddaughter sold other diaries in the family's possession to the University of Kansas. His drawings were also preserved by the War Department and later the National Archives.

Mere survival of the written record cannot be the sole reason, however. Hundreds of military engineers and draftsmen are represented in the military maps held by the National Archives, but this author easily identified Hunnius's work among the dozens of maps in each folder examined.

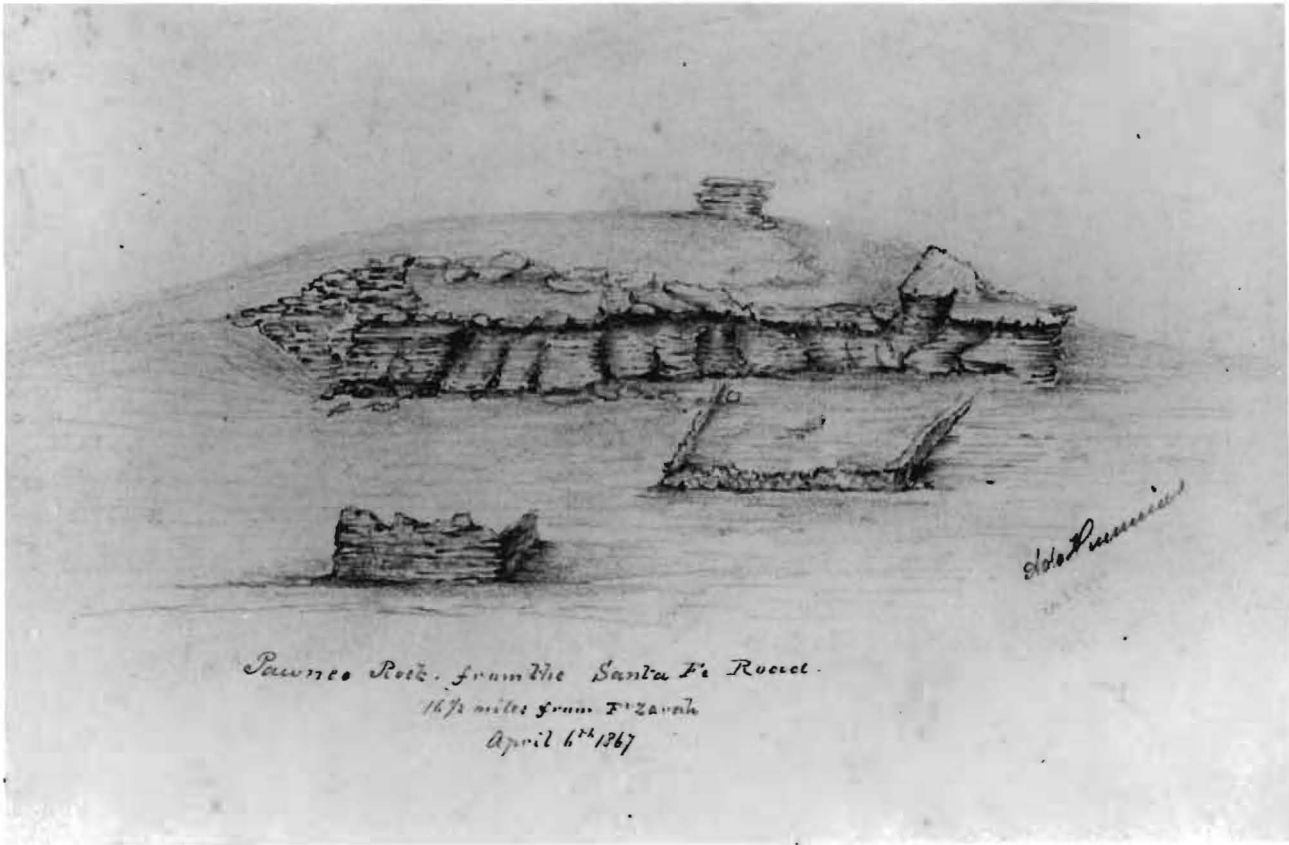
If Hunnius's work could be summarized in one word, that word would have to be precision. Possibly due to his early Gymnasium training as a draftsman, Hunnius's work is characterized by minute,

precise lettering and attention to detail. Military maps are uniformly more detailed than their contemporary civilian counterparts, but as the accompanying illustrations show, Hunnius included an amazing amount of detail in a relatively small space. It is quite difficult to reproduce Hunnius's maps in their entirety and full detail because the lettering and other work are too small and fine to be copied clearly on modern machines.

Hunnius's value as a soldier in the West was enhanced by his other interests and talents. On his last expedition to the Red River country, he did virtually no cartography work, but instead worked on astronomical observations and the stadia line. He had used his skills in astronomy on other expeditions, but his earlier diaries did not indicate any proficiency with the stadia apparatus.

In addition to these surveying duties, Hunnius was interested in the flora and fauna of the region. He collected plant and animal specimens both for military use and for the museum in Leipzig that recognized him as a professional. He also contributed examples of Indian craftwork to the museum in Germany.

Aside from his diaries and maps, he is undoubtedly best known for his artwork. His diaries consistently report that he sketched various camps, natural features, ranches, officers, Indians, and others in the course of his travels. Some of these sketches were placed on the pages of his diaries. Others, in sketch books, have survived with his manuscripts. Ado Hunnius was fortunate to have several necessary talents needed for a military operation on the western plains in the 1860s and 1870s. Fortunately for those who have followed him, he saw and sketched the high plains at a time when they were relatively



Pawnee Rock from the Santa Fe Road, 6 April 1867 [sic].

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none of the maps on which he worked were really completed in the exact way that he would have liked. Nonetheless, he realized the urgency of promptly delivering copies of the requested charts to field commanders for their use, and he filled their needs.

Hunnius's value in the office was enhanced by his learning lithography. Nowhere do his journals or other reports say where or from whom he learned this skill. Assuredly, it was a boon to the staff and to a money-poor engineering office to have a draftsman with a talent for this kind of work.

Stories told by members and friends of the Hunnius family stated that Hunnius was the assistant district engineer at Fort Leavenworth. This is truly an exaggeration, as Hunnius was never officially described as anything other than the head draftsman of the office. Still, he need not have been ashamed of his accomplishments in that position, for those accomplishments, coupled with the extant historical record of his work, have given him far more notice and appreciation as an historical figure than any other contract Army employee. Carl Julius Adolph Hunnius truly has earned the title "Great Plains cartographer."

NOTES TO CHAPTER V

¹Jesse A. Hall and Leroy T. Hand, History of Leavenworth County, Kansas (Topeka, Kans.: Historical Publishing Co., 1921), p. 356; Ballenger & Hoyer, Leavenworth City Directory for 1877 (Topeka, Kans.: Kansas State Historical Society [hereafter KHi], microfilm IM 689, 1961), p. 116.

²Hall and Hand, *ibid.*

³"Held Hunnius Rites at 9 A.M. Saturday," The Daily Times (Leavenworth, Kans.) 25 Feb. 1923 (Topeka, Kans.: KHi, newspaper microfilm L 1151, n.d.) [hereafter L 1151], p. 3.

⁴Circular, 15 Jan.--4 May 1898, Bureau of Pensions, Dept. of the Interior; no. 2,709,621; Case Files of Pension Applications Based on Service in the Years 1817-1917 and 1921-1940 ("C and XC Series"), 1861-1942; Civil War and Later Pension Files, Records Relating to Pension and Bounty Land Claims, 1773-1942; Records of the Veterans Administration (record group [RG] 15) [hereafter Case File no. 2,709,621 (RG 15)]; National Archives (Washington, D.C.) [hereafter DNA].

⁵After 1876, Journal of Map and Drawing Work, 1869-1896 (ser. H, box 1) [hereafter Map & Drawing Journal], Papers of Ado Hunnius (Subgroup II), Adolph Hunnius collection [hereafter Hunnius Papers], MSS Dept., KHi.

⁶1891-92, Map & Drawing Journal, Hunnius Papers, MSS Dept. KHi.

⁷U.S., War Dept., The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies. Published under the Authority of the . . . Secretary of War (Washington, D.C.: U.S. Government Printing Office, 1880-1901).

⁸Cf. "Poetry," 1885-1901 (ser. T, box 4), Hunnius Papers, MSS Dept., KHi.

⁹Cf. "Stories and Essays," [n.d.] (ser. W, box 4), Hunnius Papers, MSS Dept., KHi.

¹⁰1882-84, Map & Drawing Journal, Hunnius Papers, KHi.

¹¹Edwin Green, City Directory of the Inhabitants, Institutions, Manufacturing Establishments, Business Firms, etc., in the City of

Leavenworth and Fort Leavenworth for 1886 (Topeka, Kans.: KHi, microfilm IM 691, 1961).

¹²1888-92, Map & Drawing Journal, Hunnius Papers, KHi.

¹³Hall and Hand, p. 357.

¹⁴Hubbard--Jacobs, Jake (box 33); "Naturalization Index," 1848-1950; Western Division; Western District of Missouri; Records of District Courts of the United States (RG 21); National Archives--Kansas City Branch (Mo.). The naturalization proper was recorded in Journals, 21:62, District Court of Leavenworth County (Leavenworth, Kans.).

¹⁵1891-92, Map & Drawing Journal, Hunnius Papers, KHi.

¹⁶Bureau of Pensions, "Military Service," 27-29 Oct. 1891, Case File no. 2,709,621 (RG 15), DNA.

¹⁷Certificate of examination, 25 Nov. 1891, *ibid.*

¹⁸"Drop Report--Pensioner," 8-14 Mar. 1923, *ibid.*

¹⁹Hall and Hand, p. 357.

²⁰1893-96, Map & Drawing Journal, Hunnius Papers, KHi.

²¹Francis Werneck to Ado Hunnius; 21 Oct. 1898; "Correspondence Relating to the 54th Regiment, New York Veteran Volunteers," 1873-1922 (ser. R, box 3) [hereafter 54th Regt. Corresp.], Hunnius Papers, KHi.

²²Hunnius to 54th N. Y. Veteran Volunteers Assn., 27 Oct. 1894, *ibid.*

²³Werneck to Hunnius, 14 Jan. 1895, *ibid.*

²⁴Hoye Directory Co., City Directory of Leavenworth, Kansas, 1896 (Kansas City, Mo.: Hoye Directory, 1896), p. 119 (Topeka, Kans.: KHi, microfilm IM 693, 1961).

²⁵Werneck to Hunnius, 11 Oct. 1897, 54th Regt. Corresp., Hunnius Papers, KHi.

²⁶Hall and Hand, p. 357.

²⁷Hunnius to Werneck, March 1901, 54th Regt. Corresp., Hunnius Papers, KHi.

²⁸Hall and Hand, p. 357.

²⁹*Ibid.*, p. 356.

³⁰"Ado Hunnius Died Last Night, Was City Pioneer," The Daily Times, 22 Feb. 1923, p. [1], L 1151.

³¹Pension Office, "Declaration for Pension," 24-26 Oct. 1912, Case File no. 2,709,621 (RG 15), DNA.

³²Kansas State Historical Society, Eighteenth Biennial Report of the Board of Directors . . . for the Biennial Period July 1, 1910 to June 30, 1912 (Topeka, Kans.: State Printing Office, 1912), p. 104.

³³Hunnius to The Kansas City Journall, 3 Feb. 1915, 1915 (folder 10), Correspondence (ser. A, box 1), Hunnius Papers, KHi.

³⁴Hunnius to Col. Ernest A. Ruffner, Corps of Engineers, Cincinnati, 18 June 1914, 1914 (folder 9), *ibid*.

³⁵Hunnius to Ruffner, 29 June 1914, *ibid*.

³⁶Kansas State Board of Health, Division of Vital Statistics, "Standard Certificate of Death," 26 Feb. 1923, Case File no. 2,709,621 (RG 15), DNA.

³⁷"Ado Hunnius Died Last Night."

³⁸"Will Hold Rites Saturday Morning for Ado Hunnius," The Daily Times, 23 Feb. 1923, p. [1], L 1151.

³⁹"Ado Hunnius Died Last Night"; Beatrice Lorenz, 14 Jan. 1978, to B. William Phillips, Jr., historian, Fort Larned National Historic Site, National Park Service, U.S. Dept. of the Interior (Larned, Kans.) [hereafter Lorenz], copy in possession of the author; Hall and Hand, p. 356.

⁴⁰U.S. Pension Office, "General Affidavit," 1-5 Mar. 1923, Case File no. 2,709,621 (RG 15), DNA.

⁴¹"A Jeweler's Wounds Fatal," The Kansas City Times, 1 Nov. 1933, in Leavenworth County clippings, 3:196, Library [Lib.], KHi.

⁴²Lorenz; Southwestern Bell Telephone Co., Greater Kansas City Telephone Directory, July 1986-7 (n.p.), White pages, p. 498.

⁴³Henry Shindler, "Reminiscences of Fort Leavenworth," The Daily Times, 29 Jan. 1911, in "History of Fort Leavenworth by Henry Shindler," p. 24, Lib., KHi.

⁴⁴John Pope, commander, Fort Leavenworth, Kans., to A. A. Humphreys, chief of engineers, Washington, D.C., 1874 Dec. 15, 11:509 (July-Dec. 1874); "Letters Sent," 1869-1898; Correspondence, General Records, Headquarters Records, Department of the Missouri, 1861-1898; Records of Continental Army Commands (RG 393); DNA.

⁴⁵Harmon Mothershead, "The Journall of Ado Hunnius, Indian Territory, 1876," Chronicles of Oklahoma, 51:452.

⁴⁶U.S., Congress, House, Annual Report of the Secretary of War, 44th Cong., 2d sess., 1876, H. Ex. Doc. 1, pt. 2, Serial 1745, 3:719.

⁴⁷"A Sketch Made at Fort Leavenworth in 1867," The Daily Times, 21 Feb. 1926, in "Sketches of Various Forts and Stations (1867-1876)," 1867-1926 (ser. F, box 1), Hunnius Papers, KHi.

⁴⁸Cf. Missouri Valley Bridge and Iron Works Co. architectural drawings collection, Map Division, MSS Dept., KHi.

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