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A HISTORICAL OVERVIEW OF ALAMO PLAZA AND CAMPOSANTO

Robert J. Hard, editor

Contributions by
I. Waynne Cox, Anne A. Fox, Elizabeth Cantu Newcomb, and Dave Nickels

Prepared for the Department of Planning, City of San Antonio

Center for Archaeological Research
The University of Texas at San Antonio
Special Report, No. 20

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Many individuals contributed to the preparation of this report. The staff of the library of the Daughters of the Republic of Texas made a special effort to open their exceptional photographic collection for our use and expedited the reproduction of the majority of the illustrations in this report. The Institute of Texan Cultures contributed important illustrations as well. The information and translations of John Ogden Leal were invaluable in providing critical information. Robert Benavides, City Public Service, and Hovey Cowles, National Park Service, added information regarding the cemetery. Personnel at the water and sewer departments of the San Antonio Water System and the Tri-Party office were more than cooperative and retrieved information on utility trenches placed in Alamo Plaza. Bruce Bevan, Geosight; Dr. Brook Ellwood, University of Texas at Arlington; Alan Witten, Oak Ridge National Laboratory; Joe Austin, Earth Measurements Company; John Weymouth, University of Nebraska; David Hurst Thomas, curator, American Museum of Natural History; Jerry Robinson, Ground Truth Technology, Inc.; Don Heimmer, Geo-Recovery Systems, Inc.; Douglas Owsley, Smithsonian Institution; and David Nobes, University of Canterbury, New Zealand, made valuable contributions toward our discussion of various nonintrusive burial detection methods. Thanks also go to Rick Newcomb, who spent hours searching through E-Mail, and to all the Internet individuals on ARCH-L ANTHRO-L, and AIA who responded to the geophysical methodology inquiry with valuable information and superb contacts. Marcie Renner did an exceptional job editing the manuscript within a very short period of time and Augustine Frkuska, Jr. drafted some of the figures. James Ivey, National Park Service, kindly shared his work on Alamo Plaza history and agreed to review this manuscript. Finally, we would like to thank the members of the Alamo Plaza Study Committee for their contributions, inquiries, and interest in the development of this project.

THE HISTORY AND DEVELOPMENT OF ALAMO PLAZA

I. Waynne Cox

THE SPANISH COLONIAL PERIOD

Governor Don Martín de Alarcón, accompanied by Father Olivares and seven families of settlers, crossed the Rio Grande to establish a settlement to serve as a supply point for the remote East Texas missions on April 9, 1718. They arrived at the verdant valley of the San Antonio River on April 25. Father Olivares explored the vicinity and independently founded a mission, San Antonio de Valero, ". . . near the first spring [San Pedro], half a league from a high ground and adjoining a small thicket of live oaks." On May 5, 1718, Alarcón, "fixing the royal standard with the requisite solemnity," established the Villa de Bejar, near San Pedro Springs, named in honor of the brother of the viceroy (Hoffman 1967:49 [1935]).

The site selected by Father Olivares was probably not intended to be the permanent home for his mission. Although he did, with the help of three devoted Indian companions, erect a temporary *jacal* structure, this was apparently designed merely to be used until the Indians he intended to serve could be gathered into the mission congregation. It was not the policy of the church to settle so near the civil community on land that would be inadequate to support the mission effort. Father Mezquía, assisting Olivares, located a suitable area for a dam on the ford of the San Antonio River, about one-half mile below the headwaters, where the ". . . water rises to the top of the ground, and the entire work is a matter of using a plow" (Hoffman 1967:317-318 [1935]). This point is just below the juncture of the numerous springs which join Olmos Creek to form the San Antonio River in what is now Brackenridge Park. The exact date is not known, but the mission was moved to the east side of the San Antonio River during the first year. Father Olivares suffered a fall from his horse and broke his leg; therefore, the move was probably delayed until he recovered in the spring of 1719 (Habig 1968:41). Since the Alamo acequia was initiated in January of that year, it would have been constructed to serve the intended new site. This was just south of the mission's present location on the east bank of the river at a location near the river crossing (Commerce Street) where a small stone church and other buildings were constructed (Chabot 1935:5).

The acequia emanated from the point suggested by Father Mezquía, at the ford of the "Paso de Tejas," by means of a diversion dam which extended from the west bank of the river and into the stream to raise and direct the flow toward the eastern bank where the canal intake was located. The acequia then traced

a sinuous path, between the river and the low hills to the east, toward the south-southwest to pass through the mission grounds to return to the river at the largest bend, creating a ditch approximately 3.5 miles in length. Later additions to the channel, branching near the mission and irrigating additional *labores*, or farm lands, to the east and south, would extend the total length of the acequia to approximately 10 miles.

On October 15, 1727, Father Miguel Sevillano de Paredes, guardian of the College of Querétaro, visited the mission and reported its progress. He noted that the clerics had established a small fortification two gunshots (approximately 300 yards) from its present location, but everything had been destroyed by a hurricane; therefore, in 1724 the mission was relocated. Paredes also commended Father José González, the assistant to Father Francisco Hidalgo, who succeeded Olivares in September 1720, for his dedication to the project. He further commented that the work had been repeatedly delayed by the need to protect the struggling mission from Apache attacks, requiring the residents to discontinue work on the acequia and fortify their quarters. Because of the importance of completing the acequia, work on the stone church had not begun, but stone had been selected and the residents were awaiting the arrival of a master craftsman. They had, however, managed to construct a temporary church of jacal construction, convento rooms, and a granary at the new site (Paredes 1727:35-38).

About 1730 mission residents replaced the temporary church with a flat-roofed stone building, immediately to the south of the convento and facing toward the west, to serve as an interim church. The latter was to be used until the second and final stone church, which would endure until the present, could be constructed (Ivey 1992:7). By 1745, Father Francisco Xavier Ortiz was able to report that construction of a church of cut stone and lime mortar had begun, but services were still being conducted in the interim structure ("*Visita de las Misiones hecha de orden de H. M. P. Comisario General Father Juan Fogueras, por el P. Father Fran^co^ Xavier Ortiz, en año de 1745*," Old Spanish Missions Research Library Microfilm, Our Lady of the Lake University, San Antonio, reel 9, frame 1267). The Indian quarters consisted of two rows of small adobe huts on either side of the branch of the acequia which flowed through the plaza (Bolton 1970:20 [1915]). The missionaries were living "in their small friary, a two-story structure of stone and mortar, with three living cells on the second floor and offices and other rooms on the first. Next to the friary there was a large gallery where the Indian women worked at looms to make the cloth for their dresses; then followed a granary for the mission corn and other grains, and beyond there were several rooms which were used as offices" (Castañeda 1936:111-112).

Upon his return in 1756, Father Ortiz commented that the second church, which was being built, had to be demolished because it had been constructed upon a poor foundation, but "arrangements are being made for its reconstruction with all brevity" (Ortiz 1955:11). Work continued steadily on the new church but, in 1762, Father Dolores was compelled to report, "the church of this mission, although finished perfectly with its tower and sacristy, fell to the ground, because of the poor expertise of its construction . . ." (Father Mariano Francisco de los Dolores y Biana. *Relacion del Estado en que se hallan todas y cada una de las Misiones, en el año de 1762, dirigido al Mui Reverendo Padre Guardian Fray Francisco Xavier Ortiz. Documentos para la Historia Eclesiastica y Civil de la Provincia de Texas O Nueva Philipinas, 1720-1779.* Archivo General de la Nacion, Historia, Volume 28, frame 7, folios 164-180).

Father José López, Father President of the Mission in the Province of Texas, in his inspection of the missions of Texas in 1789, described the completed mission:

> It is built to form almost a square, surrounded by a single stone and mud wall that stands about 300 paces from the center. The same rampart serves as a wall for most of the fifteen or sixteen houses, with ample capacity for lodging the Indians . . . within the square is the granary, made of stone and lime, which has enough room to hold two thousand fanegas of corn, two hundred or more fanegas of beans, etc. Next is the house or living quarters, adequate for the missionary and the officers of the community, made of stone and lime . . . (Fr. José Francisco López. *Razon e Ynforme que el Padre Presidente de las Misiones de la Provincia de Texas o Nuevas Filipinas Nemite . . . Mayo 5, 1789.* Copy in Bancroft Library, Berkeley, California, and Bensen Latin American Collection, University of Texas at Austin).

López, in the same report, states that ". . . adjoining this building (the present church) is the sacristy (which serves today as the church), while another room now serves as the sacristy. Both structures are of stone and mortar and are built with arched roofs" (Fox et al. 1976:5). Again, the report reflects that the church is still under construction with the nave walls as high as the cornices, but only in the dome of the presbytery. "In the front, its beautiful façade of wrought stone has been completed to the same height as the wall. At this point the construction stopped many years ago for lack of qualified workmen. For this and other reasons . . . it cannot be carried to completion" (Fr. José Francisco López. *Razon e Ynforme que el Padre Presidente de las Misiones de la Provincia de Texas o Nuevas Filipinas Nemite . . . Mayo 5, 1789.* Copy in Bancroft Library, Berkeley, California, and Bensen Latin American Collection, University of Texas at Austin).

The missions were transferred to secular authorities by order of a royal decree in 1793. At the time of secularization, the mission was enclosed by a rectangular wall, three varas (8.33 ft) in height, of both stone and adobe. The north wall was already in ruins. The buildings were stripped of their valuables, including the locks and doors, and were unoccupied for almost a decade (Fox et al. 1976:5).

THE SPANISH ARMY OCCUPATION

As negotiation to transfer the Louisiana territory to the United States began to materialize, Spain felt an impending threat against her northern borders and decided to strengthen the province. In 1802 the *Compañía Volante de San Carlos de San José y Santiago de Parras del Alamo* was assigned to augment the meager detachment of troops at the Presidio of Bexar. This "Flying Company" established its quarters at the old mission where they erected barracks along the south compound wall and inside the old buildings (Fox et al. 1976:6-7). In 1805 Colonel Bustamante opened the first hospital in a deserted building of the old mission, equipped it with beds made of reeds, and engaged a male nurse and a woman to tend the kitchen (Nixon 1936:27-28). The church continued to serve the spiritual needs of the families of the soldiers and the acculturated Indians who had received land from the old mission; by the time of the first baptism, the pueblo was already being called "del Alamo" (Smith 1966:8).

The real threat to Spain's authority over her North American territories came, not from the north, but from within. Father Miguel Hidalgo y Costilla, at the head of an army of Indians, mestizos, and a few creoles, declared for independence on September 16, 1810. In January of the following year the revolution spread to San Antonio. Juan Bautista Casas, backed by the presidial garrison, placed himself at the head of the government and declared for Hidalgo. His despotic and disorderly administration was overthrown on March 2 and he surrendered to the opposing forces. Casas was sent to Mexico, tried, and beheaded; his head was returned to San Antonio to be displayed on a pole as a warning to other rebels. Father Hidalgo's army was routed the same month that Casas took power, and Hidalgo's execution followed in August of the same year; the old mission then became a prison for other rebels (Faulk 1964:134). To combat the growing unrest in the Mexican interior, the frontier garrisons were recalled. The Flying Company departed Bexar on April 1, 1812 after turning their records over to the parish church.

The rising wave of independence did not die with Hidalgo, and made Texas appear ripe for the land-grabbing ambitions of many in the United States. In August 1812 José Bernardo Maximiliano Gutiérrez de Lara, a follower of Hidalgo, united with Lieutenant Augustus W. Magee and crossed the Sabine River with 130 men and captured Nacogdoches. Recruiting Mexican, Indian, and American supporters, they occupied La Bahía on November 7, where they were placed under siege by Governor Manuel Salcedo. Upon the death of Magee on February 6, 1813, Samuel Kemper assumed command. The following month Kemper, with about 800 men, marched toward San Antonio. The city surrendered unconditionally on April 1 and three days later, 14 loyalist officers including Salcedo were executed. During this period the Alamo served as a garrison and quarters for troops of the invading army. The following August 18, General Joaquin de Arredondo, with some 4000 men, met and routed the insurgents south of the Medina River. Arredondo's retribution was swift and bloody: in addition to the 600 slain on the field of battle, he imprisoned most of the population of the city; in all, 327 rebels were executed in Bexar alone. The retaliation left the town a shambles, the property of the citizens confiscated, and the majority of the men either dead or having fled the country (Cox 1990:1-9).

When Iturbide became emperor of Mexico in 1821, some measure of stability returned to the troubled and depopulated province. This was due in large measure to the great number of troops dispatched to San Antonio, which also caused a shortage of housing. On November 5, 1823 the secretary of the *Ayuntamiento* (roughly equivalent to a city council) requested that the small houses along the mission walls be put up for sale as soon as barracks were built to house the troops (Fox et al. 1976:10). In 1825 the commander of the Alamo garrison requested that he be allowed to quarter troops in the old convento buildings. By 1829 more than 300 persons resided in the Pueblo del Alamo (Fox 1992:4). The implication is that the entire area of the buildings north and west of the convento and church was sold, primarily to military personnel; however, the church and convento remained in the charge of the Catholic church. Clear documentation reveals that the southwestern corner property was bestowed upon Pedro de los Angles Charle, the carpenter of the mission, at the time of secularization. Lands along the north and west sides of the plaza were granted to Miguel and Cipriano Losoya. Miguel's property joined the acequia on the northwest corner and Cipriano was granted the land along the west wall to the property of Maria Estrada outside the wall along the south (Ivey 1978:9).

Santa Anna was fully entrenched in power by 1835, when the state of Zacatecas rose in revolution. This action was brutally suppressed by Santa Anna using methods he had learned as a lieutenant with Arredondo. In April Santa Anna dispatched an army under the command of his brother-in-law, General

Martín Perfecto de Cós, to put down a minor civil war in Coahulia. Cós then moved north to reinforce the garrisons in Texas. Santa Anna officially revoked the liberal Constitution of 1824 shortly thereafter. In September Stephen F. Austin returned to Texas, after 18 months imprisonment in Mexico, convinced that the differences between the Texas colony and the new government were irreconcilable. The stage was set for revolution.

The plaza stood broken into three separate units: the now-deserted barracks, decaying homes on the western edge, and the old church. Due to the withdrawal of the military troops and their families, the church was left with a small congregation.

THE TEXAS REVOLUTIONARY PERIOD

The revolt began on October 1, 1835, with shots fired at Gonzales; soon the "Army of the People" under the command of Austin marched to San Antonio to place General Cós under siege. Cós prepared for battle by employing his troops to fortify defensive positions about the villa. He constructed strong cannon positions around the plazas and diverted the western branch of the acequia to the exterior of the old Indian Quarters along the west wall. Samuel A. Maverick, one of the city's first Anglo settlers who was a captive prior to the Battle of Bexar, reported "during the month of November '35 with great labor, Cós for the first time turned the Alamo into a fort. He threw down the arches of the Church which now lie imbedded with the earth in order to make an inclined plane to haul cannon on top the Church . . ." (Green 1921:134). Cós constructed a log palisade across the open area between the southwest corner of the church and the low barracks. Apparently, a parapet was constructed on the deteriorating north wall in an attempt to strengthen that area (Fox et al. 1976: 11-12).

Despite victories achieved in skirmishes, such as the battle of Concepción and the "Grass Fight," the siege stagnated and almost dissolved until December 4, when a group of volunteers under Colonel Ben Milam rallied to assault the city. Milam's group took up a position at the *Molino Blanco*, the old mill on the first return channel of the Upper Labor acequia, and attacked the city from the north in house-to-house combat. The Mexican troops defending the newly modified Alamo structures were largely isolated from the main thrust of the battle and never became a serious factor. General Cós capitulated to the Texans on December 10 and was paroled to withdraw his troops south of the Rio Grande.

The humiliating defeat of his brother-in-law spurred Santa Anna into a fury that drove him and his army into Texas with a speed that caught his enemy by surprise. When the Mexican army arrived on February 23, 1836, the Texans were forced into a hurried withdrawal behind the wall of the make-shift fortress of the Alamo.

Speculation abounds as to who was responsible for the fortifications behind which the Texans fought (Figure 1). While the engineer, Green Jameson, proposed elaborate modifications to the defenses -- noting that the previous attempts had "shown imbecility and want of skill" -- it is likely that few changes were completed by the time of the arrival of the Mexican army (Lord 1961:86). Indeed, many of the modifications attributed to Jameson had actually been completed by Cós.

One misconception frequently seen in later maps and reconstructions of the Alamo is a ditch connecting the two branches of the acequia along the south wall, in effect forming a shallow moat around the entire fortification. This would have served little purpose and recent archaeological investigations (Fox 1992:5, Figure 10) disprove this theory. A trench, approximately three feet deep and four feet wide, was found to extend from the *lunet* (defensive ditch) which protected the main gate, to the south face of the palisade wall; however, this ditch showed no evidence of deposition of silt or signs of erosion by water flow. This ditch was, in fact, a feature of the fortification of the palisade, providing earth for strengthening the vertical timbers and forming a *glacis* (slope) on the exterior (Fox 1992:28). Despite all modifications made, the structure remained a poor fortress lacking redoubts (projecting gun positions) to provide flanking fire.

After 13 days of siege, the Alamo fell in a concentrated assault on the morning of March 6, 1836; Santa Anna achieving what was to prove to be a hollow victory. After sweeping across Texas and driving Sam Houston's army to the edge of the territory, Santa Anna was caught unprepared by the Texans at San Jacinto and defeated and captured in a battle that lasted less than an hour. In a turn of events which seems to defy all odds, the Republic of Texas was born.

The Alamo had been left in the charge of Colonel José Juan Andrade and a thousand of Santa Anna's force. Upon receiving orders to withdraw, Andrade destroyed the defenses and single standing walls. This would have included the curtain walls on the south, west, and northeastern portions of the compound, and the palisade wall between the church and the low barracks. These efforts, in addition to the damage received during the siege, rendered the entire complex little more than ruins. That the mission was in

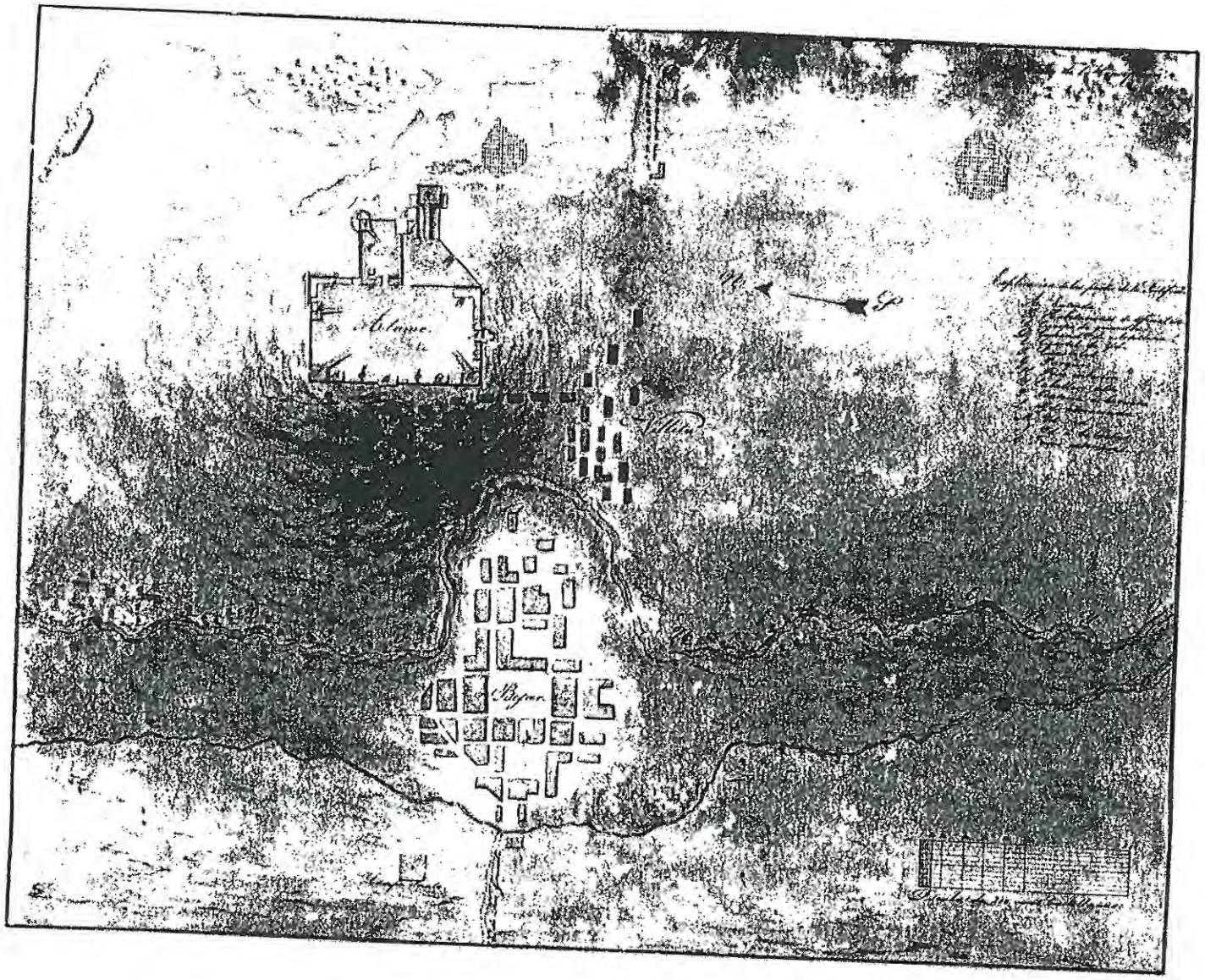

Figure 1. *Map drawn for Santa Anna in March, 1836, by Colonel Ygnacio de Labastida, Commander of Engineers* (copy at Barker Texas History Center, Austin).

such condition was recorded in an 1846 survey performed by Edward Everett, a U.S. Army engineer (Figure 2). The plat clearly indicates that the enclosing walls were no longer in existence and only conjectural lines mark the old compound. Two intact structures occupy the southwest quadrant, but the chapel and convento are relatively intact.

Following the battle and the retreat, the crumbling structure was deserted and abandoned for several years. William Bollaert, a visitor to the site in the early 1840s, wrote of the ruins, "not half the walls are now to be seen and those grown over with weeds, moss and even shrubs growing out of the cracks in its walls" (Fox et al. 1976:14). Doctor Ferdinand Herff, a prominent physician, and his wife upon arrival in their new city remarked, "[San Antonio] . . . was depressing after the delightful journey. The historic square lay muddy, covered with weeds, unkempt and neglected, its shrine standing gaunt and desolate " (Barber 1973:27). As long as a decade after the battle the Alamo church lay ". . . choked with debris of stones, mortar and dirt, causing an embankment from the base to the top. From the roofless top we could view a tangle of mesquite bushes, the ditch on the east and a few huts or *jacales* scattered around" (Chabot 1935:41). Few saw any promise for the desolate area to the east of the river; however, a notable exception was Samuel A. Maverick. As early as 1841 Maverick had purchased both of the Losoya *suertes* (grants received by a drawing of a lottery) from their heir, Mariano Romano, and divided the area into town lots as "Alamo City" (Bexar County Deed Records [BCDR], "Mariano Romano to Samuel A. Maverick," July 27, 1841. Office of the County Clerk, Bexar County Courthouse, San Antonio. Book A2, p. 470). Although the subdivision did not enjoy an immediate development, Maverick did relocate his residence from Main Plaza to the northwest corner of the compound some years later (Figure 3) (Green 1921:109).

THE U. S. ARMY OCCUPATION OF THE PLAZA

Other factors, however, soon created a heightened interest in the old compound and church. As the United States and Texas began negotiations toward annexation, Mexico immediately broke its truce with Texas and began preparations for war. When it became apparent that Texas would ratify annexation, President James K. Polk dispatched General Zachary Taylor and the army into the republic to protect the territory until ratification. Taylor and his forces landed at Corpus Christi in July 1845. Polk attempted to buy Texas -- and peace -- but was met with adamant refusals. Only after it became apparent that negotiations were fruitless and his ambassador was rebuffed, did Polk order Taylor to the Rio Grande in

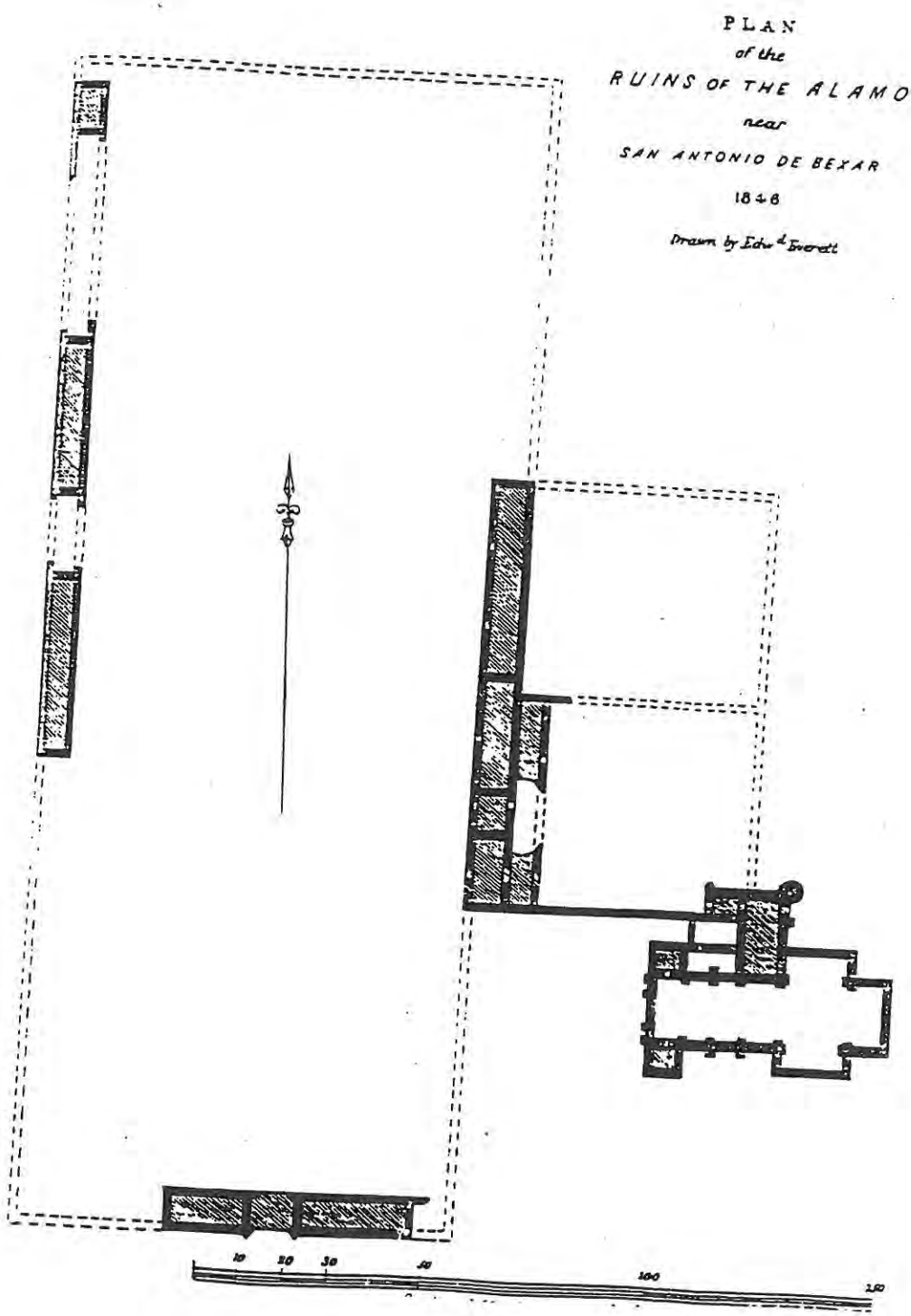

Figure 2. *Plan of the Alamo in ruins in 1846 by Edward Everett* (courtesy of the DRT Library). Solid walls indicate standing structures, striated areas indicate roofed structures.

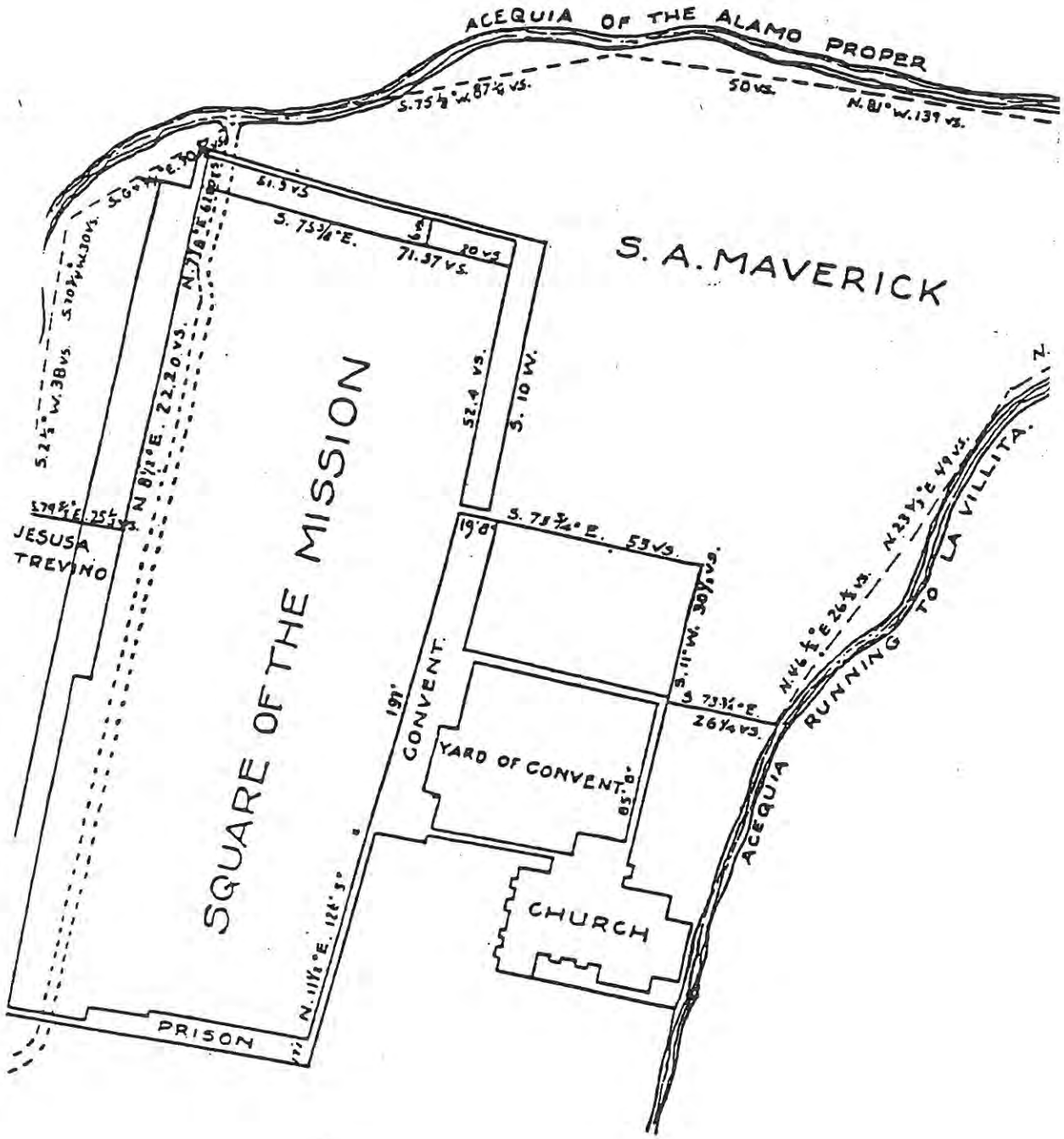

Figure 3. *Map of the Alamo in 1849 by Francois Giraud, the City Surveyor* (City Engineer's Office, Book 1, p. 114). This map has proven to be highly accurate.

April 1846. In October 1845 Colonel William Selby Harney and the United States 2nd Dragoons had arrived in San Antonio and established a camp near San Pedro Springs. For the first time in over three decades, the arrival of armed troops did not precipitate conflict and devastation for the city; in contrast, it heralded a symbiotic relationship with the military that has remained a mainstay of the economy until the present day. In anticipation of hostilities, Lt. Edward Blake had been dispatched to survey and map the area along the Rio Grande, and in the process sketched and mapped the Alamo as it existed in 1845; Everett constructed his plan map of the remains (Figure 2) the following year (Fox et al. 1976:14).

In July 1848, with the Treaty of Guadalupe Hidalgo, the Mexican War ended. Although an unpopular war, it secured for the United States the territory that would become California, New Mexico, Utah, Nevada, Wyoming, and part of Colorado for a settlement of $15,000,000. The nation had achieved its "Manifest Destiny," settled all claims against Texas, and established the Rio Grande as its southern border. The end of hostilities did not end the military presence in San Antonio. During the war the city had served as an important supply depot for the army; it now continued to serve the same role to protect and secure the new territory. In December 1848 Major General William Jenkins Worth, the hero of the Battle of Monterry, arrived to take command of Camp Olmos, near the headwaters of the San Antonio River (Pierce 1969:148). General Worth would not, however, hold command for long: in April 1849, the dreaded cholera again struck the city and General Worth was one of its 600 victims. He was initially buried at the largest springs at the head of the river, but was later reinterred in New York City.

In 1849 the army, now under command of Brevet Major E. B. Babbitt, leased the Alamo church and convento from the Catholic church and began converting the buildings into quartermaster depot. The convento became offices, depot houses, and sheds. The church walls were repaired and the distinctive façade, designed by local architect John Fries, was added to create the image that has become recognized as "the Alamo" (Figure 4). The question as to the ownership of the building prompted the council to inform Major Babbitt that "said property is, and of right might be, the property of said city of San Antonio and all rents and dues for the use of said building and property will be required to be paid by the acting Quartermaster into the treasury of the city . . . (Minutes of the City Council [MCC], Office of the City Clerk, City Hall, San Antonio. Book B, p. 71). Bishop Odin had leased the church to the army at the rate of $150.00 per month, based upon the Act of the Republic of Texas of 1841 which maintained that former church property should belong to the church. The city sued to recover the property and the case was decided in favor of Bishop Odin and the Catholic church by decision of the Supreme Court of the State of Texas (Smith 1966:25).

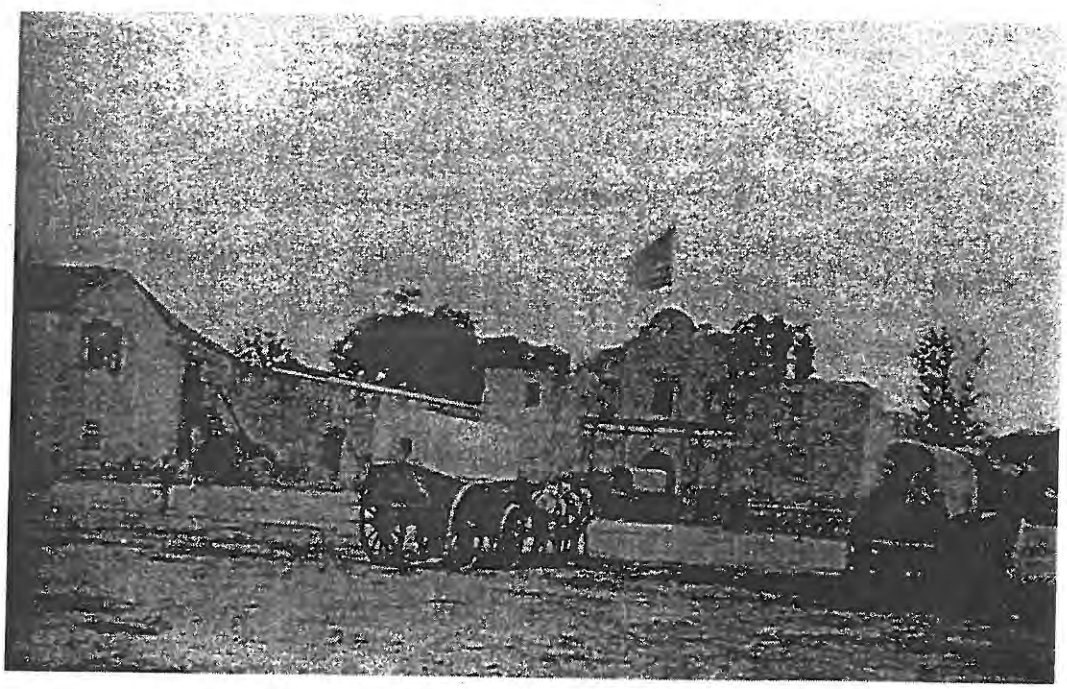

Figure 4. *U.S. Army wagons in the plaza, 1867* (Courtesy of the Institute of Texan Cultures). Note various changes made by U.S. Army Quartermaster. Façade of church has addition above doorway to mask new roof construction, two windows for second story which has been constructed within the church, pitched roof on convento, and stairway providing access to second story. Also, note disturbed condition of the plaza surface due to wagon traffic and bad drainage.

Army personnel began extensive repairs and modifications to the old structures; they first cleaned out an roofed the church, installing a second floor deck for the storage of supplies. The low barracks on th south wall were repaired and put back into use (Thomas 1970:43). The convento was not renovated unti after 1850, but by 1853 the entire convento and church complex were in use as workshops, stables, storehouses, rooms, and offices. During an 1854 inspection, Lt Col. W. G. Freeman noted that the church and convento were rented from Bishop Odin, although the title was in dispute, and the remainder of the lot from S. A. Maverick. "The buildings and premises are admirably adapted to their purpose; storage for supplies is ample and secure and by the workshops, stables, storehouses, rooms and offices being brought together, a stricter vigilance can be exercised" (W. G. Freeman's "Report of Quartermaster Depot at the Alamo, Office of the Quartermaster General, San Antonio." National Archives, Washington, D.C., File Box No. 1). The presence of the army created a large amount of traffic for the plaza; as a staging area more than 100 army wagons and teams passed through the compound on a daily basis, transporting military supplies from Indianola to the frontier forts. Civilian suppliers and Mexican carts provided further congestion (Fox 1992:4). The plaza was now the center of military commerce and the sole shipment point for the Western chain of frontier forts. The church and convento building, with their improvements, were now the focus of the traffic from the coast and toward the west. Across the plaza the few remnants of the compound had been converted into jacals and thatched-roof hovels which retained little indication of their mission origin.

PRE-CIVIL WAR PLAZA DEVELOPMENT

This increase in activity on the east bank of the river had the immediate effect of making the area more attractive to others. Maverick's subdivision of Alamo City began to slowly develop, and the area directly behind the old church was acquired by John James Giddings. The latter had the area platted into town lots with the streets named after fallen Alamo heroes: Crockett, Travis, and Bonham (BCDR, Volumes A2:159, H1:109). A major turning point in the development of Alamo Plaza was the construction of the Menger Hotel as a quality hostel in 1857. The wooden building at the southwest corner of Plaza de Valero was quickly outgrown and, by January 31, 1859, a beautiful new hotel of stone opened (Figure 5), "a hotel that would not be of discredit to any city in the Union . . ." (*San Antonio Daily Herald,* 2 February 1859). This establishment became the center of activity for the growing influx of visitors and businessmen into this part of town. The Menger brewery, catering to the increasing German immigration into San Antonio, became a social center drawing others to the neglected east bank of the river. The

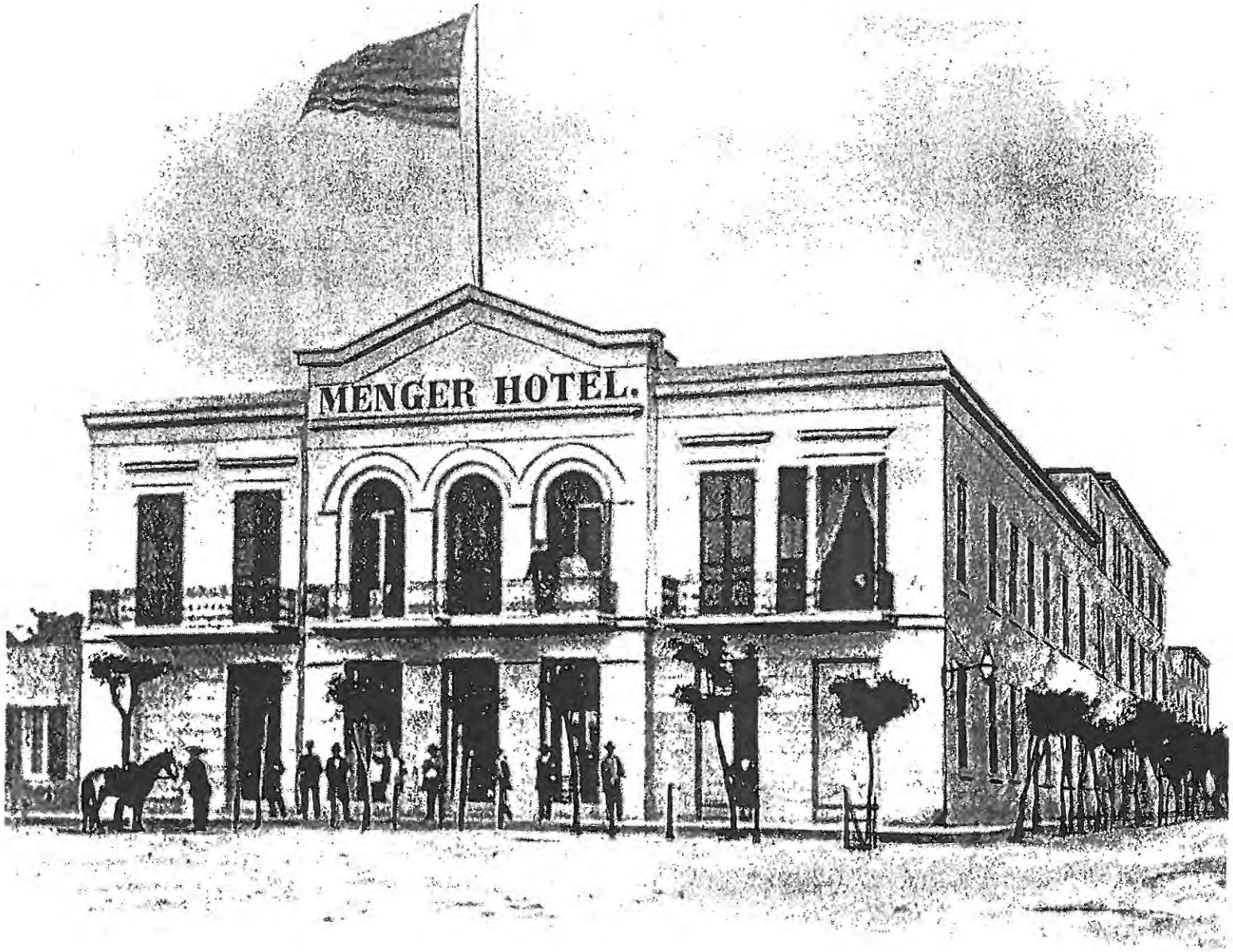

Figure 5. *Menger Hotel at the southeast corner of the plaza, built in 1859* (courtesy of the DRT Library). The newly planted trees suggest this photograph was taken ca. 1860.

brewery, operated by Charles Degen, was the first of its kind in the southwest and one of the first manufacturing enterprises in the city (Smith 1966:34).

To supply the demands of the city's development, a meat market was constructed in 1859 in the plaza just south of the low barracks. "The market opened at two in the morning, the meat having been slaughtered earlier the same night, and brought down to be cut up for sale. Hotel cooks, restaurateurs, and household shoppers came before or soon after daylight to buy a one-day supply, and since there was no way to preserve the meat, the stalls were closed at 7AM and what remained was given away" (Freeman 1972:3). Despite this growth within the area, the general appearance was dusty, drab, and unattractive with the western margin "windowless cabins of stakes, plastered with mud and roofed with river grass or 'tula,' or low windowless, but better thatched, houses of adobes . . ." (Olmsted 1857:149). The west side of the plaza consisted of only these hovels, the sole exception being the new Maverick residence just outside the northwest corner of the plaza (Figure 6). The church now displayed the decorative element on the top of the façade constructed by the army to hide their new peaked roof. The plaza was still separated by the remains of the low barracks, located just north of the market.

In the midst of this growth period, dark clouds were forming over the nation. The abortive raid by John Brown at Harper's Ferry on October 16, 1859 had thrust the issue of slavery to the forefront as the major political schism confronting the nation. In 1860, as the year drew to a close, news arrived that Lincoln had been elected to the presidency; within a month the legislature of South Carolina ratified their Ordinance of Secession.

On February 4, 1861 the Texas Secession Convention passed the expected Ordinance of Secession, and began to make immediate plans to appropriate federal military property and supplies in San Antonio. A "Committee of Public Safety," consisting of Judge Thomas Devine, Samuel Maverick, and Philip W. Luckett, was dispatched to confront General David E. Twiggs, commander of the Department of Texas. They were backed by a "sufficient force" of men under the command of Texas Ranger Benjamin McCulloch. On February 6 the safety committee began their negotiations with Twiggs, which soon stalled over the federal funds and the withdrawal of troops. The committee felt that Twiggs was deliberately delaying the talks. On February 15 they learned that Twiggs was to be replaced by Colonel Waite of the 1st Infantry. On February 16 under cover of darkness, McCulloch and his volunteer militia moved in to occupy the city. Twiggs surrendered and the commission had effected the surrender of the entire federal

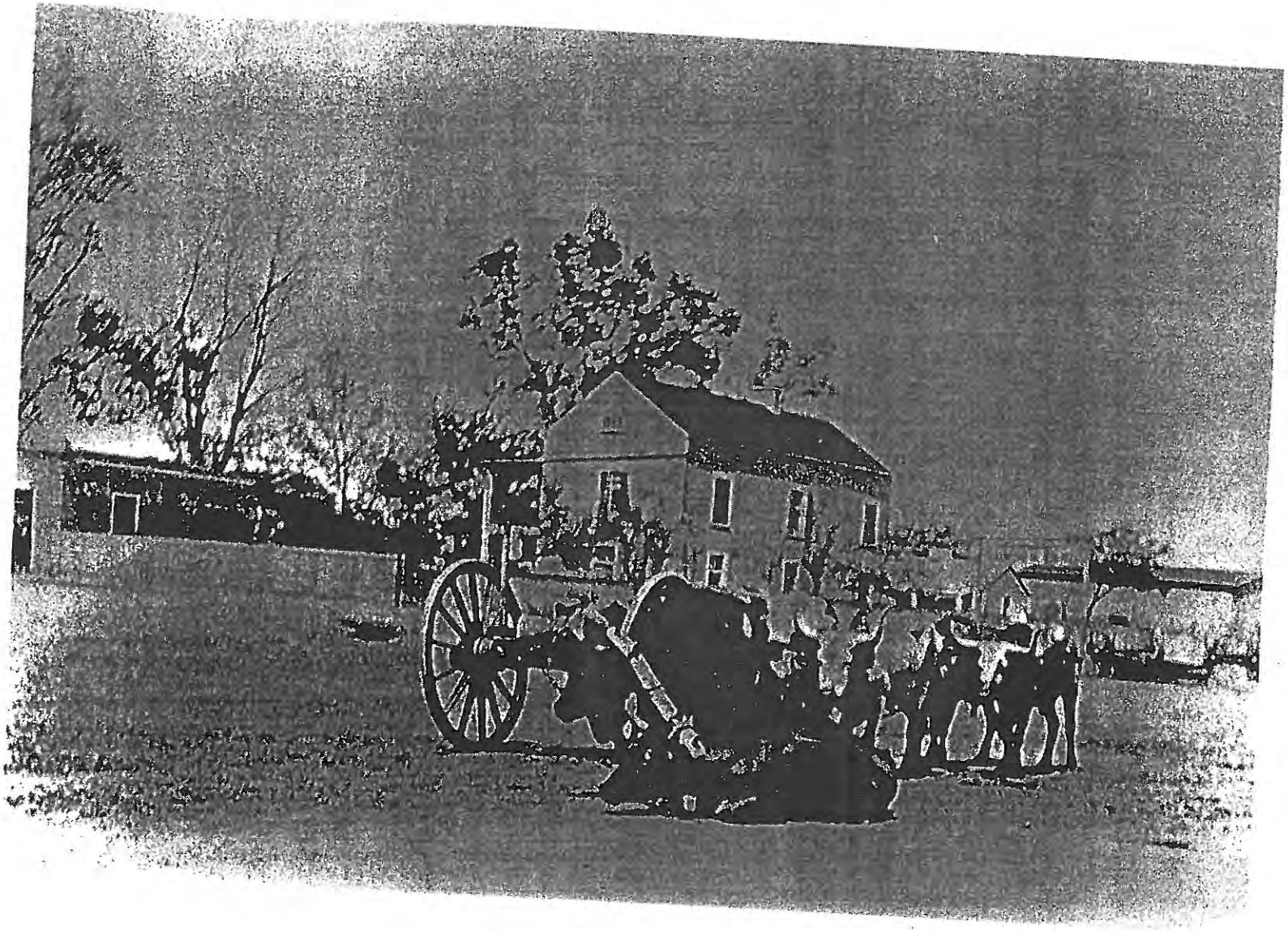

Figure 6. *Maverick home outside the northwest corner of the plaza, built in 1850* (courtesy of the DRT Library). Note buildings starting to surround the north end of the plaza by the mid-1860s.

army in Texas -- some 37 companies of regulars or approximately 15 percent of the United States land forces -- without a shot having been fired (Bowden 1986:2-3).

ALAMO PLAZA 1860-1880

When the Confederacy took command of Alamo Plaza, it had changed little during the past 20 years, save for the new Menger Hotel on the southeast corner and the improvements accomplished by the U. S. Army. Early on during the Confederate possession of the Alamo, two young boys smoking in the church set fire to loose straw, resulting in a fire which gutted the interior. The fire destroyed the wooden roof and the second floor, a portion of the front wall collapsed, and the entire building had to be repaired (Fox et al. 1976:21). As the Confederacy began to fail, refugees filtered through Texas on their way to Mexico, creating disorder in their path. Finally, late in June, Joe Shelby's "Iron Brigade" of 300 Missouri Horse Soldiers arrived on their way to Mexico and restored order. The Menger Hotel became the home to ex-governors Henry Allen of Louisiana and Thomas Reynolds of Missouri, as well as generals Price, Magruder, Hawes, and Wilcox (Young 1992:196). They were soon joined by Kirby Smith and the last remnants of his command, who with the other expatriates, departed San Antonio and crossed the border into Mexico (Young 1992:146).

The years following the war were bitter times for Texas, as well as the entire South. "The economy and future of Texas lay in ruins. Fully one-fourth of the productive white male population was dead, disabled, or dispersed. Almost every form of real wealth, except the land itself, was dissipated or destroyed" (Fehrenbach 1968:394). The problems of recovery were further compounded by the excesses of the Carpetbagger regime imposed upon Texas by the victorious North. The "ironclad" loyalty act disenfranchised any who had ever been ". . . a mayor, school trustee, clerk, public weigher, or even a cemetery sexton . . ." from public office (Fehrenbach 1968:410). This resulted in the miliary appointment of often grossly incompetent and corrupt officials.

Due to several unique circumstances, San Antonio was to fare much better during this trying period than the majority of the state. First, because of the neutrality or outright Union support of many of its leading citizens, several well-qualified and experienced candidates were available for public office. Wilhelm Carl August Thielepape, an educated and qualified Unionist, was appointed mayor in 1867 by General J. J. Reynolds, the federal authority in Austin (Corner 1890). Thielepape (whose house was on the present

grounds of the Alamo, directly behind the library and Alamo Hall) served capably until 1872. A second factor was the U.S. Army's return to San Antonio. Although now an army of occupation, it was nonetheless a source of "greenback" money for the local economy as the flow of supplies and men passed through the area to re-man the frontier forts, serving in some measure to ease the Indian problems (Fehrenbach 1968:103). The third effect, and probably the most important to the city, was the growth of a new industry: the cattle drives which arose to supply the beef-hungry North. San Antonio, as the only major city on the vast frontier, was the primary benefactor. Rough-and-tumble San Antonio became the capital city of the short-lived cattle empire (Fehrenbach 1968:107).

This rebirth of the economy brought about a growing recognition of the need to improve the appearance of the city. Vinton James, who was born on Commerce Street, recorded this scene: "the plazas were filled with high weeds and stagnant water after rains . . . Dirt and kitchen refuse were relegated to back yards, which attracted flies by tens of thousands and rats by thousands. Carcasses of cats and dogs and other dead animals were thrown in the river . . . the unpaved streets were quagmires after rains" (James 1938:134). Among the efforts to improve the condition of the city was a move to remove the old low barracks, now called the *galera* building, which had originally formed the structure at the south wall of the plaza compound. The city's efforts to clear the ruins were halted by the Catholic church which still claimed title to the property. The issue was finally decided in 1871, when the city purchased the galera property from the church for $2,500. The warranty deed carried this restriction, ". . . it being understood that the property hereby conveyed is so conveyed on condition that it shall be dedicated to the public use as an open space and to be made a part of and one with the plazas above and below it, now known as the Alamo Plaza and the Plaza de Valero" (BCDR, Volume W1, p. 237) (Figure 7). With the removal of the market buildings the area was now unified, but displayed little improvement. The drainage problem had not been corrected and the west margin still consisted of adobe homes and decaying jacals. The expansion of business toward the east side of the river was still several years in the future (Figure 8).

Another event in the immediate future was to have a profound effect upon the plaza. In 1875 San Antonio was the only major city in the nation not serviced by a major port or railway. All goods, still primarily supplied from the north, had to be transported by cart or wagon over admittedly inferior roads to supply a city that had now fallen to Galveston as the most populous in the state. That San Antonio could no longer aspire to grow, much less maintain its distinction as a major western terminus, without the advent of rail transportation was openly apparent. The city had already seen its title of cattle capital usurped by the introduction of iron rails into the state. The railroad was the imperative link for access to the

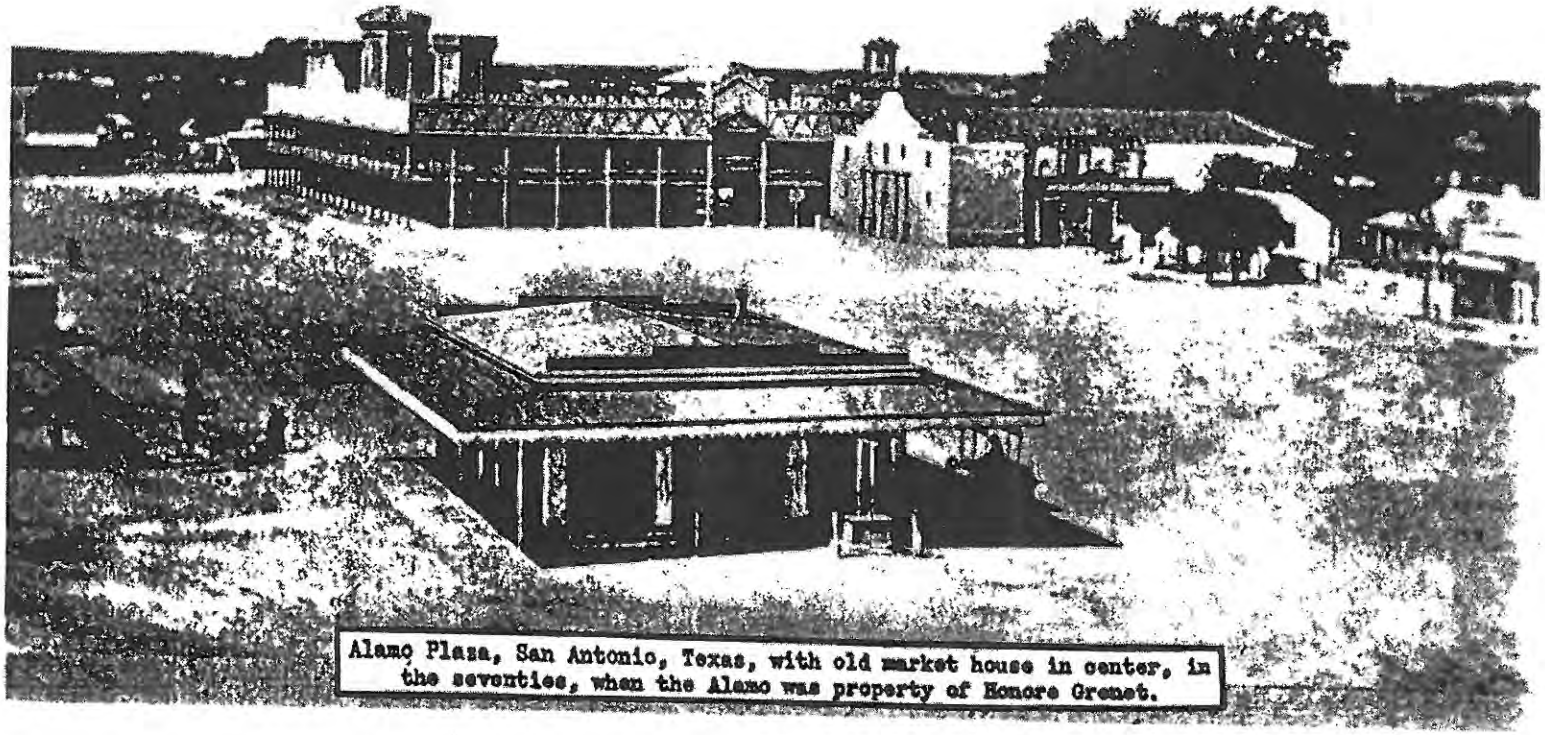

Figure 7. *The plaza, looking north, in the late 1870s* (courtesy of the DRT Library). The market house is in the foreground, the Grenet store beyond. Note the trolley tracks at the left of the market house.

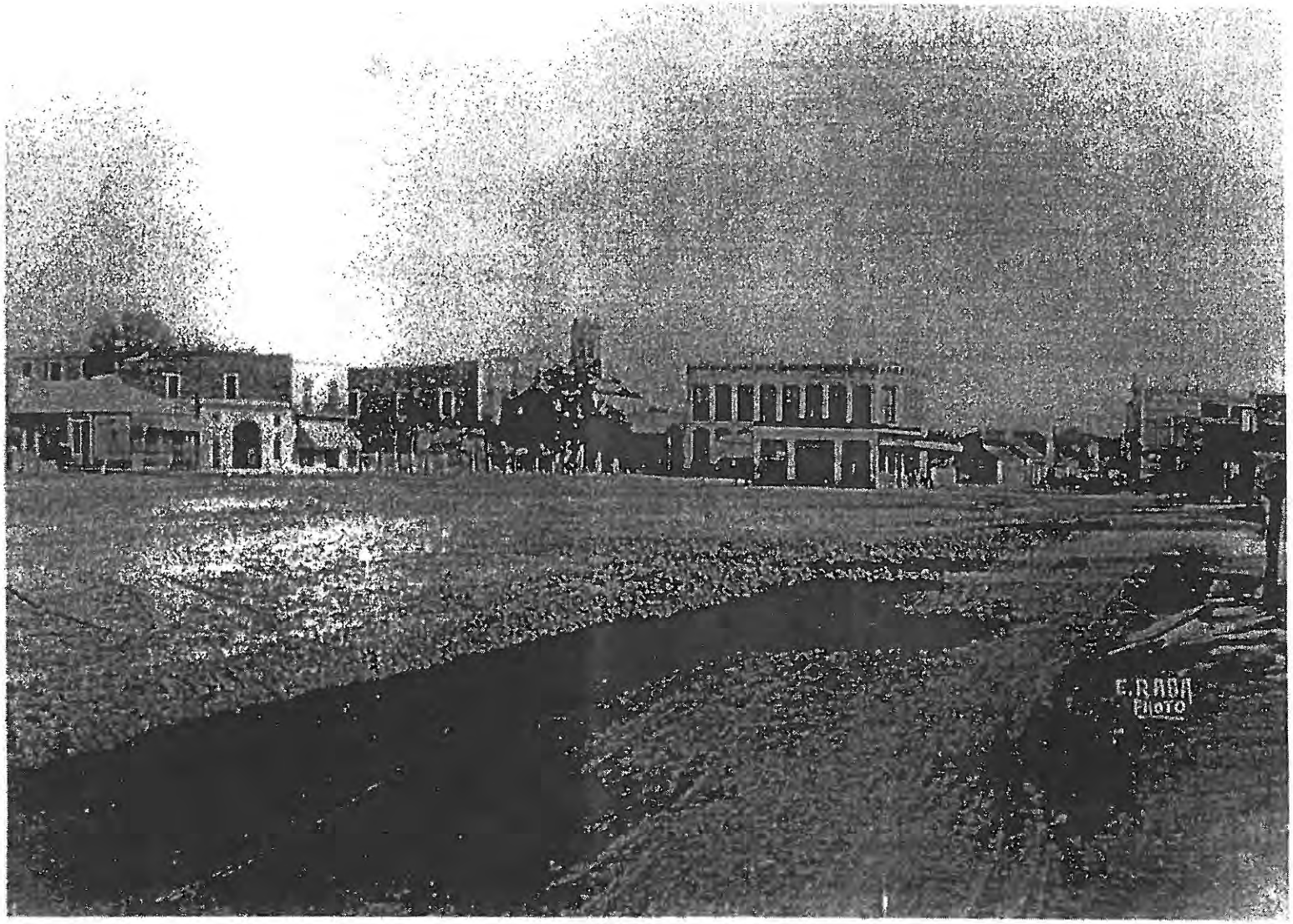

Figure 8. *The plaza, looking southeast, in the late 1870s* (courtesy of the DRT Library). The Menger Hotel with mature trees in front and the Post Office at center of photograph; the market has not yet been removed. Note the majority of the buildings around the plaza are still small-scale "adobes."

industries of the east and the growing markets of the west. The arrival of the Galveston, Harrisburg and San Antonio Railroad (GH&SARR) on February 19, 1877, was greeted with pomp and splendor unprecedented in all of San Antonio's often flamboyant past. Heralded as "the greatest event connected with the history of our city," thousands cheered its entry into the new terminal only a few blocks northeast of the Alamo (*San Antonio Express* [*SAE*], 20 February 1877). The advent of the increased traffic demanded an expansion of the public transportation system, so Colonel Augustus Belknap formed a company to fill that need with a horse-drawn street railway from Alamo Plaza to San Pedro Springs, a prime tourist destination. The line was an instant success, transporting 105,000 passengers during its first six months of operation (Smith 1966:39).

In November 1877 Honoré Grenet purchased the now-empty convento building from Bishop Pellicer for $20,000 (BCDR, Volume 7, p. 373). Grenet, a native of France and prominent local businessman, proceeded to renovate the old structure, encasing it in a wooden framework intended to make it resemble a fortification. It was a two-story merchandise store in the shape of a quadrangle with the Alamo church, which he leased and utilized as a warehouse, on the south. The north and east side were frame, and also served as warehouse space for his museum and wine and liquor salesrooms (Fox et al. 1976:22). The store was immediately dubbed "Grenet's Castle," and was often the target of ridicule from the press. A local paper reported that a woman visiting the old chapel who stumbled over bags of salt and kerosene remarked, "this takes all the romance out of the Alamo" (Gallegly 1970:27). In addition, the old homes along the western edge were slowly being replaced by small frame stores. The middle of the plaza was now dominated by the market (Figure 7).

The following month the post office was moved to Alamo Plaza, bringing more people to the east bank and establishing the plaza as a major center of the city activities; yet the plaza still had many rough edges. "In dry seasons, it was an arid space with crate-like depressions half-filled with black gumbo dust or caliche powder; in the wet, the area became a loblolly of slush, abounding in chug-holes, or 'abruptions', some of perilous depth" (Gallegly 1970: 28). The placement of the street railway required that the track be raised some two feet to keep the rails out of the mud, creating a barrier to cross-traffic and an impediment to the drainage. "On September 7, 1882, six and a half inches of rain, falling off and on all day long, put the entire region from Grenet's Castle to the Alamo Market under water" (Gallegly 1970:28-29).

URBAN DEVELOPMENT OF THE PLAZA, 1880-1900

Despite its problems, the area continued as the main focus of city life. For the west side of the plaza, facing the Alamo, the prominent architect Alfred Giles designed the imposing Italianate three-story Crockett Block. Just to the south of this beautiful addition, the Grand Opera House was added to the plaza in 1886, south of the corner of the old compound at Alamo and Crockett Streets (Figure 9). The elaborate structure compared favorably with the theaters of the East, boasting performances by the top performers of the era. In the same year, the six-story Maverick Bank building, on the northwest corner of the plaza, added charm with ornate ironwork adorning its balconies.

Upon the death of Grenet in 1882, the mercantile establishment passed to his heirs (BCDR Book 48:50). Four years later the property was purchased by Charles Hugo and Gustav Schmeltzer ("Estate of Honore Grenet," File no. 1269, Probate Records, Bexar County Courthouse). The new owners continued Grenet's trade, but tempered the garish façade of the store.

The city, probably prompted by the purchase of the Alamo church by the state of Texas, also began taking action to improve the plaza. In 1888 the council passed an ordinance to improve both Main and Alamo Plazas. One of the first actions taken was to establish four streets, 60 feet wide and paved with wooden block, around the plaza (Figure 10) (MCC, Volume H). The council also ordered sidewalks built in front of the Alamo and directed that owners of property fronting on the plaza do likewise. The water company was directed to connect pipes to the middle of the plaza for a fountain (Fox et al. 1976:23). The plaza was then transformed into a public park, with a garden of trees and flowers with a circular walk in its midst (Figure 11) (Smith 1966:40-41). As the popularity of the plaza grew, other embellishments such as iron benches and electric lights were added. In 1892 council authorized "Wm. Reuter to erect a permanent, ornamental music pavilion . . . on the center of Alamo Plaza Park" (MCC, Volume H). Another action to clean the plaza was the banning, in 1889, of the chili stands and "chili queens"; this action met with such protest from the citizens that the ban was repealed in 1896 (Smith 1966:42).

In 1887 construction was begun for a new post office and federal building to the north of the plaza on Houston Street. This gothic-revival edifice was completed in 1890 at the impressive cost of $392,000 (Steinfeldt 1978:110); the granite building dominated the plaza until it was replaced in 1937 by an even larger structure (Figures 12-14).

Figure 9. *The plaza, looking southeast, in the mid-1880s* (courtesy of the DRT Library). This photograph was probably taken from the new Maverick Bank which was built in 1886. A large, three-story addition has been made to the Menger Hotel and the center of the plaza is still rutted and unpaved.

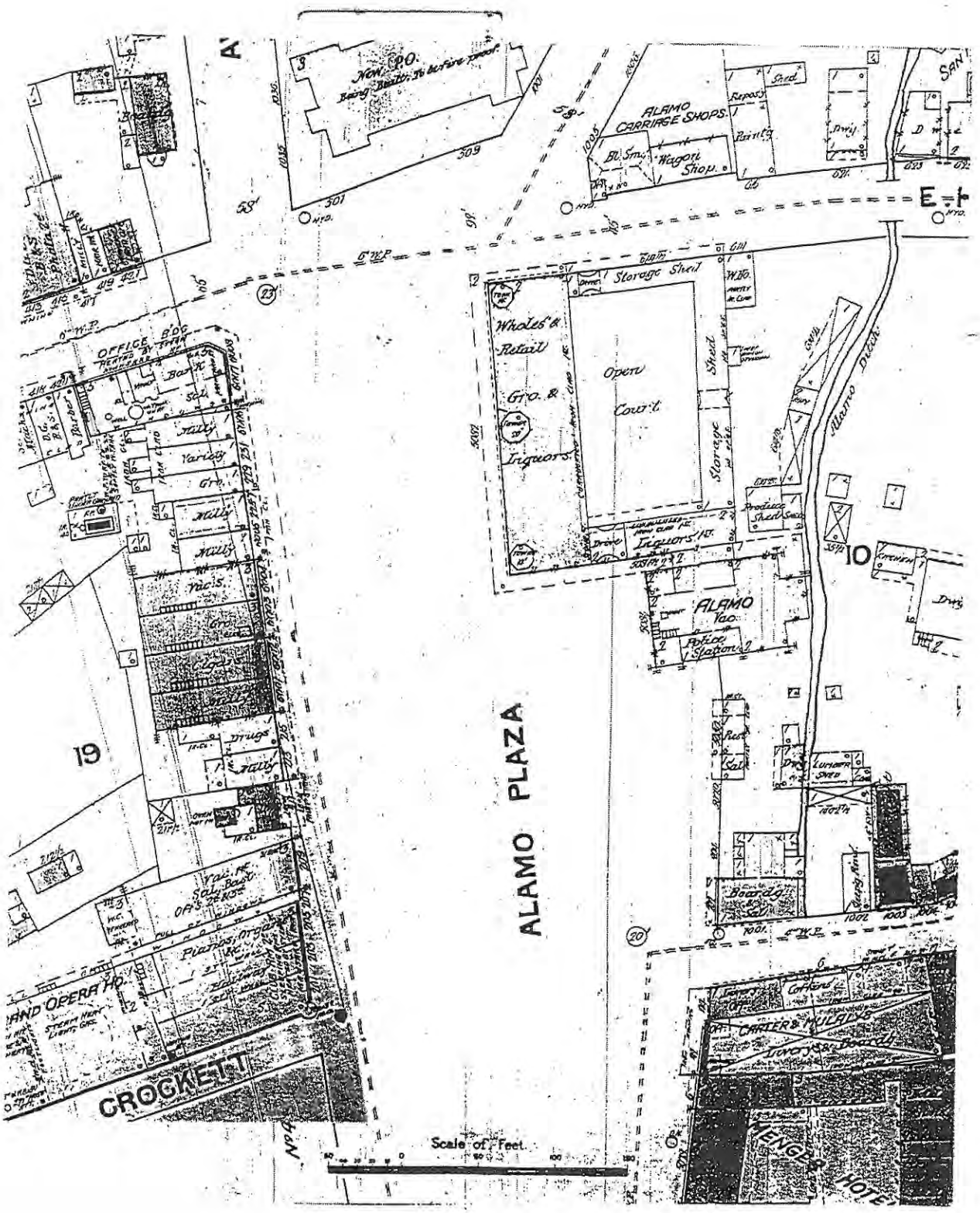

Figure 10. *Sanborn Map of the plaza area, dated 1888* (courtesy of the DRT Library). This map was probably drawn the previous year. Note the Opera House and the new Post Office under construction; Alamo church is vacant.

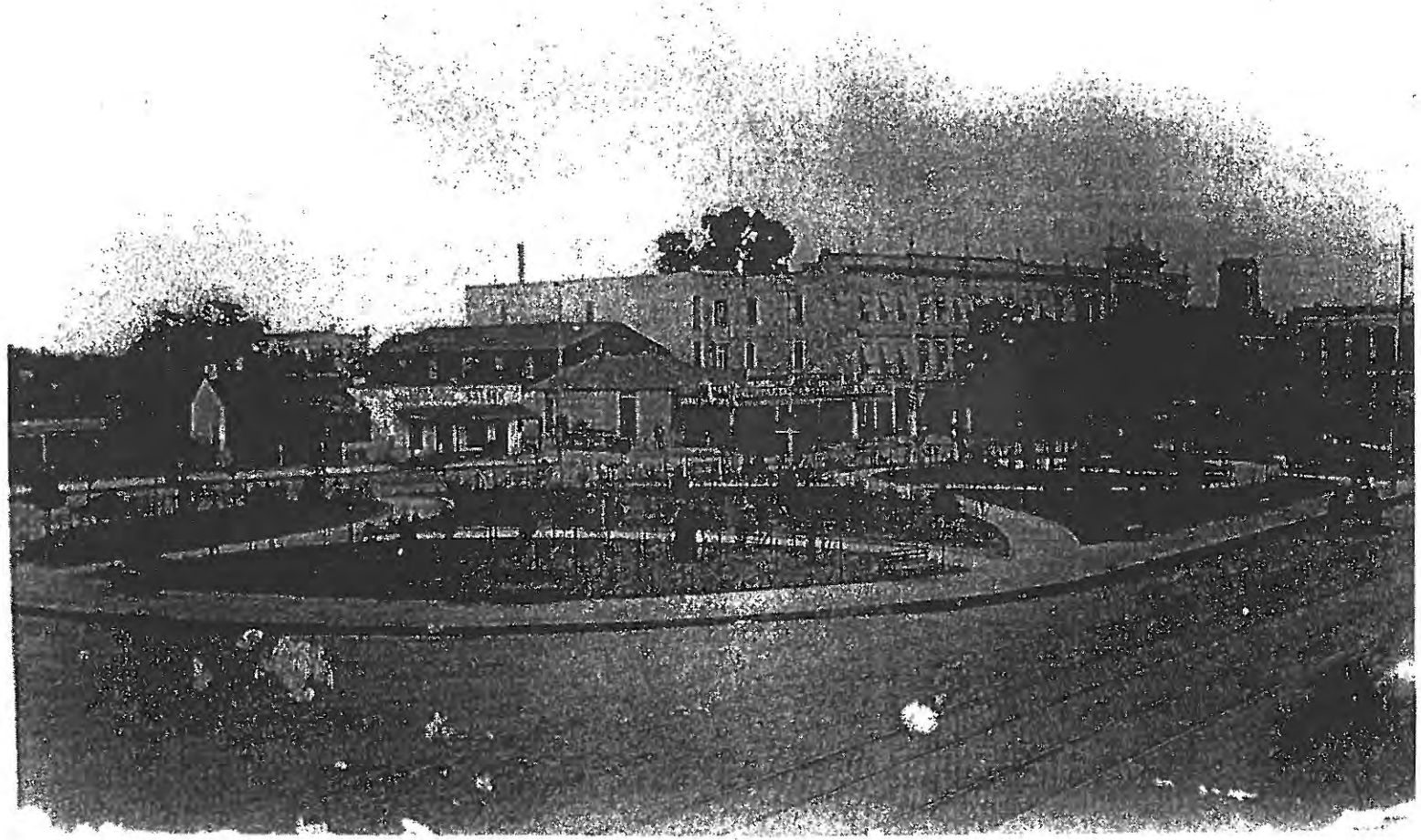

Figure 11. *The plaza, looking southeast, showing new park and wood block paving installed in 1888* (courtesy of the DRT Library).

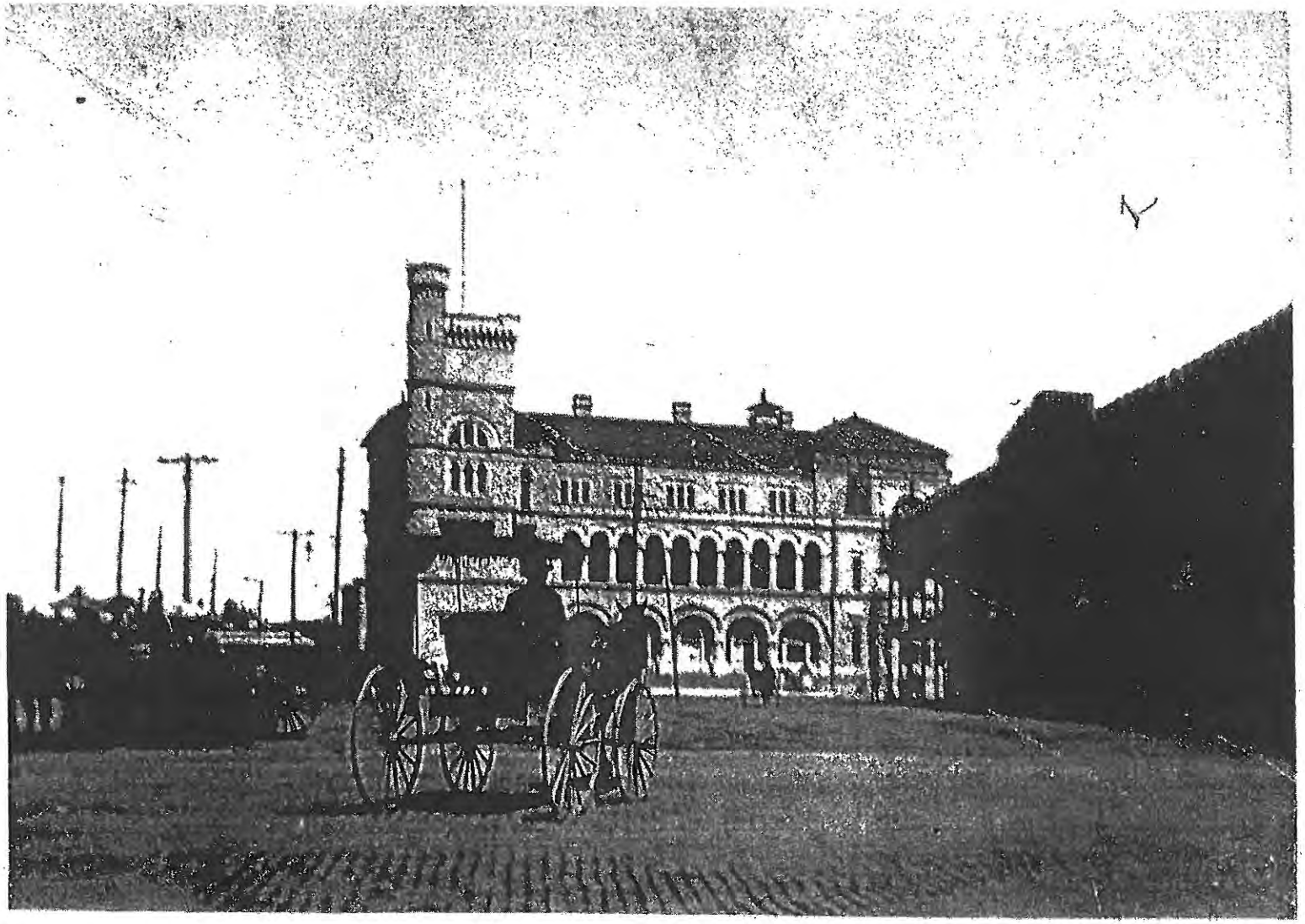

Figure 12. *The plaza, looking north, ca. 1890* (courtesy of the DRT Library). This view shows the new Post Office; the Grenet store is now Hugo and Schmeltzer.

Figure 13. *First Battle of Flowers parade in 1891* (courtesy of the DRT Library). Note wood block paving goes up to the church; Reuter Building, Opera House in the background to the right; the landscaping in the park is maturing rapidly.

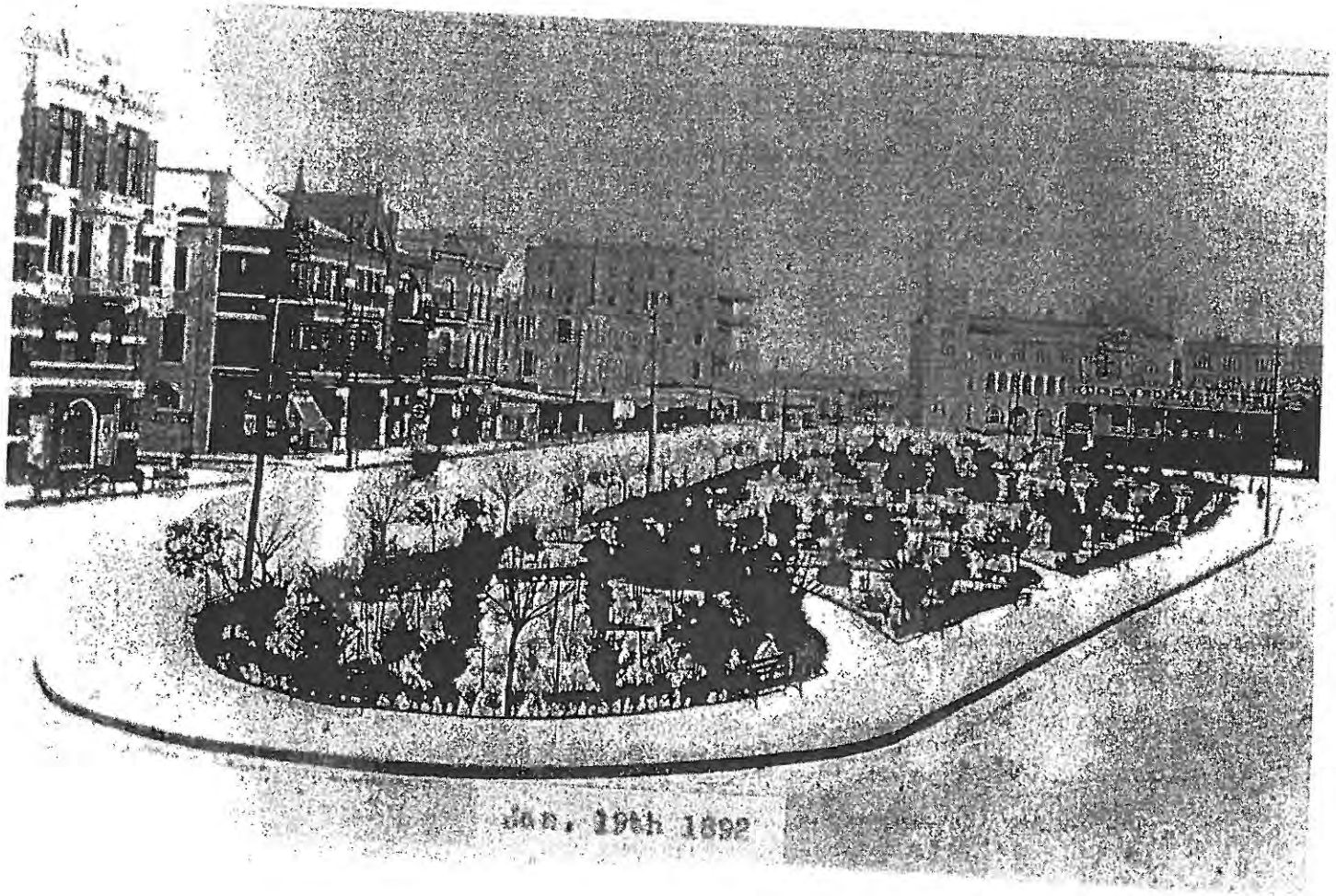

Figure 14. *The plaza, looking northeast, in the early 1890s* (courtesy of the DRT Library). Note the Opera House on the far left; Crockett Block, to the north; Maverick Bank and Post Office at the head of the plaza; then Hugo and Schmeltzer store; new park in center.

TWENTIETH CENTURY DEVELOPMENT OF THE PLAZA

At the beginning of the twentieth century, several proposals to improve or beautify the plaza and honor the defenders were developed; fortunately few of these were ever developed beyond the planning stage. All the proposals involved the Alamo in some manner, causing concern among the Daughters of the Republic of Texas [DRT] that private interests would acquire the remaining property before the state could act to save it; therefore, in 1904 Clara Driscoll purchased the Hugo and Schmeltzer property with $75,000 of her own funds (Figure 15) (BCDR, Volume 223, p. 261). In the following year, the state of Texas assumed the purchase and designated the DRT guardians of the Alamo property. In 1907 a group of St Louis businessmen purchased property behind the building, proposing to "improve this property in a manner creditable to ourselves and to the city" (Smith 1966:44). But their plans were contingent upon tearing down "the Hugo-Schmeltzer property . . . and that land on which it stands will be converted into a park" (Smith 1966:44). A prominent member of the DRT, Adina De Zavala, was able to arouse public support to block the demolition (Smith 1966:44). In 1912 the grandest proposal of all was presented: a new Alamo Heroes' Monument Association began a campaign to collect $2,000,000 to erect an edifice, designed by Architect Alfred Giles, to be raised to a height of 802 feet in the middle of the plaza. The base would be 85 feet square, with 70-foot columns of Texas granite at each corner, surmounted by heroic figures of Travis, Crockett, Bonham, and Bowie (Smith 1966:46). Although promoted as the "eighth wonder of the world," the plan was fortunately never adopted.

After several disagreements among various factions of the DRT and state officials, the restoration of the Alamo grounds was begun in 1915, resulting in the clearing of intrusive structures on the property and initiating the basic plan that brought it to its present form. Over the years the plaza continued developing and changing in response to local needs and contemporary taste. The wooden blocks were covered and/or replaced by brick pavers in 1927. At the same time the Reuter bandstand was removed and replaced by a new concrete structure housing public restrooms beneath the bandstand (Figure 16). The park underwent several enlargements and redesigns and Crockett Street was extended through the south end, amid a great deal of public protest. The area in front of the church was widened and landscaped in 1934 (Fox 1992:9). During the preparation for the Texas Centennial a new monument was proposed, for which $100,000 in federal funds was set aside for a sculpture to commemorate the dead of the Alamo. The Texas Board of Control selected Pompeo Coppini to execute the work. He designed the monument as a cenotaph, "a monument to the dead whose remains lie elsewhere" (Smith 1966:46). Folk historian J. Frank Dobie

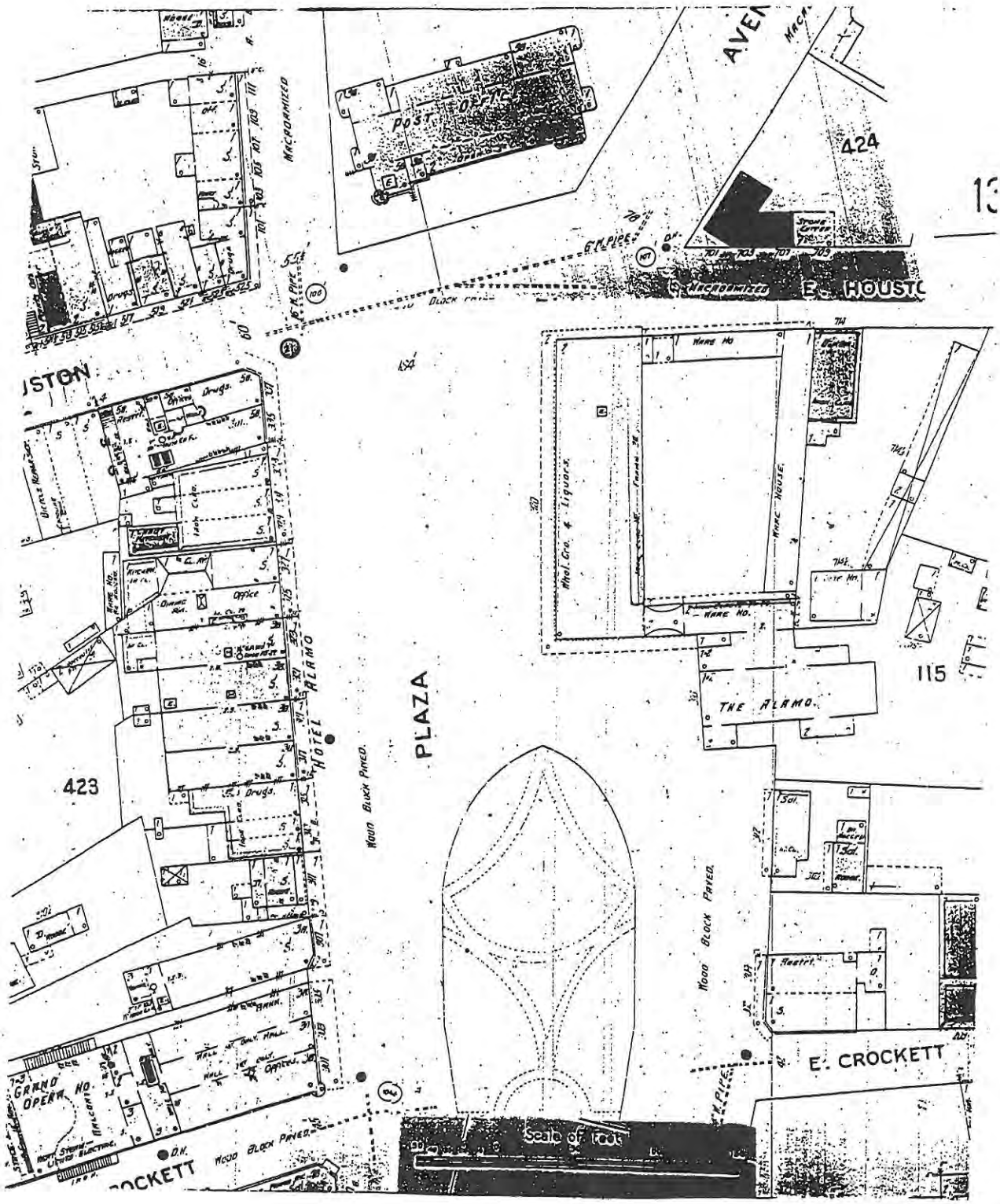

Figure 15. *Sanborn Map dated 1904.* Note the new park and wood block paving; the entire west side of the plaza is now commercial buildings, the majority of which are two-story or higher.

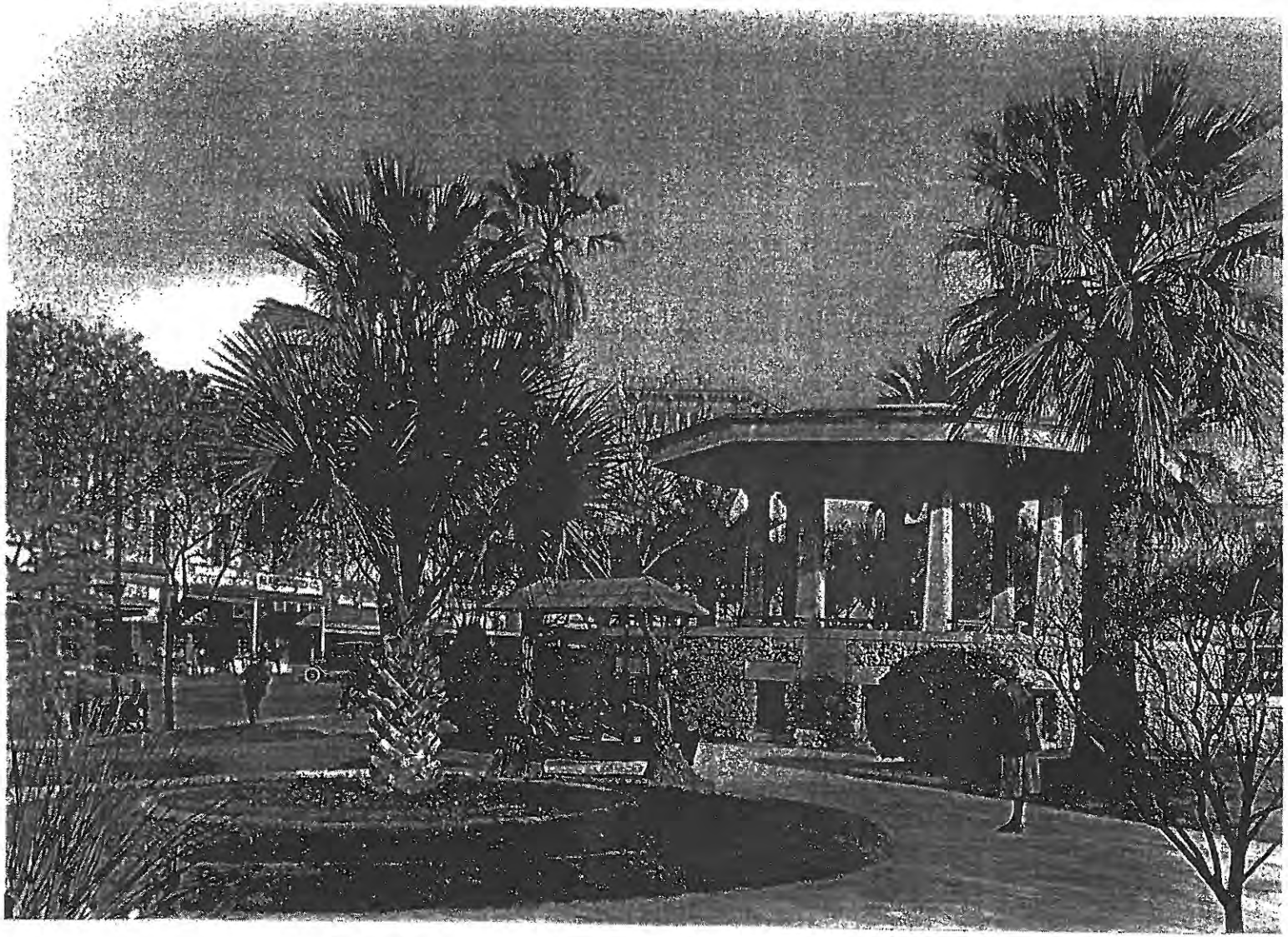

Figure 16. *Twentieth century revision of park and bandstand installed in 1927* (courtesy of the DRT Library). Palm trees and naturalistic reinforced concrete sculptured benches were popular at this time. Note the Gibbs Building, built in 1907-1908, on the northwest corner of the plaza behind the bandstand.

objected to the design, comparing it to a "grain elevator." Amid continuing protest and dissention, the monument was dedicated in November 1940 (Figures 17 and 18).

In the early 1930s the city's attention turned to another asset which had been sorely neglected for many years. Beautification of the city's little river had long been a recurring dream of visionaries who realized the potential of attracting tourists to San Antonio. Through the use of Works Project Administration funds, the project became a reality. Construction was initiated in March 1939 and completed exactly two years later. The project had the potential to become a major nationwide attraction, but less than eight months after its completion, the United States was drawn into World War II, and frivolity ceased for the duration. The River Walk lay neglected and deserted until the mid-1960s, when visionary businessmen again revived the concept and garnered support to realize its potential. Alamo Plaza remained essentially unchanged until 1975, when the approaching bicentennial celebration brought additional funds to the city. Plans were then developed to redesign the park area, to rejoin the plaza by restoring the area that had been cut off by the extension of Crockett Street, and to pave much of the original plaza with flagstone. A copy of the original bandstand replaced the one of the 1930s and the outline of the low barracks was reconstructed upon the original foundation as a flower planter box.

Public acceptance of this renovation gave impetus to further development of the plaza. In 1978, a joint venture between the city and private interests envisioned the linking of the plaza with the river and construction of a major downtown hotel facility. In the process, the buildings atop the southwest corner of the compound were removed and the area restored to display a semblance of the mission period wall lines. In addition, the plaza was opened to connect with the River Walk, linking the two major tourist attractions in the state.

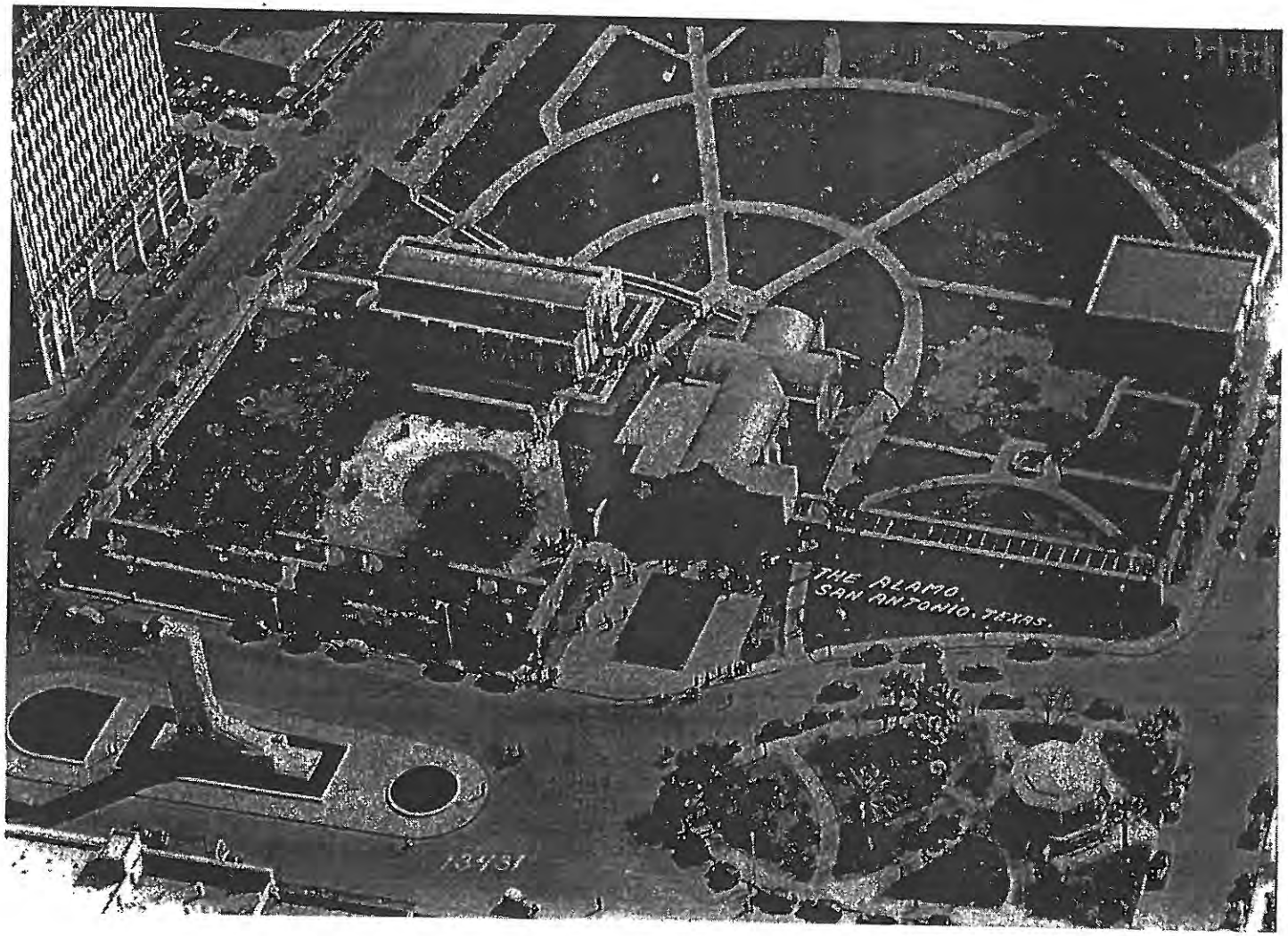

Figure 17. *Alamo grounds in the 1940s* (courtesy of the DRT Library). Note the Museum/Gift Shop built in 1936; cenotaph in the plaza in 1940; all extraneous buildings removed from the grounds.

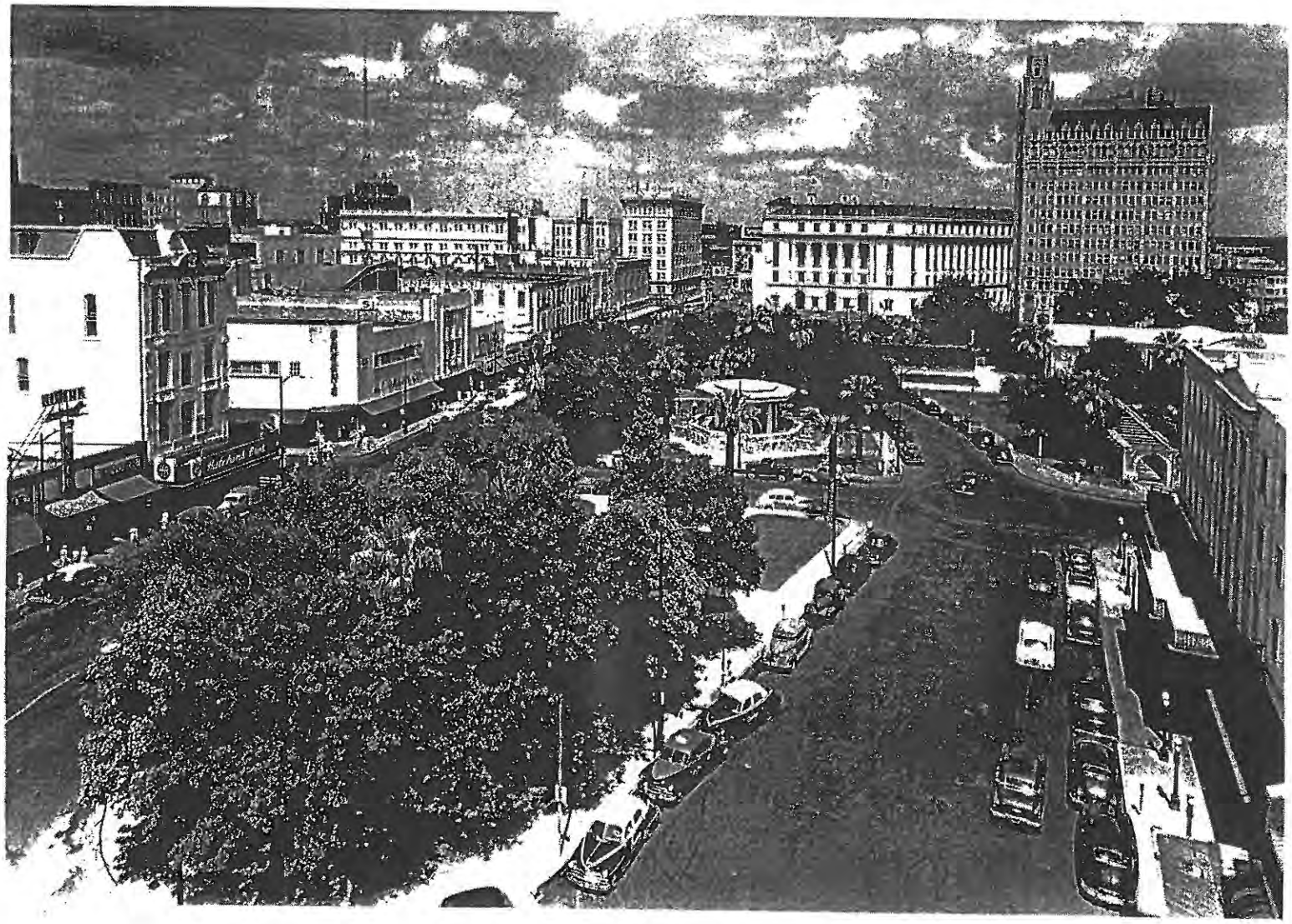

Figure 18. *Plaza, looking north, in the 1940s* (courtesy of the DRT Library). Note the Gibbs Building, the new Federal Building, the Medical Arts Building, and H.L. Green in place of the Opera House.

BURIALS AT THE ALAMO

I. Waynne Cox

MISSION BURIAL PRACTICES

One major aspect of early Christian funeral beliefs which distinguished them from contemporary Jewish or pagan ceremonies was a presence among the mourners of a new sense of death and the place of death within the community of the living. For devout Christians, death was a final door to salvation and the dead were merely souls that had passed through this gateway to eternal life. As opposed to prior customs, which held that contact with the corpses of the dead caused a state of ritual pollution, the Christians regarded their dead as sacred and holy, and they were allowed to handle them without shame or fear. The glorious death of martyrdom ensured the transport of their souls to paradise, and their graves became the focal point of the community of the dead.

By the beginning of the third century Christian communities had established their own cemeteries, usually organized about the tomb of a martyred saint (Paxton 1990:24-25). The very derivation of the term cemetery, from a Greek word meaning "resting place," exemplifies their belief and attitude toward death. In the early days of the church Roman law still dictated that all burials were to be outside the wall or ramparts of the city, and Christians, like all other subjects were forced to obey; for this reason early Christian burials were frequently secreted within catacombs. By the fourth century, however, Christians had established their burial places near, but not inside, their churches; the exception being the bodies of saints and high church dignitaries. Pope Boniface VIII, pope from 1294 to 1303, issued a Papal Bull allowing burials within a church structure, which soon became the accepted custom (Montgomery et al. 1949:180).

As the church dicta evolved, the rules of burial became quite fixed and rigid. Canon Law prohibited the burial of a corpse, not canonized or beatified, beneath or within the confines of a fixed or immovable altar. Additionally, any interments must be separated by a distance of at least one yard from the altar. Canons 1172 and 1175 further declared a church building to be desecrated by the burial within it of an infidel or one excommunicated by a declaratory or condemnatory sentence (Montgomery et al. 1949:180). Over time the custom of burial within the church became discouraged, generally reserving that privilege for clerics and dignitaries; however, the practice persisted until well into the eighteenth century. The

recognition of the burial of priests within the church is reflected in the celebration of the third Mass of All Souls Day when "the procession winds through the church singing the usual prayers, ending with one for the priests who may have been buried in it" (Leutenegger 1976:13).

Archaeological excavations at various Spanish missions across the southwest confirm the custom of burial within and immediately in front of the church. The excavation at Awatovi Mission in Arizona disclosed burials "in all parts of [the] church except the sanctuary; in front of the church, in the entrance, the baptistery, and the room across the entrance from it, and in great numbers in the nave and sanctuary" (Montgomery et al. 1949:97). Of the 118 burials recovered in that excavation, 79 were recovered from the nave alone. However, the excavators are quick to point out that interring in a hallowed spot sequestered for that purpose was not only approved, but recommended. This one of course rapidly became filled. "Quite likely, therefore, the majority of inhumations were made outside. These were placed close to the *iglesia*, possibly in front of it if space permitted - a *cementerio* location ever favored by the Religious, as a survey of Southwestern missions will confirm" (Montgomery et al. 1949:180-181).

During the 1968 excavations of the San Xavier Missions in Milam County, Texas, 11 burials were completely excavated and the skull recovered from one additional burial within the area thought to be the church. Three burials were outside of the projected confines of the mission walls. Of the 11 burials, eight were oriented north-south with the head to the south; the faces of two were turned toward the east. Three were oriented east-west, one of which was outside the postulated mission wall. "Because directives about the orientation of burials were being changed in mid-eighteenth century, it is not known if the orientation of the burials has meaning. Missions at Quiburi and Awatovi in Arizona and San Gregario de Abo in New Mexico, however, had burials underneath the church floor oriented along the long axis of the building, with the head to the north" (DiPeso 1953:428 as cited by Gilmore 1969:76-77).

In the excavations of Mission San Lorenzo de la Santa Cruz at Camp Wood, Texas, numerous burials were encountered inside the church, but the shortage of time allowed for the excavation of only 10 burial pits. These pits yielded 17 individuals: nine adults, three adolescents, and four infants. "The burial pits were for the most part arranged in rows . . . the pits were filled to floor level and well packed so that the floor surface remained smooth and flat" (Tunnell and Newcomb 1969:8,18). Notably, the burials were only about 2.5 feet below the floor level, ". . . the bottom 1.0 to 1.3 feet of the pit extending down into the rotten limestone bedrock" (Tunnell and Newcomb 1969:18). The report also noted the scarcity of metal artifacts, noting that iron nails were found in relatively small quantities; this scarcity of metal

objects is typical of the Spanish frontier. Another interesting revelation is that when the mission was abandoned and the structures burned, several burials were removed (Tunnell and Newcomb 1969:184). In all likelihood, the burials removed were those of the priests, as it was customary to return their remains to the mother college for reinterment.

Excavation from San Antonio's Mission San Juan Capistrano recovered 34 burials (Schuetz 1968:213) . The burials were found under the old church and the baptistery; no excavations were conducted in front of the church. No surface indications of these graves were present and no grave markers have been found anywhere in the vicinity of the church.

The patterns which emerge represent a manifestation of the burial practices of the Catholic church during the eighteenth century. The preferred burial site was within the church, with the nave offering the greatest potential area. In some cases the floor of the church was merely packed or swept earth; in other cases flagstone or wooden panels were used. "When it was necessary to bury someone, the missionary probably lifted two or three stones to uncover a patch of earth big enough for a grave, and then excavated a pit to contain the body. After the body was covered, the flagstones were lowered back into place. As the floor area filled with bodies, new graves were excavated into old burials; the bones of the earlier burials were tossed back into the fill of the new graves" (Ivey 1988:331). The restrictions of space, both in the church and cemetery, result in what appears to be a rather callous attitude toward the deceased. Even today the practice of constantly reusing a small area "sometimes produces a spectacular graveyard," for in the country of San Salvador burial spaces are frequently rented, with a seven-year lease common. In Panama "at the end of eighteen months, failing a prompt renewal of the rent, the coffin and contents are evicted. Eviction meant dumping the contents out behind the cemetery unceremoniously . . . without regard for the possible spread of disease or the aesthetic effect" (Habenstein and Lamers 1960:584,611).

As custom and necessity prohibited frequent interment within the church, the missions established a *camposanto,* or cemetery in the immediate vicinity of the church. Customary practice placed the burials in front of the church with the feet of the body directed toward the church, "so that the corpse may 'look' at the temporal focus . . . priests are buried in the opposite direction so that they 'face' their parishioners" (Foster 1960:148). Burial within the church was prohibited by canon law in 1787, but the custom persisted after that date (Foster 1960:149).

The normal location for the camposanto was generally as near the church as possible, generally immediately in front and enclosed by walls (Curl 1972:33). However, in some cases the cemetery was placed to the side of the church due to the configurations of buildings and space limitations; this is frequently the case in New Mexico and California. At Mission San José the cemetery measured 220 feet square and also served as the mission's *plaza de armas,* or parade ground, for the soldiers assigned to protect the priest and Indians (Jordan 1982:66). The cemetery for Mission Concepción was also located in front of the church and was enclosed in an adobe wall about four feet high (Ivey and Thurber 1984:3-41). In 1807 Brigadier Nemesio Salcedo, provisional governor of Texas, reported the establishment of a new camposanto to replace the burial grounds of the parish church of San Fernando because the stench and vermin made it impossible to conduct services ("Nemesio Salcedo to Antonio Cordero, September 28, 1807," Bexar Archives, reel 36, frames 956-7. The University of Texas at Austin; microfilm at John Peace Library, The University of Texas at San Antonio).

BURIAL RECORDS OF SAN ANTONIO DE VALERO

The burial records for San Antonio de Valero have been preserved by the Catholic church and exist as originals and microfilm copies. These records were translated in 1978 by John Ogden Leal and have been made available to the public (Leal 1978). These records contain the entries of the priests for all burials within the mission's history. The mission was relocated to San Antonio in 1718, but for this study only those entries from 1724, when the mission was moved to its present location, are addressed.

Altogether, 465 burials were recorded between January 22, 1724 and October 29, 1749. These burials would have occurred during the period that the first stone church was in use, and included 422 Indians and 26 Spanish; 17 of the entries are illegible. An entry by Father Diego Martin Garcia of November 16, 1749 states that the blessing of the new church and the holy ground occurred on this date for the purpose of the burial of Tomas, an Hierbipiamo Indian. From this date until June 4, 1782 there are entries for 489 burials, of which 444 are Indian, 14 Spanish, 4 mulatto, and 27 illegible. These records indicate 954 burials were associated with the two church structures. Further burials for the parishioners of the church, as well as the garrison and hospital of the Alamo de Parras, likely continued at the site until at least 1807. Although a burial registry was maintained for the company from 1808 to 1835, military personnel were interred in the town camposanto, now Milam Park (Hartley and Hartley 1855:540).

DISCUSSION

Traditional burial practices dictate that the location of the cemetery is dependant upon the spatial location of the church. The first description of the mission is from Father Miguel Sevillano de Paredes in October 1727, who merely states that the church is spacious and constructed of jacal, vertical posts set in the ground and plastered with mud (Paredes 1727). Father Francisco Xavier Ortiz, in 1745, reported that the original church had fallen down and construction of a permanent church of stone and mortar had begun but was not yet complete ("*Visita de las Misiones hecha de orden de H. M. P. Comm^{o} Gr^{al} Father Juan Forgueras, por el P. Father Fran^{co} Xavier Ortiz, en el año de 1745.*" Old Spanish Mission Historical Research Library, Our Lady of the Lake University, microfilm archives, reel 9, frames 1267-1268). "While it was being finished, services were held in a large hall which had a place for the choir" (Castañeda 1936:111). Father Marion Habig, a Franciscan researcher, believed this temporary structure later served as the granary and was located adjacent to the convento (now the Long Barracks Museum) within what is now Alamo Street East, facing south (Habig 1968:49-52). James Ivey, National Park Service, disagrees with Habig's interpretation: "the foundation of this first church remains in the ground at the south end of the convento directly in front of the church of San Antonio de Valero, presently called the Alamo Shrine" (Figure 19) (Ivey 1992:7). The burials recorded after November 16, 1749 should be associated with the present church (Alamo Shrine) and therefore, based upon traditional practice, are likely to be located within and in front of the chapel. Either of the conjectured locations of the early church would also place the first burials in the same location and possibly into the street. This location would coincide with the location of the cemetery shown by Colonel José Sánchez-Navarro on his map produced after the battle (Figure 20).

The church and cemetery are both denoted by "C" on the Sánchez-Navarro map. The C in the cemetery is also accompanied by a cross. The legend therefore describes the two Cs as "*Iglesia arruinada con cementerio: sobre una explanada que se formó en el presbiterio de la misma, se colocó una bateria alta de tres cañones, llamándola Fortín de Cos*" (Ruined church with cemetery: on top of a platform which is formed in the presbytery in the same, is located a high battery of three cannons, named Fortín de Cos). This is the only map of the period located to date on which a cemetery is indicated in front of the church or elsewhere on the Alamo grounds. Upon careful examination, a number of other references to maps showing a cemetery can be traced back to this Sánchez-Navarro map. The presence of a number of inaccuracies in Sánchez-Navarro's rendering of the layout of the buildings can be partly explained by the

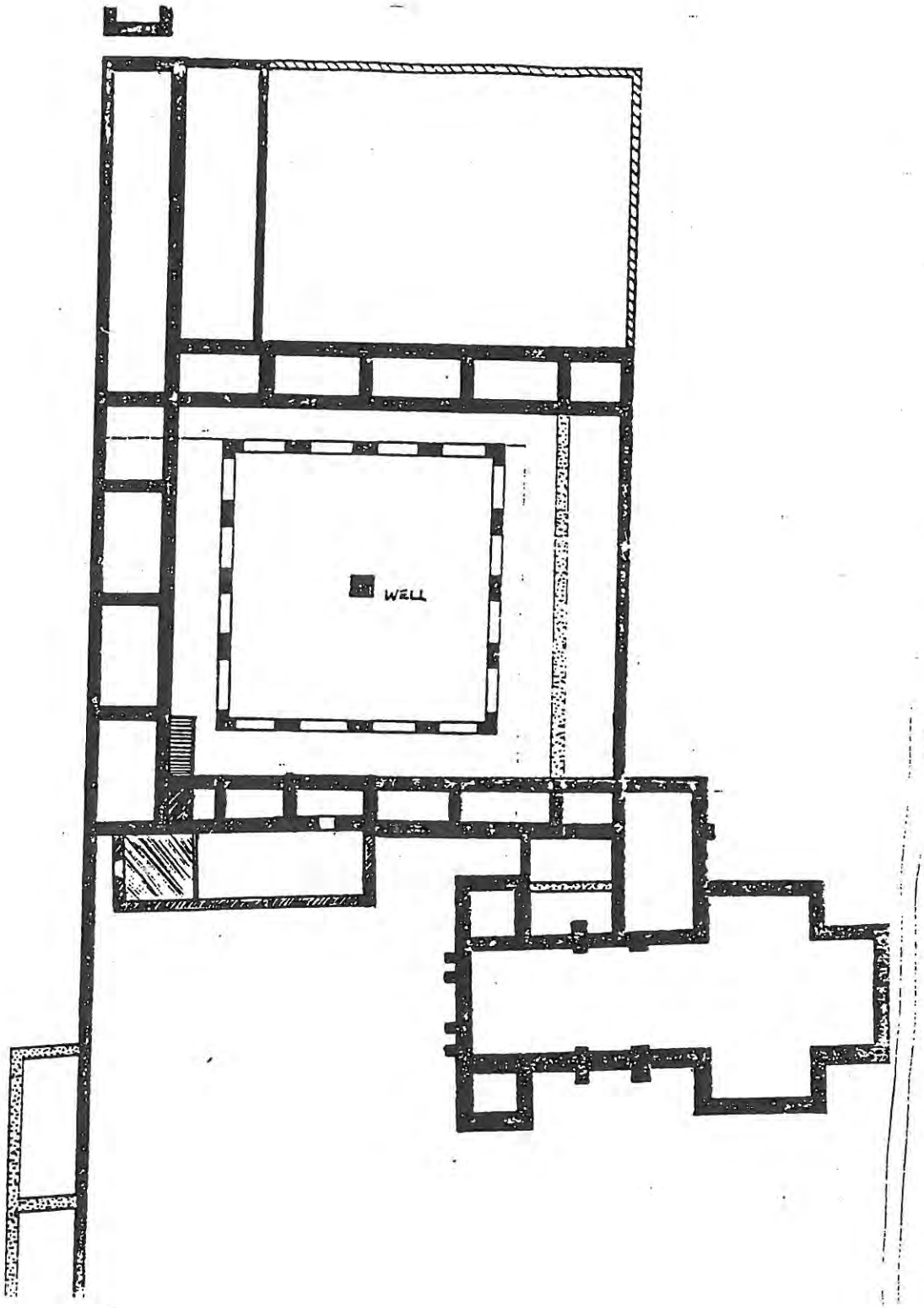

Figure 19. *Convento and churches of Mission Valero according to James Ivey* (1992). He places the first stone church directly south of and against the south wall of the convento.

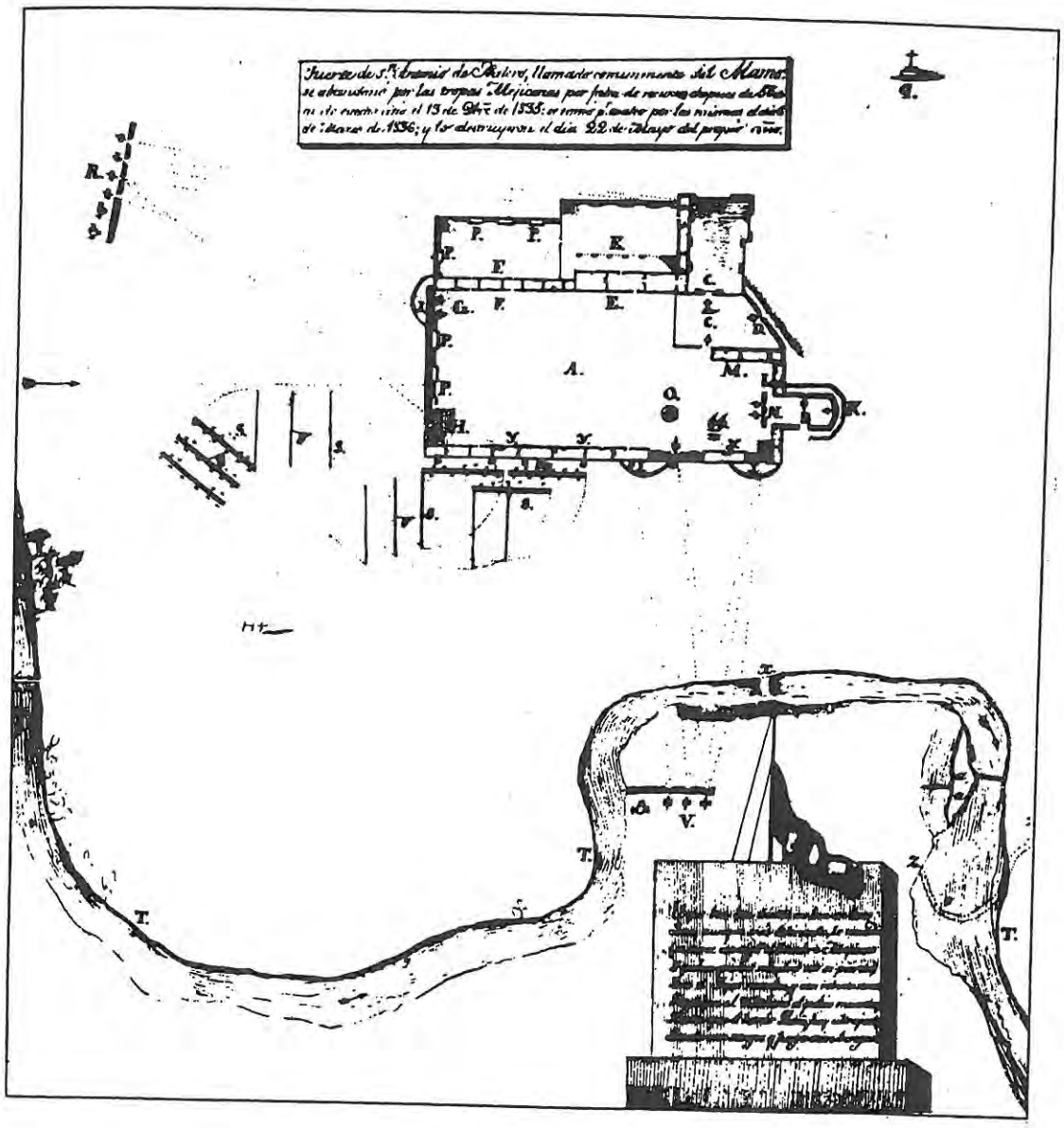

Figure 20. *Map of the Alamo in 1836 by José Juan Sánchez-Navarro.*

fact that the map was evidently drawn from memory after the battle of San Jacinto (Schoelwer and Glaser 1985:71). The entire church is erroneously set forward such that the front of the church is in line with the west wall of the convento and the back of the church is in line with the east side of the convento compound. The church's cruciform shape is also reduced to a rectangle. The courtyard north of the convento is drawn as extending to the northeast corner of the plaza, when in fact it terminates some 160 ft south of the northeast corner.

However, the overall configuration of the Sánchez-Navarro map is accurate, and elements of the fortification such as the palisade wall (D), the interior trenches (P), and the lunette trench and fortification at the gate (K) have been verified by archaeological investigations (Eaton 1980; Fox 1992). Since the cemetery would not have been used for burials since 1807, it is unlikely traces would remain 30 years later when General Cós moved in and fortified the site. One can only speculate how Sánchez-Navarro gained information regarding the location of the cemetery. He may have learned of it from local townspeople during the time he was stationed in San Antonio as Adjutant Inspector of the Departments of Nuevó León and Tamaulipas from late 1835 to March 1836. On the other hand, Sánchez-Navarro may have mapped a cemetery in that location simply because that is the traditional location for a cemetery. His map was published as part of his memoirs in which he reported his earlier request to General Cós that bodies of the soldiers killed in the battle be buried in the church cemetery and a monument be erected with a copper plaque listing their names accompanied by a verse he composed. Did he assume the cemetery was in the traditional location or did he have information from local townspeople as to its location?

Two other maps from the battle period exist, one prepared by one by Ygnacio de Labastida, Commander of Engineers for Santa Anna, and one by Green B. Jameson (Figures 1 and 21). It is interesting to note that neither Labastida nor Jameson identifies the cemetery. Labastida's map contains fewer details of the plaza interior as it does not show the well, the courtyard north of the convento, nor the continual double walls on the west side of the plaza. The reason, of course, is that Labastida prepared the map for Santa Anna's use during the siege and probably would not have had access to the interior of the plaza. Green Jameson's map, although providing more interior detail, does not show the cemetery either.

Jameson's presence at the Alamo is first recorded in a letter to Lt. Col. James C. Neill from Sam Houston, commander in Chief of the Texan Army, dated December 21, 1835. The directive orders Neill to "take command of the Post of Bexar" and specifies that he is to "cause a survey to be made by G. B.

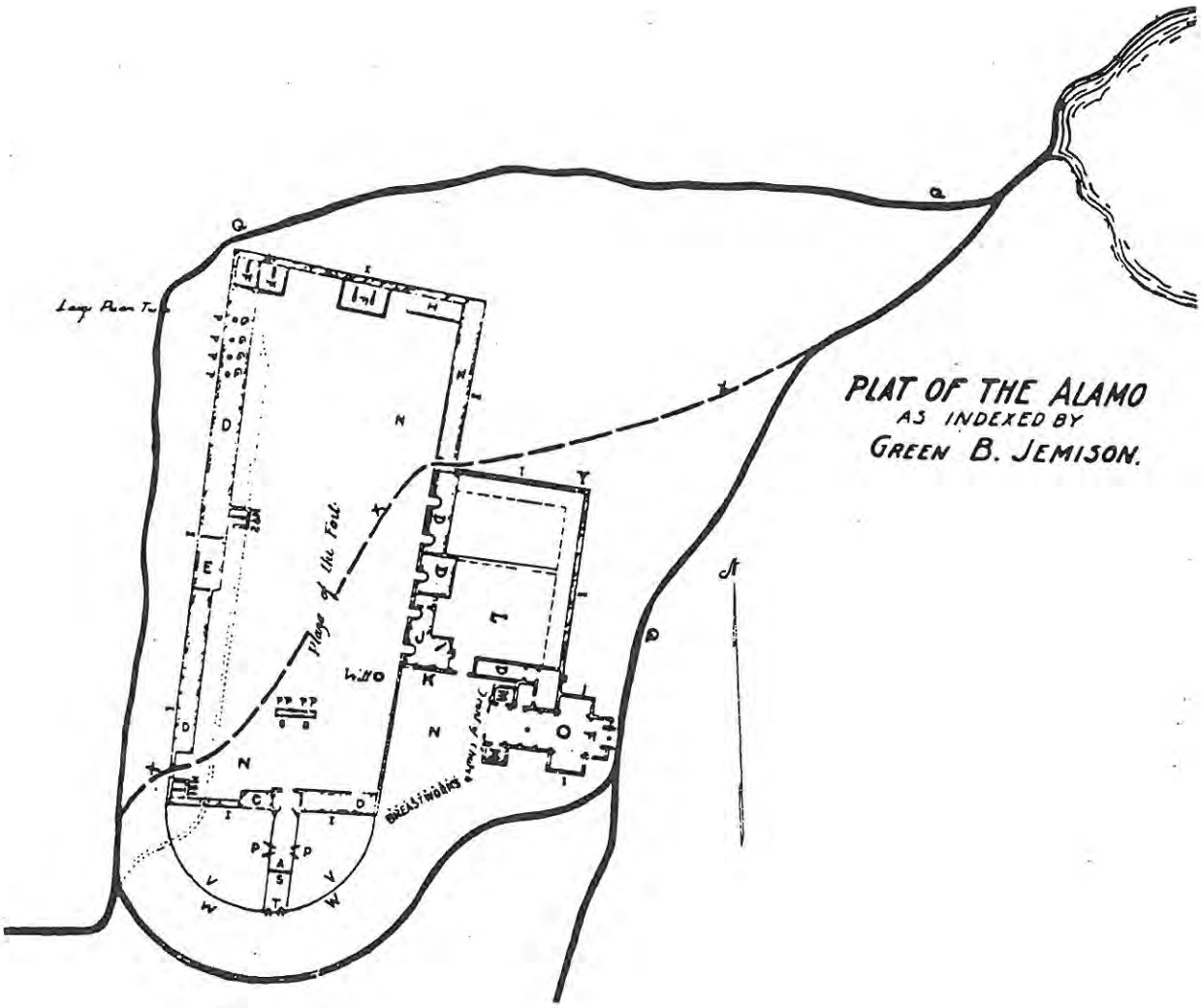

Figure 21. *Map of the Alamo in 1836, attributed to Green Jameson*

Jameson" and to "immediately detail some capable officer to assist in fortifying the place in the best manner possible" (Jenkins 1973:3:278). On January 18, 1836, Jameson wrote to Houston stating that he was enclosing "a neat plot of the fortress exhibiting its true condition at this time." This letter includes an index to the plan listing the improvements, either accomplished or planned (Jenkins 1973:4:58-61) Jameson also wrote to Henry Smith, president of the provisional government of Texas, on February 16, 1836, enclosing a similar map (Jenkins 19734:352-353). The only existing copy of Jameson's map, reported to have been copied by De Zavala, is the same map included in the appendix (Part II) of Williams' thesis of 1933. Unfortunately, no original copy of any of the maps still exists. The map that does exist is several generations removed from the originals and contains several discrepancies from his index or known facts concerning the fortress (Schoelwer and Glaser 1985:70). Although Jameson was intimately associated with the Alamo from at least the last week of December 1835 until his death on March 6, 1836, he made no mention of the cemetery. Because the fortifications were Jameson's concern, a burial ground would have been of no importance to his task.

A feature represented on all the maps is a low stone wall extending from the southwest corner of the convento to the south gate (low barracks). A frequent interpretation is that the feature represents the enclosing wall of the cemetery; however, no supporting documentation has yet been found. The wall may have been constructed by the Compañía de Parras to delineate the limit of the military compound during their use as a garrison and hospital in the early 1800s (Figures 22 and 23).

LATER REPORTS OF BURIALS

In 1890 William Corner published a history and tourist guide to the city of San Antonio. Corner's work is still considered one of the first major works to present a researched and reliable popular history of the city and its citizens. In his description of the Alamo, Corner relates the state of the old structure at the time it was acquired by the Army in 1848. In describing the massive cleanup undertaken by the Army, he recounts the discovery of human remains: "the church was first cleared, and deep down in the *debris* were two or three skeletons that had evidently been hastily covered with rubbish after the fall, for with them were found fur caps and buckskin trapping, undoubted relics of the ever memorable last stand." This has the obvious ring of the standard tales being related by self-appointed guides during the period. A later report appears to be much more reliable, "in a later year, March 28, 1878, other skeletons buried

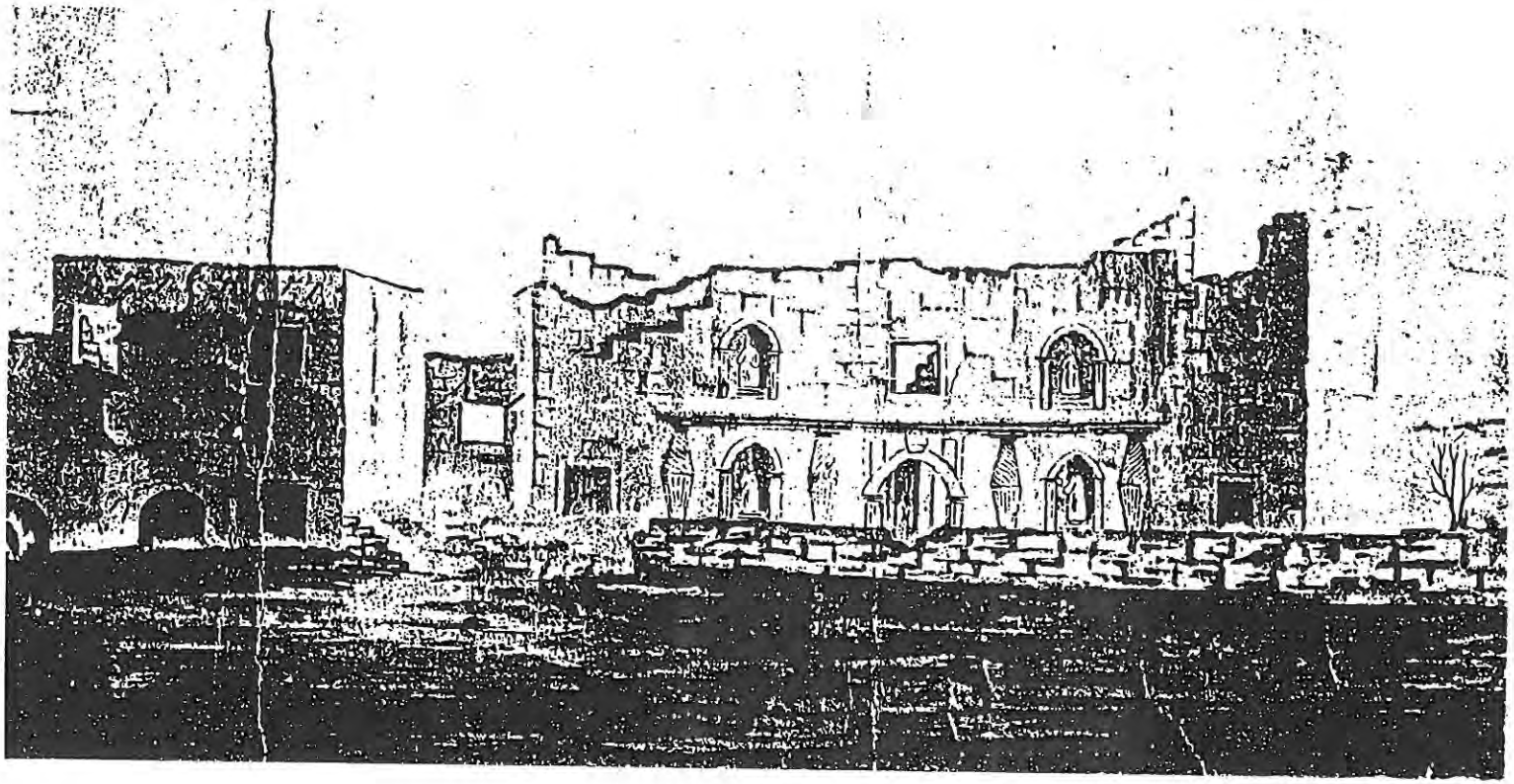

Figure 22. *Drawing of the Alamo in 1837, attributed to Lysander Wells* (Adina De Zavala papers, Incarnate Word College Library).

Figure 23. *Drawing of the Alamo in 1838 by Mary A. Maverick* (Green 1952).

at an earlier and apparently more peaceful period, were unearthed in the Church, and a beautifully carved baptismal font was brought to light, November 15, 1878" (Corner 1890:11).

In mid-February 1920, human burials were discovered "on the corner of Alamo Plaza and Crockett Street." The first bones were found at a depth of about 18 inches and led to the discovery of four graves, along with a well "about 22 feet deep." These features were reported to be "on the site of a garage being erected by Wright and Saunders for Joseph Courand." The article further identifies the area as being "200 feet from the Alamo" and as the location of "a saloon that used to flourish in a little adobe house that stood where the new garage building is being built." The saloon is further described as being located by "a larger and more pretentious blacksmith shop which is still being used today" (*San Antonio Evening News*, 14 February 1920).

The City Directory of 1916 indicates that the northeast corner of Alamo Plaza East and Crockett Street contained the Clemens Rotter, Jr. saloon at 302 Alamo Plaza; behind it, to the east at 209 Crockett Street, stood the business of S. Seffel and Son, "auto repairer and blacksmith." By 1919 the saloon had become "Cowles Auto Livery" and, by 1920, there was no listing for that lot, apparently because the structure had been demolished by the preparation for the garage as reported in the newspaper. The site of the garage and the burial plot is now the area in front of the DRT library building. At the time of the discovery it was conjectured that the remains "may be those of the Texas heroes who sacrificed their lives in 1836, or those of early Indian converts that formerly lived within the walls of the early mission," but there is no indication that any effort was made to resolve the question.

In July 1934 workmen for the Works Progress Administration planting shrubs in the area in front of the chapel unearthed "about 20 fragments of human bones that look like they had been burned" (*SAE* 17 July 1934). The report stated that "the workers took up old flagstones by the south side of the wall of the convent next to the chapel and dug down three or four feet to prepare for the planting. They found the bones scattered through the earth that had been excavated." The fact that "some are dark along the surfaces as if charred have led those who have seen them to believe that they had been burned. The age of the bones and their having been found by one of the original walls seem to indicate they are those of an old settler or perhaps a man who died with the fall of the Alamo. There has been no question that they are bones of a human being by any who have seen them, although no authority has examined them" (*SAE* 17 July 1934). Among the bone fragments recovered were seven that "resemble those of a human hand and these are well preserved" (*SAE* 17 July 1934). In light of the previously stated probable location of

the first stone church, this was most likely a mission-period burial. The workers stated that they believed other bones would be discovered, and "persons in charge of the Alamo say that an authority will be consulted" (*SAE* 17 July 1934). Examination of the newspaper editions during the following month yields no reports of further discoveries or the results of any analysis of the bones.

One year later workmen again discovered human bones within Alamo Plaza. As the work progressed on the replacement of the old Federal Building on Houston Street with the new postal facility, it became necessary to remove a tree at the southeast corner of a lot that had been dedicated to Theodore Roosevelt. Human skeletons were exposed beneath the roots of the tree. The burials would have been outside the northeast corner of the plaza wall. This was reported to the supervisor, B. P. Roberts, who took over the excavation of the remains. "Roberts and Postmaster Dan Quill, who took to the digging with enthusiasm, Thursday afternoon unearthed the skull pierced with an arrowhead, a large number of beads undoubtedly part of a rosary, one large piece of pierced bone and numerous identical small pieces, evidently strung around the waist of an Indian". Roberts had also uncovered a dish and copper ring for which he was offered $20, but "announced that it was not for sale" ("Church to Rebury Post Office Bones," 9 August 1935, unknown newspaper, vertical file, DRT Library The nature of the artifacts found with the burials gave Archbishop Arthur J. Drossarts cause to believe that they were from church burials associated with the mission period, and he ordered the four boxes of bones turned over to the care of M. H. Flores, superintendent of San Fernando cemetery.

Superintendent Flores continued to excavate further burials which he turned over to the Zizik-Kearns Undertaking Company until excavations were completed. "Flores said only the skulls and larger bones remain of each skeleton, the ravages of moisture and soil chemicals having absorbed the others. They are found at a depth of from four to five feet and in the opinion of Flores, the bodies were dumped into their resting place during an epidemic" ("Church to Rebury Post Office Bones," 9 August 1935, unknown newspaper, vertical file, DRT Library). While there is no independent evidence to corroborate Flores' observations, such epidemics were frequently the case during the mission's history. Although the neophytes were usually buried in the sanctified ground regardless of the cause of their demise, it is not unreasonable to speculate that instances of mass burials outside the grounds may have occurred. Furthermore, in November 1780, Governor De Croix was faced with an epidemic of smallpox, pneumonia, and diphtheria and was approached by a large band of Lipan-Apaches, infected by the diseases and appealing for help from the missions. They could do nothing to help, and De Croix "feared that a

new plague might arise from the bodies they left unburied" ("Confidential from De Croix, November 20, 1780." Bexar Archives, reel 13, pp. 15-16).

Although the Archbishop was convinced that the burials were those of a Catholic cemetery, others were quick to come forth with conflicting theories. No sooner were the burials made public than "local historian" Mauro M. Machado of the Clegg Company announced that they were the bodies of "inexperienced Mexican soldiers . . . led to their death under fire of the defenders of the Alamo." He cited as proof a manual written in 1852 by General Juan N. Almonte, who had served as a colonel during the battle, and maintained they had been buried where they fell attacking the north wall during the battle ("Bones Found At P.O. Those of Soldiers," Undated newspaper article, DRT Library). Charles A. Herff recalled a statement given to him in 1870 from "a Mr. Menchaca, a Mr. Losoya . . . and a noted Mexican woman by the name of Candelaria that the Mexican soldiers felt remorse for the soldiers having mutilated the dead bodies of the Texans and those were buried where the post office now stands" *(SAE,* 18 February 1936).[1] Rev. Eugene Sugranes, in an article recounting the history of the mission, made this observation after several months of conjecture on the matter:

> Leaving aside all technical and academic disputes, moot questions and historical discussion as to whether some of the newly discovered remains are those of the heroes, defenders or founders of the Alamo, or wards of the mission, this much is certain, namely, the recent discovery aroused an intense interest in the old Franciscan missions in and about San Antonio, our most valued and highly treasured historical landmarks, these ancient bulwarks of Christian civilization, lasting monuments to unwavering faith and undaunted courage ("Skeletons Found on Post Office Site to be Re-buried in San Fernando No. 2," Southern Messenger, Volume XLVI, No. 40, October 31, 1935. Copy from the Catholic Archives of San Antonio).

These burials were later exhumed from San Fernando Cemetery, examined by David Glassman of Southwest Texas State University, then reburied in San Fernando Cemetery in 1994. At the time they were first recovered, the artifacts had been given to Mrs. Lieta Small, custodian of the Alamo ("P.O. Excavation Taken Over By Church," undated newspaper article, vertical file, DRT, library San Antonio).

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[1]This tale is questionable from several aspects. Madam Candelaria gained local fame for years on the basis of her claim that she had been in the chapel during the battle as the nurse of James Bowie, this was later disproved. The tale that was related claimed that the mutilation the Texans suffered was the fate of being beheaded after their deaths. The existence of reported skulls raises some question as to the veracity of the entire report.

Glassman (1994) determined that the burials represent at least seven individuals, based on analysis of the bones, and at least eight or possibly more based on recovered teeth. Both adult males and females, and sub-adults from infants to adolescents were present. They appear to have been Native Americans, based on a high frequency of shovel-shaping on the incisor teeth. Although the teeth show evidence of nutritional stress during childhood, none of the bones reflects the presence of chronic diseases; however, most diseases leave no evidence on bones. Adults were more numerous than children, which might rule out the possibility of cholera, since "cholera generally kills a disproportionate number of infants and children relative to adults" (Glassman 1994). No evidence indicating the cause of death of these people is present.

The excitement had barely settled from this discovery when, on January 4, 1937, R. O. Crist was engaged in work within the Alamo church and discovered human burials. "Discovered at a depth of four feet, the graves were located in front of what was the altar of the old church, according to Miss Lieta Small . . ." (*San Antonio Light*, 5 January 1937). The first investigation revealed the remains of three individuals, with later clearing of the area exposing a fourth burial. "The relics, consisting of a hip joint, several arm and leg bones, and part of three skulls, were discovered after a stake being driven into the ground in the chapel, where workmen were laying a flagstone floor, suddenly sank as if into a cavity." Mrs. Small immediately requested the assistance of Dr. T. N. Goodson, county health officer, and Dr. W. A. King, city health officer, to attempt to identify the remains as to age, sex, and racial characteristics. The initial report indicated that they were the remains of three adults and a child, probably about four years of age. Plans were also made to have the remains examined by Dr. J. E. Pearce, curator of the museum of the University of Texas (*SAE*, 6 January 1937).[2] On May 11, 1937, four months after their discovery, the remains were sealed in a concrete, lead-lined vault and returned to their resting place; a bronze marker in the floor of the chapel marks the site.

[2]Although he was invited to examine the remains there is no indication that Dr. Pearce did so; Dr Goodson also apparently declined to comment. The remains were re-interred with the statement "believed to have been defenders." By the time the plaque was installed, the general position was that they were not the bones of Alamo defenders.

ARCHAEOLOGICAL INVESTIGATIONS

Anne A. Fox

ARCHAEOLOGY ON THE ALAMO GROUNDS

Numerous archaeological investigations have been performed on the grounds of the Alamo since 1966 (Figure 24). These have been done as required by the state of Texas, in response to plans for projects which would penetrate the surface of the ground in some manner.

Excavations in the Courtyards

Seven areas within the courtyards were tested by John Greer (1967) for the State Building Commission and the Witte Museum, after artifacts had been found during installation of electric lines. Various architectural information was obtained from these excavations, including methods of construction of the Grenet store, the Spanish Army, and the Spanish mission buildings. A flagstone floor related to the workrooms of the mission, the footings of the wall that separated the courtyards, a pavement in the southwest corner of the convento courtyard, and the adobe foundation of a building that apparently preceded the present convento were recorded.

Excavations South of the Church

During the summer of 1970, testing was done in the area where an addition to the library was about to be built, south of the church. William W. Sorrow (1972) directed the work, which recorded the location and condition of the acequia, the foundation of the brick store building which once stood in this area, and evidence that the stone lining of the acequia was added at a later time than the date of its first construction.

Excavations at the East End of the North Courtyard

Mardith Schuetz (1973) conducted test excavations at the east end of the north courtyard in 1973, in advance of planned wall reconstruction. The work was done under the auspices of the Texas Archeological Salvage Project of The University of Texas at Austin. Schuetz located early foundations against the east wall of the courtyard and the original line of the north wall.

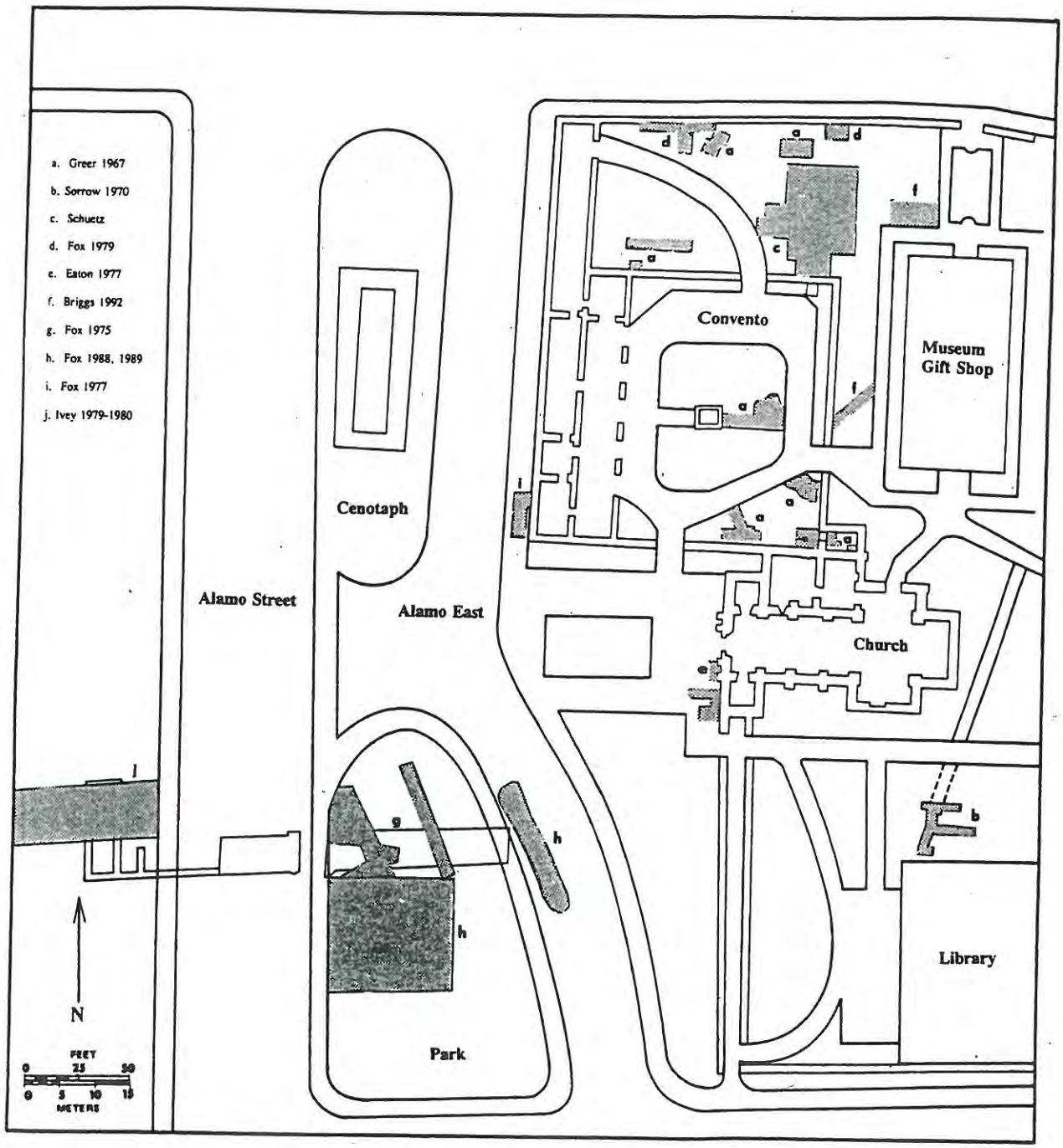

Figure 24. *Locations of archaeological investigations at the Alamo.*

Excavations at the North Wall

In 1979, Anne Fox (1980) directed test excavations by CAR in advance of reconstruction of the north wall of the north courtyard. This project recorded the archaeological remains of a sequence of wall construction in the area, discovered the Mexican defensive trench inside the courtyard, and documented the original route of the Alamo acequia through this area. An adobe foundation which predated the construction of the convento was also documented. The skull of a possible participant in the Battle of the Alamo was found within the fill of the defensive trench.

Testing in Front of the Church

In 1977, Jack Eaton (1980) directed testing by CAR against the front of the church at its southwest corner. The footings for the church were examined and recorded and one end of the palisade wall constructed in 1835 by Gen. Cós from the church to the east end of the low barracks of the Alamo was found and recorded.

Excavations at the Museum/Gift Shop

In 1992, Alton Briggs directed test excavations for the DRT in the vicinity of the Museum/Gift Shop. He also conducted excavations beneath the building in preparation for enlarging the basement. Briggs encountered the east wall of the colonial convento in his excavations to the west of the building.

ARCHAEOLOGY IN ALAMO PLAZA

Numerous construction projects within the plaza have been preceded by archaeological testing or monitored by archaeologists.

Archaeology in Alamo Plaza Park

The first professional excavation done in the area of the park was done by CAR in 1975 (Fox et al. 1976) in connection with park renovation plans. The purpose of the excavations was to locate the foundations of the low barracks building for interpretation within the park. The following stratification was discovered and recorded: 70 cm of dark gray clay loam fill; 30 cm of dark brown clay loam fill; 15 cm

of medium gray midden soil representing the old plaza surface; 50 cm of light to dark tan granular soil; the 15 cm of yellowish calcareous clay overlying caliche bedrock. In addition, the north end of a lunette trench representing the fortifications around the mission gate was excavated and recorded.

These excavations were followed in 1988 by a UTSA field school conducted by Fred Valdez at the site of the defensive lunette south of the mission gate (Fox 1992). A major portion of the lunette trench was excavated and recorded at this time. In the following year a similar field school directed by Joel Gunn (Fox 1992) tested an area in the western edge of Alamo Plaza East in line with the defensive trench discovered the previous year. The continuation of the trench was found and recorded. The stratification below various forms of street pavement consisted of 10 cm of dense black clay, 10 - 20 cm of brown gravelly soil containing a mixture of eighteenth and nineteenth century artifacts, below which was a sterile travertine/caliche formation which contained pockets of dense, dark brown clay. After considerable discussion, the travertine deposit was tentatively identified as a spring formation, of which there were numerous examples in the general area.

Monitoring Outside the Long Barracks

In January 1977 Anne Fox monitored backhoe trenching by city crews outside the west wall of the long barracks (notes on file at CAR). Observation confirmed that the building is set on its original foundations, detailed the wall construction, and recorded the soil profile as follows: 50 cm of sandy fill containing 19th century artifacts; 5 cm of brown, sterile clay, 3 cm of deteriorated wall plaster; 70 cm of dark brown clay with colonial period artifacts; then sterile, tan, gravelly soil.

Excavations on the West Wall

In 1979 and 1980 James Ivey (1980) directed excavations by CAR at the site of the planned Paseo del Rio Park, located across the west wall of the Alamo. Numerous eighteenth and nineteenth century features were examined and recorded during this work. These included the original adobe west wall of the compound, foundations of adobe houses constructed against the wall, and foundations of later nineteenth century commercial buildings and subsurface features related to them. Information recovered in these excavations was used in the reconstructions of colonial wall lines now visible in the park. Information recovered also confirmed the theory that the acequia had probably been rerouted outside the west wall of the mission by Gen. Cós in 1835.

SUMMARY OF ARCHAEOLOGY

In all these excavations, no human remains were observed or recovered, except for the skull from the 1979 excavations in the north courtyard. The skull is curated by the DRT in a vault at the Alamo.

UTILITY CONSTRUCTION ON THE PLAZA

Dave Nickels

The use of historic maps in identifying subsurface soil disturbances in Alamo Plaza has been somewhat helpful. Unfortunately, maps can only show so much and written records of construction contractors and city crews are sketchy at best, particularly prior to the 1980s. If any human remains were encountered during laying of water or sewer lines over the years, no record of such encounter exists in the public files. Although other maps were found documenting gas, electrical, and telephone lines, those lines are not buried to a depth which is considered significant for the purposes of this study.

The first water pumping system in San Antonio was developed in 1877. A steam-driven pump forced water from San Pedro Springs upgrade through present-day Mahncke Park and into the city reservoir, which is currently the amphitheater of the San Antonio Botanical Gardens. From there water was free to flow downgrade and into San Antonio proper.

Alamo Plaza West has historically been the water and sewer right-of-way. The right-of-way generally follows the property lines and curbing along Alamo Street. The latest construction under the auspices of Tri-Party, ending in 1991, was no exception. Trenches up to 18 ft deep have been cut in that area. Dozens of water and sewer lines have been laid under Alamo Street in Alamo Plaza West through the years. For clarity's sake, only the significant ones are shown on the Alamo Plaza Water and Sewer Map included in this report (Figure 25). Alamo Plaza East, however, has been much less disturbed through the years so all documented lines are shown in that area.

Evidence shows water lines running into Alamo Plaza East via a four-inch main as early as 1878. Between 1888 and 1908, main water lines up to 16 inches in diameter were placed under Alamo Street on the west side of the plaza. Later maps indicate that between ca. 1901 and 1908, water lines were laid down the center of Crockett Street and a feeder line, cut 5.64 ft deep, ran onto the Alamo grounds to the left front of the chapel. The development of the central part of the plaza into a park and the closing of Crockett Street in the 1930s resulted in a series of water lines running from the center of the old Crockett Street and through the center of the plaza to Houston Street.

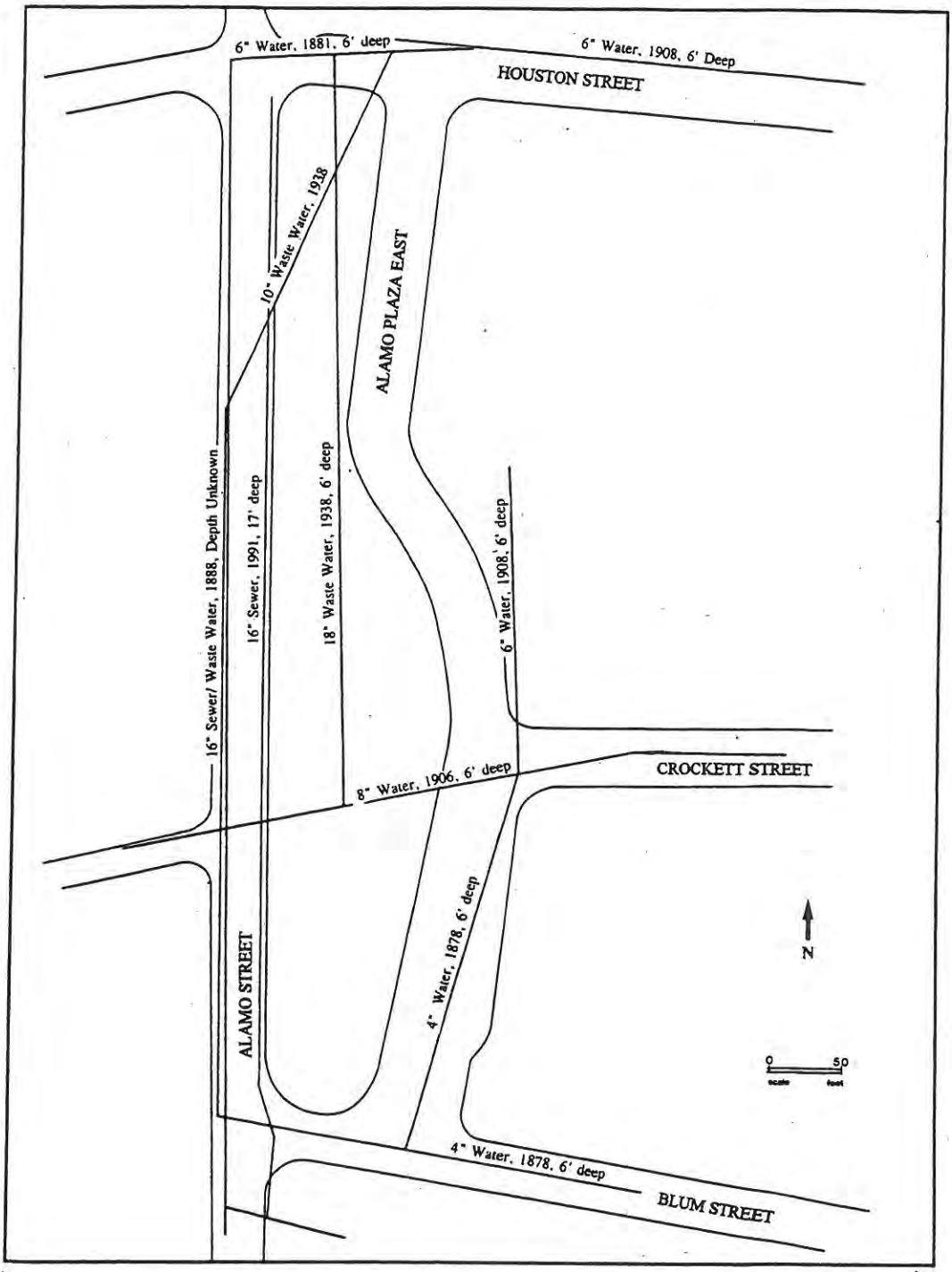

Figure 25. *Map of recorded water and sewer lines in the plaza.*

POTENTIAL TECHNIQUES FOR LOCATING BURIALS

Elizabeth Cantu Newcomb

If physical evidence of burial locations is required, numerous methods needs to be evaluated for their suitability and effectiveness. Techniques proven useful in the detection of historic burials and cemeteries include non-intrusive geophysical methods such as ground penetrating radar, electrical resistivity surveys, and electromagnetic conductivity surveys; as well as nonscientific methods like dowsing. Intrusive methods include probing, coring, geochemical applications, and excavation.

Since specific conditions at and surrounding a site may affect the suitability of a detection method, a review of all pertinent study area information was imperative. Study locale, subsurface composition, and archival evidence are considered in identifying the most effective method for detecting and confirming the existence of burials.

SUBSURFACE COMPOSITION

The study area is surrounded by numerous buildings, surface and subsurface utility lines, fences, vehicles, and various metal objects, all of which may affect some nonintrusive techniques. Additionally, the composition of the fill below street level has a bearing on the technique utilized. Figure 26 gives a hypothetical subsurface study area profile illustrating the many subsurface strata which may underlie the current street. The profile was developed from information collected during UTSA's 1989 field school excavations on Alamo Street East (Fox 1992) and observations of subsurface exposures during the Tri-Party Improvement Project on Alamo Street West, Crockett Street, and Houston Street (Cox 1990).

The soil expected in this area is part of the Houston Black Series identified on Sheet Number 54 of the Soil Survey of Bexar County as Houston Black clay (HtB) (Taylor et al. 1966). This soil type is susceptible to water erosion and is usually found adjacent to larger drainages. Patches of Willacy loam and Houston Black gravely clay (HuB) can also be found in this area. "The surface layer is dark gray and is about 34 inches thick. The subsurface layer is gray, is about 20 inches thick, and has blocky, crumbly structure" (Taylor et al. 1966:21). This Houston Series is well-documented from previous excavations on the Alamo grounds and plaza. A backhoe trench dug in 1977, outside the west wall of

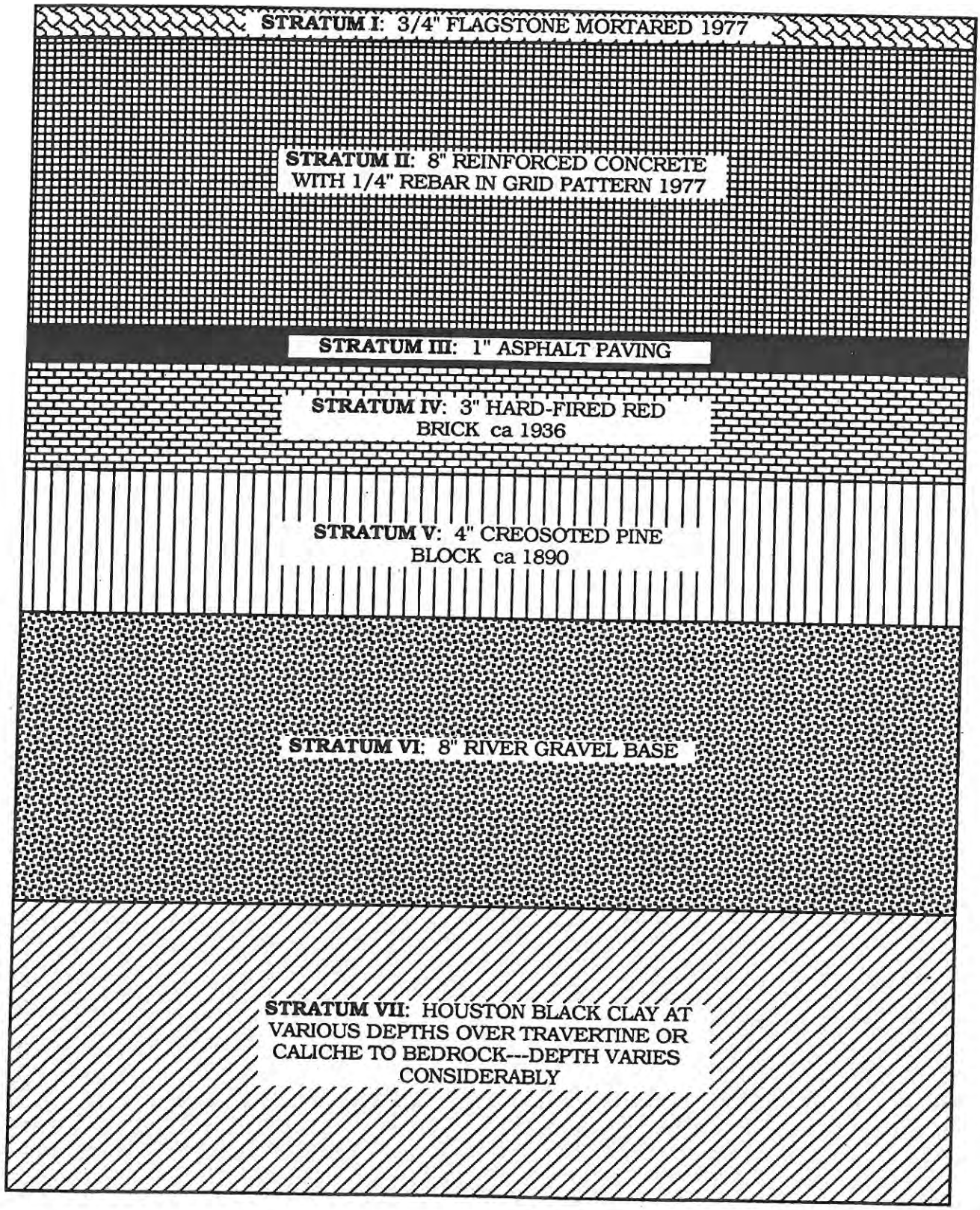

Figure 26. *Hypothetical Subsurface Profile of the Study Area.*

the long barracks, confirms the existence of this stratum which contained colonial period deposits (see Fox, this volume).

The surface of the study area, a street paved with three-quarter-inch flagstone slabs set with concrete mortar, will be referred to as stratum I (Figure 26). The subsurface of the street could contain at least six additional strata. Stratum II, an eight-inch slab of metallic-mesh-reinforced concrete, should be intact and remains constant below the flagstone stratum. Asphalt paved on red brick comprises stratum III. The *San Antonio Express* (8 July 1937) reported the placement of this stratum (Cox 1990). In 1914 stratum IV, consisting of creosoted pine blocks measuring 4 x 6 x 3 inches, was installed. Underlying the pine blocks is stratum V, an eight-inch river gravel base which could have existed prior to 1914. Stratum VI, the Houston Black clays, are underlain by stratum VII, caliche which varies in color from white to yellow. Other strata below this level are not pertinent to this study and therefore will not be addressed. All subsurface strata may include numerous voids filled with travertine deposits and trapped water typical in this type of terrain.

All the strata shown in Figure 26 were present together at Alamo Street West and the area west of Blum Street which is south of the park (Cox, personal communication 1994). While it is unknown if all strata will be found throughout the study area, they may well be and would negatively affect various detection methods.

STUDY AREA BURIALS

If burials exist, they should be encountered in the Houston Black clay stratum, two to five feet below present ground level. This stratum is thought to have minimal disturbance from post-burial activities since, based on previous archaeological work, later cultural activities did not intrude to a significant depth. Apparently few utility lines have disturbed the clays at this depth in Alamo Plaza East (see Nickels, this volume), so burials many be relatively undisturbed from modern activities .

Differences in density and texture between soil in a burial pit and the surrounding fill affect how readily the burial can be detected. Burial pit soil and the surrounding fill may have little or no contrast, as observed during recent CAR excavations at Milam Park. If however, a burial penetrated the white to

yellowish caliche stratum which underlies the Houston Black clay, the difference between pit and fill would be more pronounced.

Orientation of the graves is another potential location factor. If burials are in front of the church, they should be oriented east-west (feet toward the east or the church, heads west) if they conform to the traditional burial practice of the time (Cox, this volume; Ellwood 1990; King et al. 1993). This pattern, if present, could prove helpful in interpreting geophysical subsurface anomalies occurring at anticipated burial depths. Whether interred individuals were placed in coffins is unknown; it is, however, doubtful. The individuals were most likely only shrouded. Mission-period burials excavated from San Juan Capistrano did not have coffins. However, if coffins were used, the expected remains would be nails and faint traces of wood, as noted during recent CAR excavations of a historic burial, dating to ca. 1846, at Milam Park. As noted from other mission burials, the burial contents may include human bone in varying degrees of preservation and associated non-perishable burial items. Typical burial items include bone and stone tools, bone pins, glass beads, rosaries, brass crucifixes, eighteenth-century Spanish coins, and other colonial period artifacts (Schuetz 1968:207-212).

Whether the integrity of each burial has been maintained is unknown. It is possible that since graves were unmarked, each grave could have been used for more than one burial episode. Therefore, several nonassociated, temporally different burials could be located in one pit. Additionally, given this scenario, this disturbance could result in incomplete burial remains.

DETECTION METHODS

To locate subsurface features, such as burials, archaeologists use both nonintrusive and intrusive techniques, as they frequently complement one another. Nonintrusive methods are those which have little or no impact on the surface and subsurface of the area. Intrusive methods involve digging into or penetrating the soil in some fashion.

Nonintrusive Methods

Nonintrusive detection methods include geophysical and nonscientific procedures.

Geophysical

Geophysical methods are used to locate subsurface anomalies. These methods measure subsurface physical contrast due to the presence of voids, moisture, stratified soils, fill, metallic and other buried materials, or related disturbances. According to Dr. Douglas Owsley (1993:6) of the Smithsonian Institution, these methods measure physical, electrical, and chemical properties of earth such as magnetic susceptibility or natural electric currents. The usefulness of geophysical surveying is subject to site conditions, operator experience, and expert interpretation (Bevan 1991; Heimmer 1992; Killam 1990). Additionally, much is yet to be learned about the best methods for locating and interpreting cultural features (King et al. 1993).

Common geophysical remote sensing techniques include ground penetrating radar, magnetometer survey, electromagnetic conductivity survey, and electrical resistivity survey. A less common technique is diffraction tomography. Each of these techniques has limitations and can be affected by heavy industries, radio transmitters, high voltage power lines, metals and other cultural objects, as well as soil conditions.

Ground Penetrating Radar

Ground penetrating radar (GPR) is a subsurface investigating technique which uses impulse radar to detect features and their depths. By projecting a low-frequency electromagnetic signal then measuring the echo which is reflected off subsurface material, a profile of the area is created (Heimmer 1992; Killam 1990). "Radar can detect a variety of soil anomalies as well as many objects in the soil, including metal, stone, brick, wood, and air pockets. By employing transducers (transmitter/receivers) of various dimensions, it is possible to direct the greatest degree of resolution to the depth of interest" (Thomas 1987:134). Under ideal circumstances, radar can be used to map soil stratigraphy and delineate the interface of contrasting types of soil (King et al. 1993:6).

Ground penetrating radar has been tested at historic period cemeteries with mixed success. Dr. Bruce Bevan, a geophysicist and owner of Geosight, a geophysical and remote sensing company, tested GPR at a historic-period cemetery in southern Maryland. This study was conducted in a residential area devoid

of high voltage power lines, radio transmitters, or heavy industries. The study area surface was topsoil containing displaced grave stones and fragments. The area was surveyed twice using two types of antennas. The results of these two surveys were then overlaid to facilitate the interpretation. Because site conditions were very conducive to GPR, a deep profile of the area could be obtained.

Using information such as burial size, depth, shape, and GPR echo strength, burial locations were predicted based on interpreted anomalies. These anomalies were then excavated to test the accuracy of the GPR predictions. Only one-third of the anomalies interpreted as burials from GPR turned out to be burials. Given these results, Bevan then set out to predict where other burials might be located using conventional archaeological methods. He found two-thirds of the burials had been missed or misinterpreted using GPR. Ultimately, after reevaluating his original interpretations, Bevan discovered that another one-third of the burials had been predicted by GPR but not interpreted properly. King et al. (1993) state, "like any technique, radar must be continuously tested against the archaeological record." Bevan has continued, in other cemeteries, to test the usefulness of GPR for detecting burial locations. After testing GPR at nine cemeteries, he has concluded that radar works best at sites with little or no stratification and that "the worst conditions for radar are conductive clayey soils" (1991:1316).

Bevan (personal communication 1994) was contacted by phone and asked if he believed that GPR would be useful in detecting the burials at Alamo Plaza. He said that given the setting, reinforced concrete, and clayey soils at the study area, he did not believe any geophysical method would work. Bevan explained that the metal in the concrete could lock out the radar pulses and that clayey soils are also very hard to penetrate. He said that if the overburden of strata resting on top of the Houston Black clay was removed and the clays were not too tight, then perhaps GPR could work. He said that a resistivity test should be conducted first to determine the soil's value. Dr. David Hurst Thomas of the American Museum of Natural History states, "this method seems to work best when soil resistivity is high, as in well drained soils and those of low clay content" (1987:134).

Other geophysicists were also contacted and asked their opinion about using GPR or other geophysical methods to detect burials beneath the street in front of the Alamo. Dr. Brooks Ellwood, professor at The University of Texas at Arlington and director of geophysical studies, concurs with Bevan (Internet communication 1994). During a recent phone conversation, Ellwood said that he did not believe that any geophysical method would detect the burials because of the reinforced concrete stratum, the Houston Black clay stratum, and the cultural noise in the area (personal communication 1994). Dr. John

Weymouth (personal communication 1994), professor of physics at the University of Nebraska, also agrees with Bevan's assessment. Alan Witten of Oak Ridge National Laboratory in Tennessee said that given the site conditions, there is a very slim chance that any geophysical method could detect the burials (personal communication 1994). Dr. David Nobes, Department of Geology, the University of Canterbury, New Zealand said that given his experience with GPR he believes the metal in the ". . . reinforcing will interfere with the radar signal" (Internet communication 1994). Jerry Robinson of Ground Truth Technology, Inc. of Houston reiterated the doubts of others regarding the usefulness of GPR (personal communication 1994).

Among the geophysicists who believe that GPR might work is Don Heimmer of Geo-Recovery Systems, Inc., a geophysical remote sensing company and author of the National Park Service publication *Near-Surface, High Resolution Geophysical Methods for Cultural Resource Management and Archaeological Investigations* (1992). Heimmer believes that by using a 300 MHz antenna, he could penetrate below the reinforced concrete approximately 6-12 inches into the Houston Black clay. Similarly Joe Austin, Earth Measurement Corporation of Houston, said that although they did not have any experience in locating non-coffin historic burials, by using an 80 MHz and a 300 MHz antenna they could see past the reinforced concrete into the clays (personal communication 1994). He does state, however, that tight clay, nonuniform fill, and ferrous fill materials limit GPR in the study environment (Austin, proposal #AP0394010; submitted to the Alamo Plaza Study Committee, March 16, 1994).

Although the opinions of the experts differ, one must remember that GPR can only locate anomalies which are caused by factors such as voids, disturbances, and buried material. Through careful interpretation of GPR data, significant anomalies can be identified; however, to determine the nature of the anomalies they must be investigated by other methods such as coring, augering, or excavation.

Magnetometer Surveys

Magnetometer surveys are used to locate iron and brick (Bevan 1987). A magnetometer measures magnetic field strength and is used to determine the characteristics and location of magnetic bodies and masses containing iron (such as buried pipelines). Reinforced concrete and other metals surrounding the site would affect burial detection with this method. According to King et al. (1993), they had little success with proton magnetometer surveys at the Maryland site because of interference from farm equipment and other metal trash nearby. With all the cultural interference surrounding the Alamo, and since burials are not expected to be in coffins, this method would not be useful at the study area.

Electrical Resistivity

Electrical resistivity testing detects anomalies within a given area through variation in electric current flow through the subsurface materials. The ability of a material to conduct electricity ". . . is related to its porosity, permeability, saturation and chemical nature of entrapped fluids" (Heimmer 1992:25). If the soil is uniform, then moisture should be uniformly distributed. If on the other hand, many soil types or inclusions are present, then the resistance will vary and an anomaly will be detected. Soil resistivity tests were conducted at Mission Santa Catalina de Guale in Georgia. This test successfully located structures and middens (Thomas 1987:130-134). Electrical resistivity was recommended by Bevan as a pretest to determine the suitability of GPR. He adds that the soil should have a resistivity value greater than 200 ohm meters in order for GPR to produce the best results.

Metals and electrical devices and power lines within 100 ft can interfere with this method. Additionally, in areas where graves have little matrix contrast, it is useless (Bevan 1987; Killam 1990:227). According to Bevan (1987) this test is "impractical on hard pavements" similar to those in the study area. Ellwood (Internet communication 1994) said that they had been using electrical resistivity and magnetometer studies in cemeteries to identify burial shafts and that ". . . sometimes it works, sometimes it doesn't." He believes that these methods will not work at the study site.

Electromagnetic Survey

According to Bevan (1987), "electromagnetic induction meters are used for mapping earth features." These meters detect metal and "brick, fired earth, and changes in the thickness of topsoil" (Bevan 1991:1311). Killam points out the disadvantage of this method which is ". . .interference from metal litter, fences, cars, power lines, buildings, etc." (1990:227). Clearly this method will not work since these types of interferences surround the area. All geophysical specialists contacted agree on this point.

Geophysical Diffraction Tomography

Geophysical diffraction tomography (GDT) is an emerging high-resolution technique for subsurface acoustic holographic imaging. It inverts linear waves to compute a partial image; an actual image is produced through repetition of this process (Witten, personal communication 1994). "GDT can be implemented with many types of waves" but acoustic waves have been tested in archaeological applications (Witten 1994). This technique is similar to the CT scanners used in diagnostic medicine; however, it more efficiently accounts for the ray-bending produced from longer wave lengths (Witten 1994).

Witten states that GDT resolution is insufficient to characterize human bone or to define its shape becau bone is not dense enough; however, a burial pit could show up as a disturbance or anomaly (person communication 1994). Unfortunately many types of voids or other disturbances could also show up a anomalies, thereby producing false positives. Witten also indicated that the technique may or may n be able to receive the return signal through the various strata, and that no way exists to predict if it could Witten also mentioned that his is the only group using GDT for archaeological applications although the have never used this technique to locate burials.

Nonscientific Methods

Among the nonscientific applications employed to locate burials are the use of psychics and dowsers. As the former technique is dubious at best, it will not be addressed

Dowsing

Dowsers use a variety of implements (such as forked sticks, metal rods, and medallions) to sense hidden objects or materials. Before geophysical methods were developed, dowsers were heavily relied upon to locate subterranean water, metal, coal, buried treasure, and other features. The Ontario government employs a dowser whose job is to locate recent or historical burials (Internet communication 1994) and the Journal of the British Society of Dowsers published a book entitled Dowsing and Archaeology (Graves 1980). Although dowsers have been used to locate buried objects, dowsing is not considered a reliable detection method as it cannot be scientifically verified.

Intrusive Methods

Intrusive burial detection methods include probing, coring, geochemical testing, augering, and excavation.

Probing

Probing utilizes a sharpened metal rod which is pushed into the ground ". . . to detect ground softness associated with a grave site and then to further outline the grave shape" (Killam 1990:43). By using a grid system, a systematic search can be conducted. Probing has been useful in the detection of burials

(Owsley 1993); however, this method does not seem feasible given the numerous strata and the Houston Black clay soil, which after several hundred years is probably too compact to allow identification.

Coring

Intact soil cores are obtained by pushing, hammering, or drilling a soil sampling tube or coring rod into the ground. Variations from naturally occurring soil stratigraphy may be observed using this technique. In a burial, changes may include a scrambled or inverted stratigraphy with distinct texture or color changes, particularly if there are differences between the burial pit and surrounding fill. Since these variations may be caused by other natural or cultural disturbances, the soils within the core could be further evaluated using geochemical tests. Should the core hit a burial, minor damage would result.

Geochemical Testing

Geochemical testing detects contrasts to the natural soil chemistry in an area. Some tests can be conducted immediately in the field, others must be done in a laboratory by a specialist. Changes in pH, nitrogen, and phosphate levels may be detected. These changes are often caused by the decomposition of a burial and associated burial goods. Since most chemical signatures only occur within close proximity to a burial, often within centimeters, useful samples must be from near or in the burial. This factor is problematic since taking such cores is likely to damage the burial. Ellwood and Owsley are currently working on new geochemical tests capable of detecting burial signatures but, unfortunately, they have not perfected these techniques at this time (personal communication 1994).

Augering

Systematic auger sampling can detect burial materials such as wood, sherds, nails, and bone, as well as soil changes. A hand-operated auger uses a 2-4 inch diameter bit to penetrate the ground, collecting the sample in a cylindrical sediment bucket. Samples can be collected in, for example, 20 cm levels to maintain stratigraphic control. The recovered soil is hand-sifted for cultural material. While the diameter of the auger is slightly greater than a core or probe, augering is an inexpensive approach; it is, however, likely to result in minor damage to the burial. This method can be used to explore anomalies or, using systematically spaced test holes, to narrow a search in significantly less time than excavation.

Excavation

Excavation can be used to confirm burials with little or no damage to cultural materials. Although excavation destroys the subsurface record, detailed archaeological record-keeping mitigates this effect and

provides a data base for future study and interpretation. One potential excavation strategy to search burials would be to dig an array of small test units in a grid pattern in the study area. This rand sample would facilitate systematic exploration of the area. If a burial is encountered using this strate excavation need only continue until the burial is positively identified as mission-period. Af documentation, recovered material can be reinterred in its original location.

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CONCLUSIONS AND RECOMMENDATIONS

Robert J. Hard

Burial records for the current location of the Mission of San Antonio de Valero indicate 954 individuals were buried there between 1724 and 1782, the period the two churches were in use. Individuals probably continued to be interred until 1807. Mission burials traditionally occurred within and immediately in front of the church. According to Ivey (1992) the original church faced west and abutted against the outside of the south wall, near the southwest corner, of the convento; its front door would have opened onto Alamo Plaza East.

Following the battle of the Alamo, Sánchez-Navarro drew a map of the plaza. Because he was then in Mexico, the map contains some errors; it is, however, generally accurate. The map indicates a cemetery was located in front of the existing church. The most critical question is: did Sánchez-Navarro learn of the cemetery from townspeople or did he simply assume its location based on a cemetery's usual juxtaposition with a church? Following the battle, he had proposed that the Alamo battle victims be buried in the mission cemetery, so the cemetery was a concern of his. While the documentation is not unequivocal, it seems unlikely that he would have made such a proposal and drawn the cemetery location on the map unless he was confident of its existence.

In addition to documentary evidence, archaeologists rely on physical evidence as well. Human bones have been found at five locations in and near the plaza: 1) inside the church, 2) outside the northeast corner of the plaza (under the post office), 3) near the Alamo library, 4) in front of the church near the south side of the convento wall, and 5) along the north wall of the north courtyard. The remains inside the church coincide with traditional burial locations. The burials outside the northeast corner of the plaza were in an unusual location since sanctified ground is usually used for cemeteries; perhaps they were interred there following an epidemic. The four graves found in the vicinity of the library are difficult to place temporally or culturally without additional information concerning the grave goods or context; they could, for example, have been prehistoric. The human bones found in front of the church, near the south side of the convento wall could have been part of the camposanto of the present church, or possibly could have been located under the floor of the original church. The skull found along the north wall of the north courtyard is thought to have been a battle victim.

Essentially these lines of evidence converge suggesting that the camposanto for San Antonio Valero is located in front of the church: this is the traditional location for a cemetery, the Sánchez-Navarro map indicates this location, and burials have been found there. Given the small area between the church and the street, the cemetery most likely would have extended into Alamo Plaza East.

If the cemetery was there, it most likely remains largely intact. Despite all the modifications to the plaza, previous archaeological work in the area demonstrates that cultural deposits remain in place two to three feet below the surface. Graves would likely have been excavated into the clay above the caliche and are likely to be found two to five feet below the modern surface.

While the bulk of the evidence indicates an intact cemetery is probably present in front of the church; other locations are possible but do not have the same degree of supporting evidence. It is also conceivable that burials were placed in multiple locations. Should verification of the existence and location of the cemetery be required an archaeological project would need to be undertaken.

Unfortunately the effectiveness of noninvasive procedures appears minimal. While ground penetrating radar has been successful for some archaeological work, several factors suggest it may not be cost effective. The metallic-mesh-reinforced concrete, the clay soils, and the probability that there is little difference between the soil in the burial pits and the surrounding fill all reduce the likelihood that this approach would be successful. Removal of the street and underlying road bed material would enhance the effectiveness of GPR, but the difficulties associated with the clay soils and detecting poorly defined burial pits remain. As with all remote sensing approaches, the identified anomalies must then be verified with excavation. Experience indicates detected anomalies are frequently false positives, particularly when conditions are poor. Costs would include about $10,000 for the GPR work, plus the cost of excavations to evaluate the anomalies. Based on the information at hand, such an approach would not be cost effective, compared to simply using standard intrusive methods.

A second nonintrusive technique, diffraction tomography, is less widely used, but the cost effectiveness appears similar to ground penetrating radar. Its probability of success is hindered by the local conditions coupled with the fact that it is a technique that remains largely experimental for archaeological work. A systematic study would also cost about $10,000, anomalies would need to be excavated, and false positives are common.

Geochemical techniques require that soil samples be taken from very close to the burial for any chemical soil changes produced by the burial to be detected. Therefore this approach is impractical.

It appears that more traditional approaches should be utilized should the city require verification of the existence and location of the cemetery. A variety of excavation procedures could be utilized, including small hand-dug excavation units, augering, and probing. The costs and benefits of each approach would be based upon the precise project goals as determined by the city. For example, a project to locate cemetery boundaries would have different parameters than would one designed to simply verify the presence of burials. A series of small hand-dug units would sample a smaller area at a higher cost, but would result in little or no damage to the burial. In contrast, augering could sample a larger area at lower cost but would result in minor damage to the burial. Any project of this type must be approved by the Texas Historical Commission's Department of Antiquities Protection which has permitting authority.

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