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GOLDEN GATE

THE ROCK: A HISTORY OF ALCATRAZ ISLAND, 1847-1972

NATIONAL RECREATION AREA / CALIFORNIA

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THE ROCK: A HISTORY OF ALCATRAZ ISLAND, 1847-1972

HISTORIC RESOURCE STUDY

GOLDEN GATE NATIONAL RECREATION AREA

CALIFORNIA

By

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WITHDRAWN

E R R A T A S H E E T

Page 6, paragraph 2, the second sentence should read,

But, on July 20, 1838, the Mexican government, fearful that foreigners might occupy some of these islands, passed a law that authorized the governor of California to grant them to Mexican citizens.[10] On April 30, 1846, less than two months before the Bear Flag Revolt, Julian Workman, a naturalized Mexican, petitioned Governor Pio Pico for a grant to Alcatraz, "which has never been inhabited by any person, nor used for any purpose." The govenor forwarded the petition to the second prefect to be certified.

Page 207, paragraph 2, second sentence, should read,

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PREFACE

This historic resource study of Alcatraz Island does not have an approved task directive. However, it has been prepared in accordance with the standards and regulations concerning historic preservation. The objective has been to complete a document that will prove useful to planning, management, preservation, and interpretation.

Direct quotations herein have on rare occasion been carefully modified by minor punctuation changes. Care has been taken not to change the original meaning. The actual rank of army officers is used throughout the report, their brevet grades being ignored. Also, in describing the post-Civil War years, officers are referred to by their regular army grades, not by their wartime positions.

A C K N O W L E D G E M E N T S

The great bulk of the research on Alcatraz Island was done in the National Archives in Washington, D.C., and in the Federal Archives and Records Center in San Bruno, California. At San Bruno my thanks go to Jo Ann Williamson, Robyn Gottfried, Daniel Nealand, and Mary Kiely, all of whom cheerfully put up with my demands. When my research notes were stolen and I had to return to San Bruno to repeat the research, these people still welcomed me.

My sincere appreciation goes to the entire staff in Old Military Records, Army and Navy Branch, National Archives. There are too many to name and I am bound to forget someone, but I am in the debt of that whole grand group of people who kept the records coming month after month. A special thanks goes to Dr. Elaine C. Everley, who graciously replied to my letters of inquiry on a number of esoteric subjects. In the Audiovisual Archives Division, both Judy Pratt, Motion Picture Branch, and Douglas Thurman, Still Picture Branch, assisted me greatly in locating film pertaining to all phases of Alcatraz's history.

My thanks go, too, to Graeme McCluggage, Cartographic Archives Division, who helped me examine maps of the San Francisco Bay Area for a solid week. This was one of the most exhausting weeks in my entire research career, but it was also one of the most rewarding. Thomas Lipscomb at Suitland, Maryland, was most understanding when I was called away at a moment's notice and when, a few weeks later, I returned to ask for the same records. My thanks also to Donald Mosholder, who introduced me to the records of the Bureau of Prisons.

Other people in the Washington, D.C., area who graciously helped me over the months include Dr. E. Raymond Lewis, librarian for the House of Representatives and an authority on seacoast defense; Col. Herbert Hart, U.S.M.C., whose earlier work on Alcatraz oriented my path; and Col. William F. Strobridge, Center of Military History, Department of the Army, who identified material most useful in this study.

Dr. John A. Hussey of Piedmont, California, historian of all things Californian, gave generously of his knowledge and time on a number of occasions over the months. The city archivist Gladys Hansen, San Francisco Public Library, helped me sift through the treasures of the San Francisco Room. John Langellier and Eric Saul, Presidio Museum, the Presidio of San Francisco, shared the important historic resources that this museum possesses. Joyce Berry, reference librarian for the California Historical Society, kindly made available for study a large number of documents pertaining to Alcatraz. The entire staff at the California State Library at Sacramento deserves praise for its unstinting aid. Worthy of special mention is the incredible index to California newspapers, which saved me countless hours. Dr. Robert Becker, Bancroft Library, University of California at Berkeley, and his staff, made available a large number of important papers concerning San Francisco Harbor, including the Muybridge photographs of Alcatraz's 15-inch Rodmans. My thanks go to all these people and institutions.

Three National Park Service historians require special mention: Edwin C. Bearss, Anna Coxe Toogood, and F. Ross Holland, Jr. Mr. Bearss, whose knowledge of both coastal defenses and the contents of the National Archives is legendary, guided me through the maze of the Corps of Engineers' records and willingly took time to assist me whenever I came to a stumbling block. Ms. Toogood,

my collaborator in the historical study of Golden Gate National Recreation Area (GGNRA), shared with me not only the agonies and triumphs of the research but also much-needed mutual uplifting of morale when thieves made off with our research notes and when we ran out of time. F. Ross Holland, Jr., an authority on American lighthouses, made available not only his knowledge but an important manuscript study on West Coast lights, which was most useful in this work.

One group of people who contributed an unmeasurable amount of help to this undertaking through knowledge, friendliness, hospitality, and understanding was the entire staff at GGNRA, incuding Linda Bogardus, Andy Gifford, Charles Hawkins, Steve Heath, Jim Lester, John Martini, Doug Nadeau, Jerry Schober, Lee Shenk, Mike Stricklin, Bill Whalen, Jack Wheat, and many, many others. John Martini has earned my special gratitude for time after time donating his days off to guide me around the historic resources. Likewise, my thanks go to the entire Historic Preservation unit at the Western Regional Office, especially to Gordon Chappell, whose interest in the project is very much appreciated.

My appreciation goes, too, to the historic architect Harold A. LaFleur, Denver Service Center, who almost daily gave me sound advise on architectural and preservation matters. John Jenkins, also of the Denver Service Center, deserves a great deal of credit for spending a vast amount of time in front of a microfilm reader extracting from the Daily Alta California all articles pertaining to today's GGNRA. He also skillfully organized the large collection of historic maps and building plans for the area.

Thanks also go to Greg Moore and Rolf Diamont, park planners, Denver Service Center, who were always willing and ready to assist in this project. And these pages would not be available were it not

for the editorial wisdom of Linda Wedel Greene and the typing perfection of Lael Cleys on the original manuscript, Denver Service Center. My gratitude goes to both of them.

Finally, I warmly thank the project manager, Ron Treabess, Denver Service Center. Ron in his role as a coordinator, advisor, supporter, and friend throughout the long, and sometimes weary, months has made this project a joy for me.

LIST OF ABBREVIATIONS

AAG	Assistant Adjutant General
AG	Adjutant General
AGO	Adjutant General's Office
CCF	Consolidated Correspondence Files (Quartermaster)
CG	Commanding General
Ch.	Chief
CO	Commanding Officer
IG	Inspector General
JAG	Judge Advocate General
NA	National Archives
NPS	National Park Service
OCE	Office of the Chief of Engineers (also Office of the Chief Engineer)
OQMG	Office of the Quartermaster General
PB, USDB	Pacific Branch, United States Disciplinary Barracks
PB, USMP	Pacific Branch, United States Military Prison
QM	Quartermaster
RG	Record Group
USA	United States Army

I. An Introduction To Alcatraz Island

A. Historical Significance

"The Rock" became a synonym for Alcatraz Island in San Francisco Bay long before its penitentiary housed the most desperate federal prisoners in the United States for almost 30 years, from 1934 to 1963. Alcatraz's historical significance reaches much further back in time and possesses more facets than the story of bank robbers and kidnappers. On the island stood the first lighthouse on America's Pacific shores, a light that has guided ships in and out of the magnificent bay for almost 125 years. For nearly 75 years, the island served as a military prison for army convicts from both the western states and overseas possessions. And for 50 years, Alcatraz played a key role in the defenses of San Francisco Harbor.

B. The Rock Is a Rock: A Description

Despite later tales that the island was honeycombed with Spanish tunnels and dungeons, it attracted very little attention from explorers and settlers before the Mexican War. Nor was there much about it that was attractive. Alcatraz jutted out of the bay, a barren irregularly shaped rock that was devoid of flowing water as well as vegetation. An American army officer described it as being "entirely without resources within itself and the soil is scarcely perceptible being rocky and precipitous on all sides."[1] Its first surveyor wrote: "This Island is chiefly composed of irregularly stratified sandstone covered with a thin coating of guano. The stone is full of seams in all directions which render it unfit for any building purposes & probably difficult to quarry." He added: "The island has no beach & but two or three points where small

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1. [U.S. Army], Outline Descriptions [of] Military Posts in the Military Division of the Pacific, 1879 (n.p. [1879]), p. 69.

boats can land." His survey showed that the island was 1,705 feet long and that its maximum width came to 580 feet. Its long axis lay in a northwest-southeast direction. When viewed in profile it had two "peaks" that reached elevations above sea level of 134.9 and 138.4 feet. The guano probably gave cause for the name White Island that was occasionally applied to it. The Rock measured about 22 acres.[2]

C. Alcatraz Gets a Name: Explorers

Because of its location in the midst of the swift currents of the bay, Alcatraz (where one could get close to the water) provided an excellent platform from which to harvest the great schools of fish that passed beneath its slopes. But if Indians made use of the island as a fishing station, they left no evidence of their visits. Not until the third quarter of the 18th century did Alcatraz enter into history.[3]

Sgt. José Francisco Ortega, chief scout for Gaspar de Portola's expedition, may have seen Alcatraz Island when he stumbled upon the Golden Gate in 1769. Three years later, two Spanish gentlemen most certainly did. Capt. Pedro Fages and Father Juan Crespi, exploring the area where Berkeley now stands,

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2. Washington, D.C., National Archives, Cartographic Archives Division, Record Group 77, Office of the Chief of Engineers (hereinafter cited as OCE), Fortifications File, Drawer 95-107, Lt. W. H. Warner, "Field Map of 'Isla de los Alcatrazes' San Francisco Harbor . . . May 1847." (Hereinafter, National Archives is NA; Record Group is RG. Historic maps used in this study are not shown individually in the Bibliography; rather they are listed in an appendix.)

3. The writer is aware that some students believe that Francis Drake discovered San Francisco Bay in 1579. A summation of the various Drake theories will be presented in a later study of Golden Gate National Recreation Area (hereinafter cited as GGNRA).

looked westward toward the Golden Gate and noted the principal islands within their view. Fages wrote in his journal: "Within the estuary we saw five islands, three of them making a triangle opposite the mouth, with a large distance between them; and the nearest of them to the channel at the mouth [Alcatraz] must have been over a league from it. The largest of the three [Angel], which must have been some three leagues in circuit, was very grassy and with considerable trees on it; the other two [Alcatraz and Yerba Buena] were smaller and also displayed considerable greenery."[4]

The first European to visit the island may or may not have been Frigate-Lt. don Juan Manuel de Ayala, who sailed the first ship into San Francisco Bay in August 1775. On August 12 he set out in a small boat from his temporary anchorage at Tiburon for nearby Angel Island, which he named Isla de los Angeles. Although he found good moorings there, he decided to inspect further before deciding on a harbor: "I rather preferred to pass onward in search of another island, which when I reached it proved so arid and steep there was not even a boat-harbor there; I named the island de los Alcatrazes [Island of the Pelicans] because of their being so plentiful there."[5]

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4. Frank M. Stanger and Alan K. Brown, Who Discovered the Golden Gate? The Explorers' Own Accounts, How they discovered a hidden harbor and at last found its entrance (San Mateo Historical Association, 1969), p. 122. Crespi's description was briefer; he too identified the location of Alcatraz. There is no accounting for Fages' observing greenery on Alcatraz. Perhaps the distance made the guano appear to be what it was not.

5. Ibid., p. 151. Ayala's chart spelled the name "Alcatraces." The officers of the U.S. Army had a difficult time with this Spanish name. From their reports the following variations have been culled: Alcatrazes, Alcatras, Alcatrasas, Alcatrace, Alcatrose, Alcatrazas, Alcatrazos, and Alcatrases. The last of these was the most common spelling in the 1850s. By 1866 the army had settled on today's spelling, but the Coast Survey had settled on today's version as early as 1851.

One could readily assume that Ayala had reached today's Alcatraz. However, the chart resulting from this first survey of the bay clearly labeled today's Yerba Buena Island as de los Alcatraces. Some scholars, such as Stanger and Brown, believe that the chart was inaccurate and that the name was applied to the wrong island by an unskilled hand, and that Ayala's "arid and steep" island was indeed today's Alcatraz. Others assume that the chart is correct, that Ayala did visit Yerba Buena, and that the name was later accidentally changed.[6]

Stanger and Brown believe that Ayala's phrase could only have applied to today's Alcatraz and not to the more bountiful Yerba Buena. Supporting this conclusion, on the one hand, is the army's experiences on Yerba Buena around 1870, when it had a full-fledged post on the island capable of supporting 150 men. A spring and a well supplied a limited but adequate amount of water. And the post boasted a 5-acre garden. Photographs taken at the time show a heavy natural growth of grasses, bushes, and large shrubs. On the other hand, Ayala's own pilot, Jose de Canezares, described today's Yerba Buena as "rough, steep and with no shelter."[7]

A Mexican map of the Bay Area dated 1825 continued to identify Yerba Buena as Alcatraz, with no identification of the

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6. Ibid., pp. 56 and 57; also see Erwin G. Gudde, California Place Names, The Origin and Etymology of Current Geographical Names (Berkeley: University of California Press, 1962), pp. 5 and 351.

7. Stanger and Brown, p. 159; [U.S. Army], Quartermaster General, Outline Descriptions of Forts and Stations, 1871 (Washington, 1872), p. 31; NA, Audiovisual Archives Division, 2 photos, Engineer Company on Yerba Buena Island, n.d. (but between 1868 and 1874, No. 77F-98-16, A and B.

latter island at all. But in the next year, Capt. Frederick Beechey, British Navy, secured permission from Mexican authorities to survey the bay. For whatever reasons, he gave each island its present name and thus they have been known ever since.[8]

D. Frémont's Claim

During the last years of the Mexican regime, a number of citizens, native and naturalized, of the Republic applied for grants of land around San Francisco Bay at locations that within a short time would be demanded by the United States for use as military reservations for the defense of the harbor. While some of the original grantees had intentions of developing these lands, others were purely speculators and, after the conquest of California, undoubtedly had high hopes that the United States would be forced to pay well to obtain possession of them. Ownership disputes would soon plague all the early military reservations: Presidio, Point San Jose (Fort Mason), Lime Point, Angel Island, and Alcatraz.

Early in 1849 the U.S. Congress appropriated funds for a joint commission of army and navy officers to examine the Pacific Coast with reference to its defense. Maj. John Lind Smith, senior officer of the commission, wrote from San Francisco concerning Mexican titles. He understood that the only titles that existed in California were those derived from Mexican grants and from uninterrupted occupancy for the length of time prescribed by the laws of Mexico. He had also learned that "all valid Mexican grants contain a reservation that they may be resumed by the Govt.--when

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8. NA, Cartographic Div., RG 77, Fortifications File, Dr. 124-1, "Plano del Puerto de San Francisco . . . 1825"; Stanger and Brown, pp. 62-63.

needed for public purposes; and that any grant without the reservation is not valid because there is a law of Mexico expressly requiring it to be inserted." Smith confidently concluded that the United States could take possession of any land in California that might be required for public use. Alcatraz Island would not test Smith's thesis as much as Lime Point or Point San Jose would in the years ahead; nonetheless the story of its claimants is a curious one.[9]

The Spanish colonial government had, in fact, retained control of all coastal islands. But on July 20, 1838, the Mexican government, fearful that foreigners might occupy some of these islands, passed a law that authorized the governor of California to certified. The prefect, J. de Jesus Noe, at Monterey, did his duty but was puzzled as to why Workman wanted the "completely bare" island. Another Monterey official pointed out that the only possible use Alcatraz could have would be the location of "some kind of lamp which may provide some light in the dark and stormy nights for the protection of ships that pass by." On June 8, 1846, as the sun was setting on Mexico's ownership of Alta California, Governor Pico granted Workman the small island, with the one condition that he establish a navigation light "as soon as possible." Workman did not erect a light on Alcatraz; almost immediately he conveyed the title

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9. NA, RG 77, Office of Chief of Engineers, OCE, Letters Received 1838-1866, Maj. J. L. Smith, Mar. 31, 1850, to Secretaries of War and Navy.

10. Denver, National Park Service, Denver Service Center (hereinafter cited as NPS, DSC), John A. Hussey, "Fort McDowell, Angel Island, Marin and San Francisco Counties, California . . . ," Manuscript prepared for War Assets Administration, 1949, p. 16.

to his son-in-law, Francis P. Temple, another naturalized Mexican.[11]

In 1847, John Charles Frémont, appointed governor of California by Commodore Stockton, "purchased" Alcatraz Island from Francis Temple, "giving a bond for the purchase money in my official capacity as governor of California." Frémont said he regarded the island "as the best position for Lighthouse and Fortifications in the bay of San Francisco." Later in Washington, D.C., Frémont was court-martialed on a number of charges and specifications, among them being this purchase in the name of the United States. The United States rejected the "purchase" on the grounds that Frémont had not possessed the authority to make it. Furthermore, President Fillmore's 1850 order reserving Alcatraz and other parcels of land from sale was a clear indication that the federal government considered itself the rightful owner and purchase from anyone unnecessary. The army's Board of Engineers for the Pacific Coast confirmed that belief in 1851 when it wrote that while it had no specific information concerning Temple and Fremont, it was under the impression "that our Government had succeeded to the right of property in that and other Islands . . . which had been vested in the Mexican Government."[12]

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11. San Francisco Examiner, Jan. 5, 1896; NA, RG 77, OCE, Land Papers, John C. Fremont, Washington, D.C., May 10, 1855, to General [Caleb] Cushing. Governor Micheltorena had apparently granted Alcatraz to Jose Yves Limantour in 1843, but a court had proclaimed this illegal.

12. NA, RG 77, OCE, Letters Received 1838-1866, Col. J. S. Smith, Nov. 3, 1851, to Col. Joseph Totten, Chief Engr.; NA, RG 77, OCE, Fremont, May 10, 1855, to Cushing; Theodore Grivas, Military Governments in California, 1846-1850 (Glendale: Arthur H. Clark Company, 1963), p. 98.

The army proceeded to develop plans for the defense of Alcatraz. But Frémont was not at all convinced that his claim was dead. He decided that if he had not purchased Alcatraz for the government, then he had bought it for himself: "The island consequently reverted to me, and has ever since been held by me to be my property." Eventually, through Simon Stevens of New York, Fremont paid $5,000 to the holder of the bond. From the 1850s on, Temple's name dropped from the records. Not so, Frémont's. By early 1855 the San Francisco law firm of Palmer, Cook, and Company, which seemed to specialize in land litigations that involved the federal government, entered the case either on behalf of Frémont, or in partnership with him. They brought an action of ejectment in the District Court, Fourth Judicial District, San Francisco. The engineer in charge of the works on Alcatraz, Maj. Zealous Bates Tower, notified Chief Engineer Joseph Totten that "Messers Palmer Cook & Co. have commenced suit against me personally for trespass in occupying Alcatraz." The secretary of war quickly authorized Tower to call upon the U.S. district attorney for any assistance he needed.[13]

At the same time Palmer went into court, Frémont wrote U.S. Attorney General Caleb Cushing outlining the case as he saw it, concluding: "I thought it not improbable that the government upon a full examination might be disposed to make some arrangement which would spare us the great expense and delay of litigation."

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13. NA, RG 77, OCE, Land Claims, Maj. Z. B. Tower, Jan. 31, 1855, to Totten; NA, RG 77, OCE, Letters to Officers of Engineers, vol. 23, 1st Lt. J. D. Kurtz, May 18, 1855, to Tower. At that time the firm Palmer, Cook and Company was composed of Joseph C. Palmer, Charles W. Cook, George W. Wright, and Edward Jones. See NA, RG 77, OCE, Land Papers; Mary Lee Spence and Donald Jackson, editors, The Expeditions of John Charles Fremont, vol. 2: The Bear Flag Revolt and the Court Martial (Urbana: University of Illinois Press, 1973). p. 317 and footnote 317n.

But the government was not so disposed. The construction of fortifications on Alcatraz went on. Fremont's claim came up again in 1859 when D. W. Perley, said to have been the "Pathfinder's" attorney at that time, threatened to institute a suit for the possession of the island. Sec. Lt. James B. McPherson, then in charge of Alcatraz, informed Washington that according to his intelligence Perley was threatening this action because he had lost $30,000 when the federal government declined to pay $200,000 for the purchase of Lime Point on the north side of the Golden Gate. As before, the subject quickly dropped from army correspondence, indicating that nothing much came from the affair.[14]

As late as the 1890s attorneys for the heirs of General Fremont, probably in association with another land dispute at Point San José (Fort Mason), placed on record a deed dated August 3, 1883, from Frémont to Charles A. Lamont of New York, stating that for the sum of one dollar and other valuable considerations Frémont sold one-half of all his rights to Alcatraz Island. The newspapers guessed that the old claim was to be renewed before Congress or the Court of Claims. But the Frémont heirs seem to have dropped their interest in Alcatraz about this time. They would, however, continue the battle over Point San José.

Alcatraz has remained firmly in the hands of the federal government from its first occupation by the army engineers until today.[15]

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14. NA, RG 77, OCE, Land Papers, Frémont, May 10, 1855, to Cushing, and 2Lt. J. B. McPherson, July 14, 1859, to Capt. G. A. De Russy; NA, RG 77, OCE, Letters to Officers of Engineers, vol. 30, De Russy, Aug. 12, 1859, to McPherson.

15. Evening Bulletin, San Francisco, May 28, 1892; San Francisco Call, May 29, 1892.

II. The First Fortifications, 1853-1863

A. A Natural Redoubt: Planning the Works

1. First Survey

First Lt. William Horace Warner, Corps of Topographical Engineers, surveyed Alcatraz Island in May 1847. Not only was this the first detailed examination of the island, it was one of the very first land surveys carried out on the Pacific Coast by the newly established Tenth Military Department, headquartered at Monterey and still under the command of Brig. Gen. Stephen Watts Kearny. While the army had not yet developed plans for the permanent defenses of San Francisco Bay, Warner's map, with minor corrections, became the basis for future planning over the next 20-odd years. The department's desire to have the island surveyed at this early date indicated the realization that Alcatraz would play an important role in an, as yet, undeveloped scheme of defense.[1]

2. Joint Board of Engineers and Naval Officers

Two years passed before the U.S. Congress appropriated funds for an examination of the Pacific Coast "in reference to the defence of the Same." The resultant Joint Board of Engineers and Naval Officers (Pacific Coast) consisted of three army

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1. [U.S. Army], Military Posts 1879, p. 1. The Tenth Military Department was created per General Order No. 49, War Department, Adjutant General's Office, Nov. 3, 1846. It was actually established in Monterey in February 1847. William Horace Warner entered West Point in 1831. He graduated tenth in his class. After two years as an artillery officer, he joined the Topographical Engineers in 1838. Promoted to first lieutenant in 1841, he received a brevet captaincy for gallant and meritorious service in California on Dec. 6, 1846. His military career suddenly ended Sept. 26, 1849, when he was killed by Indians in the Sierra Nevada. See Francis B. Heitman, Historical Register and Dictionary of the United States Army, from 1789 to . . . 1903, 2 vols. (1903; reprint ed., Urbana: University of Illinois Press, 1965), 1:1003.

engineers: Maj. John L. Smith, Maj. Cornelius A. Ogden, and 1st Lt. Danville Leadbetter; and three naval officers: Comdr. Lewis M. Goldsborough, Comdr. G. J. Van Brunt, and Lt. Simon F. Blunt.[2] These officers assembled at San Francisco in early April 1849. Their surveys of the Bay Area, the Columbia River, and San Diego over the next several months were greatly hindered by wholesale desertions of naval seamen who were intent on reaching the gold mines. In desperation, the commission sailed to Hawaii in November to hire an adequate ship's crew from the king. At least, this was a good excuse to visit Honolulu in the winter. They returned to San Francisco in March 1850.

At the end of March, the commission prepared its major recommendations concerning lands to be reserved for public use. On the south side of the Golden Gate they proposed one reservation that included all of today's Fort Winfield Scott, the Presidio of San Francisco, and Fort Mason (and the area between the latter two). The recommendation for the north side of the Golden Gate approximated what would later become the Lime Point Military Reservation (Forts Baker and Barry). The commission further proposed a reservation on the eastern side of Mare Island Straits. Finally, they included the three major islands in San Francisco Bay: Yerba Buena, Angel, and Alcatraz. Almost as an afterthought, they provided for a temporary battery at "Racoon"

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2. NA, RG 77, OCE, Letters Received 1838-1866, Instructions of Secretaries of War and Navy to Joint Board of Engineers & Naval Officers (Pacific Coast). Blunt had been in San Francisco Bay before as a member of the Wilkes Expedition. Point Blunt on Angel Island was named in his honor. See William Stanton, The Great United States Exploring Expedition of 1838-1842 (Berkeley: University of California Press, 1975).

Point, opposite Angel Island, today's Peninsula Point. In its final report, dated November 1, 1850, the commission reiterated the above recommendations, saying:

> The first consideration in connection with defense would be to prevent the passage of hostile vessels through the channel of entrance [Golden Gate]. This would be difficult as the narrowest part of the entrance is about a mile wide and vessels might pass through with the speed of 10 or 12 knots if favored by a strong fair wind, not unusual there, and the flood tide, estimated at 3 knots. The difficulty might be obviated by having, in addition to a strong battery on each shore, at the narrowest part . . . a third battery on Alcatrazos Island which lies within the Bay . . . and which, although about two miles from the other batteries would in cooperation with them and with a temporary battery on Point José at the South and another on Angel Island at the North, concentrate the fire of so many guns upon any vessels that might get past the front line of batteries, that they would be destroyed or so disabled as to become harmless.

The officers urged the building without delay of the fortifications at Fort Point, Lime Point, and Alcatraz. They estimated that the cost of a battery on the island would be $600,000 at Pacific Coast prices. Five days later, before seeing this final report, President Fillmore declared Alcatraz Island reserved for public use, that is, as a military reservation.[3]

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3. NA, RG 77, OCE, Letters Received 1838-1866, Col. J. L. Smith, Sausalito Bay, Apr. 9, 1849, and Smith, Honolulu Bay, Dec. 5, 1849, to Totten, Smith, Sausalito Bay, Aug. 1 and 29, 1849, and Mar. 31, 1850, to Secretaries of War and Navy, and "Report relative to an examination of the Coast of the U.S. on the Pacific . . .," Nov. 1, 1850, to Secretaries of War and Navy. Fillmore's order was modified on Dec. 31, 1851, but this had no effect on Alcatraz.

3. Board of Engineers for the Pacific Coast

On June 17, 1851, the defenses of San Francisco Bay took a positive step forward when Chief Engineer Totten established a Board of Engineers for the Pacific Coast. Eventually such a board would consist of engineer officers actually assigned to the West Coast, but for the time being the new board did its planning from Washington, D.C. Shortly after appointing the board, Totten prepared a masterful dissertation on the national defenses of the United States. In it he noted that the new board had barely begun to work and so far had determined only the locations of the proposed fort at Fort Point. He agreed with the old joint commission that Alcatraz Island belonged to the "First Class" and its battery should be built without delay.[4]

Three of the army engineers who had been on the joint commission became members of the new board: Smith (the senior member), Ogden, and Leadbetter (the recorder). The two new members were Capt. James L. Mason, a veteran of the Mexican War, and Capt. Frederic A. Smith, who was to die within two months after completing the plans. These officers assembled in Washington in October 1851 and proceeded to plan the defenses of San Francisco Bay. In March of 1852 Leadbetter reported that a study had commenced on open (barbette) batteries for Alcatraz, as

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4. USDI, NPS, Historic Structure Report, Fort Point, Historic Data Section, Fort Point National Historic Site, California, by Edwin C. Bearss (Denver: Denver Service Center, National Park Service, 1973), p. 6; Joseph Gilbert Totten, Report of General J. G. Totten, Chief Engineer, on the Subject of National Defences (Washington: A. Boyd Hamilton, 1851), pp. 88-89. A more complete discussion of this important report will be presented in a subsequent study of Golden Gate National Recreation Area. It should be noted that the name "Fort Point" meant the point that had a (Spanish) battery or fort on it; it was not a fort named "Point."

contrasted to the casemated works planned for Fort Point and Lime Point. On August 4, 1852, the board submitted its plans, estimates, and memoirs to Totten. They included a casemated fort at Fort Point, two redoubts for land defense south of Fort Point, a casemated battery at Lime Point, and open batteries and a defensive barracks on Alcatraz. Yet to come was a proposal for open batteries and a defensive barracks for Angel Island. John Lind Smith did not sign the documents inasmuch as he did not agree with the plans. As the procedures allowed, he was able to file a separate minority report.[5]

The general plan had three principal objectives: (1) to prevent the passage of hostile ships into the harbor; (2) if an enemy vessel did gain entrance, to arrange batteries for the near defense of the town and the navy yard; and (3) to have an interior line of batteries that could fire on the three passages into San Pablo Bay--between Alcatraz and San Francisco, between Alcatraz and Angel Island, and through Raccoon Strait (the board used the original spelling "Racoon").

4. Plan for Alcatraz

The guns of the day, said the board, could direct an annoying fire on a fleet at a distance of 2 miles, and at 1½ miles the fire could be quite effective. Should a ship manage to pass through the mile-wide entrance between Fort Point and Lime Point, then Alcatraz Island stood guard:

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5. Smith submitted a separate minority report on Sept. 8, 1852. Its contents dealt solely with Fort Point. Later he forwarded one sheet of plans for Alcatraz. It called for three barbette batteries having a total of 31 gun emplacments and five small casemates or caponiers scattered around the island. See NA, Cartographic Division, RG 77, Fortifications File, Drawer 95-1, Col. J. L. Smith, "Plans and Sections of Works proposed for the Defense of Alcatrazos Island . . . Nov. 1852."

> Nature seems to have provided a redoubt for this purpose in the shape of Alcatrazes Island--situated abreast the entrance directly in the middle of the inner harbor, it covers with its fire the whole of the interior space lying between Angel Island to the North, San Francisco to the South, and the outer batteries to the West. It is just three miles from each of the Entrance forts and consequently takes up the fire dropped by them at the 1-1/2 mile range. A vessel passing directly to San Francisco must pass within a mile; and the center of the city is about two miles distant. A vessel approaching the city from the north by the Riley channel [east of Angel Island] must pass within two miles of Alcatrazes--thus the main object of preventing an anchorage in the harbor within range of the town may be accomplished from this position and Rincon Point.
>
> The Island presents natural advantages for the site of a battery--The walls are already mostly scarped by nature in the solid rock. A slight degree of blasting would complete this part of the work, & the battery may at once be placed at a suitable height upon the top of the Island.
>
> It is proposed here to construct only open [barbette] batteries, to be armed with the heaviest pieces--a defensive barrack will be sufficient to complete the defences.

In the memoir that accompanied the plan for Alcatraz, the board presented details of the proposed fortifications. Two barbette batteries, one at each end of the island, would cover the various channels. A caponier (a small, strongly built structure with guns mounted internally to provide flanking fire for the protection of the guns of the battery) would be located at each battery. A defensive barrack (capable of resisting shot from enemy guns as well as providing a defense by small arms against an enemy landing party) and a guardhouse would complete the works:

> The island being high & provided with a natural scarp [almost vertical cliffs] in many places, it has been decided to complete this escarpment [by removing the

gentler slopes] so as to secure a perpendicular height of 25 feet all round. . . .

A battery of 20 guns is proposed to cover the passage to the North in conjunction with Angel Island, and a battery of 23 guns to cover the Southern passage. Three guns of this latter battery are designed to prevent a fleet lying to the east of the island.

By blasting a small triangular ditch from the solid rock of which the whole island is composed, for a length of 690 feet [principally in front of the batteries], a height of at least 25 feet is secured [for the natural scarp], flanked for the greater portion of its length.

A ramp [or road] at the wharf [to be built on the east side of the island, out of sight from the Golden Gate] is excavated from reference (10) to reference (30) [that is, from an elevation of ten feet above sea level near the wharf to a point 310 feet distant that was thirty feet above sea level]:--on the upper end of this ramp a wall being constructed on the inside. . . .

A Guard house is placed at the upper end of the ramp enfilading it with 4 mountain howitzers or other small pieces: this guard house also enfilades the ditch on the other side [the "ditch" here became a covered road that led to the northwest battery].

A defensive barrack capable of accommodating comfortably 100 men in bunks, is placed on the Southern end of the island having a good view of the Southern battery, and seeing the northeast slope of the island as far as the Northern caponniere. This barrack is provided with a parapet on the top & the windows of the second story are to be provided with iron bars, thus securing a height of about 33 feet.

Three sheets of plans signed by the majority (four-fifths) of the board provided further detail. Lt. Fred Smith prepared all three sheets, using Warner's 1847 survey map as a base. The first sheet portrayed a map of the island showing the locations of the batteries, caponiers, guardhouse, and defensive barracks. An inset showed a floor plan (with four embrasures for howitzers) and a profile of the single story, parapeted guardhouse. This sheet

today bears the approval signatures of Chief Engineer Totten and Secretary of War Jefferson Davis. The second sheet was somewhat crowded with details of both batteries, profiles of the North and South Caponiers, and a chart showing directrices and arcs of fire for both batteries. The third sheet contained floor plans and profiles of the two-story bastioned defensive barracks. The structure was designed to house enlisted men's barrack rooms, officers' quarters, a guardroom, and cells. An underground cistern capable of supplying water to 200 men for six months was located next to the building. An inset showed plans for a separate powder magazine; but its legend said that the magazine was not necessary and the board had not made an estimate for it. (Powder would be stored in two service magazines, one under each caponier.) The estimated cost of the works came to $300,000:

Masonry:			
Brick:	South Caponier	5,005 cu. ft.	
	North Caponier	" "	
	Guardhouse	2,237 "	
	Defensive Barracks	44,056 "	
56,303 cu. ft. @ 36 cu. yd.			$75,060
Brick and Concrete:	South Caponier	27,975 cu. ft.	
	North Caponier	32,970 "	
60,945 cu. ft. @ $25. cu. yd.			56,425
Concrete:	South Battery	54,159 cu. ft.	
	North Battery	33,380 "	
	Wall of Ramp	2,700 "	
90,239 cu. ft. @ 18 cu. yd.			60,030
Excavation of rock: 267,500 cu. ft. @ $3 cu. yd.			29,733
Asphalt:		638 sq. yds. @ $2 sq. yd.	1,276
Stone steps:		10 @ $20 each	200
Finishing 2 magazines:			2,000

Embrasures in caponiers:	16 @ $100 each	1,600
Iron girders for barracks:	36 @ $120 each	4,320
Loopholes in barracks:	110 @ $20 each	2,200
Finish of barracks, including wooden floors and stairs, plastering part of walls, kitchen arrangements, doors, windows, grading of yard, etc.:		25,000
For wharf, roadway to top of island, making inaccessible such points of the precipices as are not so, and for unforseen expenses:		37,856
		$300,000[6]

These plans for Alcatraz, as prepared by the majority of the board, set the general course of action that would be followed during the next decade. Different engineers on the scene would recommend changes and expand the complexity of the works. But the scheme of fortifications for the island was now established.

B. Tower and Totten, 1853-1856

1. Engineer Officers, San Francisco

More than six years had passed since the Americans had seized California. The gold rush had greatly increased both the population and commerce. And San Francisco Bay, the greatest port on the Pacific Coast, was still without permanent coastal defenses on the advent of 1853. On February 7 a Senate resolution requested the secretary of war to advise it as soon as possible as to "the annual and total appropriations required to place the harbor of San Francisco in a good condition of defense." The next day

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6. NA, RG 77, OCE, Letters Received 1838-1866, Lt. D. Leadbetter, Aug. 4, 1852, to Totten; NA, Cartographic Division, RG 77, Fortifications File, Drawer 95-2, 3, and 4, "Fortifications, California." Fifteen years would pass before the army gained possession of Lime Point. Thus, Alcatraz came to play a larger role in the defenses than originally envisioned.

Maj. John L. Smith provided Totten with the figures. Again, there was a majority and minority (Smith) estimate:

Majority estimate

Fort Point,	107 guns	$1,000,000
Lime Point,	80 "	600,000
Alcatraz Island,	43 "	300,000
	Total	$1,900,000

Minority estimate

Fort Point,	205 guns	$1,400,000
Lime Point,	80 "	600,000
Alcatraz Island,	120 "	340,000
	Total	$2,340,000

The whole board agreed that all the permanent works could be finished in five years. The majority said that $500,000 could be spent in the next fiscal year. If the work were accelerated, the cost would go up. Smith used his higher estimate to show this increase:

	5 years	4 years	3 years	2 years
FY 1854	$300,000	500,000	800,000	1,500,000
FY 1855	400,000	600,000	1,000,000	2,000,000
FY 1856	500,000	750,000	1,200,000	
FY 1857	550,000	750,000		
FY 1858	550,000			
Totals	$2,300,000	2,600,000	3,000,000	3,500,000

Shortly afterwards the Congress appropriated $500,000 for fiscal year 1854 to commence building the fortifications for San Francisco Bay.[7]

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7. NA, RG 77, OCE, Letters Received 1838-1866, J. L. Smith, Feb. 8, 1853, to Totten. This correspondence contained a copy of the Senate resolution, dated Feb. 7, 1853. See Bearss, p. 14.

Totten selected experienced engineers to supervise the works at Fort Point and Alcatraz. He appointed Capt. J. K. M. Mansfield as the senior engineer on the Pacific Coast and made him directly responsible for Fort Point, and he appointed Capt. James L. Mason to supervise the works on Alcatraz. Before Mansfield was ready to leave the East, he was promoted to colonel and became an inspector general. Totten then made Mason the senior engineer and filled the Alcatraz position with lst Lt. Zealous Bates Tower.

Totten wrote Mason while the latter was still stationed at Providence, Rhode Island. He told Mason that he would carry out the approved plans for Alcatraz without variation except "such as may be hereafter sanctioned by authority from this Department." He impressed upon Mason the need to construct the works with the utmost vigor. Congress had appropriated a very large sum of money and "any delay not inevitable, will be a fault of ours exclusively; and a very great fault--the cause, possibly, of a great calamity." Mason was to start by making an exact survey of the island so that the project might be adapted to local features.[8]

The Board of Engineers for the Pacific Coast was to be split into two sections. Two unnamed officers were to remain in

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8. This is the first known use of the term "project" so far as the San Francisco defenses are concerned. Usually, at that time, engineers referred to the "works." In late 19th century, the term "project" came into common usage to describe the existing works, plans, and work going on, e.g., the fire control project, or the searchlight project. Emanuel Raymond Lewis, A History of San Francisco Harbor Defense Installations: Forts Baker, Barry, Cronkhite, and Funston, prepared for State of California Division of Beaches and Parks, June 1965, pp. 62-63, discusses fully the history of the term "project" as applied to coastal defenses.

the East, while three would be stationed in San Francisco. These three, being a majority, had the responsibility of determining and recommending to Totten any modifications of the plans. The first members appointed for San Francisco were Mansfield, Mason, and 1st Lt. Henry Wager Halleck. Halleck, the brilliant young division engineer, theoretically had no responsibilities concerning the construction of permanent fortifications; he advised the division commander, whereas the fortifications engineers reported directly to the chief engineer.[9] Mason replaced Mansfield as senior member of the board. In June 1853, 1st Lt. Zealous Bates Tower transferred in June 1853 from Portland, Maine, to take charge of the works on Alcatraz and to become the third member of the board. Three junior lieutenants also transferred to San Francisco that summer:

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9. Lieutenant Halleck, promoted to captain in the summer of 1853, had already made a name for himself. He graduated from the U.S. Military Academy in 1839. In the early 1840s he supervised the construction of fortifications in New York Harbor. He won one brevet in the Mexican War. A thoughtful, scholarly officer, "Old Brains" Halleck went to Europe before the Mexican War to study its military systems. In 1845 his "Report on the Means of National Defense" was published by the U.S. Congress. He followed that with Elements of Military Art and Science. During the military government of California, Halleck became secretary of the province and territory. Being fluent in Spanish, he became the leading expert in California on Spanish and Mexican land laws. Another of his duties in San Francisco was inspector of lighthouses. Halleck resigned from the army in 1854 and later became an attorney in San Francisco. He returned to the army as a major general in 1861, and from 1862 to 1864 served as commander in chief. After the Civil War, he returned to San Francisco as commanding general of the Military Division of the Pacific. See Heitman, 1:491; Walter Millis, American Military Thought (Indianapolis: The Bobbs-Merril Company, 1966), pp. 127-28; NA, RG 77, OCE, Letters Received 1838-1866, Halleck, July 17, 1854, to Totten.

Frederick E. Prime, to assist at Alcatraz, and William H. C. Whiting and Newton F. Alexander, to work under Mason at Fort Point.[10]

2. Tower Begins the Work

When Tower arrived at San Francisco on August 5, 1853, he found Mason in bed seriously ill with the "Panama fever," unable to call a meeting of the board. Desiring to waste no time, Tower quickly made his first visit to Alcatraz Island and scribbled his impressions for Colonel Totten:

> The Island is rougher than I had anticipated: very rough, steep, and broken on the Eastern portion of the [proposed] North West Battery and where the 3 gun

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10. NA, RG 77, OCE, Letters to Officers of Engineers, vol. 20, Totten, Apr. 11, 1853, to Mason, Apr. 18, 1853, to Halleck, June 4, 1853, to Maj. R. Delafield (re Prime), and June 7, 1853, to Whiting; NA, RG 77, OCE, Letters Received 1838-1866, Tower, June 7, 1853, to Totten; Heitman, 1:156, 695, 807, 966, and 1030. James Louis Mason was born in Rhode Island. He entered the U.S. Military Academy (hereinafter referred to as USMA) and graduated second in his class. Promoted to first lieutenant in 1838 and to captain in 1847, he received two brevets in the Mexican War. It was not he for whom Fort Mason was later named. Zealous Bates Tower came from Massachusetts. He graduated at the head of his class at the academy in 1841. During the Civil War he served as a brigadier general of volunteers, and he retired as a colonel in 1883. He won three brevets in the Mexican War and five during the Civil War. He died in 1900. Frederick Edward Prime was born in Italy. He too graduated first in his class at West Point in 1850. Serving with distinction in the Civil War, Prime retired in the rank of major in 1871. He died in 1900. William Henry Chase Whiting graduated from the USMA at the head of his class in 1845. He resigned from the army at the beginning of the Civil War to become a major general in the Confederate Army. He died in 1865. Newton F. Alexander, Tennessee, graduated second in his class from the academy in 1852. He died in 1858. From these brief summaries, it will be seen that most engineer officers graduated from West Point at or near the head of their classes. The officers of the Engineer Corps considered themselves the elite of the army, which often they were.

> battery is designed to be placed. I have commenced the survey of the North West and South East portions of the Island. The constant prevalence of high winds delays this work much. . . . The sandstone composing the Island is very friable; even where hardened on the surface it can be cut with a hatchet. Wrought iron spikes can be driven into the rock without much trouble."

Mindful to the end of Totten's urgings to work speedily on the fortifications, Bvt. Lt. Col. James Mason died on September 5, 1853. Halleck, Tower, and Whiting all wrote Totten informing him of the sad event. Whiting's letter was the most poignant:

> It is with great sorrow that I have to report to you the untimely death of my commanding officer. . . .
>
> Colonel Mason during his passage to this place in July contracted the Panama fever. On his arrival here his extreme anxiety for the rapid prosecution of the important public interest with which he was charged aggravated his disease & it took a firm hold upon him. After lingering more than six weeks, & when we were in hopes that the crisis . . . had been safely passed, on the 5th inst. he grew rapidly worse and died. . . .
>
> On the 8th inst, the anniversary of the day upon which six years before he gallantly led the forlorn hope at Molina del Rey, the remains of the distinguished Soldier were interred with the honors due to his rank and name.

Tower added that army officers, some citizens, and two companies of local volunteers (all that were available since the Presidio garrison numbered only 31 enlisted men) had escorted the remains to

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11. NA, RG 77, OCE, Letters Received 1838-1866, Tower, Aug. 15, 1853, to Totten.

the wharves where they were placed on board a steamer and taken to the "Army tomb" at Benicia.[12]

Tower wasted no time in beginning his preliminary work on the island. He procured a whaleboat for transportation; hired civilian masons, carpenters, and laborers; and started the construction of temporary buildings. His journal of operations for August 1853 showed that the carpenters were building office furniture and repairing the whaleboat. The laborers kept busy unloading supplies from vessels and assisting in Tower's new survey. He informed Totten that by the end of September he would have completed the quarters, mess house, shops, a storehouse for cement and lime, a wharf, and a road from the wharf to the top of the island. Tower planned to construct the southeast battery first because its guns would "give a circle of fire from Lime Point entirely round to the front of the City. . . . Thus they prevent any vessels from passing between the Island and the Main."[13]

Tower and Prime completed their new survey and forwarded the three sheets (the whole island, the northwest side, and the southeast end, all with 5-foot contour lines) to Totten on September 15, 1853. While Tower considered his work to be more accurate than the old Warner survey, he did not think the placement of the batteries needed changing. Now that he was better

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12. NA, RG 77, OCE, Letters Received 1838-1866, Tower, Sept. 12, 1853, to Totten, and Whiting, Sept. 9, 1853, to Totten. Pacific Division headquarters had moved to San Francisco from Benicia in 1852, but would move back to Benicia in 1854.

13. NA, RG 77, OCE, Letters Received 1838-1866, Tower, Sept. 14, 1853, to Totten; Federal Archives and Record Center, San Bruno, Calif., RG 77, OCE, San Francisco District, Journal of Operations, Alcatraz Island, vol. 1, August 1853-June 1871, entry for August 1853. (Hereinafter this repository is cited as FARC.)

acquainted with the island, he believed that the board's 1852 estimates were too low, particularly for cutting the escarpment, building a permanent wharf, and excavating the ditches. He suggested that additional storerooms and barracks would be required.

Tower supplied Totten with a list of local wages and prices, reminding him "that one dollar in the Eastern Cities accomplishes as much as four or five dollars in San Francisco":

masons--$10 to $12 per day	lumber--$50 to $60 per M
carpenters--$7 to $8 per day	best brick--$25 per M
blasters--$4 to $5 per day	rubble stone--$5 to $8 per ton
laborers--$3 to $5 per day	stone for work in courses--perhaps 60¢ a foot.[14]

Until he completed the 100-man barracks early in October, Tower employed only 35 men on the island. Apparently they commuted daily, but by what means remains unknown (the engineers acquired a sloop about this time). By October, blasting the roadway from the wharf to the guardhouse site had progressed sufficiently for Tower to decide that he would have to build a revetment wall on the land side because of the crumbling rock. Alcatraz's unstable rock caused another problem a few weeks later.

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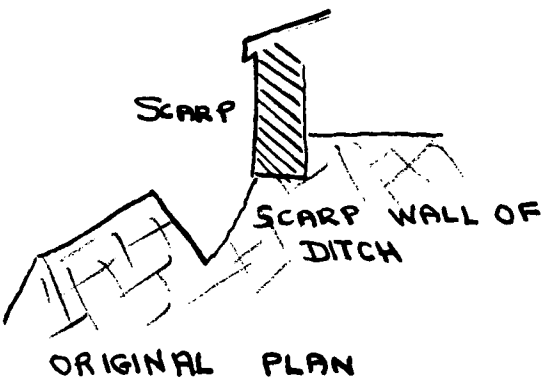
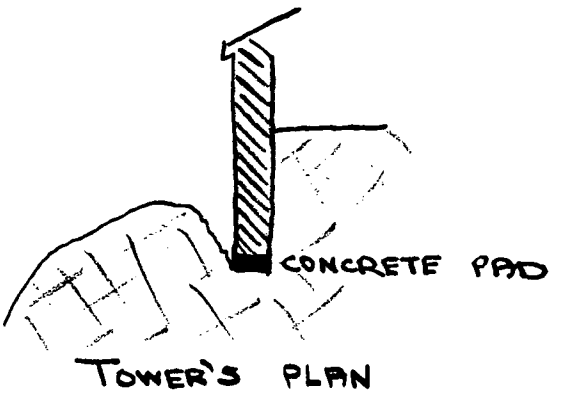
14. NA, RG 77, OCE, Letters Received 1838-1866, Tower, Sept. 15, 1853, to Totten; NA, Cartographic Div., RG 77, Fortifications File, Drawer 95-5, 6, and 7, Tower, "Map of Alcatraces Island . . . 1853," "Map of South East Portion . . . 1853," and "N. West end of Alcatraces . . . 1853."

The 1852 board had recommended that a ditch be blasted out of the rock in front of each battery in order to make it more difficult for a landing party to storm the parapets. Tower now realized that the scarp wall of the nearly completed ditch outside the southeast battery would not support the weight of the parapet. To stabilize the rock he now proposed to extend the wall to the bottom of the ditch even though the cost would be greater.





The island stone, while not as strong as a natural wall, would still be suitable for mixing with concrete for other construction elements--except for facing.[15]

3. Temporary Armament

About to command the Department of the Pacific, Brig. Gen. John E. Wool wanted temporary batteries erected immediately at Fort Point and Alcatraz. In December 1853 Totten advised Tower that the Ordnance Department was shipping thirty-three

15. NA, RG 77, OCE, Letters Received 1838-1866, Tower, Sept. 29, and Oct. 14 and 31, 1853, to Totten.

8-inch and ten 10-inch columbiads to Alcatraz. He directed Tower to proceed with the construction of the permanent terrepleins so that the wooden gun platforms could be laid as soon as they arrived. The parapets could be built later.

The columbiads were slow in reaching San Francisco. General Wool, impatient with the delay, insisted that the engineers erect temporary earthworks and mount such guns as were then available. A map of the island, prepared by Tower in September of 1854, showed a temporary battery at the southeast end, above the permanent works, mounting five navy 68-pounders; another temporary battery on the west side of the island containing three 24-pounder siege guns; a single navy 68-pounder on the northwest peak; and two 24-pounder siege guns on the southeast peak. In his annual report for fiscal year 1854, Tower described the construction of these temporary works: "The parapets of the two temporary Batteries are earth supported by a breast height of barrils capped with a row of sand bags." These 11 pieces modestly marked the beginning of Alcatraz as a fortified place.[16]

4. Modifications of the Defenses

In his new role as an inspector general, Col. Joseph Mansfield visited the works at San Francisco in 1854. While he considered Fort Point to be "the key to the whole Pacific Coast in a military point of view," he thought that Alcatraz was "a highly important point in the water defenses, where two hundred guns

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16. NA, RG 77, OCE, Letters to Officers of Engineers, vol. 21, Totten, Dec. 30, 1853, to Tower; NA, RG 77, OCE, Letters Received 1838-1866, Barnard, May 16, 1854, to Totten, and Tower, Sept. 14, 1854, to Totten; NA, Cartographic Div., RG 77, Fortifications File, Drawer 95-10, Tower, "Plan of Alcatraces Island . . . showing amount of Work done to 1st of September 54."

should be mounted." Capt. John G. Barnard, the new senior member of the Pacific board, agreed that Fort Point ranked first in importance. He recommended to Totten that there be one appropriation for the works in the harbor and that two-thirds of it go to Fort Point and one-third to Alcatraz. Barnard thought he could complete the fort at Fort Point in one year at the cost of $750,000.

Tower objected strongly to this unequal division of funds. He wrote Totten separately saying that the allotments should be divided evenly between the two works. The fortifications at Alcatraz could be finished much more quickly than those at Fort Point and it was important that his project be pushed forward rapidly: "I urge this equal distribution from my desire to see the work under my charge finished so that the Dept. may say San Francisco has one work mounted with guns ready to receive a garrison to stand between hostile Ships & this large commercial City." In March 1854, Totten informed Barnard that the secretary of war had ruled in favor of Fort Point; it would receive two-thirds of the $500,000 appropriated for fiscal year 1855.[17]

Soon after Barnard arrived, he called a meeting of the board at which he, Tower, and Halleck reconsidered Alcatraz's defenses. They agreed with Tower's earlier opinion that the 1852 estimate of $300,000 was too low. Among the modifications the board now proposed were the revetment of ditches and of the road

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17. Robert W. Frazer, ed., Mansfield on the Condition of the Western Forts 1853-54 (Norman: University of Oklahoma Press, 1963), pp. 121-22; NA, RG 77, OCE, Letters Received 1838-1866, Barnard, Jan. 12, 1854, to Totten, and Tower, Jan. 31, 1854, to Totten; NA, RG 77, OCE, Letters to Officers of Engrs. vol. 21, Totten, Mar. 18, 1854, to Barnard.

cut that led from the landing to the guardhouse, an enlarged and relocated guardhouse that could effectively cover the road with at least 24-pounders, an additional eight-gun battery on the southwest side of the island that looked directly toward the Golden Gate, doubling the size of the barracks so as to accommodate a full garrison, a powder magazine separate from those in the caponiers, and the demolition of three rocky points on the northeast side of the island. Another minor item not considered in 1852 was office rent for Tower in San Francisco. The board's new estimate of $600,000 exactly doubled that of 1852. The chief engineer notified Tower in April 1854 that the modifications were approved. He directed that the caponiers be designed for 24-pounder howitzers, which had now been adopted for such a purpose.[18]

5. Brick and Stone

One of the major problems Tower faced during the first year of construction was finding sources in the San Francisco area for good quality brick and stone. When the War Department determined that Tower should get only one-third of the appropriation, the cost of these materials became a critical factor along with quantity and quality. Quarries had already been opened in the bay, principally on Angel Island, that provided a blue sandstone, but as yet in limited quantities. In early 1854, however, the engineers were not yet certain that this "blue stone" was fit for facings on scarp walls. Barnard was not worried about Tower's needs because Alcatraz would not have much masonry compared to Fort

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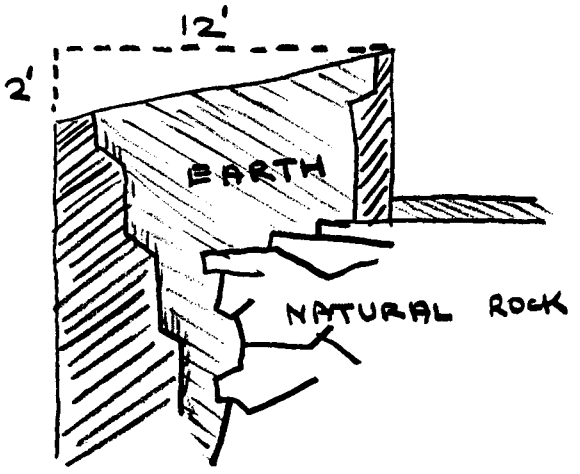
18. NA, RG 77, OCE, Letters Received 1838-1866, Board of Engineers (Tower, Halleck, and Barnard), Jan. 12, 1854, to Totten, and Barnard, Jan. 31, 1854, to Totten; NA, Cartographic Div., RG 77, Fortifications File, Drawer 95-8, "Plan of Alcatrazes Island . . . modifications . . . Jany 12, 1854." This was Halleck's only attendance at a board meeting. Shortly afterwards he went on leave and was replaced on the board by Lt. W. H. C. Whiting.

Point, but Tower was concerned. At first he decided to use the sandstone in his masonry. Then the proprietors of newly opened granite quarries at Point Reyes made him such favorable offers that he considered facing the walls with that material, especially since he still had questions about the durability of sandstone. But the granite was slow in making its appearance. Tower could not wait, and in April 1854, he reported that he was building the scarp wall of the southeast battery with sandstone and a concrete backing. He was considering sandstone for the facing as well.

At this time Totten wrote Tower in infinite detail concerning masonry. He had heard from Barnard that granite was quite expensive in San Francisco and he hoped that sandstone could be used: "That material, I suppose, would be cheaper than bricks." Even more economical, thought Totten, would be 12-foot-thick earthen parapets faced with masonry. "But," he added, "if they must be masonry, they should be 7 feet thick with a recess at each gun." He added a small drawing on the margin of the letter illustrating the use of earth.[19]



19. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 21, Totten, Apr. 18, 1854, to Barnard. Masonry scarp walls had previously been only 5 feet thick. Recent experiments at West Point, N. Y., had shown that these were not strong enough against the heavy guns then mounted in ships.

By May 1854, Tower was fully committed to the use of the blue stone. Barnard reported to Totten that this stone was received in blocks at a cost of $10 per ton, but that production at the quarry was slow. Barnard added a postscript saying that a load of Point Reyes granite had just arrived at Alcatraz: "Lieut. Prime reports it excellent, in good blocks & thinks it will cost laid in the work 50 per cent less than the blue stone they have been using." Tower wrote the same day describing the construction techniques, but not mentioning the Point Reyes granite:

> The blue stone has been adopted for the South Battery. . . . I have been paying 10 dollars per ton for stone in blocks or approaching nearly to a rectangular form which is dressed on bed & build for the face. Stone not so regular I pay 6 dollars for. These are rubble though I have used them in face. Back of the stone wall about 2½ feet thick is filled with rubble to within 6 in. of the perpendicular bank which space 6 in. wide is filled with broken stone & gravel for drainage. The concrete [for the foundation] is mostly made from beach stone. . . .
>
> . . . I should not hesitate to use brick could the hard bricks of the East be obtained here.

Brick manufacturing was still an infant industry on the West Coast, and the army engineers found it difficult to locate good hard brick in quantity and at a reasonable price. An 1858 summary of brick purchased for Alcatraz showed that a large variety of suppliers had attempted to fill the island's needs. Among them were the state prison brickyard and a brickyard at Fort Point that the engineers themselves had established.

Tower and Barnard sent samples of local brick to the East for testing. In July 1854, Totten informed them of the results. The large bricks from Contra Costa County seemed "rather tender

from being under-done; and also rather too sandy; but, as in some of our Southern bricks, this last may not be a material doubt." The small Contra Costa bricks were "pretty hard, and I have no doubt would be durable in inside work." Best of all were the bricks from Sacramento. Later, when the engineers changed from sandstone to brick for the Alcatraz works, nearly all the brick came from Sacramento--after the problem of inconsistent quality had been solved.[20]

6. Engineer Buildings

In his first annual report Tower described the construction accomplished. The island was no longer a barren rock; wharves, roads, buildings, and batteries had already begun to change the island's skyline. Tower first described the temporary buildings he had erected. Most of these "temporaries" remained for many years, serving the needs of the garrison as well as the construction workers.

a. Carpenter's shop

This shop was 30 by 20 feet, with a toolroom in the half-basement. It was situated on the edge of the road leading to the southeast battery. A wooden cistern, 12 by 10 by 6 feet, stood outside the building at its northwest end.

b. Blacksmith's shop

This shop was 30 by 20 feet, had two forges. This stood near the main wharf, on a leveled spot on the cliff. A flight of steps led down to the wharf.

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20. NA, RG 77, OCE, Letters Received 1838-1866, Barnard, Jan. 12 and 31, May 30, and June 15, 1854, to Totten, Tower, Feb. 15, Mar. 15, Apr. 14, May 30, and July 12, 1854, to Totten, and Lt. J. B. McPherson, Apr. 19, 1858, to Capt. H. G. Wright, OCE; Daily Alta California, June 12, 1854.

c. Two storehouses

These storehouses were used for cement and lime, one 40 by 26 feet, the other 40 by 20 feet. Both were located on the leveled area at the wharf, along the road leading to the northwest battery.

d. Stable

The stable was 30 by 20 feet, with a hayloft above and grain room attached. It accommodated eight animals, and it stood by itself on the southwest side of the island.

e. Mess house

This building was 66 by 21 feet, with a kitchen attached, and was used for mechanics and laborers. Located at the southeast end of the island, adjacent to the five-gun temporary battery.

f. Laborers' barracks

This barracks was 75 by 22 feet, with three tiers of bunks accommodating 96 men. It stood across the road from the mess house.

g. Mechanics' barracks

This barracks was 81 by 21 feet, with accommodations for 50 persons. It was located above the southeast barracks.

h. Office building

This 1½ story building, also contained rooms for the master mason, the master carpenter, and the principal overseer. Its dimensions were 24 by 14 feet, with an éll 20 by 20 feet. It crowned the southeast peak, where the Citadel would eventually stand.

i. Kitchen and mess room

This building was 26 by 12 feet, for master mechanics and principal overseer. The boarding housekeeper occupied the attic. This structure was not identified as such on Tower's map; but it may have been an unidentified building below the office, on the southwest side of the island.

j. Powder house

This structure was 10 by 10 feet and located just below the northwest peak.

k. Water tank

This tank, made of plank, had a 23,000-gallon capacity. It stood between the storehouses and the wharf area. Water for general purposes, including concrete mixing, was secured under contract from the Sausalito Water Company.

Tower described each of these structures as being "about 10 feet high built of light scantling & covered with boards placed vertically, the joints being battened. The office building which is 1½ stories high is covered with clapboard--the magazine shingled--the two store houses are 12 feet in height." A map that accompanied the report showed sections of the laborers' mess house and kitchen, mechanics' barracks, carpenter's shop, office building, and storehouse 2.

Two wharves had been constructed, and Tower described them next:

l. Wharves:

Two wharves have been constructed. . . . The larger on the north [east] face of the Island [where

today's landing is located] consists of a bulk head built of timber and planks 96 feet long [along the shore] and a wharf head of frame work 70 feet wide. The planked structure covers an area of 2283 square feet and the entire wharf room is 6,400 feet, a portion of which is occupied by the mortar mill [and sand and gravel bins]. The large [water] tank and storehouses stand upon the road way near this landing. The wharf at the south [east] end . . . consists of a bulk head 61 feet long and a wharf head 64 feet wide securing 3454 superficial feet level area for receiving stone for South Battery."

Tower had constructed two roads, one leading from the main wharf to the northwest battery area, where it terminated at the end of the island outside the scarp of the battery. The other branched off from the first to the southeast, passed to the rear of the southeast battery, and continued along the southwest side of the island, terminating at the temporary Three-Gun Battery that looked at the Golden Gate. Tower regarded his roads as permanent structures.

m. Batteries:

The ditches and the sites of the caponiers at both batteries had been essentially excavated. At the northwest battery, 91 yards of concrete foundation for the scarp wall had been laid. Running short on funds, Tower had suspended work on the battery until the new fiscal year. Much more progress had been made on the southeast battery. The left face of the scarp wall (that is, the portion of the battery to the left of the caponier as one looks out toward the water--also called flank) was complete and would be ready for its coping in two weeks. The stone walls of the caponier stood halfway up. And some progress had been made on the right face. The total amount of concrete and stone masonry completed amounted to 1,650 cubic yards.

Tower forwarded two superb maps of Alcatraz with his annual report. One of these showed no fewer than 29 profiles of the

roads, those for the northeast side of the island being extended down to water level. The other sheet was an enlarged drawing, including sections and elevations, of the southeast battery. Although many changes subsequently occurred in this area--later fortifications, parade ground, officers' quarters--this drawing will offer detailed data should archeological excavations ever be undertaken. It is noted here that the terreplein of this battery stood at an elevation of 54 feet above sea level.

An interesting array of equipment had been brought to the island to carry out the work. This included earth carts, mortar carts, water carts, stone wagons, stone drags, a crane on the southeast wharf, a derrick to raise stone from that wharf to the battery, and two 50-foot boom derricks for setting stone on the scarp wall. The horsepower consisted of four horses and four mules.[21]

7. South Battery

Congress appropriated only $100,000 for the Alcatraz works in fiscal year 1855. Although this amount was smaller than the previous year's, Tower did not complain about the reduction. Perhaps the reason for his acquiescence was that Barnard's Fort Point appropriation was the same, rather than the two-thirds/one-third ratio of the past.[22]

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21. NA, RG 77, OCE, Letters Received 1838-1866, Tower, Sept. 14, 1854, to Totten. By this time, Tower was using the names North Battery (northwest end), South Battery (southeast end), Three-Gun Battery (extreme left end of southwest battery), and Eight-Gun Battery (proposed). While not assigned officially, these names were formally used for the next several years, and they will be used in this report from this page on.

22. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 22, Totten, Aug. 9, 1854, to Barnard and Tower.

Barnard, miffed at Totten for what he considered excessive interference at Fort Point and for other reasons, had requested a transfer back to the East Coast. In August 1854, Totten informed him that he was relieved at Fort Point and his new station was Charleston, South Carolina. At the same time the elderly, much experienced Lt. Col. Rene E. De Russy, then at Old Point Comfort (Fort Monroe), Virginia, was notified to proceed to San Francisco to replace Barnard as the senior engineer on the Pacific Coast. De Russy arrived in San Francisco on November 1, 1854.[23]

Much of Tower's attention was now directed toward completing the South Battery. In July 1854 he informed Totten that he planned a 15-foot-thick parapet. It would consist of the outer stone scarp wall, the inner brick breast-height wall, and a fill between the two. Because of this thickness, the caponier would have to be lengthened (to the rear) so that its howitzers could still sweep the terreplein as planned. Tower recommended that, in addition to the gun embrasures in the caponier, two loopholes be constructed in the upper-level gun room so that musket fire might sweep the parapet. He also suggested additional loopholes at the

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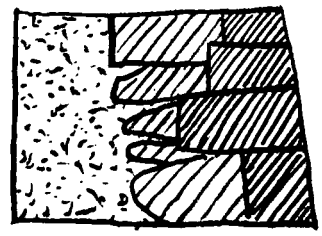
23. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 22, Totten, Aug. 17, 1854, to De Russy. De Russy, born in the West Indies, entered West Point in 1807. He fought in the War of 1812. His highest regular rank would be colonel, and his highest brevet rank, brigadier general. He would return to San Francisco during the Civil War and would die there in 1865.

24. Tower did not describe the material he used as fill. In the later North Battery, the fill was earth. But in 1855, a newspaper reported that the fill for South Battery was concrete and rubble stone, "which, as it hardens becomes as solid as the hardiest in the world." The writer is inclined to believe the reporter to a certain extent; but the top several feet of the parapet would have been earth to absorb shot. See Daily Alta California, Aug. 2, 1855.

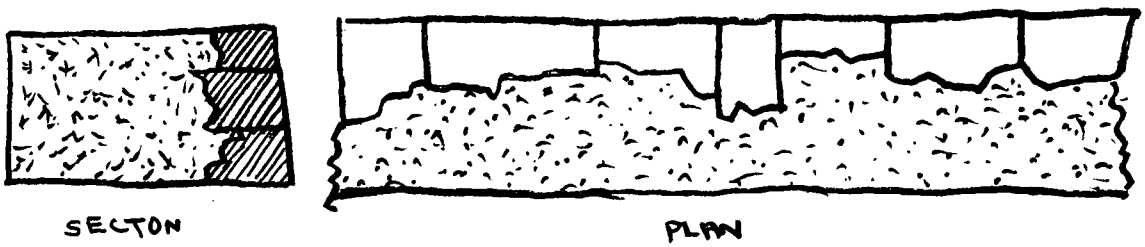
ends of the gun room. Concerned that the concrete foundations of the brick breast-height walls would settle in the fresh earthen fill of the terreplein, Tower decided to construct concrete piers reaching down to bedrock to support the breast-height walls.[24]

Totten became agitated in the fall of 1854 over the high costs of Tower's stone scarp. (Barnard had informed the chief engineer that Tower's stonework seemed to be costing $80 per cubic yard, unless there was an error in the estimate.) The department, warned Totten, could not tolerate Alcatraz's having an ashlar facing on the scarp. He said that Fort Monroe was faced with rubble masonry: "According to my idea of stone . . . it should be laid in the wall without any attempt to get it into courses: it should be laid simply as 'rubble,' not even as 'coursed rubble,' and to be thus laid, it should not be faced with a hammar."

Tower hurriedly tried to explain how he had built the scarp that was already finished; he enclosed a diagram that showed he had indeed laid the stone in courses and, although he called it "rubble," he had adopted an ashlar facing: "The work on the left of S. Battery is half concrete & half rubble placed thus as in figure."



However, he had now changed the style of the masonry to reduce the amount of stone: "I dress the bed & build [top] and ends so that the face will . . . average about 18 inches thick. The rest of the wall is concrete. By this arrangement I use about half the stone formerly used."



In view of the criticisms directed at his efforts by Barnard and Totten, Tower must have welcomed the first official visit of newly arrived De Russy. After inspecting the project, De Russy wrote Totten: "I have visited Major Tower's work on Alcatrazes Island and am gratified to find it progressing, in spite of the difficulty of procuring stone in this vicinity." He said that he himself would visit the several quarries in the Bay Area and use his best efforts to have them worked at reasonable prices.[25]

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25. NA, RG 77, OCE, Letters Received 1838-1866, Tower, July 31, Aug. 31, and Nov. 15, 1854, to Totten, De Russy, Nov. 15, 1854, to Totten; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 22, Tower, Sept. 1, 1854, to Totten; Lawrence Kinnard, "History of the Golden Gate and its Headlands" [1962-1967], Manuscript, NPS, DSC, p. 212. Also helping Tower to reduce costs was California's first depression, in 1855. In a report on wages, Tower disclosed that he had hired his brother as a clerk.

In a slightly sarcastic letter to Totten in January 1855, Tower discussed construction materials at some length. He said that the cost of building the right face of the battery would be only $29 or $30 per cubic yard. While granite was the best material for resisting shot and shell, hard brick had good qualities too. Unfortunately, the brick available at San Francisco was only medium in hardness. He suggested that ordinary brick backed by concrete would "break shells," but he did not know of any experiments as to the penetration of concrete itself. Since a scarp wall faced with brick or built of concrete entirely was cheaper than any other, he proposed to build the remaining batteries on Alcatraz with these materials. Tower concluded the letter with: "Would the Chief Engineer adorn the building of any of the smaller batteries of Concrete or would it be preferable to face with brick. Will the Chief Engineer send details of embrasures for the flank howitzers of the Caponniere."

Totten readily picked up the gauntlet: "I do not think . . . that our knowledge and skill in concrete will, as yet, justify our exposing to the action of the weather or the waves, a concrete surface: there should be a facing of bricks or stones." As for the caponier embrasures, Totten, who specialized in this subject, had much advice to give:

> Let the exterior facing be the same as the rest of the scarp--the cheeks be faced like the interior of the wall--you will need no recess or recess arch--let the lintel and sole be of stone--the pintle stone of the given dimensions--the pintle hole in exact conformity as to position, form and dimensions. Give no wider exterior opening than is necessary to do all the flanking required of the piece--and no wider interior opening than this traverse of the piece requires.
>
> The iron throat plates should conform to the drawing--and so also should the shutters. Perhaps not more than

> one set of iron plates, if even one, will be requisite between the throat and the outer face--the number of these notches in the cheeks should depend on the obliquity of the cheeks--they have been proved to stop all grape cannister and musket balls that would otherwise be reflected by the cheeks in the casemate. If the exterior opening of your embrasure is but little more than that of the throat, the throat plates will suffice. All this iron work should be made of the best wrought iron, and of exact dimensions and form.[26]

In April 1855, the War Department ordered a set of 15-foot shot furnace irons shipped to Alcatraz. This apparatus heated up a solid shot to a red-hot condition so that it could set a wooden ship on fire. The arrival of the furnace on the island would cause a change in the armament, as shall be seen.[27]

8. Three-Gun Battery

In the spring of 1855 Tower turned his attention to the Three-Gun Battery. The original scheme had called for the three guns to be mounted in a straight line, side by side, pointing eastward. Now Tower discovered that because of the uneven terrain there was room for only two guns being mounted on a straight face; even then he would be forced to move the battery back from the original position. This would expose the rear of South Battery; therefore, he proposed moving the third gun to the flank of that battery. He also suggested building a 4-foot wall connecting the two batteries to improve safe communication between them. Finally, he recommended adding two flank guns to the new battery. Tower

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26. NA, RG 77, OCE, Letters Received 1838-1866, Tower, Jan. 15 and Apr. 15, 1855, to Totten; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 23, Totten, Feb. 12, 1855, to Tower.

27. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 23, Totten, Apr. 4, 1855, to De Russy.

said he had shown this plan to De Russy who had agreed with him in these views. Totten readily approved this change of plans, but in the end, the new battery had but one flanking gun, making it in fact a three-gun battery.[28]

9. State of the Works, June 1855

In his second annual report, Tower said that his objectives for that year had been to bring the three batteries toward completion and to mount guns as fast as South Battery was ready to receive them. He had succeeded admirably.

a. South Battery

The scarp wall of the right face was complete and ready for coping. Also the breast-height wall and the 12 semicircular containing walls for the wooden platforms on the right face were finished. Furthermore, the parapets for both faces were filled with earth, and the terreplein was graded (both excavation and filling had been required). The caponier had been raised to the springing lines of the arch over the gun room, which had been lined with brick. Doors and windows had been manufactured. The magazine was being lined with wood. The two flights of steps down to the magazine entrance were in place, and the area wall to the rear of the magazine entrance had been raised to the level of the terreplein. The return wall at the battery's left flank had been extended back to unite with the scarp of Three-Gun Battery.

b. Three-Gun Battery

This entire battery had been completed except for the coping on the scarp wall. To level the terreplein it had

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28. NA, RG 77, OCE, Letters Received, Tower, Apr. 15, 1855, to Totten; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 23, Totten, May 25, 1855, to Tower.

been necessary to excavate at its rear and to fill in at the front. Tower did not mention whether the scarp wall had been faced with stone or brick.

c. North Battery

Here Tower had used brick in the scarp. Not only had it been less expensive than stone, it had allowed the work to proceed more quickly: "The scarp wall [is] finished except the coping. This wall is faced with bricks & filled in with concrete. On account of the increase in the thickness of the parapet . . . it became necessary to excavate back into the rock 10 feet farther before commencing the scarp wall of the short [right] face. . . . The prolonging of the Caponniere from the same cause will require some additional excavation." Work on the caponier had not yet commenced.

A description of the fortifications appeared in the Daily Alta California in 1855. The article stated that the magazine floor in the caponier was paved with Chinese granite. This was possible, for Barnard had ordered 2,000 tons of granite from China in 1854 for Fort Point. The paper went on to say that the caponier's walls were formed of "Monterey stone." While this suggested granite also, all of Tower's inferences and statements supported the use of blue sandstone. Years later, George Elliot, the engineer who was then in charge of the works on Alcatraz, said that the caponier had been built of sandstone from Angel Island.[29]

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29. NA, RG 77, OCE, Letters Received 1838-1866, Tower, Sept. 4, 1855, to Totten, and Elliot, Oct. 14, 1861, to Totten, Daily Alta California, Aug. 1, 1855. De Russy opened his brickyard at Fort Point in May 1855 and was able to supply brick to Alcatraz. Also during that year, Tower extended the wharf by 2,058 square feet.

10. International Friction

In December 1853 Totten advised Tower that 43 columbiads would arrive on Alcatraz as soon as possible and he urged the lieutenant to prepare the platforms as quickly as he could. This growing concern over San Francisco Bay's lack of defense stemmed from several causes concerning international relations. Following the 1846 treaty with Great Britain that established the 49th North Parallel as the boundary between the United States and British possessions, the British had erected a naval base at Vancouver Island to counterbalance the harbor of San Francisco. In the 1850s the British fleet stationed at Esquimalt was generally much stronger than anything the United States had in the Pacific. Furthermore, the 1846 treaty had failed to settle the dispute over the water boundary between Vancouver Island and Washington Territory, although a crisis on this issue would not occur until 1859.

Across the Pacific, Commodore Perry "opened" Japan in 1853. Japan was hardly a threat to anyone for the time being, but Perry's adventure signified growing American power and interest in that vast sea. Closer to California, both Britain and the United States were casting covetous eyes at the Hawaiian Islands, and in the fall of 1854, at least Lieutenant Whiting at San Francisco thought it probable "that the annexation of the Sandwich Islands will shortly be consummated" by the United States. War in the Crimea in 1853-1854 had little direct influence on San Francisco, but the Russians and the British both had colonies on the northern Pacific coast, and each side was most anxious to see that the United States remained neutral, if not friendly.

The thrilling moment of international friction came, however, in April 1854 when Spanish authorities in Havana, Cuba, siezed the U.S. merchant vessel Black Warrior. Expansionists in

Congress clamored for war with Spain. In October three U.S. ministers in Europe sent a dispatch commonly called the Ostend Manifests, recommending that the United States purchase Cuba, or failing that, resort to "wrestling it from Spain." Had war come, the East Coast would have been the more heavily involved, but San Francisco was not to be ignored. Spain's outpost, the Philippine Islands, guarded by Spanish ships of war, lay a few thousand miles to the west. In November 1854, Totten dispatched a confidential letter to De Russy in San Francisco alerting him as follows:

> You will have noticed in the newspapers that our foreign relations wear a somewhat threatening aspect. . . .
>
> But a principal object, not yet touched upon of this letter is to direct your attention to efforts for making the utmost of the armament of thirty-three [sic] 8" & 10" Columbiads, now on its way to your harbor. I fear that with the exception of the south battery of Alcatras Island perhaps only a part of that permanent provision will not have been made for the reception of these guns in battery. . . .
>
> As to expenditures on batteries to be thrown up to supply a sudden need, you will not hesitate as to them, in any exigency that may present itself before a heavy armament shall have been accommodated in its proper place.[30]

11. The Guns Arrive

Some of the weapons promised San Francisco in 1853 departed from the New York Arsenal in the fall of 1854. The

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30. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 22, Totten, confidential, Nov. 18, 1854, to De Russy; NA, RG 77, OCE, Letters Received 1838-1866, Whiting, Nov. 15, 1854, to Totten. Whiting wrote Totten early in 1854 that if there was a war with Spain, he wanted to be in it. Later, he asked to be sent to Hawaii should it be annexed. He had missed out in the war with Mexico.

New York Arsenal requested the Quartermaster Department to arrange transportation of the following to be sent to both Alcatraz Island and the West Coast arsenal at Benicia, California:

4	10-inch columbiads
7	8-inch columbiads
8	8-inch barbette top carriages
8	8-inch barbette chassis
8	8-inch barbette platforms
13	boxes of pintle stones
96	10-inch shot
430	8-inch shot
384	10-inch shell
750	8-inch shell[31]

By February 1855 Tower had received invoices stating that all 43 guns had been shipped, but, he said, Colonel De Russy wanted 10 of them transferred to Fort Point for emergency batteries. Tower said he could mount 53 guns on Alcatraz in six months--if the funds were available. Meanwhile the first of the columbiads had arrived.

Back in Washington, Secretary of War Davis assembled a board of officers for the purpose of determining the ordnance needed for the fortification of the sea coasts. Totten notified Tower that Alcatraz's guns would eventually consist of ten 10-inch columbiads, thirty-three 8-inch columbiads, fifteen 24-pounder howitzers for the caponiers, and ten 42-pounder guns. The Ordnance Department introduced these last because columbiads could not handle hot shot. Totten also included details for the

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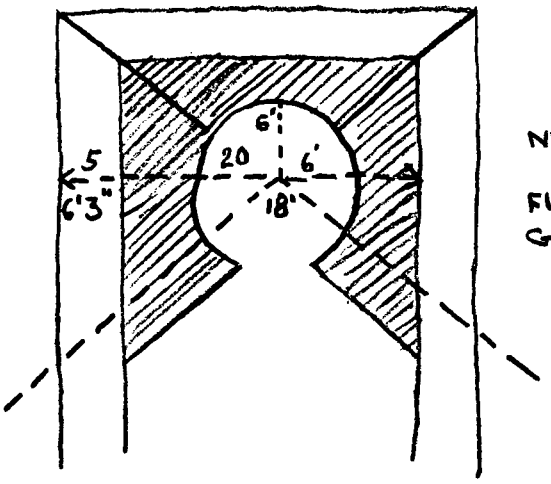
31. NA, RG 92, Office of the Quartermaster General (hereinafter cited as OQMG), Consolidated Correspondence File, Alcatraz, W. A. Thornton, New York Arsenal, Oct. 5, 1854, to Col. T. Swords, QM, San Francisco.

mounting of a 42-pounder. A summary of the guns alloted to Alcatraz is as follows:

South Battery		
Right face (or long branch)	4	10-inch columbiads
	4	8-inch columbiads
	5	42-pounders
Left face (or short branch)	2	10-inch columbiads
	2	8-inch columbiads
	5	42-pounders
Caponier	8	24-pounder howitzers (4 on each side)
North Battery	2	10-inch columbiads
	18	8-inch columbiads
Caponier	7	24-pounder howitzers
Proposed Eight-Gun Battery, Now Called West Battery		
	2	10-inch columbiads
	6	8-inch columbiads
Three-Gun Battery	3	8-inch columbiads

Totten pointed out that one more gun had been assigned to South Battery than there was space for. This columbiad was to be mounted in barbette on top of the caponier; a similar arrangement was eventually to be made at North Battery. "By arranging the center of motion," he wrote, "so that the gun may fire over the sides as well as the end of the caponnier a very great field of fire will result, but that you may have full advantage of the position the breast-height surface should be cylindrical with a radius of 9 feet, the parapet in that position being thickened to the extent shown by the shaded portion in the margin."



NOT TO SCALE

FIGURES EXACTLY AS GIVEN BY TOTTEN

By April 15, 1855, Tower had seven 8-inch and one 10-inch columbiads mounted on the left face of South Battery. This marked the beginning of permanent firepower on Alcatraz, six years before the Civil War and at a time when the foundations for the fort at Fort Point were just being completed. On the right face, Tower had already prepared five emplacements for columbiads, only to learn now that 42-pounders, requiring a different kind of platform, were to be mounted here. Since it would be quite some time before these guns would arrive, Tower felt justified in not making any immediate changes. With some of the ordnance mounted, he thought it a good idea to test the platforms by firing one shell and one solid shot from each gun. Totten was not at all sure that such tests were necessary; but if Tower considered them indispensible, he was authorized to request the necessary ammunition from Ordnance.[32]

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32. NA, RG 77, OCE, Letters Received 1838-1866, Tower, Feb. 15, Mar. 15, and Apr. 15, 1855, to Totten; NA, RG 77, OCE, Letters to Officers of Engrs., vols. 22 and 23, Totten, Mar. 17, 1855, and May 25, 1855, to Tower.

12. Increasing the Defenses, 1856

Perhaps because of the international tensions, Congress passed an appropriation for coastal defenses for fiscal year 1856 as early as March 1855. Fort Point received the sum of $300,000; Alcatraz got $200,000, twice the amount of the year before. The new fiscal year would see the beginnings of a considerable increase in the number of guns bristling from the natural redoubt called Alcatraz.[33]

In September 1855, Lieutenant Prime prepared an elegant map of Alcatraz that he titled "Annual Drawing Showing progress of the work." This map showed 20 detailed sections of both North and South batteries and their caponiers. Among the more important things to be learned from these sections is that today's brick scarp wall under the model industries building is, in large part, the original scarp as built by Tower in 1855-1856. Of the temporary armament, four 24-pounders and one navy 8-inch "shell gun" still remained. North Battery did not yet contain any weapons, but 13 columbiads aimed their muzzles over the parapet at South Battery. Four more had been dragged to their platforms but were not yet mounted on their carriages. All the columbiads were employed at the Three-Gun Battery.[34]

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33. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 22, Totten, Mar. 7, 1855, to Tower; USDI, NPS, DSC, Fort Point, by Bearss, p. 71.

34. NA, Cartographic Div., RG 77, Fortifications File, Drawer 95-14, Prime, "Annual Drawing . . . 30 Sept. 1855." The columbiads at Alcatraz were the 1844 model and were mounted on wooden barbette carriages. The maximum range of the 8-inch columbiad was 4,812 yards at an elevation of 27 degrees 30 minutes; the 10-inch columbiad, 5,654 yards at an elevation of 39 degrees 15 feet. Primarily designed to fire shells, they were sometimes used at Alcatraz to fire solid shot, as will be seen. The best history of the columbiads is Emanuel Raymond Lewis, "The Ambiguous Columbiads," Military Affairs 28(Fall 1964):111-22. See also Emanuel Raymond Lewis, Seacoast Fortifications of the United States, An Introductory History (Washington: Smithsonian Institution Press, 1970), pp. 59 and pp. 61-62, and footnote 59n.

In December 1855, Tower informed the chief engineer that since he probably would exhaust his 1856 appropriation by April, it would be a fine idea if he were allowed to return to the East Coast for a few months. He had a number of things to do there and he would also like to discuss his ideas for further increasing the defenses of Alcatraz. Totten was not impressed. He advised Tower to lay any suggestions for modification before the Pacific board of engineers, adding that the board should now meet. The Pacific board met in April 1856. By then only two members were present to sign the report--De Russy and Tower. Lieutenant Whiting had finally succeeded in wringing a transfer out of Totten and had left San Francisco for Washington early in the new year.[35]

The Board reviewed the general plans for the defense of San Francisco Bay, pointing out again the need for a second line because an enemy might slip through the gate during nighttime or in a fog: "The most prominent position of this secondary line is Alcatrazes Island. Its guns sweep a larger expanse of waters than those of any other point and it lies upon the two passes of ingress and egress most readily navigated. It has additional importance at this time from the advanced state of its batteries as compared with those of the outer line."

Because of Alcatraz's strategic location, the board proposed additional armament for the island: eight additional guns (42-pounders) to be added to the still not built West Battery, and a right face to North Battery (i.e., to the right of the caponier),

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35. NA, RG 77, OCE, Letters Received 1838-1866, Tower, Dec. 4, 1855, to Totten; NA, RG 77, OCE, Letters to Officers of Engineers, vol. 24, Totten, Dec. 15, 1855, to Whiting, and Dec. 31, 1855, to Tower.

having six emplacements (one 10-inch and five 8-inch columbiads). Also, they thought, an additional gun could be added to the left flank of the Three-Gun Battery. If the above 42-pounders were added to West Battery, there would be no need for the five such guns proposed for South Battery. That would relieve a dangerous situation wherein the hot shot guns and furnace were to be located close to the powder magazine in the south caponier. The only drawback to having hot shot in West Battery was its relatively high elevation--70 feet above high tide, which would make it difficult to hit the sides of ships at close range.

Other recommendations involved the proposed guardhouse and barracks. The guardhouse should be enlarged and made stronger and provided with a postern (sally port), drawbridge, and ditch (or moat). The "basement" room would serve as a prison, the guard would occupy the outer (nearest to the water) gun room, and the officer of the guard's quarters would be in the inner gun room. The terreplein, or roof, of the guardhouse would rest upon brick arches supported by railroad iron. A brick wall 2 feet thick and about 20 feet high on its water side and extending 4 feet above the ground on its interior, would serve as a revetment for the rocky bank between the guardhouse and North Battery. This wall, in addition to its role as a revetment, would offer some protection to personnel making their way along the northeastern side of the island from enemy fire or observation.

The board proposed that the barracks retain its present design but be increased in length so as to house a war garrison. The officers' portion of the building would become a hospital, and three plain cottages would be built for them.

De Russy added a short statement to the report that bore his signature only. As senior member of the board he wished

to recommend that the addition to North Battery contain ten rather than six guns, and a hot-shot furnace as well. The four additional guns would be 42-pounders. Two drawings accompanied the report: a plan of Alcatraz showing the proposed additional works and a sheet of plans and elevations for the guardhouse. Several features on this latter are noteworthy. The walls of the structure extended far enough above the terreplein (roof) to offer protection for infantry stationed there. Musket loopholes (slits) were provided in all four walls of the outer gun room and in the postern side of the inner gun room. Two embrasures for 24-pounder howitzers, one in each gun room, looked toward the wharf; a third embrasure, in the opposite end of the outer gun room, covered the area toward North Battery.[36]

One problem that Tower was trying to solve in the spring of 1856 was how to finish off the interior crest lines of North and South batteries. In that this matter was attacked in different ways by 19th century engineers and causes headaches for restoration specialists today, Tower's comments, if not his solution, are presented in full. The interior crest was simply the top of the breast-height wall, as distinguished from the superior slope, which was simply the top of the parapet. The problem was to find a material and form that would last against the weather through years of peace yet would not disintegrate from the blast of the gun and that would resist enemy hits in time of war:

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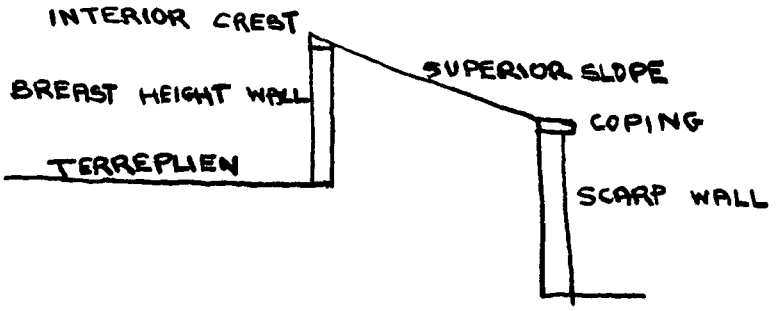
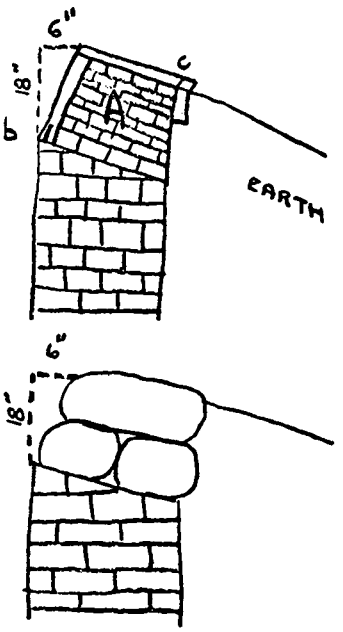
36. NA, RG 77, OCE, Letters Received 1838-1866, De Russy, Apr. 19, 1856, to Totten; NA, Cartographic Div., RG 77, Fortifications File, Drawer 95-15 and 95-16, "Plan of Alcatraces Island Giving new works proposed . . ." and "Plan and Sections of Guard House at Alcatraces Island"; Lewis, Seacoast Fortifications, pp. 59n and 142. The maximum range of a 42-pounder smoothbore was 1,955 yards at a 5 degree elevation; this type of gun was employed at Alcatraz to fire hot shot. It was a much smaller gun than the 10-inch columbiad.



I have not yet determined any plan for finishing the interior crest line of the batteries. I have thought of two methods which I will describe. The first is to make the portion of the breast height as in sketch. The upper portion A being made of sun dried bricks laid in cement & lime mortar & covered with a thin coating of cement so as to prevent penetration of water. The planking, b, c, made in sections overlapping each other & hooked together & kept in place by a pin at C would be removed in action. The [mass?] is supposed to have sufficient solidity to stand during the fire by its mortar joints & not to give fragments if struck by a ball.



The other method is similar, only earth takes the place of the sun dried brick at A. In this case the corner at b will require to be stayed & at b an iron clasp will hold the plank to the wall. In action the planking will be removed & the earth used to fill sand bags thus.

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37. NA, RG 77, OCE, Letters Received 1838-1866, Tower, Apr. 4, 1856, to Totten.

On June 3, 1856, the chief engineer announced that the secretary of war had approved all the recommendations of the Pacific board except for the lengthening of the barracks. Further, he approved De Russy's plan for adding ten, rather than six, guns to North Battery, along with a hot shot furnace. When completed, the batteries on Alcatraz would now mount a total of 75 guns.[38]

13. Third Year of Work

Tower had reason to be rather satisfied with himself when he prepared his third annual report for the works at Alcatraz (June 30, 1856).

a. South Battery

The caponier had been built to the coping, its terreplein (roof) paved, its banquette furred, its gun casemate finished, and the eight 24-pounder flank howitzers mounted. The magazine under the gun room had been floored, furred, ceiled, and finished ready for the powder. The area wall at the entrance to the magazine had been topped and coped. At the battery, five additional circular containing walls had been built, the platforms laid, and the guns mounted. A wing wall to the edge of the bank on the right face of this battery and the prolongation of the scarp of the left face to the Three-Gun Battery had been completed except for the coping. The coping for both the scarp wall and the caponier was dressed and ready to be set. All told, six 10-inch and nineteen 8-inch columbiads and eight 24-pounder howitzers were mounted in South Battery (22 pieces).

b. North Battery

The terreplein of North Battery had been widened and the breast-height wall built. The parapet had been

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38. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 25, Capt. H. G. Wright, OCE, June 3, 1856, to Tower.

filled in, 21 circular retaining walls constructed, their platforms laid, and the guns mounted. Excavations for the caponier had been finished, and the brick and concrete caponier built to the coping. Its gun casemate was finished except for building the drawbridge and mounting the seven howitzers. The framework of the magazine floor and furring was set up; and the lining, doors, and windows were ready as soon as the walls were dry. One set of stone steps down to the magazine entrance had been laid. A new roadway from about the guardhouse to the terreplein of the battery had been opened (on a higher elevation than the former ditch, or road, that had been used until now). Even the necessary excavations for the scarp for the ten additional guns authorized in June had been completed and the scarp wall foundations laid.

c. West Battery

Excavation for the scarp of this 16-gun battery had commenced.

The completion of about three-fourths of the shoreline escarpment between the wharf and the southeast end of the island had also been accomplished that year. Some minor repairs had been made to the wharf due to worm (teredo) damage. With all things considered, it had been quite a good year. Forty-three permanently mounted pieces guarded San Francisco Bay, the only permanent works yet completed.[39]

C. Lieutenant Prime Takes Charge

1. Four Batteries and a Guardhouse

Congress appropriated another $200,000 for Alcatraz Island for fiscal year 1857. Tower planned to complete the three

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39. NA, RG 77, OCE, Letters Received 1838-1866, Tower, Sept. 19, 1956, to Totten.

extant batteries, by adding such details as the coping, and to construct the new works--West Battery and the right face of North Battery. But he was not destined to remain in charge of Alcatraz's works. In January of 1857, the post surgeon at the Presidio certified that Colonel De Russy had a serious disease of the lungs and should be transferred from the West Coast as soon as possible. De Russy sailed in March for Fort Delaware. Tower succeeded him as engineer in charge of the fort at Fort Point and as senior engineer for the Pacific Coast. Now Lt. Frederick Prime rose from the obscurity of Tower's shadow to take charge at Alcatraz. But Prime did not assume his new office immediately; he was enjoying a three-months leave of absence in Hawaii.[40]

In the autumn of 1856, Tower had forwarded to the chief of engineers three sheets of detailed cross-sections and elevations of the South and North caponiers and North Battery. Although the South Caponier was constructed of stone and North Caponier of brick and concrete (on a stone foundation), the two were quite similar in plan. Among the minor differences were the thicker walls of the North Caponier, part of which stand today. Again, there appeared excellent profiles of that part of North Battery's scarp that still exists. The engineers never did state what kind of stone they used for coping; but the records do contain a request from Lieutenant Prime to visit "Mr. Andrew's quarry near Benicia for the purpose of ascertaining the possibility of his fulfilling an agreement

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40. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 25, Wright, Aug. 20, 1856, to De Russy, vol. 26, Totten, Feb. 4 and 5, 1857, to De Russy, Tower, and Prime; NA, RG 77, OCE, Letters Received 1838-1866, De Russy, Jan. 4, 1857, to Totten, and Prime, Feb. 18, 1857, to Totten. Fort Point's appropriation for this fiscal year was $350,000.

entered into with Maj. Tower to supply the coping for the North Battery scarp and caponniere."[41]

In his first annual report on the operations at Alcatraz in September 1857, Prime wrote:

a. South Battery

The breast-height wall, 18 inches high and 8 inches thick, was completed. The parapet had been filled with earth and sodded. The entire length of the scarp wall and the caponier had been topped with coping. The superior crest of the caponier was paved with brick from the back of the coping to the interior crest. The drawbridge to the gun room in the caponier had been emplaced, and the iron traverse circles for the howitzers had been laid. The Ordnance Department had stored 1,000 barrels of powder in the magazine. The area in front of the foot of the scarp wall of the South Battery had been leveled to a width of 6 to 7 feet, and the forward (superior) slope in front of this level was left at a ratio of one on two.

b. Three-Gun Battery

Much of the same work had been accomplished here as for South Battery. Also, the terreplein had been excavated from the rock to its full width.

Prime recorded the work yet to be done for both batteries: placing the machinery for the caponier drawbridge (not shown on the plans for either the North or the South Caponier); replacing the original wooden gun platforms with stone ones, per recent instructions from the chief engineer; constructing a small service magazine for the Three-Gun Battery; sowing grass seed on newly excavated areas; and building a concrete slope 2 feet wide and 6 inches deep at the foot of the scarp walls in order to throw rainwater away from the foundations.

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41. NA, RG 77, OCE, Letters Received 1838-1866, Prime, Apr. 17, 1857, to Totten; NA, Cartographic Div., RG 77, Fortifications File, Drawer 95-17, 18, and 19, Tower, "Cross Section and Elevation of South Caponniere," "North Battery," Sheets 1 and 2, all dated Sept. 30, 1856.

c. North Battery (including new right face)

The scarp wall of the additional ten-gun section was finished and ready for its coping, and the breast-height wall stood almost completed. The second pair of steps down to the caponier magazine had been emplaced, and the adjacent area wall had been completed. The wooden lining of the magazine was finished and covered with two coats of paint. The iron traverse circles in the gun room were in place, and the drawbridge was hung. In order to make the parapet steeper, as directed by the chief engineer, the scarp wall had been lowered from its original height by "14 in or 5 courses of brick." The coping for the scarp had been delivered to the island, and Prime hoped to finish laying it soon. The terrepleins had been excavated to their full widths, and their rear banks trimmed.

To complete North Battery and its ten-gun extension, Prime had to finish the coping, fill the parapet with earth and sod it, and construct the parapet of the caponier. The original wooden platforms of North Battery had to be replaced with stone ones, and the platforms and traverse circles laid for the additional ten guns. The shot furnace was yet to be built. Prime also wanted to build a small service magazine here for the additional guns.

d. West Battery

Work on this battery had proceeded rapidly. The scarp wall was finished and its coping laid. The breast-height wall had been carried to its full height, and the terreplein had been excavated. One 42-pounder pintle stone was already in place. The magazine site had been excavated and the magazine constructed to the springing line of its arch. Even work on the shot furnace had commenced, although its progress was slow due to the high cost of fire brick. Prime did not state the kind of construction he had employed in building the scarp wall for this battery, but one of his successors described it as having a sandstone facing, concrete backing, and a Chinese granite coping. Its height varied from 2 to 16 feet, according to the contours of the natural rock. Prime believed that a communication connecting West and South batteries

should be built. He recommended that it be 6 feet wide and covered, i.e., protected from the waterside, by a breast-height wall and parapet.

e. Guardhouse

The stout wall from North Battery to the guardhouse had been completed. It measured 394 feet in length, almost 22 feet in height on its waterside, and 4 feet in thickness. Two drains had been carried through it to carry water off the road behind. The site of the guardhouse and its ditch had been fully excavated, and the counterscarp (outside wall of the ditch or moat) had been built of stone from Alcatraz. The walls of the guardhouse had been built up to the level of the sally port entrance. Prime, for once, was specific on materials. He said the lower story of the guardhouse was being constructed of blue sandstone and Chinese granite. The upper part was to be of brick. The sills of the two gateways had been laid, and part of the entranceway (sally port) had been paved with granite. The brick walls of the gun room on the waterside already stood 9 feet above the roadway. In this room the two stone traverse circles and the brick pavement had been laid. Prime said that the embrasures for the howitzers were of the newest model, but that the room would be very much cramped with its two weapons. Finally, excavation for the revetment wall on the inside of the road from the guardhouse to the wharf area had commenced. Prime was concerned about the deterioration of the main wharf. While he did not give particulars, probably the teredo was doing its damage. He expressed hope for a permanent wharf on iron pilings.[42]

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42. NA, RG 77, OCE, Letters Received 1838-1866, Prime, July 5, and Sept. 18, 1857, to Totten, and Lt. George H. Elliot, June 13, 1863, to Totten. In his progress report for June 1857 Prime gave an accounting of his work force:

1 master mason & overseer	1 seaman
11 masons	101 laborers
4 stone cutters	1 clerk
3 carpenters	2 suboverseers
2 blacksmiths	1 office attendant
1 captain of sloop	

2. The Citadel

The great desire to have permanent works constructed on Alcatraz had pushed the planning of the defensive barracks far into the background. Now in 1856-1857, since the pressure to have armament had eased somewhat, correspondence concerning the barracks increased. In 1856, the chief engineer disapproved Tower's earlier idea of increasing the length of the barracks. However, he approved the substitution of a wooden (southern pine) second floor in place of brick. Also, he agreed that bedrooms and squad rooms should have furring to reduce dampness. Planning called for iron beams to support the heavy roof, and to assist the San Francisco engineers, Totten sent a sketch showing a "section of a wrought iron beam proposed by Major [P. G. T.] Beauregard for the 2d floor of the Tower at Proctors Landing, Louisiana."

Ideas continued to flow from Totten's fertile mind. He thought the building should have a cellar with a vertically walled dry moat around it. The kitchens, storerooms, and a few "dark" cells would occupy this basement. The chief engineer even drew a diagram of how the kitchen plumbing should be put in. The officers' portion of the building was to be arranged with flexibility in mind so as to accommodate either officers with families or bachelor officers, or both. Space should be set aside for company laundresses, those perennial appendages to a garrison. The barracks proper should be of sufficient size to accommodate one peacetime company. If war came, a second company could be squeezed in without undue hardship. Also, rooms for sergeants should be provided. Adjacent to the barracks, brick underground cisterns would hold an adequate amount of freshwater for a garrison under siege. Totten went on in great detail about how to lay the floors, ways to ensure adequate ventilation, and the respective values of cast and wrought iron.

Before Tower transferred to Fort Point, he sent Totten a revised plan for the defensive barracks showing the modifications suggested by both himself and the chief engineer. Tower still believed the officers should have separate quarters and they "should not be housed with their families within the thick walls &

badly lighted rooms of a keep." In addition to the underground cisterns he recommended that up to four wooden cisterns lined with lead be placed on the roof. Tower included quarters for the laundresses on the plan but personally believed these "camp women" should be housed away from the barracks. While his drawing called for cast iron girders on all levels, placed 6 feet apart, he personally preferred wrought-iron I beams, which would have to be procured in the East.

Totten relented a little concerning the size of the structure. He directed that its width be increased by 2 feet and its length by 30 feet. The increased length would provide for 12 additional rooms, all of which would be in the officers' portion of the building, there being four sets of such quarters. He insisted there be no door opening into the ditch: "The only outlets from the building should be over the two drawbridges on the level of the floor of the main story." All interior stairs should be of iron, with two flights leading to the roof. To improve lighting, three skylights should be located over the main corridor on the second floor, and the doors opening on this corridor should have large transom lights over them. Finally, the concrete roof should be covered with "asphaltic mastic."

Lieutenant Prime compiled all of these directives and prepared three sheets of detailed plans and elevations in June 1857. The basement level contained four officers' kitchens, four officers' bedrooms, an officers' storeroom, the company kitchen, a bake room, four storerooms in the enlisted men's section, a light prison, a light cell, and a dark cell. Located on the main floor were four officers' dining rooms, four parlors, one servants' room, one company mess room, one reading room for enlisted men, one company office, two sergeants' rooms, one laundresses' kitchen, and two laundresses' bedrooms. The top floor was divided into eight officers' bedrooms, one servants' room, two enlisted men's dormitories, and two more sergeants' rooms. Built into the counterscarp on the outside of the ditch were eight small storage rooms for vegetables, coal, and the like, and a privy for enlisted men. An infantry parapet surrounded the roof for fighting off attackers. The windows on the basement and first-floor levels were little more

than rifle slits (4 inches wide on the exteriors at the basement level, 12 inches wide on the main level). The outside walls were 3 feet thick and made of common brick, while interior walls measured from 4 inches to a foot in thickness. The overall dimensions of the structure were approximately 112 by 52 feet. On two opposite corners were bastion-like projections (the soldiers would call them "towers") that measured 19 by 20 feet. Prime estimated the costs of the structure as follows:

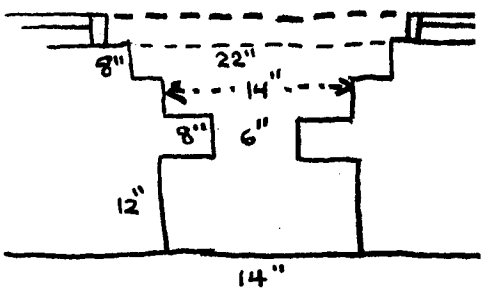
Masonry	$52,211
Plastering	2,970
Carpentry	11,954
Plumbing	2,173
Fireplace grates, ranges, & mantles	1,550
Company oven & cooking apparatus	800
Iron girders & ties	5,711
Painting woodwork	925
Excavation	3,250
Asphalt on roof	2,145
Wrought iron staircases	4,000
Total	$87,689[43]

One additional letter from the Office of the Chief Engineer settled most of the details concerning construction of the barracks. It agreed with a suggestion by Prime that the building should be located on top of the southeast peak rather than on the slope of the hill: "Why it was not placed by the Board of Engineers on the summit of the Eastern hill, I never understood: and unless there are good reasons to the contrary the best place would seem to be the summit occupied by the 'office.'. . . And I would

43. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 25, Wright, OCE, June 3, 1856, to Tower, and Totten, Nov. 27, 1856, to Tower, and vol. 26, Totten, Mar. 26, 1857, to Prime; NA, RG 77, OCE, Letters Received 1838-1866, Prime, June 19, 1857, to Totten; NA, Cartographic Div., RG 77, Fortifications File, Drawer 95-20 thru 24. Tower "Fortifications Alcatrazes Island . . ." Feb. 2, 1857, Prime, "Elevation and Cross section of Barracks . . . ," "Plan of Barracks . . .," and "Main Story," and [Totten], "Sketch showing Arrangement of Rooms for Defensive Barrack."

state as one reason for placing the barrack on the summit, that its command over the surface of the island would be extended, and for another that in connexion [sic] with future buildings on the western summit and immediate ridge, perhaps within a common enclosure; it may form a sort of citadel from which the whole surface of the island and the terrepleins of the batteries would be controlled."

The chief engineer was concerned that the 12-inch-wide windows on the main floor would be wide enough to give passage to a man who could throw a plank or a light ladder across the ditch to a window sill: "They may be improved however as follows--which will give more light, and save a great deal of brick cutting. The sash frame ought to be set up in the furring, and at a little distance from the inside of the wall, and it should be wider than the inside of the opening through the wall."



Inasmuch as Prime had been concerned that the fireplaces would not give off sufficient heat for windy Alcatraz, he was now authorized to build flues "into which the pipes of Franklin stoves may be inserted. These make very neat fire places which very seldom smoke." One more item, wrote the chief engineer: "There is no point about which military families make more complaint than about water closets and such things. I would not, therefore, avoid the small additional expense of providing them in numbers as heretofore indicated." Finally, the counterscarp, or area wall, should be raised to 8 feet above the lower floor, and it should be paved on top with bricks making a walk 8 feet wide all around.

The barracks was to be a solid, massive, defendable building that could withstand not only an infantry assault, but most of the naval armament of the day. When eventually completed it would dominate Alcatraz's skyline and be widely known as the Citadel. Prime had already begun procuring brick for its construction. It was time to go to work.[44]

3. First Fatality

On July 9, 1857, a fatal accident occurred on Alcatraz, one of the very few to happen during all the years of construction. Three men, excavating the cliff between the wharf and the guardhouse, were caught in a massive landslide that removed about 7,000 cubic feet of crumbly rock. Prime had inspected the area only two hours earlier but had no indication of pending trouble. William Cutler, a suboverseer, had started walking away

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44. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 27, Wright, OCE, July 17, 1857, to Prime. The defensive barracks was one of unusual design. Built much like a seacoast masonry fort, complete with bastions, it had not artillery embrasures and was to be defended solely by small arms.

from the site when he heard a rumbling noise. He turned in time to see the bank fall and a man running from it. The man, James Shea, escaped but was hurt badly in his right arm, hip, and leg. Prime ordered the fallen material removed promptly. Underneath, the workmen found two bodies: Daniel Pewter, 50, from Ireland, and Jacob Unger, 25, from Germany. Later, evidence was taken by a coroner and the verdict returned: "There can be no blame attached to any parties for the cause of death."[45]

4. Defensive Wall

A second slide in the same area, without injuries, caused Totten to write Prime with instructions to change the design of this wall:

> I do not doubt the necessity of increasing the thickness of the walls facing the embankments, as proposed by you, beyond what it was designed to give them when the banks were assumed to be self-sustaining; but I cannot approve of building them entirely of brick instead of using a large proportion of concrete which is much cheaper and which will not be found wanting in tenacity provided the wall has the requisite stability against overturning. These walls should therefore be constructed of concrete faced on the exterior with bricks.

Prime responded by describing that part of the wall which had already been built. He said that the stone foundation course of the wall had been laid and backed with concrete averaging a foot thick. The stone measured 12 inches in rise. The brickwork had already been laid for a length of 150 feet and at an average height of 10½ feet. The wall was 5 feet thick at the stone work and had a

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45. NA, RG 77, OCE, Letters Received 1838-1866, Prime, July 18, 1857, to Totten, Prime attempted to get Shea admitted to the U.S. Marine Hospital, San Francisco, but to no avail.

batter of one-half-inch to the foot. Hereafter, wrote Prime, concrete would be used in the wall as Totten had instructed. Despite the troubles attending its construction, a large portion of this massive wall still stands, connecting the guardhouse to the casemated barracks. Its stone foundation is now buried from sight by the asphalt-covered roadway that parallels it.[46]

Illustrative of the tight control that the War Department maintained over its officers in the field are two documents that came Lieutenant Prime's way in 1857. One of these was an approval by the secretary of war himself for $28 worth of purchases that Prime had made for his office: a calendar, a map of San Francisco, a city directory, a map of California, a letter rack, and a tin cashbox. Then, a few weeks later, Totten authorized Prime to sell the following unserviceable items: 1 anvil, 26 files and rasps, 27 shovels, 5 wheelbarrows, 1 horse, and 2 chairs.[47]

It was not this ubiquitous oversight of detail that caused Prime to request a transfer to the East Coast. He had been at San Francisco for the normal tour of four years and he felt a need for a change, even though he now had full responsibility for the works at Alcatraz. He pestered Totten through the summer and fall of 1857 with his requests and finally received the news that he would go to Mobile Bay, Alabama, to take charge of the works there, and a few days later 2d Lt. James Birdseye McPherson, at New York, received orders notifying him to leave for San Francisco to replace Prime at Alcatraz. McPherson arrived in due course,

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46. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 27, Totten, Sept. 4, 1857, to Prime; NA, RG 77, OCE, Letters Received 1838-1866, Prime, Oct. 3, 1857, to Totten.

47. NA, RG 77, OCE, Letters to Officers of Engrs., vols. 27 and 28, Totten, Aug. 15, and Nov. 2, 1857, to Prime.

and on December 31, 1857, Prime turned over the charge of the fortifications on the island.[48]

D. James Birdseye McPherson and Alcatraz

1. McPherson and the Wind

McPherson quickly became acquainted with Alcatraz by living on the island and going over to San Francisco only on weekends. At the end of his first month he wrote to a friend in Wilmington, Delaware, describing his lonely assignment:

Alcatraces Island
San Francisco Harbor Cal.
Feby 4th 1858

My dear "Major,"

Perched upon a little rock Island the summit of which is One hundred and forty feet above the water and while watching the sun as he dips into the broad Pacific, or listening to the never ceasing roar of the breakers dashing against the rocks, I often think of my position one year ago, and instinctively draw a comparison between it

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48. NA, RG 77, OCE, Letters Received 1838-1866, Prime, June 19 and Oct. 3, 1857, and Jan. 2, 1858, to Totten, McPherson, Nov. 4, 1857, to Totten; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 27, Totten, July 15, 1857, to Prime, and vol. 28, Wright, OCE, Oct. 19, 1857, to Prime. McPherson, born in Ohio, entered West Point in 1849 at the age of 20. He graduated at the head of his class. Early in the Civil War Halleck selected him as a colonel aide de camp. In May 1862 he became a brigadier general of volunteers, and in October, a major general. He was Grant's chief engineer on the Mississippi. It was Grant's high opinion of him that won McPherson these promotions. When Grant went East, McPherson took command of the Army of the Tennessee. In the Atlanta campaign General McPherson was killed when he ran into a Confederate skirmish line, July 22, 1864. See Heitman, 1:681; Amos A. Fries, "Maj. Gen. James Birdseye McPherson," Professional Memoirs, Corps of Engineers, United States Army and Engineer Department at Large 7 (May-June 1915):378-82.

> and my present one--Candor compels me to state that in everything appertaining to the social amenities of life the "Pea Patch" [Fort Delaware] is preferable to "Alcatraz" and were it not, that being here in charge of this work is very gratifying to my professional pride I should regret the change deeply, as it is all my pride is scarcely sufficient at times to keep my spirits up--though I am determined to make the best of the matter, looking forward joyfully to the time when I can return to the Atlantic States.
>
> I have made but few acquaintances as yet in San Francisco, though I go over every Saturday evening and remain until Monday morning, and frequently at other times during the week when I get tired of playing the hermit--
>
> Fate or circumstances, or perhaps both combined have arranged it so that I am doomed to live on Islands, and though it may sound very poetical in the distance to speak of the "Gems of the Pacific" and all this manner of thing, I have not attained that sublime height of sentimentality, which places me above the practical unromantic incidents of every day life, and consequently hear something besides music in the deep sea's roar, especially as I get a good wetting about every third time I go over to Town--San Francisco beats all the cities I have ever been in, in the way of Drinking Saloons, Billiard Tables, Cigar Stores and idle men "loafers" genteely dressed, and if you happen acidentally [sic] to make the acquaintance of one of them, before you are aware of it, you will be introduced to any number more--for they have the greatest way of introducing folks I have ever seen--
>
> I often congratulate myself when I am in Town, that I have a place to flee to, where the air is pure and where I can avoid meeting people whom I do not care to know--for the more of them you know the worse you are off. . . .

The old whale boat may have caused the wettings that McPherson had to endure, but more likely the sloop that

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49. William F. Strobridge, ed., "California Letters of Major General James McPherson, 1858-1860," Ohio History 81(Winter 1972):38.

Alcatraz had acquired sometime during the past four years was the culprit. In either case, McPherson acquired permission to purchase a new "boat" at a maximum cost of $300. This was a rather modest sum considering that Alcatraz's appropriation for fiscal year 1858 was another $200,000.[50]

Before he left Alcatraz, Prime had constructed a hairpin road to the top of the southeast hill--the same road that reaches up to the prison building today--and had begun to stack bricks on the hill for the defensive barracks. Construction of the barracks, however, would be McPherson's responsibility entirely. One of the first things he did on taking charge was moving the office building from the future site of the barracks to the northwest peak. Later the excavated rock from the barracks site was used as fill in the saddle between the two hills.[51]

McPherson ran head on into the federal patronage system almost before he got his bags unpacked. One of the first letters he received from Totten informed him that at the request of the Honorable Joseph McRibbon, Secretary of War John B. Floyd had directed the appointment at Alcatraz of Charles Murphy in the position of master mason or overseer. McPherson reluctantly complied: "I regret exceedingly that it should have been thought proper . . . to supercede the former overseer Wm H. Pratt, a man who has been employed on Government Fortifications for the last nine years . . . [a man of] straight-forward integrity and

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50. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 26, Totten, Mar. 10, 1857, to Prime, and vol. 28, Wright, OCE, Dec. 9, 1857, to McPherson.

51. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, Feb. 3, 1858, to Lt. Col. Sylvanus Thayer, CE, Boston, Mass., acting chief engineer while Totten was on leave.

zeal. . . . He has been the Master Mason and Overseer on this Island since the commencement of the works." He gave Murphy a month's trial, then he reported, no doubt happily: "I became satisfied that he was not competent for the position . . . and accordingly discharged him at the end of the month." It was too late to get Pratt back, and one of McPherson's mechanics found himself the new acting master mason.[52]

Alcatraz's columbiads got an opportunity to roar in April 1858. It was a custom for shore installations to exchange salutes with visiting foreign warships. When the British corvette Satellite arrived in San Francisco Harbor on the 19th, McPherson was chosen to do the honors. No army troops then occupied the island and the lieutenant did not say whom he used as gun crews: "Last Saturday I had to awaken the echoes of the Island by returning the salute of the English corvette 'Satellite.' I fired twenty one guns from 8 inch Columbiads which require something like twelve pounds of powder for a load, so you can imagine what kind of report they mack [sic]."

McPherson discovered another kind of roar at Alcatraz that spring--the wind: "This beats all countries for wind I ever inhabited--At 10 O'clock A.M., every day the sea breeze commences and it is no gentle zephyr I can assure you--The dust flies in every direction. The bay is covered with white caps making it worse crossing, than the afternoon we went to Salem--I expect after four years residence here I shall become so much

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52. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 28, Totten, Nov. 24, 1857, to McPherson; NA, RG 77, OCE, Letters Received 1838-1866, McPherson, Jan. 5, 1858, to Totten, and Feb. 1, 1858, to Thayer.

disgusted with the wind that I shall fairly hate the sight of anything that goes by the wind--"[53]

2. State of the Works, June 1858

McPherson's first annual report for Alcatraz was as impressive as its predecessors.

a. South and Three-Gun Batteries

These batteries stood virtually completed. The earth in front of the scarp walls had been graded so that it partially masked the masonry. This provided some additional protection against a cannonade. On the right face of South Battery a wing wall had been constructed, jutting toward the water. The slopes in the vicinity of the wing wall were covered with concrete to make them even more inaccessible. (This wing wall, either as built in the 1850s or as possibly modified later, still stands.) The conversion from wooden to stone platforms for the 8-inch columbiads continued, the iron traverse rings having been laid. McPherson, too, thought the Three-Gun Battery needed a small service magazine. About all that still remained to do was installing the machinery for the caponier drawbridge and constructing a surface drain the whole extent of both batteries.

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53. Strobridge, pp. 41-42. Satellite was a screw-corvette, one of the largest wooden corvettes ever built for the Royal Navy: 1,042 tons, 400 horsepower, 21 guns, and a complement of 206. She would play a role in the boundary dispute concerning the San Juan Islands in 1859, and would be a visitor to San Francisco Bay several more times. See USDI, NPS, DSC, Historic Resource Study, San Juan Island National Historical Park, Washington, by Erwin N. Thompson (Denver: National Park Service, DSC, 1972).

b. North Battery

While McPherson preferred calling the new right face Ten-Gun Battery, he nevertheless discussed the entire work as one entity. During the year, 486 running feet of coping had been set and backed with concrete. The breast-height walls had been finished, the parapets filled with earth and sodded, and the terreplein partly graded. The masonry parapet of the North Caponier was finished, the superior slope being paved with brick. The 8-inch columbiad platform on top of the caponier was completed, and its iron traverse circles put down. The area in front of the magazine door had been paved (with brick?), and a lattice door leading to the gun room was installed. A good start had been made in constructing the stone platforms in the new right face of the battery.

c. West Battery

This battery, too, was nearing completion. All the stone platforms, traverse circles, and banquettes had been completed, except putting down the iron traverses. The parapet had been filled and sodded. Both the shot furnace and the powder magazine were close to completion. Like Prime, McPherson thought a wall should connect West and South batteries. It could be built with recesses for eight additional guns, practically a battery in itself.

d. Guardhouse

The guardhouse was almost ready for occupation. The masonry was finished, the coping was set, the terreplein (roof) was paved with flagging, the gun rooms were paved with brick, floors were laid in the prison room, and the prison room windows were ready to put in. A flight of stone steps had been built from the roadway, back of the guardhouse, curving up to the road above that led to the defensive barracks. A small retaining

wall had been built and coped in the rear of these stairs. The doors to the gun rooms had been hung, and the drawbridge and heavy doors closing the sally port were made. They would not be hung until McPherson had hauled the heavy construction material for the barracks through the sally port. Also to be installed were an iron ladder and a trap door leading down to the prison room and the iron traverse circles for the 24-pounders.

e. Defensive Barracks

The excavations for the barracks and the cistern had been completed. Building of all four main brick walls had commenced, and some of them were already over 12 feet high. The partition walls of the basement story had been carried up to the level of the main floor and the iron girders for this floor had been set. The brick arches for the basement level had been turned and "leveled up" with concrete. McPherson estimated that he would complete the barracks in seven more months at the most.

f. Defensive Walls

The defensive wall from North Battery to the guardhouse and the wall from there to the wharf were both completed and ready for coping. The latter wall, where the two fatalities had occurred, stood 21 feet high, and earth had been filled in behind to within 4½ feet from the top. This wall was over 400 feet long, stretching along the entire area where the casemated barracks now stand. Some escarping of the cliffs had been carried on during the year, mostly at spots on the southwest side of the island. Once again, minor repairs had to be made to the wharf.

McPherson prepared the usual annual map of the island depicting the state of the works. It contained a number of excellent profiles of various parts of the island as well as an elevation of both walls and the guardhouse on the northeast side of the

island. Despite the good progress, McPherson complained mildly that he could have accomplished more had San Francisco not been deserted by workmen who had rushed to the Frazer River in the British possessions to partake in the latest gold rush. Regardless, Alcatraz was beginning to look like a fortified place.[54]

3. Armament Report, 1858

In July 1858 McPherson prepared a schedule showing the number of guns on hand and the number yet required for Alcatraz. A total of 94 positions had been constructed for which 70 guns were already on the island:[55]

Captain Tower transferred back East in the summer of 1858, leaving 2d Lt. George Washington Custis Lee, the oldest son of Lt. Col. Robert E. Lee, in charge of the Fort Point works until the arrival of Capt. Jeremy F. Gilmer at the end of the year. By this time the Board of Engineers for the Pacific Coast had lapsed into inactivity. McPherson and Lee each wrote directly to

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54. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, July 3 and Aug. 17, 1858, to Wright, OCE. The guardhouse gun rooms were actually paved with flagging rather than brick.

55. The north caponier had originally been planned for seven howitzers; the eighth was apparently decided upon after work began on the right face. The Three-Gun Battery was now actually a four-gun battery, but the original name prevailed. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, July 3, 1858, "Schedule giving the Total Number of Guns provided for--the Number on hand, and the Number required at Fort--Alcatraces Island," and July 17, to Wright, OCE. Once or twice McPherson referred to the island as Fort Alcatraz. This was never an official name for Alcatraz. In fact, it never got an official name. The technically correct name over the years was Post of Alcatraz Island.

Location	Total Provided for			No. on hand				No. required		
	Columbiads	42-pounders	24-pounder howitzers	10-inch columbiads	8-inch columbiads	42-pounders	24-pounder howitzers	Columbiads	42-pounders	24-pounders
North Battery										
Right face	6	4						6	4	
Caponier	1		8		1	6	7			1
Left face	21			2	19					
South Battery										
Right face	13			4	9					
Caponier	1		8		1		8			
Left face	9			2	7					
Three-Gun Battery	3				3					
Recess in same for one gun	1				1					
West Battery										
Right face	8							8		
Left face		8				6			2	
Guardhouse	—	—	3	—	—	—	—	—	—	3
Total	63	12	19	8	41	6	15	14	6	4

Totten, giving their recommendations and progress reports and individually receiving his advice and orders.[56]

4. Alcatraz Described, 1859

Hutchings' California Magazine, that early publication that featured many of California's wonders, described the fortifications on Alcatraz in considerable detail in 1859. The article implies that McPherson gave a personal tour to the reporter:

> This island is 140 feet in height above low tide, 450 feet in width, and 1650 feet in length, somewhat irregular in shape; and fortified on all sides. The large building on its summit . . . is a defensive barrack or citadel, three stories high, and in time of peace will accommodate about 200 men, and in time of war at least three times that number [an exaggeration]. It is not only a shelter for the men, and will withstand a respectable cannonade, but from the top a murderous fire could be poured upon its assailants at all parts of the island. . . . There is a belt of fortifications encircling the island, consisting of a series of Barbette batteries, mounting altogether about 94 guns, 24, 42, 68, and 132 pounders.
>
> The first building that you notice after landing at the wharf is a massive brick and stone guard house, shot and shell proof, well protected by a heavy gate and drawbridge, and has three embrasures for 24 pound[er] howitzers that command the approach from the wharf. The top of this, like the barracks, is flat, for the use and protection of riflemen. Other guardhouses of similar construction [the caponiers] are built at different points, between which there are long lines of parapets sufficiently high to preclude the possibility of an escalade, and back of which are circular platforms for mounting

56. NA, RG 77, OCE, Letters Received 1838-1866, Gilmer, Dec. 13, 1858, to Thayer; FARC, San Bruno, RG 77, OCE, San Francisco District Letterbooks, Letters Sent July 1858-Feb. 1861, Tower, July 31, 1858, to Lee.

guns of the heaviest caliber, some of which weigh from 9,000 to 10,000 pounds.[57]

Early in the morning, January 25, 1859, an accident occurred at Alcatraz that would recur periodically during the next century. A violent storm sprang up suddenly that drove the schooner Gertrude onto the rocks between the wharf and Three-Gun Battery. She was loaded with 500 barrels of cement for McPherson's works. The lieutenant turned out his work force, who managed to unload 270 barrels, of which one-quarter were wholly damaged. Once the cement was taken off, the schooner was so much lightened that she floated off the rocks. Although several large holes had been knocked in her bottom and part of the keel had been torn off, other vessels succeeded in towing her to the city.[58]

During fiscal year 1859 McPherson directed the major part of the construction effort at the barracks. At the same time he worked on converting wooden platforms to permanent stone ones. One great problem he faced was the uneven quality of the iron traverse circles that the Ordnance Department supplied. Exasperated, he dashed off a brief note to the chief engineer on the subject: "The small circles instead of being perfectly true on the top and 1-3/4" in thickness, are quite uneven and vary from 1-3/4" to 1-5/16" in thickness, so that it is necessary to cut circular grooves

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57. R. R. Olmsted, ed., Scenes of Wonder & Curiosity from Hutchings' California Magazine, 1856-1861 (Berkeley: Howell-North, 1962), p. 8.

58. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, Feb. 4, 1859, to De Russy, OCE.

of irregular depths [in the stone], or file down the irons, in order to make the difference of level between the upper surfaces of the outer and inner circles precisely 6 inches and allow the wheels of chassis to rest on the outer circle, while the middle transom rests on the inner." It is doubtful if McPherson received any outside relief for his problem.[59]

5. Citadel and Guardhouse

The lieutenant's annual report of operations for 1858-1859 filled 12 pages with minute detail. Because the basement story of the Citadel still exists, his description of the building's construction is quoted here in detail, likewise his description of the still-standing guardhouse:

Defensive Barracks

> The walls have been carried up from . . . above the basement floor to reference (43' 4-1/2"), the height of the interior crest of the parapet. 45 cast iron girders set and the brick arches turned and leveled up with concrete to receive the flooring strips--15,037 of sup. feet of 1-1/4" Georgia Pine flooring laid, the exterior walls and ceilings furred, partitions set up and lathed ready for plastering, and the ? put on.
>
> All the iron shutters for the windows have been made and hung, frames set up, and sash put in. The heavy Oak doors for the exterior and all the doors & door frames for the interior have been got out ready to put up as soon as the plastering is finished. All the slop sinks, kitchen sinks, etc. in the basement, and nine water closets in the officers quarters, with the water tanks, traps, pipes etc have been arranged, and three force pumps to supply the tanks with water set up.

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59. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, Sept. 4, 1858, to Wright, OCE.

The main stairs in the hall leading from the basement to the roof (all iron in the soldiers barracks, and iron frame with wooden treads and risers in the Officers Quarters) have been finished, together with the private stairs leading from the basement to the 2d story in the small halls at the end of the officers quarters. The large sky-lights over the stairs and the small one for lighting the hall are well advanced and will be ready to put in in a few days. The parapet and terre-plein have been finished, requiring 421' 8" running feet of granite coping in the former and 5,599 sup. feet of asphaltic roofing to cover the latter. The area wall has been built to within 8" of its full height, the store-rooms and men's privy in rear wall built and arched over with brick, the roof surface being covered with asphalt. The bottom of the ditch paved, the cistern completed, except plastering the walls with hydraulic mortar, and an elliptical brick sewer opening . . . 20" x 30," constructed from the Barracks down the slope of the hill to the edge of bluff (reference 35') near the N.W. extremity of the S. battery, whence it will be carried to low water as soon as the summer winds abate . . . [this sewer is shown on a map of that period].

Guard House and Defensive Walls

The heavy Oak doors closing the sally-port have been hung, the casemates finished, the iron traverse circles put down, and 3 24 Pdr flank Howitzers mounted [in fact, they were not mounted]. The iron ladder and trap door leading from the Casemate to the prison room have been made and put in place, 392 running feet of Sand Stone coping has been set in that portion of the Defensive Wall between the 10 Gun [North] battery and the Guard House and 372 running feet of Granite Coping on that portion between the Gd. House and the wharf, and the whole of it backed with brick masonry. A concrete slope 16" wide and 4" thick has been formed in advance of the latter portion to throw the water from the foundation. The bank in rear has been graded and the earth filled in behind the wall to within 4' 3" of the top, the banquette arranged and sodded and an open concrete drain formed. The bank on the left of the sally-port as you enter, between the different levels of the road leading to the S. Battery, has been cut down to a slope of about 45° and sodded, which makes a good finish.

Other accomplishments that year included putting in the machinery (less the weights) for the drawbridges at both the North and South caponiers; cutting stone steps to lead from the barracks counterscarp wall to the bottom of the moat; conversion of a number of wooden gun platforms to stone ones (McPherson was in no great hurry on this, the wooden platforms still being sound); mounting of four 42-pounders on the right face of North Battery and eight on West Battery; mounting of the two 8-inch columbiads on top of the caponiers; covering the roof of West Battery's magazine with earth and sodding it; escarping a portion of the cliff between the wharf and Three-Gun Battery; and repairing the temporary wharf.[60]

6. Social Whirl

McPherson's days witnessed a fair share of social activities as well as work. When the Sixth Infantry Regiment arrived from the East, McPherson found several familiar faces from his West Point class. The reunion with old friends heightened his morale. In August 1858 he wrote that in a few weeks he would move from Alcatraz to the city. Meanwhile, he savoured the fruits of the country: "According to your taste you can get strawberries, raspberries, grapes, peaches, Pears, Apples, & melons, all the growth of this state, and the Peaches & grapes are very fine." New Year's 1859 brought a whirlwind of parties and balls: "Knowing that you [his friend Stotsenberg] are interested in the Ladies I must tell you that the hauties [smart set] of San Francisco were there, admired with more, than the Queen of Sheba, when she made her appearance at the Court of Solomon--am I right--ever desirous of--Silks & Satins, laces and head dresses, gas-light and diamonds,

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60. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, Aug. 2, 1859, to De Russy.

all tended to produce a most dazzling effect, from which I am happy to say I suffered no serious inconveniences."[61]

7. Troops Arrive on Alcatraz

Despite the advanced state of the works as originally conceived, McPherson estimated that he needed $100,000 in additional appropriations to complete the fortifications. Of course, two or three new projects had come to mind, such as a permanent wharf, a fortified storehouse, and the recessed wall running from West to South batteries. But Congress felt differently. Alcatraz's appropriation for fiscal year 1860 was a drastic cutback, amounting only to $30,000.[62]

McPherson did not have to debate for long about where to spend the money. Col. Newman S. Clarke, a hero of Vera Cruz and now commanding the Department of California with his headquarters at San Francisco, applied to the War Department for the authority to occupy the barracks on Alcatraz in the summer of 1859. McPherson learned of this in early September and promptly directed his resources to the barracks. Brick masons paved the moat. Plasterers finished their work. Carpenters installed the dumb waiters and the skylights. At the end of November, McPherson declared the barracks ready for occupation. He did not have enough funds to furnish cooking ranges, but he presumed the department quartermaster would supply them.

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61. Strobridge, pp. 43-44.

62. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, Nov. 17, 1858, to Wright, OCE; NA, RG 77, Letters to Officers of Engrs., vol. 30, De Russy, Mar. 18, 1859, to McPherson.

On December 1, 1859, a board of officers, headed by Lt. Col. Thomas Swords and accompanied by McPherson, inspected the barracks and found it to be built in the most substantial manner: "The interior arrangements are admirably adapted to wants and convenience of occupants, and the buildings, as a whole reflect great credit upon the Engineer Officers under whose charge they have been erected."[63]

On December 30, 1859, Capt. Joseph Stewart, with Company H, Third Artillery, occupied Alcatraz, beginning 77 years of military administration. McPherson, having only $328.28 left in the appropriation, dismissed the last of his work force, had the engineer sloop tied up in Benicia, and prepared to turn over officially the ordnance and the ordnance stores to Stewart. Much of his time in early 1860 he would devote to a survey at Lime Point and other tasks. Occassionally, he would have to send a carpenter or a plumber out to the island to make minor repairs or adjustments. In the spring of 1860 he would prepare detailed drawings of the magazine in West Battery, the chief engineer having discovered none in his files.[64]

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63. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 30, Wright, Aug. 23, 1859, to McPherson; NA, RG 77, OCE, Letters Received 1838-1866, McPherson, Aug. 2 and Dec. 2 and 16, 1859, to De Russy.

64. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, Jan. 3, Mar. 2, and July 3, 1860; Letters to Officers of Engrs., vol. 31, De Russy, May 30, 1860, to McPherson; Microcopy 617, Roll 14, Returns from U.S. Military Posts, 1800-1916, Alcatraz Island, December 1859-December 1879, Post Returns for December 1859. The troops occupied Alcatraz per Special Order 142, Headquarters, Department of California, Dec. 27, 1859.

8. Totten Inspects

Entirely by coincidence, but quite appropriately, Colonel Totten himself paid a visit to San Francisco Bay just at the time that McPherson finished construction on Alcatraz. In July 1859, Brig. Gen. William S. Harney, commanding the Department of Oregon, precipitated an international crisis in the Pacific Northwest by arbitrarily dispatching troops to occupy disputed San Juan Island. A formidable British naval force dropped anchor off the island and tension mounted. When news of Harney's capricious behavior reached the nation's capital, President Buchanan dispatched the commander in chief of the army, Maj. Gen. Winfield Scott, to the Pacific Coast to calm the diplomatic waters. Colonel Totten also traveled to the West Coast, separately from the general, but to be of assistance to him, if needed, in Washington Territory, and to inspect Lime Point with the general at the Golden Gate.

Totten missed Scott at San Francisco, but he took the opportunity of his first and only visit to inspect the works at Alcatraz most thoroughly. In general, Totten approved of what he saw: "Its batteries, already completed in a very perfect manner, to the extent of 75 guns of heaviest calibre, will have a powerful effect upon any vessels. . . ." But he thought the fortifications should be enlarged: "The guns should be increased in number at this position, until all the contour of the island that looks towards the entrance, and towards Angel Island, shall be occupied making an addition to its armament of some 25 or 30 guns." Later, back in Washington, Totten sent a detailed list of minor criticisms along with $500 from Contingencies of Fortifications to allow McPherson to make corrections. These defects included such things as a loose pintle or two, improper covers on ventilators, some leaks in the caponiers and the guardhouse, and the absence of weights on the drawbridges. Totten was concerned about the steep, rocky slopes behind the batteries. To prevent enemy fire from splintering this

rock, he recommended planking the slopes with heavy timber. He also instructed McPherson to brick up the shot furnaces' openings to protect them until needed in wartime. Other criticisms were his observations that the stonework had "rather an unnecessary degree of fineness" about it and that the brick pavement on top of the gun platforms should not have been substituted for the concrete directed in the drawings. All told, McPherson must have felt good that his work fared this well from the critical eye of the Chief Engineer.[65]

McPherson's annual report of operations for 1859-1860 was necessarily short, nearly all of it dealing with the barracks. One item of particular interest was his account of having built a brick sustaining wall against the cliff at the northeast end of the Citadel and installing a flight of 33 granite steps from the road up the side of this brick wall to the main entrance of the barracks. This handsome flight of steps still exists in this area, along with the wall.[66]

9. Appropriations Reduced, 1860

Back in July 1859, McPherson had made an estimate of funds needed in fiscal year 1861 for the engineer operations at Alcatraz. In addition to the older projects not yet underway, such as a permanent wharf, he added the concept of a ten-gun battery to be constructed on the southwest side of the island, between North and West batteries. This would be in keeping with Totten's

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65. NA, RG 77, OCE, Official Papers, vols. 8 and 9, Totten's Correspondence 1860-1861, Totten, Nov. 9, 1859, to Sect. of War John B. Floyd; NA, RG 77, OCE, Land Papers, Totten, Mar. 6, 1860, to Floyd, and Wright, May 2, 1860, to McPherson.

66. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, July 31, 1860, to De Russy.

later observation that the fortifications should be enlarged. McPherson's estimate for the new fiscal year amounted to a total of $132,000. One has to imagine his chagrin when Alcatraz's appropriation for that year was announced as being $25,000. He proposed spending that small sum as follows:

Defensive barracks, including iron fence around counterscarp	$ 2,000
Weights for drawbridges	325
Fort keeper's wages and forage for animals	3,000
Office in San Francisco and employee wages	5,560
Permanent storehouse	7,000
Service magazine, left face, North Battery	6,000
General repairs to wharf, etc.	1,115
	$25,000[67]

10. A New Battery

About the time the lieutenant got some of these projects underway, he received from the chief engineer an elaborate set of drawings and instructions for a new battery to be located between North and West batteries. He was instructed to drop everything and to devote most of the $25,000 to this work. Instead of having ten guns, as McPherson had recommended, the new battery was to be a complicated affair having 18 guns, 2 large magazines, and 12 small service magazines at the guns for storing loaded shells. Starting at the northwest end of West Battery the first six guns were to be arranged like a gigantic staircase, because of the rapidly rising ground. At the rear of these emplacements a ramp would connect West Battery to the top of the hill. One of the large magazines was to be located near the bottom and

67. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, July 18 and 28, 1860, to De Russy; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 31, De Russy, June 28, 1860, to McPherson.

the other at the top of this slope, the later magazine serving as a large traverse between these six and the rest of the guns. Between this traverse and North Battery was to be a "straight-face" battery of 12 guns with its crest at an elevation of 132 feet, or near to the height of the northwest hill, which it would be built against. The chief engineer ordered work to begin first on the 12-gun portion of the work.[68]

McPherson immediately reorganized his priorities. By September 1860, his men were already excavating for the 12 guns. Before October ended, masons had begun work on the brick breast-height wall and on the foundations for columbiad platforms. The terreplein was more than half excavated by the last of November. The engineer's progress report for January 1861 stated that the breast-height wall and the brick retaining circles for the platforms were completed and the parapet shaped and ready for sodding. During January McPherson learned that the U.S. Treasury could not send any additional funds. He called the workmen together "and explained the matter to them . . . finishing by telling them if they were willing to continue work and take the chance of being obliged to wait sometime for their pay, I should be pleased to have them do so." All the men agreed to remain. However, a few days later McPherson reconsidered this arrangement and decided to close down the work.

11. Civil War Stops the Work

Meanwhile, the great crisis in the East was rushing toward a climax and only days away the Confederate States of

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68. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 31, Wright, Aug. 17, 1860, to McPherson; NA, Cartographic Div., RG 77, Fortifications File, Drawer 95-35, plan, "Alcatraces Island, Projected Extension North-westward of the West 8-Columbiad Battery," approved July 24, 1860.

America would be formed. Even as McPherson suspended operations a letter was on its way to him from Totten: "Under instructions from the Secretary of War I have to direct that all operations of construction upon the works under your charge be at once discontinued and that no further liabilities be contracted except for objects necessary for the preservation of the government property at said works, such as Fort Keepers etc." Upon receipt of this order, McPherson had the government sloop Brady painted and laid up in San Francisco and the small boats safely stored on Alcatraz, and he discharged the boat crews.[69]

In February 1861, the department commander ordered 10,000 muskets, model 1855, their accoutrements, a supply of percussion caps, and 150,000 cartridges with elongated balls moved from Benicia Arsenal to Alcatraz for better safekeeping against any secessionists' raids. The arrival of the weapons caused McPherson to inform the chief engineer of the now-urgent need for a permanent storehouse. For lack of proper space the muskets had to be stacked in the officers' quarters in the Citadel, "filling the Hall and all the rooms except those in the Basement, and five rooms on the main floor."[70]

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69. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, Sept. 30, Oct. 3, and Dec 4, 1860, and Feb. 5 and Mar. 4, 1861, to Totten; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 32, Totten, Jan. 14, 1861, to McPherson. McPherson later received $5,000 to pay the workmen's back wages and other expenses.

70. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, Apr. 16, 1861, to Totten. Two letters written by W. W. Mackall, AAG, Dept. of Pacific Feb. 17, 1861, contain contradictory figures about the number of cartridges moved to Alcatraz. A letter in the National Archives gives the figure 150,000, while a second letter, published in a U.S. Army document, states that only 15,000 cartridges were sent. See NA, RG 393, U.S. Continental Commands, Dept. of the Pac., Letters Sent 1848-1866, vol. 10, Mackall,

In April and May 1861, the garrison on Alcatraz increased by the arrival of a detachment of engineer troops, recruits for the First Dragoons, and three additional artillery companies, bringing the total strength to 8 officers and 361 enlisted men. The number of pieces of heavy artillery on the island amounted to 86, still the only permanently mounted guns in San Francisco Bay. A young lieutenant, Edward Porter Alexander, who had arrived with the engineer detachment, was relieved of troop duty and assigned to McPherson as his assistant. McPherson had hoped to command the detachment of engineers also and to employ the men on the works. However, the department commander insisted that these men were a part of the military force on the island, and they came under the command of Captain Stewart.[71]

Ordinarily, the construction and maintenance of quarters was a concern of the Quartermaster Department, not the Engineer Department; but McPherson willingly assisted the post commander in finding space for these additional troops. He turned over his mechanics' barracks to the engineer detachment and he prepared plans and estimates for a new temporary frame barracks that would accommodate two companies of artillery. This 82- by

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Feb. 17, 1861, to Lt. J. McAllister, Ordnance, Benicia; [U.S. Congress], War of the Rebellion: A Compilation of the Official Records of Union and Confederate Armies, 73 vols. (Washington, 1890-1901), vol. 50, pt. 1, pp. 444-45.

71: NA, Microcopy 617, Roll 14, Post Returns, Alcatraz, April and May 1861; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 32, Totten, Mar. 7, 1861, to Lt. E. P. Alexander, Fort Steilacoom, WT.; NA, RG 77, OCE, Letters Received 1838-1866, McPherson, May 4, 1861, to Totten. Edward Porter Alexander, born in Georgia, graduated from the Military Academy in 1857, third in his class. He resigned from U.S. Army on May 1, 1861. He then became a brigadier general in the Confederate Army. Heitman, 1:156.

40-foot building would be located in the rear of the right face of South Battery, just below the mechanics' barracks.[72]

In his annual report for 1860-1861, McPherson noted that he had corrected most of the deficiencies that Totten had observed, including, finally, putting the three drawbridges into working order. He mentioned that the parade ground was then located on the northwest side of the defensive barracks--the area that had been filled in with material excavated for the Citadel. As for the new 12-gun battery, the breast-height walls and the six small shell rooms were completed--except for hanging the doors. He had finished the brick retaining circles for permanent platforms and had eight sets of traverse stones dressed and ready to set. The parapet had been filled with earth brought from the Presidio and was sodded. But his pride and joy was the new $55 flagstaff that he had installed on top of the south tower of the defensive barracks. The flag would wave from this lofty perch for many years to come.[73]

12. McPherson Goes to War

McPherson's estimates for fiscal year 1862 (prepared long before the Civil War started) again called for over $100,000 to complete the works. Congress made the appropriation for Alcatraz in March 1861--another $25,000. The lieutenant decided that with this small sum he could complete the new 12-gun battery and the large magazine at its south end, and make a beginning on the six descending positions that would connect it to West Battery. He also

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72. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, May 4, 1861, to Totten.

73. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, July 26, 1861, to Totten.

thought he could fund the construction of a defensive storehouse on top of the wall behind the wharf.[74]

When news of the surrender of Fort Sumter reached the West Coast, McPherson, like the vast majority of people in San Francisco, strongly supported the Union. But three of his fellow engineer officers in the Bay Area, Gilmer, Lee, and Alexander, resigned their commissions, all three later becoming generals in the Confederate army. James Birdseye McPherson, in contrast with them, wrote Washington volunteering his services and describing the local mood:

> The intelligence that the "Confederate States" have commenced hostilities against the General Government, and threatened to sieze the Federal Capital, has arroused [sic] a feeling of Patriotism in the breast of every true and loyal citizen. The Union element of this state, irrespective of party, has come out in the most decided manner . . . and today there is one of the grandest and most enthusiastic "Union Demonstrations" in this city that I have ever witnessed. So that I think there is no danger to be apprehended on this coast. . . .
>
> I wish you, and also the Department to understand that I am ready & anxious to go wherever I can be of the most service.[75]

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74. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, July 27, 1860, to De Russy, and Apr. 16, 1861, to Totten; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 32, Totten, Mar. 9, 1861, to McPherson.

75. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, May 11, 1861, to Wright. Kinnard, p. 231, agrees that an overwhelming percentage of Californians supported the Union. He suggests that the Republicans exaggerated reports about the number of Southerners living on the Pacific Coast so that they could give credit to Thomas Star King and Edward Dickinson Baker for saving California for the Union. That there were some secessionists in San Francisco will be noted in a later chapter.

Lieutenant McPherson left California on August 1, destined for fame and death. Replacing him in charge at Alcatraz, as well as Fort Point, was 1st Lt. George Henry Elliot. Colonel De Russy returned to California in December 1861 and assumed control over both Fort Point and Alcatraz Island, leaving Elliot in immediate charge of the works, but as his assistant. In March 1862 Elliot was freed from the aged De Russy's supervision and from then on reported directly to Totten.[76]

E. Civil War, Lieutenant Elliot, and Alcatraz

1. Alcatraz's Armament

In the autumn of 1861 Elliot wrote Totten expressing his concern about the possibility of a foreign power, particularly Great Britain, going to war with the United States and attacking Pacific Coast ports:

> Should there be a danger of war with a foreign power (of which, it seems to us, here, there is a possibility) I conceive it to be absolutely necessary, that not only the fortifications in this harbor, but those for the defence of Puget Sound and the Columbia River, should be constructed without delay. . . .
>
> . . . The British have recently strongly increased their naval forces at Vancouver's Island, and I have heard within a few days that an additional regiment has been ordered from China for the re-enforcement of the land forces there.[77]

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76. NA, RG 77, OCE, Letters Received 1838-1866, McPherson, Aug. 30, 1861, to Totten, De Russy, Dec. 6, 1861, to Totten, and Elliot, Mar. 31, 1862, to Totten; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 33, Totten, Jan. 27, 1862, to De Russy. George Henry Elliot was a native of Massachusetts. He graduated from West Point in 1855, fourth in his class. He spent the Civil War on the Pacific Coast, thus missing the opportunity of fast promotions on the battlefield. He retired in 1895 with the rank of colonel and died in 1900. Heitman, 1:104.

77. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Sept. 12, 1861, to Totten.

At this same time, Totten requested status of the armament at Alcatraz, not because of a particular concern over British naval power, but as an updating of all coastal fortifications. Elliot responded stating that the island then had 77 guns mounted, 3 additional guns with carriages and 2 mortars with beds ready to be mounted, and 6 more guns still without carriages, for a total of 86 guns and 2 mortars. This total probably included an 8-inch columbiad in North Battery that had burst a few days earlier during practice firing, the iron fragments damaging the columbiad next to it. A summary of Elliot's report follows:

Mounted

North Battery	4	42-pounders, barbette, on right of caponier
	17	8-inch columbiads, barbette on left of caponier
	2	10-inch columbiads, barbette, on left of caponier
	8	24-pounder flank howitzers in caponier
	1	8-inch columbiad on terreplein of caponier
Three-Gun Battery (now called Southeast Battery)	3	8-inch columbiads, barbette
South Battery	7	8-inch columbiads, barbette, on left of caponier
	2	10-inch columbiads, barbette, on left of caponier
	9	8-inch columbiads, barbette, on right of caponier
	4	10-inch columbiads, barbette, on right of caponier
	8	24-pounder flank howitzers in caponier
	1	8-inch columbiad on terreplein of caponier
West Battery	8	42-pounders, barbette
	1	8-inch columbiad, barbette

On top of island, 2 24-pounder siege guns south of defensive barracks

Unmounted, but with carriages

3 24-pounder flank howitzers, for guardhouse
2 10-inch iron mortars, first mention

Guns without carriages

6 8-inch iron guns, navy

Carriages without guns

5 42-pounder barbette carriages

Gun centers and circles ready for armament

6 columbiad platforms, North Battery (inches not stated)
2 8-inch columbiad platforms, North Battery
1 columbiad platforms, Southeast Battery
7 columbiad platforms, West Battery[78]

Although Alcatraz had an appropriation of $25,000 for this fiscal year, 1862, the chief engineer had withheld most of it for the time being. He had done the same with an additional $25,000 that Congress had appropriated for the island in July 1861.

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78. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 32, Totten, Sept. 9, 1861, to Elliot; Letters Received 1838-1866, Elliot, Oct. 14, 1861, to Totten. In 1976, rangers on Alcatraz discovered a burst gun tube at the base of a cliff near the northwest end of the island.

Finally, in February 1862, Totten advised Elliot to resume the operations "which have been suspended for some time." In this letter he said that changes were required for mounting guns because of the adoption of wrought-iron carriages for all barbette guns, most of which were to be mounted on a front pintle rather than the center pintle (complete circle) as had hitherto been planned for Alcatraz. (Alcatraz's existing guns were mounted on wooden carriages.) He also stated that four emplacements on Alcatraz would be changed so as to mount 15-inch guns (Rodmans); nothing was to be done for now on these big guns because their platforms were not yet "fully determined on."[79]

Elliot did not have the opportunity to implement the instructions contained in this lengthy, detailed letter. Two months later Totten directed him "to suspend all operations on gun traverse circles of all kinds until you hear further from this office." Uncertainties as to the dimensions of the new iron carriages had prevented completion of the detailed drawings for the platforms. Because of this delay, Totten decided that the Alcatraz appropriation should now be expended in constructing one of McPherson's pet projects--a permanent wharf built on iron columns, but of a smaller size than that planned by McPherson. The chief engineer also announced that a recent armament board had decided that Alcatraz's complete armament should be 124 guns and mortars:

4	15-inch guns
85	10-inch guns
12	8-inch guns
15	24-pounder howitzers, casemate
2	13-inch seacoast mortars

79. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 33, Totten, Feb. 28, 1862, to Elliot.

2	10-inch seacoast mortars
2	10-inch siege mortars
2	8-inch siege mortars
124	

He added a postscript saying that if a 13-inch gun then being tested should prove worthy, it would take the place of the eighty-five 10-inch guns scheduled. This message brought work on Alcatraz's fortifications to a complete halt for the remainder of fiscal year 1862.[80]

Elliot's annual report of work accomplished during 1861-1862 was, of necessity, the shortest yet in Alcatraz's history: "Nothing has been done on this Work for want of Funds during the year, beyond the necessary repairs of Wharf and the cutting of the Columbiad platform stones for the Extension North Westward of [West Battery]." However, the lieutenant had several ideas for the future, some old, some new: complete the above battery; construct another battery between West and South batteries; build still another battery of 37 guns on the east side of the island, on either side of the guardhouse; build a permanent prison in the vicinity of the guardhouse; construct additional water cisterns, a permanent storehouse, and a stable; dig a well and supply water by means of a windmill; and construct an additional permanent two-company barracks on the northwest hill. Elliot would achieve a few of these projects.[81]

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80. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 33, Totten, Apr. 28, 1862, to Elliot. The transcontinental telegraph ahd been completed Oct. 26, 1861. Round-trip messages that formerly had taken one month could now be completed in minutes.

81. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Oct. 20, 1862, to Totten.

2. Batteries Named

Fiscal year 1863 witnessed a climax of Civil War-associated activities in San Francisco Bay. On Alcatraz, Elliot rushed forward the completion of the work between West and North batteries and he constructed a new battery between West and South batteries, in the area where his predecessors had long urged a parapet with gun recesses connecting the two. Whether a man of little imagination or for other reasons, Elliot could not come up with any original names for these new works. His correspondence with Washington was a confusing jumble of references to the new undertakings by old terms, mostly "West" and "South," despite the fact that these were already well established names on the island. Totten himself appeared to be somewhat bewildered on reading Elliot's letters. Finally he wrote Elliot requesting him to devise a system of designations for the various batteries, "their number has become so considerable that they require to be distinguished by names."

In later years batteries would be named by the War Department and announced in general orders. Invariably only the names of dead military men would be used. But Elliot was not bound by any traditions in 1863, and he decided to employ the names of engineer officers "who have been distinguished in the present war." His system of nomenclature was definitely an improvement, although it took time for Elliot himself to remember to use the new names.

a. Battery Halleck

This battery consisted of all of the right face and the first 16 positions to the left of the caponier of the former North Battery. It was named in honor of Henry Wager Halleck, a member of the first Board of Engineers for the Pacific Coast, now commander in chief of the army.

b. Battery Rosecrans

This battery consisted of the five positions on the extreme left face of the former North Battery. It was named in honor of the then Maj. Gen. William Starke Rosecrans, Union army.

c. Battery Mansfield

This new 12-gun battery was nearing completion on the northwest peak of the island. It was named for Maj. Gen. Joseph King Fenno Mansfield, who had inspected the works on Alcatraz in the 1850s.

d. Battery Stevens

The new work on this battery consisted of six positions which were stepped like a staircase immediately to the northwest of old West Battery. It was probably named for Maj. Gen. Isaac Ingalls Stevens, formerly an engineer officer and first governor of Washington Territory; killed in the battle of Chantilly, Virginia, in 1862.

e. Battery Tower

This battery consisted of both faces of old West Battery. It was named in honor of Alcatraz's own Zealous Bates Tower, now a brigadier general in the East.

f. Battery McPherson

This battery comprised the four new positions immediately to the southeast of Battery Tower. It was also named for a former Alcatraz engineer, now Maj. Gen. James Birdseye McPherson. (Why Elliot decided to split the eight guns of this new work between Battery McPherson [four] and Battery McClellan [four] is not at all clear).

g. Battery McClellan

This battery consisted all of old South Battery and the adjacent four emplacements of the new work between former West and South batteries. It was named in honor of Maj. Gen. George Brinton McClellan, Halleck's predecessor as commander in chief of the army.

h. Battery Prime

This battery was formerly the old Three-Gun or Southeast Battery. It was named, of course, for Alcatraz's Lt. Frederick Edward Prime, now a captain in the East.[82]

3. Alarms and Scares

Brig. Gen. George Wright, commanding the Department of the Pacific, became most concerned about the status of the defenses of San Francisco Bay in January 1863. The Confederate cruiser Alabama was wreaking havoc somewhere on the high seas, perhaps even then sailing toward San Francisco. He notified the adjutant general of the army on January 31: "Apprehensions [are] entertained that enemy steamers may threaten harbor of San Francisco. Troops in forts on the alert. War steamers necessary to co-operate with forts in harbor. No Government vessels at San Francisco." The commanding officer on Alcatraz received orders from the general to assemble his men at their assigned posts where they were to remain day and night, ready to act on any emergency: "The guns . . . should be arranged for instant use."

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82. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 35, Totten, May 13, 1863, to Elliot; NA, RG 77, OCE, Letters Received 1838-1866, Elliot, June 13, 1863, to Totten; NA, Cartographic Div., RG 77, Fortifications File, Drawer 95-49, map, "Alcatraces Island . . . A System of designations for existing batteries," June 13, 1863.

Wright also put great pressure on De Russy to increase the number of batteries; he wanted temporary works on Angel Island, Point San Jose, Point Rincon, and on Yerba Buena Island. The general was impatient with the engineers' need to correspond with Totten on every detail, and it irritated him that De Russy and Elliot reported directly to the chief engineer and not through him as commanding general. Nevertheless, the engineers made every effort to accommodate the general's desires and to cooperate with him fully.

In March a fresh wave of worry and excitement swept over San Francisco. For several weeks rumors had swept around the bay that Confederates were attempting to outfit commerce raiders in either San Francisco Harbor or Puget Sound. Attention centered on one particular schooner, Chapman. She eventually cleared the San Francisco customhouse, supposedly with an assorted cargo and no passengers, sailing for Manzanillo, Mexico. After the schooner got underway, an armed party of sailors from the tired old U.S.S. Cyane, which was helping to guard the harbor, seized the Chapman and towed her to Alcatraz. The boarders found 15 men (in addition to the crew), cannon, and munitions on board, intent on going to sea as a commerce raider for the South. The army imprisoned the captives on Alcatraz Island.

The successful seizure of the Chapman eased public concern in San Francisco considerably. General Wright notified Washington in April that apprehensions had greatly subsided. While he still wanted the additional fortifications for the bay, he was satisfied that his command had prepared for an enemy attack to the extent the resources allowed: "I have lately made a thorough inspection of the forts and defenses of the harbor of this city, and

find that the arrangements to meet any emergency as far as practicably are perfect."[83]

4. Columbiads No Good

Wright's optimism was not well placed. Lieutenant Elliot had already informed the chief engineer that few of the 47 mounted columbiads were really serviceable. Referring to the 8-inch columbiad that had burst some time ago in old North Battery, he wrote: "A large proportion of the Columbiads now in position can hardly be called serviceable, for the Ordnance Dept. several years ago directed that they be used only as shell guns and with reduced charges. They belong to a lot made at Boston which passed the inspection and were afterwards condemned." Wanting to know more about these weapons, Elliot wrote the ordnance officer at Benicia Arsenal requesting additional information. That officer replied that the columbiads on the Pacific Coast had a bad name. Several similar guns from the same foundry and of the same year had already burst on the East Coast. A series of experiments with them had ended with the conclusion that they be used only as shell guns, "the use they were originally intended for by Col Bomford of our Army and Col. Daixhan of Europe." He advised Elliot not to experiment with the 10-inch columbiads, especially with heavy charges:

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83. NA, RG 77, OCE, Letters Received 1838-1866, Wright, Apr. 8, 1863, to De Russy, and De Russy, Apr. 11, 1863, to Wright, Apr. 15, 1863, to Elliot, and Apr. 21, 1863, to Totten; [U.S. Congress], Official Records, vol. 50, pt. 2, p. 355 (AAG R. Drum, Dept. of the Pac., Mar. 16, 1863, to CO, Alcatraz), pp. 363-64 (Wright, Mar. 24, 1863, to Brig. Gen. L. Thomas, AG, USA), and pp. 391-92 (Wright, Apr. 14, 1863, to Thomas).

> I have fired a good 10 inch Columbiad one Thousand times with solid shot and 20 lbs of powder, and then fired the Columbiad with the regular proof charges, all this without producing any great enlargement of the bore and simply rebushing after the 600th fire. This gun was cast at the Richmond Foundry and gave a low tensile strength for gun iron. The guns in the harbor [of San Francisco] are from Algiers & West Point Foundries if I remember aright, and they carried their iron too high the year in which they were cast destroying a portion of the fibre.

He added another reason for not firing: A "rebel Pacific privateer" could cut off San Francisco's source of supply of ammunition at any moment. Ammunition should be hoarded against that possibility.

Elliot, now thoroughly alarmed, complained to Totten that many of the platforms in the older batteries had never been armed; of course, none of the new 26 positions had weapons. This combined with the poor quality of the existing guns presented a bleak outlook. Making a jab at De Russy's efforts at Fort Point, Elliot concluded: "The other fort in this harbor has two entire tiers unoccupied, and only a portion of a third is filled with guns of the same description."[84]

5. Gold, Legal Tender, and a Strike

Another crisis of the times that bothered both Elliot and De Russy was the matter of legal tender notes versus gold and silver coins. Elliot explained to Totten that gold and silver were the currency of the state and that California merchants raised prices of goods from 15 to 20 percent when the engineers attempted

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84. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Feb. 13 and Mar. 20, 1863, to Totten. The latter contained a copy of a letter, Capt. Julian McAlister, Ord., Benicia Arsenal, Mar. 7, 1863, to Elliot.

to pay in notes. He gave a graphic example of the system by describing his recent attempt to purchase bricks and cement: "The best terms I could get were $3.60 in gold per bbl for cement and $12 per M in gold for bricks, or $4.25 in paper for cement and $14.46 in paper for bricks, making a difference to the U.S. for the quantities I wished to purchase of $1146.00." Elliot thought that the supply of gold in the sub-treasury could be maintained at a level sufficient for the needs of the engineers; however, the treasurer of the United States apparently felt otherwise.

Elliot's growing army of civilian employees on Alcatraz also felt the pinch. He paid a mechanic $4 per day in notes which, as far as the mechanic was concerned, came to $2.40 in purchasing value. Usually, Elliot was able to obtain coin to pay wages; but on two recent paydays he had had to deal in notes. He asked permission to increase wages should the latter happen again. In April 1863 the War Department arranged with Treasury for the Pacific Coast engineers to pay their employees in coin. But, in the end, the Treasury Department could not meet the commitment and rescinded the arrangement. Totten attempted to relieve De Russy's and Elliot's embarrassment by authorizing them to raise wages (in notes) by 25 percent. The engineers called their employees together, informed them of Totten's offer, and watched with consternation as their entire crews walked off the job.

Totten brought this news to the attention of Secretary of War Stanton, who immediately authorized the payment of laborers and mechanics at the regular San Francisco wages. There was one restriction though: The engineers were not to advance wages as other federal agencies seemed to be doing. The workmen returned to their jobs after a ten-day walkout, all except stonecutters. Elliot explained that there was a temporary shortage of

these craftsmen in San Francisco. He was certain they too would return shortly without any further yielding to their demands.[85]

For years, the engineers at Alcatraz had been urging the construction of a new, permanent wharf at Alcatraz. It will be recalled that Totten had finally authorized this project in lieu of further work on setting gun platforms. He must have acted with surprise, or relief, or both, when he received a letter from Elliot saying that a new wharf was not needed after all. Elliot had examined the wharf "by submarine devices" and had found, instead of solid rock for the iron piers, that the bottom was covered with from 5 to 10 feet of loose rock, mud, and debris, all from cutting down the cliffs. The wooden piles, he learned, were for the most part sound and good. Only some upper timbers required replacing. The repairs, when carried out, cost only $1,500. With that out of the way, Elliot returned his attention to the fortifications.[86]

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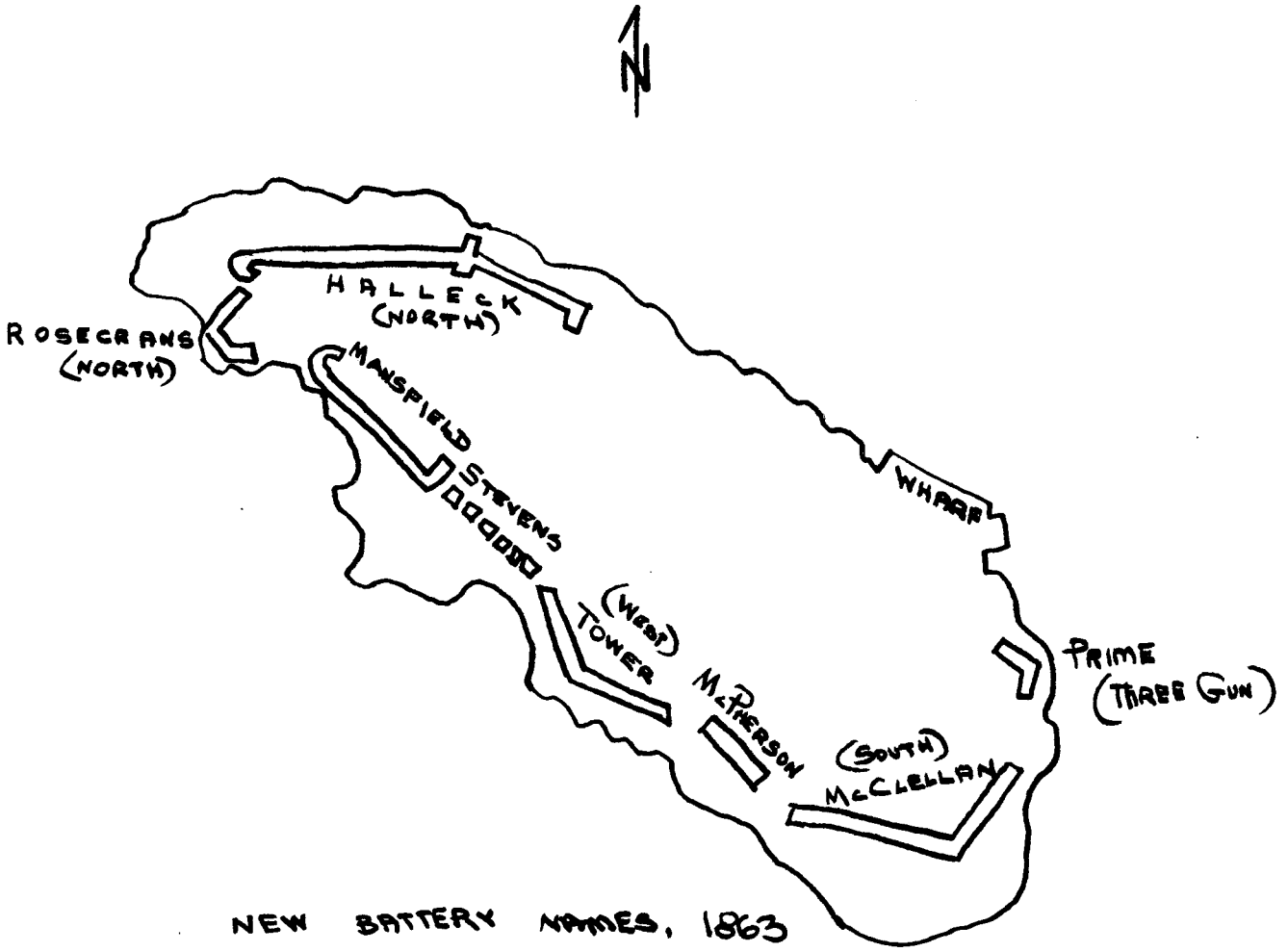
85. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Dec. 24, 1862, and Jan. 17, May 16, and July 6, 1863, to Totten; De Russy, June 24, 1863, to Totten; Letters to Officers of Engrs., vol. 35, Totten, June 16, and 26, 1863, to De Russy. In May 1863, Elliot had the following employees: 1 master mason, 1 foreman mason, 17 brick masons, 5 stonecutters, 3 carpenters, 1 blacksmith, 1 foreman of labor, 1 captain of sloop, 1 seaman, 1 coxswain, 4 boatmen, 83 laborers, and 1 clerk.

86. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Sept. 2, 1862, to Totten.



NEW BATTERY NAMES, 1863

III. The Years of Transition, 1863-1869

A. New Armament

A large amount of correspondence passed between Totten and Elliot in fiscal year 1863 concerning the batteries and the new-type stone platforms. These letters contained infinite detail concerning angles, measurements, platform stones, and so forth. Totten may now have been a brigadier general (March 3, 1863), chief of engineers, and responsible for all engineering activities in a vast civil war, but he was never too busy to write Elliot long letters that paid close attention to the smallest aspect of Alcatraz's fortifications. To recount all these communications here would be painful for reader and writer alike. It will suffice for the purposes at hand to summarize the highlights of the year's construction and Elliot's proposals for the future.

Fortification construction concentrated on the six emplacements and magazine for Battery Stevens, and the eight guns and magazine that would comprise both Battery McPherson and the right flank of Battery McClellan. By the end of June 1863, the projects had been fully completed except for the laying of the front-pintle stone platforms and mounting the 8-inch and 10-inch guns "of the new model." The elaborate scarp wall that fronted Battery McClellan (South Battery) was not copied for these new works. Most of the scarp was simply earthen embankments. Where the terrain demanded something more, Elliot built either dry rubble walls or, on occasion, low brick and concrete scarps. Here and there along the slopes, he had short retaining walls of stone or brick erected where the cliffs were too steep to hold the earth. Some of these retaining walls are still to be seen.

During the year, Totten concluded that there was adequate space in the batteries on the island for only two 15-inch guns, rather than the four originally contemplated. One of these

would be located at the northwest end of Battery Mansfield; the other would stand at the salient angle of Battery Tower. The other two locations (the extreme western end of Battery McClellan and the fourth position in Battery Prime) would be designed so as to mount 300-pounder Parrott rifles.[1]

Elliot's one stonecutter made all the sills, lintels, lock blocks, and steps for the magazines. He also dressed the scarce slates used as drain covers. The brick masons kept busy on the magazines and the retaining walls. Elliot noted that sentinels had worn paths on the parapets, and the great winds that swept the island were blowing away the light soil. He had the entire surfaces of these parapets made over, adding earth where necessary and sowing Kentucky bluegrass over the surfaces. When it came time to place the scheduled flagging on top of the breast-height walls in order to support the slopes of the new batteries, Elliot discovered that it was both scarce and costly in San Francisco. He proposed to substitute iron plates held in place with angle irons. These plates could readily be removed in time of battle. Totten thought this to be an excellent idea, subject to some changes in design, and they were installed.

Later, this concept of topping a breast-height wall was extended to some other batteries, including the 15-inch gun position in Battery Mansfield.[2]

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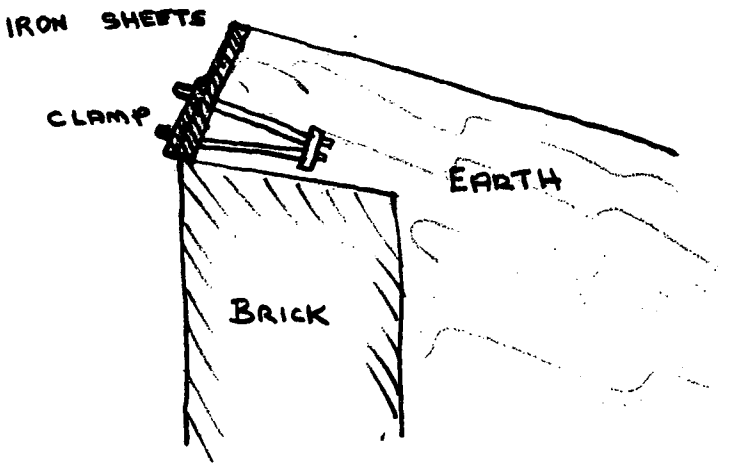
1. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, July 6, 1863, to Totten; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 35, Totten, Apr. 16, 1863, to Captain Elliot. Elliot had been promoted in March.

2. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Nov. 6 and 13, 1862, and Feb. 4, and Mar. 14, 1863, to Totten; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 35, to Totten, June 16, 1863, to Elliot.



As early as May 1862, Totten sent Elliot plans and detailed instructions for the construction of front-pintle and center-pintle stone platforms for 8-inch and 10-inch guns of the newest model, mounted on the new iron carriages, with an angle of depression of 6 degrees. There were to be 6 front-pintle and 2 center-pintle platforms in the new eight-gun work (McClellan/McPherson), and 11 front-pintle platforms in new Battery Mansfield. The six positions in Battery Stevens were to be center-pintle. Totten said that guns of the old pattern and mounted on the old wooden carriages could also be mounted on these front-pintle platforms, but their angle of depression would be only 4 degrees. Later, noting that Elliot already had on hand a great deal of material already prepared for the older-style center-pintle stone platforms, Totten said that he should prepare to build on the older pattern. He then proceeded to write several pages of instructions on how to strengthen the platforms so they would be strong enough for large-caliber guns. Later, Totten had to admit that the Ordnance Department had decided not to build new-type center-pintle carriages for either 8-inch or 10-inch guns; thus, the old-pattern platforms would definitely be used. These, he said, could accommodate "the old wooden carriages, and also Mr. Parrott's 100, 200 & 300 pounders mounted on his centre pintle carriage." Finally, in

February 1863, the chief of engineers prepared a circular for the mounting of 15-inch guns, in magnificient detail as usual.[3]

B. Water

The quartermaster general, charged with supplying the troops on Alcatraz, informed the engineers in 1862 that the capacity of the underground water cisterns on the southeast side of the Citadel was insufficient for the large number of troops then on the island. He complained, too, of the great cost of transporting the water by boat. Totten ordered Elliot to prepare a project for enlarging the cisterns and to investigate the cost to the government of laying a water pipe, under the bay, from San Francisco to Alcatraz. Elliot reported that the Citadel cisterns held 54,000 gallons of water, and temporary cisterns on the island erected by the Quartermaster Department contained an additional 36,000 gallons. He estimated that Alcatraz required a reservoir of 182,000 gallons in order to have a wartime reserve for 500 men for six months. He recommended additional cisterns on the southeastern side of the Citadel and others on the eastern end of the building, between the counterscarp and the retaining wall. Totten approved the project, adding still more cisterns. In his annual report Elliot said he had constructed these cisterns, which had a capacity of 175,000 gallons. He also laid a 2½-inch pipe from the wharf to the cisterns. The steamer that delivered the water used her pumps to force the water to the top of the island.

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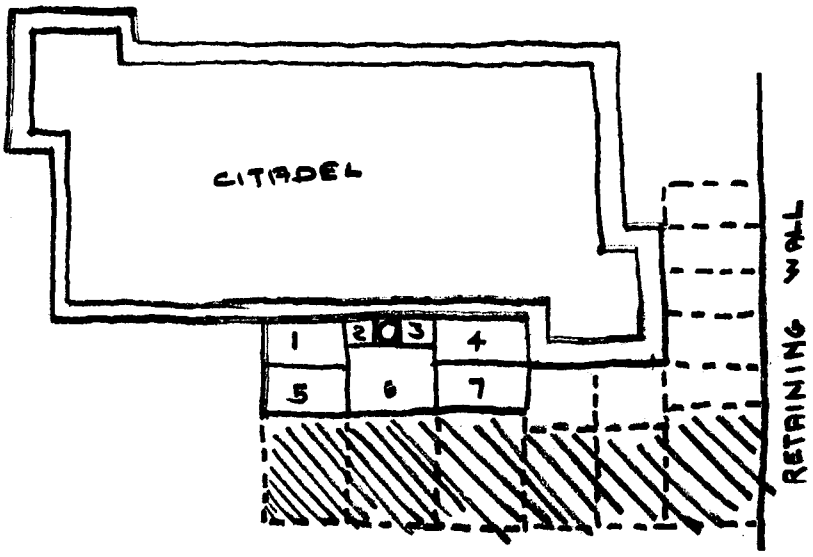
3. NA, RG 77, OCE, Letters to Officers of Engrs., vols. 33-35, Totten, May 19 and Dec. 16, 1862, and Mar. 6, 1863, to Elliot, and Totten, Feb. 25, 1863, Circular 18/97. In 1864, the Engineer Department prepared plans for adapting center-pintle platforms for a new iron chassis that the Ordnance Department did construct.

Elliot recommended that the government not undertake to lay a water pipe from the mainland. He had serious doubts that it could be successfully laid without accident and heavy expenses. Also, he was certain that ships' anchors would be a constant danger to the pipe. However, if such a system was thought to be essential, a certain A. W. Von Schmidt had proposed to lay one at his own expense if he could have a ten-year contract to supply



1-7 existing cisterns
additions proposed by Elliot
additions suggested by Totten

water to Alcatraz at six dollars per 1,000 gallons (water in San Francisco cost 75 cents per 1,000 gallons).

Elliot added that he had investigated the possibility of boring an artesian well on Alcatraz, but the island rock was too hard for such an undertaking (an opinion that surprised Totten greatly). However, water experts in San Francisco thought a

common well, 6 feet in diameter, could be sunk and that water would probably be found at a depth not greater than 225 feet. Since the wind blew for three-quarters of the year, a windmill could be employed to raise the water.[4]

C. Armament Report, June 1863

As part of his annual report, Elliot submitted a summary of Alcatraz's armament as of June 30, 1863:

Platforms without guns mounted

14 center-pintle stone platforms

Guns mounted

3	8-inch columbiads, center-pintle stone platforms
37	8-inch columbiads, center-pintle wood platforms
8	10-inch columbiads, center-pintle wood platforms
12	42-pounders, front-pintle stone platforms
19	24-pounder flank howitzers in casemates
2	24-pounder siege guns on siege carriages
81	

Ordnance on hand, not mounted

6	8-inch shell guns, navy pattern
5	42-pounder front-pintle carriages
2	10-inch mortars, with beds and carriages

4. NA, RG 77, OCE, Letters to Officers of Engrs., vols. 33 and 34, Totten, Apr. 28, and Dec. 16, 1862, to Elliot; NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Aug. 19, 1862, and May 12 and July 6, 1863, to Totten.

Presently under construction

8 center-pintle stone platforms, for Parrott guns or 8-inch and 10-inch columbiads
17 front-pintle stone platforms, new pattern
1 platform for a 15-inch gun

Although his listing was impressive, Elliot reminded Totten that the columbiads were really not serviceable.[5]

D. Modernization

1. Earth versus Masonry

Captain Elliot, far removed from the fast promotions and glories of the battlefield, must nevertheless have paid close attention to dispatches from the East. As an engineer he would have been intensely interested in the fate of coastal fortifications along the Atlantic. Before the Civil War, the vertically walled masonry casemated forts were believed to be the best possible means of defense against ships of war. Their very strength could withstand an enemy's bombardment or siege. Their great number of guns could concentrate a devastating fire on any vessel that came within range. The Civil War changed that thinking. Steam propulsion, ironclads, large-caliber rifled and smoothbore guns, increased muzzle velocity, and other advances in the delivery of firepower would make the masonry forts of the Third American System obsolete by 1865.

One of the more dramatic illustrations early in the war of the demise of masonry forts was the Union attack on Fort

5. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Sept. 3, 1863, to Totten. This report appears to contain an error; the three flank howitzers for the guardhouse still were not mounted.

Pulaski, Georgia, in April 1862. Union land forces bombarded the fort with rifled guns, smoothbores, and mortars, the rifled guns opening great breeches in the scarp. On the second day the fort surrendered.

Elliot, in San Francisco, never mentioned these developments in his correspondence with Totten; nor did the chief of engineers offer much advice in this matter except for directing the use of greater amounts of earth and less masonry in the scarps of the new batteries, especially for the 15-inch gun emplacement then under construction. However, in June 1863, Elliot proposed a modification of Battery Tower that forecast the post-Civil War fortifications on Alcatraz, which were entirely rebuilt with the lessons of the war in mind.

> I have thought it might be well, while constructing the platform & parapet for the 15" Gun in the Salient of Battery Tower, to continue the earthen embankment in front of the scarp. . . . The Scarps of this battery are constructed of Sand Stone facing . . . and appear to be in good order. The height of the Scarp varies from 2 to 16' and . . . I think the thickness to be rather thin to resist the projectiles which are now used, one Section of 5' height shows a thickness of 3'. The earthen embankments which I propose will prevent in a manner the breaking of these scarps. . . . I would increase the thickness from 15 to 16'.[6]

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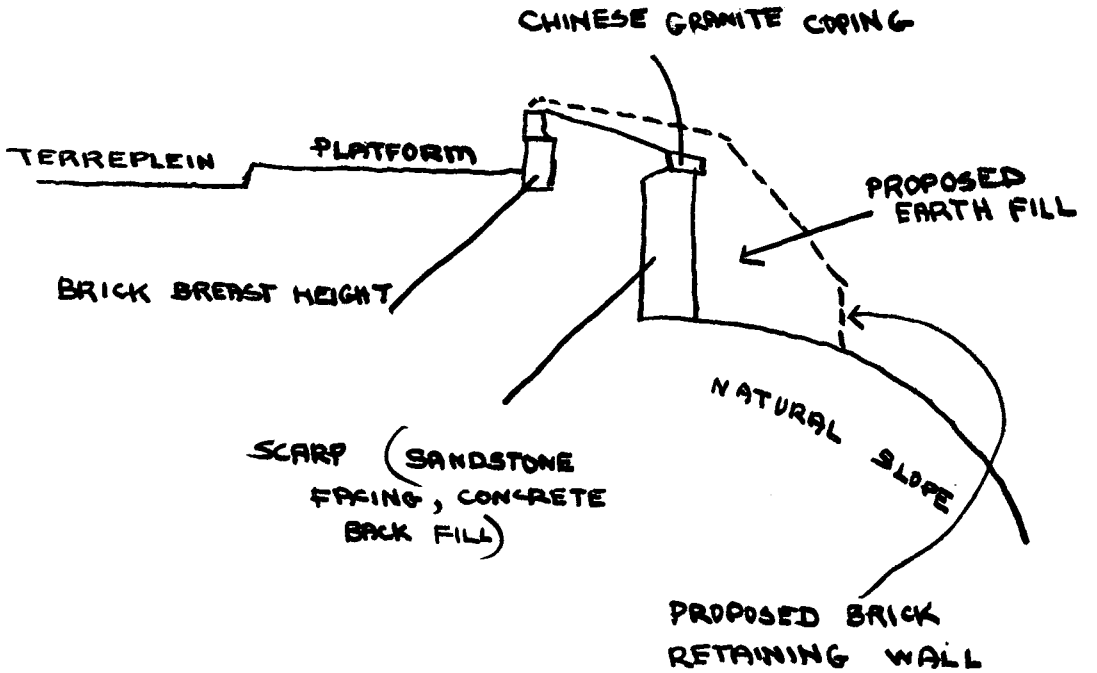
6. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, June 13, 1863, to Totten; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 35, Totten, July 27, 1863, to Elliot.



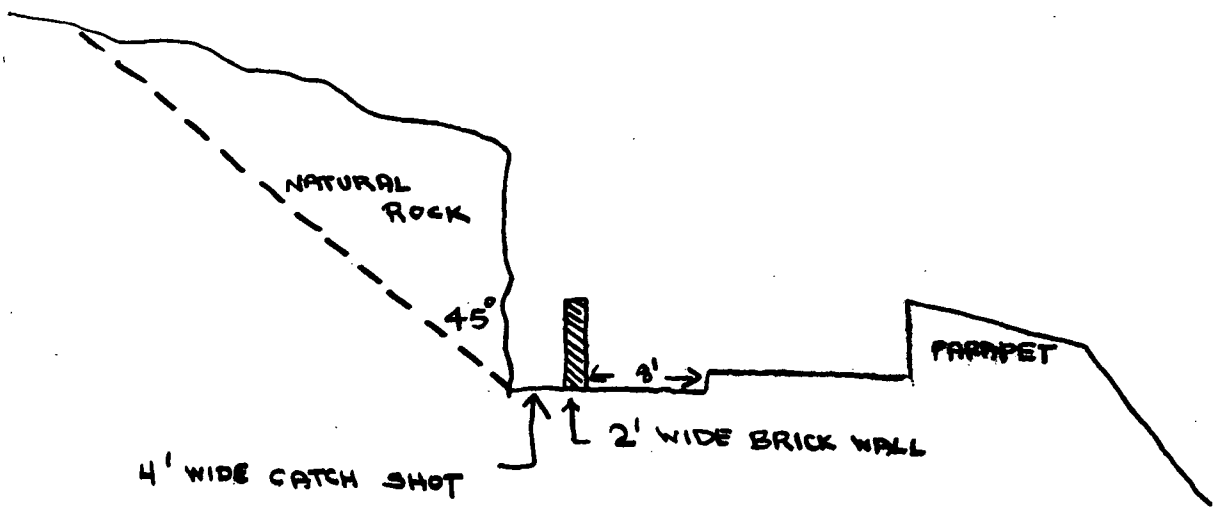
In April 1863 Elliot received word that Alcatraz's appropriation for fiscal year 1864 would be no less than $200,000. While he had to travel north in the summer of 1863 to erect temporary fortifications at the mouth of the Columbia River, he had a multitude of proposals for the island. In addition to strengthening Batteries Tower and McClelland, he was quite concerned about the fact that an enemy party could land any place in front of Battery McClellan from its extreme eastern end to the wing wall toward the west. Because of the accessibility of this slope, the Alcatraz garrison had to post a strong guard there--because of a continuing concern that southern sympathizers in the area might attempt to land, as well as Confederate raiders from the Pacific.

He also proposed a similar treatment for that part of Battery McClellan immediately to the west of the angle wall. Here, as in a section of Battery Tower, it would be necessary to build a small brick retaining wall at the base of the earthen fill to prevent it from sliding off. Elliot said he planned to paint the brick a color similar to the earthen bank so as to make it less conspicuous.

(This brick retaining wall, as well as the stone angle wall, are still to be seen at Alcatraz.) Totten quickly approved, suggesting that the Chinese granite coping on top of the scarp be removed for use elsewhere on the island.

2. Improving the Batteries

Another proposal at this time came about because of complaints of artillery officers on the island. Some of the batteries, particularly Tower and Halleck, had high vertical natural rock banks rising at their rears. If an enemy projectile hit this wall, it would drop back down onto the terreplein causing many casualties. The post officers informed Elliot that because of this condition at Battery Tower "they would either not man this battery at all, or would not do so till they found that other Guns bearing upon the enemy failed to stop his progress." Elliot now proposed to slope these banks at an angle of 45 degrees, to have a "catch shot" 4 feet wide at the bottom, and to construct a 2-foot-wide brick wall in front of the catch shot to prevent splintering shells from wreaking havoc among the cannoneers.



Among the other projects Elliot wanted to undertake were additional guns on the northeastern side of the island, an additional permanent barracks, enlargements of the military prison, permanent storehouses, and improved hospital facilities.[7]

While Elliot was absent on the Columbia River in 1863, General Wright, still commanding the Department of the Pacific, wrote increasingly angry letters to the War Department about the delays in getting temporary batteries built in San Francisco Bay. Confederate raiders in the Pacific were still a rumored threat, and Wright fumed that the engineers spent months doing nothing but drawing profiles: "While we are meditating some morning, the first thing we shall know will be the enemy's guns thundering against the city." To encourage De Russy to speed things up Wright ordered his staff engineer, Maj. Robert S. Williamson, to report to him to help in the construction of temporary fortifications. De Russy detailed Williamson to Alcatraz to supervise the works there until Elliot's return in October 1863.[8]

3. New Guns

In October, De Russy learned that the Ordnance Department was able to turn its attention to the armament needs of the Pacific Coast. The defenses of San Francisco were to receive ten 10-inch, eight 8-inch, and two 15-inch Rodmans, together with their carriages, implements, equipments, and ammunition; and twelve 42-pounder rifled guns, with carriages, implements, and

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7. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 35, Totten, Apr. 15, 1863, to De Russy; NA, RG 77, OCE, Letters Received 1838-1866, Elliot, June 13 and July 6, 1863, to Totten.

8. [U.S. Congress], The War of the Rebellion, series 1, vol. 50, pt. 2, p. 599 (Wright, Aug. 31, 1863, to Townsend), and p. 609, (AAG R. C. Drum, SO 204, Headquarters, Dept. of the Pac., Sept. 8, 1863).

equipments, but the ammunition would arrive later. The two 15-inch Rodmans, both destined for Alcatraz, would be the first guns of this type to be mounted on the Pacific Coast.

Elliot, no doubt pleased by this news, now became concerned that the Alcatraz wharf was not strong enough to receive the heavy guns. He had earlier told Totten that the wharf was quite sound, and it must have been with some embarrassment that he wrote that sea worms had been unusually active the past year and the wooden piles were much decayed. With regard to the 8 feet of muck and debris that covered solid rock under the wharf, Elliot proposed to rebuild the wharf employing iron screw piles that could be manufactured in San Francisco. Totten, apparently amused at Elliot's sudden change of mind, responded: "I have little to say on so much of your letter of Feby 5, as relates to repairs of the wharf at Alcatraz." The grand old chief died shortly after writing this. Elliot would have his wharf in repair for the arrival of the 15-inch guns. The delivery of the new armament was but haphazardly recorded. It is known that the four 8-inch Rodmans scheduled for Alcatraz arrived on the island in April 1864. The carriages for the six 42-pounder rifles arrived in June, but the guns themselves were delayed until March 1865. Excitement must have run high on the June day in 1864 when the two 15-inch Rodmans reached the Rock.[9]

Throughout 1863-1864, laborers excavated the rock banks behind the several batteries to reduce them to the desired

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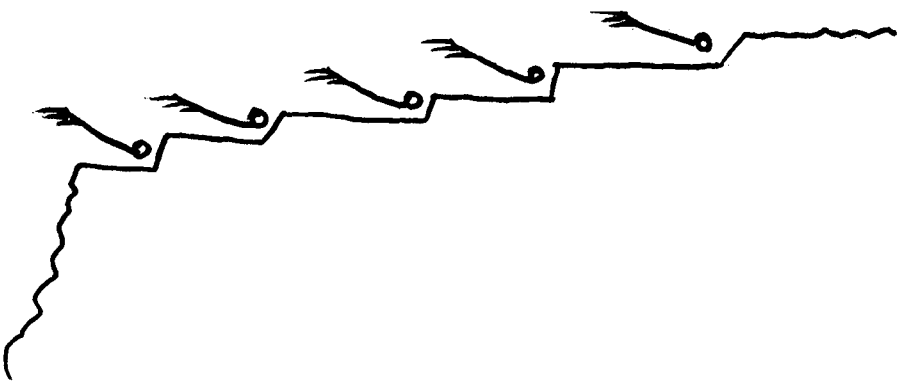
9. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 36, Maj. J. C. Woodruff, Oct, 8, 1863, to De Russy; NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Feb. 5, Apr. 13, and Apr. 21, 1864, to Totten, and July 11, 1864, and Mar. 8, 1865, to Brig. Gen. Richard Delafield, Chief of Engrs.

45-degree slope. Elliot, considering the mass of rock and rubble, proposed to throw it over the parapet of Battery McClellan so as to strengthen its 20-foot-tall scarp wall, as was being done at Battery Tower. The chief of engineers approved this project as he did two others: strengthening the walls of the magazine for Battery Tower, and erecting a traverse before its entrance, and reducing a point of rock that lay before and restricted the fire of some of the guns in Tower's right flank. For this last, Totten instructed that the cliff be stepped so as to "reflect missiles." He added a drawing showing the effect he desired.[10]



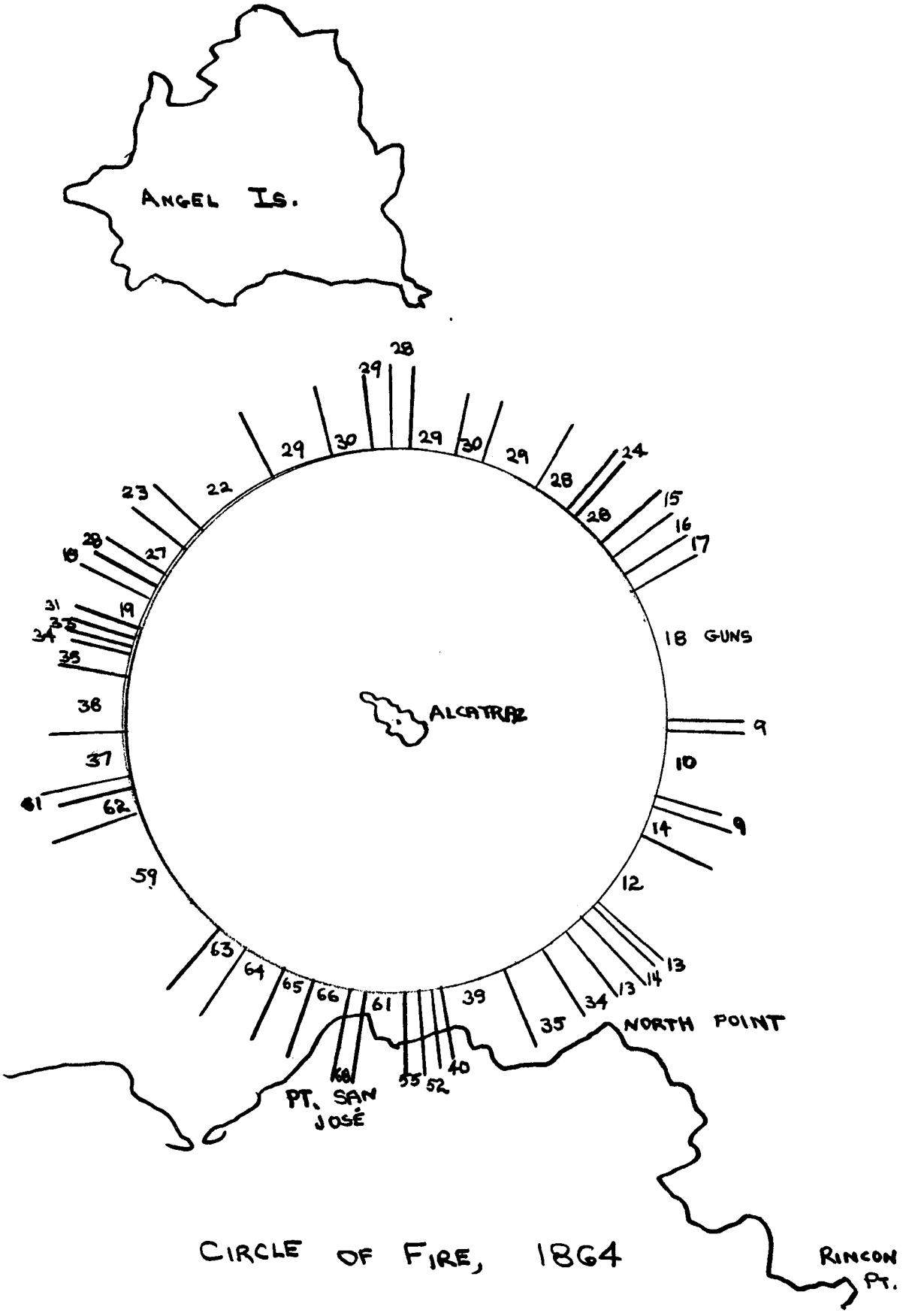
10. NA, RG 77, OCE, Letters Sent 1838-1866, Elliot, Feb. 2, 1864, to Tower; NA RG 77, OCE, Letters to Officers of Engrs., vol 36, Totten, Mar. 16, 1864, to Elliot.

In May 1864, Elliot prepared a "Circle of Fire" for Alcatraz's batteries as then constructed. He pointed out that the smallest amount of fire was in a southeasterly direction, toward Blossom Rock. He knew that Totten had been concerned about this weakness before his death, and he hoped his drawing would be helpful to the Department in devising a plan to overcome the deficiency. In the succeeding months several plans for this area were devised by both Elliot and Washington. They included a new battery high on the hill, an extension of Battery Prime, and replacing Prime with a 15-inch gun. However, nothing would be done at this location for a number of years.[11]

4. A Multitude of Tasks, 1864

The large appropriation of this year allowed Elliot to employ a sizeable work force on the various projects. The payroll for January 1864 included a master mason, 7 stonecutters, a carpenter, 2 blacksmiths, a boat crew, and 59 laborers. The engineer purchased but few finished articles in San Francisco; his craftsmen manufactured everything from ventilator doors and copper hinges for the magazines to iron gratings for the prison windows. They cut and set stone for the permanent platforms in Batteries Stevens, McPherson, and Mansfield. The blacksmiths made the ironwork for the platforms. Laborers whitewashed the engineer buildings and repaved the bottom of the ditch around the Citadel. The huge earthen parapet around the 15-inch-gun position in Battery Mansfield took shape, and the stonemasons prepared its platform. The carpenter relocated the fog bell at the southeast end of the island because of the escarping of the cliff there. Elliot, undoubtedly pleased with the progress of the works, must have been

11. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, May 5, 1864, to Woodruff.



CIRCLE OF FIRE, 1864

happy to learn that Alcatraz's appropriation for fiscal year 1865 was $90,000.[12]

5. Photograph Flap

In early summer 1864, Elliot made a short visit to the new works at the mouth of the Columbia River. While he was absent, the post commander on Alcatraz, Capt. William A. Winder, gave permission to a commercial photographer in San Francisco, Bradley and Rulofson, to photograph the batteries and the buildings on the island. Fortunately for him, as it turned out, Winder got the approval of De Russy over at Fort Point for this undertaking. When Elliot returned from Oregon, the photographs had been produced. He promptly wrote the chief of engineers describing the undertaking:

> I have thought that you would be glad to obtain copies to illustrate the condition and the progress [of the works] . . . and I append a list, and include two specimen copies (sterio scopic size). The price asked is $200 in Notes for the entire series which is rather less than $100 of the currency of this coast. . . . The entire number of views is about 50. The views enclosed show a part of the work I was carrying on at the time, viz No. 1. Remodeling the Magazine in battery Tower, decreasing the inclination of the superior slope of the parapet, and putting Iron plates on the Breast high wall, and No. 2 filling outside the old scarp so as to strengthen the parapet in

12. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Aug. 31, Sept. 7, and Nov. 7, 1863, and Jan. 16, Feb. 5, Apr. 13, May 5, and July 11, 1864, to Totten and Delafield; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 37, Delafield, July 28, 1864, to Elliot.

battery McClellan. . . . Had I been here there are some [other] views which I would have suggested.

List [incomplete]

The Barracks [Citadel?]
Light House
Mortar Battery [first mention that the mortars had been emplaced]
Battery Prime and [South] Caponire
Battery McPherson
Battery Rosecrans
View of side of Island (under Battery Mansfield)
View of side of Island (showing part of Battery Rosecrans)
Battery Mansfield
Battery Halleck
Battery Stevens
Battery Prime from the North
Battery Prime from the West
North view of Barracks
View of same showing Parade ground and Engineers & Adjutants Offices
South view of Battery McPherson
North view of Battery Tower
View of Battery McClellan, Soldiers Quarters, & Caponiere
View showing Battery Tower and City of San Francisco in distance
View of Battery Rosecrans and Bay towards Saucalito
View of Battery Halleck and Angel Island
View of wharf

Elliot's happy letter caused an explosion in the War Department. Chief of Engineers Delafield telegraphed him that such views were

strictly prohibited and that no person should be allowed to have them: "You will immediately advise with Colonel De Russy to the end that they be instantly suppressed." On the same day Commander In Chief Halleck notified the new commander of the Department of the Pacific, Maj. Gen. Irvin McDowell, that the secretary of war had ordered the photographs to be suppressed. Four days later McDowell replied that "the provost-marshal-general has all the negatives and all the copies, except those [two] Captain Elliot sent to the Engineer Department."

The incident continued to produce a shower of letters for the rest of 1864. In December McDowell told Halleck that Winder was a loyal American and a good man. At Winder's own request, Halleck had transferred him across the bay to Point San Jose. Winder took the pictures, said McDowell, only because he was proud of his works and he did not give away any secrets. Nevertheless, Elliot soon received a copy of Department Engineer Order No. 32 that directed no photography of any military objects except "such as are required to explain the . . . reports of Officers." Bradley and Rulofson eventually submitted a claim to the government for property seized, but the records do not indicate if they received satisfaction. The destruction of the pictures must have been thorough; no copies of any of them have been found to date, in the National Archives or elsewhere. National security was preserved; but history was made the poorer.[13]

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13. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, July 8 and Dec. 23, 1864, to Delafield, De Russy, Dec. 15, 1864, to Delafield, and a single folded sheet of paper bearing notation of the claim of Bradley and Rulofson; NA, RG 77, OCE, Letters to Officers Engrs., vol. 36, telegram, Delafield, Aug. 1, 1864, to Elliot; [U.S. Congress], War of the Rebellion, series 1, vol. 50, pt. 2, p. 925 (Halleck, Aug. 1, 1864, to McDowell), and p. 929 and 1082-83; (McDowell, Aug. 5 and Dec. 3, 1864, to Halleck and AG).

6. First 15-Inch Rodman

July 20, 1864, was a day of great celebration on Alcatraz. The first 15-inch Rodman on the Pacific Coast was mounted at the northwest end of Battery Mansfield. The event was marked by a party and a tragedy which came to light only in the letters of Alcatraz's post surgeon written ten years later. In replying to an inquiry, he found in some old records (now lost) that two enlisted men had been killed on Alcatraz that day. He interviewed a private who apparently had been present for the occasion: "Pvt. Lorch now at this post states that both men, while in a state of intoxication fell from an embankment 40 to 50 feet high & that liquor had been freely supplied to the command on that day in celebration of mounting the first 15 inch gun at this fort."[14]

7. More Guns

As the Union armies began to close in on the Confederacy, the Ordnance Department felt increasingly free to ship additional large-caliber smoothbores and rifled guns to the Pacific Coast. In August 1864, the Engineer Department asked Ordnance to ship to Alcatraz three more 15-inch, center-pintle Rodmans, five 100-pounder center-pintle Parrott rifles, and two 200-pounder center-pintle Parrotts. By the end of August, the second 15-inch Rodman already on the island had been mounted, at least temporarily, not in the originally planned position in Battery Tower, but immediately to the left of the South Caponier (platform 8) in Bat-

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14. NA, RG 393, U.S. Army Continental Commands, Medical Department, Alcatraz, Orders and Letters, Nov. 1873-Dec. 1880, AA Surg. G. M. Kober, Sept. 11, 1874, to Medical Director, Dept. of Calif.

tery McClellan. Also, two 10-inch Rodmans had replaced two 10-inch columbiads in the same battery (on platforms 22 and 23).[15]

Elliot found it extremely difficult to select good positions for the three additional 15-inch Rodmans that were expected to reach Alcatraz in the spring of 1865. He recommended various locations at both ends of the island, only to learn that they were too high above sea level. In October 1864 Delafield wrote: "Recent experiments in firing show conclusively that it is of great importance to keep the guns at a height of not over 45 feet above the water." Eventually the three positions were fixed thus: (1) in the 90-degree salient in Battery Rosecrans, on the northwest end of the island where the model industries building stands today; (2) on the extreme left flank of Battery Halleck--and adjacent to no. 1, above; (3) on the extreme left flank of Battery McClellan, at the southeast end of the island.

E. Armament Report, 1865

An ordnance return for Alcatraz Island prepared as of January 31, 1865, showed the following status of its armament:

Mounted

2	15-inch smoothbores (new Rodmans), barbette, center-pintle
6	10-inch smoothbores (old columbiads), barbette, center-pintle
2	10-inch smoothbores (new Rodmans), barbette, front-pintle

15. Elliot did not give his reasons for placing the second 15-inch gun in this unsuitable position. The Rodman did not remain there long. By June 1865, and probably much earlier, this gun had been mounted on the platform planned for it--in the salient angle of Battery Tower.

40 8-inch smoothbores (old columbiads), barbette, center-pintle
4 8-inch smoothbores (new Rodmans), barbette, front-pintle
12 42-pdrs. smoothbores (old), barbette, front-pintle
2 10-inch mortars, located on top of island southeast of lighthouse
16 24-pdr. flank howitzers, casemate
6 42-pdr. rifles (new), barbette, front-pintle

Guns & carriages, on hand, not mounted

3 24-pdr. flank howitzers, for guardhouse

Platforms ready, without guns

19 center-pintle, for either 10- or 8-inch smoothbores, or 300-, 200-, or 100-pounder rifles (Parrott)
7 front-pintle, for either 10- or 8-inch smoothbores, or 300-, 200-, or 100-pounder rifles (Parrott)
3 front-pintle flank howitzers, guardhouse

There were six 8-inch navy guns on hand, without carriages, and there were five 42-pounder, barbette, wooden carriages without guns. Elliot estimated that by June 30, 1865, the total number of completed platforms would amount to 19 casemate and 104 barbette. When Alcatraz's total armament was complete, as then planned, there would be 19 casemated positions, 125 barbette guns, and at least 2 mortars, for a grand total of approximately 146 heavy weapons.

Although the above list showed the six new rifled 42-pounders as being mounted by January 31, 1865, they were not, in fact, placed on their platforms until March: on platforms 2, 3, 4, and 5, Battery Mansfield, and platforms 2 and 3, Battery McPherson.

By the end of June 1865, the three additional 15-inch Rodmans (center-pintle, iron carriages) were on hand, as were two 200-pounder and five 100-pounder Parrott rifles (all center-pintle and iron carriages). Elliot was then expecting the arrival of still two more 15-inch Rodmans (front-pintle), one more 200-pounder Parrott on a center-pintle iron carriage, and one 100-pounder Parrott on a front-pintle iron carriage. In his annual report for fiscal year 1865, he calculated: "The weight of metal which could have been discharged simultaneously from Alcatraz on the 30th of June 1864 was 4549 lbs. The increase during the year has been 2400 lbs. Total 6949 lbs."[16]

F. Casemated Barracks, 1864-1866

Ever since the war had commenced and Alcatraz's garrison had increased, the engineers had been recommending an additional permanent barracks and a permanent storehouse. As the war progressed it became increasingly clear that the proud old Citadel could not withstand a bombardment. But until the fall of 1864, the chief of engineers had not responded to appeals for bombproof quarters on Alcatraz. Elliot informed Delafield that the war garrison for Alcatraz was at least 1,000 men. Although permanent barracks for that many would be too expensive, he thought it vital that a structure be built the same size as the Citadel--for two companies. After all, "this post . . . is considered by all as the key of our possessions on this Coast." He reminded the chief that

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16. NA, RG 77, OCE, Letters ot Officers of Engrs., vols. 37 and 38, Lt. Col. J. C. Woodruff, Aug. 16, 1864, Circular, and Delafield, Oct. 26, 1864, and March 15 and 22, 1865 to Elliot; NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Oct. 27, 1864, and Jan. 12, Feb. 6, Mar. 25 and 30, Apr. 11, July 14, and Aug. 23, 1865, to Delafield.

General Totten had considered building such a barracks at the northwest end of the island, between Batteries Rosecrans and Mansfield. Elliot, too, thought this the best location, "for the quick defence of the batteries Halleck and Rosecrans." The permanent storehouse, he said, should be on top of the retaining wall at the rear of the wharf. Delafield responded immediately and telegraphed Elliot to prepare plans for fireproof and bombproof buildings.[17]

Elliot forwarded his plans just before Christmas 1864. He now proposed one large structure behind the wharf, on the eastern side of the island. He designed it to hold 800 men, provisions for four months, kitchens and messes, a wartime supply of ordnance stores, and a magazine. The masonry building would be bombproof and have two tiers of casemates, the first tier for stores and the second for quarters. He proposed no guns and no embrasures on the two tiers; the only openings in the scarp wall would be ventilators, 2 feet by 14 inches. However, barbette guns would be mounted on the terreplein (roof). The barracks would be located behind the existing retaining wall, which meant considerable excavation. This excavation would be large enough to allow a 10-foot-wide passage between the barracks and the cliff, which would be sustained by a new masonry wall. The plans called for an angle in the structure, giving it a "dogleg"-shaped flank. A triangular storeroom would be located in the obtuse angle, and an opening in its scarp would allow the receipt of supplies directly from the wharf. All windows and doors would be at the rear of the building, leading into the 10-foot-wide open corridor. To allow as

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17. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Aug. 17, 1864, to Delafield; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 37, Delafield, Sept. 17, 1864, to Elliot. "Bombproof" meant a structure strong enough to withstand shot and shell of artillery.

much light and air as possible to reach the lower tier here, an iron-grated 6-foot-wide gallery would be placed outside the upper tier with stairways leading both up and down. Inside, the communications between the casemates would be as large as possible to make the interior airy and comfortable. At the northern end of the barracks, a tunnel-like ramp would lead into the rear space to allow carts to enter for the moving of stores. The barbette tier (roof) of the structure would be arranged for the mounting of one 15-inch and twelve 10-inch Rodman guns, in a manner similar to the fort at Fort Point. Shell rooms would be constructed in the earthen parapet on this barbette tier.[18]

Delafield responded in February 1865, generally approving the plans but making certain modifications. While he did not consider placing guns on the two casemated tiers, he wanted "embrasures" in the scarp wall of each tier to provide better light and ventilation. In time of war the openings could be filled in with some suitable material. Concerning the rear area, Delafield wrote: "To preserve as much air and light to the lower tier as practicable, it is advisable to reduce the iron gallery communicating with the second tier to a width of 4 feet--making it of wrought iron supports and railings rather than of cast iron, a material so easily broken by careless and heedless persons."

The approved plans showed a magazine and an ordnance storeroom at the north end of the two casemated tiers, and a single magazine placed about midpoint on the barbette tier. The 15-inch gun would be placed in the salient ange of the barbette tier, two

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18. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Jan. 16, 1865, to Delafield.

front-pintle 10-inch guns on the dogleg, three front-pintle 10-inch guns on either side of the magazine, and a center-pintle 10-inch gun at the northwest corner of the structure.[19]

Elliot received these instructions on March 10, 1865, and immediately began preparations for excavating the cliff, securing permission to purchase two dumping scows to remove the excavation. It now struck him that since the ventilating embrasures were to be placed in the scarp of the casemated tiers that it would be but sensible to prepare for mounting guns in the casemates. Since embrasure irons would have to be built into the masonry as construction progressed and since it would take up to six months to receive the irons from New York, he promptly wrote Delafield on this point.

Upon further reflection, Elliot realized that by enlarging the excavation he could construct two tiers of small rooms at the back of the rear area. This construction would be stronger than a simple retaining wall and would provide more resistance to the pressure of the rock behind. He prepared a small sketch that would illuminate his idea, which would call for five rooms, each 16 by 12 feet, on each level of casemate. They would be used as privies, coal storage, blacksmith's forge, bathing and washing areas, and a bakery. And in response to Delafield's earlier conclusion that iron-grating gallery should be only 4 feet wide, he urged that it cover all of the open space at the rear, that is, that that it be 10 feet wide. If the ironwork and the area walls were

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19. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 38, Delafield, Feb. 9, 1865, to Elliot.

painted with a light color, sufficient light would reach the storerooms below.[20]

The chief of engineers agreed with the proposals of building the embrasure irons, preparing pintles for any future guns and building the rear area rooms. He warned Elliot not to order embrasure irons similar to those at Fort Point, but irons for the kinds of embrasures necessary for guns of increased caliber and range. He enclosed detailed plans for these modified Totten embrasures. Elliot, examining the plans and existing correspondence concerning embrasures, became somewhat confused as to the exact dimensions. There were, for example, conflicting instructions as to the width of the throat. Because the embrasure irons were already enroute (by August 1865), he worriedly wrote asking to be straightened out. Delafield replied that the iron shutters were already obsolete because of the power of existing guns. He suggested that Elliot install them simply to protect the stores from theft: "When guns are used, it will be necessary to remove these iron shutters, and hence there is no propriety in endeavoring to reinforce the masonry at this time."[21]

Elliot's monthly reports of operations for the next 20 months showed slow but steady progress on the bombproof barracks:

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20. NA, RG 77, OCE, Letters Sent 1838-1866, Elliot, Mar. 10 and 31, and Apr. 1, 1865, to Delafield, and Elliot, telegram, Mar, 10, 1865, to Delafield; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 38, Delafield, telegram, Mar. 13, 1865, to Elliot.

21. NA, RG 77, OCE, Letters to Officers of Engrs., vols. 38 and 39, Woodruff, Apr. 12, 1865, to Elliot, and Delafield, May 5 and Nov. 6, 1865, to Elliot; NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Aug. 13, 1865, to Delafield.

March 1865: Carpenters built a bridge to carry excavated rock from the site, over the wharf, to the dumping scows.

April-September 1865: The laborers excavated the site.

July 1865: The stonecutters cut granite for the seawall foundation of the flank of the new barracks.

September 1865: Construction of the seawall foundation began.

October 1865: The flank of the barracks was carried up to a reference of 20½ feet.

November 1865: Stonecutters cut embrasure stones, sills, lintels, and steps. Construction of the piers began.

January 1866: Masonry of the scarp wall was carried up to the soles (bottoms) of the embrasures. Several piers had been built as high as the springing lines of the communications arches (the passageways between casemates).

February 1866: Sills of the area front (or back wall of the barracks) were laid and work on the area wall commenced.

March 1866: Most of the embrasure irons for the first tier were emplaced. The area wall of the barracks was almost as high as the top of the doors and windows of the first tier.

April 1866: Some of the small arches over the embrasures were finished, and some of the communication arches were turned.

May 1866: Work on the bombproof barracks slowed down because of a scarcity of good mechanics. (They could get higher wages in San Francisco.)

In his annual report for fiscal year 1866, Elliot described the structure in considerable detail:

> This barracks is designed not only to furnish quarters for the garrison, but Storage room for the military supplies of the place. It will contain three magazines for powder and will increase by thirty (30) guns [the plans showed 33 guns] the fire from the island over a part of the navigable waters of the bay . . . which is now commanded by but few guns. The site of this barracks will not be seen by an enemy till he passes the main line of defense of the harbor. The excavation for it required the removal of a very large quantity of hard sand stone rock so that the masonry was not commenced until October. Since that time the seawall foundation has been completed. All the piers of the lower tier have been finished, the communication arches of this tier have been turned, and the main arches have been commenced. The embrasures of this tier have all been finished. The scarp and rear wall have been carried as high as the skewbacks of the communication arches. The stone stairs and the storerooms in rear have also advanced nearly as high as the opening lines of the arches.[22]

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22. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Apr. 11, May 31, Aug. 16, Sept. 15, Oct. 13, Nov. 14, and Dec. 15, 1865, and Jan. 9, Feb. 9, Mar. 12, Apr. 13, May 12, June 9, and Aug. 23, 1866, to Delafield.

In December 1866, Elliot prepared a new set of plans, sections, and elevations of the barracks. He forwarded these to Washington together with a long letter that described the structure and pointed out the need for continuing appropriations in order to complete it. Although parts of this description duplicate some of the material already presented, Elliot included details not hitherto mentioned in his reports:

> The barbette will be armed with one 15" Rodman gun on center pintle carriage, eight rifled guns on front pintle carriages, and one rifled gun on centre pintle carriage. There will be two traverses, each rising 6' above the interior crest. One of them will contain a service magazine 16' x 8'. There are two tiers of casemates. The upper will furnish quarters for the garrison . . . and in the lower will be storage room for the Commissary, Quarter Master, Ordnance and Engineer supplies for the post. This tier will also contain the kitchen for the troops. . . .
>
> One of the casemates in each tier will be used and is arranged for a magazine. . . . There are smoke flues for stoves from each casemate of each tier. There are two flues for the escape of smoke over each casemate, and there is a ventilator from the rear of each casemate near the crown of the arch. The small irregular casemate of the lower tier [in the salient] is arranged for the reception of stores from the wharf below, thru' a large door thru' the scarp. The machinery necessary to raise the stores from the wharf will be placed in the corresponding casemate in the 2nd tier. This machinery can also be connected with a pump which will be placed below the

floor [of the lower casemate] for raising salt water to the cistern to be provided for supplying water for bathing purposes. [There would also be a freshwater cistern, both of them located at the second level behind the area way.]

In rear of the gun casemates is an open space 10' wide, and in rear of this had been arranged a series of small rooms two tiers high [and now numbering more than ten] . . . . The stairs communicating with the different stories are also on the rear side of the open space. Across this open space and 6" below the tops of the sills of the doorways of the 2d tier is an iron grating formed of bars of iron 2-1/2" x 1/2" placed 1" a part. This grating rests in ledges in the masonry, except at the stairways where it rests on wrought iron girders.

Two of the small rooms in the rear will be fitted up for ovens. They are [approximately in the middle of the first tier] . . . and will each contain two ovens 6' 6" x 4' 9". In rear of the barbette will be a roadway 16' wide connected at the northerly end with the ramps leading to the wharf, the summit, and the northwest end of the island and at its southerly end with a covered way leading to the southern batteries. This structure will furnish barrack room for at least 500 men in time of war and one years supplies for them. . . .

. . . The piers and walls of the 2d tier . . . are about 1' 6" above the floor (34' 6"). The arches (bomb proof) of the 2d tier of the small rooms in rear are nearly finished.[23]

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23. NA, RG 77, OCE, Letters Received 1866-1867, (3d Div.), Elliot, Dec. 15, 1866, to Humphreys.

This proved to be Elliot's last major correspondence concerning the casemated barracks. In January 1867, Maj. George Mendell replaced him on Alcatraz as the engineer in charge of the works. Nearly all of Mendell's career would be on the Pacific Coast, where he would be the senior engineer well into the Endicott period. But he would not oversee the completion of the barracks, now more than half built. The chief of engineers suspended further work on the structure until the board of engineers in New York could determine a design for scarp walls that would resist the heavier weapons now available. Just as the masonry scarps of the batteries had become obsolete, so had the face of the casemated barracks. Nevertheless, Mendell argued that the structure be completed. In April 1867, he forwarded a report showing that some of the piers for the second tier had reached a height of 6½ feet above the floor. By then he had discharged most of his force because that year's appropriation was nearly exhausted.[24]

Mendell continued to hope that construction would be renewed in the new fiscal year, 1868. But on July 2, 1867, Chief of Engineers Humphreys wrote him, saying: "I am led to the conclusion that it is not expedient to make this structure an exception to the rule which has suspended work in all like cases. . . ." "If," he added, "the work itself is liable to injury from the delay, it may be covered with boards, or to a certain extent with asphalt, for its security, and so as to make the lower tier available for storage or other use." Later Humphreys suggested that Mendell could proceed with the completion of the small rooms to the rear of the barracks, in addition to making the casemates safe for storage.

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24. NA, RG 77, OCE, Letters Received 1866-1867 (3d Div.), Mendell, Report of Operations for Feb. 1867, Mendell, Apr. 29 and Aug. 21, 1867, to Humphreys, and Mendell, et al, May 27, 1867, to Humphreys.

In his operations report for August 1867, Mendell recorded that "six courses has [sic] been laid on the area wall of the rear part of the barrack, three arches covering small apartments have been turned, the piers of the cisterns have been completed, the arch covering the approach to the man hole of the large drain almost completed, and some progress made on the flues." The idea that the board of engineers would eventually find a solution that would allow resumption of the bombproof barracks remained alive on Alcatraz for many years to come. But in reality, there was no future for this type of fortification.[25]

G. George Mendell Carries On

1. Excavations, Northwest End of Island

Elliot prepared to undertake two other projects in 1864-1865. The chief of engineers directed him to construct a ramp from Battery Halleck on the northwest end of the island to Battery Mansfield high on the northwest peak. The difference in elevation between the two was about 80 feet, and the task was complicated by the ramp having to skirt the large earthen parapet of Mansfield's 15-inch gun. A small start was made on the excavation for this ramp before the end of June 1865; but because of a new plan to completely remodel the defenses of Alcatraz, the project was never completed. The other task involved a large amount of excavation at the northwest end of the island to allow for the extension of Battery Rosecrans to the southeast. This excavation was eventually completed and became the site of a new battery in the 1870s.[26]

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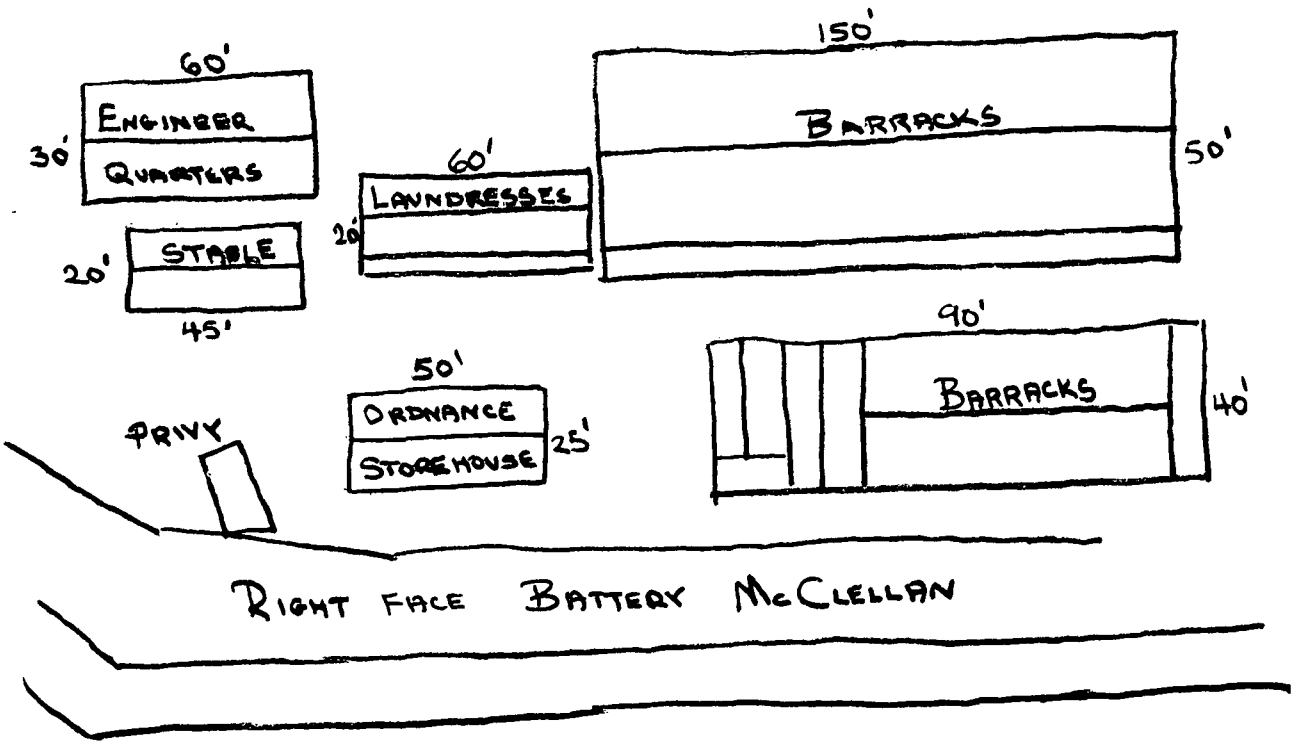
25. NA, RG 77, OCE, Letters Sent 1866-1870 (3d Div.), vol. 1, Humphreys, July 2, 1867, to Alexander; NA, RG 77, OCE, Letters Received 1866-1867 (3d Div.), Mendell, Aug. 15 and Oct. 9, 1867, to Humphreys.

26. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Aug. 17, 1864, and Mar. 8 and Aug. 23, 1865, to Delafield.

2. Temporary Quarters

At the end of 1864, the garrison on Alcatraz almost doubled when additional companies arrived to remain for the duration of the Civil War. To accommodate these troops, the post quartermaster and the engineer agreed to tear down the dilapidated engineer mechanics' barracks behind Battery McClellan and to erect a new two-story frame barracks on the same site. About this time, the engineer stable was moved from the rear of Battery McPherson closer to the barracks--which would cause future problems of flies and odors. Also, anticipating the enlargement of Battery Prime, Elliot tore down the laborers' barracks and the engineers' mess house that stood nearby. He erected a new building for his employees adjacent to his office near the northwest peak of the island.[27]



27. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Oct. 27, 1864, and Jan. 10, 1865, to Delafield.

Lessons learned from the Civil War occupied much of Elliot's thoughts and time during 1864-1865. Military engineers now realized that in addition to the need for thicker earthen parapets, there was an increased need for earthen traverses, parados, and bombproof shelters in barbette batteries. These additional works were needed to prevent enfilading and reverse fire on the traditional long straight flanks, such as were to be found on Alcatraz--Batteries Halleck, Rosecrans, Mansfield, or McClellan. Elliot also concerned himself about the morale of artillerymen who had to man guns in front of Alcatraz's rock slopes, even though these slopes had been cut back to 45 degrees. He proposed to cover these slopes with a 6-foot-deep blanket of earth: "My design in this is that most of the shells penetrating this mass . . . would neither throw their fragments nor splinters of rock thru' the 6' of material above." Despite his preparing a large number of letters and numerous drawings on these subjects, Elliot did not receive approval to proceed with his plans; the War Department was still debating the proper designs for postwar fortifications.[28]

3. "Fort McPherson"

Another idea that Elliot failed to get approval on was a permanent name for the post on Alcatraz. Shortly after New Year's 1865, he wrote Delafield proposing that the post be named after James Birdseye McPherson, who had been killed in battle the preceeding July: "I would like . . . to have the work on Alcatraz Island . . . named after my friend the late Genl McPherson. I am sure it would gratify the Citizens here as well as his Army friends . . . he was for some years in charge of its construction."

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28. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Aug. 17, 1864, and Jan. 3, Feb. 11, Apr. 1, and June 13, 1865, to Delafield; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 38, Delafield, Mar. 15 and 22, 1865, to Elliot.

Delafield replied that he would present this proposition to the War Department when the timing appeared right. Later, General McDowell also urged that Alcatraz be named McPherson. But the War Department never got around to giving a formal name to the Rock. Until its abandonment by the army in 1934, it was known officially as the Post of Alcatraz Island. McPherson's name was eventually given to an army post in Atlanta, Georgia, near where he was killed.[29]

4. Employment of Military Convicts

In January 1865, Delafield sent a circular to the engineers in the field suggesting to them the employment of military convicts in their various works, as a way of reducing labor costs. Elliot's reaction to the circular was one of caution. There was a then-small military prison on Alcatraz that averaged from 10 to 20 prisoners at a time in 1864-1865, and he thought perhaps he could employ as many as 10 of them in breaking stone, "where they would not be in the way of hired laborers." The experiment was put into practice, and Elliot wrote with some surprise, "I find that I can make them much more useful than I supposed and I have made arrangements by which I may hope to obtain a large number, and in this way save a large amount of the appropriation." Thus originated the practice of military prisoners working on the engineer works on Alcatraz. These nameless men, by the hundreds, would reshape the island in the years ahead.[30]

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29. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Jan. 3, 1865, to Delafield; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 37, Delafield, Feb. 1, 1865, to Elliot; [U.S. Congress], War of the Rebellion vol. 50, pt. 2, p. 116 (McDowell, Mar. 21, 1865, to Delafield).

30. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Jan. 23 and Feb. 11, 1865, to Delafield. Over at Fort Point, De Russy was

Having attempted unsuccessfully several times to grow grass from seed on top of the parapets to keep them from blowing and wearing away, Elliot tried a new experiment in the rainy season of 1864-1865. While the outcome of this endeavor apparently was not successful, one notes with interest his explanation to the chief of engineers of a strange new plant: "I have this year caused to be sown with a good deal of care, a kind of clover grown in Chili, called 'Alfalfa,' I believe this will protect the parapets from the effects of our long dry seasons, and permanently strengthen them."[31]

5. Uncertainties & Delays

The Congress continued to be fairly liberal with Alcatraz and appropriated $150,000 for the works in fiscal year 1866. Elliot started off the year with recommendations to the chief for modifications of Batteries Halleck and McClellan. Among other items he proposed thickening the parapets, replacing decayed wooden platforms with stone ones, and as before, constructing earthen traverses that contained magazines. But General Delafield suspended approval of any major changes in the fortifications until the permanent board of engineers in New York City had developed a system of coastal defenses capable of resisting modern armament and dealing with ironclads. Five years would pass before a complete remodeling of Alcatraz's fortifications would be undertaken. Meanwhile, Elliot would pursue construction of the bombproof barracks and certain minor projects on the island, most of them concerning replacing the obsolete columbiads with heavier weapons.

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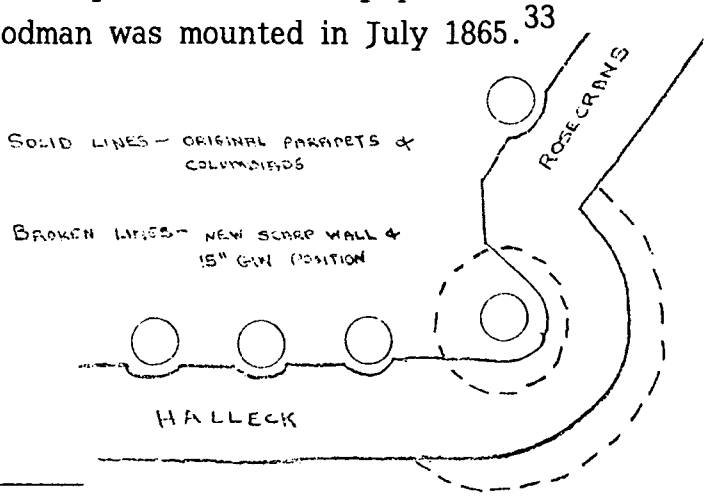
against the employment of prisoners there because they cold escape so readily. But he was all in favor of Elliot's using them at Alcatraz, where escape would be difficult.

31. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Feb. 6, 1865, to Delafield.

At Battery McClellan, Elliot proposed removing the coping from the scarp wall. He thought it was no longer needed because the earthen slope outside now reached to the top of the scarp; also an enemy shot could splinter the coping, thus increasing casualties. His correspondence raised a quite different problem at the northwest end of the island. This was the only place left that was accessible to an enemy landing party. To make the approach as difficult as possible, he did not wish to place an earthen slope outside the high, vertical scarp wall.[32]

6. 15-Inch Guns

Earlier in 1865, Delafield had approved a plan to rebuild the salient in the extreme left face of Battery Halleck and to replace two columbiads at that point with a 15-inch Rodman. In September Elliot reported that the enlarged brick scarp had been completed and stood ready for its coping. He did not mention if the old scarp had been removed prior to the construction of the new one. Probably it was not. At any rate, the new semicircular portion may still be seen today under the army prison's industries building. The 15-inch Rodman was mounted in July 1865.[33]



32. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 38, Delafield, Mar. 14, 1865, to Elliot; NA, RG 77, OCE, Letters Received 1838-1866, Elliot, July 7, 1865, to Delafield.

33. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Feb. 11, Aug. 2 and 16, and Dept. 15, 1865 to Delafield; NA, RG 77, OCE, Letters to Officers of Engrs., vol. 38, Delafield, Mar. 15, 1865, to Elliot.

De Russy, ill for several months, died in San Francisco on November 23, 1865. Elliot, now the senior engineer in the area, took over the supervision of all the works at Fort Point, Point San Jose, Angel Island, and Alcatraz Island. On the Rock he oversaw the beginnings of 15-inch-gun platforms in the salient of Battery Rosecrans and on the extreme left face of Battery McClellan. The engineer's office on the northwest peak received new weatherboarding and a fence around it. Also, Elliot had three doorways cut into the main floor of the Citadel, "for the greater convenience of the occupants." The stout old building was no longer considered bombproof and was suitable now as only peacetime quarters.[34]

7. Armament Report, 1866--129 Weapons

During fiscal year 1866, 11 additional guns were mounted on the island: three 15-inch smoothbores, one 200-pounder Parrott rifle, one 100-pounder Parrott rifle, and six 10-inch Rodman smoothbores. At the end of the year Elliot prepared a report that showed the status of Alcatraz's armament as of June 30, 1866.

Smoothbores mounted

5	15-inch Rodmans, barbette, center-pintle
8	10-inch Rodmans, barbette, front-pintle
4	8-inch Rodmans, barbette, front-pintle

34. U.S. Department of the Interior, National Park Service, Fort Point, by Bearss, pp. 198-99; NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Dec. 15, 1865, to Delafield.

6	10-inch columbiads, barbette, center-pintle
40	8-inch columbiads, barbette, center-pintle
12	42-pounders columbiads, front-pintle
2	12-pounder field guns, barbette
17	24-pounder flank howitzers, casemate

Smoothbores not mounted

4	15-inch Rodmans, front-pintle
12	10-inch Rodmans, front-pintle
2	24-pounder flank howitzers

Rifled guns mounted

3	200-pounders, center-pintle
5	100-pounders, center-pintle
1	100-pounder, front-pintle
6	42-pounders, front-pintle

Mortars mounted

2	10-inch siege mortars

Total--Mounted: 109 guns, 2 mortars
Unmounted: 18 guns

Grand Total--127 guns, 2 mortars.

Alcatraz's total armament, if all approved projects had ever been completed, would have been 144 heavy weapons. Since not all the approved projects were completed, this year's total of 111 was the largest number of heavy weapons ever mounted on Alcatraz. Elliot

wrote that the total amount of metal that could be fired in one round from the guns mounted was 8,662 pounds.[35]

8. New Board of Engineers for the Pacific Coast

Alcatraz's appropriation for fiscal year 1867 amounted to $90,000. This year would bring several changes in engineer operations. In August 1866 Brig. Gen. Andrew Atkinson Humphreys, a successful topographical engineer and a distinguished Civil War corps commander, replaced Delafield as chief of engineers. In December Humphreys ordered Maj. Barton Stone Alexander, newly assigned as senior engineer on the Pacific Coast, to convene a new Board of Engineers for the Pacific Coast with himself as president. Alexander arrived in San Francisco on December 31 and convened the new board in January 1867. Also in January, Maj. George Henry Mendell, assisted by 1st Lt. Oswald H. Ernst, took direct charge of the works on Alcatraz. Elliot, having supervised the engineer operations on the island for almost six years, was now able to concentrate on problems concerning Fort Point.[36]

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35. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Aug. 23 and Sept. 5, 1866, to Delafield; NA, Cartographic Div., RG 77, Fortifications File, Dr. 256-16-1, Elliot, June 30, 1866, armament report. In October 1867, as will be noted later on, there were 154 heavy and 2 field pieces of artillery, mounted and unmounted, on Alcatraz.

36. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 40, Humphreys, Aug. 18 and Dec. 4, 1866, to Elliot; NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Nov. 24, 1865, to Delafield; NA, RG 77, OCE, Letters Sent 1866-1870 (3d Div.), vol. 1, Humphreys, Feb. 6, 1867, to Elliot; NA, RG 77, OCE, Letters Received 1866-1870 (2d Div.), Alexander, Jan. 18, 1867, to Humphreys; The Corps of Engineers Museum, Geneses of the Corps of Engineers . . . From 1745 to 1966 (Fort Belvoir, Va., n.d.), p. 20. Oswald Herbert Ernst, born in Ohio, graduated from the Military Academy in 1864 and was immediately appointed a first lieutenant in the Corps of Engineers. Later in his career he served as superintendent of public buildings and grounds in Washington, D.C., and

Humphreys's instructions to the new board contained no specific mention of Alcatraz Island; but before long the board would be very much involved with planning the revampment of its fortifications. Meanwhile, Mendell found himself with little to do on the island, the appropriation having been nearly exhausted by mid-February 1867 and work on the casemated barracks suspended. Humphreys wrote him that spring noting that there seemed to be a number of heavy guns on the island still not mounted: "It is important that you take steps to have the large unmounted guns put in place for service as soon as circumstances will allow. It appears that places are ready, or soon will be, for them all." Mendell replied that this was not the case; only Battery Rosecrans had been enlarged. Moreover, Mendell preferred to develop a complete plan of remodeling for the island, rather than to proceed on a piecemeal basis. One accomplishment that Mendell and Ernst did complete that spring was the preparation of the most detailed map of Alcatraz and all its structures that had yet appeared. Of necessity, Mendell's first annual report on Alcatraz's fortifications had little to say. He did mention that the excavation for the extension of Battery Rosecrans on the northwest end of the island,

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superintendent of public buildings and grounds in Washington, D.C., and superintendent of the U.S. Military Academy. He served as a brigadier general of volunteers in the Spanish-American War. George Henry Mendell, with the exception of the Civil War years, spent his entire military career on the Pacific Coast. Born in Pennsylvania, he graduated from the academy in 1852, third in his class. He was appointed second lieutenant in the topographical engineers and assigned to the Pacific Northwest. In 1863 he transferred to the Corps of Engineers. He was also responsible for the works at Lime Point in the San Francisco Harbor. When Alexander died, Mendell became the senior engineer for te Pacific Coast. He remained in San Francisco the rest of his life, overseeing the beginnings of the Endicott system of fortifications. He retired in 1895 with the grade of colonel (senior colonel in the corps) and died in 1902. Battery Mendell at Fort Barry was named in his honor. Heitman, 1:407 and 703.

which had progressed slowly over several years, was finally completed.[37]

9. Appropriations Reduced, 1867

Although the Congress appropriated $100,000 for Alcatraz's works for fiscal year 1868, it attached a condition that only half of this amount could be spent until the Congress released the remainder--a release that never came. Mendell, now also responsible for fortifications at the newly acquired Lime Point, did what he could with the $50,000 available for Alcatraz. The major undertaking this year was the construction of a 50-foot extension to the wharf. The Quartermaster Department had acquired its first steamboat for use in San Francisco Harbor and the increased wharfage was necessary to accommodate both quartermaster and engineer supplies. Mendell took advantage of the opportunity to rebuild a boathouse and to erect a wharf crane capable of lifting 10 tons. The crane cost $2,866. He did not describe the construction of the wharf, but a map of the island prepared at this time mysteriously labeled the extension as the "brick wharf," meaning perhaps that bricks were unloaded and stored there.

He also completed the rear rooms of the bombproof barracks and prepared the first tier of the casemate for use as storage space: "The roof surface of the [rear rooms] arches were concreted, the stone steps leading to the barbette of the work were cut and laid, and all the coping of the area wall was cut excepting two stones. The floor of the first tier of casemates was excavated and leveled preparatory to laying a floor of asphaltum. The black-

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37. NA, RG 77, OCE, Letters Received 1866-1867 (3d Div.), Mendell, Feb. 19 and Aug. 5 and 21, 1867, to Humphreys; NA, RG 77, OCE, Letters Sent 1866-1867 (3d Div.), Humphreys, May 30, 1867, to Mendell; NA, Cartographic Div., RG 77, Fortifications File Dr. 95-92, "Map of Alcatraz Island," 1867.

smith made iron rivets for the doors. A pipe was laid for the supply of water in the storerooms of the Barrack. The barrack is now in such condition that no further work of importance can be done upon it."[38]

Mendell also made some modest improvements in the armament of the island by remodeling 14 center-pintle platforms (new pintles and new traverse irons) for mounting 10-inch Rodmans that were on hand. On May 18, 1868, he wrote: "I have this day notified the Commanding Officer of the Post, of this fact and have requested him to mount the guns." Humphreys instructed Mendell to examine carefully the platform of the 15-inch Rodman mounted in Battery Mansfield--the first of Alcatraz's 15-inch "smoothbores--since it was reported that the earth had settled under the platform. He suggested that Mendell might consider constructing a new platform of wood, which would "admit of easier retification by hewing wedging etc." He added a note to this letter saying that photographs of the works were now authorized. Wartime security was a thing of the past.[39]

10. Detailed Report of Alcatraz's Defenses

The new Board of Engineers for the Pacific Coast completed a masterful review of the defenses of San Francisco Bay in the spring of 1868. Alexander dispatched a lengthy report to Humphreys that included the condition of Alcatraz's armament and

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38. NA, RG 77, OCE, Letters Sent 1866-1867 (3d Div.), vol. 1, Lt. Col. H. G. Wright, Mar. 19, 1867, to Mendell; NA, RG 77, OCE, Letters Received 1866-1867 (3d Div.), Mendell, Sept. 24, 1867, Annual Report.

39. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Mendell, May 18, 1868, to Humphreys; NA, RG 77, OCE, Letters Sent 1867-1870 (3d Div.), vol. 2, Humphreys, June 5, 1868, to Mendell.

major recommendations for the island's future role. For the first time in many years, the report listed exactly what guns were mounted in each battery.[40]

a. Battery Mansfield

"At the salient of this battery we find a 15" gun, centre pintle," the masonry of its platform being badly settled. "Next on the left 1 100 pdr Parrott, and 10 10" Rodman guns, front pintles, stone traverse circles and iron carriages. Making 12 guns in this battery. I remark that the battery is without bomb proof or other shelter; that the magazine is at one end, and that the battery is exposed to reverse fire from the north side of the island."

b. Battery Stevens

"Which consists 1st of 3 100 pdr Parrotts, then 3 200 pdr. Parrotts centre pintle, iron carriages, stone platforms. In all 6 guns. This battery is built on a steep slope. . . . It has a brick traverse between each gun, one of which contains a small magazine. The walls of these traverses rise to a level with the adjacent crests . . . presenting therefore many sharp angles of brick masonry which would render the battery very insecure for the gunner in time of action."

c. Battery Tower

Right face: "1st 5 8" Columbiads, [then] 2 10" Columbiads, stone platforms, centre pintles, wooden carriages." Salient: "1 15" Rodman, centre pintle, masonry platform." Left

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40. The remainder of the information in this chapter is taken from NA, RG 77, OCE, Letters Received 1867-1870 (A File), Alexander, Apr. 8, 1869, to Humphreys.

face: "8 42 pdrs, front pintle, wooden carriages, stone platforms. . . There is a brick magazine in rear . . . the walls of which are damp, being built against the bank. The drainage is imperfect. The entrance is exposed to enemy's shot, being in the most insecure place in which it could have been placed." (Alexander considered Tower to be the worst battery on the island.) "Here is seen in its worst form the danger which must arise . . . from steep slopes of loose friable rock in rear of a barbette battery. In its present condition I doubt if there are any troops in the world who could be made to stand their guns in this battery--much less serve them efficiently, if it were exposed to any considerable fire."

d. Battery McPherson

"3 Front pintle stone platforms, on which it is intended to mount 3 10" guns. 1 100 pdr Parrott, centre pintle, Stone platform. Brick magazine at the south end of this battery, in good order."

e. Battery McClellan

Right face: "1 100 pdr Parrott centre pintle, iron carriage, stone platform. 3 8" Rodman's, front pintle, iron carriage, stone platform. 2 10" Rodmans, front pintle, iron carriage, stone platform. 2 10" Columbiads, centre pintle, wooden carriages and platforms, 8 8" Columbiads, centre pintle, wooden carriages and platforms." South Caponier: "This Caponniere is built with sand stone from Angel Island. It is in good order, and is armed (on top) with 1 8" Columbiad, centre pintle, stone platform, and with 8 24 pdr flank defence howitzers (in casemate). Making 9 guns in this Caponniere." Left face: "4 8" Columbiads, centre pintles, wooden carriages and platforms. 1 15" Rodman, centre pintle, Iron carriage, stone platform, but parapet unfinished. Making for Battery McClellan a total of 21 guns."

f. Battery Prime

"1 10" Columbiad, centre pintle, wooden carriage, stone platform. 3 8" Columbiad, centre pintle, wooden carriage, wooden platform. 4 guns. There is no magazine or traverse on the left of the South Caponniere."

g. Mortar Battery

"East end of Island. 2 8" Siege mortars at the reference of 123 feet, behind a small bank of earth."

h. Battery Halleck

Right face: "4 42 pdrs., front pintle, wooden carriages, stone platforms. 5 8" Columbiads, centre pintles, wooden carriages, stone platforms. 1 10" Columbiad, centre pintle, wooden carriages, stone platforms." North Caponier: "This Caponniere is built of brick and is in good order. 1 8" Columbiad on top, centre pintle, wooden carriage, stone platform. 8 24 pdr. flank defence howitzers (in casemate)." Left face: "13 8" Columbiads, centre pintles, wooden carriages and platforms. 23 guns in Battery Halleck." (As far as Alexander was concerned, Battery Halleck's 15" Rodman belonged to Battery Rosecrans. Also, the 1867 map of Alcatraz showed 14 platforms in the left face of this battery.)

i. Battery Rosecrans

"2 15" Rodmans, centre pintle, stone platforms, no magazine. Breast height wall and parapet unfinished."

In all, Alcatraz now had 103 guns and two mortars mounted. (At this same time Fort Point had a total of 95 guns mounted.) Alexander enclosed a tabular statement showing guns, platforms, traverse circles, carriages, and mortar beds on the island. Here he included a Mexican 4-pounder bronze gun not previously mentioned in Alcatraz's records. Parts of this table are herewith extracted:

Kind of guns	Mounted	Unmounted	Total
15" Rodman	5	4	9
10" Rodman	12	35	47
8" Rodman	3	1	4
10" Columbiad	6		6
8" Columbiad	40		40
42-pdr. gun	12	6	18
24-pdr. howitzer	16	3	19
200-pdr. Parrott	3		3
100-pdr. Parrott	6		6
8" siege mortar	2		2
4-pdr. bronze gun, Mexican		1	1
Totals	105	50	155

Despite this array of guns, Alexander believed that Alcatraz could not withstand an enemy fleet:

> The defences at Alcatraz Island are very imperfect. It is my opinion that the broadsides of half a dozen powerful men of war would render the Island, in its present condition, entirely untenable.
>
> The defence is so unsatisfactory that the Board of Engineers for the Pacific Coast has several times taken up the subject with a view of trying to suggest some important improvements, but as often has laid it aside again, as a problem too difficult for immediate practical solution.
>
> The great difficulty is that the whole Island is a mass of rock, and rising as it does immediately behind the guns, it is to be greatly feared that the batteries would be so insecure from splinters of stone that the gunners could not serve their guns.

Before he had visited Alcatraz, Alexander had thought that the best solution for its defense would be to replace the present barbette batteries with a ring of casemated guns. But an inspection of the island showed him that the expense of constructing casemates would be so great as to render approval of the project hopeless. He regretted that the entire island had not been cut down to an elevation of 80 or 90 feet in the first place. How-

ever, he could not recommend that this be done at this time for it was more important that the defenses of Angel Island and Point San Jose be perfected first. But, concluded Alexander, "I am in hopes that this may yet be the solution."

IV. Alcatraz's Defenses Revamped, 1869-1876

A. The Plans

1. Board of Engineers' Report, 1868

Alcatraz, like other posts in San Francisco Bay, received no congressional appropriations for the construction of fortifications in fiscal year 1869. The reason was simple; the Corps of Engineers had not yet determined a method of constructing barbette batteries that could meet the advances of weaponry that had developed during the Civil War. But this lack of funding did not hinder the Pacific board of engineers from planning the remodeling of Alcatraz's defenses. The first breakthrough came in August 1868 when the board of engineers in New York issued a lengthy report on the question of determining the proper profile of barbette batteries. This detailed report was based on the findings of a series of experiments carried out by the board. Among the highlights of the study were several that would have considerable influence on the San Francisco engineers:

Sand was far superior to clay as the material for parapets.

A parapet of sand should have a minimum thickness of 20 feet and be supported by a breast-height wall 4 feet thick.

A wall within the body of a parapet was not recommended.

The introduction of iron plates in parapets was generally considered inexpedient.

The minimum distance between 15-inch guns was to be 34 feet.

The minimum distance between 10-inch guns was set at 22 feet.

The depth of a terreplein was generally not to be less than 30 feet.

A traverse was necessary for every two guns subject to direct or oblique fire and for each gun subject to enfilading fire. When practicable, a parados should be constructed for guns liable to reverse fire (Battery Mansfield).

A traverse should be at least 14 feet above the terreplein, 12 feet thick at the top, and 20 feet deep to the rear.

Service magazines were a necessity, the best material being well-rammed concrete.[1]

2. Alcatraz's Batteries Redesignated

With these findings at hand, the Pacific board undertook the development of a plan for modifying the defenses of Alcatraz. Before discussing the plan, it is necessary to note that in May 1868 Humphreys authorized Mendell to drop the names of the Alcatraz batteries and to redesignate them with numbers. The now-familiar 8 names were replaced with 13 numbers, roughly as follows:

Battery	
	1--right face of Battery Halleck
	2--left face of Battery Halleck
	3--15-inch gun at extreme left flank of Battery Halleck and 15-inch gun in Battery Rosecrans

1. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Report of the Board of Engineers, Aug. 14, 1868. Two of the four officers on this board had served in San Francisco: Col. John G. Bernard and Lt. Col. Z.B. Tower.

4--extension of Battery Rosecrans
5--Battery Mansfield
6--northwest half of Battery Stevens
7--southeast half of Battery Stevens
8--right flank of Battery Tower
9--left flank of Battery Tower
10--right face of Battery McClellan
11--left face of Battery McClellan
12--Battery Prime
13--new battery between Prime and the wharf[2]

A strong hint of the direction the Pacific board would take appeared in a letter Mendell sent to Humphreys in November 1868. Mendell had dismounted the 15-inch gun in Battery Mansfield (no. 5) and had found the platform in such poor condition that he estimated it would cost $3,500 to rebuild it properly. He recommended to the chief of engineers that the repairs be delayed until a definite plan for a rearrangement of the defenses could be prepared: "Bearing upon this subject, I may say that the opinion is gaining strength among the members of the Board of Engineers for this Coast, that it may be advisable to cut off the top of the Island."[3]

3. Proposals for Alcatraz

The Pacific board forwarded its report and plan for Alcatraz to the chief of engineers in March 1869. It listed the

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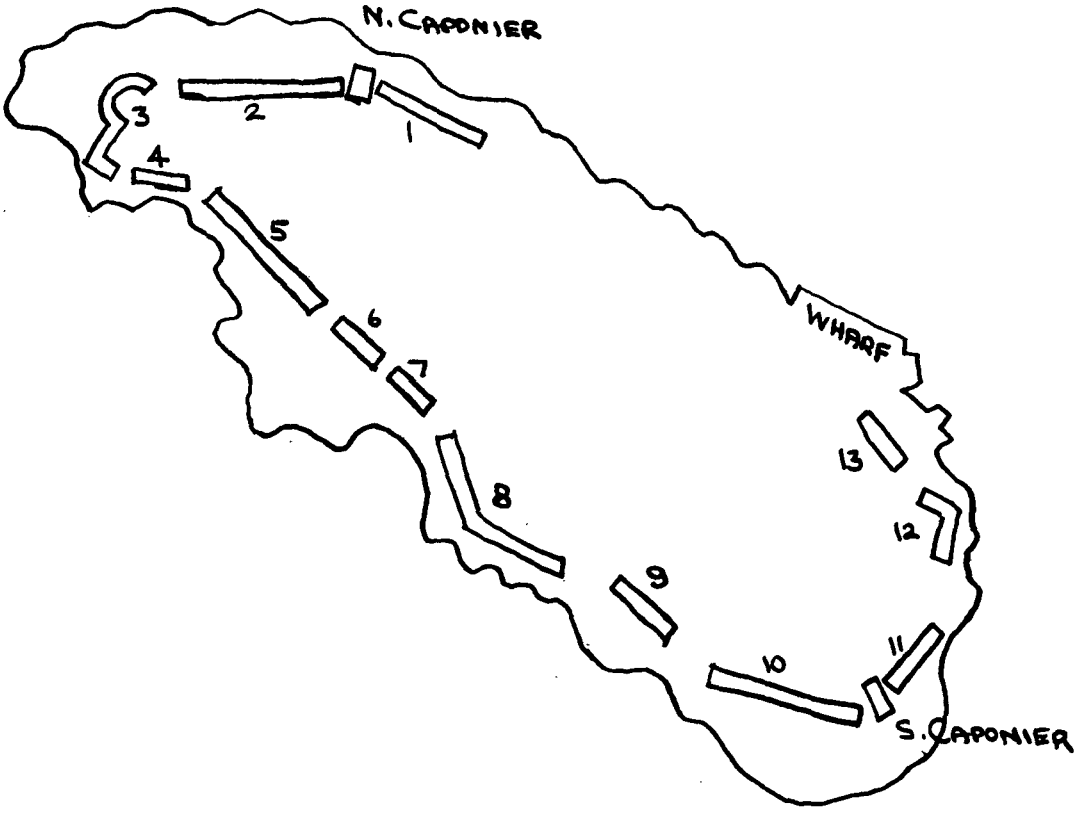
2. NA, RG 77, OCE, Letters Sent 1866-1870, vol. 2 (3d Div.), Humphreys, May 14, 1868, to Mendell; NA, Div. of Cartography, RG 77, Fortifications File, "Map of Alcatraz Island as it was July 1875." Dr. 95, Sht. 108.

3. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Mendell, Nov. 16, 1868, to Humphreys.



REDESIGNATION OF BATTERIES, CIRCA 1870.

objectionable features in the present arrangement of batteries on the island--such things as the high rocky slopes in the rear of the batteries and the inadequate thickness of the parapets. "A satisfactory solution," said the Pacific board, "seems to be found only in extending the available area by excavation." In general the plan proposed leveling the southeast end of the island down to an elevation of 62 feet. This area (about one-quarter of the island) would include several batteries and future officers' quarters. The highest area would be that surrounding the defensive barracks on the former southeast peak. This would be a level plateau having an elevation of 100 feet; a large earthen parapet would surround the plateau, and a battery would face to the east over the guardhouse and the bombproof barracks. Battery 5 (Mansfield) would be excavated so that its terreplein had an elevation of 80 feet. The adjacent area, then containing noncommissioned staff officers' quarters, would be enlarged and excavated to an elevation of 58 feet. This level space would be used for quarters, shops, and so forth. Finally, the terrepleins of Batteries 1 through 4 (Halleck and Rosecrans) at the northwest end of the island would be greatly enlarged, but they would retain their present elevation of 48 feet. The Pacific board estimated that the total excavation would amount to 430,000 cubic yards and would cost $215,000, adding that the cost could be reduced by employing prisoners. As for armament, reported the board, "The drawing shows places for sixty-two XV inch guns, and 5 Parrott rifles in Barbette, making sixty-seven guns in barbette, and if we add the eleven guns of the casemated barracks, for which places are now ready, we have seventy-seven guns, leaving out of consideration the howitzers for the defense of the guard-room and caponnieres. This armament is regarded as

ample. It may be modified by the introduction of a few XX inch guns and heavy rifles."[4]

Humphreys passed the proposal along to the Board of Engineers for Fortifications in New York for review. In April 1869 this group returned the documents saying generally that it agreed that modifications had to be made on Alcatraz but that the costs could be reduced by requiring less excavation than that proposed. It also recommended that the new batteries in the area now occupied by Batteries Tower, McPherson, McClellan, and Prime all be moved higher up the hill. (The former rule of a maximum elevation of 48 feet did not now apply.) The New York board concluded by recommending that Humphreys direct the Pacific board to reconsider the whole subject and that it pay particular attention to the August 1868 findings concerning traverses.[5]

4. Military Prisoners Excavate

Meanwhile, Mendell made the best of his poverty and, in January 1869, asked the post commander if he could furnish prisoners for labor. The engineer was eager to begin excavating the slope in rear of Batteries 1, 2, and 3 (Halleck). At this time the Alcatraz prison contained from 90 to 125 men. General Halleck, now commanding the Military Division of the Pacific, gave his approval for a detail of from 30 to 50 prisoners, as did the chief of engineers. To encourage industry, Halleck announced that he

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4. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Alexander, Mar. 9, 1869, to Humphreys; NA, Div. of Cartography, RG 77, Fortifications File, "Map of Alcatraz Island, Design proposed by the Board of Engineers for the Pacific Coast, February 1869." The report was signed by Alexander, Mendell, and Elliot.

5. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Humphreys, Apr. 27, 1869, to Alexander.

would commute the sentences "of such as earn good reputation as laborers." Mendell was of a mixed mind after six months' experience with these laborers: "The men are not industrious and they are careless and at times malicious in their treatment of public property but with all these drawbacks there is some profit in employing them." Whatever the quality of the prisoners' efforts, they would continue to work on engineer and quartermaster projects at all the posts in San Francisco Bay.[6]

5. Defense Project Approved, 1870

Fiscal year 1870, another year without appropriations for the fortifications, would see the differences between the plans of the Pacific board and the New York board worked out and the approval of the secretary of war for a complete postwar coastal defense project for Alcatraz Island. In November 1869 the Pacific board, having considered the points raised by its eastern associates, forwarded a revised project to Washington. It accommodated New York's concepts where possible but continued to disagree on some points, particularly the elevations of the battery's terrepleins. It argued that if the batteries were placed as high on the island as the New York board thought proper, much space would be lost and fewer guns could be mounted (albeit less excavation). But the differences were not great, e.g., a reference of 100 guns for Battery 5 (Mansfield) as compared to New York's 110, or a reference of 70 guns for Battery 10 (McClellan) as compared to 110.

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6. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Mendell, Jan. 7, 1869, to Humphreys, and Mendell, Annual Report of Operations for FY 1869; NA, RG 77, OCE, Letters Sent 1866-1870 (3d Div.), vol. 2, Humphreys, Jan. 25, 1869, to Mendell. In contrast to Elliot, Mendell did not hesitate to throw the excavated rock over the scarp: "It thus affords some cover to the wall and moreover this is the easiest way to dispose of it."

Alexander and his associates pointed out that the first batteries to be remodeled would be those at the northwest end of the island. The total excavation in this area would amount to 55,000 cubic yards, "of which one fifth has already been executed during the present year at a [modest] cost of 2500 dollars, by the labor of prisoners," therefore, implying that excavation at Alcatraz would not be horrendously expensive. In the earlier plan, the officers' quarters were to be placed in an excavated area behind Batteries 10-13 at the southeast end of the island. The Pacific board retained the concept of excavating this area, but now included all quarters there, "so that the buildings shall be covered from the view of an enemy, until he shall have passed the second line of defense." (This portion of the island was eventually excavated and it served several diverse uses during the following century.)[7]

The board of engineers in New York reviewed the new plans and in mid-December notified the chief of engineers that "we are of [the] opinion that the Pacific board have much improved their original project . . . we therefore concur, generally, in the new design for . . . Alcatraz." However, there remained changes that should be made, principally additional earthen traverses between guns. The New York board firmly believed that not more than two guns should be placed together, although it was willing to allow as many as three guns together in Batteries 9, 11, and 13, "considering their slight exposure." It also recommended that separate batteries for about 25 mortars should be located on top of the island. Humphreys approved these recommendations on

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7. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Alexander, Nov. 26, 1869, to Humphreys, transmitting Board of Engineers for Pacific Coast's modifications of defenses of Alcatraz.

Christmas Eve 1869 and directed the Pacific board to make the necessary changes.[8]

The Pacific board promptly made the desired revisions. The final plan contained forty 15-inch gun positions and no fewer than 21 earthen traverses, including both of the old caponiers, which were to be reduced in height by having the upper gun rooms removed. The Pacific board did not think it was important to plan for mortar batteries on top of the island at this time, especially because no firm decision had yet been made concerning what would be done with the old defensive barracks there or where permanent barracks would be located. However, in response to Humphreys' directive, they tentatively placed a mortar battery on either side of the barracks: "We do not solicit approval for these particular designs, prefering to leave the question open, until the time approaches . . . construction, which may be several years in the future." The New York board now recommended approval of the project. Secretary of War William Belknap approved the project on February 19, 1870.[9]

6. Estimate for New Project

The next step of this complicated procedure was for Alexander (and his associates, including Mendell) to prepare estimates for the modification of Alcatraz's works. These he forwarded to Humphreys in April 1870:

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8. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Board of Enginers for Fortifications (New York), Dec. 17, 1869, to Humphreys.

9. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Alexander, Jan. 13, 1870, to Humphreys, and Board of Engineers (NY), Feb. 2, 1870, to Humphreys with endorsements; NA, RG 77, OCE, Letters Sent 1866-1870, vol. 3 (3d Div.), Humphreys, Feb. 25, 1870, to Alexander.

100,000 yds. of rock excavated at 75¢	$ 75,000
35 front-pintle 15-inch gun platforms with breast-high walls	42,000
5 center-pintle 15-inch gun platforms with breast-high walls	10,500
20 magazines (in the traverses)	116,600
Earth filling on slopes and parapets	26,400
moving platforms; and moving guns and buildings	12,500
Miscellaneous construction, drains, sinking covered ways, etc.	11,000
	$294,000
Add 10%	29,400
Total	$323,400[10]

7. Modest Beginnings

Even while recommendations were being made and approved, Mendell took steps to further the work on Alcatraz. In December 1869, he reported that he had shipped 37 excess 42-pounder rifles, 8-inch columbiads, and 8-inch and 10-inch Rodmans from the island to Benicia Arsenal. Throughout the months prisoners continued excavating at the northwest end of the island and began to demolish the gun room of the north caponier. Mendell came up with the idea of turning a 15-inch Rodman in Battery 3 (Halleck) upon the caponier and knocking down the upper story with gunfire. Not only would he get rid of the masonry, he could carry out an experiment as to the resisting power of brick and concrete walls--if Humphreys approved. Humphreys did not approve: "There is no question as to the power of this gun to batter down masonry. As from the experiments at Forts Monroe and Delaware it was found that a shot striking the masonry might jar and fracture the wall for some distance from the point of impact."

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10. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Alexander, Apr. 14, 1870, to Humphreys.

Such an undertaking could damage the lower-floor magazine that was to be retained in the new works.[11]

Mendell's annual report for fiscal year 1870 showed that his work force of 45 prisoners under two civilian supervisors had made a fair start in preparation for the new works. In addition to removing the 15-inch platform in old Battery Mansfield, they had removed the 13 columbiads in the left face of Battery Halleck (now Battery 2). They had also removed the now-obsolete shot furnace from this area. The prisoners had also completed the necessary excavations of rock in the rear of Batteries 2, 3, and 4 at the northwest end of the island, "and the slopes behind the batteries have been in the main, prepared to receive the earth covering." Considerable progress had been made, too, in excavations at the southeast end of the island. As this new era of fortifications began, the War Department stated that from the beginning in 1853 down to March 1870, the appropriations for fortifications on Alcatraz Island had amounted to a total of $1,601,667.[12]

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11. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Mendell, Dec. 11, 1869, and June 28, 1870, to Humphreys, Mendell, Report of Operations for April 1870, Alcatraz, and Mendell, Report of Operations for May 1870, Alcatraz; NA, RG 77, OCE, Letters Sent 1866-1870, vol. 3 (3d Div.), Maj. T.L. Casey, OCE, July 14, 1870, to Mendell.

12. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Mendell, Annual Report of Operations for FY 1870, Alcatraz. Mendell's report stated that 13 columbiad platforms were taken up in Battery 2. But subsequent correspondence showed clearly that the guns only were removed at this time. NA, RG 77, OCE, Letters Sent 1866-1870, vol 3 (3d Div.), a list of appropriations, all forts, prepared for Secretary of War, to be sent to the Chairman, Military Committee, U.S. House of Representatives. The total appropriated for Fort Point as of March 1870 amounted to $2,495,833; for newly acquired Lime Point, $100,000. Point San Jose and Angel Island were not listed.

Shortly after fiscal year 1871 began, Mendell learned that Alcatraz had received an appropriation of $50,000 for the modernization of the batteries--a sure sign that the Congress was finally satisfied that the engineers had worked out the problems of postwar defense. Mendell decided to apply most of this money towards Batteries 1 through 4 at the northwest end of the island, which together would have twelve 15-inch platforms and seven earthen traverses, including the old caponier. He also had a crew of prisoners rebuilding the road where it passed over the top of the rear rooms of the bombproof barracks, a road that had been destroyed during the construction of the works. The reestablishment of this communication was an essential prerequisite to any major work at the southeast end of the island.[13]

8. Experimental Platform for 15-Inch Guns

The new project for Alcatraz called for all the guns to be 15-inch Rodmans. Mendell now faced the question as to the kind of platform that would be required. He wrote Humphreys saying that all the hints he had been able to pick up led him to believe that the platforms would be wooden. If this were so, Mendell wished to inform the department of the situation on the Pacific Coast:

> The Oregon fir or pine as it is usually designated has been used for platforms at the Columbia River, where it has answered the demands of the case very well. It is the best native wood for the purpose, with the possible exception of the California laurel, which however is much more expensive.
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> The durability of these platforms would probably be greatly increased by "carbonating" the timber, a process which consists of infusing into the pores of the wood

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13. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Mendell, July 25, 1870, and Report of Operations for July 1870, to Humphreys.

> hydro-carbon oils, and with the approval of the Chief of Engineers, I would at least make the experiment. It is important to order this timber soon, as most of it will have to be sawed to order in the mills on Puget Sound.

The Department replied that Mendell was authorized to provide wooden platforms, "in case of lack of funds for more permanent ones." Later, in January 1871, Mendell received specific permission to put down a wooden platform and to test it by firing a 15-inch gun from it. In his annual report, he said that an experimental front-pintle wooden platform, designed by Colonel Alexander, had been built in Battery 2 (old Halleck). He had subjected this platform to a partial test on June 28, 1871, and he recommended that a severer test be applied to the platform.[14]

The student who wished to know more about the experiment had to turn not to army correspondence, but to the Daily Alta California. An unsigned article appearing on the day following the test firing gave a thorough description, so thorough that one might suspect it had been written by either Mendell or Alexander:

> In place of stone, as used heretofore, this one [platform] is constructed from Oregon pine, unpreserved. The cost of timber and entire construction was about $500, while one of stone would cost about $2,000. The wooden one is equally effective. . . .

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14. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Mendell, Aug. 26, 1870, to Humphreys; NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Annual Report of Operations for FY 1871; NA, RG 77, OCE, Letters Sent 1866-1870 (3d Div.), vol. 3, Casey, OCE, Nov. 22, 1870, to Mendell; NA, RG 77, OCE, Letters Sent 1871-1872, vol. 1, Casey, Jan. 17, 1871, to Mendell. The experimental wooden platform was placed next to the old North Caponier in Battery 2 (Halleck). Mendell said that the treatment of timber in San Franicsco was called the "Robbins process."

> There are 7,000 feet of timber used in its construction. It is built on solid rock and riveted with two and a half inch bolts four feet in the rock. The bolts are filled in around with hot lead in order to insure solidity. The width of the platform on [behind?] the breast-high wall is thirty-four feet; from the breast-high wall to the outside it is twenty-two feet. In depth it is twenty-eight inches, and is filled in with concrete. . . .
>
> The firing was commenced about ten o'clock under the direction of [Brevet] General [James M.] Robertson, who has charge of the island. The supervision of the gun was under Lieutenant [Thomas T.] Thornburg. . . .
>
> The shots discharged were solid, and 448 pounds each in weight. Mammoth power was used. The first shot was fired off with fifty-five pounds of powder, at point blank range, and in the direction of Point Blunt [Angel Island]. The shot struck the water about a mile and a half off, and made a number of riccochets. Upon examination, it was discovered that the gun had bounded back upon the counter hoisters with considerable force. The transom of the platform was slightly sprung near the pintle, also sprung a little rear [were] the hind wheels of the carriage. [15]

9. Depressing Gun Carriages

The approved project for Alcatraz did not call for breast-height walls in the barbette batteries. This notable omission was caused by the fact that the Engineer Department was experimenting with a counterpoise, or depressing, gun carriage that was

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15. Daily Alta California, June 29, 1871. Six additional shots were fired, using 60, 70, 80, 90, 100, and 60 pounds of powder, respectively. All fell short of Angel Island. Apparently, additional testing was carried out later. In November 1871, Mendell reported that the gun had been fired 26 times. On the whole, the platform served well, requiring only an iron plate to receive jars from the props of the carriage and a wider, thicker traverse rail. NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Nov. 21, 1871, to the Chief of Engrs. My thanks go to John Jenkins, NPS, who discovered the newspaper article at an early time when neither of us knew about the experiment. Thornburg was killed eight years later by the Ute Indians in Colorado.

being developed by Capt. William Rice King. If this experiment was successful, the gun would recoil down behind the parapet upon firing, where it could be reloaded more safely, then returned "into battery" by means of the counterpoise. Until the experiment was completed, dimensions for a breast-height wall could not be determined. Since the projected armament for Alcatraz was to be 15-inch Rodmans, Mendell inquired in August 1870 if the new batteries were still to be built without breast heights. A reply to Mendell's inquiry has not been found, but in December he said that he proposed building a breast-height wall of brick and concrete. With or without permission, Mendell completed breast-height walls and the new parapets (without sodding) for the four guns in Battery 2 (Halleck) before he received orders to suspend any further work of this nature.[16]

In the fall of 1870 the number of prisoners at Alcatraz climbed to an average of 150. Mendell found his work force now ranging from 80 to 100 men. Not only had they finished the excavations at the northwest end of the island, but also they were fast completing the required work, and then some, at the southwest, for Batteries 11, 12, and 13. In order to keep the prisoners occupied, Mendell now proposed to Humphreys that he commence excavating at Battery 5 (Mansfield) where the ground was to be cut down by 30 feet, removing perhaps 25,000 cubic yards of mostly rock. He worried a little about starting work at this battery, for it still had mounted one 100-pounder Parrott rifle and ten 10-inch Rodmans. Washington was not worried, however, and Mendell received authority to remove the guns and begin excavations in this

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16. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Mendell, Aug. 26, 1870, to Humphreys; NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Dec. 24, 1870, to Humphreys, and Mendell, Annual Report of Operations, Alcatraz, for FY 1871.

area. Other projects that helped keep the prisoners occupied were the removal of the 13 wooden platforms in Battery 2 (Halleck), which Mendell had erroneously reported taken up the previous spring, and the dismounting of the six 10-inch Rodmans and four 42-pounder smoothbores in Battery 1 (Halleck).[17]

10. Armament Report, 1871

Mendell prepared a description of all the guns mounted on Alcatraz as of June 30, 1871--a recapitulation that was most useful in this period of rapid change:

Battery 1 (right face, Halleck)

All guns and platforms removed

Battery 2 (left face, Halleck)

1 15-inch gun, front-pintle, wood platform, iron carriage (new)

1 15-inch gun, center-pintle, stone platform, iron carriage (old) (the approved project included this gun in Battery 3)

Battery 3 (Rosecrans)

1 15-inch gun, center-pintle, stone platform, iron carriage (old)

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17. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Mendell, Oct. 28, 1869, and Oct. 29, 1870, to Humphreys; NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Jan. 6 and May 10, 1871, to Humphreys; NA, RG 77, OCE, Letters Sent 1866-1870 (3d Div.), vol. 3, Casey, Nov. 22, 1870, to Mendell. Now that he had an appropriation, Mendell was also able to hire a large number of civilians for construction.

Battery 4

Excavated only

Battery 5 (Mansfield)

All guns and platforms removed

Batteries 6 and 7 (Stevens)

3 100-pdr. rifles, center-pintle, stone platform, iron carriages (old)

3 200-pdr. rifles, center-pintle, stone platform, iron carriages (old)

Batteries 8 and 9 (Tower)

1 15-inch gun, center-pintle, stone platform, iron carriage (old)

7 10-inch guns, center-pintle, stone platform, iron carriage (old) (apparently the five 8-inch guns listed in 1868 had been replaced by five 10-inch Rodmans)

8 42-pdr. smoothbores, front-pintle, stone platform, wood carriages (old)

Battery McPherson (which would not be replaced per se in the new project)

3 10-inch guns, front-pintle, stone platforms, iron carriages (old)

1 100-pdr. rifle, center-pintle, stone platforms, iron carriages (old)

Battery 10 (right face, McClellan)

5 10-inch guns, front-pintle, stone platforms, iron carriages (old)

(Alexander listed only two in 1868; saying the other three were 8-inch Rodmans)

1 100-pdr. rifle, center-pintle, stone platform, iron carriage (old)

2 10-inch columbiads, center-pintle, wood platform, wood carriage (old)

8 8-inch columbiads, center-pintel, wood platform, iron carriage (old)

Battery 11 (left face, McClellan)

1 15-inch gun, center-pintle, stone platform, iron carriage (old)

4 8-inch columbiads, center-pintle, wood platform, wood carriage (old)

Battery 12 (Prime)

1 10-inch gun, center-pintle, stone platform, iron carriage (old)

3 8-inch columbiads, center-pintle, wood platform, wood carriage (old)

Battery 13

Excavation only

North Caponnier

No guns; gun room and barbette position removed

South Caponnier

1 8-inch columbiad, center-pintle, permanent platform, wood carriage (old)

8 24-pdr. flank howitzers, front-pintle, permanent platform, wood carriage (old)

Guardhouse

3 unoccupied platforms

Total: 63 guns mounted, of which 55 were in barbette, and of which 5 were 15-inch Rodmans.[18]

The Congress alloted $75,000 for Alcatraz in fiscal year 1872. Mendell proposed using this sum to complete Batteries 1, 2, 4, and 5 (the two guns in Battery 3 were already mounted, albeit unsatisfactorily). These four would contain sixteen 15-inch Rodmans, for which Mendell planned to construct six stone and ten wooden platforms, all positions having masonry breast-height walls. He estimated that the total cost would amount to $106,263, thus indicating that either he had funds remaining from the previous year, or he expected to carry the project over into fiscal year 1873.[19]

The various engineers assigned to the works on Alcatraz maintained a "Journal of Operations" that each passed on to his successor. The journal for the years 1853 to 1876 has survived, and it provides a glimpse of the various activities involved in constructing batteries. Mendell gave a rich example of the work involved in his record for July 1871:

Battery 2, magazine, plastering and laying brick; cutting coping

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18. NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Annual Report of Operations for FY 1871.

19. NA, RG 77, OCE, Letters Sent 1871-1872, vol. 1, Casey, Mar. 22, 1871, to Mendell; NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Apr. 11, 1871, to Humphreys.

Making magazine doors (these measured 6 feet 6 by 2 feet 10 by 4 inches)
Laying flooring in North Caponier
Battery 6, excavating & drilling on bluff
Battery 4, excavating on slope
Battery 1, excavating and drilling on slope
Filling in caponier and rear of "fort"
Battery 2, excavating on slope and asphalting magazine
Whitewashing magazine roofs
Battery 3, cutting out brick
Painting crane on wharf
New barracks, clearing off arches, painting embrasures (most iron was "painted" with coal tar), shutters, and pipes
Prisoners employed in smithing, carpentry, cleaning brick, excavating, etc.[20]

11. Depressing Gun Carriages, Again

Mendell must have been somewhat surprised when he learned in October 1871 that the board of engineers in New York had recommended, and the chief of engineers had approved, a new project for Alcatraz that called for the King depressing carriages in eight of the batteries. The New York board recognized that since Alcatraz was composed of rock the project would be most expensive. But "in so important a harbor as San Francisco and one so easy of access, where the great depth of the water, force of currents, and almost constant sea waves render auxiliary means of defense as floating obstructions and torpedoes [i.e., mines] unreliable aids to

20. FARC, San Bruno, RG 77, OCE, San Francisco District, Jounral of Operations, Alcatraz, vol. 1, 1853-1871, entry for July 1871.

the shore batteries, that these batteries should be made as efficient as possible." Batteries 2 and 4 were exempted from this change of plans, simply because work on them had already progressed so far; and if Battery 3 had already been remodeled significantly, Mendell was not to change it either. Also, Batteries 11, 12, and 13, at the southeast end of the island, were excluded because their fire was upon the interior waters of the bay. Because the depressing carriages needed more space, there would be four fewer guns mounted in the batteries. The existing plans called for parapets 7 feet above the terreplein. But for depressing guns the parapet would have to be 11 feet high. The New York board's plan attained this height in some batteries by raising the parapet 2 feet and excavating the terreplein an additional 2 feet; in other cases the terreplein was to be lowered 4 feet.

The Engineer Department, while approving the project, directed Mendell to proceed for the time being only on the batteries that had been excluded from the new project. The King depressing carriage was still pending its trial. In the end, this depressing carriage was not accepted by the army. The Ordnance Department, ordinarily responsible for the development of weapons, was aroused to fury by the engineers' experiments in this field. Both chiefs would write angry letters to the secretary of war. Not until the end of the century was an acceptable carriage of this type adopted.[21]

B. Reconstructing the Batteries

1. Batteries 2, 4, and 5

Mendell's annual report for fiscal year 1872 was a busy one. He stated that 11 guns and their platforms had been

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21. NA, RG 77, OCE, Letters Received 1871-1886, Board of Engrs for Fortifications (New York), Sept. 4, 1871, to Humphreys; NA, RG 77, OCE, Letters Sent 1871-1872, vol. 1, Casey, Oct. 6, 1871, to Mendell.

removed during the year--the six Parrott rifles in old Battery Stevens and the five 10-inch Rodmans in adjacent Battery Tower. This dismounting had allowed Mendell to proceed with the leveling of the steep incline in the Battery Stevens area, partly by excavating and partly by filling. He had also demolished the old brick traverses of Stevens.

At Battery 2 (left flank of Halleck) the three brick and concrete magazines were completed, covered with imported earth to make traverses, and sodded. A 50-foot section of a low brick wall along the bottom of the reverse slope had been constructed (this wall was greatly heightened in post-fortification days) and the slope itself had been covered with earth and seeded. Mendell considered this battery completed except for three platforms (the experimental platform and a 15-inch gun were already in place).

The workmen had covered the magazine of the former North Caponier with concrete, set its coping, and begun covering it with earth. Inside the magazine a brick wall had been constructed 20 feet in from the scarp wall, and the space behind it had been filled with stone. While this made the magazine smaller, it gave the necessary protective thickness to the old, and now too thin, scarp. A start had been made on an arched passageway between this magazine to a shell room being built in the reverse slope.

The breast-height walls and the parapet for the two guns of Battery 4 (the extension of old Battery Rosecrans) were completed and sodded. Considerable progress had been made on this battery's magazine; and the slope to the rear was covered with earth and sown with grass. This battery still lacked its two gun platforms.

At Battery 5, Mendell had the excavation done for the depressing carriages--the first battery to receive this new treatment. He complained slightly that it would have been an easier job if he had known about it when he had first started work on the battery. He also had made progress in reducing the former northwest peak at the rear of the battery and had made a cut through it for easier communication with the eastern side of the island. (Later this cut was covered with earth to make a tunnel-like passageway that came out at the northwest end of the row of noncommissioned officers' quarters. In the modern prison era, this passage was blocked off, and the eastern end was outfitted as a morgue.) At the northwest end of Battery 5, Mendell had built two granite center-pintle platforms, the breast heights, and the parapets. These were the only platforms constructed during the year, and their irons were not yet in place. The service magazine at their rear was finished, ready for the earthen cover.

The road to the rear of the bombproof barracks had been reconstructed this year, making communication with the southeast end of the island once again feasible. One other interesting note that Mendell tacked onto the end of his report was the remark that the sods for the new parapets had been cut in the vicinity of Fort Point. He also had acquired sod from Lime Point, now a military reservation. In addition to the sod, he had planted clover seed, having purchased 25 pounds in March 1872. He concluded this annual report with the statement that the number of guns mounted as of June 30, 1872, had been reduced to 52.[22]

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22. NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Annual Report of Operations, Alcatraz, for FY 1872.

2. Alcatraz's Tunnel

Alcatraz's appropriation for fortifications in fiscal year 1873 took a slight drop, to the sum of $42,500. Mendell continued to remodel the batteries throughout the year. He constructed four more earthen traverses, each having a magazine and a shell room leading off from the passageway underneath. These passageways were considered also to be bombproofs to provide shelter for the artillerists. He had the parapets built for four guns in Battery 5 and for two guns in Battery 6. The rock bank in the rear of Battery 5 was covered with earth and, at last, this battery had a true parados to protect it from reverse fire. At that time, the cut through the bank was covered, making a short tunnel through the top of the island. Also that year, Alcatraz acquired its only real man-sized tunnel through living rock, when Mendell had a 180-foot-long bore cut through the island from the covered way near the North Caponier to Battery 4. Since then, to the present time, persistent legends have grown and thrived that Alcatraz is laced with tunnels, secret and otherwise, dating back to the days of the Spanish Empire. Another new road appeared the same year that led from the rear of the noncommissioned officers' quarters to the Citadel.

In his journal Mendell recorded the materials and the costs for constructing the magazine and shell room in Battery 1.

Material:	Cement used in brick masonry, 14 bbls. of Portland and 54 bbls. of Rosendate	$ 233.00
	Cement used in concrete masonry, 170 bbls. of Portland and 68 bbls. of Rosendate	1,181.50
	Lime	73.00
	Brick, 51,607	670.89
	Sod, 1,875	23.44
	Subtotal	$2,251.83

Labor:	masons, stonecutter, carpenter, laborers	2,030.12
	Total	$4,281.95[23]

3. Work on Platforms Suspended

During the year Mendell acquired and cut to shape sufficient timber for five additional gun platforms (for which he also had the irons), but just as he prepared to lay them a letter arrived from the department suspending the construction of any 15-inch platforms. The remaining old armament on the island decreased in number when Mendell dismounted the three 8-inch columbiads remaining in the left face of old Battery McClellan.[24]

4. Permanent Barracks Proposed

The Board of Engineers for the Pacific Coast prepared a report and plans for the erection of a four-company brick two-story barracks on top of the unfinished casemated barracks at the wharf in the summer of 1872. This ample structure, estimated to cost $140,000, would contain dormitories, mess halls, a post library, a schoolroom, laundresses' quarters, and quartermaster and commissary storerooms. The board had two reasons for recommending such a structure at this time--the present temporary barracks behind old Battery McClellan lay directly on the site of new Battery 10; and these being frame buildings they could easily catch fire and, if so, be destroyed because of the lack of water on the island, or they could easily be destroyed by enemy fire.

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23. NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Annual Report of Operations, Alcatraz, FY 1873; NA, RG 77, OCE, Letters Sent 1871-1872, vol. 1, Casey, June 22, 1872, to Mendell; FARC, San Bruno, RG 77, OCE, San Francisco District, Journal of Operations, Alcatraz, vol. 2, 1871-1876, entry for June 1873.

24. NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Apr. 22 and June 5, 1873, to Chief of Engrs.

The Board of Engineers for Fortifications in New York refused to give the chief of engineers a positive recommendation for the barracks. At first it quibbled about minor points, such as inadequate air and floor space and the fact that wooden barracks were cheaper, drier, and more comfortable. The Pacific board rebutted "that Alcatraz Island will always be garrisoned, and be an important post," and should have permanent quarters. Finally, the New York board showed its trump card against the project--the original concept of a two-tiered casemated barracks with gun embrasures should be retained. If an enemy fleet were to get into the harbor in a dense fog, the guns of this structure could cover the whole sector from Angel Island past Yerba Buena Island and the flank guns from Yerba Buena to San Francisco.

In February 1873 the department informed the Pacific board that the proposed barracks would not be built: "The present unfinished casemates will be reserved for completion, and the Pacific board will at once proceed to project the necessary peace quarters located in some [other] position or positions."[25]

5. The Project Progresses, 1874-1875

Alcatraz's appropriation for fiscal year 1874 bounced back up to $50,000. Mendell used the money carefully, continuing to modify the fortifications. This year the old South Caponier was remodeled into an earthen-covered magazine similar to the North Caponier. It "was cut down to the level of the floor of the gun room, and a traverse wall, four feet thick was built, which lessened

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25. NA, RG 77, OCE, Letters Received 1871-1886, Alexander, July 9, 1872, to Humphreys, with enclosures; NA, RG 77, OCE, Letters Sent 1871-1872, vol. 1, Humphreys, Oct. 16, 1872, an endorsement to the AG on a letter by Major General Schofield, and vol. 2, 1873-1875, Casey, an endorsement, Feb. 27, 1873, to the Pacific Board.

the length of the magazine fifteen feet. The space between [the traverse and the scarp wall] . . . was compactly filled with earth and stone." Mendell continued, "Concrete was laid on the floor of the gun room to convert it into a roof surface. The stone coping was reset. Where it is exposed to view, the magazine was covered with earth . . . and its exterior slope was made and sodded." He said that the old stone steps that led from the terreplein down to the magazine were taken up, the passageway from Battery 10 to Battery 11 was excavated in the same area, a portion of the steps was relaid, and the necessary side walls along the passageway were built.

Other work on the fortifications included:

Battery 1 (right face, Halleck): An 80-foot parapet, and covering the reverse slope with earth and sodding it

Battery 7: Filling in the incline of part of old Battery Stevens, and covering and sodding the magazine between Batteries 6 and 7

Battery 10 (right face, McClellan): A 40-foot section of its parapet

Battery 11 (left face, McClellan): Breast-height walls, an 8-foot high sodded parapet, and the two front-pintle platforms (without irons)

Battery 12 (Prime): Masonry work on the two magazines that flanked this battery

6. Total Armament--Three 15-Inch Guns

In addition, Mendell dismounted all the remaining old armament and took up all the old platforms on the island except the

two 15-inch guns in Battery 3. Alcatraz's total mounted armament now came to three guns, these two and the experimental 15-inch gun in Battery 2. The major, never one to waste a dollar, used the old platform stones to build a bulkhead at the rear of the wharf, replacing the old wooden one.[26]

7. A Name for Alcatraz's Works

By 1874, the War Department had formalized the procedures for naming works of fortifications--the names were now promulgated by the department itself and announced in general orders. The chief of engineers solicited his field people for appropriate names for any works in their jurisdiction that had not been so designated. This request placed Mendell in a quandry. He replied that while Alcatraz's batteries had once been named for engineer officers, he had received authority from the chief to designate them by numbers: "This nomenclature is convenient, and being already authorized . . . I have no suggestion to make in the way of change." He preferred to retain the numbers, but being a good soldier, he offered a list of names of persons associated with the history of the Pacific Coast. Mendell was allowed to retain his system, but his list of suggestions is of passing interest:

Maj. Gen. Edward D. Baker, senator from Oregon, killed at Balls Bluff, Va.

Brig. Gen. George Wright, commanding, Department of the Pacific; drowned off Pacific Coast

1st Lt. William H. Warner, topographical engineer, killed by Indians in California

Brig. Gen. E. R. S. Canby, commanding, Department of the Columbia, killed in Modoc War

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26. NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Annual Report of Operations, Alcatraz, for FY 1874; NA, RG 77, OCE, Letters Sent 1873-1875, vol. 2, Casey, Mar. 18, 1873, to Mendell.

2d Lt. Thomas C. Hammond, dragoon, killed at San Pasqual, Calif.

Maj. Gen. James B. McPherson, Alcatraz engineer, killed near Atlanta, Ga.

Brig. Gen. David A. Russell, killed at Opequan, Va.

Col. Bennet Riley, Mexican War

Commodore Robert F. Stockton, commanding, Pacific Squadron, Mexican War

Adm. David G. Farragut, Civil War

Brig. Gen. Stephen Watts Kearny, Mexican War

Adm. Samuel F. DuPont, Civil War

General Humphreys selected McPherson's name from this list and forwarded it to Secretary of War Belknap with the recommendation that it be applied to all the works on Alcatraz, that is, "Fort McPherson." As noted earlier in this report, however, Alcatraz Island never received a formal name.[27]

8. Appropriations Reduced, 1874

By the mid-1870s, Congress was displaying a growing reluctance to continue appropriating large sums of money for coastal fortifications. This became noticeable in San Francisco in fiscal year 1875. The entire allotment for the Bay Area came to only $80,000, of which $20,000 was to be applied to the works at Alcatraz. Mendell hoped to stretch out this sum as much as possible by the continuing use of prison labor, and he proposed to confine his efforts this year to the southeast end of the island. By June 1875 he had completed remodeling the old South Caponier and had built the shell room associated with it, calling the whole thing "Traverse

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27. NA, RG 77, OCE, Letters Sent 1873-1875, vol. 2, Casey, Apr 9, 1874, to Mendell; NA, RG 77, OCE, Letters Received 1871-1876, Mendell, June 11, 1874, to Chief of Engrs., and Humphreys, July 15, 1874, to Secretary of War Belknap. Humphreys recommended "Fort Lincoln" for the works at Fort Point and "Fort Stanton" for those at Lime Point.

Q" (he had lettered all the proposed traverses and numbered all the gun positions consecutively, starting with "A" and "1" at Battery 1). Three other traverses were also completed down to their sodding.

9. Leveling Southeast End of the Island

The greatest change in the appearance of Alcatraz was accomplished by the picks and shovels of the military prisoners. The greater portion of the southeast end of the island was being cut down to an elevation of 62 feet--about the same elevation as the new batteries in that vicinity. Although the details are lacking, Mendell arranged for some kind of iron railroad track, complete with dump car and a turntable, for moving the excavated rock down to the wharf. Mendell's concept was to have this large plateau set aside as the site for permanent quarters and a parade ground. This area, which still exists, would see intensive use in future years, but in ways that Mendell did not envision.[28]

10. Barracks on Casemates

It will be recalled that in 1872 the Pacific board had proposed, to no avail, a permanent barracks on top of the unfinished casemates. The matter of a barracks again became an issue when fire destroyed the frame quarters on the southeast end of the island in April 1874. The garrison went under canvas for the summer, but by autumn steps had to be taken for better shelter. Mendell agreed with the post commander that the top of the unfinished casemates was the best site on the island. He reminded him that army regulations required the approval of the secretary of war before occupying a fortification site or modifying an existing

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28. NA, RG 77, OCE, Letters Sent 1873-1875, vol. 2, Casey, May 12, 1874, to Mendell; NA, RG 77, OCE, Letters Received 1871-1886, Mendell, May 30, 1874, to Chief of Engrs., and Annual Report of Operations, Alcatraz, for FY 1875; FARC, San Bruno, RG 77, OCE, San Francisco Dist., Journal of Operations, Alatraz 1871-1876, vol. 2, entries for February and April 1875.

one. Concerned that approval had not been acquired, Mendell wrote the chief of engineers about the matter, saying that "the temporary barrack is well under way." Whether or not the secretary of war gave his permission has not been determined. But before long a particularly ugly frame barracks stood on the casemates.[29]

11. Rodmans Mounted, Construction Appropriations Cease, 1876

For fiscal year 1876, the Congress appropriated another $25,000 for Alcatraz. Mendell did what he could with this small sum, principally the construction of two new magazines in Battery 10 (old right face, McClellan). In excavating the site for one of these magazines, the workmen accidently broke the covered drain from the defensive barracks. Mendell had it repaired and at the same time had a new drain built for Battery 12 (Prime). In October 1875, two 15-inch guns were mounted on their permanent platforms at the northwest end of Battery 5, near the former site of the first 15-inch Rodman mounted on the Pacific Coast. The entire armament now consisted of five Rodmans, one in Battery 2, two in Battery 3, and two in Battery 5. Prisoners continued to excavate the southeast end of the island, lowering the rocky banks to the same elevation as the adjacent battery terrepleins. Looking toward the future, Mendell could see the probability of cutting off the entire top of the island some 15 or 20 feet and removing the Citadel so that the resulting plateau could provide space for additional guns and mortars. This would prove to be but a daydream, for Congress would fail to pass any appropriations for constructing fortifications on Alcatraz, or anywhere else, for fiscal year 1877, and for many years thereafter.[30]

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29. NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Sept. 22, 1874, to the Chief of Engrs.

30. NA, RG 77, OCE, Letters Sent 1873-1875, vol. 2, Casey, Mar. 10, 1875, to Mendell; NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Annual Report of Operations, Alcatraz, for FY 1876.

V. The Last Years As A Fortified Place, 1876-1907

A. Prisoner Maintenance

Mendell's annual reports over the years following 1876 had recounted the routine maintenance of the existing fortifications; printing metal work, scraping moss off brick walls, whitewashing engineer buildings, resodding parapets, periodic excavation by prisoners at the southeast end of the island, and so forth. From a separate appropriation, "Preservation and Repair of Fortification," Mendell acquired a small amount of funds sufficient for hiring a civilian overseer, and for occasional supplies such as paint. In 1877-1878, windstorms had carried away the extension to the wharf that had been constructed in 1867 and Mendell did not propose its replacement. With departmental approval, Mendell sold the engineer steamer Kathy, and his scow at public auction in April 1881, receiving almost $5,000 for the two of them--considerably more than he had anticipated. By 1884 even the engineer crane on the wharf had been taken down.[1]

B. Centennial of American Revolution

The citizens of San Francisco celebrated the Centennial of the American Revolution on July 4, 1876, with parades, speeches, a sham battle at the Presidio, naval vessels bombarding a target, and four of Alcatraz's guns firing at Lime Point. The Alta California described the exercise at the island, and the reporter was apparently somewhat embarrassed by the results of the firing. The four 15-inch Rodmans in Batteries 3 and 5 fired successively. The first rounds fell far off of the target; but succeeding shots managed to

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1. NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Annual Reports of Operations, Alcatraz, for FY 1877, 1878, 1881, and 1884; Mendell, Apr. 25, 1881, to Chief of Engrs. The appropriation "Preservation and Repair of Fortifications" had previously been called "Contingencies of Fortifications."

hit the cliff at Lime Point. When a Rodman at Battery 5 was fired, fragments of the wooden sabot tied to the shell and unburned grains of powder flew among the men in the lower guns in Battery 3, "who, nevertheless, went on with their work with the utmost nonchalance. In this connection, it may be remarked that a heavy piece of wood from one of the sabots struck the platform of the left piece, grazing the blouse of one of the men . . . while another passed so near the head of a noncommissioned officer that the wind from it caused a momentary unpleasant effect." Apologizing for the artillerists, the reporter wrote: "It is but fair to state that the guns used were none of them provided with the proper sighting, three being aimed by means of a chalk string. The batteries at Alcatraz are being remodeled and the few guns are smooth bores, which, accurate enough for short ranges, fail in the longer ones." No one had told him that the remodeling on Alcatraz had come to a halt.

While visitors had been provided with seats on the roof of the Citadel, most observers, said the reporter, preferred to wander about the parapets nearer the guns. Perhaps the most interesting event of the day occurred when military prisoners broke into the commanding officer's reception room "and made away with a quantity of distilled liquors, etc., which had been set out for the visitors. Several drunkards were caught and confined."[2]

C. Mendell's Activities

Mendell may not have had any construction underway at either Alcatraz or Lime Point, but he was hardly idle. Operating out of a four-room suite of offices at 533 Kearny Street in San

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2. Daily Alta California, July 5, 1876.

Francisco (southwest corner of Kearny and Sacramento), he supervised a multitude of harbor and river improvement projects. His personal monthly report for August 1884 illustrated the expanse of the activities of which he was in charge:

Defenses of Alcatraz Island and Lime Point
Improvement of Oakland Harbor
Improvement of Wilmington Harbor, Calif.
Improvement of Humbolt Harbor and Bay, Calif.
Improvement of Redwood Harbor, Calif.
Improvement of Petaluma Creek, Calif.
Improvement of Colorado River, Nev., Calif., and Arizona Terr.
Survey of Islais Creek, San Mateo River, and Napa River, Calif.
Removal of wreck Escambia, entrance, San Francisco Harbor
Investigation of causes tending to decrease depth of water, San Francisco Harbor
Member, Board of Engineers of Pacific Coast.[3]

D. Citadel Remodeled

In contrast to Mendell, the post quartermaster on Alcatraz had construction funds in 1881. He proposed remodeling the old Citadel to convert it into 6 three-story sets of officers' quarters. The paperwork eventually reached the Office of the Chief of Engineers where no objection was made to the idea. From then on the Citadel was considered to be a post structure, no longer a part of the fortifications of Alcatraz. Doors were cut into the main floor;

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3. Bancroft Library, George H. Mendell, Letterbook Aug. 21, 1872-Sept. 24, 1879, Mendell, June 16, 1877, to Chief of Engrs.; FARC, RG 77, U.S. Army Corps of Engineers, San Francisco District, Letters Sent by Col. G.H. Mendell, April 1884-December 1889, Mendell, Aug. 31, 1884, to the AG, USA.

the loopholes in the basement level were enlarged and made into windows; dumb waiters were installed in the basement kitchens; and the three cells were blocked off with a partition. Very soon, formal flower gardens would be laid out on top of the water cisterns on the southeast side of the building. But from the city, the proud old building still dominated the skyline.[4]

E. Engineer Buildings

Other engineer buildings on Alcatraz did not fare as well. In January 1887, Mendell prepared a long inspection report of the engineer structures and works:

> The Engineer Buildings are two small storehouses, an office, a carpenter shop, a blacksmith shop, a stable and two frame buildings being quarters and kitchens for employees. Five of these buildings, all of which are classed as temporary, date from the earliest period of Engineer occupation and have now reached the limit of usefulness, and are not worth the expense of any considerable repair. . . .
>
> There are 14 magazines in traverses, all of which are now dry.
>
> The parapets and slopes are in fair condition. Their appearance would strike unfavorably an eye accustomed to the well preserved lines and slopes of batteries on the Eastern coast. The absence of sod, and the peculiarity of the climate in being nearly rainless for half of the year or more, make it impossible . . . to maintain lines and surfaces in their exact form. . . .
>
> Two Warehouses--they were near the wharf, and were 40 by 26 feet and 25 by 18 feet. One building was frame, very old, and the boarding of little value; the other building was 12 years old, in good condition, with a good

4. NA, RG 77, OCE, Letters Received 1871-1886, 2d Lt. J.L. Anderson, AAQM, Alcatraz, Jan. 26, 1881, to Chief QM, Mil. Dept. of Pacific; Mendell, Annual Report of Operations, Alcatraz, for FY 1882; NA, RG 77, OCE, Letters Sent 1881-1883, vol. 3, Actg. Chief of Engrs. John G. Parke, Apr. 21, 1881, endorsement.

roof. Both buildings were used to store the engineer material.

Blacksmith Shop--This building was near Battery 1 and was 25 by 15 feet, was a frame building and had two forges. The condition was worthless. It was then used as an engineer shop.

Carpenter Shop--This shop was on the back wall of the unfinished casemates; was 36 by 18 feet, had two benches, was made from old lumber, and was in fair condition. It is now being used as a carpenter shop and a storehouse.

Stable--This building was 19 by 30 feet, had seven stalls and was near the southeast end of the island. The condition of the stable was worthless, but it was still being used as an engineer stable.

Laborers' Quarters--This building was near the southeast end of the island, was 81 by 31 feet with a dining room and kitchen below and accommodations on main floor for 100 men. The condition was worthless, and then vacant.

Engineer Office--This office, moved back to the vicinity of the lighthouse, was 23 by 35 feet, with three rooms on the first floor and four rooms above. The condition was very old but was in fair order. It was used as fort keeper's residence and engineer office.

Fourteen Magazines--Five of these were used to store powder, two were used for ordnance materials, five were used as engineer storerooms, and two were vacant because of leaks.[5]

Mendell struck two of these buildings off of his list when fire destroyed the stables and the laborers' quarters in the early morning of March 25, 1888. The nearby laundress' quarters (which belonged to the garrison) were also destroyed. No attempt was

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5. NA, RG 77, OCE, Letters Received 1886-1887, Mendell, Jan. 3, 1887, to Chief of Engrs. This report was typed, the first typed piece of correspondence to come out of Mendell's office.

made to replace the two engineer buildings, simply because Mendell had no laborers and no animals on the island. By then he had lost his fort keeper because Congress had not passed an appropriation for even preservation of the works. Not until the late fall of 1888, did a trickle of money allow Mendell to rehire the fort keeper for Alcatraz.[6]

F. Submarine Mines

1. Mine Storage on Alcatraz

A few more dollars came into Mendell's accounts in the mid-1880s when the Ordnance Department announced that it was ready to ship submarine mines (then called torpedoes) to San Francisco for the defense of the harbor. The army had been experimenting with mines at Willets Point, New York, and now felt ready to distribute them to principal harbors. The Board of Engineers for the Pacific Coast met to consider where mines might be stored at San Francisco, and decided that the only feasible place to store them was in Mendell's unfinished casemated barracks at Alcatraz. In May of 1883 Mendell learned that the mines would be invoiced to him and that he would receive $800 to prepare the casemates for their arrival. The commanding officer at Alcatraz objected to the storing of the mines in the casemates, apparently on the grounds that they would endanger the lives of the troops living in the temporary barracks on top of the works. Once he was assured that the mines would not actually contain their explosives, he withdrew his objections.

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6. NA, RG 77, OCE, Letters Received 1888-1889, Mendell, Mar. 26, 1888, to Chief of Engrs., Report of Operations, Alcatraz, for February 1889; NA, RG 77, OCE, Letters Sent 1886-1889, Lt. Col. J.M. Wilson, OCE, telegram, Aug. 6, 1886, to Lt. Col. C.S. Stewart, San Francisco, Capt. C.B. Sears, OCE, Nov. 8, 1888, to Mendell.

Mendell improved the casemates, primarily by extending the temporary barracks so that it would completely cover those casemates being used for storage to prevent rainwater from gathering on the casemates and percolate through them. By June 30, 1884, Mendell was able to report that he had received 451 mines, had had them painted, and had stored them on scaffolding. Thus Alcatraz became the first home for San Francisco Harbor's mines, a project that would last down through World War II. Before much time passed, however, Mendell became unhappy with the storage facility. He complained repeatedly that it was damp, dark, and practically unventilated. He soon discovered that the mines were rusting to the extent that prisoners had to be employed to remove the old paint and apply new. By September 1885 he had prepared plans for a permanent brick torpedo shed to be erected on Yerba Buena Island.

Approval for the new mine storehouse did not reach San Francisco until 1889. Meanwhile, Mendell's one civilian and the assigned prisoners scraped and painted in an unending effort to keep ahead of the rust. A typical monthly report of this period read: "During the month 128 Torpedoes were cleaned and scraped, and 153 torpedoes were painted with one coat of red lead and one coat of white lead." In September 1889 Mendell learned that Willets Point was preparing to ship him an additional 120 mines. Hurriedly he wrote requesting that the shipment be postponed until he could build the yet unstarted storage building on Yerba Buena Island. The Ordnance Department agreed. The new structure was completed in November 1890 and Mendell completed the transfer of the (by now) 461 mines to Yerba Buena by June 1891. But Alcatraz's association with mine defenses was not yet at an end.[7]

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7. NA, RG 77, OCE, Letters Sent 1881-1883, vol. 3, Wright, OCE, telegram, Apr. 24, 1883, to Stewart, Wilson, OCE, Mar. 27 and

2. Mine Casemate

Controlled electrical submarine mines were operated from coastal bombproof casemates called either mining casemates or torpedo operating rooms. The functions of the operators in these shelters, were to respond to messages from observers and to manage the panels from which electrical cables ran underwater to the mines. If an enemy ship passed over, or near to, a mine or minefield, the operator sent an electrical impulse to the mine(s) causing it to explode. The Board of Engineers for Fortifications (New York) developed a project for the mine defense of San Francisco Harbor in 1885. Mendell was informed that the plan called for mines in two areas: one in front of Alcatraz having no fewer than 735 mines, and the other in the rear of the island with 315 mines. In 1889, the Congress made an appropriation of $250,000 under the title of "Torpedoes for Harbor Defense." Of this sum, $60,000 was allotted to San Francisco Harbor for two mine casemates; one each at Point San José and at Alcatraz Island.[8]

Mendell took charge of the San Francisco project and for Alcatraz selected the magazine in the unfinished casemate to be the operating room. He described this brick magazine as measuring 28 by 15 feet in dimension, with exterior walls 10 feet thick, and

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May 1, 1883, to Stewart; NA, RG 77, OCE, Letters Received 1871-1886, Stewart, Apr. 28, 1883, to Chief of Engrs., Mendell, Annual Report of Operations, Alcatraz, for FY 1883 and 1884, Jan. 23 and Sept. 17, 1885, and Jan. 5, 1886, to Chief of Engrs.; NA, RG 77, OCE, Letters Received, 1886-1887, Mendell, Annual Report of Operations, Alcatraz, for FY 1887; NA, RG 77, OCE, Letters Received 1888-1889, Mendell, Annual Report, Alcatraz, for FY 1888, Report of Operations, Alcatraz, for April 1888; Aug. 2 and Sept. 25, 1889, to Chief of Engrs.; NA. RG 77, OCE, Letters Sent 1881-1883, Letters Received 1890-1892, Mendell, July 9, 1891, to Chief of Engrs.

8. NA, RG 77, OCE, Letters Sent 1886-1889, Sears, OCE, July 6, 1889, to Mendell.

interior walls 6 feet thick. The major modifications required were flooring, increased cover (roof) on the arch, and a shaft and cable gallery measuring 4½ by 3 feet, for leading the cable from the magazine to the water's edge. Mendell estimated the cost of these expenses at $1,000.

In his annual report for fiscal year 1891 Mendell said that the modifications had been completed. He described the construction of the cable gallery: "The dimensions chosen for the tunnel were 4' x 5', but these figures were exceeded at places. Work was begun on September 3, [1890], and in November the project was completed with the exception of some additional concrete protection overhead where a tailor shop stands at present. It was not thought necessary to line the tunnel as there is an apparently good roof of natural rock. Upon further consideration however, it was thought advisable to line the tunnel with brick arch [which has not yet been done]."

Further correspondence concerning this mine casemate has not been found. It is quite probable that it was abandoned shortly after Mendell wrote the above report. When the Spanish-American War broke out seven years later, San Francisco Harbor was mined for the first time in its history. But the two casemates used to control the mines were the original one at Point San Jose and another at Point Cavallo, adjacent to Lime Point, with the mine field running between them.[9]

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9. NA, RG 77, OCE, Letters Received 1888-1889, Mendell, Aug. 2 and Oct. 8, 1889, to Chief of Engrs., General Correspondence 1890-1892, Mendell, July 9, 1891, to Chief of Engrs., Maj. W.H. Heuer, San Francisco, Report of Operations for National Defense (War) for FY 1898 and 1899.

G. Armament Changes 1876-1894

Alcatraz's armament during the last quarter of the 19th century, although small in quantity, continued to play a significant role in San Francisco's harbor defenses. It will be recalled that in 1876, at the time of the Centennial, five 15-inch Rodman smoothbores were mounted at the northwest end of the island. Three years later, when the top carriage of one of these guns in Battery 5 broke, it was replaced with the carriage of the Rodman standing on the old experimental wooden platform in Battery 2. This event reduced the armament to four center-pintle 15-inch guns mounted (two each in Batteries 3 and 5) and five dismounted. Also in storage were three 200-pounder Parrott rifles left over from Civil War days. In Battery 11, at the southeast end of the island, two front-pintle stone platforms stood without weapons.[10]

In 1881 the garrison on Alcatraz Island received two 4½-inch siege rifles and four 42-pounder howitzers. However, Mendell considered these to be outside his engineering responsibilities, and no further history of these weapons has been found except that the two rifles were mounted somewhere on the island in February 1882. Toward the end of 1885 the engineer supervised the mounting of a fifth 15-inch Rodman in Battery 11 for drill purposes. Because the carriage was too low, the gun could not be made serviceable and was soon dismantled.[11]

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10. NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Jan. 10, 1880, to Chief of Engrs., and Annual Report of Operations, Alcatraz, FY 1880.

11. NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Annual Report of Operations, Alcatraz, FY 1881; and Feb. 28, 1882, and Jan. 11, 1886, to Chief of Engrs.

When Maj. Gen. Nelson Miles commanded the Military Division of the Pacific, 1888-1890, he asked the Engineer Department to mount 8-inch converted rifles on Alcatraz and at Point San Jose for target practice. Until then the troops of both posts had had to travel to Fort Winfield Scott in order to drill with these weapons. Two of these rifles were mounted at the southeast end of the island on the undeveloped site of Battery 13 in early 1892. They stood on wooden platforms and no earthworks protected them. As of April that year, Alcatraz's armament amounted to:

four 15-inch Rodmans, center-pintle, mounted
two 8-inch converted rifles, mounted
five 15-inch Rodmans, unmounted
three 200-pounder Parrott rifles, unmounted

In 1893, the engineer received three new reinforced carriages, front-pintle, for 15-inch guns, and by June 1894 these had been placed; one in Battery 4, and two in Battery 11 and the Rodmans mounted thereon. This brought the total number of guns mounted to nine, a number that was not to be exceeded.[12]

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12. NA, RG 77, OCE, Letters Received 1888-1889, Mendell, Nov. 13, 1889, to Chief of Engrs.; NA, RG 77, OCE, General Correspondence 1893-1894, Col. F.L. Guenther, CO, Alcatraz, Jan. 24, June 6, 1893, and Jan. 15, 1894, to AAG, Dept. of Calif., Lt. Col. W.H.H. Benyuard, June 17, 1893, and July 10, 1894, to Chief of Engrs. In September 1895 one of the wooden platforms for the 8-inch converted rifles was replaced by a stone one at a cost of $238. And, the cost of the new 15-inch platform in Battery 4 came to $782.

concrete bed, 66 cubic yds. @ $6	$396
moving pintle block to site	32
moving traverse and prop stones	32
setting pintle block	24
setting traverse and prop stones	96
drilling holes in pintle stone & setting pintle	30
concrete filling around platforms, 18 cub. yds.	108
altering traverse rails	16
drilling holes and setting traverse rails	36
bolts for fastening rails to stone platform	12
	$782

H. Alcatraz Disarmed

1. Spanish-American War

The war with Spain brought a flurry of activity to strengthen San Francisco's defenses in 1898. But Alcatraz did not share in the slight increase in armament, except for the construction of two platforms for 8-inch converted rifles, on which the guns were never mounted. By the end of the century it was quite clear that the era of smoothbores was definitely over. Already powerful rifles of a new breed were appearing on the California coastline, and plans for these guns for Alcatraz were already on the drawing boards. In 1900 the Ordnance Department dismounted one of the 15-inch guns in Battery 5 and sold its carriage. At the same time the three obsolete 200-pounder Parrotts and their carriages were disposed of by sale. Finally, on December 31, 1901, the annual armament report for Alcatraz announced that no coastal guns whatsoever stood mounted on the Rock.[13]

2. The Fate of the 15-Inch Rodmans

A postscript to the history of Alcatraz's 15-inch Rodmans appeared in Popular Mechanics magazine in 1920. The

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An 1892 plan of the unfinished casemate had a note on it that a 15-inch Rodman had been placed in casemate 8. This was an error on somebody's part. The gun positions at the northwest end of the island were renumbered at that time and a 15-inch gun was placed in position 8, in Battery 4.

13. NA, RG 77, OCE, General Correspondence 1894-1923, Heuer, Report of Operations, Alcatraz, FY 1898; FARC, San Bruno, RG 77, OCE, San Francisco District, Letterbooks, Reports of Operations, Sub. Engrs., 1896-1902, Lt. Louis Wolf, Nov. 10, 1900, and Jan. 30, 1901, to Col. C.R. Suter, CE, Maj. C. Davis, May 1, 1899, Nov. 10, 1900, and Jan. 30, 1901, to Chief of Engrs., Maj. F.V. Abbot, OCE, Jan. 23, 1901, to Davis; NA, Cartographic Archives Div., RG 77, Fortifications File, Armament Report, Alcatraz, Dec. 31, 1901 (Dr. 256-16-19).

writer of the article described the way that the army allegedly disposed of the immense guns (which were too heavy to move economically) by placing them in the island's only real tunnel, packing them with dynamite, and shoving the handle of a blasting machine down:

> The explosion that followed was terrific. Alcatraz Island and all of San Francisco trembled. Every window in the power house and other near-by buildings was shattered. When the engineers went into the tunnel, after the smoke and dust had cleared away, all that was to be found were scraps of the gun, splinters of the plank that had lined the tunnel, and tons of loose rock that had formerly been the tunnel wall. When the debris was all cleaned out, the biggest piece of the gun that could be found weighed 840 pounds.[14]

I. Alcatraz and the Endicott System

Ever since the Congress stopped appropriating funds for coastal defenses in the mid-1870s, a rising chorus of complaints about the government's neglect of the nation's safety reached Washington, D.C. In 1882, for example, the San Francisco Chamber of Commerce addressed a memorial to the Congress pointing out the "comparatively defenseless condition of our harbor, our city, and the Mare Island naval-station." Brig. Gen. H. G. Wright, chief of engineers, emphatically agreed: "The city of San Francisco is today at the mercy of the iron clads of an enemy." He said that he had reported the defenseless condition of American cities to Congress annually for the past three years, adding: "There is hardly any civilized nation so illy prepared for war, so far as maritime defences are concerned as the United States."[15]

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14. Popular Mechanics, 33(March 1920):418-19. This article said that seventeen 15-inch guns were thus disposed of in the tunnel; whereas, Alcatraz had only nine such guns.

15. NA, RG 77, OCE, Letters Sent 1881-1883, vol. 4, Brig. Gen. H.G. Wright, OCE, Dec. 26, 1882, to Secretary of War; [U.S. Congress] Senate Miscellaneous Documents No. 27, 47th Congress, 1st Session, "Memorial of the Chamber of Commerce of San Francisco."

The government reacted. In 1883 naval appropriations established a joint army-navy Gun Foundry Board to study ways and means of producing modern armament. Two years later, the Congress established a board under the presidency of Secretary of War William C. Endicott (the Endicott Board) to study and plan the modernization of coastal fortifications, and in 1888 the Board of Ordnance and Fortification, headed by Maj. Gen. John Schofield, commander in chief of the army, was established to review plans developed by army engineers. Illustrative of this fresh activity in coastal defense was an estimate for defensive works for San Francisco that was prepared by the Board of Engineers for Fortifications (New York) in 1884. It called for over 200 modern rifles and mortars at a cost of almost $15 million. The Endicott Board's recommendations for San Francisco were even more grandiose: 110 guns and 128 rifled mortars.[16]

Chief of Engrs. Thomas Casey wrote Colonel Mendell, now the senior engineer on the Pacific coast, in the fall of 1890, proposing the temporary installation of an 8-inch rifle on a disappearing carriage on Alcatraz: "This . . . position was selected on account of its splendid command down the Entrance and has always been regarded as a most eligible site for guns in the harbor. Besides a gun here would cross its fire with the [10-inch] gun [proposed] above Fort Point." Mendell did not favor this scheme and wondered if the temporary emplacement was worth the money it would cost. Moreover, the colonel that thought the outer defenses should be constructed first, while the inner defenses of the harbor could wait

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16. Russell F. Weigley, History of the United States Army (New York: The Macmillan Co., 1967), pp. 169 and 283-84; Walter Millis, Arms and Men, A Study in American Military History (New York: G.P. Putnam's Sons, 1956), pp. 149-52; Millis, American Military Thought, p. 203; NA, RG 77, OCE, Letters Received 1871-1886, Board of Engrs. (New York), Aug. 30, 1884, to Chief of Engrs.

until later. Still, Alcatraz remained somewhat important in the scheme of things: "I think that Alcatraz, although deprived by modern advances [in weapons] of the high importance with which it has been invested in past discussion of the defense of the harbor, will always have value for its fire into the Golden Gate." The 8-inch rifle was not emplaced.[17]

In November 1891 the New York board of engineers completed a defense project for San Francisco that included plans and sections for the various new works. The project called for two huge, earthen and concrete batteries containing five 12-inch guns on lifts on Alcatraz Island. A two-gun battery would stand on top of the island, just northwest of the Citadel, and a three-gun battery was to be located on the prisoner-carved plateau at the southeast end. As it turned out, the Ordnance Department did not adopt the gun lift for American defenses. In 1897 the board of engineers recommended that the five guns for Alcatraz be mounted on disappearing carriages and be arranged for all-round fire. This new project received approval.[18]

A year later, the senior engineer officer at San Francisco, Col. Charles R. Suter, argued that the inner harbor did not require heavy armament, such as the proposed 12-inch guns at Alcatraz: "The protection of the mine-fields is the only obvious requirement, and this is a matter for small guns." Eventually,

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17. NA, RG 77, OCE, General Correspondence 1890-1892, Casey, Sept. 30, 1890, to Mendell and Mendell, Oct. 28, 1890, to Chief of Engrs.

18. NA, Cartographic Archives Div., RG 77, Fortifications File, maps and plans, "San Francisco Harbor, Cal., General Project for Defense," Nov. 21, 1890, Sheets B and M; NA, RG 77, OCE, General Correspondence 1894-1923, Heuer, Report of Operations for Fortifications, San Francisco, FY 1898.

Suter's ideas gained ascendancy and, by 1905, the approved project for Alcatraz called for six high-powered 6-inch guns.[19]

J. Permanent Military Prison

1. General MacArthur on Fortifications

Meanwhile the number of military prisoners on Alcatraz increased greatly as large numbers of convicted personnel were returned from the Philippine Islands. The need for additional prison buildings became imperative, and the only available space was the area that Mendell had had leveled 25 years earlier. In 1902 these buildings (temporary in character) were erected at the southeast end of the island. An up-to-date permanent prison was still very much required and, by 1903 the Army was considering feasible sites for its location in the Bay Area. The departmental commander, Maj. Gen. Arthur MacArthur, believed that if this institution was erected on Alcatraz, it "would materially interfere with the Artillery defenses, which I hope some day may be installed thereon." Like his famous son, MacArthur had a way with words:

> As a purely defensive proposition there can be no question that the installation of high power guns on Alcatraz Island would not only greatly strengthen but would make the defense of San Francisco Bay absolutely invincible against any combination that the entire world could bring against it. . . .
>
> Effective defense of the harbor is of course all that is required, but when experts differ . . . it is impossible to make an error on the side of prudence. For example, if we have many more guns than are needed the national interests are safe, but if we have one gun less than necessary at the critical moment the honor of the nation may be jeopardized and all the money invested on existing works as good as thrown away.

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19. NA, RG 77, OCE, General Correspondence 1894-1923, Suter, Oct. 14, 1898, to Chief of Engrs., Chief of Engrs. Alexander Mackenzie, Jan. 26, 1905, to the Military Secretary.

> Since . . . all my convictions in the premises have been confirmed and strengthened, and are now most emphatically to the effect that all of Alcatraz should be devoted to fortifications. Personally, I favor high power guns and as many of them as can be installed on the island, but the question of the weight of the gun is, for the time being, considered as secondary to the proposition that the island shall be dedicated exclusively and for all time to purposes of defense.[20]

2. Alcatraz to be Prison

"For all time" proved to be but a few short years. The chief of engineers hinted in 1905 that Alcatraz would not be armed for at least several years, since Congress was considering suspending appropriations for additional batteries. Moreover, San Francisco Harbor already had a great deal of heavy armament emplaced. Any future role for Alcatraz in the defense of San Francisco came to a complete end in 1907 when the secretary of war selected the Rock as the site for a large permanent prison. About the same time the army engineer in San Francisco announced that the connection of his office with Alcatraz Island was terminated.[21]

For 50 years, Alcatraz Island had guarded the Golden Gate against potential foes. It had been the first post in the bay to mount permanent guns; it was the only post so armed when the Civil War began; along with Fort Point it had been the only post effectively armed in the years of confusion and neglect following the war; and had the Spanish fleet approached the Pacific Coast in 1898, Alcatraz would have played a vital role in San Francisco's defense. All that lay behind now. Ahead, a different history would unfold, a grim story of military prison and federal penitentiary.

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20. NA, RG 77, OCE, General Correspondence 1890-1914, Maj. Gen. A. MacArthur, Nov. 9, 1903, to AG.

21. NA, RG 77, OCE, General Correspondence 1890-1914, Mackenzie, Jan. 26, 1905, to Military Secretary; FARC, San Bruno, RG 77, OCE, Maj. C.H. McKinstry, Jan. 29, 1907, to AG.

VI. Garrison Life on the Rock, 1859-1934

A. Occupation and the Civil War

Alcatraz's first troops arrived on the island on December 30, 1859, and took up residence in the newly completed Citadel. Capt. Joseph Stewart commanded the 86 enlisted men of Company H, Third Artillery, and 2d Lt. Augustus G. Robinson served as the only other officer until the arrival of Asst. Surg. Pascal A. Quinan in January 1860. The engineer officer in charge of the fortifications, Lieutenant McPherson, promptly turned all of the 86 guns (one for each man!) and ordnance stores over to Stewart. The artillerists were in business.[1]

From the beginning, Alcatraz served as a salute post for foreign ships of war entering San Francisco Harbor. Periodically, the department headquarters in San Francisco would notify the island to fire the international salute of 21 guns in honor of a foreign flag. Occasionally a mix-up occurred, as happened in February 1860 when Stewart received the following message: "The General commanding wishes me to inquire if you fired 21-guns in replying to the salute of the British steamer Plumper, and in case you did not he directs that the deficiency be fired forthwith." A month later Stewart received orders to fire a salute for the first Japanese warship to visit San Francisco. American officials were also honored. When Brig. Gen. Albert Sidney Johnston arrived on the steamer Golden Age in 1860, Alcatraz's guns fired the 11 rounds

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1. NA, Microcopy 617, Returns from U.S. Military Post 1800-1916, Roll 14, Alcatraz Island, Dec. 1859-Dec. 1879, Returns for Dec. 1859 and Jan. 1860; NA, RG 77, OCE, Letters Received 1838-1866, McPherson, Jan. 3, 1860, to De Russy. Stewart had a very ordinary army career. Born in Kentucky, he graduated from the U.S. Military Academy in 1842, ranking 18th in his class. He served in the Artillery Corps throughout his career. Receiving no honors in battle, he retired as a lieutenant colonel in 1879. Heitman, 1:925.

designated for an officer of that grade: "You will begin firing as the . . . Golden Age approaches Alcatraces so as to close the salute when the ship shall have passed as far beyond the Fort as she was on this side when it was opened."[2]

By early 1861 the artillerists on Alcatraz witnessed signs of the probability of civil war coming to America. In February, General Johnston, soon to join the Confederacy himself, ordered 10,000 muskets, their accoutrements, and 150,000 cartridges transferred from Benicia to Alcatraz for safekeeping against any southern sympathizers. At the same time, in order to maintain calm among civilians, he ordered Stewart not to practice firing with his artillery for the time being. However, Stewart was to defend the Rock against all efforts to seize it: "But you will not interrupt harbor commerce, not even boats coming to [the] island, unless their passengers look like they may be coming in to attack. Even then, no gun will be fired. The guard must report at once. And only you are to be the judge whether to fire against them."[3]

Following the Confederate capture of Fort Sumter in April 1861, Alcatraz's garrison increased to 8 officers and 361 enlisted men. The engineer officer turned over his mechanics' barracks and

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2. NA, RG 393, Dept. of Pac., Letters Sent 1848-1866, vol. 10, Lt. H.H. Walker, Dept. of Calif., Feb. 18 and Mar. 19, 1860, to Stewart, and AAG W.W. Mackall, Apr. 4, 1860, to CO, Alcatraz. The Plumper was a screw vessel of 21 guns that the British had recently employed as part of their naval force at the disputed San Juan Island that lay between Washington Territory and Vancouver Island.

3. NA, RG 393, Dept. of Pac., Letters Sent 1848-1866, vol. 10, Mackall, Feb. 17, 1861, to Lt. J. McAllister, Benicia, and Feb. 19, 1861, to Stewart; [U.S. Congress] War of the Rebellion, ser. 1, vol. 50, pt. 1, p. 448 (Mackall, Feb. 20, 1861, to Stewart).

prepared plans for temporary quarters at the southeast end of the island for the enlarged garrison. Company H was joined by Companies A, I, and M, all of the Third Artillery. A detachment from Company A, Engineers, and 42 recruits belonging to the First Dragoons were also on the island. Stewart was superseded as commander by a more senior captain, Henry Burton, also of the Third Artillery. Burton resumed practice firing of the guns in July 1861, when the department commander lifted the earlier restrictions. One of Alcatraz's shells was thought to have caused a large grass fire on Angel Island a few days after practice resumed.[4]

By November 1861 Burton's command had dwindled to 3 officers and 138 enlisted men (Companies A and I, Third Artillery). That month he sent another 17 enlisted men to the naval base at Mare Island to help guard it against any would-be secessionists. This detachment remained absent until March 1862, when a company of U.S. Marines was landed at Mare Island to act as guards. Throughout the Civil War, the troop strength of Alcatraz fluctuated periodically, rarely dropping below 150 men and reaching a high of 433 in February 1865. Despite the fact that most regular army units in the far West returned to the East during these years, regulars, often reinforced by volunteer units, continued to man Alcatraz's guns throughout the war. An early example of volunteers on the island, in March 1862, was the First Washington

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4. NA, Microcopy 617, Roll 14, Returns for April and May 1861; NA, RG 393, Dept. of the Pac., Letters Sent 1848-1866, vol. 10, AAG Drum, Dept. of the Pac., July 9, 1861, to Burton; NA, RG 393, Dept. of the Pac., Special Orders (hereinafter cited as SO), 1858-1863, SO 131, July 22, 1861.

Territory Volunteers, who were largely recruited in California and held on the Rock until ready for transporting north.[5]

Burton transferred to the East in May 1862, on his way to fame and glory in the war, and was replaced as commander by Capt. William A. Winder, Third Artillery. Winder received a confidential message from the departmental commander in January 1863 concerning the fear that Confederate raiders were loose in the Pacific Ocean. Urging Winder to arrange his guns for instant use, the general said that "the greatest vigilance should be enjoined on the officers and men; that the command should be instructed to assemble by day or night at their assigned posts prepared to act with promptness on any emergency." No raider sailed through the Golden Gate nor anywhere near it, and presumably the troops eventually relaxed their vigilance in the harbor.

A touch of excitement came to the island in March 1863 when the schooner Chapman was seized in San Francisco Harbor with 15 Confederate sympathizers, a cannon, and ammunition on board. This 90-ton vessel had been secretly outfitted as a commerce raider. The captured men were taken to the military prison on Alcatraz, where Winder interrogated them individually and held them in confinement because of his instructions from department headquarters: "No one, other than your officers, is permitted to see them." It is not known how long these unusual visitors remained on the island or what information they may have passed on

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5. NA, Microcopy 617, Roll 14, Returns for 1861-1865; [U.S. Congress] War of the Rebellion, ser. 1, vol. 50, pt. 1, p. 849 (Drum, Feb. 7, 1862, to Col. J. Steinberger, 1st. Regt. Wash. Terr. Vols., and Drum, SO 207, Nov. 2, 1861); NA, RG 393, Dept. of Pac., Letters Sent 1898-1866, Brig. Gen. G. Wright, Mar. 18, 1862, to AG, USA.

to Winder--except that one of them turned state's evidence. As far-fetched as it was, this incident was the closest thing to Civil War activity that came to Alcatraz.[6]

In September 1863 the Department of the Pacific decided to establish a garrison on Angel Island to man the temporary batteries that were being erected there. This action brought out that island, Alcatraz being too rocky to support such an enterprise. Headquarters assured Winder that the developments on Angel Island would not affect the fortunes of his vegetables. While the location of this garden is shown on military maps of the period, little else is known about it. As for many other items of Alcatraz's early garrison history, the surviving records are indeed scanty.[7]

Winder caused a semicomic international incident on October 1 1863, when he ordered an empty shell fired in the direction of an arriving British warship, Sutlej. Adding to Winder's woes, the vessel was the flagship of the very angry commander in chief of the British Pacific Squadron, Rear Adm. John Kingcome. As soon as Sutlej dropped anchor, the admiral dashed off a note to Gen. George Wright demanding an explanation. Wright came to Winder's defense and explained to the admiral that federal port regulations required that all vessels be brought to and their character ascertained when entering the outer harbor. While a

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6. [U.S. Congress] War of the Rebellion, ser. 1, vol. 50, pt. 2, pp. 299 and 355 (Drum, Jan. 30, 1863, and Mar. 16, 1865, to Winder), and pp. 363-64 (Wright, Mar. 24, 1863, to AG, USA). The conspirators were brought to trial and found guilty of treason. The leaders were sentenced to ten years' imprisonment, but they did not serve this time on Alcatraz. See Kinnaird, pp. 240-45.

7. FARC, San Bruno, RG 77, OCE, San Francisco Dist., Letterbook, Letters Sent by De Russy and Gilman 1861-1864, De Russy, Sept. 15, 1863, to Winder.

government steamer usually performed this duty, it was temporarily absent from the harbor and the commanders of the land batteries were presently responsible for this duty: "The orders of my Government require that all vessels of whatever character shall be brought to and examined before being permitted to pass the forts. . . ." However, the fort commanders and orders not to cause unnecessary delays of ships and to always be courteous. Wright said he had asked Alcatraz's commander for a full report.

Winder, defending himself in a fighting manner, submitted his report on October 6:

> Thursday the officer of the day reported an armed ship towed by small boats in the direction of Raccoon Straits. I discovered her under the land near Lime Point. I could distinguish a flag flying at her peak, but there being no wind, I could not tell her nationality. The ship's direction was so unusual I deemed it my duty to bring her to to ascertain her character. I therefore fired a blank charge, which apparently not attracting her attention, I directed a gun to be loaded with an empty shell and to be fired 200-300 yards in front of her. This was done & the ship rounded to.

Since there were no boats at Alcatraz at that time, Winder was unable to send soldiers to learn the ship's identity. At that point, the vessel began to fire the international salute of 20-guns. Winder eventually returned the salute, as did the post commander at Fort Point. (Fort Point was out of order; only the designated post was to salute.) Kingcome left San Francisco still in a huff over the incident. Winder and the newspapers were satisfied that he had done his duty.[8]

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8. [U.S. Congress] War of the Rebellion, ser. 1, vol. 50, pt. 2, p. 633, (Kingcome, Oct. 1, 1863, to the Governor or Commander in Chief, San Francisco), p. 638 (Wright, Oct. 3, 1863, to Kingcome),

Alcatraz's guns boomed a national salute (one round for each state in the Union) on September 26, 1864, in honor of Sheridan's victories in the Shenandoah Valley. Again, on December 30, a salute of no fewer than 100 guns was fired to celebrate Sherman's capture of Atlanta. The troops stood alerted for the presidential elections in November 1864 in case of trouble in San Francisco. But the election passed peacefully, the troops being allowed (urged) to go to town to cast their own Union votes. In April 1865, the garrisons on Alcatraz and the Presidio were ordered into San Francisco when word arrived that President Lincoln had been assassinated. The army coordinated with the chief of police to take "such measures as will preserve the peace of the city." On April 19, the San Francisco garrisons marched in the presidential funeral parade and the half-hour guns on Alcatraz boomed across the bay. The Civil War was over.[9]

B. Life on the Rock, 1865-1900

Alcatraz's garrison remained inflated in size until October 1865, when Capt. James Madison Robertson arrived to take command of the companies of the Second Artillery, after the last of the California Volunteers had returned to civilian life. Robertson, who was interested in penology, was the most distinguished soldier yet to command the island. He had received a commission during the Mexican War, after serving as an enlisted man for ten years under the name of James M. Robinson. In the Civil War he fought in a number of battles, including Gettysburg, Wilderness, and Cold

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p. 640 (Winder, Oct. 6, 1863, to Drum), and pp. 640-41 (Kingcome, Oct. 7, 1863, to Wright, and Wright, Oct. 15, 1863, to Kingcome); Daily Alta California, Oct. 2, 1863.

9. [U.S. Congress], War of the Rebellion, ser. 1, vol. 50, pt. 2, p. 991 (Drum, Sept. 26, 1864, to CO, Alcatraz), p. 1048 (Drum, SO 242, Nov. 7, 1864), p. 1108 (SO 282, Dec. 29, 1864), p. 1198 (SO 85, Apr. 1865), and p. 1201 (SO 86, Apr. 18, 1865).

Harbor. By the end of the war he held a brevetcy of brigadier general, and during his two tours of duty as commander of Alcatraz (a total of 5½ years) he was always called by that rank. Robertson possibly arrived on the Rock in time to escort Queen Emma of Hawaii on a tour of coastal fortifications. He indeed was present when another Civil War general, Maj. Gen. Henry Halleck, who had returned to San Francisco as department commander, arrived on the island in April 1866 to review and inspect the troops. Robertson greeted the general with the 13-gun salute due his rank. However, the captain was absent when Halleck returned in March 1867 with the commissioners of Japan in tow for a look at the guns.[10]

The cost of supplying water to the troops and the engineers on Alcatraz constantly came up for discussion in the post-war years. The quartermaster tallied the amount spent in 1868 and learned that he had disposed of $11,059 for 1,064,000 gallons of water. By then the army had acquired the steamer General McPherson with which they had planned to transport water from the springs on Angel Island to Alcatraz. But no sooner was the water contractor, Goodell and Nelson, notified to discontinue furnishing water to Alcatraz, than it was discovered that the springs on Angel Island had gone dry. The contractor retained his business.[11]

By 1870 Alcatraz had acquired the appearance of a settled, permanent military post. While the engineers busily re-

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10. NA, Microcopy 617, Roll 14, Returns for Sept. and Oct. 1865 and April 1866; Heitman, 1:836; Marshall McDonald and Associates, Report and Recommendations on Angel Island, 1769-1966 (n.p.: 1966), p. 72. Alcatraz was armed with almost 130 heavy weapons at that time.

11. NA, RG 92, OQMG, Consolidated Correspondence File, Maj. Carle A. Woodruff, QM, "Quantity and cost of water received at Alcatraz," Feb. 28, 1869, and Capt. W.B. Hughes, AQM, San Francisco, Sept. 20 and 25, 1869, to Chief QM.

modeled the fortifications and removed the obsolete columbiads, the garrison went about its own affairs at gun drill, guarding prisoners, and all of the mundane duties associated with the military. The enlisted men had moved out of the Citadel during the war and were now quartered in two frame barracks at the southeast end of the island. Since these quarters were designed to house 300 men and the troop strength now averaged 120, the soldiers had all the space they needed, a situation rarely found in postwar army posts. The officers and their families now shared the Citadel with the medical facilities, which were established in part of the former enlisted men's half of the building. The hospital consisted of a dispensary, a surgeon's office, a hospital steward's room, a storeroom, and two wards consisting of a total of 16 beds. The quartermaster and commissary storehouses were located between the wharf and the brick guardhouse, as was the sutler's store. The guardhouse had been expanded greatly by the addition of both frame and brick buildings that housed the military prisoners and their mess facilities. Three double sets of noncommissioned officers' quarters stood in a row northwest of the Citadel. Here lived the quartermaster sergeant, commissary sergeant, and the other staff sergeants who, in the eyes of many, were the key people in operating a well-run post. Most of the shot and shell were arranged in decorative rows in the vicinity of the Citadel and the lighthouse. Near the lighthouse stood the all-important bakery and an equally valued bowling alley. A schoolhouse, for both children and enlisted men, was located near the engineer's office on the northwest peak of the island.[12]

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12. [U.S. Army], War Department, Office of the Quartermaster General, Outline Description of U.S. Military Posts and Stations in the Year 1871 (Washington: Government Printing Office, 1872), p. 84.

The best record keeper at 19-century army posts was usually the post surgeon. He recorded his observations of daily events quite beyond medical affairs in his "Record of Medical History of Post." The doctor at Alcatraz lived up to this reputation, although not all of the journals have survived. In February 1873 he recorded that a post library had been established and that the children attended school in the mornings and the enlisted men went to classes in the afternoons. By late 1873 a new hospital building had been erected just east of the lighthouse. About that time Major Mendell had to tear down the barracks at the southeast end of the island in order to construct new batteries. One of the two companies moved into the hospital which had been remodeled in part to accommodate them. The surgeon recorded that on January 28, 1874, this company had a ball and "social entertainment" to celebrate moving into their new quarters. He said that everything went off merrily and without the least disturbance.

The men did not enjoy their quarters for long. In April 1874, fire, that dreaded enemy on the waterless island, destroyed the building. The surgeon set up temporary medical facilities in the loft of the east brick addition to the guardhouse and in his old rooms in the Citadel. The troops moved into tents for the summer. That fall an extremely ugly barracks was constructed on top of the unfinished casemates behind the wharf.

General Robertson was succeeded as post commander in December 1872 by Maj. Charles Hale Morgan, another Civil War general. In October 1875, Morgan and his command had the pleasure of receiving a visit from Lt. Gen. Philip Sheridan, Maj. Gen. John Schofield, and a number of other officers. Two weeks later Morgan entertained a high-ranking French officer with a firing demonstration of a 15-inch Rodman and a Parrott rifle. Just before Christmas 1875, Morgan went on a hunting trip in the vicinity of

Sonoma. There he suffered an attack of apoplexy and was brought back to Alcatraz paralyzed. Several army surgeons were brought to the island but to no avail; Morgan died on December 20. His wife wished to have the body shipped East, but the surgeons were unable to embalm it. Morgan was buried in the military cemetery on Angel Island. For many years thereafter a large monument marked the grave of the highest ranking officer ever buried there.

Morgan's replacement, Capt. John Egan, Fourth Artillery, oversaw the Centennial celebrations on Alcatraz in 1876. The year started with a visit to the island by Japanese naval officers and midshipmen. In February the eight officers stationed on the island gave "an informal matinee hop" for a large number of fellow officers from posts around the bay. In June tragedy struck--two privates drowned when their small fishing boat capsized off the island. Then, on July 4, Alcatraz's Rodmans participated in the sham naval battle in the harbor. The surgeon noted that all the visitors seemed to have enjoyed themselves thoroughly. Only a month later the two artillery companies (H and K, Fourt Artillery) were ordered to Wyoming Territory to take part in the campaign against the Sioux following the defeat of Custer at Little Big Horn. A year later more Alcatraz troops were dispatched northward to take part in the Nez Perce war in Idaho and Montana.[13]

Due to the post surgeon's diligence, a schedule of Alcatraz's daily drills and inspections for the year 1878 has survived. Orders 1, published on January 1, 1878, outlined the routine:

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13. NA, RG 393, Alcatraz Island, Record of the Medical History of Post Feb. 1873-Aug. 1877; NA, RG 393, Alcatraz Island, Med. Dept., Orders and Letters Nov. 1873-Dec. 1880, Surg. W. Webster, Apr. 20, 1874, to Med. Dir., Dept. of Calif., and AA Surg. H.H. Matthews, June 5, 1876, to Med. Dir., Dept. of Calif.; Daily Alta California, Dec. 23, 1875 (death of Morgan).

Mondays, Wednesdays, Fridays, 8-9 a.m. Battalion drill. First call, 7:45 a.m. All on duty to attend except: post guard, provost sergeant, two sergeants on duty at prison, baker, and one cook from each company.

Tuesdays and Thursdays, 8-9 a.m. Artillery drill.

Daily, 2 p.m. Drill call for such company exercises as the company commanders may direct.

Tuesdays, Thursdays, and Sundays, 4 p.m. Guard mount, preceded by a Dress Parade.

Sundays, 9 a.m. Inspection.[14]

In 1879 the department quartermaster began a campaign for improved officers' quarters on Alcatraz: "Having inspected the 'Rock,' as it is called, in person," he could see the necessity for additional quarters: "The 'Citadel' so called, into which each family is now crammed, without regard to health or even decency, is utterly unfit for use as a habitation by any persons not undergoing penal servitude." The quartermaster general had a better idea: Why not move the military prisoners to some other place and abandon Alcatraz? General Sherman, then commanding the army, agreed and said that no quartermaster funds should be spent on the island. When Maj. Gen. Irvin McDowell, then commanding the Military Division of the Pacific, received this information, he returned the correspondence to the War Department saying that Alcatraz was an important post in San Francisco Bay and the quarters should be built: "The place is the main station in the harbor; one most respected & most thought of; one whose flag all ships

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14. NA, RG 393, Alcatraz Island, Med. Dept., Orders and Letters Nov. 1873-Dec. 1880, Lt. J.T. French, Post Adj., Orders No. 1, Jan. 1, 1878, Alcatraz.

salute & from which all are saluted, & it will be retained whether the prisoners are there or not." McDowell won the argument, and in 1880 the first of three sets of officers' quarters was under construction on the slope east of the Citadel and above the casemates. The post quartermaster asked the engineer, Mendell, if he could have the sandstone blocks that had been removed from South Caponier for the foundations; but Mendell did not want to let the stone go. He finally relented, and the post quartermaster reported in July 1880 that, with some difficulty, the stone had been moved to the top of the island. It now formed the basement of the new quarters for the commanding officer.[15]

The new quarters were not finished in time to be occupied by Alcatraz's third Civil War general, Maj. Albion Howe. Howe, also a veteran of the Mexican War, commanded the garrison from December 1877 to June 1879. His son, Lt. Albion Howe, Jr., had been killed in the Modoc War in northern California a few years earlier. One of the building's first occupants was Maj. La Rhett Livingston, Fourth Artillery, whose name was later given to an Endicott-period mortar battery at Fort Miley, San Francisco.[16]

The Citadel underwent major remodeling in 1882 when the post quartermaster had it converted into six up-to-date officers' quarters. He added four entrances over the ditch so that each

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15. NA, RG 92, OQMG, Consolidated Correspondence File, Alcatraz, Lt. Col. S.Z. Holabird, Oct. 2, 1879, to QMG, and Lt. W.L. Anderson, Alcatraz, July 13, 1880, to Ch. QM, Div. of Pac.; NA, RG 77, OCE, Letters Received 1871-1886, Mendell, Feb. 28, 1880, to Chief of Engrs. These quarters were designated as building 8.

16. NA, Microcopy 617, Roll 14, Returns for 1879; Heitman, 1:547.

apartment had its own outside door. Additional stairways, dumb waiters, and water closets were incorporated. The old prison cells in the basement were blocked off with masonry. A spiral stairway leading to the roof was installed in one of the towers. When completed, each set of quarters had a kitchen and a servant's room in the basement and two rooms on each of the other two floors. Space was found in the building for a schoolroom and for a court-martial room. Windmills pumped both saltwater and freshwater to tanks on the roof. Alcatraz was now comfortably supplied with nine sets of officers' quarters, a number sufficient to house the officers assigned there at that time.[17]

It will be recalled that after the fire of 1874, hospital facilities had been established in both the Citadel and the prison. Later, the old post bakery was moved a short distance to a new site immediately east of the lighthouse and then converted into a

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17. NA, RG 92, OQMG, Consolidated Correspondence File, Alcatraz, Lt. W.L. Anderson, Jan. 25, 1881, "Estimate for converting the Citadel," Anderson, Jan. 26, 1881, to Ch. OM, Div. of Pac., Lt. J.L. Chamberlin, Apr. 15, 1882, to Ch. QM, Div. of Pac., and Lt. J.T. Honeycutt, Apr. 27, 1883, to Ch. QM, Dept. of Calif. Inasmuch as windmills may again be installed on Alcatraz as a means of conserving energy, the 1881 estimate for such may be of interest:

1 windmill (Althouse), 16 ft. diameter		$200.00
1 solid brass pump (Althouse), 3 in.		35.00
1 frame, 24 ft. high	25.00	
800 ft. pipe, galvanized iron, 1½ in. diam.		96.00
1,000 ft. pipe, galvanized iron, 1 in. diam.		100.00
500 sq. ft. redwood lumber, 2 in., for saltwater tank		20.00
14 bolts, 7/8 in. diam., 15 ft. between shoulders		10.00
250 ft. frame 6 in. by 6 in.		5.00
		$491.00

The freshwater windmill was also an Althouse; it was 12 feet in diameter.

rather unsatisfactory hospital. Finally, in late 1881, the surgeon general approved the construction of a new 12-bed, two-story, frame post hospital on the north side of the island, just below the row of noncommissioned officers' quarters. In March 1882, the post surgeon reported that he had taken occupancy of the fine building. The post quartermaster described the structure: "It has verandas and contains all modern improvements. The first floor contains the Stewards, Matrons, and Attendants rooms, a dispensary, storeroom, messroom & kitchen. In the second story is situated a large well ventilated ward complete with closet, bathroom, a deadroom and storeroom."

The surgeon had a great variety of cases to treat in his new institution. An occupational hazard that caused many soldiers to appear at sick call was the dropping of gun carriages on their feet. Another source of injury that occurred commonly was falling down (while drunk?) in San Francisco. The following causes of admission are extracted from the hospital's register of patients:

Sprained back, attempting to escape
Saw wound, right thumb
Fracture, left forearm, railroad accident
Wound, scalp, striking door
Sprained ankle, slipped on stairs
Poison oak, mainland
Malaria
Contusion of chest, stumbled on guard duty
Black eye, brawl
Lacerated nose, fell down stairs
Contusion, kicked by mule
Acute alcoholism
Acute gonorrhoea
Constipation
Punctured left eye, bayonet
Insanity
Contusion, left foot, crowbar
Cut under chin, gun drill
Sprained ankle, moving large gun
Scald, kettle of potatoes
Gunshot, accidental
Abrasion, upper lip, blowing bugle
Primary syphilis
Toothache
Vertigo[18]

In his annual report dated March 1884, the post quartermaster accounted for several new construction projects over the past year. The most important of these was the expansion of the wharf to nearly twice its former dimensions. The old wharf had been terribly crowded with boathouses and coal, gravel, and sand bins. On the extension, he constructed a new boathouse and two new coal bins. Adjacent to the casemates, a new frame building, 86

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18. NA, RG 92, OQMG, Consolidated Correspondence File, Alcatraz, Asst. Surg. V.B. Hubbard, "Estimate for a 12-Bed Hospital," Apr. 18, 1881, General McDowell, telegram, Oct. 3, 1881, to Surg. General, Asst. Surg. H.I. Raymond, Apr. 10, 1882, to Surg. General, and Lt. J.L. Chamberlin, Apr. 15, 1882, to Chief QM, Div. of Pac.; NA, RG 393, Alcatraz Island, Register of Patients, Jan. 1884-Dec. 1888.

by 26 feet, was erected to house the quartermaster and commissary stores and offices. This particular structure stood until recent times. A new two-story building was placed on the dogleg of the casemates to house the company kitchens, mess halls, the post library, and the reading room. The messes had formerly been inside the dark, damp casemates. Repairs and painting were carried out on the officers' quarters and the hospital. The quartermaster could think of only one thing he would like to do in the year ahead: replace the fence around the formal flower garden in front of the Citadel.[19]

Births and deaths were a part of the fabric of Alcatraz's history. Between 1875 and 1891 and from 1893 to 1910, 35 garrison soldiers and general prisoners died on the island. Of these deaths, 20 were caused by disease, 9 were accidental, 5 were suicides, and 1 was a murder. In addition, two wives lost their lives: one who was killed (below), and a sergeant's wife who committed suicide. One of the most tragic incidents of death involved the capable and conscientious post surgeon, Capt. William D. Dietz. On the morning of January 28, 1891, the 29-year-old captain and his young wife were found dead in their quarters. The terse medical report read: "Mrs. Dietz came to her death at the hands of the Captain. Weapon used--shot-gun, Caliber 10, subsequently the Captain killed himself with the same weapon. Insanity is supposed to be the cause of the tragedy." The island experienced another act of violence in 1909 when Sgt. Roy Ford threw Pvt. Thomas Mullaly out of a third-story window in the barracks. The private fell 37 feet onto the iron grating and was killed instantly. Sergeant Ford then killed himself with a .38 caliber Colt.

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19. NA, RG 393, Alcatraz Island, Register of Patients, Presidio of San Francisco, Lt. H.M. Andrews, "Report of Inspection of Public Buildings, Alcatraz," Mar. 31, 1884.

Lest it be thought that Alcatraz's garrison consisted of only mad killers, the death in 1889 of Sgt. Charles Brown, Company C, First Infantry, should be noted. There was nothing unusual about his demise--kidney and liver disease; but his passing caused the recording of the career of a seasoned soldier. Brown was born in Manheim, Germany, in 1854. At the age of 17, he enlisted in the Sixth Cavalry, U.S. Army. After serving in the cavalry for 16 years, he reenlisted in the infantry and served at the Presidio before transferring to Alcatraz in early 1889. The "Alcatraz Descriptive Book" listed the Indian engagements that Brown had participated in during his cavalry days:

Mulberry Creek, Texas, Aug. 30, 1874
Camp Apache, Arizona Territory, Jan. 9, 1876
Canon Creek, Montana, Nez Perce Indians, Sept. 13, 1877
Birch Creek, Oregon, Bannocks and Piutes, July 8, 1878
Umatilla Agency, Oregon, Bannocks and Piutes, July 13, 1878

During one of these engagements, Sergeant Brown was severely wounded in the upper portion of his right arm. Only 35 years old at the time of his death, Brown had served his adopted country for 18 years (over half of his life) from the deserts of Arizona to the snows of Montana.

Most of Alcatraz's dead were buried in the military cemetery on Angel Island. When that burial ground was closed early in the 20th century, most funerals then were conducted at the national cemetery, Presidio of San Francisco.[20]

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20. NA, RG 393, Alcatraz Island, Deaths and Burials 1875-1892, Deaths and Interments, Mar. 23, 1893-July 24, 1910; NA, RG 393, Alcatraz Island, Descriptive Book, Officers and Men 1883-1905; The San Francisco Call, Nov. 13, 1909.

The birth records are far from complete, but for a short period from July 1884 to December 1888 they were maintained with some care. During those 4½ years, no fewer than nine babies came into the world on the Rock. At that time, an average of 22 women lived on the island, most of them the wives of officers and sergeants. Again, from January 1900 to April 1907, ten babies were born on the island. While the number of children living on the island fluctuated greatly over the years, the scarce census records indicate a rough average of 20 or so boys and girls ("army brats") making Alcatraz their home.[21]

Other civilians living at Alcatraz included Chinese servants attached to officers' families. The employment of Chinese in this occupation was almost universal throughout western army posts, from Idaho to Arizona in the last half of the 19th century. Perhaps they were the reason for the Chinese consul general at San Francisco paying a visit to Alcatraz in April 1887, where he was received "with the usual military honors." Another civilian employee was the hospital matron, usually the wife of an enlisted man. Her primary responsibility was doing the hospital laundry. In 1885 the Alcatraz post surgeon arranged to have the hospital laundry done commercially in San Francisco, at the Occidental Laundry on Octavia Street. Still, he appointed Miss Katie Grant as matron, saying it was "merely formal."

Despite Alcatraz's being an island, social activities were probably not unduly restricted, since the officers attended parties

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21. NA, RG 393, Alcatraz Island, Record of Medical History of the Post, July 1884-Oct. 1898; NA, RG 393, Alcatraz Island, Monthly Sanitation Reports, Nov. 1898-July 1913.

and dances at the other posts in the bay and entertained at home. On Tuesday nights the quartermaster steamer made a theater run to San Francisco. At one time, the military prisoners organized the Prison Dramatic Association and gave several presentations. In 1889, a pleasant change of pace occurred when the First Infantry on Angel Island sent its regimental band to Alcatraz on a temporary assignment. Recreational activities and sports were more of a problem due to the lack of level ground. Baseball, for instance, could not be played before the 1870s, when prisoners finally hewed out the southeast end of the island. The surgeons worried about this, and eventually a gymnasium was set up and regular drills were instituted. In the early days, a post trader had a small store in the vicinity of the wharf. Eventually this enterprise disappeared from the island and the troops' indoor recreation was limited to playing pool in their own "amusement room." Then, in 1890, the surgeon reported with satisfaction, "The canteen recently established is an appreciated innovation, and will undoubtedly tend to render the enlisted man more contented with his monotonous life upon this rather circumscribed and lonely isle."[22]

The Alta California sent a reporter to Alcatraz in August 1885 to write a story on the military prison. To his surprise, he found the Rock to be a pleasant place. He described his walk to the top of the island:

> Along the roadside, as it nears the summit, are a succession of charming gothic cottages, occupied by the commanding officers of the garrison and their families, each with a little garden plot, and the voices of merry children make the air musical. On the summit proper, no grim implements of warfare chill the observer, if we except the

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22. NA, RG 393, Alcatraz Island, Record of Medical History of the Post, July 1884-Oct. 1898.

> solid shot, fifteen inches in diameter, which . . . cheerfully contribute to the adornment of the place, ranged in decorous rows, one above the other, around the tennis court, shielded from the stiff ocean breeze by a high wall, and lying in close proximity to a dainty garden, rich in fragrance and bloom.
>
> The solid mass of masonry [Citadel] which caps the summit was built in war times and designed as a final refuge in case of siege. Its walls of brick and granite are some four [three] feet in thickness, and their narrow slits and perforations, as well as the sloping ramparts above, proclaim the uses for which it was designed. Day and night an armed sentry paces the roof, a duty that is an empty ceremony in time of peace. . . .
>
> . . . the buildings are chiefly clustered on the eastern slope of the island, where they are protected from the ocean winds. The northern portion is virtually unoccupied, save by some minor fortifications, reached by a level road which runs below the level of the surface, and is flanked by green lawns, above which rise bulwarks of earth. Higher up, chicken-houses and cow yards are seen, swelling the complement of domestic animals on the island.[23]

The old quartermaster steamer General McPherson (in service since 1867) was replaced in 1886 by a larger vessel, the handsome General McDowell. Because the General McDowell drew more water, an addition to the waterside of Alcatraz's wharf became necessary. This extension measured about 20 by 116 feet.[24]

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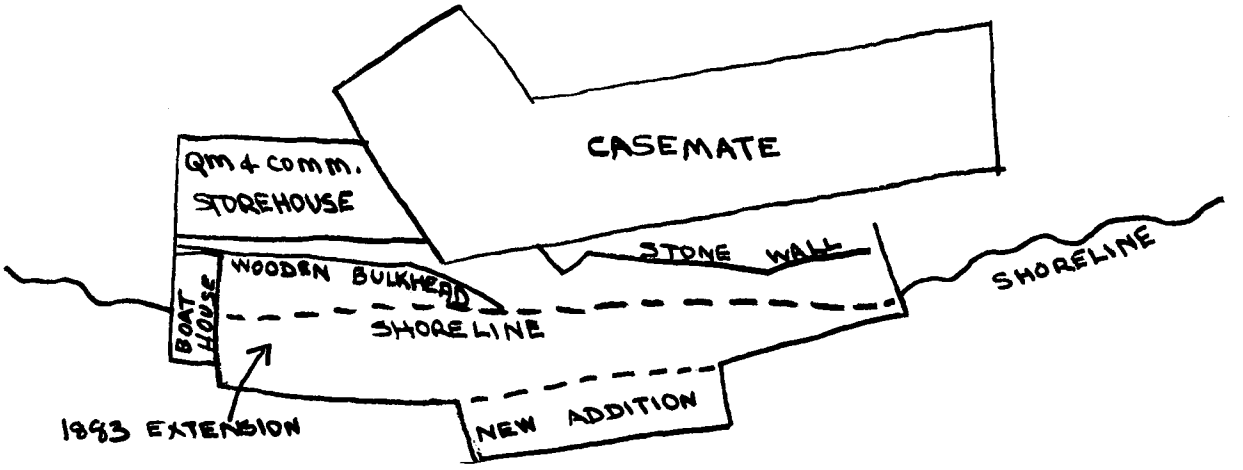
23. Daily Alta California, Aug. 2, 1885.

24. NA RG 92, OQMG, Consolidated Correspondence File, Alcatraz, QMG, B.B. Holabird, Sept. 14, 1886, to Ch. QM, Div. of Pac.



In March of 1888 fire destroyed two of the oldest frame structures on Alcatraz, the old engineer stable and the engineer mechanics' quarters (lately used as an ordnance storeroom). A third building, the nearby laundress's quarters, was also a total loss. Thousands of people in San Francisco watched the blaze--an ironic contrast to 18 years later when Alcatraz would watch San Francisco go up in flames:

> About 6 o'clock yesterday afternoon the attention of residents of the south end of town was attracted to Alcatraz Island, as dense volumes of smoke there betokened the fact that the fortress was on fire. As the fire for some time seemed to be beyond control of those fighting it, the excitement of the thousands of spectators who from Telegraph Hill and other elevations watched the progress of the flames become intense. Some of the more imaginative half expected a terrific explosion, while others fell to speculating on the chances of the military prisoners, either for escape or for baking in their cells.

A board of officers met the next day to determine the cause of the fire, which the newspaper thought was a cigar thrown into the stable. The board discovered "the children of the post have been

in the habit of using this building [the stable] as a secret playhouse, making their way therein through an opening known only to themselves." It was determined that just before the fire, two or three small boys had been in the stable and had found a matchbox. No names were mentioned, but there probably were some warm pants in the quarters that evening.[25]

Every March the post quartermaster prepared his annual report on the state of the public buildings. The report for 1889 was one of the more detailed of those that have survived and provided a good summary of the structures then on the island as follows:

1. Citadel--This building consisted of six sets of officers' quarters, the court-martial room, and the schoolroom. It was a parapeted, two-story brick structure, 124½ by 62½ feet, with a basement. In that the basement still survives, the uses of this "Spanish dungeon" in 1889 may be of interest: four kitchens, 13 by 18 feet each; one kitchen, 21½ by 18 feet; one kitchen, 17 by 18 feet; two servants' rooms, 14 by 18 feet each; four servants' rooms, 13 by 18 feet each; and the hallway, 8 by 108 feet. Portions of the hallways on all three floors were utilized as bathrooms, closets, etc.

2. Adjutant's Office--This was a one-story frame building, 40 by 14 feet, constructed in 1886 at a cost of $461. It had three rooms: office of the commanding officer, sergeant major's office, and clerks' and telegraph office. Today the warden's residence stands on the same site.

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25. NA, RG 92, OQMG, Consolidated Correspondence File, Alcatraz, Lt. J.V. White, Mar. 28, 1888, to Chief QM, Dept. of Calif.; NA, RG 77, OCE, Letters Received 1888-1889, Mendell, Mar. 26, 1888, to Ch. of Engrs.; Daily Alta California, Mar. 26, 1888.

3. Conservatory--This was a one-story, one-room frame building, 28 by 10 feet, which was described as being a mere shell. This and the other conservatory stood on the hill near the lighthouse. Little is known about them; presumably they sheltered flowers on the windy island.

4. Conservatory--The second conservatory was 43 by 15 feet.

5. Carriage House--This was a one-story, two-room frame building, 28 by 10 feet, located near the stables on the southeast end of the island. The officer of the day used the carriage to inspect the guards. Also, the officers and their wives took drives around the island, small as it was.

6. Stables--This was a 1½-story frame building, 60 by 24 feet. The first floor had 12 stalls (six at each end) and two small storage rooms. The loft stored hay and straw. These were the quartermaster stables, erected in 1886, and not to be confused with the engineer stables that had burned in 1888.

7. Officer's Quarters--This was a one-story frame building 42 by 34 feet, with a basement and attic. The first floor had one bedroom, dining room, parlor, hall, pantry, bathroom, and water closet. The attic had three bedrooms, a hall, and closet. The basement had two bedrooms, a kitchen, laundry, drying room, pantry, water closet, and hall. The building had been erected in 1881.

8. Commanding Officer's Quarters--This was a one-story frame building, 48½ by 39½ feet, with a basement and attic. The first floor had a parlor, dining room, bedroom, hall, bathroom, pantry, conservatory, and water closet. The attic had three bedrooms and a hall. The basement had two bedrooms, a

kitchen, hall, laundry, storeroom, and coal shed. This building had been constructed in 1880.

9. Officer's Quarters--This building was identical to building 7.

10. Hospital--This was a two-story frame bulding, 75½ by 25 feet. The first floor had a kitchen, dining room, hall, office, dispensary, storeroom, steward's room, matron's room, spare room, and three closets. The second floor had a ward, hall, bathroom, earth closet, and water closet.

11. Ordnance Storeroom--This was a one-story, one-room frame building, 30½ by 20 feet. It was very old and had formerly been used as a bakery.

12. NCO Staff Quarters--This was a 1½-story frame building, 30½ by 22½ feet, with a kitchen, parlor, bedroom, and dining room.

13. and 14. NCO Staff Quarters--These buildings were the same as building 12.

15. Laundress's Quarters--This building had burned in 1888.

16. Post Library and Reading Room--These rooms were located in the upper floor of building 32.

17. Barracks--This was a 1½-story frame building, 102 by 34 feet. A partition divided it into two equal sets of quarters, each occupied by one company. It stood on casemates.

18. First Sergeant's Room and Storeroom--This was a one-story, two-room frame building, 28 by 16 feet. It stood on casemates.

19. First Sergeant's Room and Storeroom--This building was the same as building 18.

20. Company Tailor and Barber Shop--This was a one-story, two-room frame building, 29 by 15 feet. It stood on casemates.

24. Blacksmith Shop--This was a one-story, one-room frame building, 22 by 15 feet, located near Battery 1. It had formerly been shared with the engineer blacksmith.

25. Tool House--This was a half-story, one-room frame building (a mere shell), 5 by 13 feet.

26. Hose House--This was a frame building (a mere shell), 8½ by 14½ feet.

27. Carpenter Shop--This was a one-story frame building with a basement, 54 by 20 feet. It rested on piles over water at the edge of the wharf. The basement was used as a boathouse. The building had been extended 15 feet in 1888.

28. Quartermaster and Commissary--This was a 1½-story, six-room frame building, 95 by 26 feet, and contained storerooms and offices. It had been constructed in 1882.

31. Cisterns--There were 20 cisterns constructed by the engineers. All were connected by overflows at the top and by pipes at the bottom. The pipes were opened and shut by

means of a key. The total capacity was 241,543 gallons (eight months' supply for 500 men).

32. Company Kitchens and Mess Rooms--This was a one-story frame building, 49 by 32 feet, with an attic (see building 16) and four rooms: two kitchens and two mess rooms. It had been erected in 1884 at a cost of $904.

33. Wharf--This wharf was 260 feet in length, with an average width of 77 feet. It had required extensive repairs in 1884, "almost amounting to a reconstruction." In 1887 an addition of 116 by 19½ feet had been made.

34. Casemate--One casemate had formerly been used as a gymnasium but was abandoned on account of dampness.

35. Casemate--One casemate was used as a bathhouse and washroom. The bathrooms had been constructed in 1885.

36 and 37. Coal Houses--These were one-story frame buildings, 25 by 25 feet each, erected in 1884. Each building held 300,000 pounds. They were located on the wharf.

38. Boathouse--This was a one-story, one-room frame building, 49 by 17 feet, and could store three boats. It had been constructed in 1884.

39. Bake House--This was a one-story, three-room (two storerooms, and bakeroom) frame building, 60 by 28 feet. It had two ovens with a 1,200-ration capacity. It had been constructed in 1886 northwest of the Citadel.

40. Water Closets for Enlisted Men--This was a one-story, one-room frame building, 20 by 6 feet, with six closets. It had been constructed in 1886 at a cost of $150.

41. Engine House--This was a one-story, one-room frame building, 15 by 15 feet, constructed on the wharf in 1888.

Sewage - Sewage was disposed of "from the Citadel building by means of large iron and brick pipes which empty into the bay on the western side of the island, and from the Barracks by means of similar pipes emptying into the bay on the northeastern side of the island. . . . The sewage is carried off from the other public buildings by means of glazed earthenware pipes, emptying in every instance into the bay."[26]

Most of the retaining walls on Alcatraz had been erected by the engineers. Some of these walls had the sole purpose of preventing erosion; others served also as defensive scarp walls to hinder an enemy assault. Reflecting the changes that had occurred over the decades in defense and fortifications, it was the quartermaster, and not the engineer, who received $570 in 1890 to repair the retaining wall leading from the wharf to the Citadel. True, the Engineer Department donated a large quantity of stone for the project. A year later a concrete retaining wall was built along the road from the hospital to the prison area. This 12-foot-high wall did not project above the road, and the quartermaster feared that someone would fall over it. He requested funds for pipe and fittings to build an iron railing along the wall. No doubt he had in mind the incident where a soldier had been killed a few months

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26. NA, RG 92, OQMG, General Correspondence 1890-1900, Lt. E. Carrington, Alcatraz, Mar. 27, 1889, to QMG.

earlier by falling off the casemates onto the wharf 30 feet below. A similar iron railing had then been placed along the edge of the casemates.[27]

By 1899 the enlisted men's kitchens and mess rooms had been moved from the frame building on top of the casemates back again into the casemates, because the frame building was needed for additional quarters. Almost immediately the old complaint that the casemates were dark and had a moldy smell returned. An inspector general examined the situation and recommended that the Totten iron embrasures be removed, the openings enlarged, and windows installed in the scarp wall. The Engineer Department had no objections, saying finally that it had no plans to use the casemates in the defenses of San Francisco. Before the year was out, 10 of the 11 openings had been enlarged and windows measuring 4 feet 10 by 4 feet 6 had been installed.[28]

C. A New Look, 1900-1934

The Spanish-American War and the Philippine Insurrection brought many changes to Alcatraz both in the scope of its activities and in its physical appearance. An immediate effect was the rapid

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27. NA, RG 92, OQMG, Consolidated Correspondence File, Alcatraz, a loose endorsement, largely illegible, September 1890, concerning repair of wall, and Lt. C. Gallup, June 22 and Dec. 9, 1891, to Chief QM, Dept. of Calif.

28. NA, RG 92, OQMG, General Corresondence 1890-1914, Inspector General J.C. B(omitted), Washington, D.C., May 20, 1899, to Chief of Engrs., and Lt. G.A. McElroy, Alcatraz, Nov. 18, 1902, to Chief QM. The 11th embrasure was not enlarged because that casemate contained the Post Exchange, and regular construction funds could not be spent on PX work. Its enlargement was approved in 1902.

turnover of its personnel, as army units sailed out of San Francisco for Manila. Between 1898 and 1900 the island had no fewer than 13 commanding officers. Also during this period California volunteer units reoccupied Alcatraz for the first time since the Civil War. Soon after the war with Spain began, the army removed the island's ordnance stores and shipped them to both Cuba and the Philippines.[29]

The greatest change at Alcatraz, however, was the army's decision to incarcerate all military prisoners returning from the Philippines who had time yet to serve. During the summer of 1899 the average prison population on the island was 25. In April 1900 the number of convicts jumped to 441, and Alcatraz's garrison more than doubled at the same time. The old prison complex on the island, a haphazard collection of ramshackle structures, became totally inadequate almost overnight. The garrison troops took shelter in every nook and cranny, including the gloomy casemates at the wharf. Every facility on the island became strained to the utmost. The next ten years would see the greatest burst of construction activity since Colonel Mendell had revamped the fortifications in the early 1870s.

Work began with a new single-story wing for the hospital in 1900. This addition contained a 16-bed ward with barred windows, an operating room, and a laboratory. Space for the wing

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29. NA, Microcopy 617, Roll 16, Alcatraz Island, 1892-1902, Returns for 1898-1900; NA, RG 393, Alcatraz Island, USA Medical Dept., Record of Letters Sent Jan. 1897-Jan. 1905, Surg. W.H. Winterberg, July 7, 1898, to Chief of Ordnance.

was found by demolishing an old hose house and a frame building that had served as a gymnasium. Four years later, when a prisoner developed tuberculosis, the post surgeon got permission to construct an isolation ward on top of the new wing. Also in 1900, a new temporary prison was erected on the parade ground at the southeast end of the island, on the site excavated by Mendell's prison work force 30 years earlier.[30]

For most of the 45 years that a garrison had occupied Alcatraz Island, the enlisted men's quarters had been far from satisfactory. The Citadel had been the only permanent barracks, and the troops had lived in it for only a short time before moving into a succession of temporary frame buildings. As of 1905 the guard companies were living in the latest of these, located on top of the unfinished casemates. Several other small structures, such as first sergeants' rooms and a barber shop, shared this huge platform. In February 1905 the quartermaster announced that all of these buildings would be replaced by a four-company, three-story, concrete-block barracks that would cost an estimated $10,000. This low price (later increased to $20,000) would be achieved by the use of prison labor to manufacture the hollow concrete blocks on the island and carry out all the construction work under the direction of skilled civilian supervision. The post quartermaster, Lt. Gilbert A. McElroy, had overall charge of the work. A senior officer inspected the work in October 1905 and noted that progress was slow, owing to the necessity of erecting the structure in two parts

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30. NA, RG 92, OQMG, General Correspondence 1890-1914, AA Surg. [Cuter?], Alcatraz, Apr. 11, 1900, to Surg. General, Lt. Col. M.P. Maus, IG, "Extracts from Report of Inspection, Alcatraz," Aug. 17, 1900, and Lt. G.A. McElroy, QM, Alcatraz, "Report on isolation ward," June 30, 1904. The new prison will be discussed at greater length in the following section of this study.

so that the troops could continue to live in the old barracks while half of the new building went up. He said that the new barracks would contain dayrooms, dormitories, and a post exchange. The kitchens and mess rooms would be in the casemates. The flank section was to have a two-lane bowling alley on the first floor. Latrines would be retained in the old casemated rooms to the rear of the structure. The inspector described the construction as follows:

> The exterior and interior partition walls of these barracks are made of hollow concrete blocks moulded in the form of rock faced ashlar on the outside, the concrete being reinforced with iron at places, where additional strength is required.
>
> The work, including preparation of the blocks is done wholly by prison labor and with material--broken stone and sand--brought from Angel Island, nothing but the cement, lumber for joists, door and window frames, etc. is purchased. . . . Construction is under the direct personal charge of 2nd Lieut. G. A. McElroy, 13th Infantry, who . . . has prepared himself . . . by a most exhaustive study . . . of hollow block and reinforced concrete construction. These barracks will when completed be in appearance similar to the stone barracks at Fort Riley, Kansas.[31]

Inasmuch as this building still stands and because a set of plans for it has not yet been located, McElroy's construction report is quoted herein at length:

> The two foot [thick] brick wall in the rear of the barracks was not destroyed. It extended up about two-thirds the height of the first floor; wooden moulds were

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31. NA, RG 92, OQMG, General Correspondence 1890-1914, Lt. B.C. Daly, QM, Alcatraz, Feb. 6, 1905, to Chief QM, Dept. of Calif., "Statement of Buildings Constructed or Being Constructed, San Francisco, Fiscal Year 1905," and Deputy Quartermaster General, Lt. Col. [no signature], "Inspection of 'Fort Alcatraz,' " Oct. 7, 1905.

made and the wall run up the full height of the first floor, by means of concrete moulded on the walls, re-inforced by galvanized iron pipe.

[Prisoners mixed the concrete by hand, using the formula of one part concrete, two parts sand and gravel, and three parts crushed stone] with facing on all outside blocks in the proportion of one part cement to two parts of sand. This makes a block very rich in cement; but this is necessary on account of the block being manufactured by what is known as the "Dry Process."

By the "Dry Process" we mean giving the concrete all the water it will stand, but not enough water to make the block sag when taken out of the form. The concrete is first thoroughly mixed dry, then thoroughly mixed wet, and thoroughly tamped as it is placed in the form; as soon as the facing has been applied, the block is immediately removed from the machine and left on the cast iron plate for about forty eight hours; at the end of the first twenty four hours, water is applied to the blocks by means of a sprinkler, and the blocks are kept thoroughly wet for about ten days, and then allowed to cure for about three weeks.

The largest block that the machine now in use here can make is 32" x 16" x 9"; all blocks of larger size are made in wooden forms, for e.g., window and door lintels and sills. The lintels are all re-inforced. . . .

The foundation of the barracks is an old brick casemate. The casemate rests on solid rock, and . . . is one huge monolith. Before commencing any construction work, it was necessary to remove several car loads of brick and concrete abutments on top of this magazine. . . . The walls of the building rest on concrete foundations, which were made in forms on the magazines. The chimneys rest on the supports for the heavy arches in the casemates, and holes were drilled through the top of the magazine for the kitchen flues, the kitchens being located in the magazines.

After some little experimenting it was decided that it would be better to point the stone[s] as they were laid, and this had been done throughout the building. Advantage has been taken of the hollow blocks to use them as ventilators. The belt courses between the floors were constructed in wooden forms, it being necessary to have

this course 12" wide. . . . These blocks were laid in place, and then cut in such a way that the floor joists would fit in and could be tied by iron rods. At points . . . in the walls where the wall might be weakened by a heavy load, twisted steel bars were used as re-inforcements, or the hollow space filled with the poured concrete. Nothing but cement mortar has been used in the building. . . .

Whenever possible, all partitions have been constructed of hollow 6" concrete blocks. The only partitions not of concrete are the partitions in the two central sets of barracks. . . .

The partitions are attached to the adjacent walls in two ways:--First by cutting a hole in the outside wall after the wall is laid large enough to insert one end of the block in the partition wall; this hole runs through the hollow space in the outside wall and when the block in the partition wall has been inserted, the space is carefully filled with concrete; these holes are generally cut in the outside wall of every third row of blocks. The second method is by means of corner stones; this method is used entirely where an interior partition joins another. By a corner stone we mean a stone 32" long with an "L" one half as long, or 16". . . .

Plaster can be applied directly against the wall; joints between blocks on interior walls should not be pointed up. If blocks are machine made and the interior surface of the walls true, a cement grout will make a fairly good rough finishing. . . .

All chimneys are constructed of concrete in the partition walls, or are attached to the exterior walls . . . all flues in the chimneys in the barracks will have terra cotta flue linings. . . . The chimneys have from two to eight or ten flues in addition to the ventilating flues. Each fire has a separate flue. . . . The foul air ventilator extends the full height of the chimney; the large ventilators also extend the full height of the chimneys and into these ventilators we have openings from each squad room. . . .

The entire building is heated by fireplaces. The large squad rooms are provided with two fire places each. The grates are approximately 13" x 26"; the fire places are all lined with ordinary fire brick.

[Concerning the great earthquake of 1906] The only damage done to the chimneys or fire-places by the earth-

> quake was to throw the fire brick lining out of the fire places. Concrete hearths about four feet wide are placed in front of each fireplace on a level with the floor. Concrete mantels are being constructed. . . . The grates were made in San Francisco from designs prepared in this office. . . .
>
> The steps in the rear of the barracks are made of concrete re-inforced on corners with iron bars. . . .
>
> Porches on the second floor run around two sides of the building. The floor joists to these porches extend through the interior walls. The porches are eight feet wide; the floor joists 3" x 12"; lower porch is supported by figure four braces bolted to the brick casemate; the upper porch supported by columns; turned balustrades extend the full length of both porches. This turning work has all been done at this post by prison labor; the porch columns were also made at this post.
>
> The stairway is six feet wide with 12" hard wood treads, a rise of about 7"; turned balustrades on the stairways were also made by prison labor. . . .
>
> The ceilings are all covered with Oregon pine T. G. & B. #1, Ceiling. . . .
>
> The earthquake occurred on the morning of April 18th, 1906. Every man in the barracks made a rush for the one entrance. This live weight was over double that contemplated when the building was constructed, and in addition to this live weight we had a dead weight of four billiard tables on the upper two floors.

But the building survived the earthquake; the only damage that occurred was the collapse of the 6-inch sewer that ran under the floor of the casemates.[32]

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32. NA, RG 92, OQMG, General Correspondence 1890-1914, Lt. G.A. McElroy, Alcatraz, Apr. 8, 1906, "Memorandum," a description of constructing the new barracks. Although McElroy dated this long report April 8, he was still writing it at the time of the earthquake, April 18.

A month later the old wooden floors in the casemates were taken up, the polluted soil beneath was removed (it had become that way due to the constant scrubbing of the floors and the water leaking through), and new concrete floors were installed in the four kitchens and four mess halls. Construction of the last sets of these four company quarters was still underway at the end of 1907, when the quartermaster got permission to move the orderly rooms, first sergeants' rooms, reading rooms, and storerooms from the first floor to the third floor in order to improve lighting, since the rear retaining wall and casemated rooms cut off the light from the first floor. Then, in early 1908, the decision was made to demolish the Citadel, and the southeastern end of the barracks (designed for the fourth company) was converted into officers' quarters to replace the six sets that were in the Citadel. The bowling alley which had originally been proposed for that area, was eventually built in a new post exchange.[33]

In addition to the barracks, prison, and enlarged hospital, a number of small improvements occurred after 1900. A new iron fence was placed around the Citadel ditch, because the old one had rusted beyond repair and created a safety hazard for the children. In 1903 new water tanks that tripled storage capacity were placed on top of the Citadel. A new smokestack was erected for the saltwater engine house on the wharf. Part of the wharf already stood on iron piles, and the quartermaster recommended

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33. NA, RG 92, OQMG, General Correspondence 1890-1914, McElroy, "Estimate of Quartermaster Supplies for Kitchens and Messhalls," May 6, 1906, Maj. R.B. Turner, Construction QM, Alcatraz, July 15, 1907, to QMG, and Jan. 16, 1908, to AG, and Lt. M.H. Thomlinson, QM, Alcatraz, Dec. 24, 1907, to QMG.

that the remainder also be converted, but this would have cost an estimated $22,000, and the War Department cut back the funds to $4,000. The quartermaster did not specify exactly how he employed this sum. An attempt was made in 1904 to improve the appearance of the grounds about the barracks and officers' quarters when 50 pounds of clover and bluegrass seed were planted.[34]

The bakery on top of the island burned in 1903. When the fire broke out the command was engaged in field day exercises on the east side of the island. Rival claims were made for spotting and reporting the fire. The commanding officer gave credit to the sentinel on top of the Citadel; while the post surgeon claimed that a prisoner on duty in the hospital, Robert W. Jones, gave the alarm and connected the hose to a fire plug. The doctor thought that Jones deserved some consideration for his efforts. Within a year, a new bakery stood at the northwest end of the island, on the site of the old blacksmith shop. It was a 1½-story frame building, 28 by 60 feet, standing on a brick foundation. It had four rooms: a baking room, a storeroom, an issue room, and quarters for the baker. The baking room contained the usual furniture: an oven, dough troughs, working tables, and sinks. Cost of the construction amounted to $2,432.[35]

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34. NA, RG 92, OQMG, General Correspondence 1890-1914, Lt. H.B. Fiske, Nov. 8, 1900, to Chief QM, Dept. of Calif., Lt. G.A. McElroy, Feb. 12 and Aug. 21, 1903, and Feb. 16, 1904, to Chief QM, Dept. of Calif., and Ch. QM, W. Patton, May 28, 1903, and Apr. 27, 1905, to Military Secretary, Dept. of Calif.

35. NA, RG 92, OQMG, General Correspondence 1890-1914, Maj. A.R. Paxton, CO, Alcatraz, May 21, 1903, to AG, Dept. of Calif., and McElroy, Mar. 4, 1904, to QMG; NA, RG 393, Alcatraz Island, USA Medical Dept., Record of Letters Sent Jan. 1897-Jan. 1905, Surg. S.T. Weirick, May 21, 1903, to Post Adjutant.

Not all of the activity concerned new construction. Between 1902 and 1911 a considerable number of worn-out frame buildings were demolished. The first to go was the old blacksmith shop at the northwest end of the island. It had been built by the Engineer Department in the 1850s when work began on the fortifications in that area. Another ancient engineer carpenter shop and storehouse (on the road behind the new barracks) was demolished in 1905. The space it had occupied then became the parade ground; the former parade ground was now occupied by the second prison. Next to go were the post carpenter shop and the latrine facilities of the first prison. In 1911 the first prison mess hall (a long narrow building located outside the defensive wall on the east side of the island, and lately serving as a laundry) was taken down. At the same time the old adjutant's office on top of the island disappeared. Perhaps the most dramatic example of demolition was that of the Citadel, building 1, which Secretary of War Elihu Root authorized in 1908, when the decision had finally been made that Alcatraz would be the site of a permanent military prison.[36]

Now that the old prison mess hall had been removed, there was space available for a new post exchange to replace the exchange temporarily located in the new barracks. Two years earlier, in 1909, Alcatraz had received an appropriation of $7,500 for a new PX, but at that time the commanding officer had declined the money simply because there was no room for another building

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36. NA, RG 92, OQMG, General Correspondence 1890-1914, Actg. QMG, Apr. 12, 1902, to Chief QM, Dept. of Calif., Maj. A.R. Paxton, CO, Alcatraz, June 23, 1905, to Chief Engr., Div. of Pac., QMG, C.F. Humphrey, Dec. 13, 1906, to Chief QM, Dept. of Calif., AG, USA, Feb. 26, 1908, to QMG, and Capt. H.H. Sheen, Nov. 1 and 29, 1911, to QMG; Henry Shindler, History of the United States Military Prison (n.p.: The Army Service Schools Press, 1911), pp. 74-75.

on the island. The new exchange was a reinforced concrete building that rested on the old defensive wall and on concrete pillars. Later, bowling alleys and a gymnasium were built under the structure.[37]

The 1906 earthquake caused very little damage on Alcatraz. A number of chimneys suffered cracks, and a few piers that supported several buildings had to be repaired. An estimate of the total damages came to slightly over $1,000. Lieutenant McElroy was particularly pleased that the new barracks had survived the shock so successfully.[38]

A major improvement on Alcatraz, an electric power plant, was constructed on the site of old Battery Halleck (and Mendell's Battery 2) in 1910-12. Hired civilians and military prisoners completed the smokestack in November 1910. Its construction consumed 81 barrels of portland cement, 4,000 firebricks, 1,000 fire clays, an unspecified amount of reinforcing bars and $957. The entire complex (consisting of the power plant, a laundry, and four shops) was finished in January 1912 at a cost of $34,810. The structure was made of reinforced concrete and contained a main unit, 48 by 65 feet, and a wing, 51 by 101 feet. The first floor consisted of:

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37. NA, RG 92, OQMG, General Correspondence 1890-1914, QMG J.B. Aleshire, Apr. 3, 1909, to AG, USA; NA, RG 85, Immigration and Naturalization Service, Gary F. Richards, Supt. of Construction, Angel Island Immigration Station, "Memorandum regarding buildings, Alcatraz," Aug. 4, 1913.

38. NA, RG 92, OQMG, General Correspondence 1890-1914, McElroy, Apr. 21, 1906, to the JAG, Capt. [name illegible], Act. Chief QM, Dept. of Calif., May 1, 1906, to QMG, and Chief QM, J.L. Clem, "Report on Earthquake Damage," June 30, 1906.

a boiler room, 45 by 40 feet
an engine and dynamo room, 20 by 45 feet
a pump room, 15 by 30 feet
a plumbing and machine shop, 48½ by 50 feet
a blacksmith shop, 16 by 50 feet
a carpenter shop, 32½ by 50 feet

Also, the adjacent North Caponier, later converted to a magazine by Mendell, now functioned as a fuel room. The second floor of the wing, measuring 50 by 100 feet, became the new laundry for the prison. This complex wreaked havoc on the 1870s fortifications in the area (primarily Battery 2), yet the quartermaster carefully preserved some of the old masonry work, including the remnants of the caponier, passageways, magazines, and the tunnel.[39]

The permanent prison and the garrison guard had a potential capacity of 700 people living on waterless Alcatraz--a potential never reached. In still another effort to insure an adequate water supply, the quartermaster undertook to drill a well on the island in 1912-13. In February 1913 he complained that the bits were not heavy enough to get through a hard strata of rock that had been encountered, and he requested the services of an experienced borer to replace his amateur drillers. Reluctantly, the quartermaster general agreed that a borer could be hired and

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39. NA,RG 92, OQMG, General Correspondence 1890-1914, Lt. Col. R.B. Turner, July 18 and Nov. 10, 1910, and War Dept. Form No. 302 (building record), Power Plant, Alcatraz. A 1912 abstract of proposals for supplying fuel oil to the power plant listed three bidders: Union Oil Co. of Calif., Associated Oil Co., and Standard Oil Co.

heavier equipment used. In May the post quartermaster reported that drilling had begun over again, but that a hard granitic rock had been hit at 26 feet; however, the drill was progressing through it at a rate of 5 feet per day and the hole then measured 80 feet deep. A walking beam had been employed, but it had promptly broken down. By July the well was 300 feet deep. An analysis of the water found at that level showed it to be almost as salty as seawater, and the capacity of the well was extremely limited.

Several weeks later orders were received to discontinue work on the well, not because of its problems, but because the army was expecting to give up its control of Alcatraz. In effect, the well was abandoned and the residents of Alcatraz continued to rely on boats to deliver their freshwater.[40]

For a number of years the garrison on Alcatraz had acquired its freshwater from the Spring Valley Water Company, a privately owned monopoly in San Francisco. The company charged the government a flat rate of $114 per month for Alcatraz, regardless of the amount of water transported to the island daily by the General McDowell. In 1904 the army toyed with the idea of taking Alcatraz's water from the Presidio's independent mains, but the quartermaster on the island urged that this not be done. As long as Spring Valley allowed the flat rate to continue, the price was not prohibitive; further, there was the advantage of the General McDowell's tanks being filled at night while she was tied up at a city wharf. Were she to carry Presidio water she would have to be filled during the day, losing valuable time.

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40. NA, RG 92, OQMG, General Correspondence 1890-1914, Capt. H.H. Sheen, Apr. 20, 1912, to QMG, Capt. S.F. Dutton, Feb. 28, May 21, and Aug. 21, 1913, to Chief, QM Corps, and Capt. R.B. McBride, QMC, Nov. 24, 1913, to QM, Alcatraz. The sites of the two wells are not known; they were possibly on the parade ground since it was then cleared of its prison buildings.

By 1905 the General McDowell had been supplemented by a second harbor steamer, the General Mifflin. Both vessels operated between San Francisco, Fort Mason, the Presidio, Fort Baker, Fort Barry, Angel Island, and Alcatraz. In addition Alcatraz had its own launch, called after itself. The General Mifflin's master caused a small stir the day his vessel hit the Alcatraz wharf causing minor damage to piles and stringers. Apparently he had a reputation of careless sailing. The depot quartermaster, who had responsibility for all harbor activities, demanded that the skipper write him a letter stating that he was capable of handling the steamer without further accident. If, said the quartermaster, he could not give such an assurance his resignation would be called for.

However, it was the handsome General McDowell that won the affections of San Franciscans and islanders alike. In 1907, in commemoration of her 21 anniversary and a new face-lifting at Mare Island, the San Francisco Sunday Call ran a feature on the ship's history. The vessel left the Washington Street wharf three times daily: 7 a.m., 11:30 a.m., and 4 p.m. Her course took her first to Alcatraz, then to Angel Island, to the Presidio, to Fort Mason, to Alcatraz again, and then back to San Francisco. On the first run of the day she discharged freshwater at Alcatraz. Every Tuesday night she made an 11:30 p.m. theater run out to the islands. Also, she was ordered out for balls and hops at any of the army posts in the harbor. Civilians could take passage on board, but they were not allowed to land on the islands because of past experiences of picnic litter, especially on Angel Island. Officers and their friends had exclusive use of the upper deck. Enlisted men and prisoner work parties were kept below.

A proposed schedule for harbor traffic in 1910 showed that the quartermaster vessels were then using the Folsom Street wharf in San Francisco.

Leave	Daily, except Sundays and holidays		
Folsom St. wharf	7:00 a.m.	11:00a.m.	4:00 p.m.
Alcatraz Island	7:30	11:25	4:30
Discharge Camp (Angel)	7:50	11:45	--
Fort McDowell (Angel)	8:10	12:05p.m.	4:50
Discharge Camp		-- --	5:10
Fort Baker		12:25	--
Presidio		12:45	--
Alcatraz Is.	9:30	1:05	5:30
Arrive: Folsom St.	10:00	1:35	5:55

The early morning water stop at Alcatraz had been eliminated by this time because of the acquisition of a water boat, appropriately called the Aquador.[41]

In 1907 Alcatraz Island was formally dropped as an army post under the Department of California and was renamed Pacific Branch, U.S. Military Prison, under the authority of the adjutant general of the army. Despite the fact that a new permanent prison building was erected in 1910 and about 400 prisoners occupied the cells, there remained considerable dissatisfaction within the army about this role for the island. The judge advocate general of the army got at the crux of the problem in 1913, following an inspection of the prison:

> [Alcatraz] lies directly in the path of commerce, and, surmounted as it is with the rather conspicuous new prison building is perhaps more prominent in the view of the incoming passenger and more the subject of his inquiry and that of residents and visitors generally than

41. NA, RG 92, General Correspondence 1890-1914, Chief QM, W. Patton, Dept. of Calif., Mar. 17, 1904, to QMG, and Apr. 21, 1905, to Capt. A. Hansen, master, General Mifflin, Maj. (unknown), OQMG, Sept. 25, 1905, to QMG, and Maj. E.F. McGlachlin, CO, Angel Island, Dec. 28, 1909, to AG; San Francisco Sunday Call, Nov. 17, 1907, Magazine Section, pt. 1, p. 3.

> any other object in the harbor. The answer they receive, that it is a prison for the confinement of our military defenders, gives an impression of the character of our enlisted personnel and of the discipline of our Army which is unfair and unjust to the service.

At that same time the Immigration and Naturalization Service was casting about for a new immigration station in San Francisco Harbor. It considered its facilities on Angel Island to be inadequate in size and a positive firetrap. Also, it expected that the completion of the Panama Canal would increase European immigration to the West Coast. Learning of the judge advocate general's dissatisfaction with the Alcatraz prison, the commissioner general of immigration investigated the feasibility of taking over the island and modifying its structures for the use of immigrants.

The Immigration Service's investigators believed that the Alcatraz facilities could be adapted at little cost--less than $50,000. Even the prison cells could be "readily adapted for Asiatic uses" by removing the cell doors and painting the rest of the steel bars white. Polite opposition to the idea came from the Chinese Consolidated Benevolent Society in San Francisco. This organization urged that the station be moved to San Francisco proper for greater efficiency, but if that was not possible, it should be retained on Angel Island, where the accommodations were better and more space was available than on Alcatraz. The society did not comment on the proposed use of prison cells as sleeping accommodations for newly arrived immigrants from Asia. The society's objection fell on deaf ears. In October 1913 a bill was introduced into Congress transferring Alcatraz Island to the Department of Labor--a bill that had the support of the secretary of war. Throughout 1914 both Departments of War and Labor continued to anticipate the transfer of Alcatraz. Then, since Congress failed to take positive steps toward that end, the Immigration and Naturalization Service turned its

attention to acquiring a station on the mainland. The military prison on Alcatraz had many more years of existence ahead of it.[42]

Possibly associated with the Service's interest in Alcatraz, the Quartermaster Corps in Washington, D.C., attempted to compile a record of the buildings on Alcatraz about 1914. This list provided a valuable summary of the existing structures:

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42. Reports of the Department of Labor, 1915 (Washington: Government Printing Office, 1916), p. 68; NA, RG 92, OQMG, General Correspondence 1890-1914, Capt. R.B. McBride, QMC, Nov. 24, 1913, to QM, Alcatraz; [U.S. Congress] 63d Congress, 2d sess., House Report No. 897, "Jurisdiction of Alcatraz Island," June 24, 1914; NA, RG 95, Immigration and Naturalization, Bureau of Immigration, JAG E.H. Crowder, USA, Aug. 15, 1913, to Chief of Staff, USA, and Gary F. Richards, Civil Engr., "Memorandum for Commissioner regarding Alcatraz," Aug. 14, 1913, Comm. Gen. A. Caminetti, Aug. 25, 1913, to Sect. of Labor, and Chinese Consolidated Benevolent Assoc., Sept. 1, 1913, to Sect. of Labor.

Bldg. No.	Date Erected	Name	Materials	Cost
1	1913	New Prison	Reinforced Concrete	$250,000
		Plumbing, Fixtures, etc.		60,000
4	1901	Quartermaster Storehouse	Frame	1,380
5	1887	Carriage Shed	"	500
6	1887	Stable	"	818
7	1881	Officers Quarters	"	4,500
8	1880	Commanding Officer's Qtrs.	"	6,000
9	1881	Officers Quarters	"	4,500
10	1882	Hospital	"	15,000
12	1859	NCO Quarters (east)	"	2,500
13	1859	NCO Quarters (center)	"	2,500
14	1859	NCO Quarters (west)	"	2,500
15	1875	Married Soldiers' Quarters	"	2,500
22	1865	Part of Old Prison	Brick	1,000
25	1900	Tool House	Frame	350
28	1882	Offices & Storerooms, QM & CS	"	3,000
36	1895	Coal Shed (steamer)	"	500
37	1895	Coal Shed (domestic)	"	500
38	1872	Boat House	"	500
39	1904	Post Bakery	"	2,432
41	1876	Waiting & Store Rooms	"	500
43	1891	Waiting & Store Rooms	"	1,500
47	1892	Hospital Steward's Quarters	"	965
58	1900	Civilian Employees' Quarters	"	1,291
59	1900	Paint Shop	"	235
64	1908	Officers' Quarters in Barracks	Concrete Block	41,389
65	1910	Post Exchange	Reinforced Concrete	6,448
66	1910	Morgue	Brick & Concrete	500
67	1912	Power Plant Complex	Reinforced Concrete	34,810
			Total	$448,618[43]

43. NA, RG 92, OQMG, General Correspondence 1890-1914, "Buildings now existing at Alcatraz Island," n.d. but ca 1914. Building 58, the Civilian Employees' Quarters, was probably not a new structure, but a remodeling of the old prison kitchen building. Structure 66, Morgue, was part of the 1870s passageway from Battery 5, under the parados, to the east side of the island. The new prison stockade now sat on top of this area.

The army had long taken an interest in landscaping the various posts around San Francisco Bay--all except Alcatraz. The only landscaping on the island had been the small flower gardens in the vicinity of the officers' quarters and some sparce grass on the fortifications. At one time, interested San Francisco citizens had undertaken to beautify the islands in the bay; again, Alcatraz missed out. But in 1924 the California Spring Blossom and Wild Flower Association reached an agreement with the army to turn Alcatraz into a veritable garden. Mrs. George R. Child, a landscape gardner and chairman of the association, supervised the plantings, but military prisoners leaned on the shovels. In February and March, 300 trees and shrubs, 100 pounds of nasturtium seeds, and "many pounds" of Shirley poppy were planted. Also, mallow and cobaea were sent to the island. The association planned to climax the undertaking with a picnic on the Rock, and the Alcatraz prison band was to entertain the gathering. Presumably, the rest of the prisoners were not invited.[44]

A detailed map of Alcatraz, prepared in 1933, showed the status of the structures on the eve of the army's departure, after 80 years of construction activity. When compared to the 1914 list of structures, it showed that the following buildings had disappeared from the scene during the past 20 years:

Building 5--Carriage Shed
Building 6--Stable (motor vehicles had replaced mules)
Buildings 36 and 37--Coal Sheds (oil had replaced coal)
Bulding 38--Boathouse
Buildings 41 and 43--Waiting Rooms
Building 59--Paint Shop

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44. San Francisco Chronicle, Feb. 8, 1924.

A number of new buildings had been constructed during the same period. These included; six sets of officers' quarters around the parade ground on the southeast end of the island (two of the sets being in a duplex); a large reinforced concrete quartermaster storehouse and garage adjacent to the power plant; a shop building located at the northwest end of the island; a quarry dock on the southern side of the island (the crushed rock was used on the Presidio's roads); two large underground water cisterns northwest of the prison stockade; a tennis court in a corner of the parade and a handball court southeast of the wharf; a new launch landing at the wharf; a water-level walkway from the wharf to both ends of the island; and a playground for children (near the area youngsters had set fire to a stable many years earlier). The old saluting guns on the east side of the parade ground were gone, and there was a plan to move the flagstaff from there to the roof of the prison building, almost on the same site as the first flagstaff on top of the Citadel. The Department of Justice would inherit an Alcatraz that bore little resemblance to the barren rock that the army had first surveyed in 1847.

D. Commanding Officers, 1859-1916

This list of commanding officers does not contain the names of officers who acted in the position while the regularly appointed commander was absent, except in a few instances when the length of absence was considerable.

Capt. Joseph Stewart, Third Artillery, Dec. 1859 to May 1861
West Point graduate

Maj. Henry S. Burton, Third Artillery, May 1861 to May 1862,
West Point graduate; brevet brigadier general, Civil War

Capt. William A. Winder, Third Artillery, May 1862 to Aug. 1864

Capt. Charles O. Wood, Ninth Infantry, Aug. 1864 to Oct. 1865

Capt. James M. Robertson, Second Artillery, Oct. 1865 to July 1866, brevet brigadier general, Civil War

1st Lt. John A. Darling, Second Artillery, July 1866 to Nov. 1867

1st Lt. John Fitzgerald, Second Artillery, Nov. 1867 to Feb. 1868

Capt. James M. Robertson, Second Artillery, Feb. 1868 to Dec. 1872

Maj. Charles H. Morgan, Fourth Artillery, Dec. 1872 to Dec. 1875, West Point graduate; brigadier general, Civil War

Capt. John Egan, Fourth Artillery, Dec. 1875 to Dec. 1877, West Point graduate

Maj. Albion P. Howe, Fourth Artillery, Dec. 1877 to June 1879, West Point graduate; brigadier general, Civil War

Capt. Henry C. Cushing, Fourth Artillery, June 1879 to Oct. 1879

Maj. LaRett L. Livingston, Fourth Artillery, Oct. 1879 to May 1880, West Point graduate

Capt. Edward Field, Fourth Artillery, May 1880 to July 1880

Capt. Arthur Harris, Fourth Artillery, July 1880 to Nov. 1881

Maj. Royal T. Frank, First Artillery, Nov. 1881 to Dec. 1884, West Point graduate; Medal of Honor, Civil War

Maj. Alanson M. Randol, First Artillery, Dec. 1884 to Oct. 1886, West Point graduate; brevet brigadier general, Civil War

Maj. John I. Rodgers, First Artillery, Oct. 1886 to Nov. 1887, West Point graduate; future brigadier general

Maj. William L. Haskin, First Artillery, Nov. 1887 to Oct. 1888

Lt. Col. Charles G. Bartlett, First Infantry, Oct. 1888 to Apr. 1889, brevet brigadier general, Civil War

Lt. Col. William M. Graham, First Artillery, Apr. 1889 to Oct. 1889, brevet brigadier general, Civil War; future major general

Maj. William L. Haskin, First Artillery, Oct. 1889 to May 1890

Maj. Abram C. Wildrick, Fifth Artillery, May 1890 to Nov. 1891

Lt. Col. Francis L. Guenther, Fifth Artillery, Nov. 1891 to June 1896, West Point graduate; future brigadier general

Lt. Col. William Sinclair, Fifth Artillery, July 1896 to Oct. 1896, West Point graduate; future brigadier general

Capt. James Chester, Third Artillery, Oct. 1896 to June 1897

Maj. David H. Kinzie, Third Artillery, July 1897 to Apr. 1898

Capt. Charles W. Hobbs, Third Artillery, Apr. 1898 to June 1898

Capt. Charles H. Dasher, Sixth Calif. Vols., June 1898 to Sept. 1898

Capt. George B. Baldwin, Eighth Calif. Vols., Sept. 1898 to Jan. 1899

Maj. David H. Kinzie, Third Artillery, Jan. 1899 to Apr. 1899

Capt. Ammon Augur, 24th Infantry, Apr. 1899 to May 1899

Maj. J. Milton Thompson, 24th Infantry, May 1899 to June 1899

Capt. John D. C. Hoskins, Third Artillery, June 1899 to Sept. 1899, West Point graduate

Capt. George T. Bartlett, Third Artillery, Sept. 1899 to Apr. 1900, West Point graduate

1st Lt. Lyman M. Welsh, 28th Infantry, Apr. 1900 to May 1900

Capt. James O'Hara, Third Artillery, May 1900 to June 1900, West Point graduate

Capt. Henry C. Danes, Third Artillery, June 1900 to July 1900

Capt. Benjamin W. Atkinson, Sixth Infantry, July 1900 to Sept. 1900

Capt. Charles W. Hobbs, Third Artillery, Sept. 1900 to Mar. 1901

Lt. Col. Sumner H. Lincoln, 30th Infantry, Mar. 1901 to Apr. 1901

Capt. Charles B. Hardin, 18th Infantry, Apr. 1901 to May 1901

Maj. George S. Young, 18th Infantry, May 1901 to Oct. 1901
Capt. Elon F. Willcox, Sixth Cavalry, Oct. 1901 to Nov. 1901
Lt. Col. Abner H. Merrill, Artillery Corps, Nov. 1901 to July 1902
Maj. Bernard A. Byrne, 13th Infantry, July 1902 to Feb. 1903, Medal of Honor, Philippine Islands
Maj. Cornelius Gardener, 13th Infantry, Feb. 1903 to Mar. 1903, West Point graduate
Maj. Alexis R. Paxton, 13th Infantry, Mar. 1903 to Oct. 1905
Maj. George W. McIver, Fourth Infantry, Oct. 1905 to Jan. 1906
Maj. Abner Pickering, 22d Infantry, Jan. 1906 to June 1907, West Point graduate

(In June 1907 the official post designation was changed from "Alcatraz Island" to "Pacific Branch, U.S. Military Prison, Alcatraz Island," and the title "Commanding Officer" was changed to "Commandant.")

Maj. Reuben B. Turner, Eighth Infantry, June 1907 to Nov. 1911, West Point graduate
Col. Robert C. Van Vliet, Infantry, Nov. 1911 to June 1913
Col. Charles M. Truitt, Infantry, June 1913 to Sept. 1914, West Point graduate
Capt. Charles R. Howland, 21st Infantry, Sept. 1914 to Dec. 1916

E. Army Units Stationed on Alcatraz, 1859-1916

Regiment/Unit	Company/Battery	Years
Regulars:		
First U.S. Artillery	A, B, C, D, G, H, I, & M	1881-90
Second U.S. Artillery	B, E, F, G, K, & L	1865-72 and 1859-64
Third U.S. Artillery	A, B, D, E, H, I, K, L, N, and Band	1896-1900
Fourth U.S. Artillery	C, D, E, F, G, H, K, & L	1872-81
Fifth U.S. Artillery	A, B, C, E, H, I, & K	1890-96
-------	63, 64, & 71, Coast Artillery	1901-2
First U.S. Infantry	C, E, & Band	1888-89 & 1897
Fourth U.S. Infantry	B, C, & D	1905-6
Sixth U.S. Infantry	G	1860
Seventh U.S. Infantry	H	1900-1901
Ninth U.S. Infantry	F, G, H, & K	1862-65
Tenth U.S. Infantry	M	1905
12th U.S. Infantry	C, E, F, G, H, & M	1902-5
18th U.S. Infantry	A & C	1901
22d U.S. Infantry	A, E, F, G, H, & K	1906-7
24th U.S. Infantry	H (Black troops)	1899
U.S. Engineers	Detachment, Co. A	1861
First Dragoons	Recruits	1861
------	Convalescent Company No. 2	1900-1901
U.S. Military Prison Guard	Companies Three and Four	1907-15
Disciplinary Battalion, Pacific Branch, U.S. Military Prison		1914-16

(Fifth, Sixth, Seventh, & Eighth companies and Second Disciplinary Band, all composed of prisoners.)

Volunteers:		
Second Infantry, California Volunteers	G	1861-62
Fifth Infantry, California Volunteers	H & K	1862
Sixth Infantry, California Volunteers	A	1864-65 & 1898

Eighth Infantry, California Volunteers	E, G, H, & M	1864-65 & 1898-99
First Infantry, California Volunteers		1862

F. Miscellany

The monthly "Post Returns" maintained by all army posts contained a section titled "Record of Events." Here the commanding officer would note such special happenings as visits by generals, fires, parades, the arrival and departure of troops, and anything else that struck his fancy. Some commanders managed to find some "event" that seemed worthy of note every month; others would serve out their entire assignments without recording anything. There follows a culling of these post returns for Alcatraz Island from 1859 to 1916, highlighting both the usual and the unusual. Some of these events have already appeared in the narrative; others did not fit into the flow of chronology.

December 1859: The first "Post Return" was written for the "Post on Alcatraz Island."

July 1860: Four enlisted men were on extra duty as boatmen for the Quartermaster Department.

January 1861: There were 86 pieces of heavy artillery on the island.

March 1865: There were 96 heavy pieces and 2 field pieces of artillery present.

November 1865: A detachment of 3 officers and 59 men took part in the funeral escort for Colonel De Russy, Corps of Engineers, in San Francisco.

April 1866: Maj. Gen. Henry W. Halleck, commanding the Military Division of the Pacific, visited and inspected the command.

May 1866: The War Department announced that Alcatraz was a "Chaplain Post," i.e., a chaplain was to be assigned to the command.

October 1867: There were 154 heavy pieces and 2 field pieces of artillery present on Alcatraz. (This is the largest number of guns ever reported. It should be noted that not all of them were mounted, then or ever.)

April 1869: Alcatraz's trophy gun was a 4-pounder.

January 1873: Church services were held twice during the month.

June 1873: Piute Tom (Indian prisoner) was killed by a guard two days after arriving on the island.

August 1873: General prisoner William Davis was killed at work by the falling of a derrick.

October 1873: Two Modoc prisoners, Barncho and Sloluck, arrived from Fort Klamath, Oregon.

April 1874: The barracks and hospital (one building) was destroyed by fire.

November 1874: Father Andrew Cullen, a Catholic priest from San Francisco, said mass.

December 1875: The commanding officer, Capt. C. H. Morgan, died of apoplexy.

June 1876: Two privates drowned when their fishing boat capsized.

August 1876: Two artillery companies departed for the Sioux Campaign.

September 1876: Capt. John Egan, the commanding officer, was in arrest.

June 1877: First Lt. William W. Fleming was dismissed from the army.

May 1878: Two military prisoners escaped in a small boat.

February 1888: The troops participated in a parade and review at the Presidio of San Francisco.

March 1888: Fire destroyed two engineer and one quartermaster buildings. The fire was started by small children.

October 1888: Four siege guns were transferred to the Presidio. Only four heavy and four field guns were left on Alcatraz.

January 1889: The first Infantry band arrived from Angel Island.

February 1889: The garrison participated in division and brigade maneuvers at the Presidio.

April 1889: Lt. Samuel Rodman, Jr., was present on detached service from the Naval Torpedo Station, Newport, R.I.

June 1889: Capt. John A. Darling, suffering from depression, went on leave for two months.

November 1889: The troops went to the Presidio for artillery target practice.

March 1892: A sergeant and a private were put on extra duty as post school teachers.

December 1892: One prisoner escaped from the island.

June 1895: Lt. Gen. John M. Schofield, commander in chief, USA, reviewed the Alcatraz troops at the Presidio.

September 1876: There were 14 heavy guns and 5 field guns present on Alcatraz.

October 1897: Artillery troops went to the Presidio for practice with the seacoast batteries.

August 1898: Three prisoners escaped in a small boat.

June 1901: The post hospital had a civilian contract surgeon named Najib Taky-ud-Deen.

April 1903: A sentinel on top of the Citadel spotted an overturned racing shell. Alcatraz soldiers rescued the five men.

May 1903: The bakery was destroyed by fire.

July 1903: Target practice was held at a rifle range near the Benicia barracks.

August 1903: Five Japanese stowaways were received at Alcatraz for safekeeping.

March 1904: Alcatraz prisoners began constructing a new rifle range at Point Bonita.

July 1904: The troops had small arms practice at Point Bonita and field maneuvers near San Louis Obispo.

September 1904: Salutes were fired and visits of courtesy were made with the Russian cruiser Lena and Chilean training ship General Baquedano.

December 1904: Brig. Gen. Francis Moore, commanding the Department of California, reviewed and inspected the command.

January 1905: A salute was fired for the French cruiser Protet.

May 1905: Brig. Gen. Frederick Funston, commanding the Department of California, inspected the garrison and the post.

September 1905: The judge advocate general, Brig. Gen. George B. Davis, inspected the post.

October 1905: The second Battalion, 13th Infantry, departed for the Philippine Islands.

December 1905: A fire did $200 in damages to the ordnance storehouse.

April 1906: "At about 5:30 on the morning of the 18th, a very severe earthquake shock occurred shaking all buildings, cracking many walls, and wrecking many chimneys." Troops were sent to San Francisco.

September 1906: The division commander, Lt. Gen. Arthur MacArthur, paid an informal visit.

December 1906: There was a small fire in the former carpenter shop which when held quartermaster supplies.

June 1907: The name was changed to "Pacific Branch, U.S. Military Prison, Alcatraz Island, California." There were 285 general prisoners. The commanding officer was now called the commandant.

September 1909: Maj. Gen. James F. Bell, chief of staff, USA, inspected the prison.

December 1909: There were 11 obsolete muzzle-loading heavy guns and one 3-inch breech-loading saluting gun on the island.

October 1911: The surgeon general, Brig. Gen. George H. Torney, and the inspector general, Brig. Gen. Ernest A. Garlington, inspected the island.

February 1912: The new permanent prison was occupied on February 6.

September 1912: The Secretary of War, Henry L. Stimson, Lt. Gen. S. B. M. Young, and Surg. Gen., G. H. Torney, visited the island.

October 1912: Maj. Gen. Leonard Wood, chief of staff, USA, visited the post. (He had once been a surgeon at the Presidio.)

January 1913: The following duties were assigned to Alcatraz's officers: commandant, post surgeon, post librarian, athletic officer, post quartermaster, construction quartermaster, police officer, adjutant, executive, engineer, summary court officer, post exchange officer, officer in charge of school for general prisoners, general mess officer, and officer in charge of mail for general prisoners.

April 1913: There was a fire in the kitchen of the general mess, doing less than $100 in damages.

July 1913: The Secretary of War, Lindley M. Garrison, inspected the prison.

November 1914: Maj. Gen. Enoch H. Crowder, the judge advocate general, and Maj. Gen. Henry P. McCain, the adjutant general, USA, inspected the post.

June 1915: The name was changed to Pacific Branch, United States Disciplinary Barracks.

September 1915: General McCain again inspected the barracks.[45]

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45. NA, Microcopy 617, Rolls 14-17, Returns from U.S. Military Posts, 1800-1916, Alcatraz.

VII. The Military Prison

A. Civil War and Origins of Prison

Like every other post in the United States, Alcatraz had a guardhouse with accommodations in it for soldiers of its garrison who had violated the army's rules and regulations. The standard facilities of the day usually consisted of a general prison room for compliant prisoners and a few individual cells for those who remained in a rebellious mood. Alcatraz had both, but they were in separate buildings. The general prison room was located in the basement of the defensive guardhouse 500 feet up the road from the wharf. The dark, gloomy room measured about 10 by 20 feet. Two narrow musket-slit type windows opened out into the dry moat that lay in front of the guardhouse and two similar openings looked over the bay on the eastern side of the structure. A trap door in the floor of the casemate above provided the only entrance. Three isolation cells, one of them "dark," were located in the basement of the southwest tower of the Citadel on top of the island. The two "light" cells also had slit windows opening into the ditch around that building. Each cell measured about 8 feet by 4 feet 8 inches.[1]

Alcatraz had the usual number of candidates for the guardhouse from its earliest days as a garrisoned post, but when the strength of the command greatly increased early in the Civil War, a corresponding increase occurred in the guardhouse population. In July of 1861, for example, 15 privates out of a command of 268 were locked up. The Presidio and the rapidly growing volunteer camps elsewhere in northern California experienced similar

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1. NA, Cartographic Div., RG 77, Fortifications File, Dr. 95-15, Lt. Frederick Prime, "Plan and Sections of Guard House at Alcatraces Island," 1856, and Dr. 95-30, Lt. James B. McPherson, "Plan and Sections of Defensive Barracks, Alcatraces Island," Sept. 30, 1859.

situations. An increase in the number of prisoners required a larger number of guards and caused problems in security, inasmuch as there were always some soldiers who felt duty bound to escape from the wretched conditions of confinement. Enlisted men guilty of minor infractions and who were sentenced to short periods of confinement, (perhaps 10 to 30 days) could be accommodated in the local guardhouse with little trouble. But those who had long sentences (from one to ten years for desertion) caused an administrative strain on the average post's capabilities, especially since there was a rapid turnover of commands during the war. As of the beginning of the Civil War, the army had no system of prisons, nor a well-founded policy for dealing with long-term confinement. Only rarely in the army's history could examples be found of attempts to manage prisoners in any fashion beyond the normal guardhouse routine. In 1874 the adjutant general searched through the records to find only one case where, in 1823, 121 military prisoners were gathered at Fort Monroe, Virginia, to work on the fortifications.[2]

Alcatraz Island (more by accident than design) was destined to become the army's first long-time prison. In the summer of 1861, the commander of the Department of the Pacific, Brig. Gen. Edwin V. Sumner, found an expedient solution to the problems of the growing numbers of military prisoners and of improving military security by ordering the transfer of prisoners in the Presidio guardhouse to Alcatraz on August 27. Surely, no one that day envisioned that this was the first step in a 73-year history of military penology on the Rock. By the end of the month, the 13 local prisoners in the guardhouse had been joined by another 13 who had come across the bay from the Presidio.

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2. NA, RG 94, Adjutant General's Office (AGO), Military Prison Record Division, Letters Sent 1875-1899, AG E. D. Townsend, Mar. 4, 1874, to John Coburn, Chairman, Military Committee, House of Representatives.

Despite an intensive search, no order dated August 27 directing that transfer had been found, but the transfer did take place, and in 1874, on the eve of the establishment of a military prison at Fort Leavenworth, Kansas, the adjutant general wrote: "Since August 27, 1861, Alcatraz Island in the Harbor of San Francisco, has been the point for collecting prisoners on the Pacific Coast." A letter has been located from the department to the commanding officer on Alcatraz, telling him about these prisoners. On August 26, 1861, the department adjutant general wrote to the commanding officer at Alcatraz: "Any prisoners sent to your post by Lt. Col. Merchant [commanding officer, the Presidio] . . . will be used on the Island for police purposes until a Court is ordered for their trial."[3]

The inception of the prison was truly a casual affair, and correspondence concerning its first years was extremely scarce. The monthly post returns tallied the number of military bodies but completely ignored civilians held there. Almost nothing was recorded concerning punishments, such as the then still-authorized ball-and-chain, nor about the daily routine, other than a comment or two that prisoners policed the post. While the number of military prisoners on the island during the Civil War was never high, the small guardhouse was constantly overtaxed. The tiny general prison room in the basement could not begin to hold the men, even though they slept en masse upon the floor. Consequently, the inland howitzer casemate on the main floor became the general prison; while the guard occupied the other casemate across the sally port on the waterside. Either then or later, the basement was

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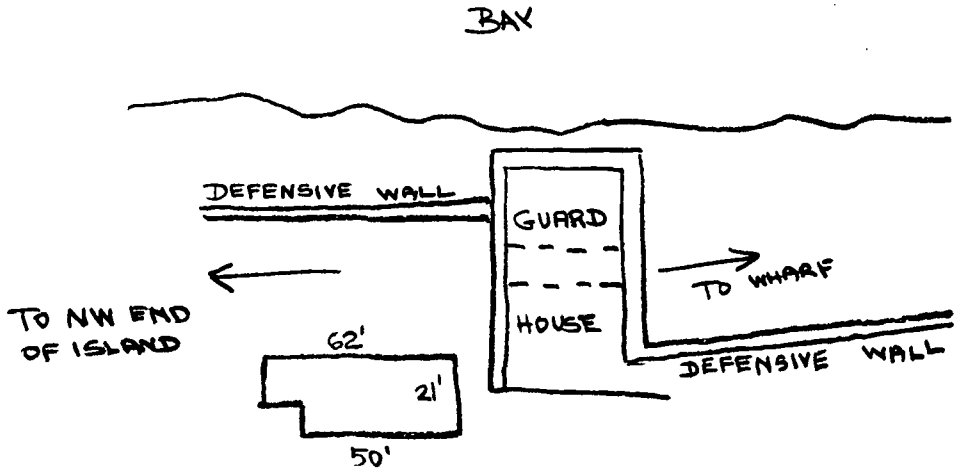
3. NA, RG 94, AGO; NA, RG 393, Dept. of the Pac., Letters Sent 1848-1866, vol. 10, AAG R. Drum, Aug. 26, 1861, to CO, Alcatraz; NA, Microcopy 617, Roll 14, Post Returns, Alcatraz, August 1861; and Roll 968, Returns, the Presidio, August 1861.

converted into a wash and bathroom for the prisoners and doorways were knocked through its thick walls. These arrangements for the guardhouse frustrated the engineers who were anxious to place the 24-pounder flank howitzers in position to guard the approaches from the wharf. In the fall of 1862, both the fortifications engineer and the commanding officer urged the construction of a separate prison so that the guardhouse could be armed. Their plea fell on deaf ears. When overcrowding and sanitation problems caused an outbreak of illness in the fall of 1861, the commanding general ordered the prisoners into tents and a "cleansing of the prison room."[4]

Sometime between 1861 and 1863 a small frame building measuring 21 by 50 feet was constructed at the rear (northwest) of the guardhouse on the south side of the covered way. It provided additional quarters for the influx of wartime prisoners.



ELLIOTT'S 1863 DRAWING OF PRISON

4. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Oct. 20, 1862, to Totten; NA, RG 393, Dept. of Pac., Letters Sent 1848-1866, vol. 10, AAG R. Drum, Oct. 9, 1861, to CO, Alcatraz; [U.S. Congress], War of the Rebellion, series 1, vol. 50, pt. 2 (Capt. W. A. Winder, CO, Alcatraz, Sept. 10, 1862, to AAG, Dept. of Pac).

Exact figures on the number of prisoners during this period are impossible to determine. No record whatever has been found concerning the number of civilians in confinement. The post returns showed the average number of military prisoners to have been 15 between 1861 and 1863. In 1864 the average number climbed to 24, and by the end of the war it reached 49. The available records indicate that the turnover was constant, if not great in volume. In January 1862 the first prisoners from army units in Southern California reached Alcatraz by ship. A month later, the navy sent two of its officers and two sailors to Alcatraz for refusing to take an oath of allegiance to the Union. It is not known if special accommodations were made for the officers; but both soon took the oath and were released from arrest by early March.[5]

In 1862 the Department of the Pacific issued instructions that Alcatraz was to hold in confinement any persons sent there by the U.S. Marshal. Publicity was given to the fact that President Lincoln had suspended the writ of habeas corpus and that his orders "directing the arrest of all persons guilty of disloyal practices will be rigidly enforced. Those of them who are leading secessionists will be confined at Alcatraz." A number of "secessionists" and/or Democrats found themselves on Alcatraz before the war was over. Among them were C. L. Weller, chairman of the Democratic State Committee and former governor, arrested for a speech he made in the presidential campaign of 1864; E. J. C. Kewen, newly elected to the state assembly; Ben Walker, who organized a group to go to Texas to fight for the Confederacy; and a man named Rudd, who was arrested in Mariposa County in January 1865.

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5. NA, RG 77, OCE, Letters Received 1867-1870 (A File), Elliot, June 17, 1869, to Humphreys; NA, Microcopy 617, Roll 14, Post Returns, Alcatraz, February 1862.

The largest group of southern sympathizers to occupy the guardhouse was the crew and passengers of the schooner J. M. Chapman. Federal and city authorities seized the schooner on March 15, 1863, as she was about to leave the harbor to become a privateer for the Confederacy. The temporary imprisonment of these men on Alcatraz has been previously noted in this report. An excited and profuse account of the seizure of the vessel appeared in the Daily Alta California on the day following the event. The editor gave a list of those arrested:

> Ridgeley Greathouse, ostensible owner; A. Ruberey, a young Englishman, apparently a passenger, but well known to the Revenue officers as having for a long time been enlisted in a projected scheme of piracy under cover of letters of marque from Jeff. Davis; _____ Libbie, first officer of the schooner, a man who is suspected of having been engaged in a similar capacity on the Atlantic waters; Aubrey Harpending, a native of Kentucky, and one of the main ringleaders of the expedition; Thomas Poole, a native of Kentucky; Alfred Armond, a native of Ottawa, Canada West; Henry C. Boyd, of Newcastle, Delaware; Joseph W. Smith, alias Snyden, of Brandenburg, Ky.; R. H. Duval, a native of Florida, together with the following, whose places of nativity will be known to the officers to-day: W. D. Moore, J. W. McFadden, Wm. W. Mason, John E. Kent, Albion T. Crow, D. W. Brown, John Fletcher, James Smith, George W. Davis, M. H. Marshal, and five sailors, cook, steward, etc.[6]

The master of the vessel, W. C. Law, was also arrested. The schooner was towed to Alcatraz where the leaders were placed in confinement (in the Citadel?) and the rest "properly secured."[6]

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6. NA, RG 393, Dept. of Pac., Letters Sent 1848-1866, vol. 10, AAG Drum, Jan. 30, and Mar. 4, 1862, to CO, Alcatraz; ADC (unknown), Dept. of Pac., Mar. 28, 1862, to CO, Alcatraz; [U.S. Congress], War of the Rebellion, series 1, vol. 50, pt. 2, p. 116, (AAG Drum, Sept. 12, 1862, to CO, Benicia Barracks), and p. 1193 (Brig. Gen. G. Wright, Apr. 10, 1865, to AAG Drum); Daily Alta California, Mar. 16, 1863, and Aug. 2, 1865; C. H. Baily, "The Rock," San Francisco Chronicle, June 14, 1914.

Early in 1865, the Engineer Department queried its officers in the field as to the feasibility of employing military prisoners on the construction of fortifications. Lt. George Elliot, on Alcatraz, allowed that he could use about ten prisoners in breaking rock and so forth, "where they would not be in the way of hired laborers." Thus began the practice of Alcatraz's prisoners contributing, in no little way in later years, to the construction of the Rock's postwar batteries. At Fort Point, Colonel De Russy was wholly against the employment of prisoners. He argued that there would be "the risk of constant desertion . . . both by land and water." He said, "the only locality in this Harbor suitable for such a purpose is Alcatraces Island, where the guard house and prison are of a good size and well guarded by sentinels, added to that, the difficulty of escape from the Island is rendered extremely difficult on account of its size as well as the formation of the high banks or bluffs which surround it."

After De Russy's death, when Elliot had taken charge of the works at Fort Point, prisoner work-parties were employed there. In September of 1867, for example, all of Alcatraz's prisoners were temporarily transferred to Fort Point where a makeshift prison was installed in the casemates. But De Russy was right; prisoners could and did escape. They were returned to Alcatraz early in 1868 when the fort at Fort Point was temporarily abandoned.[7]

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7. NA, RG 77, OCE, Letters Received 1838-1866, Elliot, Jan. 23, 1865, to Delafield, De Russy, Feb. 21, 1865, to Delafield; NA, Microcopy 617, Roll 14, Post Returns, Alcatraz, Sept. 1867-Mar. 1868. An inspector general at Fort Point in February 1868 counted 95 prisoners there.

B. The First Departmental Prison, 1865-1900

1. The Prison

Following the close of the Civil War, regular army garrisons slowly reoccupied the small army posts on the Pacific Coast. The wartime use of Alcatraz serving as a place of confinement for a variety of prisoners declined. The average prison strength on the island for the three years (1865-1868) amounted to only 20, and most of these men came from posts around the bay. Nonetheless, the concept of a prison at Alcatraz remained alive. This was demonstrated in 1867 by tearing down the wartime wooden building behind the guardhouse and replacing it with a 50- by 30-foot brick cellblock, with two tiers of cells on each side. (The extensive brick foundations of this building still stand, now covered by a frame structure.)[8]

In 1868 the department commander, Maj. Gen. Henry W. Halleck, renewed the idea of Alcatraz serving as the place of confinement for all long-time military prisoners in the department, which at that time included California, Nevada, Oregon, and the territories of Arizona, Washington, and Idaho. Once again, no specific orders for this development have yet been unearthed. It is known that the adjutant general of the army, Brig. Gen. Lorenzo Thomas, was interested at that time in establishing military prisons and companies of discipline around the country. A letter by Engineer Mendell to the commanding officer of Alcatraz in June 1868, indicates that Mendell had been approached about the feasibility of erecting a wooden prison on top of the guardhouse. Mendell had

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8. NA, RG 77, OCE, Letters Received 1867-1870, (A File), Mendell, Aug. 5, 1867, to Maj. J. P. Sherburne, AAG, and June 22, 1869, to Humphreys.

no objection to its construction inasmuch as it would not interfere with the fire of any guns and it could easily be removed in time of war. Presumably this block of cells, the first of three wooden ones, was built that summer.[9]

A large contingent of prisoners arrived on Alcatraz in August 1868, increasing the prison population from 34 to 93. By January 1869, the number had climbed to 127. The chief of engineers, General Humphreys, took a dim view of this development at a place of permanent fortifications:

> It is now proposed to add to the establishment a mess room and kitchen for the use of the prisoners confined in the building and as a measure of security to protect the garrison and works from a danger of a rising of the prisoners. While there is not the same degree of objection to a general prison on Alcatraz Island that applies to the case of an enclosed fort (as the Fort at Fort Point) it must still be urged that a permanent Fort for the defence of the seaboard is a most unsuitable place for the establishment for a general or Departmental Military prison. Guard duty for the prisoners always exacts large details from the garrison, while the works are not adapted to accommodate any troops beyond those necessary for the service of the guns. Hence, in case of emergency, the garrison will probably be found insufficient for its special duty: while the danger is at all times threatening. . . of a rising of the prisoners.

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9. NA, RG 94, AGO, Military Prison Record Div., Letters Sent 1875-1889, AG E. D. Townsend, Mar. 4, 1874, to J. Coburn, House of Rep.; NA, RG 77, OCE, Letters Received 1867-1870 (A File), Mendell, June 11, 1868, to CO, Alcatraz; U.S. Congress, House Documents, House Ex. Doc. no. 1, Annual Report, Adjutant General of the army, 1868, p. 728 (Serial 1367).

While Humphreys had the support of both the adjutant general and the secretary of war, he lost the argument; the prison would stay and, in fact, outlive the fortifications.[10]

In September of 1870 the commanding officer at Alcatraz reported that he had four more prisoners than he had cells for and that 25 more prisoners were on their way from the Department of the Columbia, "as Department Commanders had been ordered to send all prisoners, who had been sentenced to be dishonorably discharged, to this Post to serve out their sentence." The "Post Return" for October, reflecting the increase, showed 153 prisoners on the island. Despite the Engineer Department's concern about the prison, additional facilities now became imperative. Plans were prepared for a wooden cellblock that would adjoin the guardhouse on its northwest side, paralleling and adjacent to the brick cellblock. It would not interfere with passage through the sally port; the height of the lower line of floor joists was to be 2½ feet above the crown of the sally port arch. The solid floor was to be laid with 2-inch plank, then a layer of sheet iron 1/16-inch thick, and that overlaid with 1-1/4-inch flooring. There would be three tiers of wooden cells, their partitions being two courses of 1-1/4-inch lumber at right angles. The solid wooden doors would be similarly designed. The fronts of the cells were to consist of one course of 2-inch plank and one of 3-inch plank, both vertical. The exterior sheathing was to consist of two courses of 1-1/4-inch lumber at right angles, covered with clapboard. The only ventilation provided (at first) was a 4-inch span over each cell door and a

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10. NA, RG 77, OCE, Letters Sent 1866-1870, vol. 3 (3d Div.), Humphreys, July 7, 1869, to AG, USA, Maj. T. L. Casey, Nov. 4, 1870, to Sect. of War; NA, RG 94, AGO, Mil. Prison Record Div., Letters Sent 1875-1889, Letterbook No. 1, Townsend, Nov. 17, 1870, to CG, Div. of Pac. The record is not clear but, apparently, Halleck in San Francisco had sufficient clout to have his own way concerning the prison on Alcatraz.

2-inch span below. As built, this cellblock was a potential firetrap possessing wholly inadequate ventilation.[11]

A complaint from Engineer Mendell disclosed how some of the prisoners were housed before this new cellblock was constructed. He was in the process of remodeling the North Caponier by removing its gun room and covering the magazine with an earthen traverse. He had to stop the work when an unspecified number of prisoners were herded into it for sleeping quarters: "There could scarcely be found a place more unsuitable for quarters. The room is comparatively without ventilation, and the health of them confined therein must suffer."[12]

In the spring of 1871 plans were prepared for a prison mess hall and kitchen. This wooden structure, to be located outside the defensive wall northwest of the guardhouse (its inside wall being the brick scarp), was to be a narrow building only 16 feet wide but 120 feet long. This mess hall could hold 200 men. No windows were provided and four ventilators in the roof provided the only light. The existing mess hall was "an old rotten place built for and formerly used as a water tank," and the food was then being prepared in the garrison kitchen. Presumably, the cellblock and the mess hall were constructed in 1871 or 1872.[13]

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11. NA, RG 92, OQMG, General Correspondence 1890-1914, Lt. D. W. Lockwood, n.d., received at Div. of Pac., Oct. 11, 1870.

12. NA, RG 92, OQMG, Consolidated Correspondence File, Alcatraz, Mendell, Oct. 20, 1870, to AAG, Dept. of Calif.

13. NA, RG 92, OQMG, Capt. J. M. Robertson, CO, Alcatraz, Mar. 15, 1871, to AAG, Dept. of Calif., and Lt. J. E. Eastman, QM, Alcatraz, Description of Proposed Messroom, Alcatraz, stamped Mar. 21, 1871. The old water tank was possibly an early one on the wharf that the engineers had built. It is to be noted that these new facilities were constructed when the army's only expert in penology, Captain Robertson, was commanding officer.

The earliest thorough description of the prison complex did not appear until 1881, when the post quartermaster prepared his annual report on the inspection of public buildings:

> The Military prison is situated on the north eastern part of the Island. It is a collection of buildings the center of which is an old caponiere [guardhouse] which is considered useless at the present time for the defence of the post. It contains in the basement [originally the prison room], a washroom and bathroom for the prisoners, on the first floor the Guard room and on the opposite side 10 single cells and four dungeons [dark cells?]. This part of the prison is now only used for temporary confinement of refractory prisoners. On the top of the caponiere [actually to the northwest] a strong frame building has been erected resting on the south side on a parallel building of brick. The brick building contains 45 single cells in three tiers [an 1879 description said it had two rows of cells, with two tiers in each row], a room for the non-commissioned officer of the guard, and the printing office [Alcatraz Prison Press]: the frame building contains 42 double cells in three tiers.
>
> A third building at right angles with the two former [and resting directly on top of the guardhouse] built of stout plank contains 48 single and four double cells in two tiers. Galleries run along the tiers and connect the buildings. The average size of the cells is 8-1/2 x 6 x 3-1/2 [sic] feet thus giving to each an air space of 161 cubic feet. They are ventilated by air tubes in the walls and by open spaces in the top and bottom of the door of each cell [a drawing of the vertical ventilator pipes (air tubes) has been located].

The report then went on to describe the prison library and reading room. This structure, built between 1869 and 1879, was located where a brick 1½-story wing stands today, in front of the guardhouse. From the quartermaster's description, it seems likely that the 1881 structure was today's brick building; however another post quartermaster, in 1883, described it as being frame. Certainly, by 1887 today's brick wing was standing on the site:

> It is a large building the attic of which is in part used as a room for Courts Martial, in part for the prison tailor shop and book binder's shop. The prison shoe shop is a separate frame building 33 x 9 feet resting on a basement of brick, which latter is used as a storeroom. West of the prison is the prison messhouse. It is a frame building resting on the outer side of the parapet connected with the prison by a gallery, and contains a kitchen 16 x 24 feet, a dining room 16 x 84 feet and a storeroom 16 x 16 feet.[14]

The wing in front of the guardhouse had several other functions over the years in addition to those given above. The library on the main floor was regularly used as a prison chapel and was often referred to by the latter name. When the post hospital burned in 1874, patients were moved temporarily into the attic, which had just previously been set up as a ward for sick prisoners. It is probable that the Prison Dramatic Association held its performances in this structure, since there was no other suitable building on the island. The court martial room in the attic was abandoned in 1882, when that function was moved to the Citadel. After the first prison was abandoned, the library became a gymnasium for the post garrison. Still later, in federal penitentiary days, this room became a pistol range.[15]

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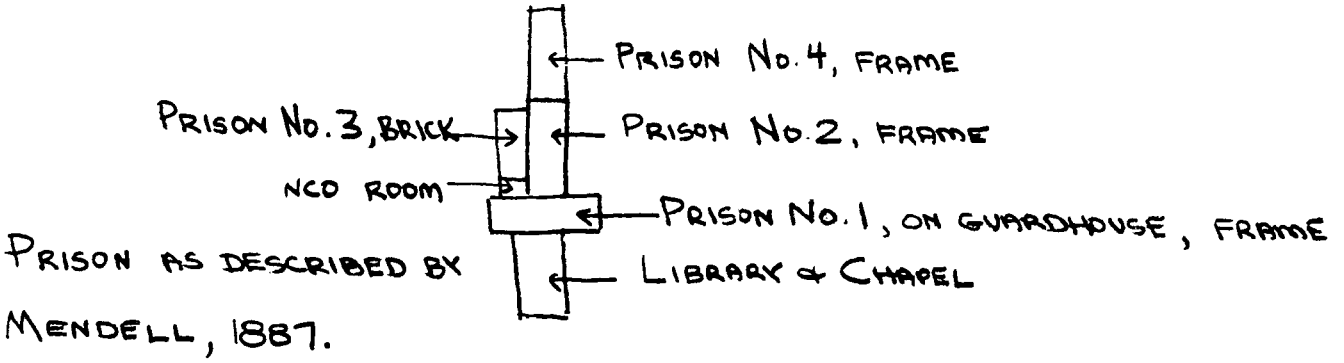
14. NA, RG 92, OQMG, Consolidated Correspondence File, Alcatraz, Lt. G. L. Anderson, QM, Alcatraz, Mar. 31, 1881, to Chief QM, Div. of Pac., and Lt. J. T. Honeycutt, QM, Alcatraz, Apr. 27, 1883, to Chief QM, Dept. of Calif.; NA, RG 77, OCE, Letters Received 1886-1887, Mendell, Jan. 3, 1887, to Chief of Engrs.

15. NA, RG 393, Alcatraz, Medical History of Post, Feb. 1873-Aug. 1877, entries for March and April 1874, and Jan. and Feb. 1876; NA, RG 92, OQMG, Consolidated Correspondence File, Alcatraz, Honeycutt, Apr. 27, 1873, to Chief QM, Dept. of Calif.

By 1887, the fourth, and last, cellblock had been constructed for this first prison. It was a frame structure added on to the similar building on the northwest side, or rear, of the guardhouse. The completion of this block brought the number of cells to 185.[16]



A post surgeon inspected the prison in 1890, and like others before and after him, he found the sanitation of the complex deplorable. The cells, with their solid wooden doors, had insufficient ventilation. Compounding the problem, each prisoner kept a "night vessel" in his cell during the hours of confinement. The surgeon reported that the heating, bathing, washing, and laundry facilities all were inadequate. As for the privy, located out over the water: "A fruitful source of colds due to exposure to strong currents of wind which blow up through the one large unguarded opening." On one occasion an intoxicated civilian witness fell through the hole into the bay. The surgeon concluded that from the standpoint of modern penology the prison was "totally unequal to fulfill its legitimate purpose."[17]

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16. NA, RG 77, OCE, Letters Received 1886-1887, Mendell, Jan. 3, 1887, to Chief of Engrs.

17. NA, RG 393, Alcatraz, Medical History of Post, July 1884-October 1898, entries for Jan., July, and Oct., 1890.

Brig. Gen. Nelson Miles, commanding the Department of California, inspected the prison about that same time. He became so alarmed at the lack of ventilation that he ordered that steps be taken to improve the situation. That fall the secretary of war approved a special requisition for 193 strap iron doors to replace the solid wooden ones on Alcatraz. A photograph taken ten years later showed the iron doors still in place. In 1891 a new bath building containing six partitioned bathtubs was constructed; it stood on the cliffside of the prison complex. At this time, the post quartermaster proposed converting the old baths (the original basement prison room) into a washroom, i.e., sinks for washing face and hands; he would put down a concrete floor and enlarge the musket-slit windows. The Chief of Engineers refused to allow the enlarging of the windows and, presumably, the room was not remodeled. Still later a new privy was built out over the water, and an enclosed gallery joining it to the guardhouse became the washroom.[18]

Another post surgeon penned a comprehensive description of the first prison in 1893. He noted that the roadway ran under all of the buildings. The building nearest the wharf, made of brick and was 1½ stories high, rested on brick arches. The main room was entered on the land side on the upper road through a narrow door. This room measured 72 by 25-1/3 by 13-1/3 feet. A room 19 feet long had been partitioned off at one end to store stage settings. The main room had five long narrow windows, six panes high and two broad, on the seaward side. The massive brick walls were not furred and were sometimes damp. In the ceiling there was a 2-foot-square shaft that ran up to a small

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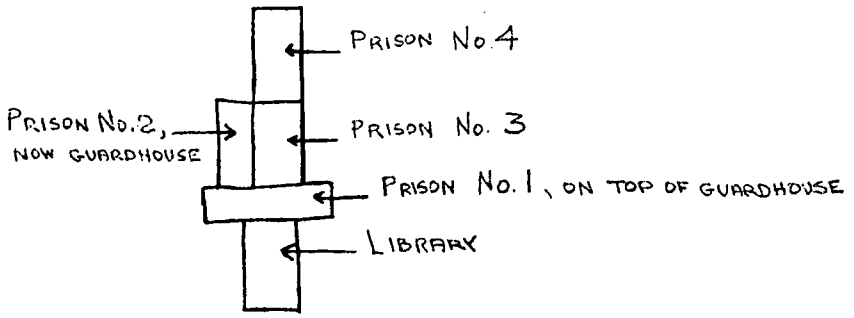
18. NA, RG 92, OQMG, Consolidated Correspondence File, Alcatraz, AAG G. D. Ruggles, Dept. of Calif., June 21, 1890, to CO Alcatraz, and Post QM, Alcatraz, Aug. 27, 1890, to Chief QM, Dept. of Calif.; NA, RG 77, OCE, General Correspondence 1890-1892, Lt. C. C. Gallup, QM, Alcatraz, Nov. 21, 1891, to Chief QM, Dept. of Pac.

ventilator in the roof. A stove heated the room, the air of which was vile when crowded. The garret floor of the building was divided into a tailor shop, a printing shop, and a room set aside for "detained witnesses," that is, sailors from the merchant marine who were being held at San Francisco pending appearances at trials. The seven small single-sash windows on this floor were inadequate for good ventilation.

He described the cellblock on top of the guardhouse (his Prison 1) as being a 48-foot-long rectangular wooden structure with a 16½-foot ceiling. A 5-1/3-foot-wide hallway ran its full length, from which cells opened on both sides. Two large windows, 10 by 3 feet, stood at each end. All the cells were provided with the new iron-grating doors. He said that owing to drafty cold air, this prison had not been used for a long time. At some unstated time, the "upper end" of this prison had been partitioned off and floored, making a new guardhouse for the garrison with a separate entrance approached by a pair of stairs from the land side. This room measured 22 by 11 by 9 feet, not including eight cells that opened on two sides of it. The surgeon did not say if these cells were for garrison prisoners, i.e., from the island's command, whose housing had long been a problem due to the desirability of keeping them separated from the long-term prisoners.

The so-called "dungeon" was one of the old howitzer casemates, wherein 13 cells in two tiers lined one side of the room, and five musket-slit openings, each 8 feet high and 4½ inches wide, stood in the opposite wall supplying air but were arranged so as to exclude light. At the end of the room a circular stair led up to the second tier of cells and nearby was an opening that led to an additional four cells (indicating that it was the landside casemate then being used as the dungeon; it has a small ell that housed these four additional cells). The surgeon said that these four cells were so far away from the ventilation openings as to be "simply villaneous." The cells in this dungeon were only about one-quarter the size of the regular cells in the prison. Their dimensions were

not given, but since each of them had a volume of only 139 cubic feet, they must have been more like coffins than cells. These cells still had solid wooden doors with cracks at their tops and bottoms (4 inches and ½ inch) to allow air "circulation." No heat was supplied to the room which was described as dry but very dark.



POST SURGEON'S PLAN OF PRISON, 1893

The surgeon's Prison 3 was the wooden cellblock that adjoined Prison 1 and ran at right angles to it. A passageway cut through one of the cells in Prison 1 ran into Prison 3. This prison contained three tiers of 14 cells each on one side only. The remaining space was a corridor, sometimes called the wardroom, measuring 74-1/3 feet by 12-1/3 feet by 25½ feet high. Three ventilators with fixed slats on the sides and glass on the tops stood on the flat roof. A large iron grating separated this cellblock from Prison 4, which was similar in construction, arrangement, and design. Prison 4 contained 15 cells on each of its three tiers. The surgeon thought it to be the best of them all, being lighter, better ventilated, and the driest (also the newest).

Prison 2, the brick structure, had undergone remodeling and was now a large comfortable guardroom, measuring 49 by 18½ by 13¼ feet. Five large windows and an outside doorway had been cut into the landside wall. Photographs of this building show these improvements. At the northwest end of this structure stood a small frame one-room building for the sergeant of the guard. A bell tower, for sounding fire alarms, surmounted this room.

He described the bathhouse as having six tubs in separate rooms and eight "stationary tubs." He said it stood on the rocks between the water's edge and Prison 3, and "though rude in construction it serves its purpose well." The lavatory was the long corridor leading to the privy out over the water. It contained a single iron trough about 15 feet long with six faucets. The privy itself measured 20 by 10-1/3 feet. A wooden shaft led down to the water, presumably blocking off the winds of the earlier privy. Two wooden urinals were also placed in this room. These facilities were reached by an old stone stairway in the ditch that guarded the front of the guardhouse.

The prison kitchen was housed in a separate structure by this time. It measured 32 by 16½ by 13½ feet. The long dining room (113 feet) had a vegetable room partitioned off at one end. The surgeon thought that both of these buildings were far larger than was needed, then or ever. It is hoped he was a better surgeon than prophet.[19]

2. The Prisoners

Until General Halleck decided upon an expanded departmental prison in 1868, little was recorded about the men who occupied the cells at Alcatraz. Not until 1870 did the commanding

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19. NA, RG 393, Medical History, Alcatraz, July 1884-Oct. 1898, Asst. Surg. O. Rafferty, Feb. 26, 1893, to Surg. Gen., USA. In a separate document the post surgeon recommended that the 13 cells in the "dungeon" be remodeled into 7 and that iron-grating doors be provided. The post adjutant strongly disagreed; he did not want the inhabitants coddled: "The object for which the dungeon was constructed would be defeated by the proposed alteration." Besides, the dungeon was used only occasionally and only one or two prisoners were in it at any given time. NA, RG 393, Medical History, Alcatraz, July 1884-Oct. 1898, Rafferty, Apr. 1893, to Asst. Surg., Gen.

officer at Alcatraz begin keeping a "Register of Prisoners at the Military Prison." The probable reason for this vacuum of information was the casual way in which this prison grew; there were no precedents in the United States Army for a permanent institution of this nature. However, that was all changing. In 1873 and 1874, the Congress enacted legislation that established the United States Military Prison at Fort Leavenworth. Its first commandant was none other than Maj. James M. Robertson, who, as commanding officer at Alcatraz, was the person most responsible for developing the departmental prison and its procedures between 1865 and 1872. The adjutant general wrote of him, "Robertson started, and had charge of the Military Prison in San Francisco Harbor and succeeded admirably with it. He is perfectly enthusiastic on the subject, has just and liberal views and a good idea of systematic, firm and humane management of prisoners." The establishment of the Leavenworth prison had no immediate effect on Alcatraz, which continued to confine a motley group of human beings, including both ordinary souls and bizarre characters.[20]

Army recruiting standards after the Civil War were not particularly high. Recruiting officers often overlooked physical and mental defects in order to bring the regiments up to authorized

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20. NA, RG 94, AGO, Military Prison Record Div., Letters Sent 1875-1889, Townsend, AG, Mar. 4, 1874, to John Coburn, House of Rep., and May 15, 1875, to CG, Dept. of Missouri; NA, Microcopy 617, Rolls 617 and 618, Post Returns, U.S. Military Prison, Fort Leavenworth. An Act of Congress, Mar. 3, 1873, established the first U.S. Military Prison at Rock Island, Illinois; then an Act of May 21, 1874, transferred this prison (not yet in operation) to Fort Leavenworth, Kansas. Until then, the army had serious military offenders serving long sentences incarcerated in various state penitentaries, including some on the West Coast, despite Alcatraz's existence.

strengths. The results of this laxity were to be found among Alcatraz's prisoners, many of whom were classed as feeble-minded or insane. The majority of the men were incarcerated for having been found guilty of desertion by a court martial. Other crimes involved assault, theft, larceny, and an occasional murder. A random check through the Alcatraz register for the early 1870s shows that the average sentence was 5 years confinement, with the shortest being 1 month and the longest, 20 years. Most prisoners were in their 20s or 30s the youngest being 18 and the oldest 56. Most prisoners had acquired tattoos before coming to Alcatraz. The most popular of these was the dancing girl, closely followed by the goddess of liberty and then by stars.

As of 1870, flogging had been outlawed in the army's methods of punishment, and branding the hips of deserters and thieves had been replaced by tattooing the appropriate 1½-inch-long letter, D or T, on the hip. The wearing of a 12-pound ball-and-chain would soon disappear from Alcatraz, but this form of punishment was still a part of the scene in the early 70s. Prisoners who violated the regulations received additional punishments, ranging from work assignments at the dump (Alcatraz dumped everything into San Francisco Bay) to lockup in the "dungeon" or dark cell. Those who obeyed the rules could hope to have their sentences reduced.

Two kinds of prisoners which were to be found on Alcatraz in the 19th century were general prisoners and military convicts. On one hand, general prisoners were those who had sentences to serve but who were still in the army. At the conclusion of their confinement, they would return to their unit to serve out their enlistment. Military convicts, on the other hand, received dishonorable discharges at the time of their courts martial. At the conclusion of their sentences they would be released to the

civilian community. More than a few of this latter group would attempt to reenlist in a different regiment, sometimes under an alias. The most notorious of these at Alcatraz was Charles N. Miller who had been imprisoned for deserting from the First Cavalry. An investigation of Miller's background showed that he had already deserted from the 13th Infantry, the Battalion of Engineers, and the U.S. Marine Corps. As might be expected, there were usually many more military convicts than general prisoners on Alcatraz. In 1912 the "Post Returns" began listing all inmates as general prisoners; the term "military convict" apparently had been discarded. The Register of Prisoners for Alcatraz, 1870-1879, contained 557 names and gave a brief history of each. The more colorful of this cast of characters included:

> Charles Emhoff, 23d Infantry; desertion - five years confinement at hard labor, wearing ball-and-chain. He received extra punishment for giving a former prisoner an order on the post adjutant for $20 when he had no money to his credit with the adjutant; he was employed on the dump, and was a good laboring man, but untrustworthy.
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> Samuel McCullough, First Cavalry; desertion - dishonorably discharged and drummed out. He was marked indelibly with the letter D; sentenced to five years at hard labor, wearing ball-and-chain. Despite the sentence he was employed on Alcatraz as a baker.
>
> Napoleon Labeare, First Cavalry; desertion - five years hard labor, wearing ball-and-chain. He was placed in the dungeon for four days for refusing to work and for using obscene language to a sentinel. He was also a deserter from another enlistment in the First Cavalry under the alias of Thomas Mulligan.

William Grant, First Cavalry; desertion and theft - sentenced to dishonorable discharge and five years. He was placed in solitary confinement for three days on bread and water for assaulting a fellow prisoner in the mess hall.

Martin Williams, 23d Infantry; desertion - sentenced to three years. He was employed in police of parade ground and made the matting on the stairs of the Citadel. An excellent man, he was made a member of the crew on the quartermaster schooner Emily Howard, but was discharged for a lack of cleanliness.

Edward Sheridan, 23d Infantry; desertion - sentenced to three years. Shortly after his release he was killed in a brawl at Truckee, California.

Martin Burke, First Cavalry; desertion and theft - sentenced to three years. He was a very good workman, but was drunk on two or three occasions from alcohol procured from the paint shop.

Charles Camp, 21st Infantry; desertion - placed in cell on bread and water for refusing to work. When released he was placed on the rock-breaking party and again refused to work. He was placed in the dungeon for seven days. Having been reported for filthiness of person, he was first scrubbed; then on two other occasions he was washed with a hose for two-and-a-half and four minutes respectively.

John Sharkey; desertion - attempted to escape but was captured on the north shore of the island. He was heavily "ironed" until he promised to behave.

David Allen, 23d Infantry; desertion - "A rascal. Swindled the Catholic Priest out of $75 after his discharge."

Walter Rogers, Second Artillery; desertion - "A first class rascal." He was reported as a "shirk" several times and placed in the dungeon twice.

Dennis J. Daly, Jr., First Cavalry; desertion - "A perfectly worthless character. An excellent penman."

Michael Dougherty, First Cavalry; desertion - escaped in 1876. He surrendered in 1878, escaped again from work detail at Point San Jose and was still at large in 1879.

John Long, 12th Infantry; - stationed on Angel Island after serving a one-year term at Alcatraz. He deserted from there while acting as a mail courier, taking several hundred dollars entrusted to him by officers and men. He was recaptured several months later in San Francisco and sent to Alcatraz to await trial. While awaiting trial, he hanged himself in his cell. He had no friends or relatives.

James Wright, Fourth Artillery; desertion - sentenced to two years. He escaped from a work party at Point San Jose, and scandalized Benicia by taking a 15-year-old-girl to a hotel bed. He was arrested by the San Francisco provost guard and taken to the Presidio, from where he again escaped. He was still at large in 1879.

John M. O'Brien, First Cavalry; desertion - sentenced to five years. He escaped in 1876 and was recaptured the same day. He escaped from Fort Canby, Washington Territory in 1877 and

recaptured on the Nez Perce Indian Reservation, Idaho Territory; was brought to Alcatraz and escaped from a work detail at Point San Jose in 1878. He was still at large in 1879.

Michael C. Brown, 21st Infantry; for reasons not stated: "To be kept in confinement on bread & water for three periods of 14 days each, with intervals of 14 days between each period. When not in confinement to be kept at hard labor."

Prisoners were classified in other ways besides general prisoners and military convicts. According to their behavior, they were placed in three groups: first, second, and third classes. At one time, at least, prisoners with a record of good behavior wore a badge of some sort. The "Register of Prisoners" contains mention of a prisoner having this badge taken from him for some misdeed. At another time, in the 1880s, prisoners of the third class wore a yellow band to distinguish them from the others. It is possible that those of the other classes also wore bands of different colors. A 1904 photograph of the prisoners shows a white letter "P" painted on the sides of their hats and on the backs of their jackets, while a newspaper article in 1885 said that the prisoners had numbers painted on the backs of their jackets. By 1906, if not earlier, prisoners had a letter "P" on the seats of their trousers and were reported to be wearing a number on their hats.[21]

Military prisoners did not wear the traditional striped garb associated with jails; instead they dressed in odds and ends of obsolete or condemned military uniforms--trousers, shirts,

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21. NA, RG 393, Register of Prisoners at the Military Prison, Alcatraz, 1870-1879; Daily Alta California, Aug. 2, 1885, Feb. 27, 1887; The San Francisco Call, Apr. 5, 1906.

suspenders, campaign hats, and a motley array of jackets. At best their appearance was shabby. In 1875 the secretary of war directed that, at Fort Leavenworth, all yellow tape trimming and brass buttons be removed from prisoners' clothing and a common horn button be substituted. But not until 1889 did he order the prisoners at Alcatraz to "be clothed in the same kind of outer garments as are issued to the prisoners at Ft. Leavenworth." Despite the letter "P", the uniforms of the prisoners looked a lot like those of the regular garrison, so much so that a sergeant wrote in 1887: "Seeing them going about in this way, or lounging around the wharf, a visitor naturally takes them for soldiers and is surprised when he is told that they are convicts."[22]

The harsh, almost brutal, treatment of its inmates for which Alcatraz became infamous in its later history as a federal penitentiary did not characterize its years as a military prison. While the early cells were uncomfortable and the island was a lonely place for prisoner and soldier alike, an almost casual air governed the daily routine. In 1887 Sgt. John Lowder of the garrison gave a detailed account of prison life on the Rock:

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22. NA, RG 94, AGO, Military Prison Record Div., Letters Sent 1875-1889, Book 1, Townsend, AG, Apr. 9, 1875, to CG, Dept. of Missouri, and T. M. Vincent, AAG, June 21, 1875, to OMG; NA, RG 94, AGO, Military Record Div. 1881-1890, Book 10, J. C. Kelton, AG, Jan. 27, 1889, to QMG; Daily Alta California, Feb. 27, 1887. After the Spanish-American War, Alcatraz prisoners were issued duck field uniforms on which the buttons had rusted in Cuba, making the garments unsuitable for regular issue. This clothing had been dyed, but the dye faded to varying degrees, adding to the unmilitary appearance of the men. In 1927 a ferry captain recognized two men as escapees from Alcatraz because of their "black" uniforms; this was probably a reference to the dark blue flannel shirt issued by the quartermaster. See NA, RG 92, OQMG, General Correspondence, 1890-1914, Extracts from IG inspection, Alcatraz, Aug. 7, 1900; San Francisco Chronicle, Oct. 7, 1927; conversation by writer with historian Jerome A. Greene, May 1977, NPS, DSC.

Alcatraz is not a prison in the sense of a penitentiary. In the army the island ranks only as a military post, and is not a recognized prison, it being only an unusually large guardhouse, where men are kept for longer periods than at ordinary guardhouses. It has been largely built by convict labor at a trifling cost to the Government. The convicts are allowed the regular army rations, and are clothed in condemned army clothing. The officer of the day at the post attends to daily inspection, under the officer in command, who has general supervision. Guard duty is performed by the regular post guard, mounted each morning at 9 o'clock, and composed of men with whom many of the prisoners have served, side by side, for years. . . . The guard, consisting of a sergeant, corporal and eight men, is changed each morning, the sentries being on post two hours at a time only. One sentry paces to and fro on the top of the citadel, from which point he can see any small boat that may approach the island. . . .

No craft can land anywhere at Alcatraz without the sergeant of the guard or a sentinel being on hand when the landing is effected. Even the Government steamer General McPherson cannot stop at the little wharf without the officer of the day and the guard being there to receive all who land. A second sentinel paces the wharf, while the third guards the way up the hill. The fourth guard's beat is along the top of the library and over a bridge connecting with the top of the cellhouse. This vigilance prevents all escapes and guards against either the soldiers or outside parties smuggling liquor in for the convicts. . . .

The cells are used only for sleeping purposes, and no convict is allowed to remain in his cell under any circumstances during the day. These wardrooms [corridors in the cellblocks] are the common assembly places indoors, where the prisoners have unrestricted social intercourse. . . .

There is no wall or fence around the prison buildings and when not at work the convicts are allowed to go at will anywhere about the prison-grounds or island except into the soldiers' quarters on the upper levels. . . .

The daily life on Alcatraz for soldiers and convicts begins with first call for reveille at 5 o'clock in the morning. At the next call, fifteen minutes later, all turn out for the

officer of the day. The prisoners do not return to their cells again until night, but file into the messroom for breakfast. When that is over, the small detachment that is now sent under guard to the Presidio to work on those grounds prepare to take the boat. Those who have work on the island go to do it, followed by a sentry who acts more in the capacity of a foreman than a guard. The unemployed pass the morning in the yard, wardrooms or library, which is open to them until 9 o'clock at night. Dinner is at 12 noon, and at 4 o'clock the General McPherson returns to the Island with the batch taken to the Presidio in the morning. Supper is over by 5 o'clock, and the time until retreat is passed as the men choose. Generally they collect in groups about the outside or congregate in the library. At 6 o'clock all turn out for retreat, when the officer of the day again comes round. Dismissed from retreat the first and second class men are locked in the library and the yellow bands are locked in their wardroom. At tattoo the officer of the day again goes round, and every prisoner, standing to attention at his cell door, is counted. He is then locked in for the night. [23]

As a military prison Alcatraz Island could not be considered a place of maximum security. Inmates attempted escape with regularity and often succeeded. While a few fled directly from the Rock itself, most escapees made their dash for freedom when on working parties to posts on the mainland, including the Presidio, Fort Point, and Point San José. The "Post Returns" failed to note all escapes, but they recorded enough to indicate that many prisoners made the attempt. The year 1877 was particularly bad in this respect when no fewer than nine members of working parties at Point San José

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23. Daily Alta California, Feb. 27, 1887, quoting Sgt. John Lowder, Alcatraz, in an interview with the San Jose Times.

made successful flights to freedom and one prisoner escaped from the post hospital on Angel Island. In May of 1878 two prisoners managed to get away from Alcatraz in a small boat which they successfully commandeered. That same year a small force of prisoners was transferred temporarily to Fort Point and in one month, five of them made a successful break from there. Again, in 1884, an unspecified number of prisoners stole a boat belonging to the Engineer Department. Italian farmers found the boat at the head of Richardson's Bay, the engineers paid $8.30 to get it back and the prisoners disappeared. Apparently the army did not learn a lesson from this, for in 1890 the Alta carried the following story:

> Two more military prisoners escaped from Alcatraz yesterday morning. The men chose their time wisely. After making a hearty breakfast at 5:30, they went down to the slip, appropriated Engineer Thomas' boat, and pulled out toward Lime Point. The sentry could have shot them had he been so minded, but as the steamer Sonoma was expected every second, it was thought she could overhaul and recapture the fugitives before the shore was reached. The Sonoma did appear and did give chase, but the men had a long start and succeeded in reaching Lime Point. They jumped ashore, and, clambering up the bank, were soon lost to sight. The Sonoma took the boat back to Alcatraz.

Violence entered the picture in 1892 when a guard shot a prisoner attempting to flee from a work party at the Presidio; he died in the Presidio hospital. In 1900, shortly after the arrival of a large number of prisoners from the Philippines, another prisoner was shot and killed in an escape attempt. A desperate try occurred in 1906, when four prisoners stole a butter vat from the post bakery and attempted to put it to sea. Wind and tide forced them back to the island where they found temporary security in one of Mendell's old powder magazines on the west side of the island, but they were soon found and placed in irons. Less than a year later three men attempting the same in a dough kneeding trough met a similar fate. A lone convict almost made it to San Francisco

on a log later in 1907. But he had the misfortune of being hit by a ferry steamer and was hauled aboard, thus ending his voyage.

In November 1912 The San Francisco Call excitedly reported a successful escape by two Alcatraz prisoners who were said to be among the most desperate of any on the island. Both prisoners had been transferred from Fort Leavenworth where they had also tried to escape. One of them had 13 courts martial to his credit as well as having been tried 134 times by the executive officers of the prison; the other, equally notorious, had had 5 courts martial and had been tried 200 times by executive officers. The two prisoners (who were thought to have escaped on a raft) were considered dangerous; but if they successfully reached the mainland, they were not heard of again.

Two prisoners on a scavenger gang on the Rock slipped away from the sentinel during a heavy fog in 1916. They each took a log from the flotsam along the shore and took to the water. Strong currents grabbed them as they tried to swim towards Little Alcatraz Rock off the northwest end of the island. One man made it to the rock where his cries for help were eventually heard on the island. The other prisoner drowned. A most unusual departure from the island was undertaken by two prisoners in 1918. They managed to steal officers' uniforms (possibly from the prison laundry) and casually boarded the ferry, mingling cooly with the other officers. When the ferry landed at the Presidio wharf, the two "officers" debarked. Two days later a sheriff arrested them at Modesto, California.

In 1927 two escaping prisoners encountered modern technology when planes from Crissy Field joined the search; however, a ferry captain captured the two who were paddling a plank to Sausalito and won himself a $100 reward. This couple had come

to Alcatraz from Hawaii, as did two men who tried to reach Berkeley by clinging to a ladder in 1929. Tides prevented them from getting more than a few hundred yards from the island, but they did get an extra year each added to their sentences. Three convicts got out of the prison by prying a bar loose in the barber shop window in 1930. They had hidden three large planks on the shore and the three men set sail for Berkeley. Before they got very far they changed their minds and yelled for help. The searchlight on Alcatraz picked them up and they were rescued, one of them in serious condition from exhaustion and cold. The last recorded escapee from the military prison scorned all aids; planks, ladders, or butter vats. He stripped naked, greased his body, and plunged into the bay. He has not been heard from since that June night in 1930. Should he read this he can identify himself by the following: Name, Jack or Jasper Allen; hair, black; eyes, gray; weight, 134 pounds; height, 5 feet 4½ inches.[24]

The soldier convicts had another avenue by which to leave Alcatraz--release through clemency. Many tried and a few succeeded. At times so many requests for release reached the adjutant general's office that it must have seemed as if the world was filled with "guardhouse lawyers." The prisoners themselves (or their fathers, mothers, wives, brothers, or even mayors and congressmen) wrote letters appealing for mercy and justice. An unusual case involved August Magnusson, a Swedish immigrant who

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24. NA, Microcopy 617, Rolls 14-17, Alcatraz, Post Returns 1859-1916; NA, RG 77, OCE, Letters Received 1871-1886, Mendell, May 23, 1884, to Ch. QM, Mil. Div. of Pac.; Daily Alta California, May 6, 1890; The San Francisco Call, Apr. 5, 1906, Feb. 17 and Oct. 23, 1907, and Nov. 18, 1912; San Francisco Chronicle, Feb. 20, 1916, Nov. 20, 1918, Oct. 7, 1927, Apr. 20, 1929, and Mar. 12 and June 24, 1930.

had enlisted in Boston and deserted at Fort Lapwai, Idaho Territory. The Swedish Society of San Francisco became interested in him and forwarded a petition for his release, saying that at the time of his enlistment Magnusson could neither speak nor understand English and had probably been tricked into signing up. The adjutant general investigated, then wrote Count Carl Lewenhaupt, who was envoy extraordinary and minister plenipotentiary of his majesty, the king of Sweden and Norway, that the request was denied. However, Magnusson's sentence would be shortened by his continuing good behavior.

The British ambassador involved himself in the case of Henry Stephens, deserter, Alcatraz Island, and in this instance, successfully. Stephens' mother, living in Burlon-on-Trent, England, was able to prove that he had been a minor both at the time of his enlistment and when he deserted. The secretary of war promptly ordered his release from confinement and so informed the ambassador. Congressman W. H. Cole, Baltimore, Maryland, took up the case of deserter Peter Scott on behalf of his mother. But the hard-hearted army refused to let him go, telling the congressman that the secretary of war "deeply sympathizes with the aged mother of the prisoner in her affliction and regrets that the interests of the public service will not admit of an interference with the execution of the [two-year] sentence." Stevens could earn an abatement of five days per month for good behavior.

Military prisoner Robert E. Hunter wrote his senator two letters requesting help in getting clemency. The secretary of war investigated but decided that Hunter's crime was so grave (an attempt to poison a fellow soldier) that the request could not be granted. Hunter should not have been surprised at the decision; no matter how ingenious the appeals nor how plausible mitigating reasons were made to appear, few men won their release in this

manner. Alcatraz was a difficult place to get out of--by either writing or swimming.[25]

When a prisoner completed his sentence at the U.S. Military Prison, Fort Leavenworth, and was released to civilian life, he received a "donation" of five dollars, a suit of clothes, and transportation to his place of enlistment. When the prisoners on Alcatraz learned of these "benefits," they petitioned that they receive similar treatment. At that time (mid-1880s) freed men on the Rock got only the donation, which came from the rather shaky profits in the prison shops. The adjutant general replied that the issuing of transportation tickets at Leavenworth had been stopped because many former prisoners were selling them as soon as they got out of the stockade. As for clothing he could find no funds that would allow for their distribution at Alcatraz (Congress appropriated special funds for Fort Leavenworth). In 1886, however, a solution was found wherein the Leavenworth prison forwarded material to Alcatraz, where the prisoners manufactured coats, pants, and vests. Upon discharge they would also be issued a quartermaster navy blue woolen shirt, unless Alcatraz could manufacture shirts at a lower price. In 1888 the adjutant general impressed upon the Military Committee in the House of Representatives, the rightfulness of transportation for former prisoners, even though they had been dishonorably discharged. By 1892, Alcatraz's freed men were enjoying this benefit too. At that time the army

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25. NA, RG 94, AGO, Military Prison Record Div., Letters Sent 1881-1890, Book 3, AG, Mar. 21, 1883, to Count Carl Lewenhaupt, and Book 5, AG, Jan. 16, 1885, to L. S. Sackville West, British Minister, and Book 6, AG, Oct. 16, 1885, to Congressman W. H. Cole, and Book 9, AG, Apr. 12, 1888, to Senator Isham G. Harris, and Book 10, AG, 1886-1889, selected examples.

attempted to economize by placing eastern convicts in the Leavenworth prison and men who had enlisted in the western states at Alcatraz Island, in order to have lower transportation charges at the time of release.[26]

Earlier this study noted the incarceration of civilians and navy men on Alcatraz during the Civil War. In the years following, many other diverse individuals found themselves among the soldier prisoners on the Rock. The best remembered of these varied groups are the Indians.

The first Indian known to be brought to San Francisco for detention was "Old John", a Rogue River Indian from Oregon Territory. Old John had been dissatisfied with life on the reservation, was disgusted with the government's failure to keep its promises, and had refused to be a "good and quiet" Indian. In April 1858 he was arrested (for the third time) and sent to San Francisco by sea. It is commonly stated that Old John was incarcerated on Alcatraz Island, but that was an impossibility in 1858. There was still no garrison on the Rock; its only inhabitants at that time were the civilian employees of the Engineer Department who were building the fortifications. It is known that Old John spent part of his time, and perhaps all of it, at the Presidio of San Francisco. And when he was freed to return to Oregon in May of 1862, it was the commanding officer of the Presidio who was instructed to let him go.

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26. NA, RG 94, AGO, Military Prison Records Div., Letters Sent 1881-1890, Book 4, AG, Jan. 15, 1884, to CG, Dept. of Calif., and Book 5, Apr. 10, 1885, to CG, Dept. of Calif., and Book 7, AG, Aug. 14, 1886, to CG, Div. of Pac., and Book 9, AAG, J. C. Kelton, Aug. 3, 1888, to Chairman, Military Committee, House of Rep., and Book 10, AG, Feb. 9, 1889, to CG, Dept. of Calif.; NA, RG 92, OQMG, General Correspondence 1890-1914, AAG R. Williams, July 2, 1892, to CG, Dept. of Arizona.

The first Indian known to have been placed in the military prison was "Paiute Tom" who was sent to Alcatraz from Camp McDermit, Nebraska. The army did not have much to say about Tom, who arrived on the Rock on June 5, 1873, and was mortally shot by a guard on June 7. In October 1873 two Modoc Indians, Barncho and Sloluck, were imprisoned on Alcatraz for their roles in an attack on peace commissioners during the Modoc War in northern California. Four others, including Captain Jack, who had taken part in the same incident had been hanged at Fort Klamath, Oregon; but these two had received a presidential commutation to life imprisonment at the last minute. Again, their names were rarely to be found in Alcatraz's records during their confinement. However the Register of Prisoners did contain a form for each man. Barncho died of scrofula in the prison on May 28, 1875, and was buried on Angel Island. Sloluck was released from confinement in February 1878 and sent to Fort Leavenworth, en route to join his exiled people in Indian Territory. His stay on Alcatraz was the longest of any Indian's.[27]

The two Modocs were joined briefly by a Paiute Indian in early 1874, when Natchez, brother of Sarah Winnemucca, was placed in the prison for two weeks. Two other Paiutes followed Natchez: Little Captain, or Richard Dick, who served his sentence from July 1881 to May 1882; and Pete who was on the island for only a month, April 1882. The "Post Returns" did not show when the next two Indians came to Alcatraz, but in June 1884, the adjutant

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27. NA, Microfilm 417, Roll 14, Alcatraz, Post Returns October 1873; NA, RG 393, Alcatraz; NA, Microfilm 417, Roll 14, (Register of Prisoners at the Military Prison 1870-1879. All remains were moved from Angel Island to the National Cemetery at the Presidio of San Francisco in 1947, but today there is no record of Barncho's grave at the latter site. His grave on Angel Island was Number 57.

general ordered the release from confinement of two Indian privates, from Company A, Indian Scouts, Department of California. These two scouts had been involved in a "mutiny" at Cibicu Creek, Arizona Territory on August 30, 1881, wherein Capt. E. C. Hentig and six privates of the Sixth Cavalry had been killed.

In July 1884 Brig. Gen. George Crook, involved in his Arizona campaign to subdue the Chiricahua Apaches, arrested the young chief, Kaetena, and had him sent to Alcatraz where he remained until March 1886. When Kaetena returned to Arizona, Crook wrote to General Sheridan: "Ka-e-te-na . . . who less than two years ago was the worst Chiricahua of the whole lot, is now perfectly subdued. He is thoroughly reconstructed, has rendered me valuable assistance, and will be of great service in helping me to control these Indians in the future. His stay at Alcatraz has worked a complete reformation in his character." Another Indian from Arizona, Skolaskin, arrived at Alcatraz in November 1889 "for safekeeping." He had escaped from Fort Huachuca earlier that year. Skolaskin was not released until July 1892.[28] It is not known why Skolaskin had been imprisoned at Fort Huachuca; he was a Sanpoil Indian from the Pacific Northwest. In 1887, five more Indian Scouts were received on Alcatraz for having mutinied at San Carlos. The length of their stay is unknown.

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28. NA, Microcopy 617, Rolls 14-16, Alcatraz, Post Returns; NA, RG 393, Alcatraz, Register of Prisoners at the Military Prison 1870-1879; NA, RG 94, AGO, Military Prison Record Div., Letters Sent 1881-1890, AG, June 19, 1884, to CG, Dept. of Calif.; George Crook, Resumé of Operations Against Apache Indians, 1882 to 1886 (1886; reprint ed., London: Jonson-Tawnton Military Press, 1971), p. 15; [U.S. Army], "A Brief History of Alcatraz," p. 8, Library, GGNRA, Correspondence by Writer, Oct. 27, 1977, with Dr. Robert H. Ruby, Moses Lake, Washington, and Apr. 21-May 23, 1977, with Priscilla Knuth and John H. Mouser, Oregon Historical Society, Portland, Oregon.

The largest contingent of Indian prisoners at Alcatraz did not arrive there until January 1895, when 19 Hopi Indians from Arizona were placed in the cells. The Indian agent at the Navajo Agency had requested that the U.S. Army arrest these "unfriendly" Indians and hold them at Fort Wingate, New Mexico. This location did not satisfy the Commissioner of Indian Affairs who recommended to the secretary of the interior that they be "held in confinement, at hard labor, until . . . they shall show . . . they fully realize the error of their evil ways," adding that Fort Wingate was "not remote enough from the scene of trouble." The adjutant general of the army agreed to accept the Hopi Indians at Alcatraz where they were to be confined at hard labor "until they shall evince, in an unmistakable manner, a desire to cease interference with the plans of the government for the civilization and education of its Indian wards, and will make proper promises of good behavior in the future."

The three men considered to be ringleaders, Hebima, Ukioma, and Putofa, were to be separated from the rest and not allowed to communicate with them. The other 16 were to be permitted to visit San Francisco from time to time, under guard, and especially to see the public schools. When the prisoners arrived at Alcatraz, the commanding officer was shocked at the condition of their clothing. He promptly got approval to issue them army clothing, as well as towels, combs (coarse and fine), needles and thread, and smoking tobacco. The post surgeon was concerned about their lack of understanding of the importance of keeping their cells ventilated and asked that the sergeant of the guard pay special attention to this matter. No notices of the Hopis' stay on Alcatraz have been found; but in August 1895 word arrived from Washington that they could return to their reservation and that "a

promise of good behavior . . . be extracted from each one." The Indians departed for Fort Defiance, Arizona, on September 23.[29]

Following the Spanish-American War, San Francisco became one of the army's most important ports of embarkation. Army transports carrying troops and supplies steamed out of the harbor on a regular schedule enroute to Hawaii and the Philippines. Transports to and from the Philippines stopped at the port of Nagasaki, Japan, to take on coal. Stowaways somehow managed to board the steamers at Nagasaki and were not discovered until after the ships set sail. For a time, in 1903-1904, these stowaways were detained on Alcatraz when the transports reached San Francisco. In August 1903, five Japanese were removed from USA Transport Logan and taken to Alcatraz for "safekeeping." A month later seven Japanese and one Russian arrived on the island. In October four Japanese were brought to the island from one transport then shipped back to Japan on another. A Chinese stowaway along with four more Japanese spent time on the Rock. Another Russian visited in January 1904. The last stowaway recorded in the Post

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29. NA, RG 92, OQMG, General Correspondence 1890-1914, Sect. of Interior Hoke Smith, Dec. 13, 1894, to Sect. of War; AG, Dec. 24, 1894, to CG, Dept. of Colorado, and Dec. 26, to CG, Dept. of Calif., CO, Alcatraz, Jan. 8, 1895, at AAG, Dept. of Calif.; and AG, Aug. 7, 1895, to CG, Dept. of Calif.; NA, RG 393, Alcatraz, Record of Medical History of Post, July 1884-Oct. 1898, entry for March 1895. The clothing issued to the Hopis (apparently they did not wear trousers):

8	campaign hats, black @ 65¢ ea.
20	pairs woolen stockings, @ 26¢ ea.
1	pair shoes, B.S., OP, @ $1.79 ea.
11	pairs shoes, field, @ $1.03 ea.
7	blouses, gray, @ $2.11 ea.
27	drawers, cotten flannel, @ 51¢ ea.
14	shirts, gray flannel, @ $1.15 ea.

Returns, March 1904, had an English-sounding name. Presumably there were additional stowaways arriving in San Francisco in future years; but Alcatraz was not their place of containment.[30]

An unusual influx in the number of prisoners at Alcatraz occurred immediately after the great earthquake in April 1906. All the prisoners in the Broadway Street jail were marched to Fort Mason then ferried to Alcatraz. How long they remained on the island is unknown. Army reports concerning the earthquake were endless, but none of them seem to have concerned themselves about this event. Alcatraz's own records, including the Post Returns, were silent on the matter.[31]

During World War I a national hysteria against suspected spies, citizens with German-sounding names, conscientious objectors, and anyone who critized the war, swept America. In 1918 Congress passed the Sabotage Act and the Sedition Act which allowed for the imprisonment of anyone for almost any criticism of the American system of government. Conscientious objectors were herded into the prison at Leavenworth. Then in 1919, after the war, a "red scare" swept the nation, led by Attorney General A. Mitchell Palmer, that continued the trampling of civil liberties. In 1919 a motley group of prisoners, including conscientious objectors, convicted soldiers from France, and ordinary military convicts went on a strike at Leavenworth, a strike that the newspapers preferred to call a mutiny. The army decided to send the "worst" of the lot to Alcatraz where they could be more easily controlled. The first group of 32 arrived on the Rock in June 1919. The San Francisco

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30. NA, Microcopy 617, Roll 17, Alcatraz, Post Returns 1903-1904.

31. Gordon Thomas and Max Morgan Witts, The San Francisco Earthquake (New York: Stein and Day, 1971), p. 189.

Chronicle said that they were all conscientious objectors and that most of them arrived in handcuffs and shackles. A reporter noting their civilian attire inquired as to who they were and was told they were a group of Germans. Another 68 arrived in July and by August the total number of prisoners had reached over 200. Ringleaders of the Leavenworth trouble were placed in solitary confinement on bread and water.

In August friends and relatives of the conscientious objectors began a campaign of complaint for the treatment that these people had received at Alcatraz. These indignant citizens included David Starr Jordan, president-emeritus of Stanford University, and Upton Sinclair, the writer. An army investigation followed, but the conclusion was that the prisoners had purposly misstated the facts. Students at the Berkeley campus of the University of California came to the support of the prisoners. It was a custom at that time for prisoners to receive visitors on Sundays. On Sunday, November 21, 1919, a group of Berkeley "radicals" visited the prison and passed out "Bolshevik literature" urging a prison strike, as well as small stickers for pasting on walls demanding the release of political prisoners. As soon as the visitors left, guards searched the prisoners and confiscated the "red propaganda." The army announced that those particular visitors would not be allowed on Alcatraz again. Gradually the affair disappeared from the newspapers and Alcatraz went back to the business of being a military prison--or disciplinary barracks as it was then called.[32]

The number of prisoners on Alcatraz fluctuated widely between the Civil War and the Spanish-American War. This

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32. San Francisco Chronicle, June 24, July 26, Aug. 6 and 29, and Nov. 25, 1919.

study noted earlier that between late 1865 and 1868, the average population of the prison was only 20. When the concept of a departmental prison was fully implemented in the fall of 1868, the number of prisoners increased dramatically. From 1869 to 1875 the monthly count averaged out at 127, with the highest number of 177 being recorded in March 1872. For the next 16 years, 1876-1891, the yearly average came to 104 prisoners, the highest being 166 in 1884 and the lowest being 64 in 1888. The 1890s brought considerable improvements in the lives of enlisted men. With the Indian campaigns mostly over, many small army posts were closed and the troops concentrated at fewer and larger posts having more permanent facilities. Training replaced the arduous marches across plain and mountain in pursuit of an elusive enemy. These changes were reflected in the prison population at Alcatraz. From 1892 to 1899, the number of prisoners averaged only 5. The Spanish-American War changed everything. In April 19[illegible] there were 441 prisoners on Alcatraz![33]

C. Permanent Prison and Professionalism

1. Upper and Lower Prisons

The Spanish-American War brought an influx of volunteer and regular army troops through the port of San Francisco. Insurrection in the Philippines followed and troop movements increased. By November 1899 over 150 prisoners were confined on Alcatraz, a dramatic increase in just a few months. Then in January 1900 the commanding general at San Francisco, Maj. Gen. William "Pecos Bill" Shafter, learned by cablegram that 135 convicts were en route to Alcatraz from Manila. An alarmed Shafter telegrammed the War Department that the prison could hold only 100 men comfortably

33. NA, Microcopy 617, Rolls 14-17, Alcatraz, Post Returns.

and there were already 137 prisoners in confinement. He said that he had already ordered his chief quartermaster to construct a new 100-man prison building at a cost of $8,500. The War Department could do little else but approve the expenditure. Additional funding became available in February. And by March two buildings containing cells, a guardhouse, and a stockade had been erected on the parade ground that Engineer Mendell had carved out 30 years earlier. Shafter recommended a third cellblock, which, by putting two men in those cells then occupied by one, would give a total capacity of 480 prisoners in both the old (lower) and new (upper) prisons. Again, the War Department approved. When the transport carrying the prisoners arrived from Manila in April of 1900, bringing the prison strength up to 441, cells were ready to receive them.

The new cell buildings were frame and had skylights in the roofs, somewhat similar to the old prison. There was a wooden walk around the top of the stockade walls where sentries paced between sentry boxes. A chute for a sanitation wagon was built from the prison to the water's edge, and a tramway had been built from the wharf to the parade ground for hoisting lumber and building materials. In 1901 the War Department approved an 8-inch above-ground sewer main leading from the upper prison latrines to the bay. Later that year, approval was given for a new bath/latrine building in the center of the upper prison compound. It replaced two shacks in the same area; the one which had been the latrine had facilities for only 12 men at a time. The post quartermaster pointed out that since over 300 men used the building, "it is found that prisoners cannot be sent out to work at the proper hours, as men have been unable to answer natures calls, clean themselves, etc."[34]

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34. NA, RG 92, OQMG, General Correspondence 1890-1914, Shafter, telegram, Jan. 19, and Mar. 22, 1900, to AG, Ch. QM,

The 30-year-old lower prison had always been regarded as a potential firetrap. Inspectors general had condemned the complex more than once. But, because of the increase in prisoners, 125 men were still confined to the old cells. Many years earlier, a primitive system of simultaneously locking and unlocking the cell doors had been installed as a way to let out the prisoners quickly in case of fire. A lever at the end of each tier theoretically would open all the doors on that particular level. By 1902, however, this imperfect system had become quite rickety.

Shortly after midnight, January 6, 1902, the fear of fire became a reality. One of the quartermaster lamps in Prison 2 had melted the soldered connection that held it to the wall, and it fell to the floor of the corridor 20 feet below, scattering burning oil. Catastrophe was averted only because a sentry, "a cool, quick witted man," was by chance standing nearby. He cried "fire," seized buckets of water standing close by and succeeded in putting out the fire. The terror among the prisoners was extreme. Writing a few weeks later, the post quartermaster said: "The prisoners are crazed with fear every time any unusual outside noise is made at night, fearing fire and that they will be burned to death. When, a few nights ago, the guard fired upon two escapes [sic], the prisoners in these prisons, believing it to be the fire alarm, shook their cell doors shrieking to be let out and not allowed to perish."

Everyone who was concerned agreed that a new permanent prison should be constructed. The department quarter-

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Dept. of Calif., Feb. 28, 1900, to AG, Dept. of Calif., Lt. T H. Giske, QM, Alcatraz, Jan. 10, 1901, to Ch. QM, Dept. of Calif., and Capt. A. M. Fuller, QM, Alcatraz, Nov. 25, 1901, to Post Adjutant.

master argued that the prison should be moved to Angel Island, since he understood that Alcatraz was to be strongly fortified with modern batteries. However, both the department commander, Maj. Gen. S. B. M. Young, and the commander of the army, Lt. Gen. Nelson A. Miles, thought the new prison should be on Alcatraz and that it should be constructed "as soon as possible." In the succeeding months reams of paper were consumed as staff officers investigated the prison conditions, attempted projections on the size of future prison population, and made recommendations.

The post quartermaster, Capt. A. M. Fuller, described the old prison as "rotten and unsafe; the sanitary condition very dangoruos [sic] to health. They are dark and damp, and are fire traps of the most approved kind." The mess hall, he said, was "an absolute apology." Its roof leaked; the mess was too narrow, damp, and badly lighted; its seating capacity was 200, and the 450 prisoners had to eat in two and one-half shifts; and the sinks and baths were but little shacks and woefully inadequate. In his opinion the upper prison was also a firetrap and much too far from the mess hall: "Here are confined life, 40, 20, 15 year and lesser term men. All must be taken, three times a day and marched 1/4 mile, through the post, to meals, requiring 16 sentinels. This is a dangerous method, especially in winter, when darkness comes early and daylight comes late. Prisoners have escaped from these marching columns." He submitted 19 photographs of both prisons and a preliminary plan for a permanent prison on top of Mendell's old batteries at the northwest end of the island.

A civil engineer in the department quartermaster's office also investigated the prisons. He repeated many of Fuller's findings and also mentioned that since the lamp incident, the prisoners were nervous and liable to panic at the least accident. The

chief army engineer in San Francisco, Lt. Col. Thomas H. Handburg, investigated the feasibility of moving the prison to Angel Island. After weighing the pros and cons, he decided that Alcatraz was ideal for a permanent prison because it could be easily guarded and escape was difficult. A prison could be so located as not to interfere with the proposed 6-inch rapid-fire gun batteries. Furthermore, he said, "this island does not now play so important a part in the defense of San Francisco Harbor and the approaches to Mare Island as it did in the earlier projects. Modern long-range guns on armored warships from which the city of San Francisco may be destroyed at distances out to sea have relegated the interior defensive positions of the harbor . . . to less important duties."[35]

Despite the vigorous report writing, nothing further was done about conditions on Alcatraz until late 1903. In November the Department of California asked the Engineer Department if it had any objections to enlarging the upper prison on the parade ground. The engineers replied that while six 6-inch rapid-fire guns were still contemplated for Alcatraz, they had no objections to temporary structures, "it being understood that when the necessity arises . . . these shall be removed or modified. . . ." As for Mendell's batteries of the 1870s at the southeast end of the island, they were obsolete and abandoned, and could be removed.

The quartermaster's plans called for a doubling of the amount of space to be occupied by the prison. The existing

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35. NA, RG 92, OQMG, General Correspondence 1890-1914, QM, Alcatraz, ninth endorsement to (unknown,) Oct. 30, 1901, and Capt. A. M. Fuller, in charge of prisoners, Alcatraz, Jan. 6, 1902, to Post Adj., and endorsements, Fred J. H. Ricton, Civil Engr., QM Dept., Mar. 12, 1902, to Ch. QM, Dept. of Calif., Lt. Col. T. H. Handbury, US engr. Office, San Francisco, Mar. 12, 1902, to Chief of Engrs., and Capt. A. M. Fuller, QM, Alcatraz, Mar. 20, 1902, to Ch. QM, Dept. of Calif.

stockade would remain, and a new stockade would be built around the addition, which would contain a mess hall, kitchen, shops, and a latrine. A new guardhouse would be located outside the stockade, while the old guardhouse would become the prison library. In January of 1904, the secretary of war authorized slightly over $9,000 for the work, of which $3,000 was to be used to concrete the stockade. The post quartermaster described the new structures as follows:

> Stockade - This building was 12 feet high, 705 feet long, (length of old stockade-660 feet), with a sentry walk 54 inches wide; the entire stockade was to be whitewashed; and the entire space within the stockade, including floors for kitchen, mess hall, and shops, were to have 6 inches of cement.
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> Kitchen and dining room - This was a single story building, the dining room was 160 by 40 feet, and the kitchen was 60 by 40 feet... The outside was to be painted and the inside to be whitewashed.
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> Shops - These were single story buildings, 25 by 20 feet with an ell 20 by 20 feet, and were to contain a shoe shop, tailor shop, printing shop, and barbershop. The exterior was to be painted, and the interior was to be whitewashed.
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> Guardhouse - This building consisted of two stories 40 by 30 feet with an ell 30 by 20 feet. The exterior and interior were to be painted; the ground floor was to contain a prison office, clerk's office, overseer's room, assistant overseer's room, clothing storeroom, and a toilet; and the second floor was to contain guardroom, sergeant's room, office, and six cells for garrison prisoners.

Construction was completed sometime in the summer of 1904. All facilities were transferred to the upper prison and the old prison entirely abandoned. The upper prison now had a capacity of 307 inmates, more than enough for the average number of prisoners then on Alcatraz. Although the Alcatraz quartermaster submitted a request in July 1905 to demolish the three wooden cell buildings of the old prison, the various units of the complex continued to function for several more years. A 1909 map of the island showed the brick library/chapel annex then being used as a gymnasium (main floor) and ordnance storehouse (attic). The 1867 brick cell building, lately the guardroom, was now a plumber's shop. The two wooden cell buildings northwest of the old defensive guardhouse served as a carpenter's shop. The defensive guardhouse itself now functioned as the saltwater pumphouse--which formerly had been on the wharf. The long, narrow mess hall had become the prison laundry, a long-needed facility at Alcatraz. And the prison kitchen had been remodeled into civilian employees' quarters. The wooden cellblock on top of the guardhouse was not accounted for on the map. Another map, prepared three years later, showed these same functions for the various structures.[36]

Despite the improvements of the upper prison, discussion continued concerning a permanent institution. Lt. Gilbert McElroy, the young quartermaster at Alcatraz, prepared a lengthy, germinal study on the subject, "New Military Prison in the

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36. NA, RG 92, OQMG, General Correspondence 1890-1914, Col. G. Andrews, AG, Dept. of Calif., Nov. 6, 1903, to Handbury, and Nov. 6, 1903, to McElroy, general remarks on new prison structures, QMG, Jan. 16, 1904, to Ch. QM, Dept. of Calif., and June 30, 1904, to McElroy, estimate for new prison, and July 1, 1904, to Ch. QM, Dept. of Calif., and July 18, 1905, to QMG, extracts from a report by the JAG to the Sect. of War, Oct. 25, 1905, on the military prison, Alcatraz.

Pacific Division," in 1906. As to sites, McElroy's first choice was the Depot of Recruits and Casuals on Angel Island (East Garrison), second was the Presidio, and third and last, Alcatraz. About the same time, the department commander, Brig. Gen. Frederick Funston, also concluded that the recruit depot and the prison should exchange islands. For a time, the chief of staff, Brig. Gen. James F. Bell, went along with Funston's ideas, but in April 1907 the War Department decided definitely to construct a permanent prison on Alcatraz at a cost of $250,000 and to replace the regular garrison with a prison guard.[37]

2. A Permanent Prison

Maj. Reuben B. Turner, Eighth Infantry, became the first commandant of the Pacific Branch, U.S. Military Prison, Alcatraz Island, in July 1907. In addition to commanding the prison, Turner held the title of construction quartermaster. During the next four years it would be his responsibility to erect the new prison, an electrical power plant, and shops. The four companies of the 22d Infantry that had formed the garrison left the island, and the newly formed Third and Fourth Companies, U.S. Military Guard, took charge of the 285 prisoners then in confinement. Turner, whom the War Department regarded highly for his construction abilities, undertook his tasks with enthusiasm and, by September, turned out his first set of drawings for the administrative section of the prison.[38]

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37. NA, RG 92, OQMG, General Correspondence 1890-1914, McElroy, "New Military Prison in the Pacific Division," ca. 1906, and Brig. Gen. J. F. Bell, June 11, 1906, for Gen. T. H. Barry, and Gen. Fred Ainsworth, Military Secretary, AGO, telegram, Apr. 1, 1907, to CG, Pac. Div.; NA, RG 85, Immigration and Naturalization Service, JAG E. H. Crowder, Aug. 15, 1913, to Ch. of Staff.

38. NA, Microcopy 617, Roll 17, Alcatraz, Post Returns April-July 1907. The Army Appropriations Act, March 2, 1907, authorized the

Although Turner did not complete his first set of plans until 1908, he wasted no time in beginning preliminary work. In August 1907 he notified the adjutant general that he required an elevated railroad to move construction material from the wharf to the building site. He had examined a cliff-side conveyor at Fort Barry and believed that a similar one would suit his needs. He said that the engine necessary to haul cars up the incline could also operate the concrete mixing machine and raise the concrete to the site. By the end of October, a new steel dock was completed at the wharf area, providing ample space for unloading supplies and for the storage of steamer and domestic coal.

By the end of 1908, Turner was ready to begin demolition of the 50-year-old Citadel. Possessing either a sense of history, or a streak of sentimentality, the commandant planned to incorporate some of the old building's features in the new prison. One run of the Citadel's iron stairs, he decided, could be used to lead from the hallway between the cellblock and the mess room down to the lavatory. The lavatory drainage system could be connected to the existing 24-inch brick sewer under the basement floor of the Citadel--this sewer drained toward the southeast end of the island, at the right flank of old Battery McClellan. Turner recommended that the cistern complex, the storerooms, and the old privy on the outside of the Citadel's ditch be sealed off and abandoned, inasmuch as new cisterns would be constructed on top of the prison.

Secretary of War to establish branches for the U.S. Military Prison, Fort Leavenworth. The second branch, at Fort Jay, New York, was not designated as such until 1914. Alcatraz was assignated as the Pacific Branch by General Order No. 58, War Dept., March 21, 1907. Turner's preliminary plans for the prison underwent considerable changes in succeeding months. From this time on Turner and his successors corresponded directly with the adjutant general, Washington, D.C., the prison being completely outside the jurisdiction of the commanding general of the Pacific Division.

The most visible pieces of salvage were the two original granite entrances to the Citadel: "The main entrance to the hall at the front and the entrance to the cell room at the N.E. corner are contemplated to be constructed from the material used in the entrances to the old citadel, which is a fine granular gray colored granite, finely cut and moulded. It is on heavy block work in jambs with solid piece pilasters at the sides and neat moulded entablature across the top. There are but two of these entrances in the citadel which it is deemed suitable to use." Both entrances were incorporated, one at the corner of the cellblock, but the other as a private entrance to the commandant's office, rather than at the front of the prison. Turner also planned to use the six 24-inch, 50-foot-long I-beams, in the roof of the Citadel as cross girders in the second floor of the prison, probably in the administrative unit; similarly the floor beams of the Citadel would form the smaller cross beam. Finally, the bricks from the old building would be saved for general construction on Alcatraz.[39]

The basement and ditch of the Citadel were to be preserved under the prison and used as punishment cells, "ventilated artifically by means of a fan and proper ducts." By May 1909, Turner reported that demolition of the Citadel was well underway, but that it was a rough task: "The most difficult part of the work has been wrecking of 'Citadel' and the necessary forming over basement walls and the 'moat' to carry cell room floor and utility corridors, and also forming over freshwater cisterns so as

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39. NA, RG 92, OQMG, General Correspondence 1890-1914, [Turner], "Foundation Plan," Oct. 19, 1907, and Turner, Aug. 29, 1907, to AG, and Lt. (omitted), QM, Alcatraz, Sept. 30, 1907, to QMG. The steel dock had been started before the decision to build the prison.

not to interfere with their present use. This is completed and rough concrete floor is in place." The six water tanks on top of the Citadel had been removed and four of them had been set on temporary platforms in front of the lighthouse. Electrical hardware for lighting the old basement had been installed, and two concrete stairways from the cellblock to the basement had been built. At this time, Turner considered the prison to be 25 percent complete.[40]

Turner's final plans, dated May 1910, showed a layout of space that differs in many aspects with the building as it stands today.

Administrative unit, ground floor - Consists of a colonnaded porch along most of the front (southeast end), separate offices for the commandant, the adjutant, and the sergeant major, two vaults off of the sergeant major's office, a lavatory for commandant, a general lavatory, a guardroom, the sergeant's room, a general prison for garrison prisoners, a hall, and stairs.

Administrations unit, second floor - Consists of a library, record room, printing office, telegraph office, noncommissioned officers' room, clerks' office, lavatory, and hall. (This floor later became the library and an assembly hall.)

Cellblock - Consists of six blocks of cells in four rows, each three tiers high, for a total of 600 cells.

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40. NA, RG 92, OQMG, General Correspondence 1890-1914, Turner, May 10, 1909, to AG.

Rear unit, basement - Consists of prison lavatory (under cellblock proper), a hall, receiving room, barbershop, clothing room, flour room, bread room, light workshop, lavatory, bakery, fuel room, and storeroom.

Rear unit, main floor - Consists of a hall, mess room, overseers' mess, pantry, kitchen, and storeroom.

Rear unit, second floor - Consists of a hall, lavatory, surgeon's office, dispensary, locker room, living room, hospital attendant's dormitory, sick ward, and isolation ward.

Roof - Contains four water tanks, two at each end of the complex, for both freshwater and saltwater.

The complete construction history of the new prison is not available today; but from the reports and letters that have survived, a general concept of the work may be pieced together. It has been stated in recent times that saltwater from the bay was used in mixing the concrete. While the records are silent on this subject, it seems that freshwater was used. Ample freshwater was available, it was brought to the island daily even before the inauguration of the water boat El Aquador in 1910. Reinforcing iron and iron girders were incorporated within the concrete. Only the best portland cement was used. And the Quartermaster Department urged, as early as February 1908, that a waterproof compound be mixed with the cement.[41]

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41. NA, RG 92, OQMG, General Correspondence 1890-1914, Dep. QMG G. Ruhlen, Feb. 13, 1908, to Turner, and Maj. H. P. Young, Dept. QM, San Francisco, July 28, 1910, to AG, Dept. of Calif.

In September 1909 Turner reported that construction of the prison was 40 percent complete. He said that the forms for enclosing the walls of the hospital floor and the roof of the rear wing had been completed and ready for concrete; the forms for the water tanks over the kitchen storeroom were then in progress; the concrete walls and floors of 168 cells were in place and the forms for others were being built; structural steel for the administrative unit was being erected; metal window frames were being set; and the rough plumbing was in. He forwarded six photographs showing the prisoners at work and the progress they had made.

An inspecting quartermaster from the War Department wrote a month later: "A great deal of work has been done on the prison building. The Western half, containing dining room, kitchen etc., is under roof; the cells in the East end are partly finished, and the forms for walls are in place. The concrete work is splendid, and a very satisfactory exterior finish has been obtained by the use of a cement wash, composed of one part cement to two parts sand, mixed thin and applied with a brush."[42]

Turner prepared blueprints showing details of the cell fronts and the locking device in June 1910. He said that he had studied similar work at other prisons, particularly the system "now being installed in the California State Penitentary [sic], at San Quentin." The quartermaster general noted that while Turner's system was somewhat different from that employed at Fort Leavenworth, it did appear to be practical. However, Turner was sent blueprints and specifications for the cell fronts and locking devices

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42. NA, RG 92, OQMG, General Correspondence 1890-1914, Turner, Sept. 4, 1909, to AG, and Maj. B. F. (omitted), QM, War Dept., Nov. 24, 1909, memo for QMG.

prepared by the Pauly Jail Building Company, St. Louis, for his inspection. (The records do not show which system Turner finally selected.) Later, the quartermaster general urged that the cells at Alcatraz be furnished with flushometer-type toilet bowls. This type did away with individual tanks and the bowl was operated by a press button. This made it "impossible" to damage the apparatus from inside the cell; moreover, it was cheaper. The flushometers were eventually installed.[43]

Monthly construction reports from July 1910 to June 1912 have survived. Inasmuch as they present construction details not otherwise available, they are summarized as follows:

> July 1910: Convict labor has been used as far as practicable. The civilians being employed include: three carpenters, one cement finisher, two iron workers, and one plasterer; who are laying finish cement floors in the administrative unit, lathing and plastering in the cell room, painting the outside of the building, putting up door frames and shelving in the rear wing, and installing skylights in the roof of the cell room.
>
> August 1910: Lathing and plastering the entire building has been finished as well as skylights in the cell room, and the stairs to second and third tiers of the cells. Pipe railing on balconies of second and third tiers are being erected and the door frames are being set. All of the metal window frames and sashes were in place.
>
> September 1910: Waterproofing the entire building, and finishing the cement flooring for 400 cells has been completed.

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43. NA, RG 92, OQMG General Correspondence 1890-1914, Turner, June 28, 1910, to AG, and QMG J. B. Aleshire, July 15 and 16, 1910, to AG.

Temporary connections with freshwater and saltwater systems has been made.

October 1910: The plumbing is being roughed in. Water-painting of the interior walls and ceilings, putting on the finish hardware, and erecting cell fronts, is being done.

November 1910: Finishing the cement floors of all 600 cells and an 8-inch pipeline from the dock to the water tanks on the roof of prison has been completed.

December 1910: All cell fronts have been erected.

January 1911: Saltwater and freshwater service pipes have been placed in the cell room; these were ready for connection to fixtures. The riveting of 325 cell fronts has been completed.

February 1911: All riveting has been completed and all doors have been hung. The locking device and door locks are being installed. Iron doors for outside and inside openings are being assembled, and steam heating radiators and piping are being installed in the cell room.

March 1911: Erection of the cell fronts and the locking device has been completed, and painting of the same is now in progress. Ventilating pipes from cells and heating apparatus are being installed, and iron cots are being constructed. (This was possibly the first time on Alcatraz that prisoners had cots to sleep on.)

April 1911: The same as for March.

May 1911: Construction of 600 iron cots has been completed, and the range has been placed in the kitchen.

July 1911: Plumbing fixtures (many were broken due to wreck of a freight train) have been installed, electrical roughing-in has been completed, and the building has been wired. Steam heating (except for the painting and pipe covering) has been completed, and the steam cooking apparatus has been placed.

August 1911: The steam heating system is ready for testing, and the plumbing and electric light fixtures are being installed.

October 1911: The electrical fixtures have been completed and are ready for testing.

November 1911: The electric lighting has been tested.

December 1911: The lodge gate and stockade wall are in the course of construction, and the finishing coat of the interior painting and plumbing installation is in progress.

January 1912: The lodge gate has been completed.

February 1912: The interior painting has been completed.

June 1912: The stockade wall has been completed, and the plumbing installation is still in progress.[44]

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44. NA, RG 92, OQMG, General Correspondence 1890-1914, Turner, Construction Reports, Alcatraz, July 1910-June 1912.

The only negative note concerning the new prison came from the surgeon, who was concerned that the hospital facilities were far from large enough and were short of such necessary facilities as an operating room, a laboratory, and a darkroom. He urged the construction of a separate hospital building. The surgeon general disagreed, saying that the existing space for the hospital was adequate. The Quartermaster Department estimated that certain (unspecified) modifications could be made to the hospital unit for about $900. Several months later, the medical authorities requested that an elevator be built from the hospital to the roof of the prison. They wished to have a wooden sun deck built on the roof with a windbreak high enough to protect cots. The War Department promptly approved this scheme.

Turner himself was proud of the building: "This is a combination of structural steel and re-inforced steel concrete, the former being used where necessary to carry unusually heavy loads, such as reservoirs on roof . . . it will have accommodations for six hundred (600) military convicts (one to a cell), heated by steam, lighted by electricity, ventilated by a modified system of forced ventilation, with a steam cooking apparatus installed in kitchen."[45]

The permanent prison project included the construction of an electric and steam (prison radiators) power plant and an adjoining two-story shop building. Both structures were built of reinforced concrete except that the walls around the boilers in the power plant were of (fire?) brick. The complex was located directly on top of Mendell's Battery 2 (earlier, the site of the left

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45. NA, RG 92, OQMG, General Correspondence 1890-1914, Maj. C. D. Buck, Medical Corps, Alcatraz, Jan. 20, 1912, to Surg. Gen.; Brig. Gen. H. G. Sharpe, QMG, Nov. 23, 1912, to Sect. of War; NA, RG 92, OQMG, General Correspondence 1890-1914, Turner, Annual Report, 1909.

flank of Battery Halleck or old North Battery), immediately to the left (west) of the old North Caponier, lately a magazine between Batteries 1 and 2. In fact, the magazine was soon to be converted into a fuel storage area. Located on the waterside of the power plant were a pump house, a smokestack, and eventually a hot well.

Again, Turner's construction reports for these structures are incomplete. Further complicating a clear understanding of the construction only a few of his pre-construction drawings have been located, and it seems apparent that he made a number of changes from these drawings once construction was underway. An example of this is the depiction in the plans of the smokestack being located on the landside of the power plant, whereas it was actually built on the waterside:

> July 1910: Power plant - The brick work was begun this month. Shops - the concrete for the second floor was poured, and the second floor walls and roof are in place.
>
> August 1910: Power plant - The brick work is in progress. Shops - the reinforced concrete has been completed.
>
> September 1910: Power plant - The brick work is in progress. Shops - the roof is water-proofed, the millwork and hardware are in place, the plumbing roughing-in has been completed, and the laying of the cement floors is in progress.
>
> October 1910: Power plant - The brick work has been completed, and the roof forms are in place and ready for pouring concrete. Concrete chimney - (to be 91 feet high with a diameter of 4 feet 10 inches at top, lined with firebrick with a 4-inch air space for 40 feet), the concrete work was 90 percent completed. Shops - the concrete floors have been finished except in the blacksmith shop.

November 1910: Power plant - The construction has been finished and the reinforced concrete chimney has been completed. Pump house - has been completed except for the floor. Shops - water painting of the laundry and the plumbing has been completed.

December 1910: Power plant - boiler and engine foundations are being put in. Pump house - pump foundations are being put in. Shops - the cement floors are being laid.

January 1911: Power plant - the boilers and engines are being set. Pump house - the pumps are being set. Shops - 95 percent completed.

February 1911: Power plant - The boilers, engines, and other fixtures are in place.

March 1911: Powerhouse - the brick work of one battery of two boilers has been completed.

April 1911: Powerhouse - The steam test was made of the boilers and the pipes. Installation of heating mains from powerhouse to the prison is in progress.

May 1911: Power plant - The heating mains in the tunnel have been completed except for the pipe covering. Pump house - an 8-inch main line has been placed in the tunnel to the prison.

August 1911: Power plant - all apparatus have been installed. Pump house - all apparatus have been installed, and the work of connecting the suction pipe is in progress.

November 1911: Laundry - has been completed and is in operation.

December 1911: Power plant - has been completed except for the conduit and the wire for lighting. Pump house - has been completed except for cleaning out the well.

February 1912: Pump house - all of the work has been completed.

March 1912: Power plant - all of the work has been completed.

April 1912: Power plant - oil fuel system is being installed.

With the prison occupied, the laundry in operation, and electricity and steam being supplied for the first time in Alcatraz's history, the Rock seemed destined for a long history as the Pacific Branch, U.S. Military Prison. That history would, however, last for only another 22 years. Even during that short period Alcatraz's prison would become a disciplinary barracks, although the change of name had little effect on the daily lives of its inmates.[46]

3. Inmates and Regulations

Before 1900 few studies or analyses of Alcatraz's prisoners were ever made. Post surgeons noted individual characters and incidents in their record books. Some statistics could be compiled from the monthly Post Returns. Local rules, regula-

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46. NA, RG 92, OQMG, General Correspondence 1890-1914, Turner, Constrtuction Reports, July 1910-June 1912; NA, Cartographic Div., RG 92, Blueprint file, Turner, Sheets 3 and 4, Power plant, Pacific Branch, Military Prison, Alcatraz, December 1909.

tions, and traditions grew steadily but were rarely published for future reference. But once convicts began arriving in large numbers from the Philippines and elsewhere, increasing attention was paid to them and their general behavior and to the regulations that governed them. This attention was caused by several factors: whether or not to retain the prison on Alcatraz, the construction of a permanent prison, the development of professional guard companies, the change from a departmental prison to a branch of the military prison, and more subtle factors such as a slow evolution in penology in the United States.

Even with more thorough reports at hand, the historian cannot construct the complete history of a penal institution. The records were created by those in control; there is no known account of his imprisonment written by a military prisoner. The regulations spelled out what was to be done; no guard ever wrote down what he actually did. It takes the novelist's pen to describe the potential horrors of imprisonment, such as James Jones in From Here to Eternity, wherein he depicted the brutality of an army stockade in Hawaii. But from a scattering of documents written in the early 1900s, a general picture of life at Alcatraz may be drawn.

Maj. Gen. Robert P. Hughes, commanding the Department of California in 1902, attempted to project the future population of Alcatraz in order to estimate the number of cells that would have to be provided. At that time 461 prisoners were on the island. "The great body of these prisoners," he said, "was received from the Philippines, when our situation was such that it was necessary to send them out of the way; the records indicate that 297 of those now here were sent here from Manila." Among these men were three who had been sentenced to spend the rest of their natural lives on the Rock; another inmate still had 21 years

behind bars. But the majority of the prisoners (306) had sentences of two years or less.[47]

A reporter from the San Francisco Chronicle described one prisoner who came from Manila, George Bender, who had the habit of setting fire to Filipinos' houses. He had set a fire at Alcatraz and, when the reporter saw him, was carrying a ball-and-chain. On the ceiling of his cell he had burned "Bender, the Firebug, will burn this jail tonight." But the jail survived, perhaps because the pyromaniac was sent to Kansas State Penitentiary "in an iron cage."[48]

An important description of the prisoners was prepared in 1905 by the judge advocate general, Maj. Gen. George B. Davis, who visited the military prison at Alcatraz as well as the one at Fort Sheridan, Illinois. On the Rock he found 271 prisoners employed as follows:

105 in Quartermaster Department, working on the new barracks, getting out rock on Angel Island, etc.
32 on police work at different posts around the harbor
54 constructing the new departmental rifle range at Point Bonita (Fort Barry)
36 in the prison--cooks, waiters, room orderlies, barbers, tailors, etc.

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47. NA, RG 92, OQMG, General Correspondence 1890-1914, Hughes, Apr. 22, 1902, to AG.

48. "With Uncle Sam's Prisoners and Garrison on Alcatraz," San Francisco Chronicle, Sunday Supplement, Jan. 25, 1903. The article had several interesting photographs. The reporter was guilty of perpetuating the already old myth of dungeons on Alcatraz: "Dungeons under dungeons are thought to honeycomb the island."

15 sick (8 in hospital, 1 in quarters, and 6 on light duty)
1 waiting release
6 third class prisoners not at work (third order was the lowest class of prisoners; these six were possibly kept in their cells)
6 awaiting trial

Davis mentioned that the inmates were divided into three classes, based upon their conduct in confinement. Of the 271 men, 110 belonged to the first class (the best), 99 were in the second class, and 7 had been reduced to the third class. Fifty-five men were not then classified, either being new arrivals or employed at other posts in the harbor and not under the control of the prison commandant. Concerning the prisoners in general, Davis wrote:

> The prison rules are strict; obedience is rigidly enforced; no partiality is shown and the prisoners are taught that their future largely depends upon a faithful and conscientious observance of the prison rules. There are a few "trusties" employed, but all are engaged upon public work; none are allowed to be used as servants by officers, or others, or to work in or about the officers quarters. Most violations of prison rules are met by reductions in grade, or by deductions from good conduct time. No solitary confinement on bread and water diet has been imposed for a year or more; and as that form of punishment has been found unsatisfactory and not productive of good results, the dungeons [in the guardhouse] in which this was executed has been abandoned. To replace these an iron cage has been constructed in one of the rooms on the second floor of the [lower?] prison; but this has been used but once in eight months. . . .
>
> The moral condition of the prisoners is better than was to be expected, when it is considered that it is impossible to establish schools among them, to teach trades, or to apply any of the reformatory agencies which are relied upon, in modern prison administration. . . . Obscene practices are of rare occurrence and are severely punished. But two prisoners are known to be addicted to the use of opium; one being a pronounced case.

This account was one of the rare instances in which prison homosexuality was referred to, even if obliquely. From today's freer discussions on this once-taboo subject, it would seem that the military prison was no different than any other. Not even a judge advocate general learned everything in a short visit. Fifteen years earlier, the post surgeon on Alcatraz recommended that a convict be discharged because he was a sodomist and was "being used as a mujerado by sundry fellow convicts." And in 1934, when the Department of Justice took over Alcatraz, 8 of the 32 military convicts remaining on the island had been convicted of sodomy.

Davis went on to say that the officer in charge of prisoners, Lt. Lawrence Halstead, "has arranged and filed the prison records, which were in considerable confusion, and has installed a very complete and well-considered method of identification by thumb and finger marks, in which the experience of the French police authorities and those of Scotland Yard in London has been fully utilized." (Practical fingerprinting as a means of identification had been in use since only 1891.) The general was so impressed by the prisoners' skill in manufacturing hollow concrete blocks for the new garrison barracks, that he recommended that these blocks be used to rebuild the prison and for future construction at the Presidio. Despite all his favorable impressions, Davis left Alcatraz with the feeling that it was not a good place for a prison and that escape from the island was not at all difficult.[49]

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49. NA, RG 92, OQMG, General Correspondence, extract from a report by the JAG of the army to Sec. of War, Oct. 25, 1905, on the military prisons at Alcatraz and at Fort Sheridan, Ill.; NA, RG 393, Alcatraz, Medical Dept. Orders and Letter 1889-1896, Asst. Surg., W. M. Dietz, Feb. 12, 1890, to Post Adj.; NA, RG 129, Bureau of Prisons, Records, 4-49-3-13, Alcatraz, Population, July 1, 1935.

Lieutenant McElroy's 1906 treatise on a "New Military Prison in the Pacific Division" has been previously cited in this study. One subject that McElroy addressed was that of a permanent guard in place of the ever-transferring line companies: "With regular organizations guarding general prisoners we have the recruit thrown in daily contact with the prisoner." In his opinion, "no worse condition could exist and the recruit will eventually look upon him, not as a man serving a just sentence, but simply an unfortunate, a man misjudged, and he, the young recruit, may sometime be a fellow sufferer . . . A guard," McElroy said, "should be as far removed from [the prisoner] as possible. He should be the guard and the prisoner the prisoner at all times and under all conditions. There should be no community of interest between them, no fellow feeling." Moreover, he felt that guards should receive special training and the noncommissioned officers should have at least four months instruction to become competent in the duties of an overseer. He noted three ways by which a permanent guard could be organized: a civilian guard, an especially enlisted service corps, and, least preferred, by details from organizations. A year later the regular garrison at Alcatraz was replaced by permanent guard companies, which were organized by McElroy's least preferred method.

McElroy raised the interesting point of segregation in the prison. Apparently he did not much favor the practice but said that it could be carried out if found desirable. It is known that black military prisoners served their sentences at Alcatraz, but the records do not mention segregation or the lack of it. McElroy believed that he could get prisoners interested in their work. All they needed, he said, was a little encouragement. If they were given this encouragement, a lot of disciplinary problems would disappear. Whether or not McElroy was overly optimistic remains

unknown, but his thesis disclosed one of the more perceptive and thoughtful young officers ever to serve on Alcatraz.[50]

The dynamic first commandant of the Pacific Branch, U.S. Military Prison, Lt. Col. Reuben B. Turner prepared a lengthy analysis of the prisoners in his annual report for fiscal year 1909. In addition to its thoroughness, the report had the distinction of being printed in booklet form on the "Prison Press," Alcatraz, California.

At the beginning of the year, on July 1, 1908, there were 330 prisoners in confinement. A total of 526 prisoners were received during the year, but the losses amounted to 520, leaving 336 men in the prison as of June 30, 1909. These military convicts came from the following areas:

Department of California	168
Department of the Columbia	106
Department of Texas	24
Department of Luzon	126
Department of Mindanao	59
Department of Visayas	42
Philippines Division	1
Total	526

Losses broke down to show: Expiration of confinement, 490; pardoned, 23; escaped, 1; deaths, 1; and transferred, 5. A total of 525 civilian suits had been issued to discharged prisoners at the cost of $5,250.

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50. NA, RG 92, OQMG, General Correspondence 1890-1914, McElroy, "New Military Prison in the Pacific Division," ca. 1906.

Prisoners were confined for the usual crimes; larceny, perjury, assault, and burglary. A few desertions had taken on a new twist in the Philippines, "desertion to the enemy." Turner gave a minute breakdown of the terms of confinement, almost month by month. This long listing may be summarized as follows:

Less than one year	133
One year	249
From one to two years	194
Two years	114
From two to five years	111
From five to ten years	9
Twelve years	1
Fifteen years	1
Life	1

During the year, the prisoners submitted 117 applications for clemency, of which the War Department granted 19 pardons and 13 remissions of sentences ranging from three months to two years. Of the 336 prisoners present at the end of the year, 309 were native born and 27 of foreign birth. The occupations of these men showed an amazing variety, they were as follows:

baker	5	groceryman	1	pipe fitter	1
barber	6	glasscutter	1	plater	1
blacksmith	6	hallboy	1	plumber	3
boilermaker	1	horseman	1	porter	2

boot maker	1	hostler	1	printer	1
bookbinder	2	insurance agent	1	railroadman	1
brakeman	2	iron worker	1	reporter	2
brickmaker	1	laborer	74	sailor	4
butcher	2	lumberman	2	salesman	1
carpenter	8	machinist	15	shoemaker	3
clerk	12	metal polisher	1	sign painter	2
cigar maker	1	miner	7	slate roofer	1
civil engineer	1	motorman	2	stableman	1
cook	14	musician	3	switchman	3
cooper	2	nurse	2	soldier	40
driller	1	oiler	1	tailor	5
drug clerk	1	operator	3	teamster	22
electrician	8	packer	1	toolmaker	1
engineer	1	painter	6	upholster	1
engraver	1	paperhanger	1	waiter	3
farmer	22	peddler	1	weaver	1
fireman	16				

Prisoner mail received and inspected during the year totalled 4,100 letters and 3,200 papers, periodicals, magazines, and packages. Meanwhile, the prisoners sent out 3,650 letters. The prison library contained only 228 books, magazines, and periodicals. A prison school had been established that contained 26 volunteer students. They studied reading, writing, spelling, arithmetic, and geography. Classes were held five days a week, from 6:30 to 7:30 p.m. By 1909, no army chaplain was assigned to Alcatraz; volunteer clergymen from San Francisco held religious services on Sunday afternoons.

The average daily work force numbered 302, of whom 30 worked the stone quarries on Angel Island. The rest were employed as follows:

Inside Stockade	Outside Stockade
2 barbers	3 bakers
2 in bath and lavatory	1 blacksmith
1 breadman	4 blacksmith helpers
7 cooks	6 carpenters
3 dishwashers	6 dockmen
3 room orderlies	1 at sterilizing plant
1 shoemaker	1 engineer, pumping plant
1 tailor	1 engineer, hoisting
4 vegetable men	12 laborers
8 waiters	1 lamplighter
2 yardmen	14 laundrymen
34	6 teamsters
	6 messengers
	4 painters
	1 plumber
	4 plumber helpers
	1 printer
	4 police party
	76

An additional 90 men were employed on new construction on the island, including work on the new prison, preparation of site for the power plant, and demolition of the Citadel. In addition to Turner's excellent report, a number of photographs taken at that

time illustrated the construction work going on. Nearly all of them show the prisoners working at their assigned tasks.[51]

Although Alcatraz became the Pacific Branch, U.S. Military Prison, in 1907, not until two years later did the Government Printing Office publish the regulations governing the prison at Leavenworth and its branches. The government of the prison was vested in the Board of Commissioners of the United States Soldiers' Home, which consisted of the surgeon-general, the commissary-general, the adjutant general, the quartermaster general, the chief of engineers, the judge advocate general, and the governor of the soldiers home. All correspondence concerning the prison went through the Office of the Adjutant General, who, in reality, administered the day-to-day operation. The Department of California lay outside this command structure and its commanding general now had no authority over Alcatraz despite its location in San Francisco Harbor.

The officers of the prison consisted of the commandant, the adjutant (books and records), the quartermaster (supplies, equipment, and construction), the commissary (food), the surgeon (hospital), the chaplain (chapel, library, and school), the executive officer (direct charge of prisoners and cells), the exchange officer, and the ordnance and signal officer (weapons, communications, etc.). Most of these officers were also officers of the guard or prison companies and some of them had other assigned duties as well, such as athletic officer or mess officer. Alcatraz operated a prison laundry, a bakery, a school, and a library. The commandant approved all books, magazines, and periodicals. All

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51. NA, RG 92, OGMG, General Correspondence 1890-1914, Turner, Annual Report, 1909.

prisoners, except those undergoing punishment, had ready access to the library and could take reading material to their cells.

All prisoners were designated as "military convicts," the term "general prisoner" dropping temporarily from the scene. The regulations spelled out the treatment for convicts in considerable detail (many of these regulations had long been observed at Alcatraz):

> On admission the convict was minutely searched and deprived of all his possessions except clothing.
>
> He then took a bath and was issued prison dress. His hair was cut short and he had to shave off any beard or mustache; however, during his last month of confinement he was allowed to grow a beard again, if he wished.
>
> A number was assigned to him, by which he was known during his prison term.
>
> The prisoner could draw from any money he may have for the benefit of his family. Upon his release, he received in full any balance due him.
>
> All convicts were divided into three classes: first, second, and third. Each man wore a badge that indicated his class. On admission he was placed in the second class, and his conduct determined whether he was promoted or demoted. Convicts of the first class who had less than three months to serve, could be "paroled" for quartermaster work, such as teamsters, mechanics, and laborers.

For good conduct, a convict could earn an abatement of five days for each month of his first year of sentence and ten days per month for time over that. Earned abatement could be forfeited by misconduct.

Prisoners received a wholesome and sufficient ration. Those in solitary confinement received 18 ounces of bread a day and as much water as they desired.

Clothing consisted of cast-off or obsolete quartermaster uniforms that had been dyed a nonregulation color. A convict could not wear military buttons or other official insignia. His number was stamped on his clothing.

Convicts were kept at hard labor six days a week and were allowed time off on seven national holidays. The commandant could suspend labor during unusual weather to protect the health of the prisoners. They engaged in every kind of police, maintenance, and construction activity, as well as clothing manufacture and rock breaking, not only on Alcatraz but at other posts around San Francisco Bay.

Prisoners could make complaints either in person or in writing, provided they went through the proper channels, but frivolous or untruthful complaints could bring punishment. Mass petitions or protests were not allowed.

Every cell was inspected daily for cleanliness, contraband articles, or escape attempts. Weekly inspections of the convicts and the prison were also held.

Prisoners who violated the rules and regulations were tried by courtmartial and disciplined by the following ascending order of punishments:

Reprimand
Deprivation of a meal
Deprivation of tobacco privilege
Deprivation of letter privilege
Reduction in class
Solitary confinement on restricted diet
Solitary confinement on restricted diet and handcuffed to door
Loss of part of good-conduct time
Loss of all good-conduct time

Solitary confinement was limited to 14 days at a time, and there was an interval of 14 days between successive periods of confinement.

If a convict attempted escape, he automatically lost all earned good-conduct time, and could be court-martialed in addition.

On one hand, each man was allowed to send one letter a month to his family or friends. He had to submit it for inspection; however. On the other hand, letters coming in could not be examined without the convict's consent. But they could be held unopened until the prisoner was released.

Convicts could receive visitors once a month on the written order of the commandant.

They could apply for clemency on arriving at the prison, but succeeding applications had to have a six-month time lapse between them.

On July 4 and Thanksgiving Day each year the commandant was required to notify the War Department of those convicts who had served at least 18 months and who had the best record of good conduct.

Upon release from confinement each man received a $10 suit of clothes, $5 dollars in cash, and transportation to his home or elsewhere, providing the cost did not exceed that to the place of his last enlistment.

Thus was the rigid routine on Alcatraz laid out. The regulations attempted to impose a fair and impartial administration of an institution that, at best, was not a nice place to be. Despite the army's attempt to cover every eventuality, there were always the sadistic guard and the ambitious convict who could find loopholes in every rule and every regulation.[52]

Despite the fine new prison building, the judge advocate general, Maj. Gen. Enoch H. Crowder, concluded in 1913 that Alcatraz was most objectionable as a prison site: "The buildings on Alcatraz constitute model detention barracks, and the sole objection to continuing it as such is, first the sentimental one that its prominence in the harbor advertises, in a way unfair to the military service, the discipline of the Army, and second, the more substantial objection that there are . . . no facilities for outdoor drill and instruction of prisoners confined therein." He examined carefully the obsolete masonry fort at Fort Point and concluded that it would be a more satisfactory prison than the island. He and the

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52. F. C. Ainsworth, Adjutant General, Regulations for the Government of the United States Military Prison and of any Branch Thereof (Washington: Government Printing Office, 1909).

Bureau of Immigration both agreed that the facilities on Alcatraz would be more ideal for an immigration station than on Angel Island.

"It is somewhat difficult to understand," he wrote, "how the War Department came to recommend and Congress to appropriate the large sum of $250,000 for a new prison building on such a site as Alcatraz." The laws of the land restricted indoor prison labor in manufacturing, and Alcatraz provided no space for outdoor employment: "I found that practically all prisoners confined there who were not needed in the domestic administration of the prison were kept on Angel Island in a stockade and employed in the new barrack construction [East Garrison] now going on at that island; also that the custom existed of transporting them back and forth between Alcatraz and other points in the harbor for daily labor as required. The expense involved constitutes an additional objection to Alcatraz as a prison site."

Whether the prison was retained on Alcatraz or somewhere else in the harbor, Crowder found a practice that to him was most objectionable--that of confining together purely military offenders and those guilty of common law and statutory offenses. He recommended that felons on Alcatraz be segregated from misdemeanants and sent to the stockade on Angel Island to work on the new construction there. All the misdemeanants would be retained on Alcatraz and employed there and at other posts in the bay. He further recommended that Congress be asked "to amend existing prison legislation so as to change the name 'United States Military Prison' to 'United States Detention Barracks,' and to make other changes . . . necessary to the establishment of the special detention barracks regime for prisoners. . . . This will require the law to be amended in respect of employment of prisoners, prescribing rules for restoration to service for those who may earn

the favorable recommendation of the authorities of the detention barracks."

This far-reaching change was enacted into law by the Congress on March 4, 1915. The Alcatraz prison then became the Pacific Branch, United States Disciplinary Barracks (PB, USDB). In August 1916 the prisoners on the island were organized into the Second Disciplinary Battalion, consisting of the Fifth, Sixth, Seventh, and Eighth companies and the Second Disciplinary Band. Training was undertaken with instruction for privates, privates first class, buglers, mechanics, cooks, and squad leaders.[53]

In 1915 the adjutant general published Regulations for the Government of the United States Disciplinary Barracks and its Branches. While the regulations remained much the same as the former military prison's, there were some significant changes. The government of the barracks was now vested solely in the adjutant general under the direction of the secretary of war, in effect making lawful what had been the practice anyway. The term "military convict" was dropped, and the inmates were once again referred to as "general prisoners." A parole officer and a prisoners' mess officer were added to the commandant's staff.

Prisoners were now assigned immediately to the first class when admitted to the barracks. Only men of this class were eligible for enrollment in a disciplinary organization where they

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53. NA, RG 92, OQMG, General Correspondence 1890-1914, Crowder, Nov. 10, 1913, to the Chief of Staff; NA, RG 85, Immigration and Naturalization Service, Crowder, Nov. 10, 1913, to Chief of Staff; NA, Microcopy 617, Roll 17, Alcatraz, Post Returns, August 1916, Office of the Adjutant General, Dept. of the Army, The Army Correctional System (Washington: n.p., 1952).

received certain privileges as announced by the War Department. They also received a wider variety of food for their meals than prisoners of the lower classes. The disciplinary companies ordinarily worked half of each working day, and received military training and instruction the other half. Prisoners of the lower classes, known as the "numbered prisoners," worked a full day. Prisoners could now write an unlimited number of letters per month--at the discretion of the commandant; these letters were still inspected. Similarly, no limit was placed on the number of visitors, except as for such restrictions as the commandant imposed.[54]

General orders published in 1916 spelled out the differences between prisoners enrolled in disciplinary companies and those not so lucky.

> General prisoners enrolled in disciplinary companies will be designated by name and not by number; will not be required to work in the same party with general prisoners not enrolled in disciplinary companies; will be quartered in a separate section of the barracks; will be seated at separate tables in the dining room and in a separate section in the chapel; will be permitted the privilege of rendering the prescribed military salute; and when under arms, at work, or at meals, will be permitted to converse with each other under the restrictions that govern enlisted men while similarly engaged.

As for training:

> The course of military training and instruction for general prisoners enrolled in disciplinary organizations will include: Physical training; personal hygiene, including care of the uniform; the school of the soldier, squad, company, and (when practicable) the battalion; dismounted Cavalry and Field Artillery drill; elementary

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54. H. P. McCain, Adj. Gen., Regulations for the Government of the United States Disciplinary Barracks and Its Branches (Washington: Government Printing Office, 1915).

signaling; care of arms and equipment; aiming and sighting drill; gallery practice, rifle and revolver; saber drill; estimating distances; pitching and striking tents; hasty shelter--use of intrenching tools; knots and lashings; duties of enlisted men in military bridge construction; and lectures and such other instruction as may be practicable on the duties of enlisted men in the service of security and information--outposts, advance, rear and flank guards, and scouting.[55]

General Crowder's ideas for restoring the better class of general prisoner to full military duty proved highly successful. As of June 30, 1923, no fewer than 1,396 men who had been at Alcatraz had been "returned to the colors as soldiers by restoration or reenlistment after training at this institution." The commandant at that time, Col. William M. Morrow, explained the processes employed on the Rock. Two boards, the Enrollment Board and the Restoration Board, were involved. The membership was the same for both boards: the executive officer, the parole officer, the company commander of the guard company, the psychiatrist, and the chaplain. When a prisoner served one-third of his sentence, he automatically came before the Enrollment Board. He was asked if he wished to enroll in the training with the view to restoration to duty. If the prisoner replied in the affirmative, the board investigated his civil and military records and questioned him on his past. After carefully considering the facts, the board made a recommendation to the commandant, no man being recommended "unless the Board believes that he will be an asset to the Army."

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55. NA, RG 94, AGO, General Orders No. 30, War Department, July 22, 1916.

During the four months of training the prisoner was called a "disciple." At the end of the course he appeared before the Restoration Board for consideration. This board based its recommendation on four things: a physical and mental examination, any new data concerning his civil record, any new data concerning his military record, and the prisoner's record during the training. Colonel Morrow believed that this system worked most satisfactorily inasmuch as 70 percent of those restored to duty "made good."[56]

It will be recalled that Alcatraz's prison population jumped to 441 in April of 1900 when the first large contingent from the Philippines reached the island. By June of 1900 the number had climbed to 475; and again in March of 1901 the population peaked at 477. Yearly averages from 1901 to 1916 as compiled from the post returns were as follows:

1901 -- 384	1909 -- 333
1902 -- 394	1910 -- 466
1903 -- 256	1911 -- 506
1904 -- 233	1912 -- 469
1905 -- 262	1913 -- 369
1906 -- 229	1914 -- 359
1907 -- 287	1915 -- 409
1908 -- 321	1916 -- 438

During these 16 years the lowest monthly figure was 196 in August 1906, and the highest was 553 in February 1912; the month the new prison was first occupied. The only known reason for the increase

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56. NA, RG 94, AGO, Col. W. M. Morrow, Commandant, USDB, Alcatraz, July 26, 1923, to AG (Annual Report for fiscal year 1923).

in the number of prisoners from 1910 to 1912 was the army's decision to concentrate as many prisoners as possible at Alcatraz because of the large amount of construction then being undertaken on both it and Angel Island, where a new recruit and casual depot was under construction.

An unusual prisoner, temporarily held on Alcatraz, was the German consul general in San Francisco, Franz Bopp. During World War I, Bopp was indicted for wartime offenses and, during two lengthy trials in 1916-1918, he was kept under military guard on the island.

A large increase in the number of prisoners occurred in 1929, when 130 men were transferred from the disciplinary barracks at Fort Leavenworth. The army was, for the second time, turning Leavenworth over to the Department of Justice as a federal penitentiary.[57]

Despite Alcatraz's becoming a disciplinary barracks and the army's limited efforts to rehabilitate the prisoners, the legends surrounding it continued to grow. An escape from the island in 1923 led John L. Considine to describe it as "Uncle Sam's Devil's Island." He called it the best-guarded prison in the world. Like many writers before him, he described nonexisting tunnels and compared the island to Gibraltar: "One of the approaches to the headquarters was through an underground tunnel [the sally port?],

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57. NA, Microcopy 617, Roll 17, Alcatraz, Post Returns, 1901-1916; San Francisco Chronicle, Sept. 3, 1929. The February 1912 figure of 553 was the largest number of prisioners on Alcatraz from its establishment as a prison down to at least 1916. An opportunity has not yet presented itself to study prisoner returns from 1916 to 1934.

and visitors who had been to Gibraltar declared that this was not the only point of resemblance common to the two strongholds." The newspapers enjoyed playing up the story of tunnels and dungeons. Perhaps the ultimate development of this theme appeared in the San Francisco Chronicle in 1933, when the old kitchen basement of the Citadel, then used as "dark and dreary" cells under the prison building, was described as being a relic of a prison built by the Spaniards. Lieutenant McPherson, who supervised the excavation for the Citadel in 1858, would have been surprised.[58]

Twice in the 20th century the army had seriously considered abandoning the Alcatraz prison. In 1906-1907 the army gave consideration to moving it to Angel Island and placing a recruit depot on Alcatraz. In 1913-1914, the army was willing to transfer jurisdiction of Alcatraz to the Bureau of Immigration, and would have done so had Congress provided the necessary appropriations. The third time counted. In May 1933 the San Francisco Chronicle quoted Sen. Hiram Johnson as saying that the War Department was contemplating abandoning the U.S. Disciplinary Barracks at Alcatraz as an economy measure, and that the prisoners would be moved to the Atlantic Branch at Fort Jay, New York Harbor. In June, Secretary of War George H. Dern wrote Attorney General H. S. Cummings to that same effect, asking if the Justice Department was interested in taking over Alcatraz on a five-year license similar to the arrangement then existing for the prison at Fort Leavenworth.

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58. John L. Considine, "Escape From American 'Devil's Island,'" San Francisco Chronicle, Oct. 14, 1923, and Dec. 10, 1933; Johnson, Alcatraz, p. 7.

The director of the Bureau of Prisons, Sanford Bates, informed the attorney general that Alcatraz would not be suitable as a federal institution. It was too small, in an isolated location, and had no freshwater. Furthermore, it was 500 miles from the Mexican border, which was the source of most commitments in Southern California. Then within three weeks Bates completely reversed his opinion. He now believed that Alcatraz would make an ideal place of confinement for about 200 of the most desperate or irredeemable types then in the federal penitentiaries at Leavenworth and Atlanta. On receiving this opinion from Sanford, the attorney general notified the secretary of war that he was indeed interested in acquiring Alcatraz. Secretary of War Dern signed the permit on October 13, 1933.

At that time, 221 general prisoners occupied the cells at Alcatraz. In order to keep the laundry in operation, a good portion of these men were kept on the island until the time of actual transfer was near. Then, in June 1934, about 40 military prisoners sailed for Fort Jay, New York Harbor, and a number of others were either released or given parole. Thirty-two prisoners remained on Alcatraz and were turned over to the Justice Department. These men had the dubious honor of being assigned prisoner numbers 1 through 32 under the new regime. Most of them were in their 20s and their sentences ranged from three years to life. They were undoubtedly an unsavory lot, their crimes including sodomy (prisoner 1), robbery, assault, forgery, manslaughter, and rape.

Before leaving the island, the army prepared a list of the structures that it would turn over to the Justice Department. How much different it was from the first list of structures prepared by Lieutenant Tower in 1854!

Structure:

4 A & B - Old Quartermaster & Commissary Storehouses and Offices on the wharf; occupied by the dock office and the launch crew's office

7 - Officer's Quarters; occupied by Maj. J. E. Black

8 - Officer's Quarters, formerly the commanding officer's quarters; occupied by Lt. Col. C. R. Bell

9 - Officer's Quarters; occupied by Capt. F. L. Thompson

10 A & B - NCO Quarters, old Post Hospital; occupied by one sergeant and one civilian

12 - NCO Quarters, one of three old NCO quarters on the east side of the island; occupied by a civilian and his family

13 - NCO Quarters, the middle of the three old NCO quarters; occupied by a sergeant

14 - NCO Quarters, the third of three old NCO quarters; occupied by a sergeant

15 - NCO Quarters, on the southwest side of the island; occupied by a sergeant; constructed in 1929

22 - Gymnasium, formerly the lower prison chapel and library

28 - Guardhouse, originally part of 4, above, the old Quartermaster Storehouse complex; occupied by the guard and the telephone exchange

31 - Handball Court, located southeast of the wharf and in front of building 4 on reclaimed land; date of construction is unknown but was after 1915

32 - Gasoline Storage Building, located in wharf area, in front of barracks

33 - Wharf

33A - Launch Storehouse and Shop, located on the site of the old enlisted men's latrine at the northwest end of the wharf; contained launch supplies

39 - A & B, Civilian Employee Quarters, located on the site of the last frame bakery near the northwest end of the island; occupied by one civilian and one sergeant

43 - A & B, NCO Quarters, adjacent to building 15 near the southeast end of the island; occupied by two sergeants and constructed in 1929

47 - NCO Quarters, former hospital steward's quarters; occupied by a sergeant

58 - NCO Quarters, located on the site of the lower prison kitchen building (possibly the same building remodeled); occupied by a sergeant

64 - Guard Barracks, serving a number of functions: quarters for the chaplain, two officers, and a civilian; barracks for the headquarters detachment and a quartermaster detachment; enlisted men's mess; officers' club; armory; post exchange; bowling alleys; and finance office

[65 - Post Exchange; omitted from the Army list.]

66 - Morgue, (three vaults); formerly a covered passageway across the top of the island during the 1870s fortifications

67 - Power Plant; occupied by the electrical plant, electrical shop, and carpenter shop

67C - Laundry; actually the shops portion of building 67, by then increased with the addition of a third story

68 - U.S. Disciplinary Barracks; by this time the following functions were located in the building: medical detachment quarters, hospital, executive office, dining room, kitchen, print shop, purchasing and supply office, library, signal office (old), adjutant's office, bakery, refrigeration plant, and "CP mess" (?)

68S - Flagstaff; located on the roof of the prison--similar to the first flagstaff on top of the Citadel

68T - Water Tanks; six water tanks on roof of the prison

68TC - Cisterns; the 23 old cisterns now underneath the prison

72 - Officer's Quarters; temporary frame quarters on the east side of the parade and constructed in 1929

73 - Officer's Quarters; temporary frame quarters on the east side of the parade and constructed in 1929

74 - Officer's Quarters; temporary frame quarters on the east side of the parade and constructed in 1929

75 - Officer's Quarters; temporary frame quarters on the east side of the parade and constructed 1929

76 - Commandant's Quarters; located at the southeast end of the officer's row on the site of the old headquarters building and constructed in 1929

77 - School and Night Employees' Quarters; a two-story concrete addition to the top of the original defensive guardhouse, often referred to today as the chapel

79 - Warehouse; located southeast of the power plant: a large four-storied building containing the commissary and a six-vehicle garage

80- Water Softening Plant; located in or near power house. (Fresh soft water cisterns had been built on the northwest end of the island)

82 - Utilities Building (sometimes called the model industries building); located on the northwest tip of the island directly on top of old North Battery and Batteries 2 and 3; occupied by blacksmith shop, typewriter shop, paint shop, plumbing shop, tailor shop, hat shop, packing plant, shoe shop, vocational training department, and, in the basement formed partly by the old scarp wall, the band room

83 - Field Officers' Quarters, double set; located at the southeastern tip of the island, on top of old South Battery and Three-Gun Battery; occupied by two officers and constructed in 1929

84 - Cleaning Plant and Spotting Room; located on the rock quarry near the northwest end of the island, made of reinforced concrete and erected February 28, 1929

85 - Incinerator; located on a point on the south side of the island, southeast of the rock quarry

86 - Shelter Shed; located in front of the barracks on the wharf; contained the fire apparatus, a freight room, and two waiting rooms for officers and enlisted men

87 - NCO Quarters; located between the NCO Quarters (building 58) and the Post Exchange (building 65); occupied by a sergeant

88 - Greenhouse; located below the old post hospital, on the east side of the island

89 - Salvage Storehouse; a frame structure standing on the foundations of the brick cellblock (later, guardroom) of the lower prison

A map of Alcatraz prepared about the same time by the quartermaster showed several additional structures not appearing in the above list: tennis court in the north corner of the parade ground; a launch landing at the wharf; playground on the south side of the island; a near sea-level walk extending from the southeastern tip of the island, along the east side, to the northwest tip; the quarry dock near the northwest end of the island; and, of course, remnants of the old fortifications.

The army commandant turned Alcatraz over to the new warden on June 20, 1934, the last army families having left the day before.

On July 1, the attorney general officially ordered the establishment of the U.S. Penitentiary at Alcatraz Island. The Rock's 87 years of military history had finally come to an end.[59]

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59. NA, RG 129, Records of the Bureau of Prisons, Alcatraz, 4-49-0, Sect. of War, June 3, 1933, to Atty. Gen., and Dir., Bureau of Prisons, July 22 and Aug. 8, 1933, to Atty. Gen., Atty. Gen., Aug. 12, 1933, to Sect. of War, Permit, signed by Sect. of War, Oct. 16, 1933, "Number and designation of buildings as shown on Historical Record," Alcatraz, Atty. Gen., July 1, 1934, "Order" 4-49-2-36, Blueprint Map, Survey of Existing Buildings, Alcatraz, Oct. 26, 1933; San Francisco Chronicle, May 17 and 18 and Oct. 13, 1933.

VIII. For Desperate or Irredeemable Types--U.S. Penitentiary

A. Transition to Maximum Security

The citizens of San Francisco were not at all overjoyed to have a federal penitentiary on Alcatraz Island. Throughout October 1933, the San Francisco Chronicle listed group after group who opposed the scheme. Chief of Police William J. Quinn, the Police Commission, and the San Francisco Board of Supervisors spoke out against a federal prison for gangsters on the island. An editorial in the Chronicle argued that Alcatraz was too close to the city to be a summer resort for bad men. Professional gangsters, it said, would have outside friends who would help them escape. It recounted that over the years 17 military prisoners had successfully escaped by swimming or by stealing boats and another six had gotten away by one ruse or another. The Federation of Women's Clubs joined the uproar of protests. Two young women, Doris McLeod and Gloria Scigliano, made separate and successful swims out to the island to demonstrate how easily it could be done by an escaping prisoner. In January 1934 the Chronicle proposed that a statue of peace be erected on Alcatraz instead of a prison. But the protests fell on deaf ears; the Justice Department continued its planning.[1]

In October 1933 the Justice Department prepared a statement saying that it had completed arrangements for taking over the military prison. Stressing the security of the island, the statement pointed out that Alcatraz had long been known as one of the best disciplined and most secure penal institutions in the country. It would serve well for the present campaign against racketeers and

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1. San Francisco Chronicle, Oct. 14, 16, 17, 19, 20, and 21, 1933, and Jan. 17, 1934.

confirmed criminals. In the initial negotiations, the War Department planned to evacuate the island promptly. But a hitch developed that caused the army to remain on Alcatraz until June 1934. In the permit to the Justice Department, the secretary of war required the penitentiary to continue the laundry services to certain army posts in the Bay Area and to the army transports that docked at Fort Mason. It was readily apparent that the Bureau of Prisons required time to remodel the prison before the first federal prisoners could be brought there. Thus the military prisoners continued to operate the laundry, while the Bureau of Prisons revamped the prison facilities. The records indicate that the two agencies cooperated amazingly well during the transition period.

The army permit contained several other conditions and agreements besides the laundry services. The military turned over motor launch General McDowell to the Justice Department (this was General McDowell II and not the grand old steamer). The army water boat was to continue to furnish water to Alcatraz on its regular harbor runs with the Justice Department paying its share of the cost. No buildings were to be erected on the island without the approval of the War Department. The army reserved the submarine telephone and telegraph cables, 338, 465, and 703 for itself, and civilian employees on the island were to be transferred to the Justice Department, perhaps the most important of these being J. H. McFadden, the island's superintendent of construction.[2]

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2. NA, RG 129, Bureau of Prisons, Alcatraz, 4-49-0, Sect. of War, Permit, Oct. 13, 1933 and Sect. of War, Oct. 10, 1933, to Atty. Gen. 4-49-1-49, Alcatraz, Water Supply, and 4-49-1-43, Alcatraz, Telephone, "Additional Conduit," Jan. 30, 1934. The Bureau of Prisons considered alternatives for a freshwater supply, including distillation of seawater, drilling a well, and laying an underwater pipeline. All were found to be too expensive or impracticable. The army had a private telephone branch exchange on Alcatraz. Two

Sanford Bates, director of the Bureau of Prisons, recognized early that some repairs and improvements would have to be undertaken to make Alcatraz a place of maximum security. One important major change would be that of replacing the open-hearth steel window bars with tool-proof steel. Bates also considered the installation of gas and gun (metal) detectors. He wrote the Prison Equipment Bureau in Cincinnati, Ohio, asking if it would send an expert to Alcatraz to determine what had to be done.[3]

Robert C. Bunge, consulting engineer, completed his report for the Prison Equipment Research Bureau in November 1933. In addition to its importance in describing the changes to be made, Bunge's report also disclosed some modifications that had been made to the prison since Colonel Turner drew his plans of the building in 1910.

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trunk lines went to the San Francisco exchange (EX-2674 and 5), two tie lines to the Presidio, two tie lines to Fort Mason, one tie line to Fort McDowell via a submarine cable, and a public line via a submarine cable to Pier 41, San Francisco. Both these cables were owned by the United States, and they terminated in a box on the Alcatraz dock. The army switchboard (manual) was located in the guardhouse on the dock. The Bureau of Prisons proposed to install an automatic switchboard in the administrative unit of the prison.

3. NA, RG 129, Bureau of Prisons, Alcatraz, Research 4-49-0, Sanford Bates, Oct. 23, 1933, to Robert S. Stewart, Prison Equipment Bureau, Cincinnati, Ohio, and Oct. 23, 1933, to John S. Young, Federal Laboratories, Pittsburgh, Pa. The Prison Research Bureau was composed of manufacturers who engaged in the design, manufacture, and erection of prison equipment. The members in 1933 were: Van Dorn Iron Works Co., Cleveland, Ohio; Stewart Iron Works Co., Cincinnati, Ohio; Southern Prison Co., San Antonio, Tex.; J. H. Manley Co., Dalton, Ga.; Freis Sons Co., Covington, Ky.; and Pauly Jail Building Co., St. Louis, Mo. Federal Laboratories was a private firm that later received contracts at Alcatraz.

In contrast to the army regime, prisoners were now to be restricted to only the area containing the prison, the utility building at the northwest end of the island, and the laundry shops building adjacent to the power plant. The entire eastern side of the island from the powerhouse to and including the southeastern end of the island would be off-limits to convicts. It was necessary, said Bunge, to seal off the old communication tunnel (from fortification days) that ran across the island, its western end being in the prison work area: "The tunnel that runs from the power house across to buildings no 84 [dry cleaning plant] must be made escape proof as it forms a direct connection from within the walled area to the outside part of the island. This can be done by installing a tool-proof grated door in either or both ends of the tunnel." Grated doors were installed at both ends of the tunnel. Later the west end was sealed off with concrete also. Bunge's report also made the following recommendations:

> Guard barracks (building 64)--Bunge thought it should be used as quarters for guard personnel; however, its entire interior should be gutted as it was wooden and a dangerous firetrap.
>
> Disciplinary barracks (building 68)--Shower room in basement, put tool-proof window guards on all windows and a new steel plate door with observation panel in it between shower room and hall. Rest of basement; put tool-proof window guards on all windows. Replace all doorways with new plate or grating doors and frames. In the northwest corner is a tunnel carrying the steampipes, electric lines, waterlines, etc. At present it is possible to lift an iron cover over this tunnel entrance and get out of the building. Enclose this area with a tool-proof grating having a door.

First floor: Put in a cutoff plate and door leading from the outer to the inner hall; the door to have an observation and speaking panel. Put new double plate and grating doors with speaking panel in the entrance between the inner hall and the cell room proper; the door to have observation and speaking panel. Put new plate door with speaking and observation panel between the inner hall and the squadroom. This will be a temporary means for visitors to communicate with prisoners. Put new window guard in the lavatory in the inner hall. Enclose with a tool-proof grating the stair area for the stairs that go from the inner hall to the second floor. Remove the soft steel grating and wood door that forms the entrance between the commandant's room and the cellblock, and concrete up this opening.

Put tool-proof window guards on all windows of the cell room proper. Put new double plate and grating doors between the cell room and the outside stairway on the northeast corner of the cell room (one of the old granite entrances from the former Citadel). This is the doorway that eventually will be used as an entrance to the industrial area from the cellblock proper. Put new grating door between cell room and mess hall, to be the sliding slam-door type. Put new double plate and grating doors from cell room to the outside stairs on the northwest corner of the building which is another entrance to the industrial area (through the stockade). Put new double grating and plate doors between cell room and the sentry's walk on the wall around the enclosed recreation area (stockade). All plate doors to have observation panels.

The department has decided to use the two main cellblocks in this room (army nos. 2, 3, 4, and 5; bureau of letters B and C). These two blocks are three tiers high, having fifty-eight

cells on a tier, making a total of 174 to each block, for a total of 348 cells. Remove all present steel cell fronts and locking devices and replace with modern cell fronts and locking devices made of tool-proof steel. Remove the four sets of spiral stairs and construct a new stair in the open space where the cellblocks are divided. Enclose the area of these cellblocks between the top of the upper cell tier to the underside of the roof slab with tool-proof steel grating. Since the two smaller outside cell blocks (army nos. 1 and 6, bureau letters A and D) are not to be used, the area occupied by them are to be enclosed with a wire mesh grating having doors. Replace the grated doors to the utility passages on both ends of the cellblock and at each tier level. In the center of the cellblock which is to become the stairwell, the openings from this area to the utility corridor have no enclosures around them (eight of them). These should be enclosed with tool-proof steel grating.

There is a fresh-air intake, five inches by four feet, under each radiator. This opening should be enclosed with tool-proof grating. In each cell at present there is an electric light outlet in the ceiling that is unprotected. A prisoner could blow all the fuses in the cellblock. A wall light box should be placed on the back wall of each cell, so fastened that it cannot be tampered with from the cell side but from the utility passage side. Some type of guard enclosures should be built in the mess hall and guard stations at each tier at each end of the cell room. In the cell room are two open entrances to the basement, in which the storage room and fresh, softened water tanks are (the basement of the old Citadel). Since these are in areas not to be used and which will be enclosed with wire grating, they do not need consideration. On the northwest wall of the cell room is a stair that goes to the

shower room. It is now protected by soft-steel grating. This is satisfactory, because a prisoner could escape only to the shower room.

Mess Hall, Kitchen, and Storeroom: Here, the engineer recommended: Put tool-proof window guards on all windows. Put in cutoff grating with a sliding door and a slam lock on it, cutting off the mess hall from the kitchen. Put new cutoff grating and doors enclosing the identification room (?) and the stair entrance to the hospital on the second floor. Put in a new cutoff grating and a door enclosing the stair hall leading from the mess hall to the basement. Put in new grating door enclosing the stairway from the kitchen to the basement.

Second Floor: Since the department has decided not to use the assembly hall (it later did) or any rooms on this floor, recommend that the present three wooden bridges connecting the second floor to the floor of the second tier of cells be removed and the openings to the assembly hall be closed with concrete. The stairway from the south corner of the cell room to the chaplain's office has been removed. The door to the chaplain's office should be closed with concrete. (The library on this second floor was also retained for a time.)

All hospital windows should be protected with tool-proof window guards. The entrance door from the outside stairs in the north corner of the hospital should be enclosed with a tool-proof plate and grating door having an observation and speaking panel. In the stair hall there should be a cutoff grating with a door so that prisoner-patients may use the toilets. There is a special hinged steel window guard in the room marked "Stores." This is for receiving supplies in the hospital from the basement level outside the building. Recommend

that this window be closed solid with a tool-proof window guard and that supplies for the hospital be brought up the stairs. The dumb waiter now on the outside of the building should be removed. In the stair hall there is a trap door to the roof; it should have a steel grating with frame and with a prison lock.[4]

In response to Bates's interest in tear gas and gun detectors, Federal Industries forwarded a series of recommendations to him for improving security on the island. Because of the number of employees and their families who would be living on Alcatraz, the firm considered it impossible to surround the island with "electro-static or micro-wave" protection. Instead it recommended the use of two police dogs to accompany day and night patrols, especially on the northeast side of the island; that each outside guard be equipped with a Thompson submachine gun (U.S. Navy model); that only gas guns be used about the prison proper and that wall guards be armed with gas riot guns and hand grenades; as well as installation of five federal gas guns in the main entranceway to the prison building, connected to a turret that would be so located as to operate both the entrance doors and the gas ($3,775); installation of an electro-magnetic gun protection in the entranceway; installation of 20 federal tear gas guns in the ceiling girders of the mess hall and kitchen, these to be operated from a turret in the corner of the mess hall ($9,050); and 8 tear gas guns in the ceiling of the assembly hall, with turret ($5,050).[5]

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4. NA, RG 129, Bureau of Prisons, Alcatraz, Robert C. Bunge, Nov. 17, 1933, to Bates.

5. NA, RG 129, Bureau of Prisons, 4-49-1-36, Alcatraz, Ordnance, Federal Laboratories, Inc., Nov. 24, 1933, to Bates.

Thomas F. Butterworth, the bureau's chief inspector, visited Alcatraz in January 1934. His inspection report described the various service systems on the island:

> Boiler Plant: Three 130-horsepower B and W water tube boilers, and one 208-horsepower Erie City bent water tube boiler. All in good condition.
>
> Electric Generators: Two 50-kilowatt, compound steam-engine-driven, 125/250 volt, three-wire, direct current generators; and one 150 kilowatt, diesel-engine-driven, 125/250 volt, three-wire, direct current generator. The first two were in good condition; but he considered the diesel generator to be obsolete and unreliable and it should be replaced with a steam-turbine-driven 150 kilowatt generator.
>
> Water System: The saltwater system consisted of a pumping plant located in the power plant and a 100,000-gallon storage on the roof of the prison. The pumps consisted of three steam-driven reciprocating pumps and one electric-driven, 1,000-gallon centrifugal fire pump. Two of the reciprocating pumps were not in operating condition. Freshwater was pumped to a 100,000-gallon storage tank also on the prison roof. From there it flowed through a water softener plant located in the powerhouse, then back by gravity to cisterns located below the prison. (These were the old brick cisterns that Turner had planned to seal off in 1910.) However, a new 250,000-gallon soft-water storage had just been completed by the army near the northwest end of the island. The amount of water that would be used by 600 prisoners and the laundry would be 110,000 gallons, which would cost $34,000 per year.

Lighting System: Electricity was generated in the power plant at 125/250 volts d.c., and distributed (three-wire system, 125 volts for lighting, 250 volts for power) from the powerhouse switchboard to the buildings. He recommended the installation of an emergency lighting system in structure 66, then being used as a morgue.

Fire Protection: One 1,000 g.p.m., 250-foot head motor-driven centrifugal pump delivered saltwater to the storage tank on the prison roof. While it was possible to pump directly into the fire hydrant mains by closing a valve at the "detention buildings," the piping was too small to be efficient. He recommended an entirely new system of fire mains. He listed the existing fire-fighting apparatus:

1	one-cylinder, hand-drawn, wheel-type extinguisher
3	two-cylinder, hand-drawn, wheel-type extinguisher
4	hand-drawn hose carts
14	one-quart pyrene extinguishers
99	2½-gallon soda extinguishers
1,250	feet of 2½-inch double-packet hose, in poor condition.

Water Softener: Two 96-inch diameter, 48-inch high machines manufactured by the Refinite Company, with a capacity of 60,000 gallons between regenerations at 100-150 g.p.m.

Bake Oven: Located in the basement of the prison, with a capacity of 500 pounds of bread; manufactured by Werner and Pfleiderer, Saginaw, Michigan. He considered it to be in poor condition.

Ice Machine: A 2-ton De Lanergan compressor connected to refrigerator boxes in basement of prison; an ice cream freezer, and an ice tank having a capacity of 1,000 pounds per day. The equipment was in fair condition, but overloaded.[6]

The Stewart Iron Works Company, Cincinnati, won the contract for the new steel work and other alterations. The total contract, $216,927, exceeded the original cost of the prison:

Removing cell fronts and pointing face	$ 4,675
Removing doors and closing openings	1,858
Doors	23,667
Cutoff grating with door	12,122
Grating, top of cells to ceiling	10,040
Wire screens	2,925
Window guards	25,662
Cell fronts	56,510
Locking device and control boxes	62,258
Gun galleries	12,572
Stairs	2,056
Drilling holes for new work	2,582
	$216,927

Several additional contracts were let in 1934. They included an unnamed firm that got a contract for the installation of a firebrick furnace lining in the power plant; the Anchor Post Fence Company of California won the contract for new fencing; and the Enterprise Electric Works got the job of installing an emergency lighting system in the morgue. The new fencing was to be the cyclone type with barbed wire protectors on the top, beginning at the incinerator, passing around back of the shops building, the fog siren station, the carpenter shop, on past the laundry, then crossing the

6. NA, RG 129, Bureau of Prisons, Alcatraz, 4-49-0, T. F. Butterworth, Jan. 19, 1934, to W. T. Hammack, Asst. Dir., Bureau of Prisons.

path to join the back of the powerhouse. Where it passed the shops building, which was built on the high scarp wall of the original fortifications a steel walk was provided to get around the building, so that dogs patrolling the area might pass between the fence and the building. This walk is still in place today.[7]

Three representatives from the Marine Hospital in San Francisco inspected the hospital facilities in the prison. They were not impressed with what they saw, saying that it was really just a first aid station without X-ray equipment. The dental office was located in the second floor of the administrative section of the prison. They proposed that this office be moved to the hospital proper. In January 1934, Dr. George Hess, U.S. Public Health Service, was appointed the prison's chief medical officer, and Dr. Edward W. Twitchell became a consultant in psychiatry.[8]

In January 1934, the assistant director for Fiscal and Business Administration, W. T. Hammack, visited Alcatraz to see the facilities for himself. He was impressed with the post exchange and its two "first-class" bowling alleys. He was of the opinion that the building would make an excellent lunchroom. As for the commandant's quarters, it was obviously the first choice for the warden's dwelling: "Today I inspected the house which has been recently vacated by Col. Weeks. It is the best house on the Island

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7. NA, RG 129, Bureau of Prisons, 4-49-2-26, Alcatraz, Repairs and Alterations, Stewart Iron Works Co., contract, 1934; 4-49-1-5, Alcatraz, Boilers and Engines, 4-49-1-6, Alcatraz, Hammack, Apr. 11, 1934, to Warden, Alcatraz.

8. NA, RG 129, Bureau of Prisons, 4-49-1-9, Alcatraz, Medical, Bates, Jan. 29, 1934, to Dr. W. L. Treadway, Asst. Surg. Gen., U.S. Public Health Service, 4-49-0, Alcatraz, Col. C. J. Manly, Surgeon, USA, Jan. 22, 1934, memo to G-2. Manly listed X-ray equipment as being at Alcatraz.

and should be used by the Warden. It is enormous; plenty large enough for two sets of quarters. There are five big rooms and a porch around two sides of the house on the first floor. There are five bed rooms on the second floor and two on the third. There are four bath rooms."

The first Bureau of Prisons personnel took up residency on Alcatraz in early February. The key figure among them at this time was L. O. Mills, who had the position of chief clerk. Mills was a personal friend of Hammack's and the correspondence between the two over the next several months ranged from official business to gossipy trivia. Mills informed Hammack that the army had arranged for storage space in the casemates of the barracks, which the army had nicknamed "Chinatown" because of the similarity of the rear corridor to the streets in San Francisco's Chinatown. The Bureau of Prisons installed an elevator from the dock to an extrance through the thick scarp wall of one of the old casemates. Mills also reported that the army had volunteered to transfer the island's library of 9,000 volumes to the bureau.[9]

Progress reports on the new construction began appearing in April 1934. During that month all of the old material was removed from the prison, holes were cut in the concrete to receive the new cell fronts and the window guards, and four carloads of steel from the Stewart Iron Works had been received and most of it transported to the prison. By the end of the month, 269 cell fronts (without doors) had been installed; two of the four new stairways were in place; the 12 doors to the utility corridors were

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9. NA, RG 129, Bureau of Prisons, 4-49-3-42, Alcatraz Visits, Hammack, Jan. 11 and 19, 1934, to Bates, and 4-49-0, Alcatraz, Mills, Feb. 2, 1934, to Hammack. Although the term "Chinatown" has not been noticed in army records, Mills used it as if it were a well-established term.

put up; some of the solid steel doors had been set in place; and a part of the grating leading from the tops of the cells to the roof had been installed. Using a compressor to cut concrete the contractor for the emergency lighting system was digging a trench, which ran from the morgue to the commandant's office and the switchboard near the prison entrance, from there to the lighthouse, and then to the commandant's quarters. In the process of this work an electrician had injured himself by dropping a manhole cover on his foot. A small fire on the roof of the prison on April 26 gave the workmen a slight start. But it was quickly brought under control without damage.[10]

Specifications for repairs to the wharf were prepared in May. These called for new fender and cluster piles, iron chock and chafing strips, and creosoted piles. The Duncanson-Harrelson Company completed these repairs in August 1934. By the end of May three guard towers were under construction and the fencing completed around the prison enclosure. On June 1 blueprints were completed for reconditioning seven apartments in the barracks (four on the second floor, three on the third) and two apartments in the school (one on each floor) on top of the original guardhouse.[11]

A lengthy progress report prepared in mid-June summarized the work to that time as follows:

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10. NA, RG 129, Bureau of Prisons, 4-49-2-0, Alcatraz, Construction, Hammack, Apr. 7, 1934, memo to Miss Smyth, Warden James A. Johnston, Apr. 16, 1934, to Hammack, and 4-49-2-26, Alcatraz, Repairs and Alterations, Hammack, Apr. 27, 1934, to Bates, and 4-49-0, Alcatraz, Hammack, May 3, 1934, to Smyth.

11. NA, RG 129, Bureau of Prisons, 4-49-1-6, Alcatraz, Repairs, Specifications, Wharf Repairs, May 18, 1934, and 4-49-2-29, Alcatraz, Alterations, Johnston, June 1, 1934, to Hammack; San Francisco Chronicle, May 24, 1934.

Gun gallery, at administrative end of cell room was 85 percent complete; its two floors had been laid. All the solid plate was in place. The grill work done was up to the point where the curved bars attached it to the ceiling (this would play a role in a future desperate uprising). The door to the gallery from the auditorium was in place, as was the stairway from that point up and down to the guard walk levels. The other gun gallery was 80 percent complete.

The steel work in the entrance corridor and stairway to the auditorium and across that corridor, shutting off the visitors' room on the one side and the switchboard on the other, was 75 percent complete. The steel doors, shutting off the auditorium from the hallway through which the guard entered the gun gallery; to the library and near the auditorium stage; and to the stairway from the auditorium to the roof; as well as the grillwork around that stairway, were complete. The bars covering the screen windows fronting from the attic over the auditorium and library were in place. The steel grating at the entrance from the administrative building to the prison and the double plate and grated door from the corridor to the prison were in place. Nearly all of the window guards were installed.

Several former doorways including two in the commandant's office and two in the basement, had been blocked with concrete. The armory work was 50 percent complete. The first three guard towers (being built by one Fred J. Early) were under construction, the one on the hill overlooking the shop buildings had its roof on and the catwalk to it completed. Work was underway on the walk that the guards would use leaving the armory and going around the outside of the prison to get to the guard towers. The emergency lighting plant in the morgue was ready for testing. The turbine in the power

plant was complete. The Enterprise Electric Works had finished work on the big switchboard. The telephone system contract was progressing well; and the U.S. Coast Guard was installing radio equipment. The Dalton Manufacturing Company completed the new bake oven; and the Dohrman Hotel Supply Company had connected the new steam table in the mess hall.[12]

A series of sawing tests were made on the steel tool-proof bars. A round bar in one of the cells was attacked with three hacksaws. The first minute of sawing seemed easy and no difficulty was experienced going through the soft exterior. However, as soon as the saw hit the hard interior no deeper impression was made, although the sawing continued for 20 minutes. Other bars were selected for testing, with the same results. Later, a guard spent a full hour sawing in each of the same grooves, but all he accomplished was the widening of the grooves. In another experiment, a tool-proof bar was placed in a vice and worked on with a piece of piano wire, grease, and emery dust. The wire cut through the bar, but wore out before the cut was completed. Despite this partial success at cutting, the steel bars were accepted as satisfactory.[13]

After an initial hesitancy, Warden Johnston agreed that built-in tear gas should be installed in the mess hall and in the

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12. NA, RG 129, Bureau of Prisons, 4-49-2-0, Alcatraz, Construction, Johnston, June 17, 1934, to Hammack.

13. NA, RG 129, Bureau of Prisons, 4-49-2-26, Alcatraz, Repairs, Johnston, July 10 and Aug. 1, 1934, to Bates.

corridor between the administrative unit and the cell room. "It is impossible to predict what will happen or when or where but experience has shown that the mess hall is generally the place where agitators focus mass action." However, he did not favor gas in the cell room; it could easily be gassed by throwing in gas grenades from the outside. The army had tested gas grenades in 1933. Ten grenades were thrown into the cell area and the test was so successful that the prisoners could not eat dinner that day.

The gas guns were installed by August 14. The ten guns in the mess hall were arranged in three batteries and operated by remote control. The discharge switches were located on the wall outside the mess hall and were under control of the guard stationed on a catwalk near the mess hall windows. The two guns mounted in the entrance corridor were individual discharges and were controlled by the armorer, who could see the entrance gates through a vision panel set in the wall.[14]

In June of 1934 the Teletouch Corporation of New York was awarded a contract for the installation of an "electro-magnetic gun or metal detecting system" at Alcatraz. Eventually three detectors were installed: on the wharf, at the front entrance leading to the cellblock, and at the rear entrance gate through which prisoners passed going from the shops to the prison. It will be seen in this report that these metal detectors did not work well at all when first installed.[15]

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14. NA, RG 129, Bureau of Prisons, 4-49-1-36, Alcatraz, Ordnance, Johnston, Apr. 21 and Aug. 15, 1934, to Bates.

15. NA, RG 129, Bureau of Prisons, J. E. Overdale, June 29, 1934, to Teletouch Corp., and Johnston, July 9, 1934, to Bates; Teletouch Corp., "The Teletouch Gun Detector," a description.

The cost of all this remodeling was born by the Public Works Administration, then under the direction of Secretary of the Interior Harold Ickes. Two of Ickes' special agents, D. C. Burdick and A. S. Baker, inspected the new steel work and reported quite negatively on the quality of the Stewart Iron Work's performance and on the competency of Construction Engineer McFadden, who had transferred to the prison staff from the army. When he read these allegations, Assistant Director Hammack put a quick stop to them by suggesting that the agents were not too bright, and that he had complete faith in both the Stewart people and McFadden. That ended the matter; Ickes' men did not trouble the prison again.[16]

Stewart Iron Works completed its work by the end of July and on July 30, 1934, instructed the guards on the operation of the locking devices. On the same day the Coast Guard and the San Francisco Police Department tested the radio equipment and instructed the prison staff on sending messages, and the painters finished their work on August 1. Hammack inspected the completed prison on August 11, the day that the first small group of prisoners arrived on the island. He did not like everything he saw; he disapproved of the library having remained in the administrative unit, where no inmates should ever be. The cell cots were supported by chains that could easily be removed and used as weapons. The exit from the cellblock to the exercise yard (formerly, the stockade) adjoined a wide ledge that gave access to the gas gallery on the exterior of the building. There was too much glass in the guard towers; the single guards were poorly housed in the old enlisted men's barracks, where they had no facilities, no privacy, no storage space, no janitor service; and there were not

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16. NA, RG 129, Bureau of Prisons, 4-49-2-26, Hammack, May 28, 1934, to Bates.

enough quarters for married guards. But ready or not, the U.S. penitentiary, Alcatraz Island, was open for business.[17]

B. The Warden and the Guards

In November 1933 the attorney general selected James A. Johnston of San Francisco to be the first warden of Alcatraz. Johnston, by reputation a tough disciplinarian, had already made a name for himself by carrying out reform of the state institutions at Folsom and San Quentin. He accepted the new assignment with enthusiasm and, as time would prove, with the determination to make the Rock a place of rigid discipline and cold impartiality. Johnston took office as warden on January 2, 1934, at first maintaining his office in San Francisco. On April 5 he moved into the commandant's quarters on the island, three months before the official establishment of the penitentiary.[18]

Director Bates prepared a memorandum for the attorney general in December of 1933 listing the principles and general regulations under which the prison would be maintained. This memorandum established the character of Alcatraz, a grim character that Johnston would fully enforce to make the island a place of maximum security with emphasis on discipline:

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17. NA, RG 129, Bureau of Prisons, 4-49-0, Alcatraz, Hammack, Aug. 11, 1934, to Bates, and 4-49-2-26, Alcatraz, Repairs, Johnston, July 30, 1934, to Bates. Many of these deficiencies were later corrected.

18. NA, RG 129, Bureau of Prisons, 4-49-0, Alcatraz, Bates, Nov. 28, 1933, to Johnston, and Johnston, Apr. 6, 1934, to Hammack; San Francisco Chronicle, Dec. 10, 1933; Johnston, p. 13. As a federal penitentiary Alcatraz had four wardens: Johnston 1933-1948, Edwin B. Swope, 1948-1955, Paul J. Madigan, 1955-1961, and Olin G. Blackwell, 1961-1963.

Alcatraz was to be operated on the principle of very limited privileges to inmates.

The privilege of having visitors was to be earned; no visitors were to be allowed during a convict's first three months, and then only one visit per month.

Regular meetings of a parole board were not to be scheduled, and no parole officer was to be appointed.

No welfare work was to be undertaken.

There would be no direct commitments from the courts to Alcatraz. Prisoners were to come only by transfer from other institutions.

Inmates could obtain lawyers only after the written permission of the attorney general.

The usual institutional library would be provided, along with limited educational facilities.

Mail privileges were to be limited. No original letters were to be delivered to prisoners, only a typed copy of letters received.

Newspapers, magazines, radios, and other forms of entertainment were all prohibited.[19]

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19. NA, RG 129, Bureau of Prisons, 4-49-0, Alcatraz, Bates, Dec. 21, 1933, memorandum to Atty. Gen. As the years passed some of these regulations were relaxed. For example, as early as 1934, prisoners were allowed to subscribe to magazines from an approved list.

Johnston carefully picked his staff, all of whom were men experienced in the federal prison system. C. J. Shuttleworth, St. Paul, Minnesota, became the deputy warden. The four lieutenants chosen were E. J. Miller, Leavenworth Annex; Paul J. Madigan, Leavenworth; Edward O. Starling, Atlanta, Georgia; and Richard C. Culver, Petersburg, Virginia. Soon after he took office, Johnston prepared a list of the guard stations he would need on the island. Allowing for extra positions to fill in for annual and sick leave, he determined that 38 guards would be required. It was soon recognized that this number was far too low and an undated memorandum called for 49 guards. By August, just before the first federal prisoners arrived, Alcatraz had 52 guards on the payroll.[20]

Johnston's original list of guard stations gives an excellent description of the organization of the penitentiary. He organized the guards into three shifts, assigning each an identifying color in a manner similar to the watches of some navies: day period, 7:00 a.m. to 5:00 p.m. ten hours, yellow; night period, 5:00 p.m. to 12:00 p.m., seven hours, red; and morning period, 12:00 p.m. to 7:00 a.m. seven hours, green. Some stations were manned all three shifts, each guard on each shift having an individual number, while other stations were manned only one or two shifts:

> Guards 1-3. Guardhouse on Dock; dock was fenced off to allow for a receiving station at which all persons going or coming were identified; this was a 24-hour station.

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20. NA, RG 129, Bureau of Prisons, Johnston, "Guard Stations," Jan. 22, 1934, 4-49-3-14, Alcatraz, Rules and Regulations, Guard Stations, n.d., 4-49-3-46, Alcatraz, Transfer of Prisoners, Hammack, Aug. 9, 1934, to Bates; Johnston, p. 17. The staff of the penitentiary would further increase as time passed.

Guard 4. Transfer Guard; day period only. The guard met all boats and conducted visitors to and from the dock. It was his duty to see that visitors went only to the places authorized.

Guards 5-7. Entrance to Administrative Building; a 24-hour position. The guard controlled the entrance to the cellblock, the visitors' corridor, and the stairway to the auditorium (chapel) and library.

Guards 8-9. East Gun Gallery; was manned during the night and morning shifts, when the men were locked in their cells, when they were released for meals, when they left their cells in the morning, and when they returned in the evening.

Guards 10-11. Cell House Guards; their duties were to count the men in their cells, lock and unlock the doors, maintain discipline in the cells, supervise the movement of prisoners to and from the cell house, handle bathing details and barber arrangements, superintend all work assignments in the cell house, and they were responsible for keeping the place clean and orderly. (Johnston did not specify which two shifts were involved.)

Guards 13-15. Kitchen and Mess Hall Guards; these guards were responsible for policing the mess hall, kitchen, and basement, including the bakery, the ice plant, the print shop, the inside work shops, and the vegetable preparation room.

Guards 16-18. Patrol Guard on West Station; the guard was in a tower. It was his duty to observe prisoners in work areas, stop them from wandering, and prevent any watercraft from coming within the 300-yard dead line. He was armed. When

the prisoners were locked in their cells, this guard left the tower and patrolled a section of the island.

Guards 19-21. Patrol Guard on East Station; the same as for 16-18 above.

Guards 22-24. Patrol Guard on North Station; the same as for 16-18 above.

Guards 25-27. Patrol Guard on South Station; the same as for 16-18 above.

Guards 28-30. Armory Guard; one guard was in constant attendance in the armory. All firearms, ammunition, gas equipment, and supplies were kept in a concrete vault, protected by a steel safe door equipped with a combination lock. This armory was also the office for lieutenants and the place where all central control of the custodial force was maintained. It was also the center of communications. No prisoner was allowed within this portion of the building.

Guards 31-32. West Gun Gallery; the same as for 8-9 above.

Guards 33-37. Relief Guards; it was customary to require prison employees to absorb the Saturday half-holiday as a part of the Sunday off-duty. On this basis, five extra guard positions were needed for relief.

Guard 38. one extra guard was required to insure against sickness.

Guards 39-40. Annual leave; two extra positions were included in order that each guard could have the usual 15 days annual leave.[21]

Later, when the number of prisoners increased greatly, no fewer than 12 guards were present in the cell house four times a

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21. NA, RG 129, Bureau of Prisons, Johnston, "Guard Stations," 4-49-0, Alcatraz. An undated list of guard stations, probably from later in 1934, showed a somewhat different arrangement. The three guard shifts were known as: Morning period, 12:00 p.m. to 7:30 a.m.; Day period, 6:45 a.m. to 4:50 p.m.; and the Evening period, 4:15 p.m. to 12:00 midnight.

Guard Nos.	Station
1-3	Dock Guard
4	Transfer Guard
5	Guard Truck Driver
6	Main Gate
7-8	Main Gate & Patrolman
9-11	Armory
12-15	Cell House
16	Cell House Plumber
17-19	Officers Mess, Kitchen, Mess Hall
20-22	Dock Tower
23	Hill Tower
24	Power House Tower
25-27	Road Tower
28-29	Gun Gallery East
30-31	Gun Gallery West
32-34	East Island Patrol
35	Industries Mech. Guard
36	Policing & Gardening
37-39	Utility & Special Detail
40-46	One day in seven
47-48	Annual Leave
49	Sick leave

Guards 17-19 had different hours than the rest: Guard 17, 4:30 a.m. to 12:30 p.m.; 18, 11:00 a.m. to 7:00 p.m.; 19, 6:45 a.m. to 4:50 p.m. NA, RG 129, Bureau of Prisons, Johnston, "Guard Stations," 4-49-3-14, Alcatraz, Rules and Regulations, Guard Stations, n.d.

day for lockups, unlocks, and counts: at 6:50 a.m., 12 noon, 12:20 p.m., and 4:50 p.m.

Position No.	Block	Tier	Control Box No.	Cells Controlled
1	B	Lower east	10	214-226
			and 7	127-140
2	B	Middle east	11	241-253
			and 8	156-169
3	B	Upper east	12	268-280
			and 9	185-198
4	B	Lower west	22	227-240
			and 19	141-155
5	B	Middle west	23	254-267
			and 20	170-184
6	B	Upper west	24	281-294
			and 21	199-213
7	C	Lower east	13	295-308
			and 16	376-389
8	C	Middle east	14	322-334
			and 17	405-418
9	C	Upper east	15	349-361
			and 18	434-447
10	C	Lower west	25	308-321
			and 28	390-404
11	C	Middle west	26	335-348
			and 29	419-433
12	C	Upper west	27	362-375[22]
			and 30	448-462

22. NA, RG 129, Bureau of Prisons, 4-49-3-14, Alcatraz, Rules & Regulations, Number and Position of Guards for Lockups, Unlocks, and Counts, n.d. The 12 guards came from their regular stations for these duties.

Warden Johnston drew up careful, detailed procedures for taking official counts and unlocking and locking cells in the morning, at noon, and at the end of the day:

1. The deputy warden is in command and gives the signals. He takes a position at the east end of the cell house, between blocks B and C.

2. The lieutenant of the watch takes a position at the west end of the cell house, between blocks B and C; there he receives reports of count from the guards.

3. The guards take their assigned positions, ready to take the count when the signal is given. On signal, the count is started on the south side of block B and the north side of block C.

4. As each guard completes his count he goes to the west end of the cellblock and reports to the lieutenant. The count must be accurate and the report must be made as soon as it is ready.

5. After his report of count, each guard returns quickly to his position. Upon the whistle signal, guards open the cells in the same order of movement as when taking count. Example: Guard in position 1, block B, lower east end, opens the cells controlled by Box 10, then proceeds quickly to opening the cells controlled by Box 7.

6. After the prisoners have stepped out of their cells, the deputy warden and the lieutenant give hand signals for locking

the cells. The second whistle is the signal to start prisoners moving in an orderly manner to the dining hall or yard.[23]

In the beginning, Director Bates wanted only five guards to be armed. The two gun-gallery guards were to be armed with Thompson machine guns, shotguns, pistols, and gas equipment. The guards in the three (later, six) watchtowers were to have Browning machine guns, pistols, shotguns, and gas equipment. Warden Johnston wanted one other weapon; that was the army's old salute gun which was then in storage on the island. The army agreed to turn over the gun, but not until it had been made totally unfit for saluting purposes. A list of the ordnance and equipment required to arm the guards was prepared at Alcatraz.

Arms

10	
30	Pistols, automatic, 45-cal.
12	Rifles, automatic, 30-cal. Browning
12	Rifles, 30-cal. Springfield, M 1903

Ammunition

15,000	cartridges for 45-cal. Colt automatic pistol
6,000	cartridges for 30-cal. Browning automatic rifle
6,000	cartridges for 30-cal. Springfield rifle
1,000	cartridges for 12-gauge shotgun, brass, loaded with 00 buckshot

Accessories (incomplete list)

30	holsters for 45-cal. Colt pistols, right hand
150	magazines for 45-cal. Colt pistols, right hand
30	belts for 45-cal. Colt pistols, right hand
	Cleaning equipment, repair kits, extra parts

Gas

6	Federal gas riot guns, 1½-inch caliber
100	gas projectiles

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23. NA, RG 129, Bureau of Prisons, Johnston, July 24, 1934, to Director.

On the waterside of the model industries building at the northwest end of the island had a sign, 30 by 7 feet, with black letters on a yellow background:

W
A Persons procuring or concealing
R escape of prisoners are
N subject to prosecution and
I imprisonment
N
G

On the bulkhead wall between the lower and upper roads had a sign 18 by 20 feet, with black letters on a yellow background:

WARNING
KEEP OFF

Only government boats permitted within 300 yards of Alcatraz. Persons attempting to enter without authority do so at their peril

Close to the shore at the southeast end of the island, so placed as to be read at long distances by persons in boats approaching from either San Francisco or the East Bay, there was a sign 17 by 16½ feet, with black letters on a yellow background:

WARNING

Persons procuring or concealing escape of prisoners are subject to prosecution and imprisonment

And a sign over the registration office on the dock 8 feet square read:

UNITED STATES
PENITENTIARY

Alcatraz Island - Area 12 acres
1-1/2 miles to Transport Dock

Only government boats permitted. Others must stay off 300 yards. No one allowed ashore without pass

Johnston did not say who painted "ALCATRAZ" on both slopes of the roof on the quartermaster storehouse. It appears in a 1934 photograph, but may have been painted earlier by the army in association with air activities at nearby Crissy Field.[25]

C. The Incorrigibles

When Alcatraz became a penitentiary, the Bureau of Prisons operated five other similar institutions in the United States: at Atlanta, Leavenworth, Leavenworth Annex, Northeastern (Lewisburg, Pennsylvania), and McNeil Island (near Tacoma, Washington). In addition, the bureau administered the Hospital for Defective Delinquents, Springfield, Missouri; three reformatories; a reformatory camp; a correctional camp; four prison camps; and four federal jails. It would be primarily from the penitentiaries that the recidivists would be drawn for Alcatraz. As early as October 1933 Director Bates wrote the wardens of Leavenworth, McNeil Island, and Atlanta, directing them to prepare lists of men who might be classi-

25. NA, RG 129, Bureau of Prisons, 4-49-0, Alcatraz, Johnston, Aug. 24, 1934, to Director.

fied as desperate or difficult and who would be "suitable" for transfer to Alcatraz.[26]

Despite every possible effort by the Bureau of Prisons to give absolutely no information concerning individual prisoners to the press, the San Francisco Chronicle announced in January 1934 that among the first prisoners to come to Alcatraz would be Al (Scarface) Capone, and George (Machine Gun) Kelly and Harvey Bailey, the two infamous Oklahoma kidnappers. Neither then, nor in later instances, did Warden Johnston confirm or deny who was expected as a "permanent guest" on the Rock. In this instance the newspaper was right; all three men would be occupying cells there before the year was out.[27]

The first prisoners were, of course, the 32 bedraggled men the army had left behind. Warden Johnston officially took charge of them on July 1, 1934, although he had already been looking after them since the army left on June 19. Just where the first true federal prisoner came from has yet to be determined. But on August 3 the San Francisco Chronicle headlined: "Prisoner No. 1 Draws Cell on Alcatraz Island, Check Writer, Former Army Guard, First Devil Isle Felon." The article said that Robert Bradford Moxon had been installed the day before as prisoner 1 (he was not; prisoner 1 was a leftover army man), and that he would find

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26. U.S. Dept. of Justice, Bureau of Prisons, Federal Offenders 1934-35, A Review of the Work of the Federal Bureau of Prisons During the Year Ending June 30, 1935 . . . (hereinafter cited as USDJ, BP) (Fort Leavenworth: Federal Prison Industries, Inc. Press, 1936), pp. vii-ix; NA, RG 129, Bureau of Prisons, 4-49-3-46, Alcatraz, Transfer of Prisoners, Bates, Oct. 17, 1933, to Warden F. G. Zerbst, Leavenworth, Warden F. R. Archer, McNeil Island, and Warden A. C. Aderhold, Atlanta.

27. San Francisco Chronicle, Jan. 27, 1934.

Alcatraz to be just like home since he had once been stationed there as a guard during military prison days. Indeed, the first prisoner on the list after the army holdovers was Moxon, five years for violation of postal laws.[28]

The first group of prisoners to come from another federal penitentiary arrived from McNeil Island, Washington, on August 11, 1934. This small body of 14 men allowed Johnston to practice the method of handling incoming prisoners that he had worked out in advance. The first rule of this procedure was secrecy, to keep the press in the dark.

The train carrying the prisoners arrived at Oakland at 9:40 a.m. The special car was detached from the train and run on a side track to a freight wharf some distance from the regular ferry ship. The launch General McDowell came alongside the wharf. The prisoners were handcuffed in pairs and the pairs were linked together with a chain. They stepped from the car and walked the 10 feet to the gangplank. On board they were herded into the cabin at the stern of the boat.

At Alcatraz the handcuffed men walked onto the dock between two rows of guards, then marched in pairs, flanked by guards, to the rear gate, through the yard, and into the cell house. Guards searched them, then removed the handcuffs and chains. The men were given their prison numbers and assigned their cells. A guard then escorted each prisoner to the basement bathhouse. There the prisoner stripped and, after the doctor had

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28. San Francisco Chronicle, Aug. 3, 1934; NA, RG 129, Bureau of Prisons, 4-49-3-13, Alcatraz, Population, List of prisoners as of June 30, 1935.

examined orifices for smuggled "dope," he showered. Finally, each man was locked in his cell and a "name and number ticket" was placed in a holder on the cell door. Johnston wired the director: "Fourteen crates furniture from McNeil received in good condition. Now installed." Everything had gone smoothly.[29]

Within four days the Chronicle discovered that the 14 prisoners had arrived. Somehow it had learned correctly the names of two of the men, but erroneously listed a third name that was not a member of the group. The warden at McNeil Island later sent Johnston a brief biography of each man showing why he had been selected for transfer to Alcatraz. While this report will not consider the federal prisoners incarcerated on Alcatraz individually, the warden's comments are summarized here to show the kind of men for whom the Rock was reserved:

> Elmer Cole: Sentenced to 10 years for counterfeiting and escape; escaped from McNeil Island once. Recently, while in the hospital, he sawed the bars but was discovered. He is an agitator and is very desperate.
>
> Verrill Rapp: Sentenced to 4 years; wanted for assault on a police officer and breaking jail. He had a clean record at McNeil, but would be a leader in any escape.
>
> Frank Souza: Sentenced to 10 years for counterfeiting, very surly and an agitator. He is desperate and will do anything to gain freedom.

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29. NA, RG 129, Bureau of Prisons, 4-49-3-46, Alcatraz, Transfer of Prisoners, Johnston, Aug. 11, 1934, to Director.

Perry Reynolds: Sentenced to 10 years for larceny; wanted for robbery at Fort Lewis. His record is good, but will take desperate chances.

Hal Fernandez: Sentenced to 3 years for larceny; wanted by Washington State Prison as a parole violator. He was sentenced from Alaska, and escaped from marshal by leaping overboard en route from Alaska. He is a leader who will take desperate chances.

Joseph Burke: Sentenced to 25 years for violation of postal laws; he is an agitator and is desperate.

Harry Dean: Sentenced to 25 years for violation of postal laws and assault. He is an agitator and is very desperate.

William E. Boyd: Sentenced to 5 years for impersonating a federal officer; he is a bad agitator and is always in trouble. Recently shotgun shells and a piece of pipe designed for a shotgun were found on him. He planned a mass escape by shooting a guard in a tower and taking a power boat.

James Walsh: Sentenced to life for murder. He is a bad agitator and is always in trouble. He was in the plot with Boyd and will kill to escape.

Mark Smith: Sentenced to 3 years for post office robbery and larceny. He is wanted and is a desperate man; he crashed through the prison gate with a truck.

John Stadig: Sentenced to 6 years for counterfeiting and was with Smith in escape attempt.

George W. Kerr: Sentenced to 27 years for postal robbery. He is desperate and was involved in a plot for mass escape.

Edward Wutke: Sentenced to 27 years for murder and was involved in a plot for mass escape.

Edgar R. Lewis: Sentenced to 11 years for post office robbery and counterfeiting. He is as slippery as an eel and escaped from the U.S. Marshal three times on his way to prison. He was in a plot for mass escape and is very dangerous.[30]

Shortly after the arrival of the McNeil prisoners, Attorney General Homer S. Cummings inspected the prison in the company of Mayor Rossi and Chief of Police Quinn of San Francisco. On this one occasion photographers and reporters were allowed to accompany the visitors. The Chronicle described the cells as being 8 by 4 feet, equipped with a steel cot that folded against the wall, two seat-like steel shelves, a narrow steel shelf with three hooks for clothes, a toilet, and a small basin. The only articles the prisoners were allowed to have in the cells at that time were two towels, toothbrush, tooth powder, and a cup. The reporter copied the day's menu in the mess hall--Breakfast: oatmeal, milk, fried bologna sausage, cottage-fried potatoes, toast, oleomargarine, and coffee. Dinner: bean soup, roast beef, gravy, stringless beans,

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30. NA, RG 129, Bureau of Prisons, E. B. Swope, Warden, McNeil Island, Sept. 12, 1934, to Johnston; San Francisco Chronicle, Aug. 16, 1934. The Chronicle said that George "Red" Kerr was a Chicago gangster who had staged a $235,000 Sacramento post office robbery in 1932. It also named John M. Stadig correctly, but missed on one Frank Thurman.

mashed potatoes, oleomargarine, and coffee. Supper: pork and beans, corn bread, potato salad, apricots, bread, oleomargarine, and coffee. In the medical department he found two barred 1-bed wards, two 3-bed wards for the seriously ill, and a 12-bed ward. The group also inspected the assembly hall with its stage and piano and the library of well-thumbed books. Cummings was satisfied with the prison and said that it was ideal for its "somber purpose."[31]

The next shipment of "fifty-three crates of furniture" arrived from Atlanta, Georgia, on August 22. Forty-three of these prisoners came from the Atlanta penitentiary and the other ten were from Northeastern Penitentiary, Lewisburg, Pennsylvania. The sentences of this group ranged from one year to life, and their ages ran from 22 to 58 years old. The offenses covered a wide spectrum, including murder, post office robbery, rape, sodomy, arson, counterfeiting, kidnapping, forgery, and all the other crimes of the gangs of the day. By far the most infamous prisoner was Alcatraz no. 85, 35-year-old Alphonse "Scarface" Capone, from Chicago, Illinois, who was serving ten years for violation of the income tax law.

Johnston was extraordinarily concerned about security on the arrival of this group of incorrigibles. The train arrived at Tiburon rather than Oakland. The General McDowell and a barge were waiting at the dock. The prison cars were detached from the train and backed onto the barge. General McDowell escorted the barge to Alcatraz Island during the half-hour trip. As the tug towed the barge alongside the wharf, the U.S. Coast Guard patrol

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31. San Francisco Chronicle, Aug. 19, 1934.

boat Daphne stood by, assisting (unsuccessfully) in screening the prison cars from newspaper cameramen who had learned of the event. Johnston complained that when the cameramen's boats were chased out to beyond the 300-yard zone, they took pictures with telescopic lenses.

Guards removed the prisoners' leg irons and they marched off the cars in pairs, handcuffed to each other. Procedures inside the prison were similar to the earlier arrival, Johnston mentioning that each man was photographed and fingerprinted. The penitentiary now had a population of exactly one hundred.[32]

On September 1, 1934, a small group of prisoners arrived from Washington, D.C. These included one man from the Washington Asylum and Jail and seven from the District of Columbia Reformatory at Lorton, Virginia. Three days later, 103 prisoners arrived by train; 90 from Leavenworth and 13 from Leavenworth Annex. Once again the prison cars were barged to the island, this time from Ferry Point Terminal at Richmond. Among the better known of the new arrivals were George "Machine Gun" Kelly, Albert L. Bates, and Harvey L. Bailey, the three Oklahoma kidnappers

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32. NA, RG 129, Bureau of Prisons, 4-49-3, Alcatraz, Transfer of Prisoners, Johnston, Aug. 22, 1934, and Warden J. A. Scheer, Atlanta, Aug. 19, 1934, to Director. Some students of this event have concluded that Johnston had the prison cars barged to Alcatraz simply for show. However, the records indicate a strong concern among all the bureau officials over the movement of so large a number of men over such a long distance. Security measures were planned step by step from the moment the men left their cells at Atlanta until they were locked up again at Alcatraz. With the arrival of this group, Alcatraz had received a total of 101 prisoners. (But the number present was only 100; the disappearance of that one man was not accounted for.)

who were all sentenced to life imprisonment. The total number of prisoners now on the Rock amounted to 211. There were to be no more mass shipments to Alcatraz; the other federal penitentiaries had removed their worst characters to San Francisco. From that time on, these institutions transferred new troublemakers to Alcatraz on an individual basis.

Warden Hudspeth at Leavenworth wrote Johnston to inform him of the worst of the 103 arrivals. Ignoring Kelly, Hudspeth said that Bailey and Bates were considered very dangerous and were held in close confinement at Leavenworth. Hugh A. Bowen, a lifer for murder, had caused Hudspeth no trouble, but he had committed "a very atrocious crime." Frank Chapman and Frank B. Brownie, both of whom had violated the Narcotic Act, had successfully escaped from Leavenworth in 1930. Chapman especially had a record of poor conduct, and James Poulas from Michigan had attempted escape. Considering the fact that Alcatraz was considered the "end of the line," it might be surprising that seven of the new arrivals had requested the transfer. There were several reasons why a prisoner might want to be imprisoned on the Rock, including being nearer to relatives, or to get away from an enemy fellow prisoner who had been threatening him.[33]

The new arrivals quickly adjusted to the simple but rigorously enforced routine on the island. Each prisoner received a

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33. NA, RG 129, Bureau of Prisons, 4-49-0, Alcatraz, Johnston, Sept. 3, 1934, to Hammack, 4-49-3-46, Alcatraz, Transfer of Prisoners, U.S. Penitentiary Annex, Fort Leavenworth, list of prisoners for Alcatraz, and Act. Director, Bureau of Prisons, Aug. 23, 1934, to Johnston, and Johnston, Sept. 4, 1934, to Director, Warden R. H. Hudspeth, Leavenworth, Dec. 10, 1934, to Johnston; San Francisco Chronicle, Aug. 19 and 26 and Sept. 2, 4, and 5, 1934.

copy of Rules and Regulations for the Government and Discipline of the United States Penal and Correctional Institutions. In addition, he soon learned the many special rules enforced by the warden. Johnston sent Hammack a copy of the "Daily Routine of Work and Counts" that he had drawn up for the penitentiary. Despite its length, every prisoner and every guard knew by heart every nuance of the procedures:

> 6:30 a.m.: Morning gong. Prisoners arise, make beds, place all articles in prescribed order on shelf, clean wash basin and toilet bowl, wipe off bars, sweep cell floor, fold table and seat against the wall, wash themselves, and dress.
>
> 6:45 a.m.: Detail guards assigned for mess hall duty; they take their positions so as to watch the prisoners coming out of cells and prepare to march into the mess hall with them. The guards supervise the serving and the seating of their details, give the signal to start eating, and the signal to rise after eating.
>
> 6:50 a.m.: Second morning gong; the prisoners stand by the door facing out and remain there until the whistle signal, during which time the lieutenants and cell house guards of both shifts make the count. When the count is found to be correct, the lieutenant orders the cells unlocked.
>
> 6:55 a.m.: Whistle signal given by deputy warden or lieutenant; all inmates step out of their cells and stand erect facing mess hall. Upon the second whistle, all inmates on each tier close up in single file upon the head man.
>
> 7:00 a.m.: Third whistle signal; lower right tier of block 3 (C?) and lower left tier of block 2 (B?) move forward into

mess hall, each line is followed in turn by the second and the third tiers, then by the lower tier on the opposite side of their block, followed by the second and the third tiers from the same side. The block 3 line moves into the mess hall, keeping to the left of the center of the mess; block 2 goes forward at the same time, keeping to the right. Both lines proceed to serving the table; the right line served from the right and occupies the tables on the right; the left line to left, etc. As each man is served, he will sit erect with his hands at his sides until the whistle signal is given for the first detail to begin eating. (Director Bates did not agree with this last, saying that it simply could not be enforced.)

Twenty minutes are allowed for eating. When they are finished eating, the prisoners place their knives, forks, and spoons on their trays; the knife at the left, the fork in center, and the spoon on the right side of the tray. They then sit erect with their hands down at their sides. After all of the men have finished eating, a guard walks to each table to see that all utensils are in their proper place. He then returns to his position.

7:20 a.m.: Upon signal from deputy warden, the first detail in each line arises and proceeds through the rear entrance door of the cell house to the recreation yard. Inside detail, or those not assigned any detail, proceed to their work or cells.

7:25 a.m.: Guards and their details move out in the following order through the rear gates: 1. Laundry. 2. Tailor shop. 3. Cobblers. 4. Model shop. 5. All other shops. 6. Policing, gardening, and labor details. The guards go ahead through the rear gates and stand opposite the rear gate

guard. There they count prisoners passing through the gate in single file and clear the count with the rear-gate guard. The detail stops at the foot of the steps on the lower level road and forms into two ranks. The guard faces them to the right and proceeds to the shops, keeping himself in the rear of his detail. Upon arrival in the front of the shops, the detail halts and faces the shop entrance.

7:30 a.m.: Shop foreman counts his detail as the line enters the shop and immediately phones his count to the lieutenant of the watch. He also signs the count slip and turns it over to the lieutenant making his first round.

7:30 a.m.: Rear-gate guard makes up detailed count slip, phones it to the lieutenant of the watch, signs it, and proceeds with it to the lieutenant's office.

9:30 a.m.: Rest period during which the men are allowed to smoke in places permitted, but are not allowed to congregate.

9:38 a.m.: Foreman or the guard gives whistle signal; all of the men on each floor of shops assemble at a given point and are counted, and return immediately to work. This assembly and count is quickly done, the count is written on a slip of paper, signed by the foreman or guard, and then turned over to the lieutenant making his next round.

11:30 a.m.: Prisoners stop work and assemble in front of the shops. The count is taken by the foreman or the guard. The foreman phones in the count and signs the count slip, turning it over to the guard, who proceeds with the detail to the rear gate and checks his detail in with the rear-gate guard.

11:35 a.m.: In the recreation yard, the mess hall line is immediately formed in the same order as in the morning. The details proceed in the same lines to the mess hall.

11:40 a.m.: Dinner routine is the same as for breakfast, except at the completion of dinner, when the details immediately proceed to the cells.

12:00 noon: Noon lockup cell count; the detail guards remain in front of cells until the prisoners are locked up and the count made.

12:20 p.m.: Unlock and proceed the same as before going to breakfast, except that the prisoners march in single file into the yard 3 cellblock first. Shop details again form in front of their guards.

12:25 p.m.: Details are checked out of the rear gate the same as in the morning.

12:30 p.m.: Details enter the shops and are counted by the foreman and the guard. Procedures are the same as at 7:30 a.m.

2:30 p.m.: Rest period; the procedure and count are the same as in the morning.

4:15 p.m.: Work stopped; the procedure and count are the same as at 11:30 a.m.

4:20 p.m.: Prisoners enter the rear gate, with count.

4:25 p.m.: Prisoners march into the mess hall, with count.

4:45 p.m.: Prisoners return to their cells.

4:50 p.m.: Final lockup.

5:00 p.m.: Standing count in the cells by both shifts of the lieutenants and the cell house men.

8:00 p.m.: Count in the cells.

9:30 p.m.: Lights out count.

12:01 a.m.: Count by the lieutenants and the cell house men of both shifts.

3:00 a.m.: Count in the cells.

5:00 a.m.: Count in the cells.

A total of 13 official counts are made each 24 hours. In addition, shop foremen make 6 verification counts.[34]

Sunday and holiday routines required their own schedules, with time reserved for haircuts, showers, clothing changes, and recreation. As for shaving, the prisoners were allowed to remove their whiskers three times a week:

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34. NA, RG 129, Bureau of Prisons, 4-49-3-14, Alcatraz, Rules and Regulations, Johnston, July 9, 1934, to Hammack, and Bates, July 23, 1934, to Johnston.

Routine for Sundays

Time	Recreation	Haircuts, Showers, & Clothes
7:25-9:20 a.m.	Reserved	Reserved
9:30-10:20 a.m.	Ground tier, blocks B & C	Middle tier, blocks B & C
12:25-2:20 p.m.	Middle tier, blocks B & C	Upper tier, blocks B & C
2:25-4:20 p.m.	Upper tier, blocks B & C	Ground tier, blocks B & C

Bathing and changing clothes will be done by one side of one tier of one block at a time. Haircuts for block C, in morning; for block B, in afternoon. Only prisoners in the first grade allowed recreation.

Routine for Holidays

Time	Recreation	Inside Recreation
7:25-9:20 a.m.	Reserved	Reserved
9:30-10:20 a.m.	Ground tier, blocks B & C	Middle tier, blocks B & C
12:25-2:20 p.m.	Middle tier, blocks B & C	Upper tier, blocks B & C
2:25-4:20 p.m.	Upper tier, blocks B & C	Ground tier, blocks B & C

Only prisoners in the first grade allowed recreation.

Routine for Shaving

Time for shaving: 5:30-8:30 p.m.
Prisoners in block B -- Monday, Wednesday, and Friday
Prisoners in block C -- Tuesday, Thursday, and Saturday

Each prisoner had his own shaving mug, brush, and soap. The guard passed out razors and blades to 50 prisoners at a time. Fifteen minutes were allowed for shaving. The guard then collected the razors, changed blades, disinfected the razors, and issued them to the next 50 prisoners.[35]

Another regulation important to most inmates was that governing mail privileges. Prisoners could correspond only with immediate relatives, one's mother, father, sister, brother, wife, and children. Those in the first grade could write one letter a week, and those in the second grade, two per month. Special letters, such as to lawyers, were permitted, but approval of the deputy warden had to be secured. These letters counted in the allowance that could be sent. The cell house officer issued three sheets of lined paper for each letter. The prisoner was allowed to write on one side only and he had to sign with his full name and number. If he referred to someone by name in the letter, the full name had to be used, and no nicknames were allowed. Of course, the letters were handed in unfolded and without envelopes.[36]

The one bright spot in the drab routine of the prison was the library. If Johnston rightfully earned the reputation as a harsh administrator during the early years of his regime, he also deserved credit for stocking the library with hundreds of books and periodicals. Even before the first prisoners arrived, invitations to bids were put out for almost a thousand books, ranging

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35. NA, RG 129, Bureau of Prisons, 4-49-3-14, Alcatraz, Rules and Regulations, Routines, ca. 1934.

36. NA, RG 129, Bureau of Prisons, Alcatraz, Rules and Regulations, ca. 1934.

from Achmed Aldullah, Black Tents (Liveright) to I. A. R. Wylie, Feather In Her Hat (Doubleday). Established writers were not overlooked. Jack London, Lewis Sinclair, Washington Irving, Zane Gray, Hamilton Garland, Alexandre Dumas, Daniel Defoe, Joseph Conrad, Cervantes, all were represented in the purchase lists. A department librarian, Miriam I. Marshall, sent Johnston a suggested list of 23 magazines for the library. This list included everything from Adventure to Time, from Better Homes and Gardens to Literary Digest. Perhaps typical of the annual requests for library books was the one for fiscal year 1937 wherein Johnston asked for $60 for magazine subscriptions, $300 for book purchases, and $75 for a library typewriter.[37]

Undoubtedly more important than the library was the quality of the food served in the mess hall. Alcatraz received a well-earned reputation for the high quality and the variety of its foodstuffs. While prisoners resented the early-day discipline imposed at meals, there was rarely a complaint about the menu. The food requisition for July-September 1934 illustrated the wide range of foodstuffs. Meat alone included: beef, bologna, frankfurters, bacon, liver, lamb, veal, pork sausage, luncheon meat, pork, pork loins, ham, dried beef, beef hearts, liver sausage, salt pork, and corned beef.

Johnston said that the prisoners had full freedom of choice at the serving table; they could take as much or as little as they chose. However, no waste was permitted and no food could be left on the trays. Prisoners who wasted food were reported and

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37. NA, RG 129, Bureau of Prisons, 4-49-1-25, Alcatraz, Library, Invitations to Bid, May 4 and 12, 1934, Miriam I. Marshall, May 15, 1934, to Johnston, and Johnston, Apr. 30, 1936, to Director.

admonished--often by being deprived of their next meal. The prisoners' biggest complaint about the mess hall was not the food, but the warden's attempt to enforce complete silence during meals. Eventually, reports of the mess hall silence slipped out of the prison, and Johnston found himself explaining that they were exaggerated. He said that the men could speak if it were necessary regarding the food or having food passed. He admitted, though, that the prisoners were not allowed to speak from table to table nor to indulge in any loud talking.[38]

Although not many of the inmates felt a desire to attend chapel services, this part of their life on the Rock was not ignored. When a prison evangelist, Dr. Charles Curtis McIntyre, proposed holding services on the island, Johnston, who did not want him there, described the existing services which he considered quite adequate. Protestant services were conducted on the first and third Sundays of the month, by the pastor of the Calvary Presbyterian Church of San Francisco; Catholic masses were said on the second and fourth Sundays by a priest from St. Anne's Church, San Francisco. In 1935, seven Jewish inmates observed Passover week. They had a separate table in the mess hall complete with unleavened bread supplied by a local rabbi. The rabbi conducted services for them on the Sabbath. In the fall of 1936, the average attendance at Catholic services was 47 people, while the

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38. NA, RG 129, Bureau of Prisons, 4-49-1-1, Alcatraz, Supplies, Chief Clark L. O. Mills, Apr. 30, 1934, to Hammack, food requirements, 1st quarter, FY 1935, and 4-49-09, Alcatraz, Publicity, Johnston, Aug. 21, 1935, to Director.

Protestants numbered only 12. By 1936 a Protestant chaplain had also been added to the penitentiary staff.[39]

Prisoners who violated the rules were swiftly punished. Punishment could range from being shut up in solitary (apparently in cellblocks A and D, the as yet unimproved cells on the north and south sides of the prison), or placed in the old Citadel basement, which was still called the dungeon. Johnston wrote that he did not like the dungeons, but he used them on occasion in the first few years of his administration. He described them by saying that the army had set up a mechanics' shop in the cross corridor of the basement and had located the cells in the corners nearest the underground cisterns (on the east side), the brick walls of which were damp. He said these cells were badly located, poorly constructed, and unsafe because they were easy to dig out of. In the few instances they were used, the prisoners were chained to keep them from breaking out and running amuck. When a new disciplinary unit was constructed in 1940 in cellblock D, Johnston had these basement cells torn out and the space converted to storage. He was glad to see them go: "I did not like these cells, in fact I was ashamed of them and used [them] only under necessity."[40]

More than one of the new arrivals had seen Alcatraz before. In a check of the records in February 1935, the warden

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39. NA, RG 129, Bureau of Prisons, 4-49-3-10, Alcatraz, Religious Services, Johnston, Nov. 26, 1934, and Apr. 29, 1935, to Director, and Chaplain W. L. Hunter, Nov. 1, 1936, to Johnston.

40. Johnston, Alcatraz, pp. 252-53. The San Francisco Chronicle, May 23, 1937, quoted Johnston as saying there were eight cells in the basement. James V. Bennett, I Chose Prison (New York: Alfred A. Knopf, 1970), p. 104, implies that he ordered Johnston to stop using the basement cells.

discovered that six of the new prisoners had served former terms on the island under the army. The number of prisoners continued to increase throughout the rest of 1934 and into 1935, arriving individually or in small groups from Leavenworth, Atlanta, or other institutions. By the end of the first year of operation, June 30, 1935, the U.S. Penitentiary had a population of 242 prisoners.[41]

Alcatraz had also begun to lose a few men. Their departure created a new problem for the Bureau of Prisons, which still attempted to maintain complete secrecy concerning life on the island. In the spring of 1935 Verrill Rapp was paroled from Alcatraz so that he could stand trial on another charge. En route to his new destination he managed to talk to newspaper reporters. He told them about the "inhuman treatment" the prisoners endured, adding that three men had already gone insane and a fourth man was on the verge of doing so. The San Francisco Chronicle and other papers published the story and one headline reading "Paroled Felon Raps Alcatraz." Warden Johnston replied to the charge by calling it ridiculous; but he and the Bureau of Prisons continued to refuse publicity to either the prison or its inmates.

Director Bates himself began thinking about parolees. While Alcatraz was reserved for the more difficult prisoners, he said, it was not necessarily intended that these men should stay there forever. However, he did not think that a man should be paroled directly from Alcatraz. Just as the prisoners were not committed directly to Alcatraz from a court, but were transferred there from other penitentiaries, so should they be transferred from

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41. NA, RG 129, Bureau of Prisons, 4-49-3-46, Alcatraz, Transfer of Prisoners, Johnston, Mar. 27, 1935, to Director, and 4-49-3-13, Alcatraz, Population, inmate population as of June 30, 1935.

the island and paroled from another institution. He ordered the Board of Parole to visit Alcatraz periodically to hold hearings. If they judged inmates as deserving parole they were to inform the director so that he could arrange the transfers. Also, Warden Johnston was to forward a list twice a year containing the names of the prisoners whose conduct had improved sufficiently for them to be transferred to another penitentiary. For the first time a ray of hope appeared for those men who found Alcatraz to be the hellhole it was intended to be.[42]

Alcatraz completed its first year as a federal penitentiary for recidivists on June 30, 1935. The Bureau of Prisons considered the experiment a success: "The establishment of this institution not only provided a secure place for the detention of the more difficult type of criminal but has had a good effect upon discipline in our other penitentiaries also. No serious disturbance of any kind has been reported during the year.[43]

D. Development and Administration, 1934-1963

In his first annual report, Warden Johnston stated that 88 employees were required to operate the prison:

2 administrative officers (warden and deputy warden)
1 religious, welfare, & educational director (chaplain)
5 lieutenants
49 guards

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42. NA, RG 129, Bureau of Prisons, 4-49-3-46, Alcatraz, Transfer of Prisoners, Bates, June 5, 1935, "Statement Re Parole Procedure at the Alcatraz Penitentiary"; San Francisco Chronicle, Apr. 12, 1935.

43. USDJ, BP, Federal Offenders, 1934-35, pp. 3-4.

23 in clerical and maintenance division
8 general mechanics

A superintendant of construction supervised the mechanical services. A fire department had been organized. In addition to the launch General McDowell, an army steamer, General Frank M. Coxe continued to make regular stops at Alcatraz on its runs between Fort Mason and Angel Island. The prisoners operated the laundry which continued to serve the military transports and local army posts. A rubber mat factory (from old tires) had been established for the navy. Also in operation were a dry-cleaning plant, a small tailor shop, a shoe shop, and a wood shop.

The locking devices on the cells failed to function properly, even after the first prisoners arrived. For a time, the inmates had to be moved from one row to another as breakdowns occurred. Johnston withheld final payment from the Stewart Iron Works until the controls were repaired. The mortified company rushed its technicians to the island, declaring that it wanted the locks to work properly, payment or not. Another technical failure was not so easily resolved. In October 1934 the warden reported that the three gun detectors were constantly overheating and had to be turned off to cool. Three months later, despite new coils having been installed, they were of no use at all. The Teletouch Corporation repeatedly tried to correct the problems, without success. When it was decided to install a fourth detector in December 1935, the Bureau of Prisons turned to Federal Laboratories for the equipment. Finally, in 1937, Assistant Director Hammack notified Teletouch that its contract was cancelled, the payments already made must be returned, and Teletouch would have to pay the difference for three new detectors that Federal Laboratories would

supply (over $2,000). The new detectors were eventually installed, but the prisoners never believed they were perfect either.[44]

Warden Johnston believed that the weakest spot in the prison's security was the old sunken (lower) road that ran in front of the power plant and the laundry building. This covered way, constructed by Mendell in the 1870s, originally had two brick, arched passageways, in each of which had once been powder magazines and shell rooms. The more northwesterly of these passageways had been reduced to a simple thin arch in army days--probably when the shops and laundry building were erected in 1910. The arch marked the boundary between the prison work area and the rest of Alcatraz, and the army had erected a gate of some kind closing the arch. Johnston had the gate removed and the arch filled in completely with concrete. This concrete wall remains in place today. Two years later, in 1936, the warden had the west end of Alcatraz's only real tunnel sealed with concrete also.

> There is a tunnel from the Power House to a point between the Dry Cleaning Plant and the Model Shop Building, running through the hill. When we took over the Island we blocked the entrance from the west side with [a] steel door.
>
> We have now blocked it completely with cement, using the steel door for reinforcement. We have put twelve 4" x 6"

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44. USDJ, BP, Federal Offenders 1934-35, pp. 61-64; NA, RG 129, Bureau of Prisons, 4-49-2-26, Alcatraz, Repairs, Johnston, Aug. 25, 1934, to Stewart Iron Works, and 4-49-1-36, Alcatraz, Ordnance, C. E. Stewart, Dept. of Justice, Dec. 28, 1935, to GAO, and Johnston, Oct. 11 and 18, 1934, to Director, and Hammack, May 19, 1937, to Teletouch Corp.

> air vents in the door to allow free circulation of air in the tunnel. In case of necessity the tunnel may be entered from the Power House which is outside the work area.[45]

The prison staff was housed in the old army officers' and noncommissioned officers' quarters scattered about the island. Single guards were at first housed in the squad rooms in the barracks. In the fall of 1934 the warden reported that 41 "houses" were occupied by the employees. By June 1936 the barracks building had been remodeled into 11 new apartments and 9 single rooms for bachelors. Also the old quartermaster building near the wharf, building 28, had been converted into 12 single rooms. Despite these additions, quarters were none too plentiful. A census of the island in 1936 showed no fewer than 52 families living on Alcatraz Island that had a population of 126 women and children.[46]

An inspection engineer from the Treasury Department counted 158 adults and 64 children living in 51 sets of family quarters and 36 bachelor apartments in September 1937. He said that no plans existed for supplying additional quarters on the island. However, he recommended that replacements should be started for some of the older frame buildings, such as the former

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45. NA, RG 129, Bureau of Prisons, 4-49-0, Alcatraz, Johnston, Sept. 28, 1934, to Director, and 4-49-1-6, Alcatraz, Repairs, Johnston, June 27, 1936, to Director.

46. NA, RG 129, Bureau of Prisons, 4-49-2-29, Alcatraz, Alterations to Quarters, Johnston, Oct. 18, 1934, to Director, and 4-49-1-9, Alcatraz, Medical, Dr. George Hess, Mar. 18, 1936, to Surg. General, U.S. Public Health Service; USDJ, BP, Federal Offenders, 1935-36, p. 56.

noncommissioned officers' quarters in buildings 12, 13, 14, 15, and 43. However, new residences (including bachelor quarters and two substantial apartment houses) were not erected until 1940 at the southeast end of the island.[47]

The daughter of an associate warden recalled living on the Rock from 1953 to 1962. Although their house was not close to the prison, she could hear the prisoners yelling and banging on their bars on many nights. Still, life was rather good.

> Alcatraz was small . . . and what wasn't rock was cement. There was hardly any grass, and few trees. Families lived in one of four apartment buildings, in cottages, duplexes, houses. Because the island was small, dogs and cats were prohibited. And of course, no kid could have a gun. . . . But life was really very normal. Everyone knew everyone else, and everyone worked at the same place.
>
> Besides the post office, there was a small grocery store and a two-lane bowling alley. There was a handball court, and we often had terrific baseball games, even though the entire baseball field was cement [parade ground, concreted by 1934].[48]

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47. NA, RG 129, Bureau of Prisons, 4-49-2-36, Alcatraz, Survey of Buildings, J. L. Langner, Treasury Dept., Sept. 7, 1937, to Supervising Engr., Treasury Dept.; USDJ, BP, Federal Offenders, 1938, and 1940, pp. 96 and 34.

48. Jolene Babyak, "Alcatraz Was My Home," TWA Ambassador, The Trans World Magazine, 8(August 1975):20. She is the daughter of Arthur M. Dollison.

In the process of quarrying rock southeast of the industries building, the army had built a seawall and had placed considerable fill at this part of the island. Several times plans had been considered for extending the seawall westward along the water's edge of the rock cliff toward the industries building. The rock in this area was soft sandstone and waves had washed out several tunnels, including one large one directly under the building (and the old fortifications under it). On January 10, 1935, a severe storm caused a landslide in this area that left the industries building only 2½ feet from the cliff's edge. The warden requested $6,500 to extend the seawall and to repair the damage. However, the bureau authorized a much smaller sum of money to place riprap along the shore. This work was completed by the fall of 1935, but the severe tides in the area made it a difficult job.

Shortly after the storm, Director Bates suggested razing the industries building and constructing a new building farther back from the waterfront. His concern seems not to have been landslides however, but the difficulty of guards observing the watersides of the structure and the possibility that prisoners would escape in that direction. Johnston, at first favoring the idea, changed his mind and wanted to retain the building. He said it was the best structure on the island and was very satisfactory for shops and trades. If an additional guard tower was built on its roof, all the territory in the rear of it could be seen. (Years later, Johnston wrote that while this building was in good condition, it was not to his liking at all because of its irregularly shaped floor space.)

The building was retained and in 1935 it and the old laundry building were made more secure by placing old iron bars, removed from the prison cells, over the doors and windows of the elevator penthouses on both buildings, to prevent inmates from

reaching the roofs. Also, a large ventilator running from the spray paint room in the model shop to the roof was enclosed in a metal cage; the roof ventilators in the laundry were covered with metal grills embedded in concrete; and several windows were covered with steel grill. By June 1936 a guard tower had been erected on top of the industries building and a catwalk constructed leading from it to the nearby "Hill Tower." The construction of this tower brought the number on the island to five: near the wharf, hill tower, south of the recreation yard, on top of the old North Caponier (now fuel storage), and the model industries building.[49]

In his annual report for fiscal year 1936 the warden mentioned several other developments at Alcatraz. The guards and the general mechanics had been given the new status of "junior custodial officers." The chaplain had resigned because of illness. Concrete seats, much like a miniature grandstand, had been built in the prisoners' recreation yard. A clothing factory had been added to the prison industries; it made prison uniforms for both Alcatraz and other prisons. The model shop had begun reconditioning furniture discarded by federal agencies. All the buildings on the island were painted inside and out. And a new 3-ton refrigerator was installed in the prison basement.[50]

The 19th century's horses and mules (and cows) had been replaced on the island by a fleet of trucks, their stable being a

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49. NA, RG 129, Bureau of Prisons, 4-49-0, Alcatraz, Bates, Jan. 29, 1935, to Johnston, 4-49-1-6, Alcatraz, Repairs, Johnston, Jan. 11 and July 14, 1935, to Director, and 4-49-2-0, Alcatraz, Construction, Johnston, Feb. 20, May 21, and July 3, 1935, to Director; USDJ, BP, Federal Offenders, 1935-36, p. 56; Johnston, Alcatraz, p. 187.

50. USDJ, BP, Federal Offenders, 1935-36, pp. 55-56.

six-stall garage in the basement of the quartermaster storehouse. An inventory taken in July 1936 showed a total of seven trucks and one automobile assigned to Alcatraz: a 1934 Chevrolet passenger car (that was kept at Fort Mason and used to transport prisoners to court appearances); three 1934 Reo Motor 3/4-ton trucks; a 1936 Chevrolet 1½-ton truck; a 1934, Diamond T. Howe 3-ton fire-truck; and two trucks that had been purchased from the army, a 1929 Chevrolet 3/4-ton truck and a 1932 Ford 1½-ton truck. The 1929 Chevrolet was almost worthless, having been "dropped into the Bay" twice by the army.

Johnston decided to move the handball court from its location east of the dock. He said that it interferred with the view of the guard in the dock tower. Since a number of officers enjoyed the game the warden planned to relocate the court at the children's playground on the south side of the island. The director approved this change, but both the court and the children's playground were relocated on the west end of the parade ground. Strangely, the records did not mention if the guards and their families continued to use the army tennis courts located at the north corner of the parade ground.[51]

The annual report for fiscal year 1937 noted several improvements around the island. Changes in the prison included the placing of new tool-proof grills on the ventilators located on the roof of the cell house. Each grill was fastened with six bolts inserted into the concrete roof. Two-inch thick bulletproof glass was installed in the front of the armory and in the vision panel of

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51. NA, RG 129, Bureau of Prisons, 4-49-1-48, Alcatraz, Motor Vehicles, Johnston, Dec. 9, 1935, and July 27, 1936, to Director, and 4-49-1-13, Alcatraz, Athletic Equipment, Johnston, Sept. 10, 1936, to Director.

the gun port over the main gate. The power plant was completely overhauled and two new boilers installed. A new pump and sump for drawing saltwater from the bay (cell house sanitation) were set up. Guard rails were built on various stairways around the island, and at several points concrete retaining walls were constructed. The seawall was given added protection with riprap and concrete blocks. An alarm siren was installed on the roof of the administration unit of the prison. The various shops continued their output, and the laundry processed over one million pounds of clothing, etc. Once again a resident chaplain had been employed. Other personnel changes were the transfer of Deputy Warden Cecil J. Shuttleworth to Leavenworth and the promotion of Lieutenant E. J. Miller to succeed him. The most unusual event of the year was the stern-wheeler Delta King's crashing into the southeast tip of the island. She was quickly towed off and neither vessel nor island suffered extensively.[52]

In 1937 an extensive survey of all the structures on Alcatraz was carried out. The report of this survey listed the existing conditions and made some recommendations for improvement as follows:

Quarry dock: Still in place but not in use.

Main dock: About 40 years old; the piling consisted of single 8-inch wrought iron pipes filled with concrete and spaced at 10-foot centers in each direction. At the waterline there was

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52. NA, RG 129, Bureau of Prisons, 4-49-0, Alcatraz, Johnston, Nov. 4, 1936, to Bates, and 4-49-2-0, Alcatraz, Construction, Johnston, Oct. 22, and Nov. 6, 1936, to Director; USDJ, BP, Federal Offenders, 1936-37, pp. 77-82.

a series of steel-channel horizontal struts and wrought-iron diagonal tie rods. The entire top of the dock was covered with 3-inch fir planking. The piling was in good condition, but the struts and diagonals were badly rusted and needed replacing. The wooden dock was considered to be the greatest single fire hazard on the island and should be replaced with concrete.

Seawall: At the northwest end of the island there was a constant undermining of the sandstone by wave action, resulting in the formation of the caves under the industries building. It was recommended that the 800 feet of seawall be built to extend from the pump house, around the northwest end of the island, and to the quarry dock. This wall should extend 4 feet below the low-water level. Beyond the quarry dock another 300 feet of wall should be placed above low tide to protect the present shore.

Earth slide protection: Earth slides had occurred behind the old quartermaster storehouse at the dock, building 28, and in the industrial area. These had been repaired by the construction of concrete buttresses, built with prison labor. The inmates had manufactured the concrete blocks, each 5 by 8 by 24 inches and weighing 90 pounds. Additional protection required: 200 feet of retaining wall south of the prison building, 8 feet of wall, 20 feet in height, north of quarters 9; small pilasters between quarters 7 and 8; and two large pilasters southeast of the lighthouse.

Prison building: It had been repainted in 1935 and was in good condition, although the west face needed scaling and repainting because of the salt action. Various places along the window and the cornice revealed where hairline cracks had developed. These cracks were patched on a continuous basis.

Barracks: The lower casemate level was used as a storeroom; the upper floors had been converted to apartments.

Laundry building: Reinforced concrete was considered to be adequate and in good condition, but it needed some new equipment. The first floor was used as the receiving and storage area. The second floor contained the tumblers and extractors. Ironing machines were located on the third floor.

Industries building: Reinforced concrete, three stories; not considered to be a first-class job as far as the exposed concrete was concerned. Being equipped with steel sash and an elevator, it was serving its purpose well. Plans had been made to move the paint shop, the plumbing shop, and the carpenter shop from this building to the power plant group. This was necessary to provide sufficient space for the rubber mat shop.

The report noted that there was a small amount of space between the laundry and the industries building that had been considered as a site for industrial expansion. It also pointed out that at the old stone quarry there was a good level site, partly on filled-in ground, that would be suitable for future industrial expansion.[53]

The annual report of Alcatraz for fiscal year 1938 recorded the escape of two men from the industries building. Warden Johnston had long been concerned about this structure's location on

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53. NA, RG 129, Bureau of Prisons, 4-49-2-36, Alcatraz, Survey, J. L. Langner, Inspection Engr., Treasury Dept., San Francisco, Sept. 7, 1937, to N. A. Melick, Treasury Dept., Washington, D.C.

the waterfront and the impossibility of keeping the watersides of the building under constant observation. He now urged the construction of a new industries building located far enough back from the water's edge to allow a guard tower on that side. His wishes were about to be granted, for the Public Works Administration had made possible sufficient funds for the modernization of the Alcatraz penitentiary. Meanwhile a few improvements had already taken place. A new (and sixth) guard tower had been erected on the roof at the north corner of the cell house, and a walkway was built around the roof of the building. Three steel storage tanks for diesel fuel were placed in the quartermaster storehouse, building 79. These tanks were walled in and a filling placed around them. They were connected to the dock with pipes, and a feed pipe was laid from the tanks to the power plant. Among the personnel changes during the year were the retirements of Chief Engineers William J. Elliott and Charles Marshall, replaced by Emmett J. Connell and John P. Oberto, respectively. Dr. George Hess transferred to Terminal Island in Southern California and was replaced as chief medical officer by Dr. Romney M. Ritchey. Also, a consulting dentist and a consulting psychiatrist were added to the medical staff.[54]

Warden Johnston's hopes for a new industrial building were momentarily threatened in 1939, when the new U.S. attorney general, Frank Murphy, announced that Alcatraz was a place of horror and the prisoners should be removed elsewhere: "The whole institution is conducive to psychology that builds up a sinister and vicious attitude among the prisoners." Both the New York Times and the San Francisco Chronicle immediately suggested that Alcatraz

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54. USDJ, BP, Federal Offenders, 1938, pp. 7 and 94-98.

should be the site of a statue similar to the Statue of Liberty in New York Harbor. The Chronicle nominated San Francisco sculptor Beniamino Bufano's "Saint Francis" as a suitable work, or "Pacifica" which was the Golden Gate International Exposition's theme statue. Murphy, however, realized that it would not be possible to close Alcatraz immediately. Meanwhile, Louis C. Dunn of San Francisco won a contract to build a new industries building on Alcatraz. The two-story, 306-foot-long building, designed to contain shops, laundry, dyeing facilities, and a dry-cleaning plant, would cost $186,000. The ground floor was to contain the clothing factory, dry-cleaning plant, furniture plant, brush factory, and an office. The laundry would occupy the entire second floor.[55]

The entire modernization program, of which the new industries building was only a part, came to a total cost of $1,100,000. Other construction undertaken in 1939-1940 included another "complete" renovation of the powerhouse, a water tower, the apartment houses for officers, a concrete dock and landing slip, and the remodeling of old D block into maximum security and isolation cells. The powerhouse received a new steam turbine, a diesel engine, a seawater pump, and new fire and sanitary pumps. New freshwater and saltwater distribution lines were installed, as were a new fire service line, steam-heating lines, and fuel oil lines. Old quarters 15 and 43 were demolished, and repairs made to other existing quarters. New stainless steel trays, bowls, and cups and a menu bulletin board were acquired for the prison dining hall. The first floor of the administrative unit got new windows and doors throughout.

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55. San Francisco Chronicle, May 24 and June 8 and 16, 1939; Johnston, Alcatraz, p. 193.

Johnston was delighted with the remodeling of D block, happy at last to have the "dungeon" demolished. Six cells on the ground tier, each 6 feet 3½-inches by 12 feet 9¼ inches by 7 feet 7½-inches high, were fitted out as dark or solitary cells. Each cell had two doors. The inner door was tool-proof steel bars, like all the rest. The outer door was solid steel, but the upper half was a pull-down glass panel. These cells could be made completely dark. Five of them were supplied with beds, toilets, and wash basins. The sixth was bare of comforts. Warden Johnston called it the "Oriental or strip cell," reserved for inmates who destroyed plumbing fixtures. It was probably at this time that a room was partitioned off at the east end of D block to become a new library. The old auditorium on the second floor of the administrative unit was still used by the prisoners, and the warden hoped that there would be funds to renovate it to provide a more suitable background for religious services. All construction was completed by July 1941, including the demolition of the old laundry and the conversion of the model industries building into a storehouse.[56]

Pearl Harbor affected Alcatraz just as it did the rest of the nation. After an initial scare that Japanese airplanes might bomb the prison, the island settled down to help the war effort. The U.S. Navy informed the Bureau of Prisons that it needed no more rubber mats, but it could use all the cargo nets the prison could turn out. Johnston promptly had the mat shop converted to

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56. USDJ, BP, Federal Offenders, 1940, pp. 29-35; Johnston, Alcatraz, pp. 193 and 253; San Francisco Chronicle, Feb. 2 and Sept. 7, 1940. The pull-down glass panels in the doors of the solitary cells, as described by Johnston, are not present today. Instead, the outside doors now have moveable plates of steel over openings covered with thick wire mesh.

the manufacture of nets. By June 1945 the federal penitentiaries had turned out over 60,000 cargo nets for use in amphibious landings in the Pacific. Rear Adm. W. J. Carter, chief of the Naval Bureau of Supplies and Accounts, congratulated Warden Johnston's prisoners for their contribution to this effort. The island's clothing factory switched to the manufacture of army clothing, including field jackets and thousands of pairs of trousers, both fatigue and khaki. The prisoners also repaired the large buoys that held the anti-submarine net in place across the mouth of San Francisco Bay, the repair area being laid out on the site of the old laundry. The war created no heroes on Alcatraz, but under these peculiar circumstances, the prisoners did take part in the war effort.[57]

In his annual report for fiscal year 1952, Dir. James V. Bennett said that Alcatraz should be replaced with an institution that was more centrally located and less difficult to operate administratively. But the wheels of government moved slowly; Alcatraz would continue to be considered "the extreme at one end of the spectrum of institutions" for another decade. In 1958-1959 extensive repairs were carried out in the main buildings. However, an engineering survey of Alcatraz was undertaken in 1961. It disclosed that the buildings were dangerously deteriorated and that $5,000,000 would be required to repair and rebuild them. Also, Alcatraz was by far the most expensive penitentiary in the federal system. That same year, Attorney General Robert F. Kennedy announced plans for a new maximum security institution at Marion, Illinois.

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57. USDJ, BP, Federal Prisons, 1945, p. 21 and photograph between pp. 18 and 19; Johnston, Alcatraz, pp. 194-96; San Francisco Chronicle, Dec. 25, 1941, and Apr. 10, 1945.

In its annual report for 1963, the Bureau of Prisons reflected on the 29 years of Alcatraz's history as a federal prison. It recalled that when Alcatraz opened in 1934, a wave of gangsterism and violence was sweeping the country. The worst of these gangsters were sent to the Rock to serve their sentences. Over the years about 1,500 men, including Al Capone, Alvin Karpis, "Machine Gun" Kelly, Basil "The Owl" Banghart, and Mickey Cohen, worked out their days on the lonely island. The fear of being sent to Alcatraz proved no deterrent to bank robbers, as the Bureau had once hoped. Yet, Alcatraz was important in another way:

> But the institution served an important purpose in taking the strain off our older and greatly overcrowded institutions at Atlanta, Leavenworth and McNeil Island since it enabled us to move to this smaller, closely guarded institution the escape artists, the big-time racketeers, the inveterate connivers and those who needed protection from other groups.

Alcatraz had fulfilled its purpose well. The U.S. penitentiary ceased operations on March 21, 1963.[58]

E. The Prisoners--Strikes, Riots, and Escapes

1. Some Statistics

About 1960, the Bureau of Prisons published a booklet on Alcatraz. Among the tables presented was one showing the population as of June 30 each year, as well as the number of prisoners received and lost. The average prison

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58. USDJ, BP, Federal Prisons, 1952, p. 4; 1956, p. 2; 1960, p. 3; and 1963, pp. 1, 9, 10, and 19.

population between 1935 and 1960 was 263, the highest number (302) came in 1937, and the lowest (222) was recorded for 1947.

Year	Population June 30	Gain Past Year	Loss, past year				
		Expired	Transferred Released	Sentence	Conditionally Order	Died	Court
1935	242	247	--	4	--	--	1
1936	261	65	33	5	--	3	5
1937	302	81	20	8	8	--	4
1938	298	51	36	6	6	5	2
1939	288	36	32	7	4	1	2
1940	290	71	58	1	8	--	2
1941	282	5	3	3	5	1	1
1942	261	40	47	3	8	2	1
1943	248	26	19	5	9	2	4
1944	229	29	27	4	13	2	2
1945	274	65	14	1	5	--	--
1946	276	40	23	1	6	6	2
1947	248	44	52	1	15	--	4
1948	240	30	17	3	17	1	--
1949	222	25	20	1	18	2	2
1950	232	59	40	1	7	1	--
1951	230	49	39	--	8	3	1
1952	227	33	23	1	11	1	--
1953	255	82	39	1	13	--	1
1954	293	95	39	4	10	--	4
1955	297	53	39	3	7	--	--
1956	277	74	70	5	18	1	--
1957	271	42	30	2	9	2	5
1958	288	77	44	1	12	2	1
1959	264	62	66	2	15	2	1
1960	254	49	43	5	8	1	2

To the 38 deaths shown above at least another three should be added for 1962, when three prisoners escaped from the island and were presumed drowned. Seven prisoners were shot and killed by guards while either attempting escape (four) or in the 1946 riot (three). Two inmates were stabbed to death by their fellow prisoners. A total of six prisoners escaped from Alcatraz and all were presumed to have drowned. At least one prisoner was a suicide. The other 25 prisoners either died of natural causes, or if they

were violent deaths, they were not specifically mentioned in the various accounts.[59]

The 1960 booklet gave a breakdown of the offenses and the length of sentences for the 254 prisoners on Alcatraz at that time. Of the total number of prisoners, 183 were white, 64 were black, and 7 were classified as "other." As to the types of commitment, 189 had been committed by federal civil courts, two by state courts, 33 from a municipal court in the District of Columbia, and 30 by the military.

Offense	Total	Length of Sentence in Years							Av. Sent. (in years)
		2½-5	5-10	10-15	15-20	20-45	45+	Life	
Drug offenses									
Narcotics	20	--	5	4	3	7	1	--	17.4
Marijuana	4	--	2	1	1	--	--	--	9.8
Forgery	2	--	1	--	1	--	--	--	10.0
Homicide (killing fed. off.)	8	--	--	1	--	--	3	4	41.0
Kidnapping	19	--	1	2	4	5	2	5	28.0
Larceny, transport of stolen motor vehicle	10	--	3	4	3	--	--	--	10.9
Other	3	--	--	1	1	1	--	--	15.0
Other federal	18	1	6	3	5	2	--	1	13.5
Military court-martial									
Homicide	16	--	--	--	--	14	2	--	31.1
Rape	5	--	--	--	--	5	--	--	24.2
Other	9	--	--	5	2	2	--	--	16.7
Govt. Reservation, etc.									
Homicide	14	--	--	--	1	4	1	8	38.2
Robbery	19	--	3	4	5	6	1	--	19.3
Rape	5	--	--	--	--	4	--	1	36.5
Other	7	2	--	--	3	--	2	--	20.9

59. Bureau of Prisons, Alcatraz, (n.p., n.d), p. 21; USDJ, BP, Federal Offenders and USDJ, BP, Federal Prisons--all annual reports 1935 to 1963.

Life sentences and sentences of more than 45 years were counted as 45 years in computing the average sentences.[60]

2. "They never give a guy a break"

It will be recalled that in the beginning of the federal penitentiary period, Alcatraz was operated on a basis of severely strict discipline and as little publicity as possible to the prisoners or to events on the island. As the years passed and news of the harsh discipline leaked out, newspaper accounts unfavorable to the administration of the prison became more common. Although there never was any fear of Alcatraz's becoming a lax institution, Johnston, occasionally prodded by the Bureau of Prisons, modified the daily regime a little now and then to make life a mite more comfortable.

In July 1935 the federal government decided to deport all alien convicts, except Canadians and Mexicans. One of these, William Henry Ambrose, a Chicago gangster, was released from Alcatraz for deportation. Before he left the country, he gave the press the break it had been looking for--firsthand news from behind the walls. The San Francisco Chronicle headlined: "Alcatraz Silence Awful." "Inmate Tells How Hard Boiled U.S. Is." "Al Capone 'Burning Up' at Curb On Talking." Ambrose described the best known convict of them all: "'Capone is burning up at the restrictions, but he's not losing his mind and cracking up. He's been in the hole (solitary) three or four times for talking. The "no-talk" rule is the hardest thing in Alcatraz life, for him, for every prisoner there.'" The paper continued: "'Not a word can be spoken by any of the convicts in line, at the table, at work, or in

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60. Bureau of Prisons, Alcatraz, p. 22.

their cells,' he said. 'On Saturday afternoon this restriction is removed when the convicts are allowed in the yard.'" Ambrose, who had once tunneled out of Leavenworth, concluded: "'Its the toughest pen I've ever seen. The hopelessness of it gets you. Capone feels it. Everybody does.'"[61]

As a result of this article and others like it, the director requested that Johnston write a resume of the regulations governing the island, so that a response might be made to the press. Concerning disciplinary policies, privileges, and punishments, Johnston said that Alcatraz was established in accordance with the principles of maximum security, limited privileges, and strict adherence to routine. The guards were required to report every violation, every omission, and every attempt to cause confusion, disturbance, or breakdown of routine. In some instances prisoners were not punished but were merely advised or reprimanded. For minor offenses yard privileges were forfeited for anywhere from a week to a month. In more serious cases all privileges were suspended: yard, correspondence, and visits. A prisoner guilty of insubordination was locked up on a restricted diet. For repetition of offenses, the inmate was locked up, all his privileges forfeited, and he was reduced in grade. Finally, the most serious offenders forfeited their good time.

As for the rules concerning silence, the inmates were not allowed to ramble, loiter, or go from cell tier to cell tier, cellblock to cellblock, or shop to shop. They were not allowed to talk when standing in line on the cell tiers or from cell to cell when locked up. In the mess hall they could talk only as was necessary

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61. San Francisco Chronicle, July 27 and Aug. 14, 1935.

for passing food. The only places where they could converse freely were in the recreation yard on Saturday afternoons and Sunday mornings, and in the shops. When playing games, such as baseball and horseshoes, Johnston said, prisoners could talk as much as they wished.[62]

As has been noted, Johnston was supposed to send a list to the Bureau of Prisons twice a year naming prisoners whom he thought could be transferred to other institutions for parole. July 1935 came and went without the warden's list being forwarded. The bureau prodded Johnston several times, and finally in October Johnston forwarded his first list of ten names. All ten were former army prisoners who had been inherited along with the prison. Johnston recommended that they be transferred first to McNeil Island, Washington, then on to other prisons, hospitals, or parole, whatever their cases involved. He noted that one of these men had a wife living in San Bernardino, Southern California; but he thought it best to stick to policy and transfer him also to McNeil and parole him from there.[63]

An unusual morale problem cropped up on Alcatraz in the fall of 1935. Four wives of Alcatraz's prisoners were inmates themselves in the U.S. detention farm in Milan, Michigan. Three of

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62. NA, RG 129, Bureau of Prisons, 4-49-09, Alcatraz, Publicity, Johnston, Aug. 21, 1935, to Director. Based on this document, Johnston was authorized to give newspapers a description of the prison. See "Grim Alcatraz--How It's Run," San Francisco Chronicle, May 23, 1937.

63. NA, RG 129, Bureau of Prisons, 4-49-3-46, Alcatraz, Transfer of Prisoners, Johnston, Oct. 10, 1935, to Bates, and Bates, Oct. 22, 1935, to Johnston. Although Bates decided to leave one of the original ten at Alcatraz, ten prisoners were sent to McNeil in November.

the couples were exchanging correspondence as allowed, but the fourth husband had not heard from his wife. Apparently she had been forbidden to write him. At any rate, Director Bates stepped into the picture and wrote the superintendent of the detention farm that all the wives were to be subject to the same ruling and, unless they had forfeited their privileges, all of them could write their husbands once every two months. Presumably the woman got to write.[64]

Unquestionably, the newspapers paid more attention to Al Capone than any other prisoner at Alcatraz. Capone had not been shipped from Atlanta for any specific misconduct--he was much too clever for that--but for apparently bribing both his fellow inmates and the guards for special favors. The warden at Atlanta wrote the director that there was evidence that Capone connived with one guard, entertained a trusted lieutenant in his cell, and had flooded other inmates with money to curry favors. In the fall of 1935, newspapers began carrying stories that Capone was continuing his habits at Alcatraz and was receiving special privileges. The U.S. attorney general issued a statement categorically and emphatically denying the truth of these stories. He added that Capone wore the same clothing as every other inmate, he had not received packages from outside, and he did not wear silk underwear.

Years later Warden Johnston recalled Capone's stay on the Rock. Capone had been imprisoned in Atlanta in 1932, and

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64. NA, RG 129, Bureau of Prisons, 4-49-3-14, Alcatraz, Rules, Bates, Nov. 11, 1935, to Supervisor, U.S. Detention Farm, Milan. The wife not writing was a Mrs. Kelly. Unfortunately, there were three Kellys at Alcatraz at that time.

had been given a 10-year sentence and a fine for violating the income tax law. When he came to Alcatraz in 1934, he was suffering from syphilis but steadfastly refused any treatment from the medical officers. He attempted often to obtain favors while on the Rock, but Johnston sternly denied them. Capone's first job was in the laundry; then he became a clean-up man in the showers. It was there that he got in a fight with Jimmy Lucas, a bank robber. Lucas stabbed him with a pair of shears, inflicting a slight wound. On another occasion, Capone had a fight with an inmate, William E. Coyler, that cost Alphonse eight days in isolation. Other jobs assigned to him were library delivery boy and recreation yard sweeper. By 1938 the syphilis had caused paresis and Capone was a sick and confused man. He was admitted to the prison hospital where he stayed until January 1939. At that time he was transferred to the Federal Correctional Institution, Terminal Island, near Los Angeles, to serve one year for a misdemeanor related to the felony trials. When that sentence was about to expire, Capone was taken to Lewisburg, Pennsylvania, for final release. His relatives took him first to a hospital in Baltimore, then to Florida, where he died on January 25, 1947, at age 48. Far from being the most powerful gangster from Chicago, Al Capone at Alcatraz was a pathetic, mentally deranged creature. But, on the outside, the myth lived on.[65]

Johnston worriedly wrote Bates in February 1936 that there was a news leak somewhere in the prison. He thought that the leak might be in the hospital but he could not discover the

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65. NA, RG 129, Bureau of Prisons, 4-49-3-46, Alcatraz, Transfer of Prisoners, Warden A. C. Aderhold, Atlanta, confidential, July 30, 1934, to Bates, and 4-49-9, Alcatraz, Publicity, Bates, Nov. 12, 1935, "Suggested News Release"; Johnston, Alcatraz, pp. 27-37.

culprit. Johnston complained that the newspaper people were trying to identify as many of the inmates as possible for immediate and future use. Just six days later, as if on cue, the Chronicle printed an interview with a released prisoner, Alfred M. Loomis, which was laced with gossip concerning individual prisoners. Loomis, a counterfeiter from Southern California who had been sentenced to seven years, correctly gave the reporter Capone's prison number, adding that Scarface had become a "'neat cabinet maker and a pretty fair banjo player.'" He said that a prison orchestra had been formed, and that they rehearsed in the barber shop during the weekend recreation period. Other members of the band included Harmon Whaley, 1935 kidnapper of George Weyerhaeuser in Tacoma, Washington, who now played the saxaphone; and Welton Sparks, former Dillinger associate, on the coronet. The band members had to purchase their own instruments. Others in the prison were not doing so well. "Machine Gun" Kelly and Harvey Bailey, the two Oklahoma kidnappers, had fallen into the deepest gloom. Tom Holden, train and bank robber and murderer, had broken under the strain. "'Life gets so monotonous,'" said Loomis, "'you feel like bucking the rules to break the monotony. That's it--the monotony. It's driving the men screwy.'" The prisoners were not allowed to hang pictures on their cell walls and they would go to the "hole" if they tried. He complained about the "silent solitude" of the cells from supper time to lights out at 9:30 p.m. According to him, there were fleas everywhere. Loomis concluded his bitter story with: "'They never give a guy a break.'"[66]

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66. NA, RG 129, Bureau of Prisons, 4-49-09, Alcatraz, Publicity, Johnston, Feb. 19, 1936, to Bates; San Francisco Chronicle, Feb. 25, 1936.

Loomis ignored one small improvement that was instituted at Alcatraz in 1935. The University of California Extension Division made available a selected list of correspondence courses. Eighty-one inmates signed up the first year. By June 1936 they had completed 42 courses, but the enrollment was then down to 53. Prisoners could select from 19 courses, varying from Poultry Husbandry to Elementary English Literature, or from Beginning of Civilization to Beginning Algebra. Recreation indulged in by the more active prisoners included baseball, handball, and horseshoes. In the fall of 1936 a softball league involving 60 inmates was in full sway. The weary could sit on the new steps in the yard and play chess, checkers, and dominoes. As Loomis had reported, a "regular" orchestra was formed in 1936, consisting of 12 members and two alternates. The group anticipated having its first concert in November. Moreover, the chaplain was busily organizing a string orchestra--mandolins, banjos, and other strings. The chaplain reported in April 1937 that the regular orchestra had produced three Sunday afternoon concerts by then.

In addition to the correspondences and the orchestra, the chaplain also administered the prison library, a most popular institution. He said that each prisoner drew an average of seven books and three magazines per month. The number of volumes in the stacks grew steadily from the 9,000 inherited from the army to 15,000 in 1960. Prisoners did not visit the library in person, rather they selected from a printed catalog, and a designated inmate (Capone was one) brought the books to the cells. The chaplain also served the needs of the prison staff. He organized a Sunday school for the island's children, wives volunteering to do the teaching. He also held biweekly services for the residents, of whom some fifty to sixty attended. These services were held in the

apartment building erected by the Army on the roof of the old guardhouse.[67]

Prison wardens were often faced with the problem of guards becoming friendly with prisoners, such as in Capone's case at Atlanta. However, in the records studied for Alcatraz, only one incident of this nature was discovered. One day in May 1936, Fred Hill, the assistant engineer at the powerhouse, was eating his breakfast in the officers' mess when he noticed a hospital guard, August Fenneman, pass something to a prisoner who was waiting on tables. Hill reported the matter. When questioned about it, Fenneman denied having given anything to the prisoner; but the latter said he had got some medicine from the guard. The medical officer had already warned Fenneman several times about undue familiarity with prisoners, and now advised him to resign. Fenneman did. Later, when Hill was eating a sandwich in the mess, he discovered a small piece of glass in his sandwich.[68]

The San Francisco News managed to interview a parolee, A. W. Davis (two years for violation of the Drug Act), in June 1937. In contrast to Loomis, Davis gave a calm description of his life on the Rock. He told about his arrival on Alcatraz and the assignment of his number (311) and cell number (355). His clothing issue consisted of "long-barreled drawers, gray coveralls, a blue flannel cap, comfortable tan brogan shoes, a blue coat." He

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67. USDJ, BP, Federal Offenders, 1935-36, pp. 55-56; 1936-37, p. 79; NA, RG 129, Bureau of Prisons, 4-49-3-10, Alcatraz, Religious Services, Chaplain W. L. Hunter, Nov. 1, 1936, to Johnston; and Apr. 7, 1937, to the Federal Council Committee on Prison Chaplains; Babyak, "Alcatraz Was My Home," p. 21.

68. NA, RG 129, Bureau of Prisons, 4-49-1-9, Alcatraz, Medical, Johnston, May 28, 1936, to (unknown).

was allowed to keep a safety razor without a blade, a bath towel, a face towel, a toothbrush, a drinking cup, tooth powder, shaving soap, and a brush on his shelf. Davis said that the prisoners were issued two kinds of tobacco: cigarette tobacco and papers and cut plug with a corncob pipe. Both tobaccos tasted terrible. While only 20 minutes were allowed for everybody to eat, he admitted that the food was good. He mentioned another modification of the rules, saying that the inmates were allowed to watch a movie on every legal holiday. Just as in the army prison, some inmates managed occasionlly to get their hands on some alcohol--but Davis would not say what they drank nor where they got it. He also disclosed the fact that the prisoners called Deputy Warden Shuttleworth "Gracie Allen." But he forgot to add that Warden Johnston's nickname was "Saltwater."[69]

The consulting psychiatrists from the U.S. Public Health Service undertook an examination of all the prisoners on Alcatraz. Most of those found to have serious mental disorders were sent to Leavenworth for observation in its psychiatric ward. However, a few mentally ill persons could usually be found in Alcatraz's hospital or in the cells. One such was Rufe Persful, age 29, and serving 20 years for robbery and the kidnapping of an Arkansas sheriff. Somehow, the Chronicle found out that Persful had cut off his left hand with an ax and had begged another prisoner to cut off his right hand. Warden Johnston, as usual, would

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69. NA, RG 129, Bureau of Prisons, 4-49-09, Alcatraz, Publicity, clippings from The San Francisco News, June 21, 22, 23, and 24, 1937. Convict Bryan Conway said that Johnston's nickname was "Pussyfoot" and that Shuttleworth's replacement as Deputy Warden, E. J. Miller, was called "Meathead." See Bryan Conway, "Twenty Months in Alcatraz," Saturday Evening Post, Feb. 19, 1938, p. 9.

neither confirm nor deny the story. However, Washington officials quickly released the grim details: Persful had grabbed a fire ax in the prison garage and had chopped off only the fingers of his left hand. The new director, James V. Bennett, visited Alcatraz at this time (1937) and informed the public that he considered Persful to be deranged.

Later that year another prisoner, Edward Wutke, convicted of murdering a fellow seaman on the high seas, fastened a tiny pencil sharpener blade to the handle of his safety razor and slashed his jugular vein. He bled to death in his cell during the night. Events such as these, and others less serious, led Bennett to promise additional psychiatric services for Alcatraz.

Bennett's visit to the island in July 1937 concerned some important matters that he wished to discuss with Johnston. Unlike former Director Bates, Bennett questioned some of Alcatraz's rules and regulations, and he was obviously impressed with some of the criticisms that had been made. No record of their conversations has been discovered, but on his return to Washington, Bennett politely informed the warden of some changes that he would like to see on the Rock. He began by saying that he had been giving some thought to what was a privilege and what was a right for prisoners. Then he listed some specific points concerning Alcatraz:

> I feel . . . that it is unnecessary to impose quite such rigorous rules with respect to talking in the mess hall and when the men are walking into the cell blocks from the work and yard details. . . .

> I think you agreed that your present censorship of magazines was too rigorous and I suppose you will gradually make such changes in it as seems to you to be reasonable. . . .
>
> We shall also provide you with a better grade of issue tobacco and I want the library facilities expanded so that every man can have all the books of the proper kind and all the right sort of magazines to read whenever he wishes.

Another change that Bennett wanted was the location of the rifle range. In 1936 Johnston had had targets set up before a small embankment behind the dry cleaning plant, building 84, near the rock crusher. Guards practiced their sighting and shooting from the road tower just outside the yard. Naturally this firing into the prison work area tended to make the prisoners rather nervous. Bennett agreed that the target range was dangerous, and he concluded that perhaps it should be removed altogether.[70]

Succeeding reports by Johnston showed that he took the director's suggestions to heart. In 1938 he announced that a printed library catalog had been placed in each cell and that the average library circulation had increased to 8.2 books per man per month. Thirty men now practiced on musical instruments; and the ten-man orchestra was giving a concert in the cell house monthly. Carefully selected motion pictures were shown on the major holidays. "Professional" and amateur softball leagues had been formed,

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70. NA, RG 129, Bureau of Prisons, 4-49-0, Alcatraz, Bennett, Aug. 18, 1937, to Johnston, 4-49-2-33, Alcatraz, Rifle Range, Johnston, May 4, 1936, to Bates; San Francisco Chronicle, July 29, 30, and 31, and Nov. 14, 1937.

with four teams in each league. Of the 72 men who had enrolled for the 110 courses offered by the University of California, 68.9% had completed their work. In 1939, 133 men were enrolled. An additional 1,000 books were added to the library. An electric record player had been purchased, and the federal music project of the Work Projects Administration had donated many fine recordings. This music library soon grew to 1,000 records, and musical programs were provided three times a week.[71]

The last major change in the welfare of the prisoners came during World War II when wages were introduced for the first time. The salaries were not grand, ranging from 5 cents an hour for men in fourth grade jobs to 12 cents an hour for those in the first grade jobs. These wages were increased in 1944 and again in 1946--ranging from 7 to 17½ cents per hour. But it is doubtful if Alcatraz ever became as comfortable as Herb Caen describes it. According to Mr. Caen, Mickey Cohen's favorite restaurant in San Francisco was Paoli's. When Cohen ended up on Alcatraz, Paoli's prepared him a nightly dinner of a New York steak in a loaf of french bread: "A waiter named 'Bug-Eye Frank,' now retired, would take the food down to the Alcatraz pier, where a guard would pick it up." Alcatraz is a source of endless story telling now; but in its time it was often indeed the grim place so often described by the San Francisco newspapers.[72]

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71. USDJ, BP, Federal Offenders, 1938, pp. 99-100; 1939, p. 31; 1940, p. 31.

72. San Francisco Chronicle, Dec. 9, 1975, Herb Caen, "Hello Out There. . . ."

3. Strikes, Killings, and Escape Attempts

Rumors of planned escapes developed early in the Alcatraz penitentiary's history. When Director Bates heard of these rumors in December 1935, he immediately alerted Warden Johnston. The warden assured him that such stories were to be expected. The prisoners, from the minute they arrived on the island, thoroughly checked their surroundings for weak spots. They constantly dreamed up ways to escape--if they could get weapons, if they could get a speedboat, or if they could get an airplane to wreck certain buildings, and so on. He told the director that he and his staff took such matters seriously, but that they did not let such rumors give them the jitters.

The rumors of December became the realities of January when about 60 percent of the convicts went on strike. Trouble began in the laundry on Monday morning, January 20, 1936. Some of the prisoners there moved to their assigned stations rather slowly. About 8:00 a.m. a number of them on the upper floor moved toward the stairway, yelling for others to join them. The ever-enlarging group moved down to the first floor. An officer telephoned the front office, notifying the deputy warden, the lieutenant of the watch, and the armorer of the disturbance. The deputy ordered the tower guards to stand by their posts while he and the lieutenants went to the work area. At the laundry the officers lined up the prisoners who had quit work, warned them, and then marched them to the cell house. Johnston had this group of 120-30 immediately locked in their cells.

The next step, said the warden, was an attempt to separate the sheep from the goats. Each man was taken out of his cell, one at a time, and individually interrogated and given advice. Many of them had no particular grievance except that they would like more privileges. But even this group refused to return to

work; if they had done so, they would have been identified as "rats" or "yellow," and perhaps suffered reprisals. Some inmates appeared insolent, hostile, and defiant during their hearings. The interviewing and the sorting out continued throughout the day, some returning to work and still others quitting their tasks. In the afternoon the 100 or so who were locked up began yelling and shouting, making a monstrous uproar. Five of the loudest were taken to the basement and locked up in solitary.

On Tuesday, the 21st, 24 prisoners working in the kitchen joined the strike. They, too, were locked in their cells. The chief steward and eight guards kept the kitchen going. By Wednesday, three of the prisoners in solitary were brought back upstairs; but seven others were taken down to the "dungeon." Everyone locked up was given water to drink. But no bread was issued to them until Thursday morning. By Friday, some 80 percent of the strikers had agreed to return to work. Those still locked up continued to get bread and water, and the doctor's careful check, until Saturday when they received a meal of soup, scrambled eggs, toast, and coffee. Six men refused this food and they were promptly taken to the hospital for forced feeding with a tube. En route, two of the six changed their minds; but the other four were force fed with a quart of milk with eggs and sugar beaten into it. By the end of the week Johnston felt well on top of the situation and gave a short statement about the strike to the press. The Chronicle printed the story, working in Al Capone's name because it was known that he then worked in the laundry. Capone, according to the story, had "squealed" that a general strike was coming and that the other prisoners had threatened to lynch him. An angry Johnston notified Washington that the Capone story had not an iota of truth; Capone had had no part in the strike.

By February 8, only 17 prisoners remained locked up, 15 of them in the isolation cells in the first tier of old D block (this meant only that they were isolated from the rest of the cell house), and two in the upper solitary (as distinguished from the dungeon, but not otherwise identified). In an effort to break up this hard core, Johnston had one placed in isolation in a regular cell in B block, two in A block (also, old army), and 12 in D block. He placed them on one full meal a day and bread and water twice a day. On February 15 the remaining 15 went on a hunger strike. Three days later the chief physician decided to force feed them. Five promptly changed their minds; ten had the tube administered. At the end of January two prisoners were still being force-fed, but the strike was over. Johnston told the director that they had got through a trying time without shots being fired, no clubs or gas being used, and nobody being hurt. He considered the work of his crew to have been nothing short of marvelous.[73]

Alcatraz had its first escape attempt in 1935-1936, when Joe Bowers, a violator of postal laws, attempted to climb a fence and jump into the bay on the south side of the island. After repeated warnings the guard shot him. Bowers, wounded in the lungs, plunged down the 60-foot embankment and was killed.[74]

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73. NA, RG 129, Bureau of Prisons, 4-49-2-0, Alcatraz, Construction, Johnston, Dec. 30, 1935, to Bates, and 4-49-3-57, Alcatraz, Disturbances, Bennett, Jan. 21, 1936, to Atty. Gen., and Johnston, Jan. 27, and Feb. 8, 11, and 26, 1936, to Bates, and Feb. 1, 1936, to Asst. Dir. F. L. Bixby, and 4-49-1-9, Alcatraz, Medical, George Hess, Ch. Med. Off., Alcatraz, Feb. 22, 1936, to Bates; San Francisco Chronicle, Jan. 22, 23, and 25, 1936.

74. USDJ, BP, Federal Offenders, 1935-36, p. 3; San Francisco Chronicle, Dec. 17, 1937. Warden Johnston made no notice of this in his annual report.

Burton Phillips, a 23-year-old bank robber and kidnapper serving a life term at Alcatraz, wrote Director Bennett in June 1937. Phillips claimed that his constitutional rights were being violated because his requests for legal publications and legal opinions had been denied.

> Are you to put me in here for life, stop all my mail and deny me the right of legal redress by keeping me in ignorance of legal decisions? Then I would be better off to slit my throat, or perhaps, someone else's and make you hang me, ending quickly and mercifully a life which would otherwise be carried on tortuously year after weary year without hope or possibilities of legal release.
>
> I'll grant you the point that there is nothing in the Constitution to keep you from starving, torturing and mistreating me but it must be a regrettable oversight on your part to deny me full access to legal documents.

Phillips would not get the legal material, but in two months after writing this letter he would get himself a warden.[75]

The second general strike (in September 1937) developed in much the same way as had the first one. On the first day, September 20, men remained in their cells after the noon meal, refusing to return to work. Among them was Burton Phillips. Before the strike ended, a total of 132 had joined the protest. During the noon meal on September 23, Warden Johnston entered

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75. NA, RG 129, Bureau of Prisons, 4-49-3-57, Alcatraz, Disturbances, Phillips, June 6, 1937, to Bennett.

the mess hall to observe the prisoners in the mess line. Suddenly Phillips stepped out of the line, knocked the warden down and kicked him several times, which knocked him unconscious, caused many contusions about his head and face, lacerated the inside of his nose, and badly cut the warden's left ear. Guards rushed to rescue Johnston, finally pulling Phillips off.

An examination showed that the warden had not received a fracture to the skull and the doctor stated that he would be able to return to work in a few days. Nobody reported what the guards did to Phillips. An indication of what befell him was recorded by Chief Clerk L. O. Mills: "Today, after regaining consciousness [Phillips] said to Deputy Miller that he regretted he did not have some sort of weapon with which to have killed the Warden." Two days later Phillips was said to be a patient in the prison hospital.

The strike was almost over when Johnston returned to work on September 20. Fifteen men were still in isolation (including Phillips), but all of the rest of the prisoners had returned to their jobs. Johnston was determined that no prisoner would think he had been cowed by the attack: "I went immediately to the messhall and stood on the spot where I fell and checked the lines in, stayed through the meal and checked the lines out as I deemed that to be the best way to resume my duties."[76]

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76. NA, RG 129, Bureau of Prisons, Johnston, Sept. 20, 23, and 24, and Oct. 11, 1937, to Bennett, Mills, Sept. 24, 1937, to Bennett, Bennett, Kansas City, Sept. 24, 1937, to Hammack, and George Hess, Ch. Med. Off., Alcatraz, Sept. 28, 1937, to Surg. Gen., U.S. Public Health Service; San Francisco Chronicle, Sept. 25, 26, and 27, 1937. The Chronicle said that Phillips was taken to the old Spanish dungeon "below the water line."

The first successful escape from the island, but probably not to the mainland, occurred in December 1937. Theodore Cole, 24 years old and serving a 50-year sentence for kidnapping in Oklahoma; and Ralph Roe, 29 years of age and serving a 99-year term for armed robbery of a national bank, also in Oklahoma, plunged into the swift tides of San Francisco Bay and disappeared forever. Both men were working in the mat shop located in the industrial building at the northwest end of the island--the building that Warden Johnston was worried about because its waterside could not be seen by the tower guards. The two were present for the 1:00 p.m. count on December 16, but they were missing at the next count at 1:30 p.m. An investigation showed that they had broken out two panes of glass in a waterside window, sawed the metal sash, let themselves out, and then used a Stillson wrench to break a lock on the wire fence that surrounded that part of the building.

Director Bennett reported to the attorney general that at first it was thought that they had hidden in the caves under the northwest end of the island, but since it was high tide at the time and most of the caves were inundated, there was extreme doubt that the men could still be on the island. The fog was quite thick at the time, but he doubted the two could have swum to the mainland because of the very fast running tide that day. Perhaps, concluded Bennett, these men selected this picturesque way to commit suicide.

The hunt went on. U.S. Coast Guard and police boats crisscrossed the bay. Police and sheriffs watched the shoreline. Although Warden Johnston announced that he thought the ebb tide had swept the prisoners out to sea, no one else seemed ready to agree. The Chronicle's headlines told the story: "S.F. Police Warn Against Raid by Escaped Convicts," "Bank Managers Told to Have All Guards Alert," "Alcatraz Inmates Pleased With Success of

Break," "G-Men Flock Into S.F. to Tighten Net In Felon Hunt," "Alcatraz Felons Alive, At Liberty, Prison Pal Says," or "Convicts Reported Seen Near Petaluma."

Johnston received some support for his theory when the assistant city engineer of San Francisco, Floyd C. Whaley, who was a specialist in local tides and eddies, said that the currents on the day of escape made it impossible for the two men to reach the mainland. The tides were exceptionally high that day, and the "run-out" occurred between 11:00 a.m. and 4:00 p.m. at a speed of eight miles per hour. Whaley's informed opinion made no difference whatsoever. For years the newspapers printed articles on the latest whereabouts of Cole and Roe--Arkansas, Oklahoma, and South America. This last location had a peculiar twist. According to the story, Cole and Roe wrote a woman in the United States saying that they had successfully crossed the bay on an oil-can raft. She then wrote a prisoner still on Alcatraz, relaying this information by a means of a prearranged code. The fate of the two escapees continues to titilate people's minds to this day. The pair have become a sort of folk heroes to some. Others, upon reflection, doubt that any man could have remained quiet about a successful break from the Rock. For this group only one conclusion is possible: Cole and Roe drowned on December 16, 1937.[77]

The next escape attempt, in May 1938, resulted in the murder of a guard and the shooting death of a prisoner. Three prisoners were involved in this rather stupidly carried-out

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77. NA, RG 129, Bureau of Prisons, 4-49-11-0, Alcatraz, Escapes, Director, Dec. 17, 1937, to Atty. Gen.; San Francisco Chronicle, Dec. 17, 18, 19, 20, 21, 22, and 24, 1937; Apr. 16, 1938, and Apr. 4, 1940, and Apr. 29, 1941.

effort: Thomas R. Limerick, bank robber and kidnapper from South Dakota, age about 37, serving a life sentence; Rufus Franklin, bank robber, serving a 30-year sentence; and James C. Lucas, bank robber from Texas, age about 25, and also serving 30 years. Lucas was the convict who had stabbed Al Capone with a pair of shears in the shower room. The three worked in the woodworking shop in the industrial building.

On the afternoon of May 23 these men left their jobs and made their way to the third floor of the building, carrying a hammer, lead weights, and pieces of iron. There they came upon the senior custodial officer, Royal C. Cline, who was unarmed. One of them slugged Cline on the head with the hammer and left him critically injured. They then made their way through a window and climbed up onto the roof. This brought them into plain view of the guard in the tower on the roof. The guard opened fire hitting Limerick in the head and Franklin in the shoulder. Lucas got away and hid behind a wall, but soon surrendered. Limerick died that night from the wound, and Officer Cline died the next day in the Marine Hospital, leaving a widow and four young daughters. Alcatraz's flag flew at half-staff for three days.

Lucas and Franklin were tried on first degree murder charges in November. Both men based their defense on the brutality that was exercised by the prison guards. Lucas claimed to have been beaten, kicked, slugged, and pushed down a flight of iron stairs at various times. He also described his imprisonment in "an old-type Spanish cage" in the black dungeon. But the two were found guilty and they received life sentences. The Chronicle pointed out that the sentences were rather meaningless "as the two already have terms longer than usual human spans."[78]

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78. USDJ, BP, Federal Offenders, 1938, p. 9; San Francisco Chronicle, May 24 and Nov. 15 and 23, 1938.

In January 1939, five desperate convicts undertook the largest break yet in the penitentiary's history. These five had been ringleaders in the September 1937 strike and had been held in isolation cells ever since. The isolation cells, it will be recalled, were in the old D block that had not been modernized with tool-proof steel bars. The fronts of the five adjoining cells were still covered with the army's flat, soft-iron bars that could readily be cut with a hacksaw blade. The five were as follows:

Arthur "Doc" Barker, the youngest of four sons the family that was bossed in a life of crime by the notorious "Ma Barker." He was convicted of kidnapping and was serving a life sentence. He was 38 years old at the time of the prison break.

Dale Stamphill, no data available.

Rufus Roy McCain, bank robber and kidnapper from Oklahoma; about 35 years old and serving a 99-year sentence.

Henry Young, from eastern Washington; about 26 years old and serving a 20-year sentence for bank robbery.

William Martin, post office robber.

Proving that the metal detectors did not always work, tools of some kind were smuggled into the cells. The five men worked over a period of time sawing the cell bars, completely undetected. The windows of the cell house (D block faced San Francisco) had been covered with tool-proof bars; but somehow and with an unknown tool, apparently a jack of some kind, the men managed to force the bars. On the foggy night of January 13, the five made their break and reached the rocky shore below the

prison. Guards finally discovered the plot, the siren sounded and lights flashed on. The lights picked up the men, nearly nude, using their clothing to tie a raft together. The guards fired, killing Barker and wounding Stamphill by shooting him in both legs. Martin had been badly bruised by the rocks and he too was taken to the hospital. McCain and Young surrendered peacefully. Funds became available a year later for the modernization of D block.[79]

In the spring, and again in the summer of 1940, a considerable number of prisoners went on a partial hunger strike. They ate only enough food to prevent starvation. However, they made no demands and they continued to work at their assigned jobs. The Chronicle wrote it up as much as it could, calling it a "Gandhi Hunger Strike" and saying that a strange tension had gripped the place. Prison officials dismissed the incident as unimportant.[80]

From the time of their capture on the beach in December 1939 (above), Young and McCain had been kept in solitary confinement. They were returned to their cells in November 1940 and both were assigned to the tailor shop. Ever since the attempt to escape, a feud had smouldered between the two. Early in December, while at work, Young fatally stabbed McCain. Within minutes a dozen prisoners in the laundry went on strike. They were rushed to their cells and had their privileges suspended. The newspapers assumed that the two incidents were related, but Warden Johnston saw no connection between the two.

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79. USDJ, BP, Federal Offenders, 1939, p. 8; San Francisco Chronicle, Jan. 14, 17, 18, 19, and 25, 1935.

80. USDJ, BP, Federal Offenders, 1940, p. 13; San Francisco Chronicle, July 19, 22, and 24, 1940.

Young's trial was held in San Francisco in April 1941. His attorney argued that he could not be held responsible for his actions, having been in solitary or isolation since 1937. Warden Johnston was called to testify and he attempted to explain the regulations and procedures followed at the prison. The defense called several inmates who gave a most unfavorable picture of life on the Rock. Although the jury found Young guilty (he was sentenced to three additional years), it also presented some severe criticism of Alcatraz to the court. As a result the Bureau of Prisons made a special investigation of the penitentiary but could find no evidence of brutality or improper conduct on the part of the prison officials, or so it said.[81]

Three more incidents occurred in 1941. In May four convicts seized four officers, one by one, in the industrial building and attempted to pry open steel bars on a window in the mat shop. A captured guard convinced them that they could not escape and the four gave up the attempt. They were placed in solitary confinement for an indefinite period. All four had life sentences for a variety of crimes including bank robbery, kidnapping, and murder. Two of them, Joseph Paul Cretzer and Arnold T. Kyle, were brothers-in-law. The others were Floyd H. Barkdoll and Sam R. Shockley.

In September, 27-year old John R. Bayless, serving 25 years for robbing a bank, attempted a one-man escape while on a garbage detail. A guard discovered him as he was about to begin

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81. USDJ, BP, Federal Offenders, 1941, p. 17; San Francisco Chronicle, Dec. 5, 1940, Apr. 17 and 28, and May 4, 1941.

his swim. A year or so later Bayless was in a San Francisco courtroom on his petition for a writ of habeas corpus based on the grounds that he had not been represented by legal counsel when convicted. Just before the judge entered the room, Bayless leaped a railing and dashed for the rear door. A deputy marshal grabbed him and foiled this second attempt.

Then in November, 29 laundry workers went on a work strike in the laundry. The majority of them had been ringleaders of a massive strike at the Leavenworth penitentiary a few months earlier and had been transferred to Alcatraz. Twenty of the strikers were locked in their own cells; the other nine were placed in isolation in the newly remodeled D block.[82]

The ill-fated industrial building was again the scene of a bloody escape attempt in April 1943. On this occasion four desperate characters were involved:

Harold Breast, described as a handsome, cold-blooded, Pennsylvania bank robber;

Fred Hunter, a stoop-shouldered, 43-year-old former member of the Alvin "Old Creepy" Karpis gang of kidnappers;

James A. Boarman, 24-years old, sentenced in Denver, Colorado, for bank robbery;

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82. San Francisco Chronicle, May 22, Sept. 16, and Nov. 6, 1941, and Dec. 22, 1942. The Bureau of Prisons changed the format of its annual report at this time, omitting all references to escape attempts, etc., and omitting the individual reports of the various wardens.

Floyd Hamilton, 36 years old, was at one time declared public enemy no. 1. He was a brother of Raymond Hamilton who was executed for murder in the southwest as the head of the Hamilton-Clyde Barrow-Bonnie Parker gang.

Armed with homemade knives ("shivs"), they seized two officers and gagged and bound them. They undressed to their underwear, leaped through a rear window, and scrambled down the 30-foot cliff to the shore. They left behind two of four cans that they had planned to use as floats and in which they had hidden army uniforms stolen from the laundry. Meanwhile, one of the officers freed himself and blew an alarm on his whistle. Guards in the gun towers opened fire with their rifles. They struck Hamilton when he was 30 yards out in the water; he sank and was presumed drowned. Boarman was hit in the head with a bullet. Breast held him up until a prison launch approached; and when Breast let go, Boarman, too, sank and was drowned. Breast was recaptured and Hunter was found hidden in a cave. Warden Johnston told the press that he was positive Hamilton was dead. It must have been with considerable embarrassment that the warden announced three days later that Hamilton had been found hiding in the industrial building. He had swum back to the shore, hidden in the same cave as Hunter, then crept back through the same window from which he had escaped.[83]

The most ingenious escape attempt from Alcatraz occurred in July 1945. John K. Giles, 50 years old, had come to Alcatraz ten years earlier in 1935. For the past eight years he had

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83. San Francisco Chronicle, April 14 and 17, 1943. Unfortunately, no official report of the escape attempt has been found. The story of Hamilton's adventures seems almost incredible.

worked on the dock as a stevedore. Somehow or other, he had gradually assembled a complete army uniform--even dogtags--probably by stealing from the prison laundry. The army's launch, General Frank M. Coxe made a scheduled stop at Alcatraz en route from Fort Mason to Angel Island. When the time seemed right to him, Giles appeared on the dock dressed in his uniform and casually boarded the Coxe as it prepared for departure. He did not know that it was the custom to take a headcount on the vessel after it left Alcatraz. The count showed one extra soldier and the information was sent to the dock guard. At the same time a count at the dock showed one stevedore missing. Assistant Warden Miller took a small speedboat, caught up with the, Coxe, and arrived at Angel Island at the same time. Giles was soon at home again, but he had a nice little trip.[84]

A minor event occurred in August 1948, when Ted H. Walters, an Arkansas bank robber, escaped from the new prison laundry. He made his way undetected to the shore on the southwest side of the island, only to be discovered an hour later unable to take the plunge into the cold tidal waters.[85]

Reminiscent of Cole and Roe's disappearance in 1937 was the sensational break by three bank robbers in June 1962. By far, this was the most cleverly planned and skillfully executed attempt in all of Alcatraz's history. Originally, as many as nine prisoners may have been in on the scheme, but at the time of the break only four were fully prepared. The fourth man, Alan (or

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84. San Francisco Chronicle, Aug. 1, 1945.

85. San Francisco Chronicle, Aug. 8, 1948.

Clayton) West, decided in the end that he "didn't want to leave," and remained behind. The three who got away were Frank Lee Morris, 35, and two brothers, John W., age 32, and Clarence Anglin, age 31.

At the foot of the rear wall of each cell was a small ventilator measuring 6 by 10 inches. This opening that led into a utility corridor behind the cells was covered by a stout wire mesh. Probably using spoons, the four men patiently dug at the concrete around the openings during the nights over a period of months. To cover their work they painted ventilators on cardboard and carefully placed these paintings over their handiwork before dawn each day. The resulting openings eventually measured about 10 by 14 inches. (West was said to have covered his opening with an accordian.) Once the holes were large enough, the prisoners entered the utility corridor and climbed to the top of the tiers by way of the drain pipes. On top of the cells the prisoners established a virtual workshop, including a crowbar, an electric fan, and a homemade flashlight. They made crude life preservers out of stolen raincoats. Here they worked with relative safety because the gun galleries were not manned after lights out at 9:30 p.m. They loosened the rivets on a 5-foot section of a ventilator that led through the roof. Earlier in this report it was noted that the ventilator openings had been covered by tool-proof bars in 1934. Patiently, the prisoners bent these bars until they had made an opening, said to have been only 12 inches in diameter.

On the night of June 11-12, 1962 the Anglin brothers and Morris were ready to begin their journey. At the lights-out inspection tour the three were very much present. During the night, guards made the routine head counts and found nothing out of order, the prisoners' forms could be seen in their cots through the bars. At 7:15 a.m. the standard head count was

made when each prisoner was required to stand at the front of his cell next to the bars. These three were still asleep. The guards roused them, only to discover that each of the three cots contained a head made of plaster with a painted face and hair made of brush bristles. The alarm was sounded.

A massive search was undertaken. Prison officials said they had worked out the men's trail to the north side of the island, opposite Angel Island. Two hundred soldiers searched Angel Island from end to end. Warden Olin D. Blackwell did not think the escapees could have swum that far, the water temperature being only 54 degrees. To prove him wrong, two men (a salesman and an insurance agent) swam the distance in less than one hour, although both admitted to being very cold. Blackwell blamed the escape on the fact that the prison building was suffering from "erosion and debilitation" (just a year before an engineer survey had disclosed that the buildings were dangerously deteriorated). But, he said, from then on there would be more frequent and more thorough inspection of the cells and that the prisoners' cell assignments would be rotated. Mayor George Christopher decided that San Francisco had had enough of the penitentiary. He wanted the prison closed and Alcatraz turned into a tourist attraction of some kind.

In contrast to the case of Cole and Roe, the newspapers did not pursue the idea far that these three were alive in South America, or elsewhere. Four days after the escape, an Army Engineers' debris boat found a watertight plastic bag floating near the Golden Gate Bridge. The bag contained a receipt for a $10 money order made out to Clarence Anglin by a Rachel Anglin, that had been cashed at the Alcatraz post office, and some 50 photographs of a woman. This evidence helped lead people to the conclusion that the men had drowned. The Chronicle headlined:

"Grim Wait for Bodies of 3 Alcatraz Escapers." Still, visitors to the Rock today tend to let their imaginations drift to the possibility that somewhere in the world the Anglins and Morris are still enjoying their freedom.[86]

The last to try to escape from the Rock were two long-term bank robbers, Paul Scott and Darl Parker. On December 12, 1962, they wriggled through a storage basement window in the main prison building and made their way to the shore. Parker got as far as a rock just a few feet out but was so overcome by cold and the currents that he gave up. Scott had much more stamina. Aided by inflated rubber gloves he succeeded reaching some rocks near the Golden Gate Bridge. However, he was close to death from exposure and was unable to pull himself out of the water. That was the end. Alcatraz prison closed four months later. As a place of maximum security, the Rock was thought to be escape-proof. Although the public doubted this belief from time to

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86. Babyak, "Alcatraz Was My Home," p. 20; San Francisco Chronicle, June 13, 14, 15, 16, 17, 18, 19, and 20, 1962. Descriptions of the three men were published in the June 13 edition:

> John Anglin: age 32, 5'10" tall, 140 pounds, blue eyes, blond hair, medium build, small scar on left cheek, round scar on left forearm.
>
> Clarence Anglin: age 31, 5' 11½" tall, 168 pounds, hazel eyes, light complexion, "ZONA" tattooed on left wrist, "NITA" on right forearm.
>
> Frank Morris: age 35, 5' 7½" tall, 135 pounds, hazel eyes, black hair. Tattoos: a devil's head on upper right arm, a star on each knee (the one on the left knee has a "7" above and an "11" below), a star at the base of the left thumb, and the number "13" at the base of the left index finger.

time, it is fair to conclude that no federal prisoner successfully escaped from Alcatraz Island.[87]

4. The Battle of Alcatraz

Of all the escape attempts, the most serious one by far occurred in May 1946. Before it was over the U.S. Marines, the U.S. Army Air Force, and Lt. Gen. Joseph Stilwell were involved, to one degree or another. By the end of the bloody two-day affair, two officers and three prisoners were dead, another 17 officers and one prisoner wounded, and later, two convicts were executed for their participation. Director Bennett of the Bureau of Prisons referred to the incident as the "Battle of Alcatraz."

When D block was remodeled into tool-proof isolation cells, a concrete wall replaced the wire mesh that closed it off from B and C blocks where the bulk of the prisoners lived. This concrete wall ran through the gun gallery at the west (mess hall) end of the cell house. However, a door in the wall allowed the guard in the gun gallery to pass back and forth from D to B and C. On the afternoon of May 2, Officer Burt Burch was stationed in the lower tier of the west gun gallery. Officer William M. Miller was patrolling the floor of B and C blocks unarmed, and Officer Cecil Corwin was patrolling in D block. Most of the prisoners were out of the building at their work assignments. A few were locked in their cells in B and C blocks for one reason or another. And about 25 men were shut up in isolation in D block. Prisoner Bernard Coy, a Kentucky bank robber, was at work polishing the floor in the B and C block area. Accounts of the events of that afternoon varied greatly in their details, but a general picture of what happened has been pieced together.

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87. USDJ, BP, Federal Prisons, 1963, p. 9.

Officer Burch, in response to a call from Officer Corwin, walked into the D block portion of the gun gallery, closing the door behind him. At that time, Officer Miller let prisoner Marvin Hubbard into the cell house from his kitchen detail. Coy and Hubbard "slugged" Officer Miller, mortally wounding him, and took his keys. They immediately unlocked the cells of two men: Joseph P. Cretzer, who had tried to escape in 1941, and Clarence Carnes, a Choctaw Indian. Coy, naked and covered with grease, then climbed up the outside of the cage protecting the west gun galleries to the very top. Using a homemade spreader, said to have been made from parts of a toilet and a pair of pliers, he succeeded in spreading the curved bars at the top in order to drop inside the upper gun gallery. (An earlier part of this study described the 1934 construction of the gun-gallery cages.)

Coy climbed down the stairs to the lower gallery and waited for Burch to return from D block. When Burch came through the door, Coy slugged him and captured his rifle, pistol, and ammunition. He threw the pistol and a key for cellblock D down to Cretzer, then entered the D portion of the gallery where he covered Officer Corwin with the rifle while Cretzer and Hubbard entered the door from B and C. Corwin was forced into the same cell in which Miller had been dragged earlier. Cretzer then reentered D block and freed some of the prisoners in isolation, including Sam Shockley who had been in on the plot. (The official report stated that 12 were released; the newspapers reported that about 60 men were released from all three cellblocks.) About that time, Coy let Myron E. Thompson out of his cell in C block--Thompson had feigned illness that afternoon in order to remain indoors.

During the next few minutes, three officers (innocently entering the cell house one by one) were captured and they too were locked in a cell. However, a custodial officer in the

basement barber shop discovered the uprising and telephoned the armory, advising of the trouble. By this time, the ringleaders realized they did not have the key they needed to get out of the cell house.

The armory officer called the cell house phones but received no answers. Captain Weinhold entered the cell house to see why the phones were not answered. He too was captured, beaten, and thrown into a cell. Unbelievably, three more unarmed guards entered the cell house and met the same fate. At this point, Coy opened fire through a window at the guard towers, wounding an officer. While the ringleaders were still trying to get out of the cell house, the escape siren started sounding. Associate Warden Miller decided to enter the cell house alone. Coy fired at him but missed. However, a gas billy that Miller was carrying exploded burning his face black. Miller succeeded in getting back to the administrative unit without further injury. Shortly thereafter, egged on by a half-crazed Shockley, Cretzer fired into the two cells holding the captured officers.

At 3:30 p.m. motorists on the Golden Gate Bridge heard the first of the shooting, and by 4:00 p.m. patrol boats were circling the island. The evening papers announced the riot and San Franciscans gathered on the waterfront and on the hills to watch. A detachment of 30 U.S. Marines from Treasure Island was brought to the island to guard the working prisoners, at first in the laundry and later in the recreation yard. About 5:00 p.m. an assault team of guards stormed the west gun gallery from its outside entrance. Officer Harold P. Stites, a member of the assault team, was fatally wounded in this effort, but by evening both gun galleries were under the control of the officers.

The Chronicle reported that "thousands of rounds of ammunition and tracer bullets split the night sky as thousands watched from hilltops and piers on both sides of the bay." Heavy clouds of smoke were said to pour from the cellblock (the only fire was in the shrubbery). Officers' families on the island took refuge in the "air raid shelter," the magazine of the old casemated barracks. Schoolchildren and wives who had been in San Francisco that day were not allowed to return to Alcatraz. The Red Cross took care of some of them. At 5:45 p.m. Warden Johnston telegraphed the bureau: "Our situation is difficult and precarious. Our officers are all being used in every place that we can man. The armed prisoners on the island are still eluding us so that at the moment we cannot control them." An emergency group of doctors and nurses were sent to the island from the marine hospital; the island's two doctors were trapped in the prison hospital.

But one of the greatest problems facing the Bay Area that night was the rumors. Rumors as to the number of prisoners involved in the uprising, the number of guards captured, and simply wild rumors of what was happening on the mysterious island, where floodlights shone on the gray walls of the prison.

During the night a force of several guards succeeded in entering the prison house, locating the imprisoned officers, and freeing them. Most of them were wounded and were rushed to San Francisco as quickly as possible. Throughout the morning of the second day grenades were dropped through roof ventilators and holes cut in the roof over B and C blocks, and rifle grenades were fired through the windows of D block, but about noon, marines and guards were ordered to hold their fire. The officials were almost certain now that the convicts were in the utility corridor of C block. After prisoners were rounded up from various places and placed in cells, the attack on C utility corridor

was resumed. Grenades continued to be dropped through the roof. Army planes buzzed the building for psychological effect. Gen. Joseph Stilwell, commanding the Sixth Army at the Presidio of San Francisco, arrived on the island during the day and offered his services to the warden.

As the hours passed and the prison officials learned more about what they were dealing with, the sense of dire emergency eased considerably. The guards finally decided that there were no more holdouts in D block. They concentrated on C block with one last fusilade of shots being fired into the utility corridor. At 9:15 a.m., May 5, guards opened a door to the corridor and found the bodies of Coy, Cretzer, and Hubbard. The Battle of Alcatraz was over. Three other prisoners were placed in solitary for having taken part: Clarence Carnes, Myron "Buddy" E. Thompson, and Sam Shockley.[88]

The trial of Thompson, Shockley, and Carnes for the murder of the guard, Miller, began in a federal court in San Francisco in November 1946. The jury was composed of six men and six women. The prisoners entered the room manacled and heavily guarded. They were starkly dressed in black suits, ties, and shoes, and white shirts and socks. Thompson, the toughest of the lot, pretended indifference; Carnes, a Choctaw Indian, stared at the ceiling and yawned; but poor Shockley, whose "IQ" was

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88. USDJ, BP, Federal Prisons, 1946, pp. 18-19; San Francisco Chronicle, May 3, 4, 5, 6, and 11, 1946; Don DeNevi and Philip Bergen, Alcatraz '46, The Anatomy of a Classic Prison Tragedy (Sam Rafael: Leswing Press, 1974), p. 165. Shockley too had been in the 1941 escape attempt with Cretzer. DeNevi and Bergen suggest that Stites was killed by a fellow officer. The Bureau of Prisons did not even hint of that possibility.

reported to be 54, hardly knew where he was. For some time Shockley had believed that he was a radio receiver and had walked around Alcatraz picking up news items from the ether--he got that way because of the minerals in his food, he said. Shockley thought the trial should be moved to Spain or Mexico, since Alcatraz belonged to one or the other. Many members of the prison staff and a large number of prisoners, including Robert "Birdman" Stroud, appeared as witnesses during the trial. The old story of Spanish dungeons came up in the course of the testimony. When Carnes took the stand he said that he had participated in the riot because he did not think anyone would get hurt: "They's pick their way out of the walled-up tunnels of the ancient Spanish dungeon and simply sneak away."

The jury deliberated 26 hours. All three men were found guilty of murder in the first degree. Thompson and Shockley were sentenced to death. Carnes had a second life sentence added to his life sentence plus 99 years. These were the first (and only) death sentences given to Alcatraz prisoners. Thompson continued his bravado, saying: "Hell, I'm not afraid to die. If I was, I wouldn't be in this racket." But he was; he continued his appeals up to the final moment. The two were transferred to the condemned row at the state penitentiary at San Quentin. They were reported as saying that they liked it better than Alcatraz because they had radios, magazines, and ham and eggs twice a week.

In June 1948, two years later, they were sentenced to die on September 24. Their attorneys announced that they would seek a presidential pardon. The date was later changed to December 3, 1948. On December 1, San Francisco's famed attorney, Melvin Belli, telephoned President Truman asking for a pardon. Clemency was denied. That night, Thompson continued to turn out

pages of words, still hoping for a stay. As the hours passed he grew more and more disgusted with Shockley for his indifference to their fate. At 10:04 a.m., December 3, cyanide pellets were dropped into a solution of sulfuric acid and water. The fabricated grin disappeared from Thompson's face as his head snapped back. Poor Shockley sat slumped and silent. At 10:12 both were dead. An Alcatraz prison guard was a witness. When it was over, he said: "That makes it five to two. It's a little more even now."[89]

The last 27 convicts left Alcatraz in leg-irons and handcuffs on March 21, 1963. In a way, they too were escaping from the Rock. The last prisoner to get on the boat, Frank C. Weatherman, said when asked how he felt about leaving: "Good. Alcatraz never was no good for anybody."[90]

Director Bennett was relieved to see the doors close on Alcatraz for the last time as a federal penitentiary.

> In 1963, Attorney General Robert F. Kennedy approved its abandonment even though there were many congressmen, including the powerful chairman of the House Committee on Appropriations, Clarence Cannon, who believed that Devil's Islands of this type were the only answer to the escalating crime problem. There will always be the need for specialized facilities for the desparados, the irredeemable, and the ruthless, but Alcatraz and all that it had come to mean now belong, we may hope, to history.[91]

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89. San Francisco Chronicle, Nov. 21, 22, 28, and 30; Dec. 6, 7, 10, 14, 18, 22, and 27, 1946, June 30, Dec. 1 and 4, 1948.

90. San Francisco Public Library, Photo file Alcatraz, folder, "Alcatraz Prison Guards."

91. Bennett, I Chose Prison, p. 114.

IX. The Alcatraz Light

Americans have long had a romance with lighthouses. Also, there is a special mystique about islands in man's mind. Therefore, a lighthouse on an island makes a heady combination, especially when the island is Alcatraz and its first light was the first light on the Pacific Coast.

In 1850 the Congress passed its first appropriation for the construction of lighthouses on the Pacific Coast, including one for Alcatraz. The Treasury Department scandalously let the contract to build the first of these to a treasury clerk, who promptly sold it to the Baltimore contractors, Francis X. Kelly and Francis A. Gibbons. Each of the lighthouses was to cost $15,000, and they were to be completed by November 1, 1853. This date was later extended to May 1, 1854. The lights were to be Argand lamps with 16-inch parabolic reflectors. Ammi B. Young, a prominent 19th-century architect, designed the structures, each to be a Cape Cod-type dwelling with a tower rising through the center.

Young's specifications called for a 38- by 20-foot house constructed of stone or hard brick. A full cellar, (6 feet in the clear with a brick floor and an outside doorway) was to be built. A chimney was located at each end of the building; one to have a fireplace; the other a hearth and a flue. Another fireplace was to be placed in the attic chamber. The main floor had two rooms, an entrance vestibule, and a stairway between them. The attic also had two rooms, with the tower and the stairway separating them. The roof was to be covered with "Ladies" slate. The circular tower had an inside diameter of 8 feet and a wall 1-foot thick. A window was located in the tower. The top of the tower, which formed a deck for the lantern, was to be a domical arch. The deck above was to be covered with 20-ounce copper sheathing, and finally, a

12- by 10-foot frame lean-to porch, was to be added to the back of the structure.[1]

Meanwhile the Congress established the Lighthouse Board, which divided the country into 12 lighthouse districts, the Pacific Coast being the 12th district. Each district had an inspector and in the case of the 12th district it was invariably an army engineer already assigned to San Francisco. His duties included supervising the construction of the lighthouses, keeping them in repair, and purchasing and installing the illuminating apparatus. The local Collector of Customs was appointed to take care of fiscal and administrative duties, such as the appointment of keepers. The first inspector for the 12th district was none other than Capt. Henry W. Halleck, then the staff engineer of Military Department 10 (California) and who was soon to be involved with Alcatraz's fortifications.

The Baltimore contractors dispatched a shipload of men and materials to the West Coast in 1852. On board were bricklayers, carpenters, stonemasons, painters, blacksmiths, plasterers, and laborers. The materials included yellow pine flooring, doors and frames, window frames, shutters, cupboards, mantles, hardware, tin, oils, paint, and glass. The ship arrived in San Francisco in December 1852, and on the 15th of the month, workmen promptly began laying the foundation for the Alcatraz lighthouse.[2]

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1. Francis Ross Holland, Jr., America's Lighthouses, Their Illustrated History Since 1716 (Brattleboro, Vt.: The Stephen Greene Press, 1972), pp. 155-56; F. Ross Holland, Jr., "Lighting the West Coast: The Story of the Building of the Pacific Coast's First Sixteen Lighthouses," MS, pp. 23-32, and Appendices, "Specifications."

2. Holland, Lighthouses, p. 155; Holland, "Lighting," p. 45; NA, RG 26, Lighthouse Board, Engr. and Insptr., 12th Dist., Feb. 1853-June 1856, extract from letter, W. H. Ranlett, San Francisco, Dec. 15, 1852, to Sect. of Treasury.

In May 1852 the government decided to put French-manufactured Fresnel lens in the Pacific Coast lights rather than the Argand lamps. Because the installation of Fresnel lens was a delicate undertaking, the Lighthouse Board decided to put it under a separate contract; subsequently some $800 was deducted from the contract of Gibbons and Kelly. A naval officer was dispatched to Paris to purchase the lenses. The first two lenses arrived safely in New York in April 1853, and were ordered reshipped to San Francisco by sea.

On June 21, 1853, Halleck reported to the Lighthouse Board that the Alcatraz lighthouse was completed and ready to receive its lighting apparatus. The Frensel lenses, both of the third order, arrived a few weeks later. Halleck attempted to find a person skilled in erecting the apparatus. But no one would accept the job for the small amount of money that was available. The captain estimated that in inflation-ridden San Francisco $3,000 was needed.[3]

Captain Halleck resigned from the army in 1854, before the Alcatraz light was installed. The Lighthouse Board promptly arranged with the chief engineer of the army to have Maj. John G. Barnard, then in charge of constructing the fortifications at Fort Point, assume responsibility for completing the Alcatraz light and that he "should have the management and control of the light-house for at least one month after being lighted." Barnard completed the

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3. NA, RG 26, Lighthouse Board, Engr. and Insptr., 12th Dist., Feb. 1853-June 1856, Memorandum, Nov. 15, 1854, of Accounts of Gibbons and Kelly, and Halleck, June 21 and Oct. 14, 1853, to Sect., Lighthouse Board, Lighthouse Board Journal, Oct. 9, 1852-Aug. 11, 1854, p. 167, board meeting, Apr. 15, 1853; Holland, Lighthouses, p. 156; NA, RG 26, Lighthouse Board, Engr. and Insptr. 12th Dist., Holland, "Lighting," pp. 46-47 and 68-69.

work and on the evening of June 1, 1854, the Pacific Coast's first light was lit. Interestingly enough, the Lighthouse Board forgot to obtain a permit from the War Department to erect a lighthouse on Alcatraz, a military reservation. This fact was not discovered until 1907, when the Department of Commerce and Labor wrote the War Department asking for a copy of the original permit. Whether or not this oversight was rectified remains unknown.[4]

A third-order light, such as Alcatraz's, was authorized a principal keeper and an assistant keeper. Michael Cassin was appointed Alcatraz light's first keeper on August 15, 1853, long before it was completed. The San Francisco customs collector was not at all certain that Cassin would remain on the job for long. His annual salary was only $750, barely enough to pay for his food. It is possible that Cassin supplemented his income with another job, for, the inspector reported in June 1855, that the principal keeper was absent considerably. The inspector reminded him that his full-time presence was a necessity. Cassin promised to give strict attention to his duties. But in October 1855, Cassin, having overstayed his leave, was considered dismissed. His successor, John Sloan, who may have been the assistant keeper until then, held the job for only one month. He was replaced by Underhill Van Wagner, whose salary was increased to $1,100 per annum. Edward S. Swan was appointed the assistant keeper, replacing Nathaniel Blackstone who was "removed."[5]

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4. NA, RG 77, OCE, Letters to Officers of Engrs., vol. 21, Kurtz, Feb. 18, 1854, to Tower, General Correspondence 1894-1923, Asst. Sect., Dept. of Commerce, Aug. 30, 1907, to [Sect. of War]; Holland, Lighthouses, p. 156.

5. NA, RG 26, Lighthouse Board, Engr. and Insptr., 12th Dist., Feb. 1853-June 1856, R. P. Hammond, Collector, San Francisco, Aug. 15, 1853, to Sect. of Treasury, Capt. Campbell Graham, Inspector, June 14, 1855, to Sect., Lighthouse Board, M. S.

The army officers appointed as inspectors for the 12th district made their periodic inspections of the Alcatraz light. Most of their reports considered the apparatus and the premises to be in good condition. Occasionally there was severe storm damage, such as on New Year's Day, 1855, when most of the metallic roofing was blown off. Later it was replaced with white pine shingles. In 1856 a fog bell arrived to be placed at the southeast end of the island. Because of the gun batteries around the edge of the cliff, the bell station was constructed below the cliff, near the water's edge.

The machine was designed to strike a 1,000-pound bell a blow of the hammer every 10 seconds for four successive blows, then a pause of 30 seconds, and then a repetition. The hammer weighed 30 pounds and was fastened to an arm 2 feet long. The hammer raised 9 inches at each blow. One man could wind up the machine using an ordinary crank key, the weight being hung on a moveable pulley. The motive weight was composed of 14 cast-iron disks weighing a total of 3,640 pounds. This weight was raised 25 feet and it allowed the machine to run five hours before rewinding. It took a man about three-quarters of an hour to rewind the machine.[6]

The Daily Alta California described the fog bell and the light in 1858, when the keeper was Underhill Van Wagner, as follows:

Slatham, Collector, San Francisco, Dec. 4, 1855, to Sect., Lighthouse Board, and Correspondence of Maj. Hartman Bache, June 30-Dec. 15, 1855, Bache, Oct. 24, 1855, to M. S. Slatham.

6. NA, RG 26, Lighthouse Board, Engr. and Insptr., 1853-1856, Capt. Campbell Graham, Dec. 30, 1854, Jan. 15 and 19, and Mar. 19, 1855, to Sect., Lighthouse Board; P. D. Custer, Morristown, Pa., Feb. 13, 1856, to G. C. Smith (directions for putting up the fog signal machine), and G. C. Smith, "Description of the Fog signal striking apparatus designed for Alcatraz" and correspondence of Bache, Sept. 22, 1856, to Sect., Lighthouse Board.

> Beneath the south wall, and jutting over a bay-washed rock, stands a little frame building enclosing the machinery connected with the fog bell, suspended on its outer edge. This bell is of clear, sonorous tone, and its close proximity to the bay enables its silver-tones to be heard a long distance over the waters on that side of the island. But there is some complaint heard from pilots . . . that it is impossible to hear the bell at all on the upper side of the island. They state that in foggy weather the sound never reaches them until they clear the lower end. . . .
>
> The fog bell is struck by the clapper eight times a minute, and the chain is three hours and a quarter unwinding. It takes an hour and a quarter rapid turning of the crank to wind it up, and in foggy weather the bellman oftimes presses into the service a merry party to help him in his labors, which are as arduous as those of the bona fide "chain gang," for four thousand revolutions are required to wind up the chain.
>
> On the highest eminence is situated the light-house, that bright beacon of safety to the port seeking sailors. The lower part of the building is very conveniently and nicely arranged as a dwelling for . . . Mr. U. Van Wagener and his family. At the top of a second flight of stairs the visitor enters the mammoth lantern, the walls of which consist of immense plates of flint glass, which are so extraordinairly transparent as often to lead one to imagine nothing intercepting an unobstructed view without. The hydraulic pressure lamp within is the third order of Fresnel light, and burns with remarkable clearness and brilliancy. . . . The house is lit at sunset, in order that the light may shed its full effulgence by the time darkness sets in. It is not extinguished until sunrise. Two quarts of sperm oil are consumed nightly.[7]

Extensive repairs to the dwelling were carried out in 1880. A new roof was added and two of the fireplaces were rebuilt. A new kitchen, outhouses, and fences were built. The tower walls were repaired, and steps down to the fog bell were renewed. Three

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7. Daily Alta California, May 19, 1858.

years later a new bell, weighing 3,340 pounds, was cast at the navy yard at Mare Island, using the old bell and other material for casting. In a response to complaints about the old bell, the new one was erected 15 feet farther out on the shore to increase its range. Also, a new flight of steps, with railings on both sides was constructed. In 1884 the light underwent change when the mineral oil lamps were substituted for those burning lard oil. The whole complex was painted and the inspector declared the station to be in "excellent condition."

Around 1886, an old sailor, Captain Leeds, became the Alcatraz keeper. He is said to have constructed a 2-foot-high wall around the dwelling, filled it with soil, and planted flowers and trees. When a post office was established on Alcatraz it was located in the lighthouse, at least during Leed's tenure. The fog bell continued to clang the hours away--for example, 527 operating hours in 1889 and 396 hours in 1890.[8]

An excellent, unsigned article on the Alcatraz "range light" appeared in the San Francisco Call in 1896. From outside the bar at the Golden Gate, six lights could be seen; but only two of them, at Fort Point and on Alcatraz, were used to guide vessels into port. These two were known as the range lights. Fort Point's light at that time was a red and white flash, while Alcatraz's was a steady white light. After noting the military character of Alcatraz, the reporter finally arrived at the lighthouse and wrote the following:

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8. NA, RG 26, Lighthouse Board, Annual Report (Washington: Government Printing Office, 1880), p. 64, 1883, p. 85, 1889, p. 162, 1890, p. 176; Ralph C. Shanks, Jr., and Janetta Thompson Shanks, Lighthouses of San Francisco Bay (San Anselmo: Castano Books, 1976), p. 16.

> The Alcatraz Island lighthouse consists of a stone tower forty feet high, with a keeper's residence of the same material built around it. The walls of the structure are about two feet thick, stuccoed and painted a pure white. The lantern is reached by a spiral stairway in the tower.
>
> Alcatraz Island station is of the third order and has one of the finest lenses ever built. It was made by Sautler & Co. of Paris, France, in 1852, under the direction of Thomas Corwin [U.S. Secretary of the Treasury, 1850-1853]. The glass used is most peculiar, as it is so soft that a pocket knife will cut it. The advantage of this glass is its remarkable clearness. With a seventy-four candle-power Funk lamp the light can be seen nineteen miles at sea, while Point Bonita, which has nearly double the candle power and an ordinary lens, can be seen only seventeen miles. The reason more of these lenses are not used is on account of the cost. Alcatraz Island lenses cost $8,000, and at the same rate a first-class lens like Point Bonita would cost . . . $20,000. . . .
>
> At present the lamp burns mineral oil, which is supplied to the wick from a reservoir and regulated by a float feed attachment. The lamp cleaning room is just beneath the lantern. Everything about the place is as clean and as orderly as possible. All of the brasswork shines like gold. . . .
>
> Alcatraz Island is also supplied with a fog signal. It is located at the base of the cliff on the southern end of the island, and is reached by a flight of steps. The bell is operated by a machine that will run four hours with one winding. . . .[9]

More living space was provided for the keeper and his assistant in 1897 by rebuilding the two kitchens and adding a room over them. Also, to bring the general appearance up to that of the military post's, latticework and fences were built around the yard, and an "unsightly" outhouse removed. In 1899 a brick oil house

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9. The San Francisco Call, Apr. 26, 1896.

was constructed, and in 1900 the fog bell was moved again. The batteries on the southeast end of the island were much less important now than they had been a few decades earlier. Now, the fog bell (with a new striking apparatus) was moved to a new building on top of the cliff, where its effectiveness was greatly increased, because it could be heard on both sides of the island.

In 1900 the Treasury Department asked the War Department for permission to erect a second fog bell at the northwest end of the island. The post commander reported that a 15-inch Rodman that had stood at that site had been dismounted. By the following year the new bell, in a wooden frame structure 21 by 12 feet and identical to the other station, added its tone to the fog sounds of the bay. A major change to the light occurred in 1902 when the third-order steady-beam light was replaced by a fourth-order flashing lens. Masters and pilots had long complained that from outside the Golden Gate, Alcatraz's steady light could not be distinguished from the Berkeley street lamps. They were not wholly happy with the change, however, arguing that it should have been moved up to the second order rather than reduced to the fourth.[10]

The 1906 earthquake caused only minor damage to the Alcatraz lighthouse, knocking down the tops of the chimneys and causing a slight crack in the stone tower. These items were quickly repaired. In 1907 a new no. 3 Gamewell fog bell-striking apparatus was installed in the bell house at the northwest end of the island.

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10. NA, RG 26, Lighthouse Board, Annual Reports, 1897, p. 173, 1899, p. 179, 1900, p. 179, NA, RG 77, OCE, Gen. Corresp. 1894-1923, Actg. Sect. (name not legible), Treasury Dept., Oct. 24, 1900, to Sect. of War, Maj. C. Davis, San Francisco, Nov. 10, 1900, to Chief of Engrs., Wilson, Shanks, p. 16 and Holland, "Lighting," p. 125; San Francisco Chronicle, Sept. 14 and 18, 1902.

At the same time an electrical system was installed that allowed for the controlling of both bells from the keeper's dwelling.[11]

When the army decided to build a permanent prison on the site of the Citadel, it was readily apparent that the huge new structure would cut off the Alcatraz light from the harbor entrance. Major Turner, the prison commandant, wanted the lighthouse removed for another reason as well: The building and sheds were unsightly and if left in their present position would badly mar the appearance of the new prison building and be out of harmony with the general building plan of the post. No matter to Turner that the Pacific Coast's first lighthouse would be destroyed and a historic structure gone. Turner proposed that a new light be erected on the roof of the prison. In 1909, Maj. Charles H. McKinstry, Corps of Engineers, now the lighthouse engineer for the 12th District among his several other duties, prepared a set of plans for a new light tower and three sets of quarters for a keeper and two assistants. Rather than on the roof of the prison, the new tower was located slightly to the east of the old lighthouse--which continued to operate while the new one was under construction. The old fourth-order lens was moved to the new tower, with a new lantern, and the light was turned on December 1, 1909. The 84-foot tower was built of reinforced concrete. The two dwelling wings were each two stories and were cement plastered. They were connected by a reinforced concrete area, beneath which were located an oil room and a carpenter shop. The total cost of construction was about $35,000.[12]

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11. Lighthouse Board, Annual Report, 1906, p. 127 and 1907, p. 139.

12. NA, RG 92, OQMG, Gen. Correspondence 1890-1914, Maj. R. B. Turner, Alcatraz, Dec. 7, 1907, to AG, USA; NA, RG 26, Lighthouse Board, Annual Report, 1910, pp. 507-08; U.S. Dept. of Commerce and Labor, Annual Report, 1911, p. 586; FARC, SB, RG

A newspaper reporter visited the new lighthouse in 1919, when Henry W. Young, another ancient mariner, was the keeper.

> The keeper first raised the yellow curtains which cover the octagonal windows of the tower. This action displayed the apparatus. . . . Technically it is called a fourth-order light. With its resplendent brass and glittering crystals, which curve in semi-circles on either side of two central bullseyes, it would seem to be more of an object for admiration than of practical use. In the center of this canopy of crystals sets the lamp.
>
> Removing a covering which shields the apparatus . . . the keeper took a small brass lamp from a sideboard and lighted it. "This lamp," he said . . . "ordinarily has the power of a dining-room lamp, but when it gets inside its intensity is increased to 2000-candle power."
>
> "That crystal structure you see," continued the keeper, as he began to wind a small crank, as one might a phonograph, "is operated by seventy-pound weights, which are regulated by clockwork. It makes one revolution every thirty seconds, and, as it has two faces, the flare can be seen from any point once every fifteen seconds." [13]

In 1963 the Alcatraz light was converted to automatic operation. There was no longer a need to have a permanent keeper and assistants. About this same time a new double-drum reflecting light was installed. The two fog bells remained in operation. Disaster struck in 1970 during the Indian occupation of Alcatraz. On June 2 fire destroyed the residences and damaged the tower. The light

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26, Maps and plans, Lighthouse, Alcatraz, Maj. C. H. McKinstry, Jan. 16, 1909, Plates I-X, revised Mar. 4, 1909. These excellent plans for the lighthouse could not be made available for this report because of difficulties in having them reproduced.

13. San Francisco Chronicle, Albert J. Porter, "The Keeper of the Alcatraz Light," Dec. 13, 1919.

went out. The Alcatraz Indian Council denied charges that it was responsible for the fire. A few days later the Indians claimed to have rekindled the beacon with a small generator. On June 11, 1971, federal marshals removed the last of the Indians from the Rock, and on June 14 the Alcatraz light was again turned on, hopefully for good. The wreckage of the residences was removed, the soot and red paint on the tower were replaced by gleaming white. The workrooms underneath still serve the needs of the light. The light is not the oldest in the Bay Area--the Fort Point, Point Bonita, and Point Reyes lighthouses are older, but it is located on the site of the first light on the Pacific Coast and the two together have played a significant role in the maritime history of San Francisco, a role not yet finished.[14]

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14. Peter Blue Cloud, Alcatraz Is Not An Island, (Berkeley: Winglow Press, 1972), pp. 69 and 74; Holland, Lighthouses, p. 159; Shanks, p. 19.

X. Schemes And Dreams

On two or three occasions, while Alcatraz was an active prison, it was suggested that the island be used as a platform for a large statue, perhaps a West Coast version of the Statue of Liberty or a statue of peace. This idea survived the closing of the federal penitentiary in 1963. One San Francisco group, the United Nations Association, was particularly interested in a statue and proposed raising $3,000,000 to erect it. A bill was introduced in Congress, but the U.S. State Department opposed placing a statue for peace on the site of a prison for the most desparate criminals.

On April 12, 1963, the General Services Administration officially accepted the "Report of Excess Real Property" from the Department of Justice. Other federal agencies were screened to determine if the property was of interest to any of them; the response was negative. A President's commission was then appointed to decide the future use of the Rock. This commission actually held a meeting on the island on March 24, 1964.

Three days after the commission's meeting five Sioux Indians filed a claim for Alcatraz. The leader of this group, Richard D. D. McKenzie, had grown up on the Rosebud Reservation in South Dakota and had settled in Oakland in 1956, where he became a welder. The others in the group were Allen Cottier, then the president of the American Indian Council, Inc., Martin Martinez, Garfield Spotted Elk, and Walter Means, the father of today's well-known Indian activist, Russel Means. These urban Sioux had earlier "occupied" Alcatraz for three hours on March 8, and the event was noted in the newspapers. Now, the Examiner reported, Bay Area Indians wanted a university for American Indians established on the island. In April the U.S. attorney general expressed

the opinion that the Indian claims were without legal foundation. A month later Alcatraz was declared to be surplus property.[1]

The General Services Administration assumed custody of, and accountability for, the island in July 1964. It estimated that its expenses for maintenance and protection would amount to about $2,000 per month. Alcatraz's future continued to be uncertain and, in fact, very little public interest in the island seemed evident. In September 1965 Richard McKenzie again drew attention to the Indians' claim when he filed a complaint in the U.S. District Court of Northern California asking for an injunction against the sale of Alcatraz that adjudicated their right to it, or, in the alternative, demanding a money judgment of $2,500,000. This suit lingered in the court until July 1968, when it was dismissed for lack of prosecution.

Public interest in Alcatraz Island was fanned to a bright flame in 1968 when the city of San Francisco advised General Services Administration of its interest in the island for park and recreational uses.[2] The city mounted a campaign to solicit ideas from the public for the development of Alcatraz. Proposals poured in by the score, ranging from an international center for the humanities to a

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1. Gretchen Feiker, compiler, "Indian Occupation of Alcatraz," 4 vols. This compilation of newspaper clippings and copies of correspondence, primarily of GSA correspondence, concerns the Indian occupation of Alcatraz, 1969-1971. It is arranged in four loose-leaf volumes and is in the Library, GGNRA. The newspapers referred to above are the San Francisco Examiner, Mar. 8 and Apr. 26, 1964, and the San Francisco Chronicle, Mar. 9, 1964.

2. This study does not give the history of all the events that occurred from this time on that, which eventually resulted in the establishment of GGNRA. My colleague, historian Anna C. Toogood, is preparing an in-depth history on that subject.

gambling casino. Some citizens thought that the prison itself would make a tourist attraction; others believed that the prison represented "a dark page in American penology," and should not be commemorated. Few people recognized or even knew about the island's earlier historical significance as the site of the first permanent American seacoast fortifications on the Pacific. One who did was Col. Herbert M. Hart, U.S. Marine Corps, and a student of early American forts. Hart prepared The U.S. Army on Alcatraz, A Report to the City of San Francisco that was instrumental in directing attention to this side of the island's story.

At a meeting of the Surplus Property Commission of the city of San Francisco in July 1969, the oil millionaire, Lamar Hunt, presented a proposal for the complete redevelopment of Alcatraz that would erase its historical past. The Commission accepted Hunt's ideas. Outraged at the idea, a local citizen, Alvin Duskin, took out full-page ads in two San Francisco newspapers at his own expense, thus beginning a campaign to "Save Alcatraz." So many people took up Dustin's idea that Secretary of the Interior Walter Hickel found himself involved in the island's future. In October 1969 General Services Administration agreed to give the Department of the Interior until December 1 to explore the potential of a federal recreation use of Alcatraz. Hickel directed the Bureau of Outdoor Recreation to complete this special study.

Indians of the Bay Area decided it was time to take action. During the night of November 9-10, four Indians jumped from a chartered vessel and attempted to land on the island. The custodian's dog scared them off. Later that night, these four and ten others returned to the island and successfully landed. The next day the regional administrator of GSA, T. E. Hannon, arrived at Alcatraz and asked the Indians to leave. They readily agreed. On the way back to San Francisco, Richard Oakes, a dynamic young

man and the spokesman for the group, agreed to go to Hannon's office to discuss the Indians' plans. All remained quiet for the next ten days.

In a pre-dawn landing on November 20, 1969, the "Indians of All Tribes" returned to Alcatraz, this time they were determined to remain. In a press release issued that day they announced five uses they intended for the island: Center for Native American Studies, American Indian Spiritual Center, Indian Center of Ecology, Indian Training School, and American Indian Museum. Then, and later, the newspapers had a difficult time in reporting the actual number of Indians on the island, there being constant fluctuations in the population. The generally accepted figure for the occupation group in those first days was 90.

This dramatic occupation of the Rock quickly gained nationwide attention. Reaction, as to be expected, was divided. Among the early strong supporters of the Indians was an authority on Indian history, Professor Jack D. Forbes, University of California at Davis. Forbes wrote Hannon saying that the Indians should have use of Alcatraz as a cultural and educational center. He believed that the Indians had a legal right to the island under Mexican law, and that Alcatraz "was apparently utilized for food-gathering purposes [fishing?] by San Francisco Bay Area Indians."[3]

The occupation continued to dominate the news during the rest of 1969. Adam Nordwall, president of the United Bay Area Council of Indians, explained the rationale behind the Indians' actions. He

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3. Feiker, "Indian Occupation of Alcatraz"; T. E. Hannon, Regional Administrator, GSA, Nov. 10, 1969, to commissioner; San Francisco Examiner, Nov. 20, 1969; Press Release, Indians of All Tribes, Alcatraz, Nov. 20, 1969; Jack D. Forbes, Nov. 25, 1969, to Hannon.

said that by attacking Alcatraz, they were attacking the whole system of broken treaties, poverty, and neglect. Alcatraz, to them, had become a symbol. Later the Indians explained that they had taken over Alcatraz because it was a symbol of fear and oppression, the conditions governing the Indians' own lives: "The Indian occupation of Alcatraz Island was the attempt of our people to awaken a nation asleep." The Indians organized their own security guards and formed a management organization that included a public relations office. Sleeping quarters were spread over the island: in the main cellblocks, the warden's house, the guards' quarters, and elsewhere. They named rooms, such as the Pomo Room, the Monos Room, the Paiute Room, and some of these names are still to be found on the walls. A nursery was established, cooking fires were arranged in the recreation yard, and for the first few weeks dances were held nightly. "Radio Free Alcatraz," a daily 15-minute program, began over station KPFA-FM in Berkeley in mid-December.

Just before Christmas 1969 the First Indians of All Tribes National Conference was held on the island, the conference room was the prison dining area. A round table "on Design and Layout" concluded that all the existing structures on Alcatraz except the lighthouse should be demolished and replaced with a large round house made of steel, redwood, and glass. Other traditionally shaped buildings would surround the round house in the four directions. Cliff dwellings on cantilevered terraces would be built on the cliffs. All structures, including the lighthouse, were to be decorated in Indian style, including the universal eagle motif. Other projects recommended at the conference were the establishment of a marine observatory, construction of a desalinization plant, and the selection of an Indian name for Alcatraz. Richard Oakes, the 27-year-old Mohawk, continued to be the spokesman for approximately 200 Indians on the island at this time.

Meanwhile, the Bureau of Outdoor Recreation completed its special study, "A New Look at Alcatraz" and delivered it to Secretary Hickel on November 25. It contained two recommendations: For Alcatraz to become a part of the National Park System for park and open-space purposes; and a second study for a national recreation area in the Bay Area as a counterpart to the Gateway proposal in New York Harbor. This second report, "The Golden Gate--A Matchless Opportunity," was presented to the secretary of the interior on December 13, 1969. It was to form the basis of today's Golden Gate National Recreation Area.

In January 1970 tragedy hit the Indians on the Rock. Richard Oakes and his wife were on the mainland when their 12-year-old daughter, Yvonne, fell over a railing on the third floor of an apartment building and fell to the ground floor, landing on her head. She was taken off of the island by a U.S. Coast Guard boat to a hospital, where she died on January 8. That same day Richard Oakes announced that he would not return to Alcatraz but would resume his studies at San Francisco State College. With his departure, the Indians lost one of their more positive leaders.

T. E. Hannon visited Alcatraz just after Yvonne Oakes had fallen. In his report of his visit he said that he had heard rumors of considerable dissention among the Indians then on the island. Later that month the U.S. Coast Guard announced that both its foghorn and its lighthouse had been tampered with and vandalized, and that a danger to navigation had been created.

That same month Indian organizations in the Bay Area formed the Bay Area Native American Council, which supported the Indians occupying the Rock. The federal government attempted to negotiate with the council, only to learn that the council refused to speak for the occupiers. In March the Department of the Interior's proposal

to the Indians was to form a joint planning committee for a cultural center and museum on the island. But the Indians refused to work with the government, fearing that such an act would quickly bring an end to the Alcatraz movement.

At the end of May the General Services Administration announced plans to transfer Alcatraz to the Interior Department for the purpose of making it a park. Four days later fire destroyed some of the more historic structures on the island; including the commandant's residence, the old post exchange, and the lighthouse residences. The San Francisco Chronicle reported that the General Services Administration blamed the Indians for the fires. The New York Times, on the other hand, said that the Indians denied any responsibility for them and laid the blame on whites who had secretly landed on the island.[4]

Just before the fires the water supply (by boat) to Alcatraz had been cut off. The occupiers had to rely upon bottled water contributed by mainland friends. In June 1970 the Indians announced that they would begin tours of the island for visitors in an effort to raise money for the purchase of water and supplies. Immediately GSA issued a press release saying that Alcatraz was unsafe and dangerous and that any trespassers on the island would be prosecuted.

The light on Alcatraz had gone out, also just before the fires. It was commonly assumed that the Indians were responsible. But

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4. Fieker, "Indian Occupation"; G. Douglas Hofe, Jr., director, Bureau of Outdoor Recreation (hereinafter cited as BOR), Nov. 25, 1969, to Hickel; BOR, Dec. 13, 1969, "The Golden Gate--A Matchless Opportunity," a report to Sec. Hickel; Hannon, GSA, Jan. 5, 1970, to (files?); San Francisco Chronicle, Dec. 19, 1969, Jan. 8 and 9, and May 29, 1970; New York Times, June 3, 1970.

on June 8 the U.S. Coast Guard acknowledged that it had extinguished the light on May 29 because the Indians were "blowing fuzes like crazy." Angered that they had been blamed for something they had not done, the occupiers managed to set up a portable generator and, in an effort to embarrass the federal authorities, relit the light themselves on June 8.

Although the number of Indians living on the island declined in the summer of 1970, and increasing rumors spread that dissention was growing among rival factions, considerable public support for the occupation remained alive. Beniamino Bufano, the San Francisco sculptor, visited the Rock and announced that he would give a 150-foot-high sculpture of an Indian on an eagle to the Indians there. Other visitors ranged from actress Jane Fonda to Mrs. Ethel Kennedy.

GSA officials, preparing for the day when they would regain control of the island, drafted a plan of action for its security; $50,000 was authorized for this purpose. The plan called for the installation of 2,500 feet of 8-foot-high chain link fence having three strands of barbed wire on top. There would be 18 light standards for illumination, each bearing a cluster of three mercury vapor lights. The plan also called for five guard posts manned by GSA guards and two sentry dogs.[5]

The Indians celebrated the first anniversary of their occupation by holding a news conference on the island in November 1970.

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5. Fieker, "Indian Occupation"; Sunday Examiner and Chronicle, June 7, 1970; San Francisco Chronicle, June 8 and 22, 1970; Oakland Tribune, June 8 and 9, 1970; E. W. Baughman, Reg. Dir., Public Buildings Service, GSA, June 19, 1970, to (name ommitted).

At the conference they announced new plans for the establishment of Thunderbird University on Alcatraz. Nonetheless, the enthusiasm and strength of purpose that had marked that first November was now waning.

In January 1971 the Chronicle reported that nine Democratic Congressmen, including Phillip Burton, had announced their sponsorship of a bill to create a national recreation area in San Francisco Bay. Their proposed name was Juan Manuel de Ayala National Recreation Area.[6]

The occupation of Alcatraz Island came to an end on June 11, 1971. On that day 20 federal marshals landed from Coast Guard cutters to remove the occupiers. They found only six men, four women, and five children on the Rock. The San Francisco Examiner summed up the adventure.

> An aura of sadness hangs over the entire episode for the bravado of its beginnings and its hollow end. It did, however, evoke a sharper understanding of the plight of those American Indians who have been unable to meet the challenges of modern society with the same success enjoyed by many of their fellow Indians. That much can be said for the plus side.

But there was more to be said for the plus side. The occupation of Alcatraz was but the first symbolic action taken by Native Americans in recent years to bring home to the American people the status and the plight of both urban and reservation Indians. An immediate plus was the deeding of several hundred acres of federal land near Davis, California, to American Indians and Mexican Americans to establish an educational institution. While

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6. Fieker, "Indian Occupation"; San Francisco Chronicle, Nov. 21, 1970, and Feb. 9, 1971.

Thunderbird University was not built on the Rock, D-Q University is an established school today.[7]

Shortly after the occupation ended, the U.S. Department of the Interior announced that it was concerned about preserving evidence of the Indians' 1½ years on Alcatraz. Today, much of this evidence continues to remind visitors of the event and the purposes behind it, such things as the symbolic burned-out shell of the warden's residence, and the "Red Eagle" over the main entrance to the prison. National Park Service technicians have identified and recorded the more important graffiti (wall writing) remaining on the walls of the structures, and that which can be preserved, will be.[8]

The fire damage on the island was now supplemented by the bulldozer's blade. To make the island inhospitable for any future army of occupation, the federal government had the apartment houses and other residences around the parade ground reduced to rubble. One of the machines employed was too large to get through the brick sally port of the historic guardhouse--one of the first structures erected on Alcatraz and well over 100 years old. The machine casually knocked out the brick arch severely damaging the portal.

In 1972, 125 years after Lieutenant Warner made the first survey of Alcatraz, the island became a part of the new Golden Gate National Recreation Area. Coastal fortifications, army prison, military garrison, federal penitentiary, and Indian occupation all lay

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7. Fieker, "Indian Occupation"; San Francisco Examiner, June 11 and 15, 1971; Hannon, GSA, June 25, 1971, to Victoria H. Plaisted, San Francisco.

8. San Francisco Examiner, July 24, 1971; Cindy Orlando, Western Regional Office, NPS, ca. January 1978, report on the graffiti, Alcatraz.

behind. Yet, all of these things remained, too. Their history, in physical and written forms, are forever Alcatraz's heritage.[9]

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9. Herbert M. Hart, The U.S. Army on Alcatraz, A Report to the City of San Francisco (Tampa: 1969); Blue Cloud, Alcatraz. On the day the island was occupied by native Americans, November 20, 1969, the Indians of All Tribes distributed a "To Whom It May Concern." This document explains why they went there:

11/20/69

To Whom It May Concern:

We, the members of the Indian Nations and tribes of North America, in an attempt to secure this island; in our attempt at asserting our cultural heritage; in establishing on this island an Institute responsive to the religious diversity of this Indian Nation; in the creation of a viable program of higher education serviceable to the needs of the Indian people; respectfully solicit your cooperation and expertise.

Indian people are desperately in need of self-assertion for their way of life and their desperate needs, both economic and political. The move to Alcatraz Island symbolizes what American Indians can get with mind power.

We are asking you to give back our honor and we won't need jails; give Indians a chance to come up and not have to stand behind any more.

We have been in this land for thousands of years.

After a hundred years as prisoners of this country, we feel that it is time we were free. We have gone to Alcatraz Island to preserve our dignity and beauty and to assert our position with the new weapons we have come to learn how to use. These weapons are the same ones these invaders of our country used to take what they wanted.

These weapons are the laws and the lawyers, and the power of the pen to tell our real story.

But in addition, we now have a more powerful weapon. The people of this country know a little of the real history and tragedy of the Indian people. What they do not know is the tragic story of the Indian people today. We intend to tell them that story.

XI. Evaluations And Recommendations

Alcatraz Island in its entirety was placed on the National Register of Historic Places as a historic district on June 23, 1976. Almost every inch of the island is historic. From a barren rock when first surveyed in 1847, man has carved roads, parade grounds, fortifications, tunnels, gardens, prisons, and homes. There follows a brief history of the structures on the island today, together with evaluations of their historical significance and, where appropriate, recommendations concerning them. Following lists of the structures, the discussion deals first with fortifications and then with the other structures.

A. List of Structures on Alcatraz (historic and nonhistoric)

The numbering system for the structures on Alcatraz Island requires some explanation. The engineers were responsible for the fortifications and at different times they employed names, numbers, and even letters to keep track of their works. However, the post quartermaster was responsible for nonfortification structures. In the early 1880s he began assigning numbers to those buildings under his care. When the engineers gave up all interest in Alcatraz as a fortified place early in the 20th century, the quartermaster department assumed responsibility for all of the island's structures.

Generally, the quartermaster did not reuse a number even when the building it had been originally assigned to was no longer standing. For example, structure 1 on Alcatraz was the Citadel. When that building was torn down in 1909, that number was not applied to any new structure built after that date. This practice made it easy to keep the historical record straight. Unfortunately, other agencies did not retain this custom. Today, structure 1 on Alcatraz is a modern water tower.

When the army turned Alcatraz over to the Department of Justice, it prepared a list of the still-existing structures with their assigned numbers. This list contained 44 structures. The Bureau of Prisons retained the numbers pretty well intact and most of them are still applied today. But there are still some structures on Alcatraz Island that do not yet have identification numbers. This situation is generally caused by the fact that the National Park Service considers almost anything man-made as being a structure--a wall, a road, a building--whereas the army usually considered only buildings when assigning numbers.

List of Stuctures on Alcatraz
(historic and nonhistoric)

Names	Army No.	Today's No.
Water tower	--	1
Public restroom	--	2
Lighthouse	--	3
Foghorn (N)	--	4
Foghorn (S)	--	5
Toolshed	--	6
Check station (metal detector)	--	8
Guard tower (hill)	--	11
Morgue	66	12
Firebox	--	13
Guard tower (dock)	--	14
Guardhouse, firing range, etc.	22	22
Barracks and casemates, apartments	64	64
Post exchange, social hall, custodial officers' club	65	65
Power plant	67	67
Prison	68	68

Commandant's quarters, warden's residence	76	76
Guardhouse, apartments	77	77
Quartermaster storehouse and commissary	79	79
Model industries building	82	82
New industries building	--	84
Prison, salvage storehouse, electrical shop	89	89
Stockade, exercise yard	68	201
Fortification arch & bombproof (E of stockade)	--	202
Fortification arch & magazine (S of stockade)	--	203
Fortification arch & magazines (N of stockade)	--	204
Fortification wall	--	205
Fortification wall	--	206
Fortifications & Tunnel	--	207
North Caponier & fortifications	--	208
Fortifications under industries building	--	209
Parade ground	--	210
Wharf, dock	33	211
Ranger office, waiting room	86	212
Maintenance garage	--	213
Firebox	--	214
Firebox	--	215
Firebox and equipment storage	--	216
Oil tank	--	217
Storage vault	--	218
Greenhouse	--	219
Oil tanks	--	220

Additional Structures, not yet numbered

South Battery (also called Battery McClellan & Batteries 10 and 11)

Ruins of Officers' Quarters 7 and garden

Ruins of Officers' Quarters 8 and garden
Ruins of Officers' Quarters 9 and garden
Citadel retaining wall and steps

Structures on the List of Classified Structures, 1976

AL-9 Metal detector check station
22 Guardhouse complex (includes no. 77)
64 Barracks and casemates
68 Prison
76 Commandant's quarters
77 Guardhouse complex (see no. 22)
79 Quartermaster storehouse and commissary
82 Model industries building
89 Prison, salvage storehouse, electrical shop
201 Stockade, exercise yard
202 Fortification arch and bombproof
203 Fortification arch and magazine
204 Fortification arch and magazines
205 Fortification wall
206 Fortification wall
207 Fortifications and tunnel
208 North Caponier and fortifications
209 Fortifications
210 Parade ground
211 Wharf
212 Guard tower
227 Road, from wharf to northwest end of island
228 Road, from guardhouse to the top of the island

B. Fortifications

Greatly underestimated, and at times ignored, Alcatraz's fortifications are among the most historically significant on the

Pacific Coast. On this island the engineers of the U.S. Army built the first permanent American fortifications on the Pacific Coast. When the Civil War began these batteries were still the only permanent ones having guns mounted. Toward the close of the Civil War, Alcatraz's defenses were improved with the addition of Rodman guns and Parrott rifles. And when the seacoast defenses were modernized in the 1870s to reflect the lessons learned from the Civil War, the island's batteries were entirely reconstructed to protect the 15-inch guns. Although only a few of these guns were mounted, they were ready for action at the outbreak of the Spanish-American War when, for a time, there was concern that a Spanish fleet might appear. Even when the Endicott period came in (in the 1890s) Alcatraz was considered as a site for two batteries of modern guns. Further (in the 1880s) Alcatraz not only stored the first submarine mines for San Francisco Bay, it also had one of the first mining casemates in the harbor. Thus for a half-century the Rock played an important role in the defenses of a great harbor. The surviving fortification structures on Alcatraz date from both the earliest works of the 1850s and from the new works of the 1870s.

1. South Battery (no number)

This battery was also called Battery McClellan during the Civil War, and Batteries 10 and 11 in the 1870s. It included South Caponier located in the center of the battery. It was the first permanent battery constructed by U.S. engineers on Alcatraz and on the Pacific Coast, and was constructed in 1854-1856. All or most of the 25-foot-high blue sandstone scarp wall is believed to be still standing (a portion may be seen today). This wall was about 450 feet long. The coping of this wall was later removed to avoid its splintering under shot and shell when the front of the scarp was covered with earth. The platforms were converted from wood to stone in 1858.

The floor of the magazine in the caponier was at the elevation of 43.6 feet; the terreplein of the battery was at 54 feet; the top of the coping was at 59 feet; and the breast-height wall stood at 61.5 feet. The parade ground here at the southeast end of the island had an elevation of from 62 to 67 feet.

When this battery was remodeled in the 1870s, the gun room of the caponier was removed and the magazine level partly filled in. The remodeling retained the original scarp wall and, on top of the old emplacements, parapets for 15-inch Rodmans and magazines were constructed. Only two of the Rodmans were mounted. The terreplein's elevation now was 61 feet, or about 7 feet higher than in the 1850s.

In 1904, the enlargement of the upper prison destroyed or covered over Battery 11. It is supposed that the caponier and Battery 10 were gradually filled in after Alcatraz ceased to have fortifications. There is the great probability that important remains of this complex lie under the parade ground today.

Recommendations:

Recommend that the scarp wall and any other surviving elements of this complex be considered as possessing a high degree of historical significance and that they be added to the List of Classified Structures; and

that the rubble from the demolished apartment houses on the south side of the parade ground, destroyed in the 1970s, be carefully removed;

that a historical archeological investigation of this area be carried out.

2. Three-Gun Battery (no number)

This battery was also called Battery Prime in the Civil War and Battery 12 in the 1870s; it was constructed in 1855-1856. By the spring of 1868 its guns had been increased to four. During the 1870s, a new magazine was constructed on either flank. No guns were mounted in the modernization project. Its history is similar to South Battery, and there are the same possibilities of remains underground as well as the scarp wall. It disappeared with the enlargement of the upper prison in 1904. In 1929 a duplex officers' quarters was erected on approximately the same site. These quarters were demolished by the General Services Administration in the 1970s. Three-Gun Battery is as historically significant as is South Battery.

Recommendations:

The same as for South Battery.

3. North Battery - (Includes numbers AL-207, 208, and 209)

This battery was also called Batteries Halleck and Rosecrans during the Civil War and Batteries 1, 2, 3, and 4 in the 1870s; and included North Caponier; its construction began in 1854. Its scarp wall, which still exists in part, was made of brick and concrete rather than sandstone. The caponier had a cut sandstone foundation. Guns were mounted by 1856. In 1865-1866, two 15-inch Rodmans were mounted; one in the 90-degree-salient angle of Battery Rosecrans, and one on the extreme left flank of Battery Halleck. For this latter, the circular brick scarp was enlarged.

In the 1870s' remodeling, the 48-foot elevation of the terreplein was retained but its size was enlarged by excavating to the rear. In 1871 a third 15-inch Rodman was added. The gun room was removed from North Caponier and its magazine was incorporated into the new works. In 1879 a 15-inch gun was dismounted

and another one mounted in 1894 (in Battery 4), the total still being three. No guns were mounted after 1901.

In 1910-1912, the power plant shops complex was built on top of Battery 2 (the left face of Battery Halleck). Later the quartermaster storehouse was constructed on top of Battery 1 (the right face of Battery Halleck). This caused extensive damage to the fortifications, but a number of elements have survived, including the magazine portion of North Caponier, a part of the covered way, one complete arched passageway, one magazine, and a part of another arched passageway. The model industries building (82) was built directly on top of the three 15-inch gun emplacements in Batteries 3 and 4. The scarp wall of the 1850s remains intact underneath, since it was not covered with earth as was South Battery. North Battery is historically significant.

Recommendations:

Batteries 3 and 4 (AL-209) under model industries building (AL-82). In this historian's professional judgment, the historical significance of this part of North Battery far outweighs the significance of the industries building (discussed below). It is recommended that a historic structure report of the industries building and of the North Battery complex be prepared;

that, if feasible, the industries building (82) be removed from the site under the supervision of experienced historical architects and archeologists;

that an archeological investigation be carried on at the sites of Batteries 3 and 4, and northward toward the powerhouse on the site of Battery 2;

that a feasibility study be undertaken for the restoration of at least one 15-inch gun emplacement in Battery 3;

that, if feasible, a gun emplacement in Battery 3 be restored and a 15-inch Rodman (to be made available by the Smithsonian Institution) be mounted there; and

that all other surviving elements of the batteries be stabilized and preserved.

4. North Caponier (AL-208) and the covered way in the vicinity of power plant (AL-207 and 208)

Again, the fortifications possess a greater degree of historical significance than the power plant or the quartermaster storehouse. However, the latter two structures have undoubtedly caused great damage to the battery.

Recommendation:

That a historic structure report be prepared on the entire complex;

that if the power plant and the quartermaster storehouse are ever removed, the work be done under the supervision of experienced historical architects and archeologists;

that the surviving elements of North Battery be restored, including the scarp wall; and

that the sealed archway just to the northwest of the power plant be reopened so as to restore communication along the covered way of North Battery as it was originally.

5. Tunnel (AL-207)

Although this tunnel can be considered a separate structure, it is currently considered part of the North Battery complex, AL-207. Constructed in 1873, this 180-foot-long tunnel was drilled to allow for secure communications across the northwest end of the island from the vicinity of the old North Caponier to Battery 4. When the Bureau of Prisons took over in 1934, it placed tool-proof grated doors at both ends of the tunnel, inasmuch as the west end was in the prisoners' work area. In 1936 the security was increased by sealing the west end of the tunnel with concrete. Then in 1940 the new industries building was erected; this building stands over the west portal of the tunnel.

Recommendations:

That Alcatraz's only tunnel (cut in living rock) be reopened and interepreted as part of the fortifications if the new industries building is ever removed; and

that the machinery be removed from the east end of the tunnel and that portion of it be made available for interpretation.

6. Three Magazines and Brick Archways (AL-202, 203, and 204)

These archways covered the entrances to three magazines in Batteries 5, 6, and 7 of the 1870s fortifications. Today the three archways are on the sides of the prison recreation yard or stockade: Archway 202 is on the east side; 203 is at the south; and 204 is at the north. Archway 204 was an archway under the traverse that separated Battery 5 from Battery 6. Archway 203 was an archway through the traverse on the southwest flank of Battery 7. Archway 202 was an archway that ran from the terreplein of Battery 6, under a parados, to the east side of the island. Within the archways of 203 and 204 are magazines I and K

and shell rooms. Inside Archway 202 is a room similar to a magazine in architecture, but which was probably a bombproof for personnel.

During the army administration of the island a small addition was built on Archway 202, and the whole converted into a morgue having three vaults. Then in 1934 the Bureau of Prisons installed an emergency lighting system in the structure.

As surviving elements from the 1870s fortifications all three structures are considered to be historically significant.

Recommendations:
That clean-up, stabilization, and preservation of all the archways and magazines be implemented; and

that the morgue be retained in Archway 202, but that the emergency lighting equipment be removed.

7. Defensive Walls (205 and 206)

The brick and concrete wall (205) joining the guardhouse to the barracks was completed in 1858. It was approximately 21 feet high, and was originally over 400 feet long, extending southeast to the end of the wharf. Its primary function was as a defensive wall should an enemy force land at the wharf. Owing to the crumbling nature of the natural cliff, this wall was also a retaining wall. When excavations for the bombproof barracks at the wharf began in 1865, that end of the wall was destroyed. The surviving wall is an important element in the fortifications history of Alcatraz.

The brick and concrete wall (206) that extended northwestward from the guardhouse, on the waterside of the road, to the North Battery was also considered a defensive wall. It was

completed by June 30, 1857, and, as then built, measured 394 feet in length, 22 feet in height, and 4 feet thick. It extended above the road sufficiently to offer protection from enemy shot. This wall was negatively affected over the years by the construction of a number of buildings along it, such as the post exchange, quarters, and the quartermaster storehouse. Still, significant portions of it remain, especially below the roadway.

Recommendation:
That the surviving portions of both these important defensive walls be stabilized and preserved.

8. Guardhouse and Lower Prison (AL-77 and AL-22) and Old Cell House (AL-89)

The guardhouse was built in 1857-1858 and sat astride the roadway from the wharf to the upper parts of the island; a dry moat crossed by a drawbridge lay in front of it. Two 24-pounder flank howitzers were planned to fire through embrasures to cover the approach from the wharf; a third howitzer was to provide flanking fire toward the North Caponier. An infantry banquette was located on the roof (terreplein) of the defensive guardhouse.

However, beginning in the Civil War the guardhouse and numerous additions to it became a general prison. By 1868 it was a full-fledged departmentwide military prison--six years before the U.S. Military Prison was established at Fort Leavenworth (by the same officer who developed Alcatraz into a departmental prison). This lower prison was supplemented by the upper prison at the turn of the century, then replaced altogether by today's military prison in 1912.

Between 1861 and 1863 the first of four frame cellblocks was erected "behind" the guardhouse immediately to the

northwest. In 1867 this frame prison was replaced by a brick structure of the same size on the same site. By 1893 this brick building had been converted into quarters for the prison guard (guardroom). At some unknown date, and for reasons unknown, the brick upper portion of this building was removed and replaced with a two-story frame structure. By 1933 this building was being used by the army as a salvage storehouse, and later, part of it was used as an electric shop by the Bureau of Prisons.

The inland gun room of the guardhouse served as the first general prison, and, after additional cellblocks were added, it was converted into individual isolation cells and referred to as the "dungeon." Its musket-slit windows were bricked up to make it dark. The basement, originally designed to be the post prison room, became a washroom and bathroom for the first prison, and entrances to it were knocked through its stout masonry walls (its original entrance had been a trap-door in the floor of a gun room). The outside gun room served as the first guards' quarters. The three howitzers were never mounted because of the prison functions.

The present-day brick wing in front of the guardhouse, standing over the roadway on arches, is 1½ stories high. It was constructed sometime between 1869 and 1879. The original function of this structure was a combination library, reading room, chapel, and theater on the main floor; and a variety of functions were held in the attic, including a tailor shop, court-martial room, bookbinder's shop, ordnance storeroom, etc. By 1909 the main floor had become a gymnasium. Then, in the Bureau of Prisons era, a small-arms range was installed in this room.

By 1933 the army had constructed a two-story addition to the roof (terreplein) of the guardhouse, employing Mission Revival architecture. The lower floor was fixed up as quarters for

night employees; the upper floor served as a school, and sometimes as a chapel. In 1934 the Bureau of Prisons converted both floors into apartments, one on each floor.

On the waterside of the guardhouse is a two-story frame addition constructed sometime between 1914 and 1933. It is believed that this wing was a storehouse, the one referred to by the army as the "seaside storehouse."

In the 1970s, after the last of the Indians had been removed from Alcatraz, General Services Administration arranged for a large machine to demolish all surviving residences on the island. When this machine attempted to pass through the sally port of the guardhouse, it was found to be too large for the arched passageway. Consequently a considerable portion of the west end of the original brick arch was knocked off to allow passage.

The floor of the sally port was originally granite. Today it is covered with a concrete pavement.

All of these structures (22, 77, and 89) that comprise the surviving elements of Alcatraz's first general prison are considered to be historically important. The guardhouse itself is doubly important as a survivor of the early fortifications. Only the relatively late addition, the two-story, frame "seaside storehouse" is considered not to possess any historical significance.

Recommendations:

That a historic structure report be prepared on the complex;

that (among other things) this report address itself to the feasibility of restoring the moat and reconstructing the drawbridge in front of the guardhouse (plans for the drawbridge have not yet been found);

that the damaged archway of the sally port be restored;

that the complex generally be stabilized and preserved;

that the two-story frame addition on the waterside of the guardhouse be removed, so that the howitzer embrasure may again be visible; and

that the equipment for the small arms range be removed from the former library-reading room, so that the "cornerstone" incorporated in the wall over the sally port may again be seen.

9. Casemates and Barracks (AL-64)

The plans called for two tiers of casemates and one barbette tier of guns for this bombproof barracks. The principles of the design were the same as the fort at Fort Point; but the barracks was a much smaller project. Excavation and the removal of part of the defensive wall behind the wharf began in the spring of 1865.

Work was suspended in January 1867 because of the realization that this type of fortification had been made obsolete by developments in weapons during the Civil War. The first tier of casemates had been completed and two tiers of storerooms and cisterns behind the barracks were nearing completion. In 1868 an asphalt floor was laid in the casemates. In 1884 the magazine at the north end of the casemates became the first submarine mine storage area on the Pacific Coast. Over 450 mines were stored there until 1891. At that time the magazine was converted to a mining casemate and a tunnel was dug from it to the water's edge for the electrical cable. This small tunnel probably added to the legends of ancient Spanish dungeons and tunnels honeycombing the island.

In the 1880s one casemate was used as a gymnasium but it proved too damp for that purpose. Another casemate was fitted up as an enlisted men's bath and wash room. Still others were used temporarily as messes and kitchens. In 1899 the embrasures were enlarged and again kitchens and mess halls were installed in the casemates.

In 1905 a three-story barracks was erected on top of the casemates. Military prisoners built this four-company barracks with hollow concrete blocks that they had manufactured themselves. The building had dayrooms, dormitories, a post exchange, and a two-lane bowling alley. In 1906 concrete floors were laid in the eight casemates being used as messes and kitchens. In 1908 the southeast end of the barracks was converted into officers' quarters. When Alcatraz became a federal penitentiary the barracks was converted into apartments for the prison staff. By 1936 it contained 11 apartments and 9 single rooms. The casemates were used for storage, and an elevator was installed in 1934. The magazine was rather heavily altered over the years, including the cutting of windows and a doorway to the outside. It served as an air-raid shelter during World War II. Today it and an adjoining casemate are used as a museum.

The casemates are historically important as being the only fortifications of this type ever erected on Alcatraz. The barracks are also historically important because they were constructed by prison labor with concrete blocks manufactured by the prisoners. They accomplished this so well that the army contemplated using this type of construction in all of its Bay Area posts; and did continue to employ prison labor in several additional and major construction projects. The interior of the barracks was heavily modified during the Bureau of Prisons period.

Recommendations:

That both the casemates and the barracks, including the rear-area rooms, be preserved on the exterior;

that one or two of the casemates be restored to their earliest historic appearance (awaiting armament) and that a mess hall or kitchen be restored to its earliest historical appearance; and

that the interior of the barracks, already heavily modified, be used adaptively for such purposes as may arise; and

that the of stairways, which probably are original, be preserved. However, if no adaptive uses can be found, the structure should be closed and interpreted from the exterior as an exhibit-in-place.

10. Citadel (Defensive Barracks) (AL-68)

Although the Citadel's basement and moat are a part of the prison building today, they are discussed herein by themselves because of their original role in the fortifications of Alcatraz Island.

As designed in the 1850s, the Citadel, with its 3-foot-thick walls, was considered to be strong enough to resist both shot and shell and an infantry attack. It is the only known defensive barracks of this type to have been erected on the Pacific Coast. Iron beams supported the heavy roof; these beams were reused in the construction of the prison building. The barracks originally had two entrances, both on the main floor; both these handsome granite doorways were taken down and incorporated in the prison. The defensive barracks had iron stairs, and a flight of these was put in the permanent prison.

The basement of the defensive barracks, the dry moat around it; the storerooms and privies in the counterscarp wall, and a complex of water cisterns still remain under the prison. When the Citadel was converted into six sets of officers' quarters in 1882, some changes were made in the basement. The three prison cells in one of the towers were closed off, dumb waiters were installed, and some loopholes were enlarged and made into windows. In the basement there were now six kitchens and six servants' rooms. The Citadel was demolished in 1908 to make way for the new prison. The army occasionally used the old basement as dark cells, or "dungeon" for unruly prisoners. The Bureau of Prisons did the same but only until about 1938. Warden Johnston implied that the rooms on the southeast side of the basement, those closest to the cisterns, were the ones used as cells. But former custodial officers have informed the park staff that the storerooms in the counterscarp wall were used as dungeons. Some deterioration of the reinforced concrete ceiling (i.e., the floor of the prison) gives rise to concern about visitor safety, and the basement is not currently interpreted despite its historical significance and the myths surrounding it.

Recommendations:

That a historic structure report and/or a structural engineering study be carried out to determine the feasibility of making the basement and moat safe enough (and yet not destroyed in the process) to be interpreted as part of the fortifications and as a "dungeon" on Alcatraz Island; and

that the basement, moat, and other features be preserved and further deterioration halted, whether or not they can be made available for guided tours.

C. Other Structures

A number of nonfortification structures survive on Alcatraz. These vary in size and in historical significance all the way from the large, nationally-significant prison to a historically insignificant water tower.

1. Roads (AL-227 and AL-228)

In 1854 the first two roads were carved out of Alcatraz's rock. One of these (AL-227) ran from the wharf to the northwest end of the island. With the construction of the defensive wall between the guardhouse and North Caponier, this road became a covered way (that is, the wall covered or protected it from enemy fire). The other road (AL-228) branched off from the first just beyond the guardhouse and ran to the top of the island (opened in 1857). Other roads were built as they were needed, such as the continuation of the road that led to South Battery on around to the west side of the island, as additional batteries were being built. But not until construction of the new prison, did a road completely encircle the island, since there had always been a gap between Battery Rosecrans and Battery Mansfield at the northwest end of the island, caused by the great difference in elevation between the two. Eventually, most of the roads were hardtopped with either concrete or asphalt and, in some cases, covered utility trenches were built into them.

Recommendations:

That the two early roads, AL-227 and AL-228, be considered historically significant and added to the List of Classified Structures; and

that their retaining walls be considered part of the historic structures and that these be given such preservation treatment as required.

2. Citadel Retaining Wall and Granite Steps (no number)

The road to the top of the island passed below the east end of the Citadel. To protect the steep slope above the road a brick retaining wall was built in fiscal year 1860, and a flight of 30-odd granite steps was constructed leading from the entrance of the Citadel down to the road. A decorative iron fence stood along the top of the wall and an iron railing led down the stairs. These steps and wall are still in place and represent one of the earliest nonfortification structures to be built on Alcatraz.

Recommendations:

That the wall and steps be stabilized and given such preservative measures as deemed necessary;

that the decorative iron fence along the top of the wall and the iron railing on the stairs be eventually reconstructed; and

that the whole be added to the List of Classified Structures as one structure.

3. Ruins of Officers' Quarters, Army Nos. 7, 8, and 9, and their Gardens

The first individual set of officers' quarters was building 8, constructed in 1880 for the commanding officer of the post. The next year two more sets, buildings 7 and 9, were erected on either side of building 8. None of these three stand today, but their basements, retaining walls, garden walks, staircases, and flower gardens are still to be seen.

These were formal flower gardens similar to, but smaller than, a large garden planted on the southeast side of the Citadel (over the water cisterns) about 1881. According to maps of the island, all these gardens changed their patterns from time to time. The Citadel garden is now covered by the prison building.

The ruins of the officers quarters and their gardens are considered to be significant for their contributions to the general historic scene.

Recommendations:

That the ruins, the retaining walls, and the stairs (the "Poodle" and the "Great Dane" stairs) be stabilized and preserved;

that the surviving flowers be recorded; and

that these ruins be added to the List of Classified Structures.

4. Commandant's Quarters (AL-76)

Also called the warden's residence, this large set of quarters was constructed in 1929 on the site of an earlier building that had served as post headquarters. At the time of the Indian occupation of Alcatraz, fire destroyed this fine building, leaving only the skeleton of its walls standing. These ruins possess historical significance both because of the historic function of the structure and because the ruins are symbolic of the Indian occupation of the island with the destruction that occurred during and following that period.

Recommendations:

That the ruins be stabilized, preserved, and interpreted.

5. Gardens (no numbers)

In addition to the above gardens, another formal garden was located for a time, around the turn of the century, on top of the rear area rooms of the casemates--that is, between the road to the parade ground and the barracks. This small space is now paved over with concrete.

In 1924, 300 trees and shrubs and many pounds of flower seeds were planted on Alcatraz. The records do not indicate where these plantings were made, but from the evidence today they probably included the slopes along the sides of the prison, the slopes outside the scarp wall at the southeastern end of the island, and in every nook and cranny that would hold a seed.

Recommendations:

That a historic grounds cover study and a plan of surviving flowers, shrubs, and trees be prepared for Alcatraz; and

that the existing historic vegetation on Alcatraz be maintained by acceptable methods of horticulture.

6. Flagstaff

As far as it can be determined, two U.S. flags flew over Alcatraz for most of its history--one belonging to the U.S. Army and one flown by the Lighthouse Service (Coast Guard). In the beginning, the army's flagstaff stood on the east tower of the Citadel. After it blew down in a storm, the flagstaff was rebuilt on the east side of the parade ground near the practice guns overlooking the bay. When the permanent prison was built, it was planned to erect the flagstaff on its roof, over the main entrance. It has not yet been firmly established that this plan was carried out. Today, the National Park Service has erected a new wooden flagstaff in front of the prison. The U.S. Coast Guard does not now maintain a flagstaff on the island.

Recommendations:

None.

7. Wharf (AL-211)

The main wharf at Alcatraz was first built in 1854. A year later it was enlarged. Iron screw piles were installed in

1863-1864. In fiscal year 1868, a 50-foot extension was added to the wharf for the newly acquired steamboat. A boathouse and a crane were added at the same time. In 1874, stone from old gun platforms was used to build a bulkhead at the rear of the wharf, replacing a wooden one. In 1883, the wharf was doubled in size, and two new coal bins and a new boathouse were built on it. In 1886 still another extension was made to the wharf. Four thousand dollars were expended on repairs in 1903. Sometime between 1914 and 1933, a launch landing was built. In 1907 "steel" was added to the wharf to make it stronger for the receipt of large amounts of construction materials and coal; then in 1934, the Bureau of Prisons made repairs to the wharf, its entire decking being changed from wood to concrete. Although changed and enlarged many times over the years, the wharf today represents one of the earliest structures erected at Alcatraz Island. Today, no original fabric may be seen.

Recommendations:

That although all that is visible to the eye at the wharf is of fairly recent origin, the wharf in its entirety should be considered a historic structure in that it has been in continuous use for well over a century; and

that in the event that future alterations or repairs are required on the wharf the work should be preceded by a historic structure report.

8. Prison (AL-68) and Stockade (AL-201)

Construction began on the prison building in 1909. It was first occupied by military prisoners on February 6, 1912. Several features from the old Citadel on the same site were incorporated in the structure, including the basement and moat, two granite entranceways, iron I-beams, and a flight of iron stairs. The stockade was constructed in fiscal year 1912. The prison housed military prisoners for 21 years first as the Pacific Branch,

U.S. Military Prison, then after 1915, as the Pacific Branch, U.S. Disciplinary Barracks. It was the successor to two earlier prisons on Alcatraz, and the island served as a general military prison since early in the Civil War. In 1934 the Bureau of Prisons took over Alcatraz making it a federal penitentiary. Immediately the prison was remodeled to make it a place of maximum security. Cellblocks B and C received tool-proof steel fronts, and steel doors were added, as well as steel bars on the windows and other openings. Two gun galleries, tear gas, and new locking devices were installed. Federal prisoners, including some infamous ones, began arriving that year from other federal institutions. In 1936, a series of concrete seats or steps was built in the stockade, by then called the "yard." In 1939-1940, D block was remodeled into maximum security, and isolation cells and a new library were built in the cell house. Several spectacular escape attempts and riots occurred at Alcatraz, including the so-called "Battle of Alcatraz" in 1946 that occurred in the prison building. Changes and alterations continued to be made in the prison building almost down to its abandonment.

A prison at Alcatraz was in operation for a century. The present prison building served as a prison for 50 years. As a penitentiary, Alcatraz was considered to have the strictest discipline of any in the nation. The prison is considered to have a national order of significance.

Recommendations:

That the prison building and the stockade be preserved and components such as glass windows be restored where necessary;

that a historic structure report for the prison building be prepared; and

that a structural analysis of the prison building be prepared to determine the needs for strengthening the structure, especially with regard to the historic basement, or "dungeon," underneath the prison that dates from the 1850s. This basement is equally historic, and any attempts to strengthen the prison building must consider the integrity of the basement.

9. Electric Power Plant and Shops (AL-67)

Constructed in 1910-1912 on the site of Battery 2 (and the older Battery Halleck). The part of the power plant that housed the furnaces was brick; the rest of the complex was reinforced concrete. The laundry began operations in November 1911. The power plant and the pump house were completed in 1912. In 1934 a new firebrick furnace lining was installed. The power plant was completely overhauled in 1936; two new boilers and a new saltwater pump were installed; then in 1939-1940, the power plant was renovated throughout. New equipment included a steam turbine, a diesel engine, pumps, waterlines, steam lines, and fuel oil lines. When a new industries building was constructed in 1940, the shops of this complex were demolished. The surviving elements have little or no historical integrity and the structure has no historical significance.

Recommendations:

That if this building is ever removed, the demolition be preceded by a complete historic structure report, even though it has no historical significance. This structure stands on the site of two historic batteries, and great care will be needed to prevent additional damage to their historic fabric during removal.

10. Quartermaster Storehouse, Commissary, and Garage (AL-79)

The date of construction is unknown, but it was between 1914 and 1922. This is a four-story, reinforced concrete

storehouse, with a vehicle garage on the ground floor. The building also contains three walled-in steel storage tanks for diesel fuel. The structure possesses no historical significance.

Recommendations:

That the services of an historical architect and archeologist be employed if the building is ever removed or destroyed, even though it is of no historical significance, since it stands on the site of two historic batteries; and

that it be removed from the List of Classified Structures.

11. Model Industries Building (AL-82)

This building is believed to have been constructed in 1929 on the same site as an earlier building of unknown function and is built of reinforced concrete. In 1933 the army had the following shops in this building: blacksmith shop, typewriter shop, paint shop, plumbing shop, tailor shop, hat shop, packing shop, shoe shop, and a vocational training department. The prison band room was located in the basement (outside historic North Battery's scarp). The Bureau of Prisons disliked this building intensely because of its location right at the water's edge and the guards' inability to observe the water sides. Nevertheless it continued to house the following industries: rubber mat factory, tailor shop, shoe shop, and wood shop. In 1936 a clothing factory and a furniture reconditioning shop were added. When a new industries building was constructed in 1940, all shops were transferred to it, and this structure (AL-82) became a storehouse.

The building possesses a modest degree of historical significance in that during the federal penitentiary era, many escape attempts on Alcatraz were made from it. However, its significance is far outweighed by the historical significance of the ancient North Battery underneath it.

Recommendations:

That a historic structure report of the entire complex of industrial building and the batteries underneath it be prepared;

that the model industries building (82) be removed from the site, the removal being carried out under the supervision of experienced historical architects and archeologists; and

that a 15-inch Rodman be mounted at this northwest end of Alcatraz, as recommended under "North Battery," above.

12. Guard Towers (AL-14)

In 1934 the Bureau of Prisons built four guard towers on Alcatraz: at the wharf (AL-14, the Dock Tower), on the west side of the stockade (Road Tower), on the northwest end of the island (Hill Tower), and on the roof of old North Caponier (Powerhouse Tower). In 1936 a fifth tower was erected on the roof of the model industries building (Model Tower). The sixth and last tower (Main Tower) was built on the roof of the main cell house. Three of these towers no longer stand; they are Road Tower, Powerhouse Tower, and Main Tower. Two others are in a ruinous state, beyond preservation; they are Hill Tower and Model Tower. The sixth tower, Dock Tower, can probably still be preserved, if action is taken soon. While its historical significance is not great, it possesses architectural significance as an integral part of the maximum security system of the federal penitentiary.

Recommendations:

That the Wharf or Dock Tower be preserved; and

that the completion of a historic structure report be made at the earliest possible date.

13. Industries Building (AL-84)

Construction of the new industries building began in 1939, it was 306 feet long and cost $186,000. The main floor contained the clothing factory, dry-cleaning plant, furniture plant, brush factory, and an office. The second floor contained the laundry. This building possesses no historical significance.

Recommendations:

None.

14. Water Tower (AL-1)

It was constructed in 1939 and has no historical significance.

Recommendations:

None.

15. Metal Detector Shed (AL-8)

In 1934 three metal detectors were installed on Alcatraz: at the wharf; at the front entrance of the prison, and at the rear gate to the yard. AL-8 is the metal detector shed at the rear gate to the yard. Prisoners had to pass through this shed when returning to the prison from the shops. These first machines failed to work properly, and all had to be replaced in 1937.

Recommendations:

That this structure be preserved.

16. Cisterns (no number)

Two underground cisterns at northwest end of the island, capacity 250,000 gallons, constructed in 1933 for the storage of soft water. These cisterns have no historical significance.

Recommendations:
None.

17. Post Exchange (AL-65)

It was constructed in 1910 of reinforced concrete. An inspector stated in 1913 that a gymnasium and a bowling alley had been installed underneath this building. The Bureau of Prisons converted the building into a lunchroom for the prison staff. In late years it was referred to as the social hall and the custodial officers' club. The building was destroyed by fire during the Indian occupation. The ruins possess no historical significance.

Recommendations:
None. Note: Should the ruins ever be removed, care should be taken to preserve the historic defensive wall that serves as a foundation wall for this building.

18. Ranger Office (AL-212) and Freight Elevator (no number)

Located on the wharf in front of the barracks, this building existed in 1933. At that time it contained fire apparatus, a freight room, and two waiting rooms (one for officers and one for enlisted men). Only a part of the structure, heavily modified, stands today and serves as the area's ranger office. This structure does not possess any historical significance.

Adjacent to the ranger office is a freight elevator installed on the exterior of the casemates by the Bureau of Prisons in 1934. The upper end of this elevator opens into a casemate, a portion of the thick casemate wall having been removed to make the opening. It too possesses no historical significance.

Recommendation:

That these two structures be eventually removed as a necessary step towards the full restoration of the exterior of the barracks and casemates.

19. Lighthouse (AL-3)

Although not under the administration of the NPS, note should be made that the light tower, constructed in 1909, near the site of the first lighthouse on the Pacific Coast, is historically significant. The adjoining residences for the keepers were destroyed by fire during the Indian occupation.

Recommendations:

Should this light ever be abandoned by the Coast Guard, it should be acquired by the National Park Service and preserved; and

that if the U.S. Coast Guard has not yet nominated the lighthouse to the National Register for Historic Places, that it be invited to do so.

20. Fog Bell House (AL-4)

It was located at the northwest end of the island. The first bell house at this end of the island was not constructed until 1901, almost a half-century after the first fog bell at the southeast end of the island. The original frame building measured 21 by 12 feet. It is not known when today's smaller bell house was constructed. The building today contains a modern fog horn and associated apparatus and is under the jurisdiction of the U.S. Coast Guard. It sits on the parapet of North Battery. It is not considered to have historical significance.

Recommendations:

That an agreement be reached with the U.S. Coast Guard (who owns the building) to move the fog horn to available space further to the north. This building stands on part of North Battery, which has been recommended for reconstruction.

21. Fog Horn Station (AL-5)

Located on the southeast end of the island; it is under jurisdiction of U.S. Coast Guard. It is not the original bell house and does not possess historical significance.

Recommendations:

None.

22. Parade Ground (AL-209)

It was constructed in the 1870s by military prisoners. For a time early in the 20th century it contained the upper (or second prison). In 1929 several officers' quarters were built along its east and southeast sides. These quarters are now ruins, and their removal is recommended elsewhere in this report. The parade ground was paved about 1930 and is historically significant.

Recommendation:

That the parade ground be preserved and that its appearance and character be returned to the pre-Spanish-American War period as much as possible.

23. Officers' Quarters (AL-72, 73, 74, 75, and 83)

These five sets of officers' quarters, located on the east and southeast sides of the parade ground, were all constructed in 1929 and no. 83 sat directly on top of the old Three-Gun Battery

(or Battery Prime and Battery 12). All five of these buildings were destroyed by the General Services Administration in the early 1970s and the ruins do not possess any historical significance.

Recommendation:
That the ruins of all five of these buildings be removed, with the top priority being given to those of structure 83, because of the historical significance of the site of Three-Gun Battery underneath.

24. Custodial Officers' Quarters (no numbers)

In 1940 the Bureau of Prisons constructed three modern apartment houses along the west side of the parade ground. All three are partially on the sites of South Battery and Battery McPherson. The General Services Administration demolished the three structures in 1971. The ruins do not possess any historical significance.

Recommendation:
That the ruins of the three structures be removed from the sites of the historically significant batteries.

D. Recommendations Concerning Interpretation

Almost everybody knows that Al Capone was confined in the Alcatraz prison. Very few people know that the Alcatraz military prison was the progenitor of a permanent system of military prisons in the United States Army. Quite a few people know that Alcatraz played a role in the defense of San Francisco Harbor during the Civil War. But only a handful of fortification buffs realize that the batteries on Alcatraz were the first permanent American fortifications on the Pacific Coast to have their guns mounted. And fewer still are aware that Alcatraz played an important role in the seacoast defenses for half a century down to the Spanish-American War. Many of today's visitors know that the

custodial officers and their families comprised a fair-sized village on the island in the 1950s. But rare is the person who realizes that Alcatraz was a picturesque 19th-century army post complete with gardens, theater parties, parades, drill, social events, heroes, and babies.

The visitor's interest in the federal penitentiary and the bad men of the 1930s will never be diminished. But it is the responsibility and duty of the National Park Service to preserve and interpret all the important historic resources and themes of the Rock, to alert visitors to the various riches that the history of Alcatraz provides.

Because of the physical layout of the structures, the interpreter today can take advantage of the immediacy of fortifications to the dock, such as the casemates and the guardhouse, to introduce the visitor to fortifications history first, military prison history next, then, on reaching the top of the island, the federal penitentiary. The recommendations in the preceding section for archeological excavation and reconstruction of portions of the batteries, together with the mounting of one or more guns, will be of immense assistance to the interpretation of the history of the fortifications.

The National Park Service has identified the major themes of American history that may be interpreted by the areas in the National Park System (see National Park System Plan: History). Based on the plan, the major themes to be interpreted at Alcatraz are:

Theme 2a4, Spanish Exploration, California

Theme 7dlb, Transportation and Communication, Alcatraz Lighthouse

Theme 4c, d, and e, Major American Wars: Mexican War, Civil War, and Spanish-American War

Theme 5b4, c4, and dl, Political and Military Affairs, concerning both the fortifications history and the military prison

Theme 9b2c, Society and Social Conscience: Prison Reform, concerning the federal penitentiary on Alcatraz.

APPENDIX A

Extract of Materials Received on Alcatraz by Engineer Officer, 1854-1861[1]

Stone, flagging
Stone, rough
Stone, dressed
Concrete
Gravel
Sand
Bricks
Cement
Lime
Clay
Fire clay
Asphaltum
Timber
Scantling
Laths
Joists
Boards
Clear stuff
Plank, pine, oak, redwood, ash
Shingles
Iron, wrought, sheet, bolt
Iron spikes
Iron nails, brads, tacks
Copper; sheet & composition
Copper nails & tacks
Lead
Lead pipe
Zinc, sheet
Steel
Tin
Brushes, paint, whitewash, pencil
Paint, black, white lead, red ochre, lampblack, whiting, zinc white, red lead, litharge, bronze green
Oils, lamp, paint, whale, linseed, neatsfoot, sperm
Turpentine
Putty
Beeswax
Tar
Tallow
Resin
Pitch
Glue
Chalk & chalk lines
Borax
Oakum
Duck
Solder
Varnish
Hair & moss
Plaster
Marble dust
Rope, manila, hemp, cotton line
Twine
Charcoal
Glass, 9 x 12, 10 x 14, 9 x 13
Window frames
Window sashes, glazed
Doors, 4-panel, various sizes
Ventilators
Iron stairs (Citadel)
Iron fence (Citadel)
Urinals
Marble mantles, white, 5', with grates & hearths
Locks; composition knob, brass, mortice, door
Door knobs & latches, porcelain, mahogany
Hooks and staples
Butts, brass, various sizes
Screws
Wire, brass, copper
Wire cloth
Composition castings
Door buttons, brass
Hasps
Canvass

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1. FARC, San Bruno, RG 77, OCE, Alcatraz, Register of Materials Received, 1854-1861.

Key tags
Stove pipe
Stoves, cooking, barracks, box
Faucets
Sash fasteners
Padlocks
Wicking
Candles, sperm
Lanterns
Matches
Pile driver
Anvils
Adzes
Augurs
Axes
Bellows
Bitts & braces
Compasses
Calipers
Chisels
Gimlets
Screwdrivers
Files & rasps, flat, rat, round
1/2 round, bastard
Hammers, hand, sledge
Hatchets
Drawing knives
Mallets
Planes
Saws
Steel squares
Smith's tongs
Drills, assorted
Smith's vices
Trowels
Screw wrenches
Crowbars
Picks
Shovels
Grindstones
Calking irons
Soldering irons
Steel scrapers
Carpenter's rules
Spirit levels
Sand screens
Jack screws
Bench screws
Sandpaper

Chains
Hooks & thimbles
Turnbuckles
Ladles
Screw plates
Pumps, brass force, lift
Diamonds, glazing
Iron sheaves
Screws
Cotton cloth
Sheathing paper
Tracing Linen
Water
Water casks
Hose
Buckets, oak, 3-hoop, water
Coal, Cumberland, soft, English
Powder
Fuse, safety
Shot furnace bars
Traverse circles, iron
Sheet iron shutters
Horses
Mules
Trucks
Axles & shafts
Leather, rigging, harness
Carts
Curry combs
Wheelbarrows
Harness
Wagon hubs & spokes
Horseshoes & muleshoes
Truck wheels
Anchors
Marlinespikes
Sail needles
Sloop
Boats
Windlass
Oars
Lines
Sounding heads
Derrick gearing
Clover seed
Oats
Barley
Hay
Meal

Oil cans
Blocks & sheaves
Hoes
Platform scales & steelyards
Soap
Water pots
Glue pots
Sponges
Kettles

Salt
Brooms
Water closet containers
Flagstaff ($40)
Medicines: Kelly's linament, epsom salts, sulphur, raw linseed oil, oat meal
Postage Stamps
Stationary

APPENDIX B

List of Drawings Collected

1. "Plano del Puerto de San Francisco . . . Mexico Año de 1825," NA, RG 77, Fortifications File, Dr. 124-1. Yerba Buena Island was labeled Isla de Alcatraces.

2. "Field Map of 'Isla de los Alcatrazes' . . . Surveyed by Lieut. W. H. Warner . . . May 1847," NA, RG 77, Fortifications File, Dr. 95-107. Earliest known land survey of Alcatraz and one of earliest American land surveys on Pacific Coast.

3. Capt. Fred A. Smith, "Fortifications California," sheet showing a plan and a section of the defensive barracks, a section of one of its towers, and a plan of a magazine, prepared in 1852, NA, RG 77, Fortifications File, Dr. 95-4. This early drawing established the general layout of the Citadel.

4. Capt. Fred A. Smith, "Fortifications California," sheet showing proposed batteries at opposite ends of Alcatraz, sections and elevations of caponiers, and a circle of fire for Alcatraz, NA, RG 77, Fortifications File. Dr. 95-3. This sheet, prepared in 1852, represented the opinions of the majority of the Pacific Board of Engineers concerning the defenses of Alcatraz.

5. Capt. Fred A. Smith, "Field Map of Alcatrazes Island," 1852, NA, RG 77, Fortifications File, Dr. 95-2. Based on Warner's 1847 survey, this shows proposed locations of batteries, guardhouse, and defensive barracks, and was signed by the majority of the Pacific Board.

6. Col. J. L. Smith, "Plan & Sections of Works Proposed for the Defense of Alcatrazes Island," November 1952, NA, RG 77, Fortifications File, Dr. 95-1. The Smith's minority report on how Alcatraz should be fortified. The plan was not accepted.

7. Capt. Z. B. Tower, "South East portion of Alcatrazes Island as surveyed in August 1853," NA, RG 77, Fortifications File, Dr. 95-7. This is an enlarged survey showing the appearance of the southeast end of the island before any development.

8. Lt. F. E. Prime, "Map of Alcatraces Island from surveys of Aug. and Sept. 1853," NA, RG 77, Fortifications File, Dr. 95-5. A new survey showing the island before any development except for the location of the lighthouse.

9. Capt. Z. B. Tower, "N. West end of Alcatraces Island," September 1853, NA, RG 77, Fortifications File, Dr. 95-6. This map was probably drawn by Lieutenant Prime. It shows northwest end of the island in large detail before development.

10. "Plan of Alcatrazes Island . . . Surveyed by . . . Tower . . . Showing Plans of Defenses as designed by the Board of Engineers [Pacific Coast]," January 12, 1854, NA, RG 77, Fortifications File, Dr. 95-8.

11. Col. J. G. Totten, "Sketch of embrasure for 24 pr. Howitzer as a flanking gun," April 18, 1854, NA, RG 77, Fortifications File, Dr. 95-9. Totten was considered to be an expert on the design of embrasures.

12. Lt. F. Prime, "Plan of Alcatraces Island and Sections of Excavation showing amount of Work done to 1st of September 54," NA, RG 77, Fortifications File, Dr. 95-10. An excellent drawing containing 29 sections of roads and batteries.

13. Lt. F. Prime, "Plan, Elevation & Sections of South Battery," September 1, 1854, NA, RG 77, Fortifications File, Dr. 95-11. This is an excellent map showing the details of South Battery, South Caponier, the temporary wharf, etc.

14. "Alcatras Id. San Francisco-California," March 17, 1855, NA, RG 77, Fortifications File, Dr. 95-12. This is a map of Alcatraz, without contour lines, showing the works.

15. Capt. Z. B. Tower, "Sketch of South Battery & Adjacent 3 gun battery," April 15, 1855, NA, RG 77, Fortifications File, Dr. 95-13. This is an enlargement of the southeast end of the island and the batteries.

16. Lt. F. Prime, "Annual Drawing Showing progress of the work on 30th Sept. 1855," NA, RG 77, Fortifications File, Dr. 95-14. This is an excellent map showing exactly what guns were mounted, 20 sections of the batteries, and the engineer buildings.

17. Lt. F. Prime, "Plan and Sections of Guard House at Alcatraces Island," April 1856, NA, RG 77, Fortifications File, Dr. 95-15.

18. Lt. F. Prime, "Plan of Alcatraces Island, Giving new works proposed," April 1856, NA, RG 77, Fortifications File, Dr. 95-16. This map has an interesting elevation of the defensive walls on the east side of the island, from the wharf to the North Caponier.

19. Lt. F. Prime, "Alcatraces Island, North Battery, Sheet No. 1," September 30, 1856, NA, RG 77, Fortifications File, Dr. 95-17. This map has a plan of the northwest end of the island and North Battery, and plans for the three levels of North Caponier.

20. Lt. F. Prime, "Alcatraces Island, North Battery Sheet No. 2," September 30, 1856, NA, RG 77, Fortifications File, Dr. 95-18. This map shows sections and elevations of North Caponier and North Battery, including the scarp wall that still stands today; it also shows the caponier embrasures.

21. Lt. F. Prime, "Alcatraces Island, Cross Section and Elevation of South Caponniere," September 30, 1856, NA, RG 77, Fortifications File, Dr. 95-19.

22. OCE, "Alcatraz Island, Sketch showing Arrangement of Rooms for Defensive Barrack," March 26, 1857, NA, RG 77, Fortifications File, Dr. 95-21. This map has a plan for each of the three floors and is quite preliminary.

23. Capt. Z. B. Tower, Plans for the Three Floors, Defensive Barracks, February 4, 1857, NA, RG 77, Fortifications File, Dr. 95-20. There is considerable detail included in this map.

24. Lt. F. Prime, "Plan, Elevation & Cross section of Barracks at Alcatraces Island," June 19, 1857, NA, RG 77, Fortifications File, Dr. 95-22.

25. Lt. F. Prime, "Plan of Barracks at Alcatraces Island (Main Story)," June 19, 1857, NA, RG 77, Fortifications File, Dr. 95-23.

26. Lt. F. Prime, "Plan of Barracks at Alcatraces Island (upper story)," June 19, 1857, NA, RG 77, Fortifications File, Dr. 95-24. Contains details of wrought iron beams and brick arches in roof.

27. Lt. F. Prime, Map of the Southeast end of Alcatraz, showing proposed location of defensive barracks, June 19, 1857, NA, RG 77, Fortifications File, Dr. 95-25. The barracks building was not built on this site.

28. Lt. J. B. McPherson, "Plan, Sections and Elevations, Showing the state of the works, June 30th, 1858," NA, RG 77, Fortifications File, Dr. 95-26. This is a fairly detailed map containing seven sections of various parts of the island.

29. Lt. J. B. McPherson, "Plan showing proposed arrangement for connecting S. and W. Batteries," August 12, 1858, NA, RG 77, Fortifications File, Dr. 95-27. This is the plan and two elevations.

30. Lt. J. B. McPherson, "Plan of Wharf and Store House proposed for Alcatraces Island," November 10, 1856, NA, RG 77, Fortifications File, Dr. 95-28. This map has good detail.

31. Lt. J. B. McPherson, "Plan, Sections, and Elevations of Defensive Barracks," September 1, 1859, NA, RG 77, Fortifications File, Dr. 95-29. The map has excellent details including iron shutters for the windows and an ornate iron fence around the moat.

32. Lt. J. B. McPherson, "Plan and Sections of Defensive Barracks," September 30, 1859, NA, RG 77, Fortifications File, Dr. 95-30. The map has good detail.

33. Lt. J. B. McPherson, "Details of Doors for Barracks," September 1, 1859, NA, RG 77, Fortifications File, Dr. 95-31.

34. Lt. J. B. McPherson, "Details of Windows for Barracks," September 1, 1859, NA, RG 77, Fortifications File, Dr. 95-32.

35. Lt. J. B. McPherson, "Details of Cast Iron Work," September 30, 1859, NA, RG 77, Fortifications File, Dr. 95-33. This map contains details of iron girders, drain pipes, and slop sinks.

36. Lt. J. B. McPherson, "Plan, Section and Elevation of a portion of West Battery and West Magazine," July 14, 1860, NA, RG 77, Fortifications File, Dr. 95-34. This map contains good drawings of West Battery.

37. OCE, "Alcatraces Island, Projected Extension North-Westward of the West 8-Columbiad Battery," August 17, 1860, NA, RG 77, Fortifications File, Dr. 95-35. This is a very large plan with numerous elevations and sections of the battery and the magazine.

38. OCE, "Alcatraces Island, Plan of Battery, Connecting the 16 & 13 gun Batteries, South of the Barracks," May 19, 1862, NA, RG 77, Fortifications File, Dr. 95-36. This map has good details of front- and center-pintle platforms.

39. Lt. G. Elliot, "Plans of ground to be occupied by the extension northwestward of the west 8 columbiad Battery," April 10, 1862, NA, RG 77, Fortifications File, Dr. 95-37. This is the "staircase" battery.

40. OCE, Plans for the same battery as Battery 39, July 3, 1862, NA, RG 77, Fortifications File, Dr. 95-38.

41. Lt. G. Elliot, "Proposed Additional Cisterns," August 19, 1862, NA, RG 77, Fortifications File, Dr. 95-39. The map contains plans, elevations, and sections.

42. Lt. G. Elliot, "Plan of ground between 16 & 13 Gun Batteries south of Barracks," September 2, 1862, NA, RG 77, Fortifications File, Dr. 95-40.

43. Lt. G. Elliot, "Centre Pintle . . . Platforms, old & new pattern," September 2, 1862, NA, RG 77, Fortifications File, Dr. 95-41.

44. Lt. G. Elliot, "Proposed Modification of drawing of Extension of West 8 columbiad Battery," NA, RG 77, Fortifications File, Dr. 95-42. The map has two sections of the magazine.

45. Lt. G. Elliot, "A New Map of Alcatraces Island," February 13, 1863, NA, RG 77, Fortifications File, Dr. 95-43. This is a good map of the island, the fortifications, and all the structures.

46. Lt. G. Elliot, "Plan of S. E. 4 Gun Battery," March 14, 1863, NA, RG 77, Fortifications File, Dr. 95-44.

47. Lt. G. Elliot, "Plan of Salient in West Battery," March 14, 1863, NA, RG 77, Fortifications File, Dr. 95-45.

48. Capt. G. Elliot, "Plan of Salient in South Battery," March 14, 1863, NA, RG 77, Fortifications File, Dr. 95-46.

49. Capt. G. Elliot, "North End of West Battery," March 14, 1863, NA, RG 77, Fortifications File, Dr. 95-47.

50. Capt. G. Elliot, "Details of iron plates . . . used in supporting breast high slopes at Alcatraces Island Cal.," May 16, 1863, NA, RG 77, Fortifications File, Dr. 95-48.

51. Capt. G. Elliot, "Alcatraces Island . . . A System of designations for existing batteries," June 13, 1863, NA, RG 77, Fortifications File, Dr. 95-49. This is a map naming the batteries after Civil War engineers.

52. Capt. G. Elliot, "Alcatraces Island . . . Plans & Sections of proposed modifications in existing batteries," June 13, 1863, NA, RG 77, Fortifications File, Dr. 95-50. This map contains details concerning Batteries McClellan, Tower, and Stevens.

53. OCE, Details for a front-pintle platform for a 10-inch columbiad, November 20, 1963, NA, RG 77, Fortifications File, Dr. 95-51.

54. Map of Alcatraz Island, ca. January 1964, NA, RG 77, Fortifications File, Dr. 95-52.

55. Capt. G. Elliot, "Sketch of proposed traverses in rear of batteries," January 3, 1864, NA, RG 77, Fortifications File, Dr. 95-64.

56. Capt. G. Elliot, "Plan of part of Batteries Tower and Stevens," February 2, 1864, NA, RG 77, Fortifications File, Dr. 95-53.

57. Capt. G. Elliot, "Plan of part of Battery McClellan," February 2, 1864, NA, RG 77, Fortifications File, Dr. 95-54.

58. Capt. G. Elliot, "Plan & Sections of Magazine in Battery Tower," February 2, 1864, NA, RG 77, Fortifications File, Dr. 95-55.

59. Capt. G. Elliot, "Map of a Resurvey of the North Eastern face of Alcatraz Island," NA, RG 77, Fortifications File, Dr. 95-56.

60. Capt. G. Elliot, "Fort at Alcatraz Island Cal., Plans of Slopes in rear of Batteries," May 5, 1864, NA, RG 77, Fortifications File, Dr. 95-57.

61. Capt. G. Elliot, "San Francisco Harbor Cal., Sketch showing the circle of fire from Alcatraz Island," May 5, 1864, NA, RG 77, Fortifications File, Dr. 95-62.

62. OCE, "Alcatraces Island, Sketch Showing Slopes in rear of Battery Halleck and proposed Ramp, between Batteries Halleck & Mansfield," June 27, 1864, NA, RG 77, Fortifications File, Dr. 95-58.

63. Capt. G. Elliot, "Study of a New Battery near the Laborers Barracks," August 6, 1864, NA, RG 77, Fortifications File, Dr. 95-59. This battery was not built.

64. Capt. G. Elliot, "Studies of Cov'd Ways, traverses, etc.," August 17, 1864, NA, RG 77, Fortifications File, Dr. 95-60.

65. Capt. G. Elliot, "Plan of the Batteries at Alcatraz Island . . . With the number of the gun platforms for future reference," December 25, 1864, NA, RG 77, Fortifications File, Dr. 95-61.

66. Capt. G. Elliot, "Plan & sections of a new Barrack," January 16, 1865, NA, RG 77, Fortifications File, Dr. 95-63. Barracks is drawn over the contour lines, thereby showing the excavation needed.

67. Capt. G. Elliot, "Sketches of proposed positions for 3 15" Guns," January 12, 1865, NA, RG 77, Fortifications File, Dr. 95-65. The map includes both Batteries Rosecrans and Tower.

68. Capt. G. Elliot, "Plans & Sections of Wooden buildings on South face of the island," January 12, 1865, NA, RG 77, Fortifications File, Dr. 95-66.

69. OCE, "Modified Plan of Bombproof Barrack and Extension of Battery Prime," February 9, 1865, NA, RG 77, Fortifications File, Dr. 95-67.

70. Capt. G. Elliot, "Sketches of battery Halleck with proposed traverses," February 11, 1865, NA, RG 77, Fortifications File, Dr. 95-69.

71. Capt. G. Elliot, "Plan & Sections of proposed Parados for battery Mansfield," February 20, 1865, NA, RG 77, Fortifications File, Dr. 95-70.

72. Capt. G. Elliot, "Sketch showing proposed method of arranging fuel rooms etc. in rear area of new barrack," March 31, 1865, NA, RG 77, Fortifications File, Dr. 95-72.

73. OCE, "Modified Sketch of Capt. Elliot's proposed positions for Three 15" guns," March 7, 1865, NA, RG 77, Fortifications File, Dr. 95-68. See No. 67, above.

74. Capt. G. Elliot, "Sketch showing fields of fire of 15" guns," March 10, 1865, NA, RG 77, Fortifications File, Dr. 95-71.

75. Capt. G. Elliot, "Plan of Battery Prime and . . . McClellan with proposed modifications," March 31, 1865, NA, RG 77, Fortifications File, Dr. 95-73. This map concerns 300-pdr rifles and 15-inch Rodmans.

76. Capt. G. Elliot, "A section of Battery Halleck," April 8, 1865, NA, RG 77, Fortifications File, Dr. 95-74. This section of the scarp wall is of interest because it still survives.

77. Capt. G. Elliot, "Elevation of front of New Barrack," NA, RG 77, Fortifications File, Dr. 95-75.

78. OCE, "Plans, Sections & Elevations of Gun Embrasures in the Bombproof Barrack," April 28, 1865, NA, RG 77, Fortifications File, Dr. 95-76. These are exquisitely detailed drawings.

79. Capt. G. Elliot, "Plan of proposed bomb-proof for Battery Mansfield," June 13, 1865, NA, RG 77, Fortifications File, Dr. 95-77.

80. Capt. G. Elliot, "Sketch showing the batteries as they are at this date and proposed modifications," July 7, 1865, NA, RG 77, Fortifications File, Dr. 95-79. Good details of all batteries.

81. Capt. G. Elliot, "Plans and Sections of proposed modifications in left face of Battery Halleck and right face of Battery McClellan," July 7, 1865, NA, RG 77, Fortifications File, Dr. 95-78.

82. Capt. G. Elliot, "Plan of pattern for shaping top of lead-concrete around Pintle for Embrasures," and "Drawing of Embrasure Irons for increased ranges and very large calibers," August 31, 1865, NA, RG 77, Fortifications File, Dr. 95-80.

83. Capt. G. Elliot, "Proposed Plan of Battery Prime," October 9, 1865, NA, RG 77, Fortifications File, Dr. 95-81. This battery was for large caliber guns.

84. Capt. G. Elliot, "Plan & Sections of a Traverse for Battery Halleck," October 23, 1865, NA, RG 77, Fortifications File, Dr. 95-82.

85. Capt. G. Elliot, "A study of bomb proof shelters to be placed in rear of the traverses of the batteries," October 27, 1865, NA, RG 77, Fortifications File, Dr. 95-83. These fancy bombproofs were not built.

86. Capt. G. Elliot, "Proposal Plan for placing 15" gun platforms in Battery Tower," November 6, 1865, NA, RG 77, Fortifications File, Dr. 95-84.

87. Capt. G. Elliot, "Sections of Bomb-Proofs in rear of batteries," January 27, 1866, NA, RG 77, Fortifications File, Dr. 95-85.

88. Capt. G. Elliot, "Bomb proof Barracks," December 15, 1866, NA, RG 77, Fortifications File, Dr. 95-86. This was a map of the section, elevation, and plan of barbette level.

89. Capt. G. Elliot, "Bomb proof Barrack," December 15, 1866, NA, RG 77, Fortifications File, Dr. 95-87. These were plans of the first and second tiers.

90. Capt. G. Elliot, "Bomb proof Barracks," December 15, 1866, NA, RG 77, Fortifications File, Dr. 95-88. This is a map of the sections, elevations, and water cisterns.

91. Capt. O. H. Ernst, "Map of Alcatraz Island," 1867, NA, RG 77, Fortifications File, Dr. 95-90 and Dr. 95-92. This is a very complete map; the buildings are labeled.

92. Maj. G. Mendell, "Section of the New Barrack at Alcatraz Island showing its state of completion, Apr. 29th, 1867," NA, RG 77, Letters Received 1866-1867 (Third Div.), Mendell, April 29, 1867, to Humphreys.

93. Maj. G. Mendell, "Casemated Barracks," 1868, NA, RG 77, Fortifications File, Dr. 95-93.

94. Maj. G. Mendell, "Casemated Barracks," 1868, NA, RG 77, Fortifications File, Dr. 95-94. This is a map of the sections and the elevations.

95. Board of Engineers for the Pacific Coast, "Map of Alcatraz Island," February 1869, NA, RG 77, Fortifications File, Dr. 95-91. This map shows the board's ideas on how to remodel the fortifications on Alcatraz.

96. Board of Engineers, Pacific Coast, "Design for Alcatraz Island," November 24, 1869, NA, RG 77, Fortifications File, Dr. 95-95. This is a less radical design than Map 95.

97. Board of Engineers, Pacific Coast, "Circle of Fire," to accompany Map 96, 1869, NA, RG 77, Fortifications File, Dr. 95-96.

98. Maj. G. Mendell, "North West End of Alcatraz Island," September 7, 1870, NA, RG 77, Fortifications File, Dr. 95-97. This map shows the old and new works at the northwest end of the island.

99. Capt. J. M. Robertson, "Proposed Plan of Barracks for two companies," April 8, 1871, NA, RG 77, Fortifications File, Miscellaneous Fort File, San Francisco Harbor, Alcatraz. This map shows the temporary barracks.

100. [Maj. G. Mendell], "West End Alcatraz Island, Showing Masonry Built During 1870-71," NA, RG 77, Fortifications File, Dr. 95-98. This map shows batteries 2, 3, and 4.

101. [Maj. G. Mendell], "Map of Portions of Alcatraz Island To Accompany Annual Report 1870-71," NA, RG 77, Fortifications File, Dr. 95-99.

102. Board of Engineers for Fortifications, "Alcatraz Island . . . Showing Modifications Proposed . . . of Batteries from V to X . . . also I and III to Adapt Them To Receive King's Depressing Carriage, August 1871," NA, RG 77, Fortifications File, Dr. 95-100.

103. "Map of Alcatraz Island," n.d. NA, RG 77, shows most of the structures but no batteries.

104. Maj. G. Mendell, "Map of Alcatraz Island Batteries, Showing Armament," February 1, 1872, NA, RG 77, Fortifications File, Dr. 259-125. This map specifies which guns are mounted where.

105. Board of Engineers, Pacific Coast, "Proposed Modification of the New Barrack at Alcatraz Island," 1872, NA, RG 77, Fortifications File, Dr. 95-101. This map shows the proposed barracks on top of casemates.

106. Board of Engineers, Pacific Coast," Proposed Modification of the New Barracks," 1872, NA, Fortifications File, Dr. 95-102.

107. Board of Engineers, Pacific Coast, "Cross Section showing the Details of the Wrought Iron Beams and Brick Arches for Supporting the Floors, Proposed Modification of the New Barrack," 1872, NA, RG 77, Fortifications File, Dr. 95-103.

108. Board of Engineers, Pacific Coast, "Sketch to Accompany the Plans of the New Barrack at Alcatraz," December 1872, NA, Fortifications File, Dr. 95-104. This map shows the plans of two stories.

109. Maj. G. Mendell, "Alcatraz Island," December 1, 1873, NA, RG 77, Fortifications File, Dr. 256-16. This map shows the proposed 15-inch gun armament for all Alcatraz works.

110. Maj. G. Mendell, "Plan for the Batteries on the West and South side," November 1874, NA, RG 77, Fortifications File, Dr. 95-105. This map shows all other 15-inch guns. The magazines are lettered J through T.

111. "Sketch of Entrance to San Francisco Bay, Showing the distances across the channels from the Works proposed," December 16, 1874, NA, RG 77, Fortifications File, Dr 93-34.

112. Maj. G. Mendell, "Alcatraz Island . . . Showing the progress of the works . . . to July 1, 1875," NA, RG 77, Letters Received 1871-1886, Mendell, Annual Report for fiscal year, 1875.

113. [Maj. G. Mendell], "Map of Alcatraz Island, As it Was July 1875," NA, RG 77, Fortifications File, Dr. 95-108.

114. Maj. G. Mendell, "Map of the Southeastern portion of Alcatraz Island, as it was July 1st 1876," NA, RG 77, Fortifications File, Dr. 95-106. This map shows good details regarding Mendell's new works.

115. "Alcatraz Island, Cal.," ca. 1870s, NA, RG 77, Fortifications File, Dr. 154-44-2. This map shows the labels for 27 structures.

116. Capt. W. A. Jones, "Map of Alcatraz Island, California, 1879," NA, RG 77, Fortifications File, Dr. 95-109. This was probably the master for map 115; 27 structures are also identified.

117. Basement of Citadel, showing remodeling required to change building into six sets of officers' quarters, NA, RG 77, OCE, Letters Received 1871-1886, Lt. G. L. Anderson, January 26, 1881, to Ch. QM, Mil. Div. of Pac.

118. "Plan of Stable to be built on Alcatraz Island," NA, RG 92, OQMG, CCF, Lt. J. T. Honeycutt, April 27, 1883, to Ch. QM, Dept. of Calif.

119. "Plan of Cisterns at Alcatraz Island," NA, RG 92, OQMG, CCF. This plan was a loose plan but was associated with a report on the Alcatraz water supply, December 15, 1883.

120. Lower Prison Ventilation System, cutaway drawing, NA, RG 92, OQMG, CCF, Received at OQMG, September 22, 1890.

121. Iron grill doors that replaced wooden ones, Lower Prison, NA, RG 92, OQMG, CCF, Received at OQMG, September 19, 1890.

122. "Proposed addition to Barracks, Alcatraz Island," n.d., NA, RG 77, Fortifications File, Dr. 95-110.

123. "Sheet M, San Francisco Harbor . . . Plan and Sections of New Works on Alcatraz Island Proposed by the Board of Engineers," November 21, 1890, NA, RG 77, Fortifications File, Dr. 93-69-12. This map shows the proposed Endicott batteries on Alcatraz.

124. "Part of Plan Showing Proposed Alteration and Reconstruction of the Lavatory, Laundry and Water Closet in Prison," NA, RG 77, OCE, Gen. Correspondence 1890-1892, Lt. C. C. Gallup, November 21, 1891, to Ch. QM, Dept. of Calif.

125. "Sketch of Alcatraz Island," April 1, 1892, NA, RG 77, Fortifications File, Dr. 256-16-7. This map presents the history of the batteries, magazines, and guns from the Mendell works of the early 1870s.

126. "Sketch of Lower tier of casemates, Alcatraz Island," April 1, 1892, NA, RG 77, Fortifications File, Dr. 256-16-8. The comment: "15" gun and carriage mounted on stone platform in June 1898," is written on plan at emplacement or embrasures no. 8.

127. Quartermaster General's Office, "Alcatraz Island," 1894, NA, RG 92, General Record. This is an excellent map of Alcatraz, showing the formal gardens among other things.

128. Quartermaster General's Office, "Alcatraz Island," January 1894, NA, RG 92, General Record. This map is practically identical to Map 127, and there is a marginal notation: "Corrected Sept. 30, 1904."

129. Lt. G. G. Garley, "Map of Alcatraz Island," May 1894, NA. This is another good map, but the flower bed details differ from Map 128. The legend identifies the structures.

130. Conversion of Totten embrasures to windows, in Casemates, May 20, 1899, NA, RG 92, OQMG, Gen. Correspondence 1890-1914, letter, May 20, 1899, Inspector General to Chief of Engrs.

131. "Alcatraz Island . . . 1899, To accompany report of armament," NA, RG 77, Fortifications File, Dr. 256-16-15. This map shows precisely the status of Mendell's 1870s works.

132. Lt. B. C. Daly, "Map of Alcatraz Island," January 1, 1905, NA, RG 92, OQMG. This is another good map of Alcatraz, the gardens are again different.

133. Maj. W. W. Harts, "Maps of Alcatraz Island," May 1907, NA, RG 77, Fortifications File, Dr. 95-111. The legend identifies structures.

134. Suggested Plans, Office Section, Prison Building, September 1907, NA, RG 92, OQMG, Blueprint File (3 sheets).

135. Maj. R. B. Turner, "Ground Floor Plan of Cell Room of Military Prison," February 1908, NA, RG 92, OQMG, Blueprint File.

136. Maj. R. B. Turner, "Foundation and Basement Plan of Rear Wing and Part Under Prison Floor of Military Prison," February 1908, NA, RG 92, OQMG, Blueprint File.

137. Maj. R. B. Turner, "Second Floor Plan of Rear Wing and Part of Cell Room of Military Prison," April 1908, NA, RG 92, OQMG, Blueprint File.

138. Maj. R. B. Turner, "First Floor Plan of Rear Wing and Part of Cell Room of Military Prison," April 1908, NA, RG 92, OQMG, Blueprint File.

139. Maj. R. B. Turner, "South Half and North Half of West Elevation of Military Prison," February 1908, NA, RG 92, OQMG, Blueprint File.

140. Maj. R. B. Turner, "Sketch of Alcatraz Island from the South West Showing Proposed Military Prison and Stockade Wall and Proposed Lighthouse," May 22, 1908, NA, RG 92, OQMG, Blueprint File. This is a superior sketch of Alcatraz.

141. Maj. R. B. Turner, "Sketch of Alcatraz Island from the North East . . .," May 22, 1908, NA, RG 92, OQMG, Blueprint File. This map is even more interesting than Map 140.

142. An elevation of the front of military prison, May 22, 1908, NA, RG 92, OQMG, Blueprint File.

143. "Alcatraz Is. Military Prison. . . Rear Wing, Showing Heating System," 3 sheets, one for each floor, August 18, 1908, NA, RG 92, OQMG, Blueprint File.

144. Lt. Col. R. B. Turner, "Map of Pacific Branch, United States Military Prison, Alcatraz Island," February 1909, NA. It is a map of the whole island, has a legend, and is a good map for many details.

145. "Ground Floor Plan, Alcatraz Military Prison, Showing Heating System," February 11, 1909, NA, RG 92, OQMG, Blueprint File.

146. Lt. Col. R. B. Turner, "Details of Water-Seal Connections For Returns on Radiators for prison cell room," May 1909, NA, RG 92, OQMG, Blueprint File.

147. Lt. Col. R. B. Turner, "Drawing Showing Proposed Equipment and Arrangement of Central Power and Heating Plant," September 25, 1909, NA, RG 92, OQMG, Blueprint File.

148. Lt. Col. R. B. Turner, "Plan and Details of Ventilating System for Pacific Branch U.S. Military Prison," November 1909, NA, RG 92, OQMG, Blueprint File.

149. Lt. Col. R. B. Turner, "Power Plant, Pacific Branch, Military Prison," December 1909, NA, RG 92, OQMG, Blueprint File. It also shows the various shops and the laundry.

150. Lt. Col. R. B. Turner, "Revised Plan of Second Floor of Administrative Wing of the Pacific Branch of the U.S. Military Prison," December 1909, NA, RG 92, OQMG, Blueprint Map, Sheet 10.

151. Lt. Col. R. B. Turner, "Power Plant," December 1909, NA, RG 92, OQMG, Blueprint File. This is the front elevation (landside).

152. Lt. Col. R. B. Turner, "Power Plant," December 1909, NA, RG 92, OQMG, Blueprint File. This is the waterside elevation.

153. C. H. Stone, QMGO, "Alcatraz Island," December 1909, NA, RG 92, OQMG, Blueprint File. This is a good map. The upper prison buildings are marked over with Xs.

154. Lt. Col. R. B. Turner, "Map of Pacific Branch, United States Military Prison," February 1910, NA, RG 92, OQMG, Blueprint File. This is a good map of the island.

155. Lt. Col. R. B. Turner, "Pacific Branch, U.S. Military Prison," May 1910, N.A. These are the plans of all of the floors of the prison and the elevations of the west and front.

156. Lt. Col. R. B. Turner, "Map of Pacific Branch, United States Military Prison," November 1910, NA, RG 92, OQMG, Blueprint File. This is virtually the same map as Map 154.

157. C. H. Stone, "Alcatraz Island," December 1909, NA, RG 92, OQMG, General Record.

158. Quartermaster's Office, Alcatraz, "Pacific Branch--United States Disciplinary Barracks, Alcatraz," October 26, 1933, NA, RG 129, Records of the Bureau of Prisons, 4-49-2-36. This map of Alcatraz was apparently prepared by the army for the benefit of the Bureau of Prisons.

159. "Proposed Tower at Bldg. 68, Roof, U.S. Penitentiary," NA, RG 129, Bureau of Prisons, 4-49-2-0, Warden Johnston, March 8, 1937, to Director.

APPENDIX C

Glossary of Fortification Terms

Banquette - A step within a parapet sufficiently high to enable defenders, when standing upon it, to fire over the crest of the parapet with ease. There were four banquettes on Alcatraz Island, all masonry: one on the roof of the citadel, one on the roof of the guardhouse, and two on the caponiers. Were Alcatraz invaded, infantrymen would have taken position at these locations.

Barbette Battery - A battery of seacoast guns in which the guns are mounted on carriages high enough to fire directly over the parapet. Barbette batteries had no cover overhead.

Bastion - A work consisting of two faces and two flanks, all the angles being salient. At Alcatraz there were two bastions, at opposite corners of the Citadel. From these bastions, infantrymen could have covered all the walls of the Citadel by firing through loopholes. The army engineers also referred to the two as "towers."

Battery - Two or more pieces of artillery and the work that protected them. From the second half of the 19th century on, the term was also applied to the organization of men that fired the guns.

Bombproof Barracks - A military structure for housing soldiers, which is thick and strong enough to stop shot and shell from penetrating. The unfinished bombproof barracks at Alcatraz was composed of brick casemates, or vaults, which not only served as quarters but which also had openings for guns.

Breast-Height Wall - The interior slope of a parapet. The breast-height walls of the Alcatraz batteries were all vertical and built of brick. They supported the earthen parapet from the inside.

Caponier - At Alcatraz, the two caponiers were masonry structures that provided flanking fire on batteries. Should an enemy force assault the batteries, the howitzers in the caponiers could fire on him as he advanced, or as he took the guns of the battery. The caponiers had subterranean magazines with gun rooms above. A columbiad was mounted in barbette on the roof of each. North Caponier was built of brick and concrete; South Caponier was constructed of blue sandstone from Angel Island.

Casemate - A bombproof vault in a fort designed for the protection of a garrison. A casemated barracks consisted of a vault or a number of vaults with openings for guns. The unfinished casemated barracks at Alcatraz was first planned without gun openings, but these were added before construction started.

Center pintle - The pintle was located in the center of the gun platform and center-pintle carriages were employed. A gun mounted on a center-pintle carriage could be rotated 360 degrees.

Counterscarp - In fortification, it is the vertical, or nearly vertical, side of a ditch nearest to the besiegers, and opposite to the scarp. The two counterscarps on Alcatraz were the vertical masonry outside walls of the ditches or dry moats in front of the guardhouse and around the Citadel.

Covered way - On Alcatraz the covered ways were the roads that ran behind defensive walls or behind the terrepleins of the batteries. They were covered, in that something stood between them and the sea offering protection; they were not covered on top.

Defensive Barracks - On Alcatraz the term "defensive barracks" was applied by the engineers to the three-story brick structure, which was surrounded by a ditch on the southeast peak. Later the army referred to the building as the Citadel. It was designed as an infantry stronghold should an enemy force land on the island. It did not have artillery.

Embrasure - On Alcatraz, a hole in the wall of a casemate through which the guns are pointed; in the horizontal section the embrasures of the casemates had a shape something like an hour glass. On Alcatraz these were closed with iron shutters.

Enfilade - Is to fire in the direction of the length of a line of a parapet. Several of Alcatraz's pre-Civil War batteries were subject to enfilade fire, not having traverses between guns.

Escarpment - Ground cut away nearly vertically about a position, in order to render it inaccessible to the enemy. The engineers cut away all the gentle slopes around the shores of Alcatraz. They considered the island inaccessible except at the wharf and at the northwest end.

Front pintle - The pintle was located toward the front of the platform near the parapet and front-pintle carriages (center of the transom) were employed. A gun mounted on a front pintle carriage had a restricted angle of rotation.

Magazine - A dry bombproof storehouse for powder. The entrance is usually protected by a traverse. A Service Magazine was a small magazine at the gun position for the protection of shells that were about to be fired.

Parados - An earthen embankment behind a fortification to protect it from being fired upon from the rear (reverse fire). On Alcatraz, Battery Mansfield was subject to reverse fire because it was located on top of the island. Eventually, a parados was built along its rear to protect it.

Parapet - On Alcatraz there were parapets both for infantry and for guns. The infantry parapets were masonry and they were erected around the roofs of the Citadel, the guardhouse, and the caponiers. The battery parapets were of two kinds: Before the Civil War they were earth supported on the outside by masonry scarp walls and on the inside by breast-height walls. Because of advances in weaponry during the Civil War, the post-war parapets were increased in thickness and composed of earth only. A brick breast-height wall was still at each gun emplacement.

Platform - A strong flooring upon which a piece of ordnance (mounted on its carriage) stands. In seacoast fortifications, either barbette or casemate, the platforms were fixed and were constructed with the works. On Alcatraz the platforms were both wood and stone, the stone ones being considered the most permanent.

Reverse Slope - On Alcatraz, it was considered to be the hill or slope immediately behind most batteries. These rocky slopes were considered to be a serious problem, because an enemy projectile hitting them would cause splinters of rock to fly over the batteries. Not until the 1870s did the engineers succeed in cutting away these slopes sufficiently and to cover them with stone-free earth to eliminate the danger.

Salient Angle - The projecting angle formed by the two faces of some of Alcatraz's batteries, the best example being West (Tower) Battery. It is the opposite of a reentering angle, or one whose vertex points inward.

Sally Port - A passage by which the garrison may leave a fortification to make a sally or sudden attack on besiegers. When not in use, sally ports were covered by massive gates. Alcatraz's sally port was a passage through the guardhouse, which straddled the only road leading to the top of the island. A ditch and a drawbridge lay before the sally port and massive doors guarded it. It was further protected by flank howitzer embrasures in the guardhouse and musket loopholes along both of its sides.

Scarp Wall - On Alcatraz these are immense vertical masonry walls constructed in front of the parapets. The first of these to be built, the scarp wall of South Battery, was made of blue sandstone from (Angel Island) and concrete; the others were built of brick and concrete.

Shot furnace - A furnace for heating solid shot to a red-hot condition before firing at a wooden ship in order to set it on fire.

Terreplein - In a fortification, it is the board surface behind the parapet upon which the platforms stand. The roofs of the Citadel, the guardhouse, and the two caponiers on Alcatraz were also considered to be terrepleins by the engineers.

Traverse - Mound of earth placed at frequent intervals along a battery to stop shot that might enfilade the battery. The traverses on Alcatraz had magazines and shell rooms built under them and passageways ran through them to provide communication between all the guns of the battery.

Note: Most of the above glossary was based on Thomas Wilhelm, A Military Dictionary and Gazetteer (Philadelphia:1881).

B I B L I O G R A P H Y

1. Manuscript Materials

Berkeley. University of California. Bancroft Library: George H. Mendell, Letterbooks. 2 vols. 1872-1884.

_____. _____. Edward J. Maybridge Photograph Collection.

Denver. National Park Service. Denver Service Center. F. Ross Holland, Jr. "Lighting the West Coast: The Story of the Building of the Pacific Coast's First Sixteen Lighthouses." Typescript.

_____, John A. Hussey. "Fort McDowell, Angel Island, Marin and San Francisco Counties, California. Report on application by Board Supervisors, County of Marin, State of California, for Transfer of Surplus Properties for an Historical Monument." Typescript. Prepared for Region 10, War Assets Administration, 1949.

_____. Lawrence Kinnard. "History of the Golden Gate and Its Headlands." Typescript. 1962-1967.

San Bruno. Federal Archives and Records Center. Record Group 26, Records of the United States Coast Guard, 15 sheets of plans of First and Second Lighthouses and Fog-Bell House, Alcatraz Island.

_____. _____. Record Group 77. Records of the Office of the Chief of Engineers:

Journal of the Operations connected with the Fort on Alcatraz Island. 1853-1876. 2 vols. Series 1915.

Register of Materials and Services Received and Their Cost for Fortifications at Alcatraz Island, San Francisco Bay, 1854-1861. Series 1919 and 1920.

San Francisco District. Letters Sent July 1858-February 1861. Series 1921.

San Francisco District. Letters Sent by Engineer Officers Gilmer and De Russy Relating to Fortifications January 1861-December 1864. Series 1922.

San Francisco District. Register of Materials Received 1858-1863, Series 1927.

San Francisco. Western Regional Office. National Park Service. Roger E. Kelly, "Cultural Resources of Golden Gate National Recreation Area." April 1976.

Washington, D.C. The National Archives. Record Group 26. Records of the United States Coast Guard:

Correspondence of Maj. Hartman Bache June 1855-December 1858. 8 vols.

Lighthouse Board Journal October 9, 1852-August 11, 1854.

Lighthouse Board. 12th District. Engineer's and Inspector's Reports February 1853-June 1856.

Lighthouse Board. 12th & 13th Districts, Engineer's and Inspector's Reports July 1868-May 1869.

_____. _____. Record Group 77. Records of the Office of the Chief of Engineers:

Letters to Officers of Engineers March 1848-February 1869. 40 vols. This report used vols. 16-40.

Letters Received 1838-1866. Arranged alphabetically by the names of the engineers in the field.

Official Papers, Colonel Totten's 1860-1861 (including his communications to the Secretary of War on his visit to the Pacific Coast). Vols. 8 and 9.

Correspondence Relating to Fortifications. Letters Received by the Chief Engineer (Third Division) December 5, 1866-December 31, 1870. 2 vols.

Correspondence Relating to Fortifications. Letters Sent by Chief Engineer 1866-1870. 3 vols.

Correspondence Relating to Fortifications. Letters Received (A File) by Chief Engineer 1867-1870.

Correspondence of the Fortifications Division. Letters Received by the Chief of Engineers 1871-1886. 77 feet.

Board of Fortifications. Miscellaneous Papers 1885-1887. (Endicott Board).

Alcatraz Island. USA Medical Department, Records of Letters and Endorsements Sent January 1, 1897-January 24, 1905.

Alcatraz Island. Monthly Sanitary Reports November 30, 1898-July 4, 1913.

Department of the Pacific. Letters Sent 1848-1866, also known as Department of California.

Department of Pacific. Special Orders 1858-1863.

_____. _____. Microcopy 617. Returns from U.S. Military Posts 1800-1916, Rolls 14-17. Post Returns, Alcatraz Island 1859-1916.

_____. _____. Microcopy 661. Historical Information Relating to Military Posts and Other Installations ca. 1700-1900. 8 rolls. Roll 1. Alcatraz Island.

_____. _____. Cartographic Archives Division.

_____. _____. Audiovisual Archives Division, Motion Picture Branch. "Alcatraz Prison Open for Public View"; and Still Picture Branch.

2. Books

Ainsworth, F. C. Regulations for the Government of the United States Military Prison and of any Branch Thereof. Washington: Government Printing Office, 1909.

Bancroft, H. H. History of California. 7 vols. San Francisco, 1884-1890.

Bennett, James V. I Chose Prison. Edited by Rodney Campbell. New York: Alfred A. Knopf, 1970.

Blue Cloud, Peter. Alcatraz Is Not An Island. Berkeley: Winglow Press, 1972.

Bruce, J. Campbell. A Farewell to the Rock, Escape from Alcatraz. New York: McGraw-Hill Book Co., 1963.

The Corps of Engineers Museum. Geneses of the Engineers . . . From 1745 to 1966. Fort Belvoir, VA: n.p., n.d.

Crook, George. Resume of Operations Against Apache Indians, 1882 to 1886. 1886. Reprint. London: Johnston-Taunton Military Press, 1971.

De Nevi, Don and Bergen, Philip. Alcatraz '46, The Anatomy of a Classic Prison Tragedy. San Rafael: Leswing Press, 1974.

Egan, Ferol. Fremont, Explorer for a Restless Nation. New York: Doubleday and Company, 1977.

Ellis, Steve. Alcatraz Number 1172. Los Angeles: Holloway House, 1969.

Frazer, Robert W. ed. Mansfield on the Condition of the Western Forts, 1853-54. Norman: University of Okalhoma Press, 1963.

Fremont, John Charles. Memoirs of My Life. vol. 1. Chicago, 1887.

Godwin, John. Alcatraz: 1868-1963. New York: Doubleday and Company, 1963. Grivas, Theodore. Military Governments in California, 1846-1850.
Glendale: Arthur H. Clark Co., 1963.

Gudde, Erwin G. California Place Names, The Origin and Etymology of Current Geographical Names. Berkeley: University of California Press, 1962.

Hansen, Gladys. San Francisco Almanac, Everything You Want to Know About the City. San Francisco: Chronicle Books, 1975.

Hart, Herbert M. The U.S. Army on Alcatraz, A Report to the City of San Francisco. Tampa: n.p., 1969.

Heitman, Francis B. Historical Register and Dictionary of the United States Army, from 1789 to . . . 1903. 2 vols. 1903. Reprint. Urbana: University of Illinois Press, 1965.

Holland, Francis Ross, Jr. America's Lighthouses, Their Illustrated History Since 1716. Brattleboro, Vermont: The Stephen Greene Press, 1972.

Johnston, James A. Alcatraz Island Prison, and the Men Who Live There. New York: Charles Scribner's Sons, 1949.

Kobler, John. Capone, The Life and World of Al Capone. Greenwich: Fawcett Publications, 1971.

Lewis, Emanuel Raymond. Seacoast Fortifications of the United States, An Introductory History. Washington: Smithsonian Institution Press, 1970.

_____. A History of San Francisco Harbor Defense Installations: Forts Baker, Barry, Cronkhite, and Funston. State of California, Division of Beaches and Parks, 1965.

Marshall McDonald and Assoc. Report and Recommendations on Angel Island, 1769-1966 (n.p. 1966).

McCain, H. P. Regulations for the Government of the United States Disciplinary Barracks and Its Branches. Washington: Government Printing Office, 1915.

McDowell, Irwin. Outline Description of Military Posts in the Military Division of the Pacific . . . 1879. San Francisco: 1879.

Millis, Walter. Arms and Men, A Study in American Military History. New York: G. P. Putnam's Sons, 1956.

_____. American Military Thought. Indianapolis: The Bobbs-Merrill Co., 1966.

Needham, Ted and Needham, Howard. Alcatraz. Millbrae, California: Celestial Arts, 1976.

Nevins, Allan. Fremont, The West's Greatest Adventurer. . . . 2 vols. New York: Harper and Brothers, 1928.

Olmstead, R. R., ed. Scenes of Wonder & Curiosity from Hutchings' California Magazine, 1856-1861. Berkeley: Howell-North, 1962.

Shanks, Ralph C., Jr., and Shanks, Janetta Thompson, Lighthouses of San Francisco Bay. San Anselmo: Costano Books, 1976.

Shindler, Henry. History of the United States Military Prison. [Fort Leavenworth]: Army Service Schools Press, 1911.

Spence, Mary Lee and Jackson, Donald. The Expeditions of John Charles Fremont. vol. 2. The Bear Flag Revolt and the Court Martial. Urbana: University of Illinois Press, 1973.

Stanger, Frank M., and Brown, Alan K. Who Discovered the Golden Gate?, The Explorers' Own Accounts, How they discovered a hidden harbor and at last found its entrance. San Mateo: San Mateo Historical Association, 1969.

Stanton, William. The Great United States Exploring Expedition of 1838-1842. Berkeley: University of California Pess, 1975.

Thomas, Gordon and Witts, Max Morgan. The San Francisco Earthquake. New York: Stein & Day, 1971.

Totten, Joseph Gilbert. Report of General J. G. Totten, Chief Engineer, on the Subject of National Defences. Washington: A. Boyd Hamilton, 1851.

[U.S. Army], Office of the Adjutant General. The Army Correctional System. Washington, ca. 1952.

_____. Outline Descriptions [of] Military Posts in the Military Division of the Pacific, 1879.

_____. Quartermaster General. Outline Descriptions of Forts and Stations, 1871. Washington: 1872.

_____. _____. Outline Description of U.S. Military Posts and Stations in the Year 1871. Washington: Government Printing Office, 1872.

_____. _____. Revised Outline Descriptions of Posts and Stations of Troops in the Military Division of the Pacific. Washington: 1872.

_____. Surgeon General. Report on Barracks & Hospitals with Descriptions of Posts. Circular no. 4. Washington: 1870.

_____. _____. Report on the Hygiene of the U.S. Army with Descriptions of Posts. Circular no. 8. Washington: 1875.

U.S. Congress. House Documents, House Executive Document No. 1, 40th Cong., 3d sess. (Serial 1367), Annual Report of the Adjutant General of the Army, 1868.

_____. The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies. 73 vols., 128 pts. Washington: Government Printing Office, 1880-1901. Of use in this report was Series 1, vol. 50, in two pts.

U.S. Department of Commerce and Labor, Lighthouse Board. Annual Reports.

_____. Report of the Operations of the Light-House Board in Reports of the Department of Commerce and Labor, 1910. Washington: Government Printing Office, 1911.

_____. _____. Revised Outline Descriptions of Posts and Stations of Troops in the Military Division of the Pacific. Washington: 1872.

_____. Surgeon General. Report on Barracks & Hospitals with Descriptions of Posts. Circular no. 4. Washington: 1870.

_____. _____. Report on the Hygiene of the U.S. Army with Descriptions of Posts. Circular no. 8. Washington: 1875.

U.S. Congress. House Documents, House Executive Document No. 1, 40th Cong., 3d sess. (Serial 1367), Annual Report of the Adjutant General of the Army, 1868.

_____. The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies. 73 vols., 128 pts. Washington: Government Printing Office, 1880-1901. Of use in this report was Series 1, vol. 50, in two pts.

U.S. Department of Commerce and Labor, Lighthouse Board. Annual Reports.

_____. Report of the Operations of the Light-House Board in Reports of the Department of Commerce and Labor, 1910, ~~by~~ Washington: Government Printing Office, 1911.

_____. Report of the Commissioner of Lighthouses in Reports of the Department of Commerce and Labor, 1911. Washington: Government Printing Office, 1912.

U.S. Department of the Interior, National Park Service. National Park System Plan: History.

_____. Report of the Commissioner of Lighthouses in Reports of the Department of Commerce and Labor, 1911. Washington: Government Printing Office, 1912.

U.S. Department of the Interior, National Park Service. National Park System Plan: History.

_____. Historic Structure Report, Fort Point, Historic Data Section, Fort Point National Historic Site, California, by Edwin C. Bearss. Denver: National Park Service, 1973.

_____. Historic Resource Study, San Juan Island National Historical Park, Washington, by Erwin N. Thompson. Denver: National Park Service, 1972.

U.S. Department of Justice, Bureau of Prisons, Alcatraz. n.p., n.d.

_____. _____. Annual Reports, 1933-1964. Called Federal Offenders to 1941, then called Federal Prisons. No report was published in 1942.

U.S. Department of the Treasury, Lighthouse Board. Annual Reports.

Weigley, Russell F. History of the United States Army. New York: The Macmillan Co., 1967.

3. Newspapers

Daily Alta California, San Francisco.

Evening Bulletin, San Francisco.

San Francisco Call.

San Francisco Chronicle.

San Francisco Examiner.

4. Articles

Bechdolt, Frederick. "The Rock." Saturday Evening Post, November 2, 1935, pp. 5-7 and 85-6.

Babyak, Jolene. "Alcatraz Was My Home." TWA Ambassador, The Trans World Magazine 8(August 1975):20-22.

Conway, Bryan, No. 293, as told to T. H. Alexander. "Twenty Months in Alcatraz," Saturday Evening Post, February 19, 1938, pp. 8-9, 31-2, and 34.

Costo, Rupert. "Alcatraz," The Indian Historian, 3(Winter 1970): 4-12 and 64.

Cummings, Homer. "Why Alcatraz Is a Success." Collier's, July 29, 1939.

Fries, Amos, A. "Maj. Gen. James Birdseye McPherson." Professional Memoirs, Corps of Engineers, United States Army, and Engineer Department at Large. 7(May-June 1915):378-82.

Holland, Francis R., Jr. "Notes and Documents, Lighting Alcatraz: The West Coast's First Lighthouse." The Western Explorer. 2(April 1964):30-38.

Lewis, Emanuel Raymond. "The Ambiguous Columbiads." Military Affairs. 28(Fall 1964):111-22.

Strobridge, William F., ed. "California Letters of Major General James McPherson, 1858-1860," Ohio History. 81(Winter 1972): 38-50.

5. Miscellaneous

Gretchen Feiker, compiler. "Indian Occupation of Alcatraz." 4 vols. Library, Golden Gate National Recreation Area, Fort Mason, San Francisco, California. These four volumes are loose-leaf notebooks filled with newspaper clippings and machine copies of correspondence, arranged chronologically.

Illustrations

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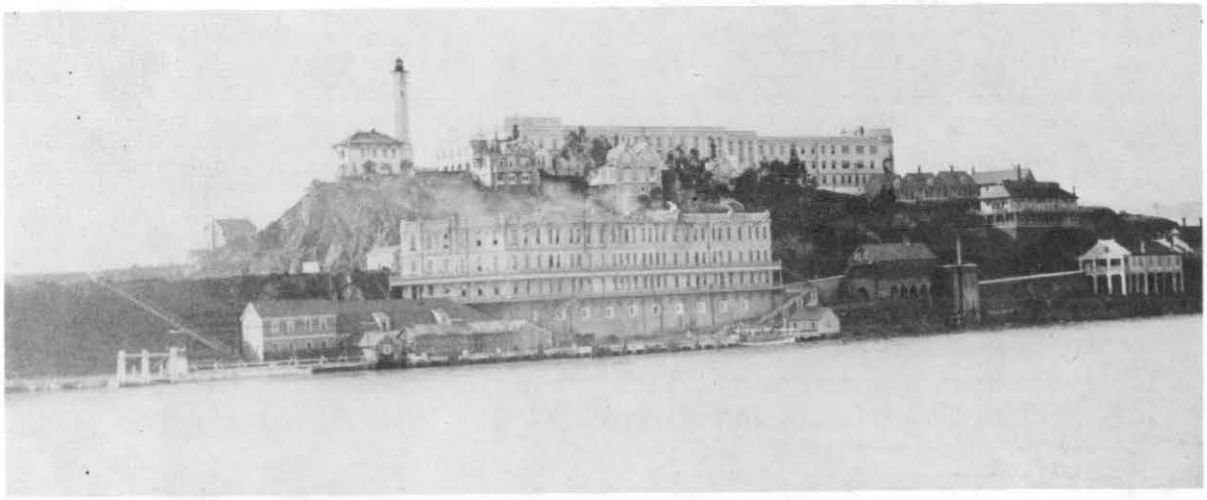


1. Alcatraz, ca. 1914

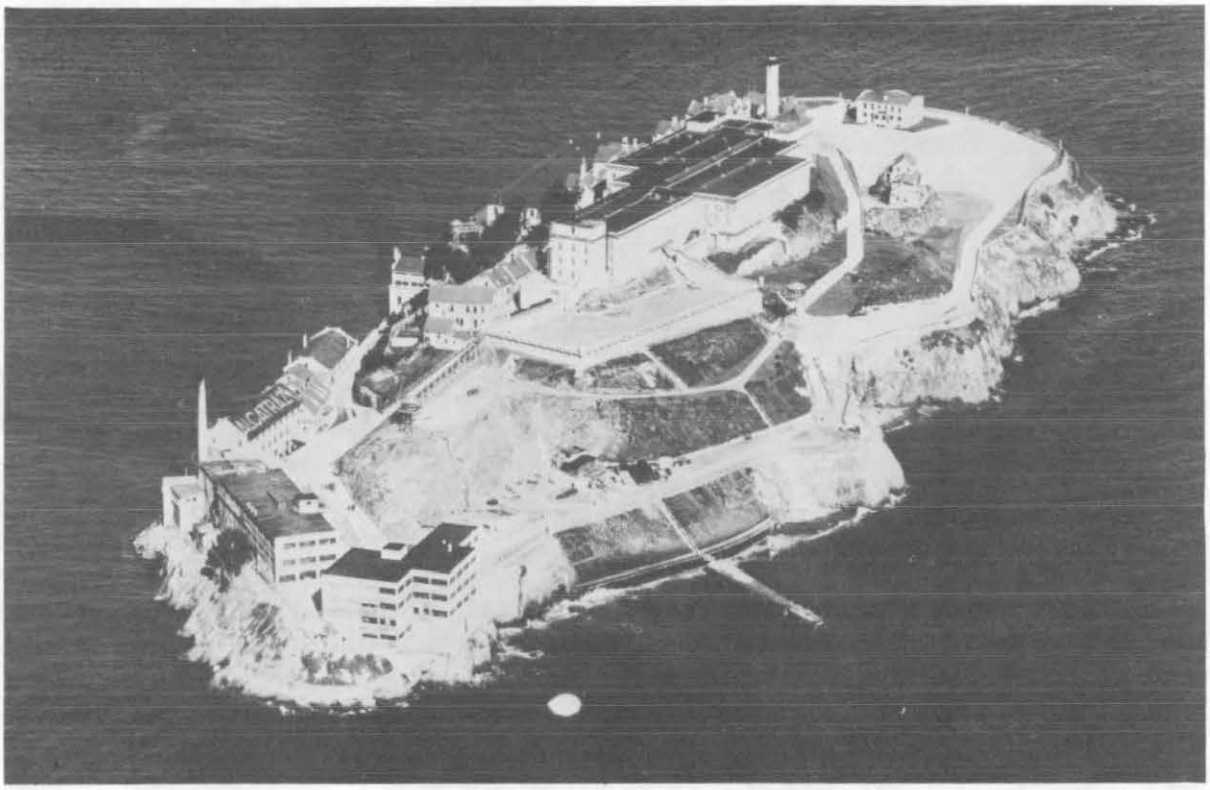
This photo was taken when consideration was being given to converting the military prison into an immigration station.

National Archives, Record Group 85, Immigration and Naturalization Service, Subject Correspondence 1906-1932

2. Alcatraz, 1922

The quarry is still in operation. The concrete seats have not yet been built in the stockade. The tennis court can be seen in the corner of the unpaved parade ground.

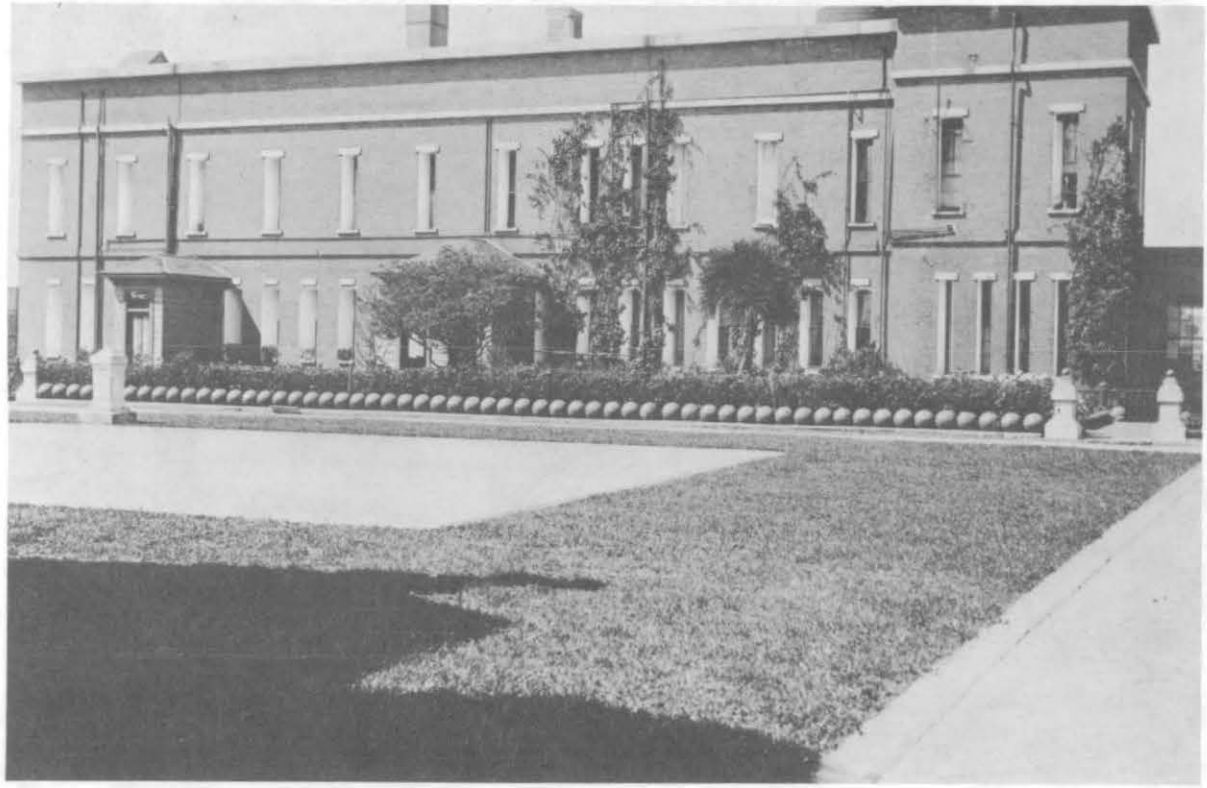
National Archives, Still Picture Branch, Navy Dept. No. 80-CF-7182-4



3. Alcatraz, 1934, Six Days After Becoming a Federal Penitentiary

The first of the guard towers have been built.

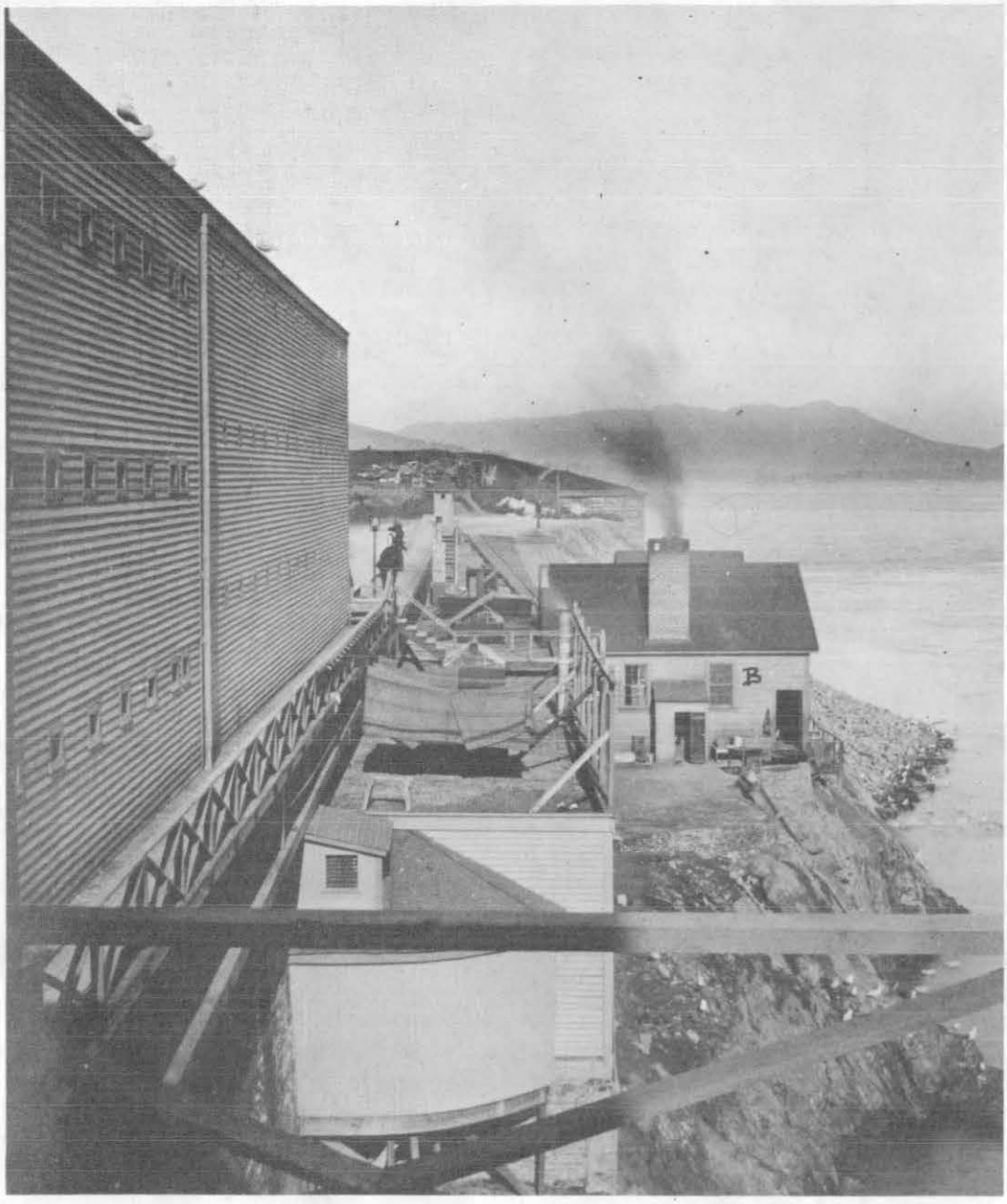
National Archives, Still Picture Branch, Army Air Forces, No. 18-AN-39996



4. The Citadel, 1893

The Tennis court is in the foreground. A formal garden lies beyond the cannon balls. Separate entrances have been built across the moat so that each officer's family had its own.

National Archives, Still Picture Branch, Office of the Quartermaster General, No. 92-F-2-6



5. Frame Cellblocks of the First Military Prison in 1902

Note the small ventilators, one for each cell in each of the three tiers. Below the blankets hanging on the line is the narrow mess hall. The semicircular drumlike structure in the foreground is the entrance from the covered way into the mess hall, an opening having been cut in the defensive wall. (Originally, prisoners had to climb over the wall to get to the mess--these stairs are marked A.) B is the prison kitchen. Beyond the kitchen is old North Caponier, reduced in height and serving as a magazine for 15-inch Rodman batteries.

National Archives, Record Group 92, OQMG, General Correspondence 1890-1914, Capt. A. M. Fuller, March 20, 1902, to Ch. QM, Dept. of Calif.

6. First Military Prison, 1902

The original guardhouse has been completely buried from view by the additions. All four cellblocks can be seen as well as the roof of the library wing. The original cellblock (the dark brick unit with a door and five windows) has here been converted into the guard's room; when it was a cellblock it had no windows along the side.

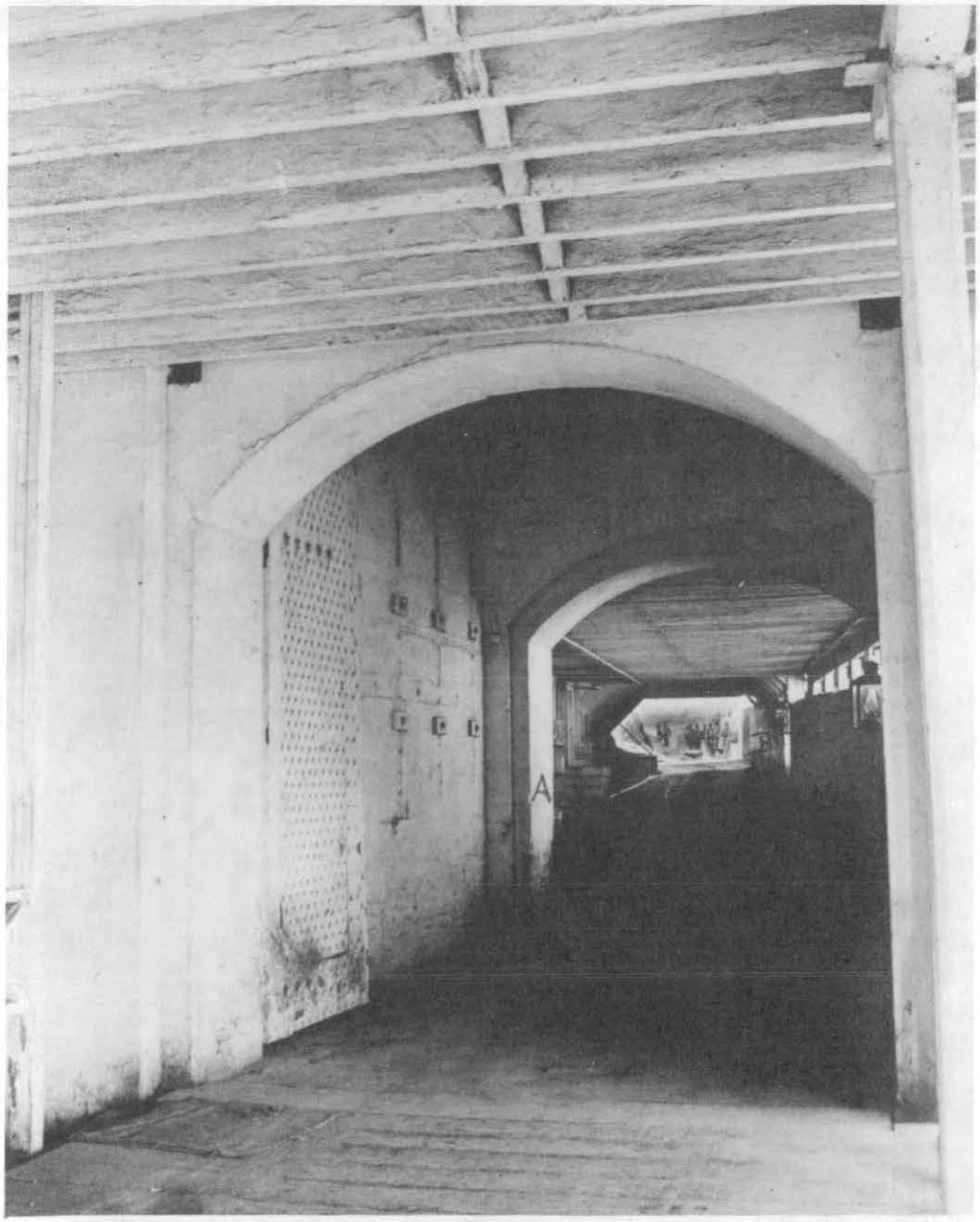
Note the pipe railings in the foreground. These were built at various spots on the island after a soldier fell off the unfinished casemates and was killed.

National Archives, Record Group 92, OQMG, General Correspondence 1890-1914, Capt. A. M. Fuller, March 20, 1902, to Ch. QM, Dept. of Calif.

7. Interior of a First Prison Cellblock

The strap-iron doors on the three tiers of cells replaced solid wooden ones that allowed very little ventilation. The various letters on this photo refer to the night a lamp fell off the wall (B) and exploded on the wooden floor. An alert sentry put out the fire. But the prisoners panicked anyway. This incident added more pressure toward building a modern fireproof prison.

National Archives, Record Group 92, OQMG, General Correspondence 1890-1914, Capt. A. M. Fuller, March 20, 1902, to Ch. QM, Dept. of Calif.



8. Sallyport, Alcatraz Guardhouse, 1902

The rafters in the foreground mark the floor of the prison library wing. The original sallyport is that portion from the riveted door to the letter A. Beyond A the passage lies under two of the cellblocks. The gun room to the left has long been used as the "dungeon" for the first prison.

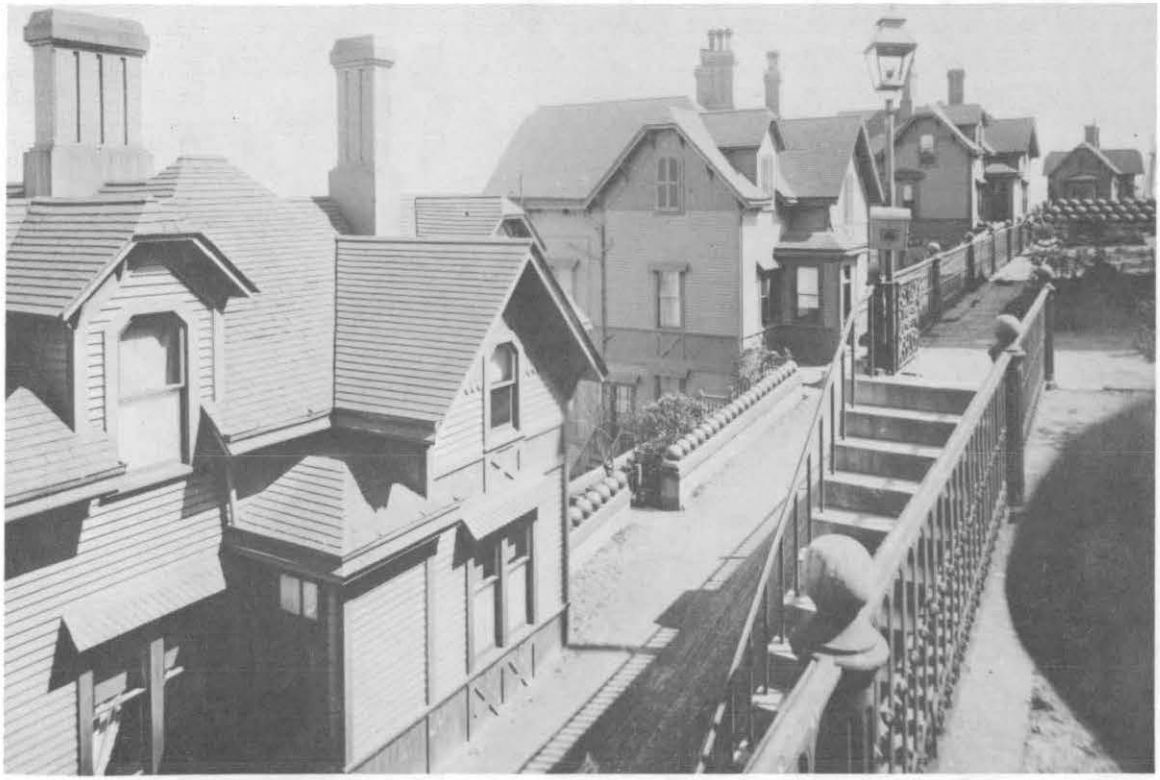
In the foreground the wood flooring covers the moat and may indeed be the original drawbridge. Above the arch two holes may be seen for the drawbridge chains and pulleys.

National Archives, Record Group 92, OQMG, General Correspondence 1890-1914, Capt. A. M. Fuller, March 20, 1902, to Ch. QM, Dept. of Calif.

9. Brick Casemates, 1893

The first tier was completed in 1865, before work was suspended due to obsolescence of brick fortifications. The ironwork for the gun embrasures may be seen. A particularly ugly temporary barracks stands on top of the casemates, as do smaller buildings used as first sergeants' quarters, barber shop, etc.

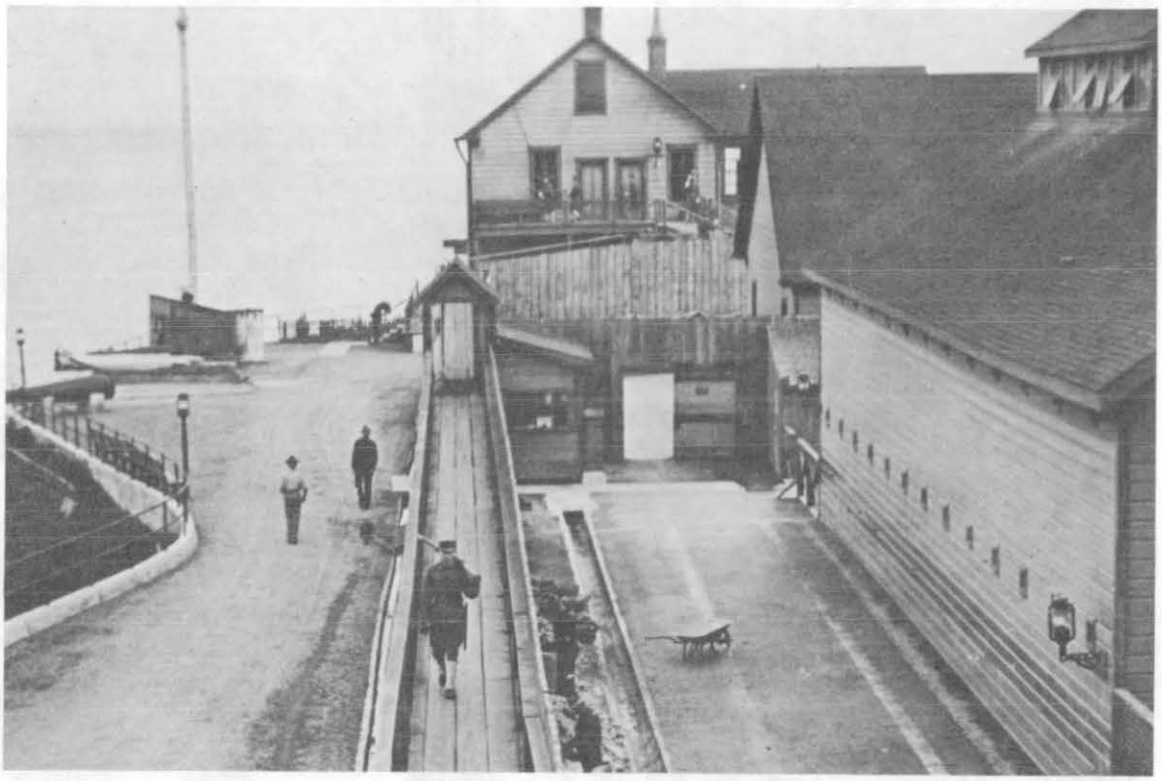
National Archives, Still Picture Branch, Record Group 92, OQMG, No. 92-F-2-3



10. Officers' Row, 1893

In the foreground there is a flight of granite steps leading from the Citadel to the road below. The decorative iron fence runs along the retaining wall. Similar fencing surrounded the moat. The middle set of quarters was reserved for the commanding officer. The building in the distance is post headquarters. Later the same site was used for new commandant's quarters.

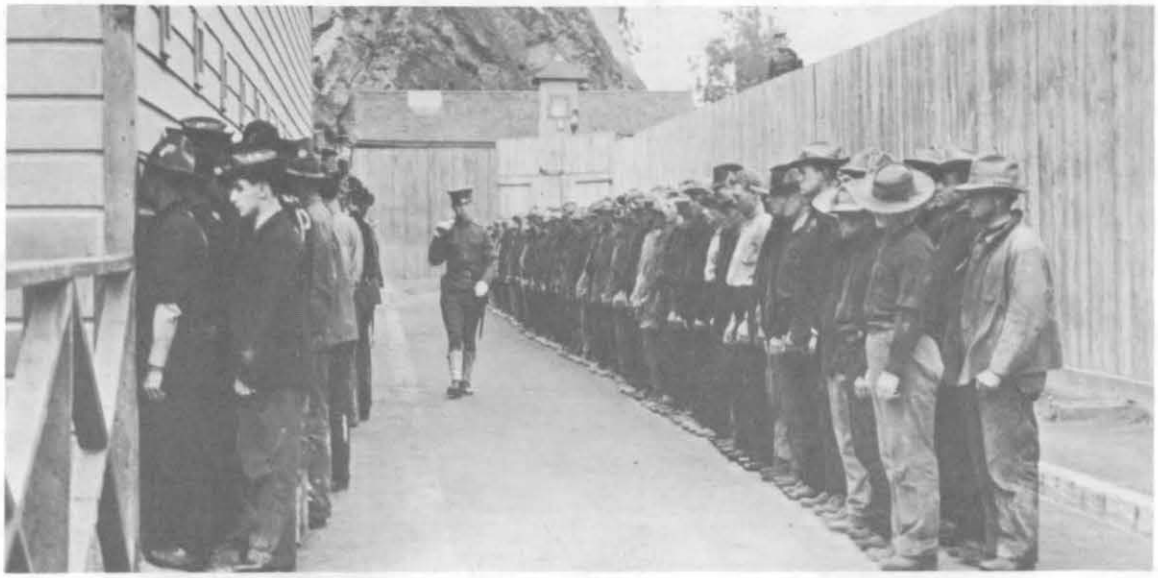
National Archives, Still Picture Branch, Record Group 92, OQMG, No. 92-F-2-2



11. Second or Upper Prison, 1910

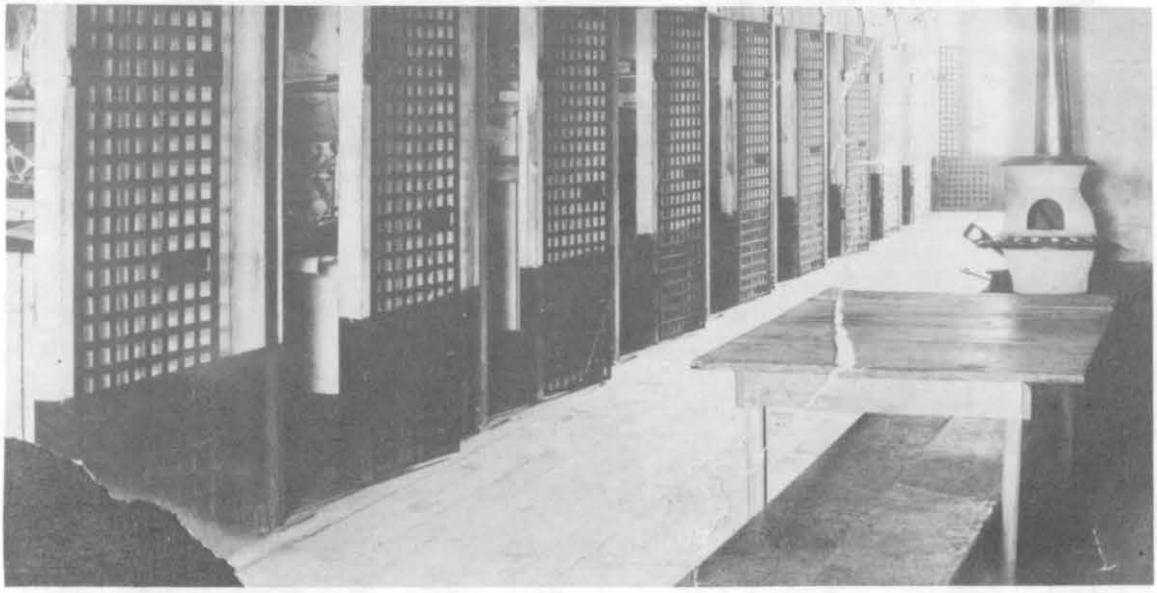
The sentry walk ran around the stockade. One of the cell houses stands on the right. They were quite similar in design to those of the first prison, but had two tiers of cells rather than three. The building in the background is the guardhouse; the off-duty guard lounges on the veranda. The prisoners are making little rocks out of big ones. A couple of old Rodmans lean over the wall beneath the flagstaff.

National Archives, Record Group 92, OQMG, General Correspondence 1890-1914, Item #223810, End. No. 4



12. Military Prisoners, Upper Prison, 1904

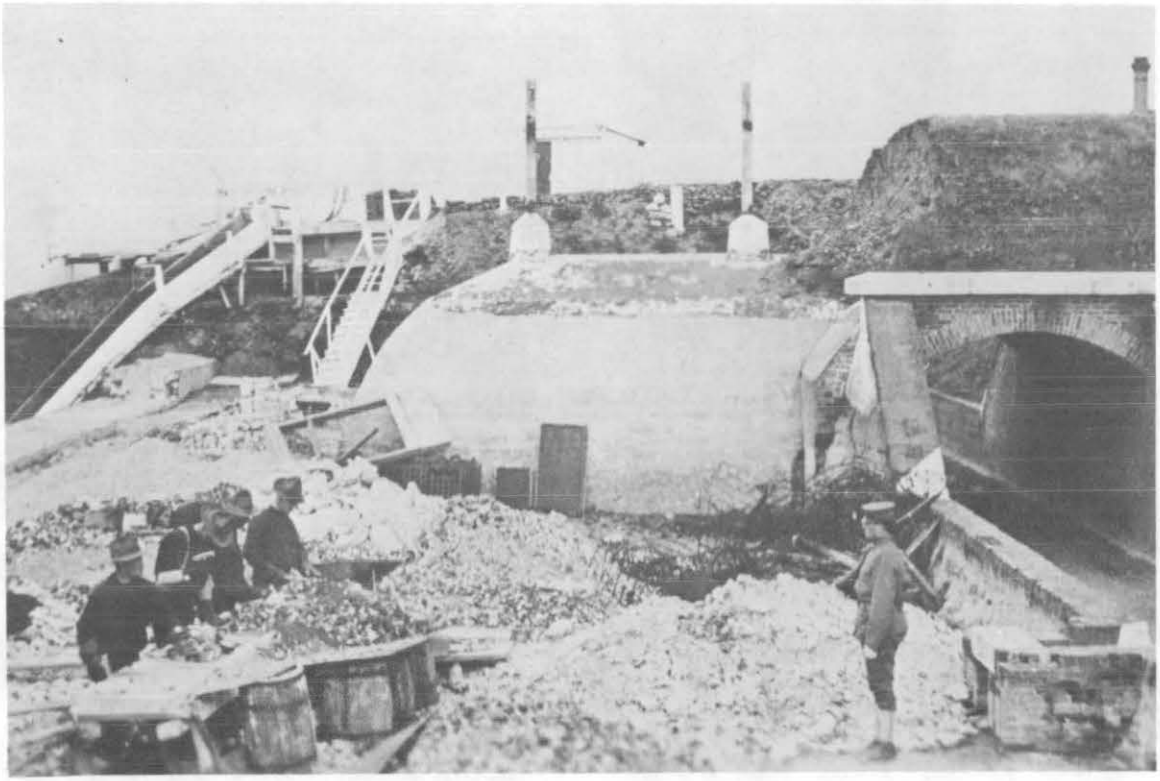
National Archives, Record Group 92, OQMG, Additional data not available.



13. Cells, in Upper Prison, Alcatraz, 1902

This prison was thrown together most rapidly after the Spanish-American War, when it was learned that several hundred military prisoners were en route to Alcatraz from the Philippines.

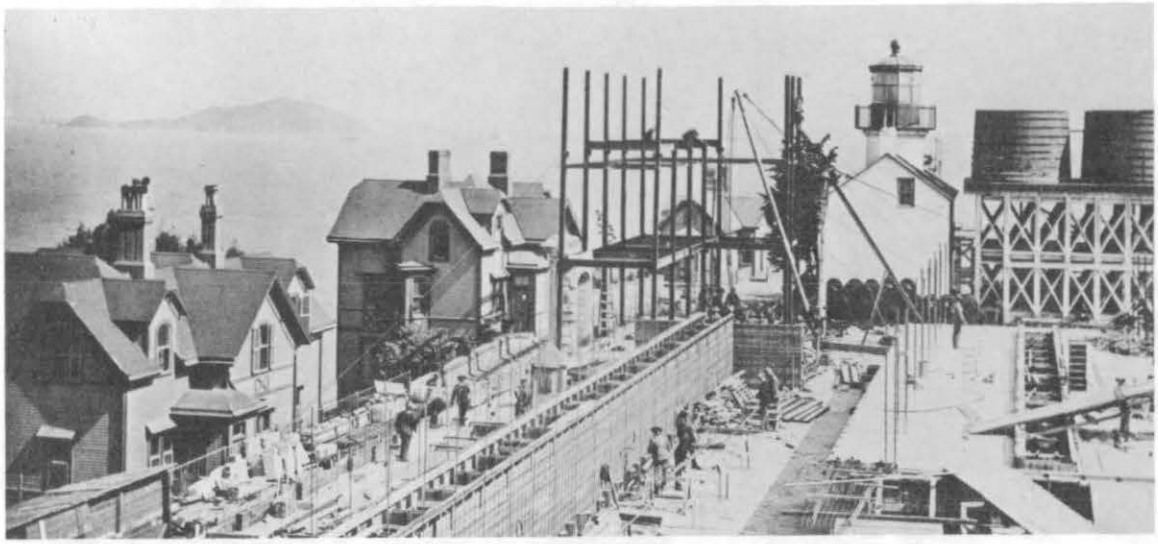
National Archives, Record Group 92, OQMG, General Correspondence 1890-1914, Capt. A. M. Fuller, March 20, 1902, to Ch. QM, Dept. of Calif.



14. Prisoners at Work, 1910, on Site of Battery 2

This photo shows Battery 2 which is being prepared for the erection of an electrical power plant. The earthen traverse has been removed from the concrete-covered magazine with its ventilators still in place. This magazine was demolished, but the brick archway, and another magazine to its right still stand.

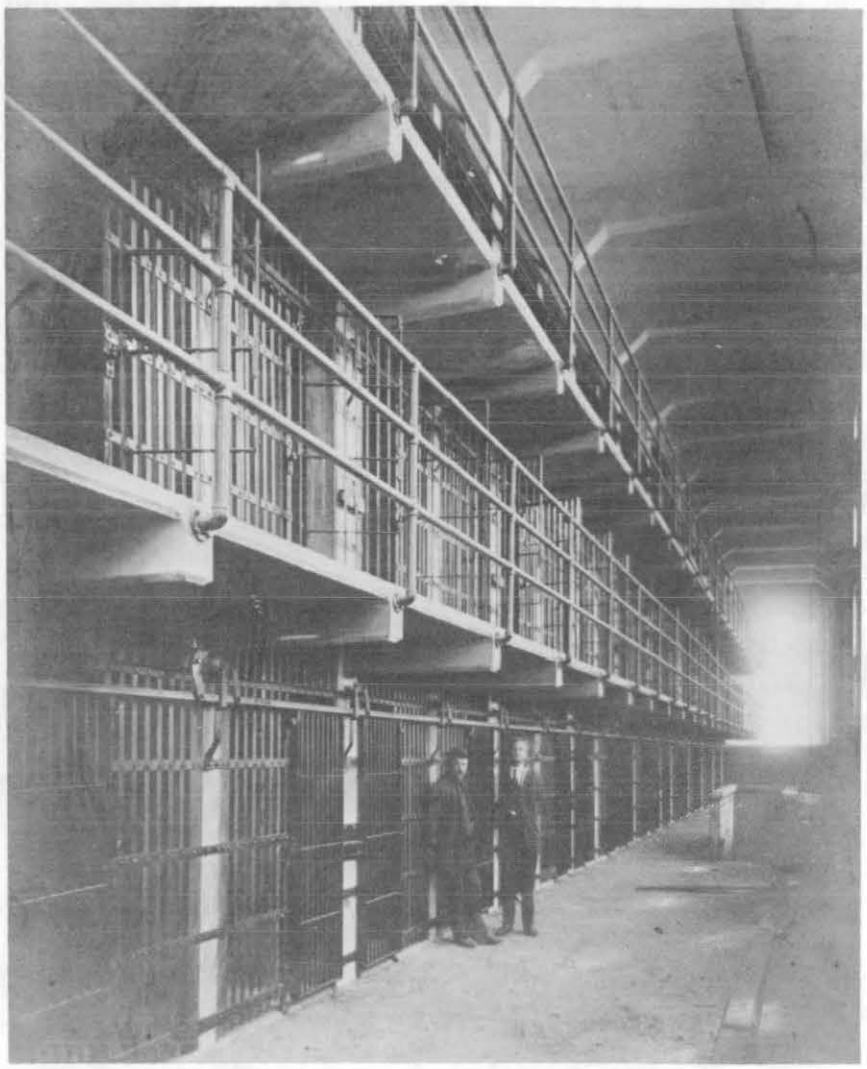
National Archives, Record Group 92, OQMG, General Correspondence 1890-1914, Item #223810, End. No. 3



15. Construction of a Permanent prison, ca. 1910

The Pacific Coast's first lighthouse is in the background. This lighthouse had to be torn down because its light was too low to shine over the new prison. The temporary water tanks came from the roof of the old Citadel. The iron work indicates the administrative part of the building. The granite doorway from the old Citadel has already been reconstructed as the entrance to the commandant's office.

National Archives, Record Group 92, OQMG, General Correspondence 1890-1914



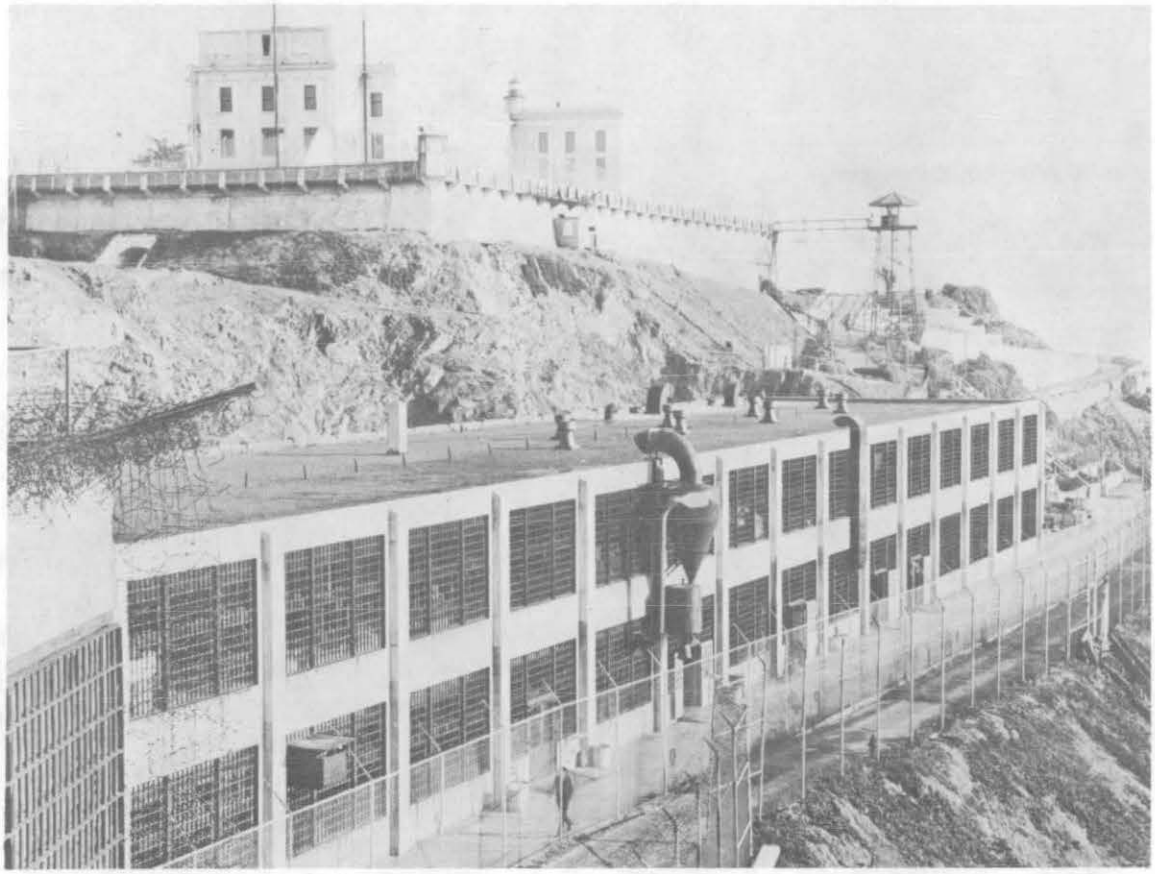
16. Interior of the New Cell House, ca. 1911

The concrete has not yet been laid in the corridor. This is probably cellblock A--note the stairway leading down to the old Citadel's basement. Note, too, the strap-iron cell fronts.

National Archives, Still Picture Branch, No. 92-FL-6-2-3

17. Tool-proof Steel Cell Fronts After Remodeling by the Bureau of Prisons, 1934

National Archives, Still Picture Branch, USIA, No. 306-PS-49-11882



18. New Industries Building, Erected by the Bureau of Prisons in 1939-1941

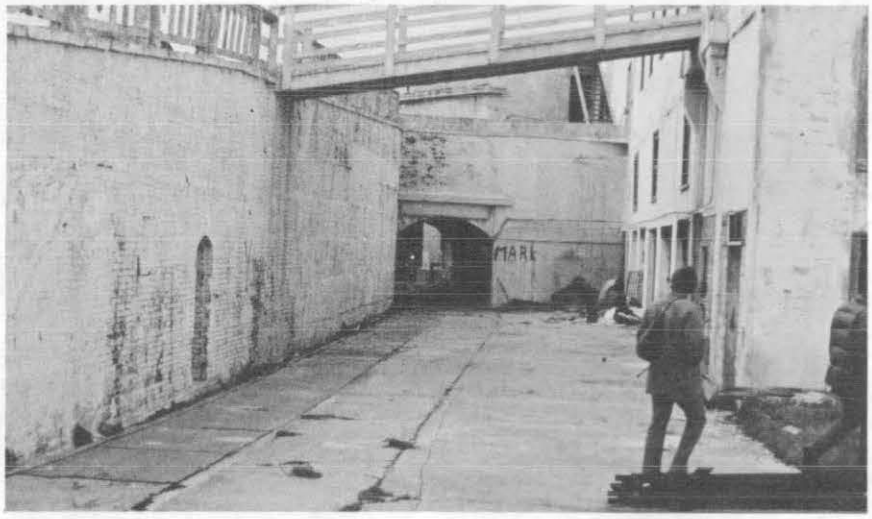
Several different shops were located on the ground floor of this building. The laundry occupied the entire second floor.

National Archives, Still Picture Branch, USIA, No. 306-PS-49-11883

19. Two Views of North Caponier

Note the sandstone foundation and coping. The caponier, dating from the 1850s, was originally one story higher, but in the remodeling of the fortifications in the 1870s the gun room was removed.

Photo by Erwin Thompson, NPS, 1975



20. 1870s Fortifications, 1975

One of the 1870s archways that joined the many 15-inch-gun batteries. On the left wall in foreground is an entrance to a magazine; an archway also originally stood here. The building to the right is the quartermaster storehouse and commissary built on top of the right flank of old North Battery and Battery 1.

Photo by Erwin N. Thompson, NPS, 1975

21. The Scarp Wall of Old North Battery Under the Model Industries Building

The curved portion to the left was an enlargement built in the 1870s for a platform for a 15-inch Rodman.

When the industries building was constructed on top of the battery, this "room" became the practice room for the military prisoners' band.

Photo by Harold LaFleur, NPS, 1976

22. Guardhouse, 1971

The two-story addition on top of the guardhouse has served as a school, chapel, and apartments.

The sally port was damaged by the General Services Administration after the Indian occupation in the 1970s.

In the foreground is a fair-sized stretch of the 1850s defensive wall that ran from the guardhouse to North Caponier. The white frame building stands on the foundation of the brick cell house of the first prison.

The guard tower at the wharf is one of six erected by the Bureau of Prisons.

Photo by Merrill J. Mattes, NPS, 1971

23. Apartments on Guardhouse, 1975

Another view of the mission-revival school and apartments on top of the guardhouse.

Photo by Erwin N. Thompson, NPS, 1975

24. Recreation Yard or Stockade of Prison, 1976

The concrete "steps" provided prisoners a place to sit when playing chess, etc. In army days this corner of the stockade was a natural outcropping of rock.

Photo by Harold LaFleur, NPS, 1976

25. Citadel Doorway in the Prison, 1975

The granite doorway from the old Citadel was reconstructed as the entrance to the commandant's office.

Photo by Erwin N. Thompson, NPS, 1975

26. Northwest End of Alcatraz Island, 1971

Photo by Merrill J. Mattes, NPS, 1971

27. East Side of Alcatraz, 1971

Leaving the dock, this is the east side of Alcatraz Island. The Indians painted a part of the lighthouse red after the keepers' residences burned.

Photo by Merrill J. Mattes, NPS, 1971

28. Restored Lighthouse, Alcatraz, 1975

Photo by Erwin N. Thompson, NPS, 1976

29. Dock Guard Tower at the Wharf, Alcatraz

Photo by Harold LaFleur, NPS, 1976

30. Scarp Wall, North Battery, 1976

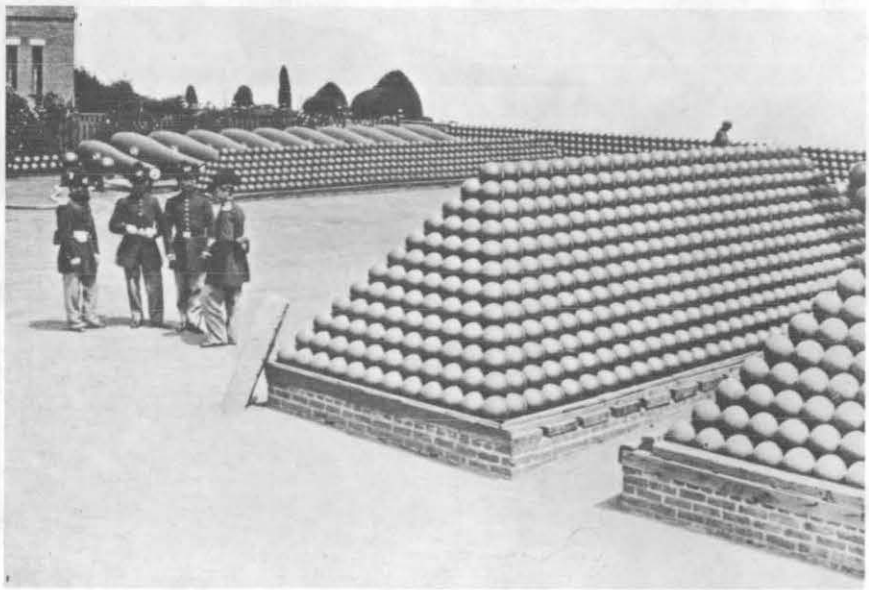
Another portion of the 1850s scarp wall at North Battery.

Photo by Harold LaFleur, NPS, 1976

31. Commandants Quarters, 1971

The commandant's or warden's residence after being destroyed by fire during the Indian occupation.

Photo by Merrill J. Mattes, NPS, 1971



32. Ordnance Yard in Front of the Citadel, ca. 1865

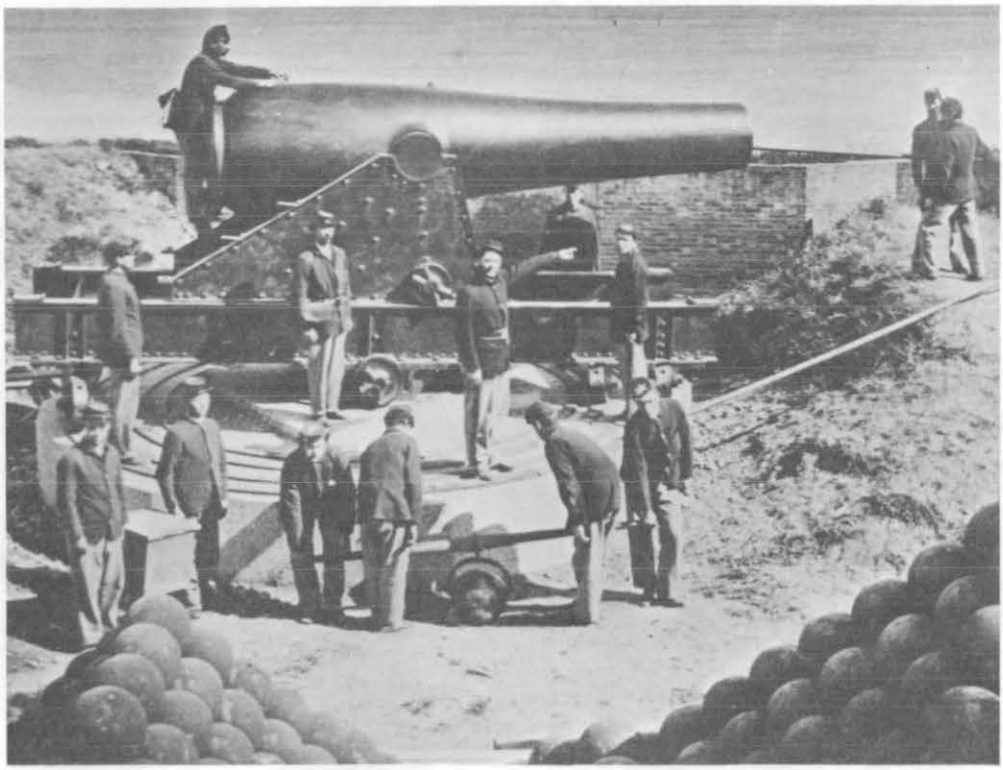
The uniforms indicate that the photograph was taken shortly after the Civil War, since no pictures were allowed during the war.

Muybridge Photo No. 16892-43, Courtesy, Bancroft Library, University of California, Berkeley

33. Garden in Front of the Citadel, ca. 1880s

This photo was taken from a doorway shortly after the Civil War and a bit of the dry moat shows in the lower right corner of the picture. The ordnance yard and a tennis court lie beyond.

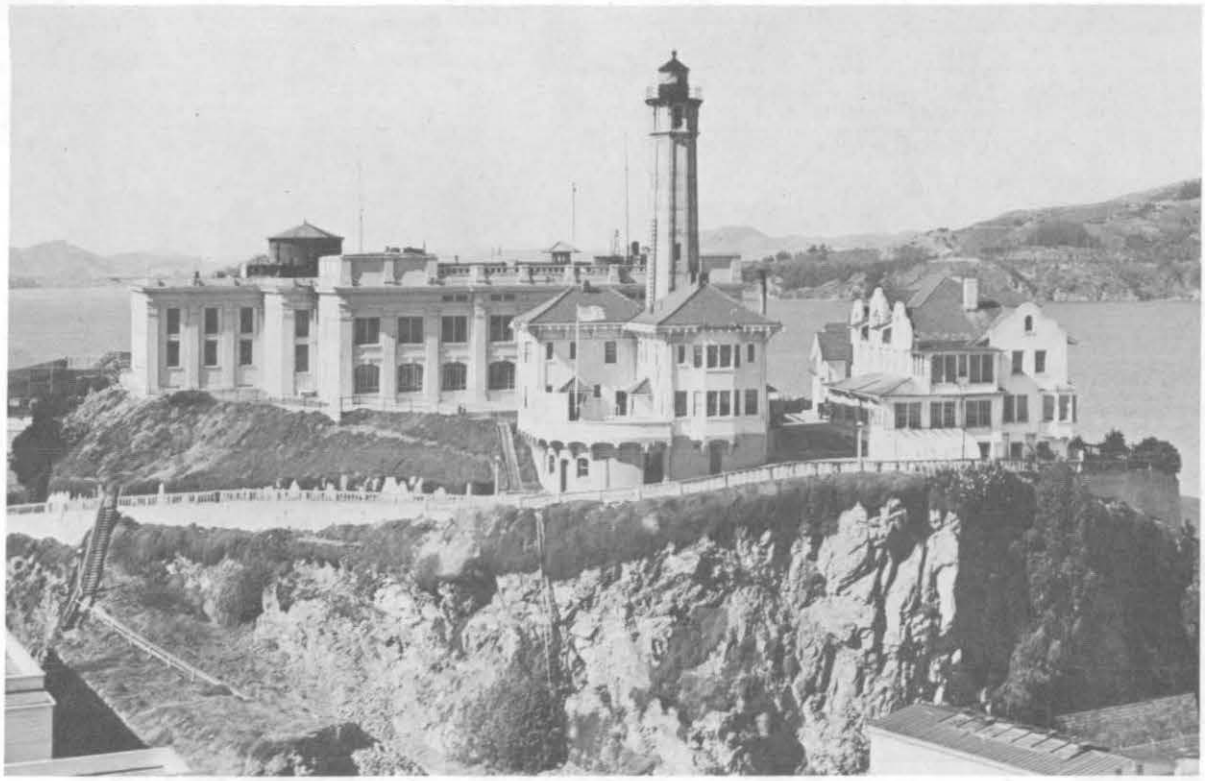
Muybridge Photo No. 16892-46, Courtesy, Bancroft Library, University of California, Berkeley



34. Gun Crew Drilling at a 15-inch Rodman Emplacement, at the Southeast End of Alcatraz

San Francisco can be seen across the water.

Muybridge Photo No. 16892-40, Courtesy, Bancroft Library, University of California, Berkeley



35. The One-Hundredth Birthday of Alcatraz Light, 1954

This is a dramatic photograph taken on the occasion of the one-hundredth birthday of the first light on the Pacific Coast, November 6, 1954. From left to right, the prison, the second lighthouse and its quarters, and the warden's (formerly, commandant's) quarters.

Courtesy, Mrs. Gladys Hensen, San Francisco Room, San Francisco Public Library

Selected Historical Maps and Plans
Alcatraz Island

SELECTED HISTORIC MAPS AND PLANS

ALCATRAZ ISLAND

Map

1 Survey of Isla de los Alcatrazes, 1847
2 South Battery, 1854
3 North Caponier, 1856
4 Guardhouse, 1856
5 The Citadel, 1859
6 Alcatraz Fortifications, 1863
7 Scarp, North Battery, 1865
8 Bombproof Barracks, 1866
9 Post-Civil War Fortifications
10 1890 Batteries for Alcatraz (Endicott)
11 Alcatraz Island, 1894-1904
12 Alcatraz Island, 1909
13 Alcatraz Island, 1910
14 Military Prison, 1910
15 Alcatraz Island, 1933

Map 1 - Survey of Isla de los Alcatrazes, 1847

The first field survey of Alcatraz Island and one of the first American land surveys on the Pacific Coast. Lt. William H. Warner, Topographical Engineer, prepared this map of Isla de los Alcatrazes in May 1847 when the Mexican War was still going strong.

National Archives, Cartographic Archives Division, Record Group 77, Fortifications File, Drawer 95-107

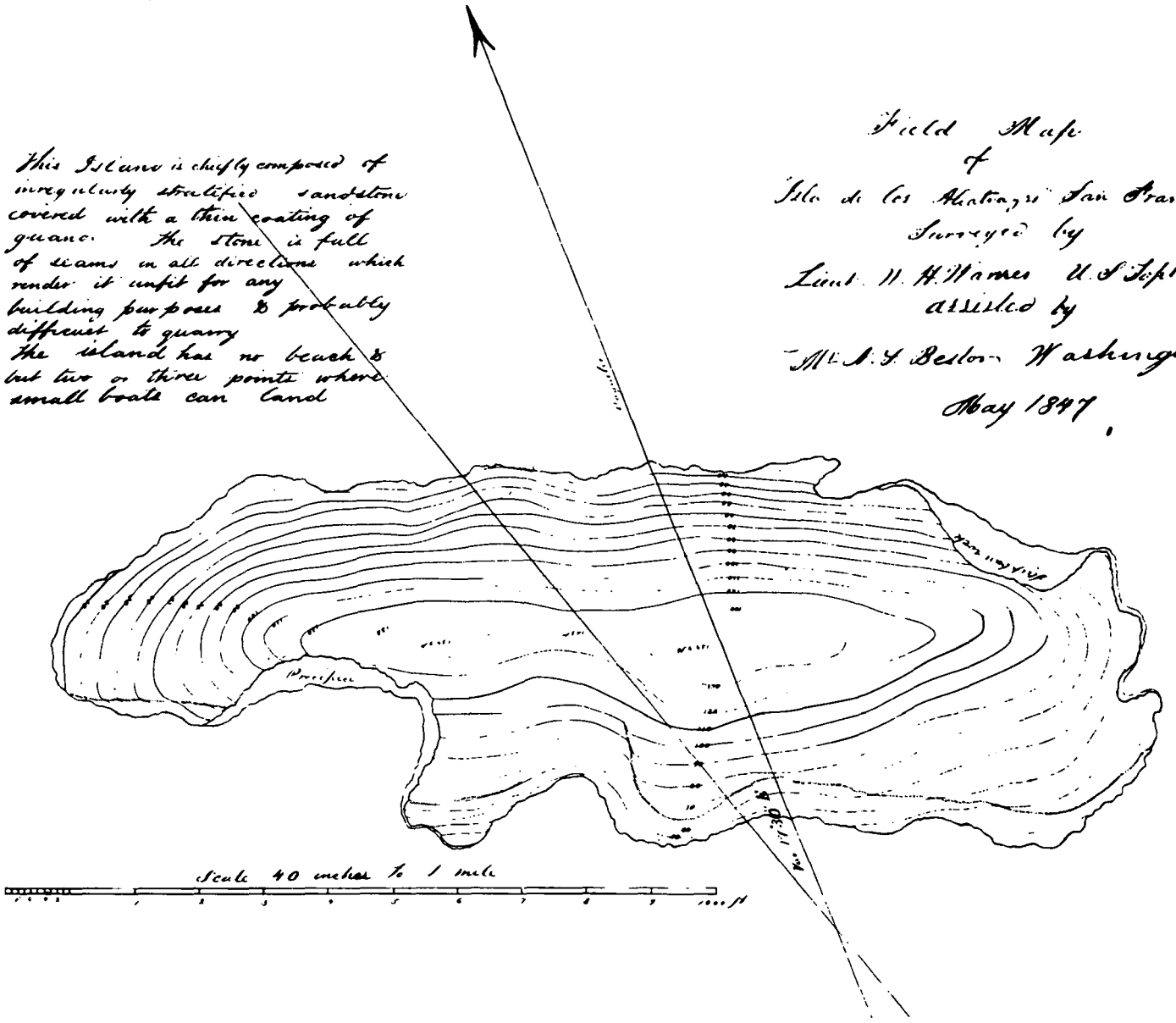
Copy - "Made in Engr Dept. March 20. 1879. from the original on file in R.R.H. Room

A true Copy
Geo. H. Elliot
Maj of Engrs.

Drawer 95.
Sheet 107.

Note This Island is chiefly composed of irregularly stratified sandstone covered with a thin coating of guano. The stone is full of seams in all directions which render it unfit for any building purposes & probably difficult to quarry
The island has no beach & but two or three points where small boats can land

Field Map
of
Isla de los Alcatrazes San Francisco Harbor
Surveyed by
Lieut. N. H. Warner U.S. Topl Engrs
assisted by
Mr. A. T. Beston Washington D.C.
May 1847.



(Sd) N. Hunter
Lt. U.S. Topl Engrs

Map 2 - South Battery, 1854

The plan, elevations, and sections were drawn by Lt. Frederick Prime. A temporary wharf for the unloading of construction materials is shown, as well as a temporary battery composed of navy 68-pounders. Sections "lm" and "no" show the completed 24-foot-high scarp wall. Except for the coping this wall is believed to be intact today.

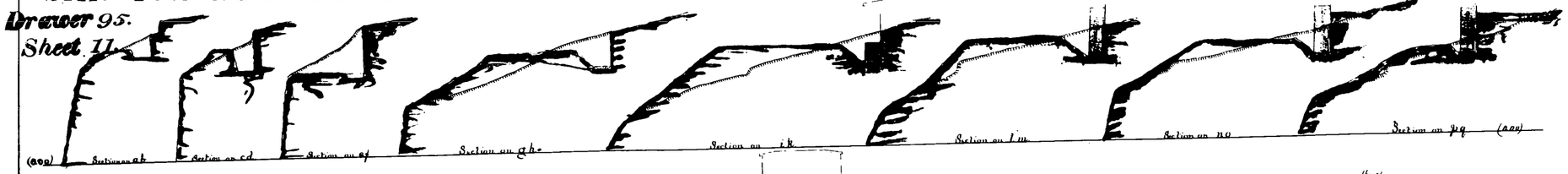
Located in the National Archives, Cartographic Archives Division, Record Group 77, Fortifications File, Drawer 95-11

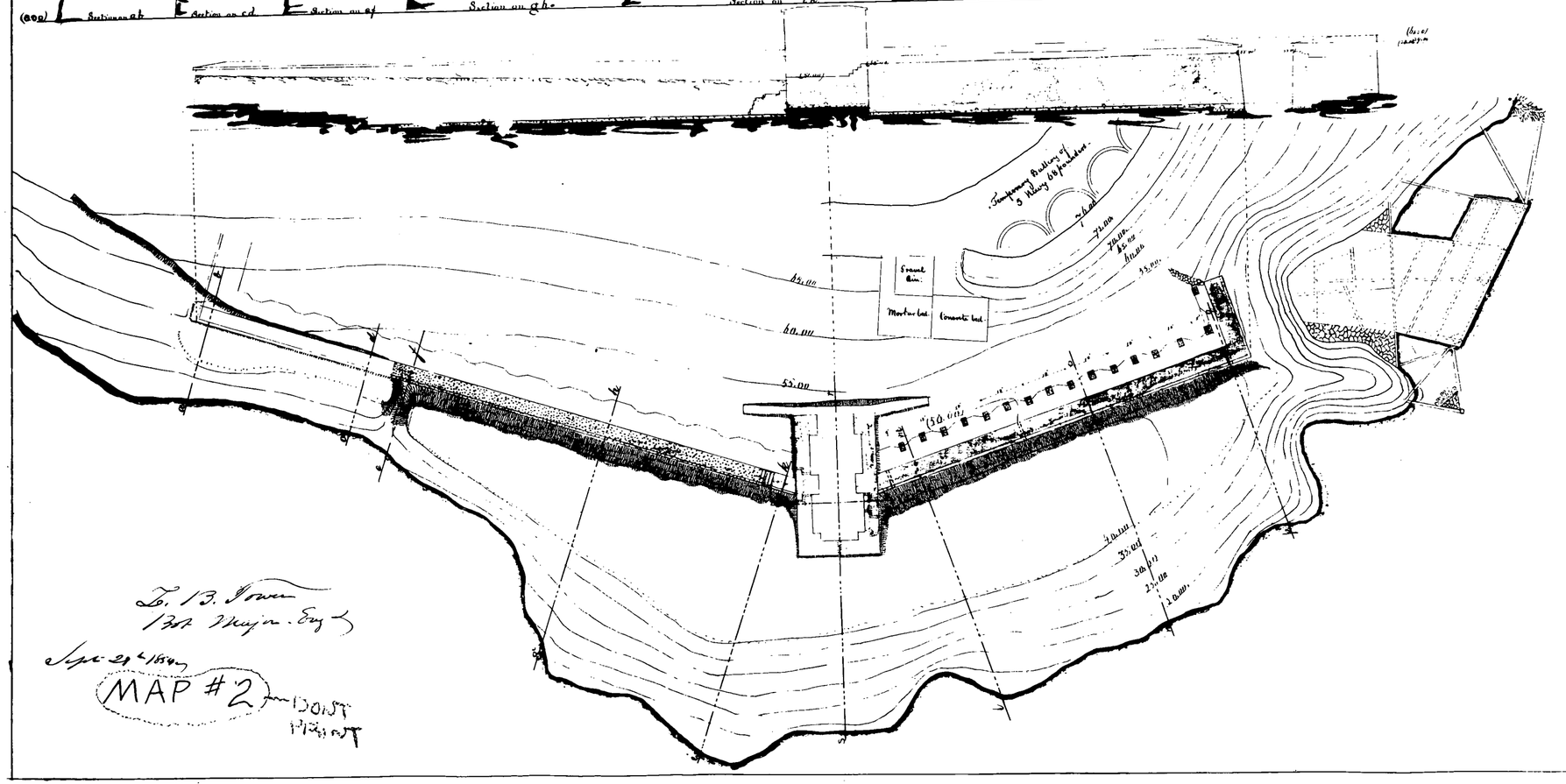
SAN FRANCISCO HARBOUR.

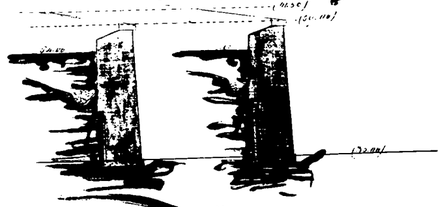
ALCATRACES ISLAND.

Drawer 95.
Sheet 11

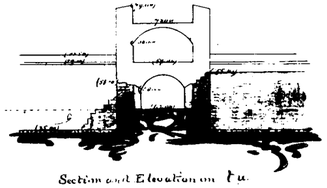
Sections showing amount of Work done up to 1st September
Scale 1 Inch to 32 feet.



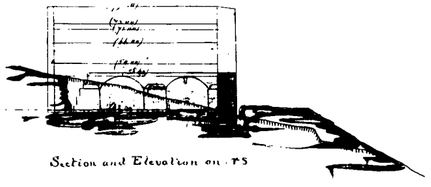




Sections on Lm and Qr
Showing Masonry of Scarp Wall and filling
on 30th September 1854.
Scale 1 Inch to 32 feet.



Section and Elevation on tu.



Section and Elevation on rs

Plan, Elevation & Sections of South Battery
on
Alcatraces Island
Showing amount of work done up to the
1st September 1854.
Scale 1" to 25'
Drawn under direction of Maj. Towers
by Rudolph Prime
2nd Lieut Engrs

L. B. Tower
1st Major Engr

Sept. 29th 1854

MAP #2 from DOST Plant

Engineer Dept. Oct. 28. 1854
Received with Major Towers letter of
29th Sept. 1854 (T 1692)

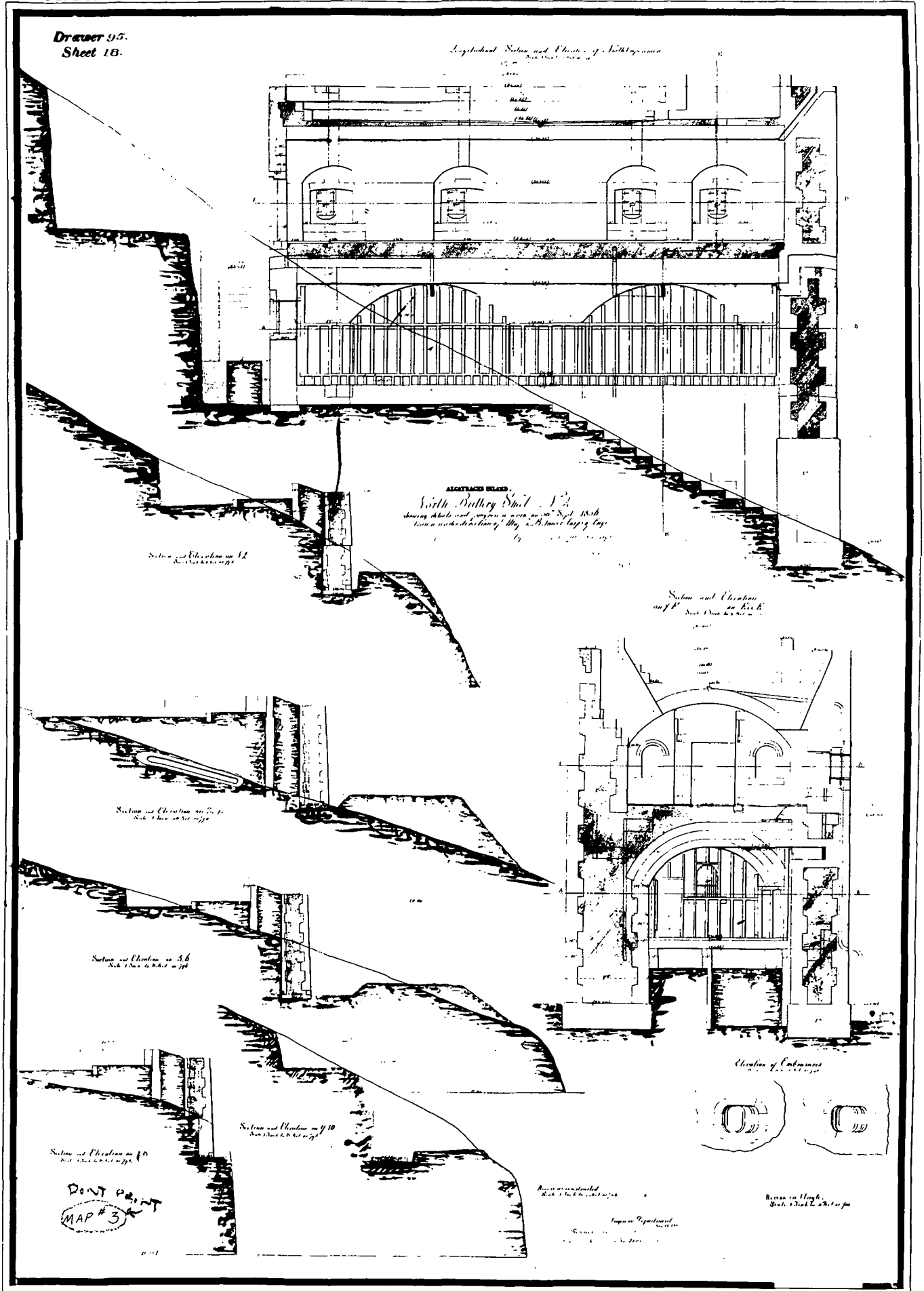
95-11

Map No. 3 - North Caponier, 1856

This caponier was built of concrete and brick, otherwise similar to the sandstone South Caponier. The lower floor was the powder magazine. Eight 24-pounder howitzers were mounted in the second floor to defend the guns of the battery. An 8-inch columbiad was mounted en barbette on top of the caponier where there was also an infantry parapet. The magazine portion of this caponier still stands.

Courtesy, National Archives, Cartographic Archives Division, Record Group 77, Fortifications File, Drawer 95-18

Drawer 95.
Sheet 18.

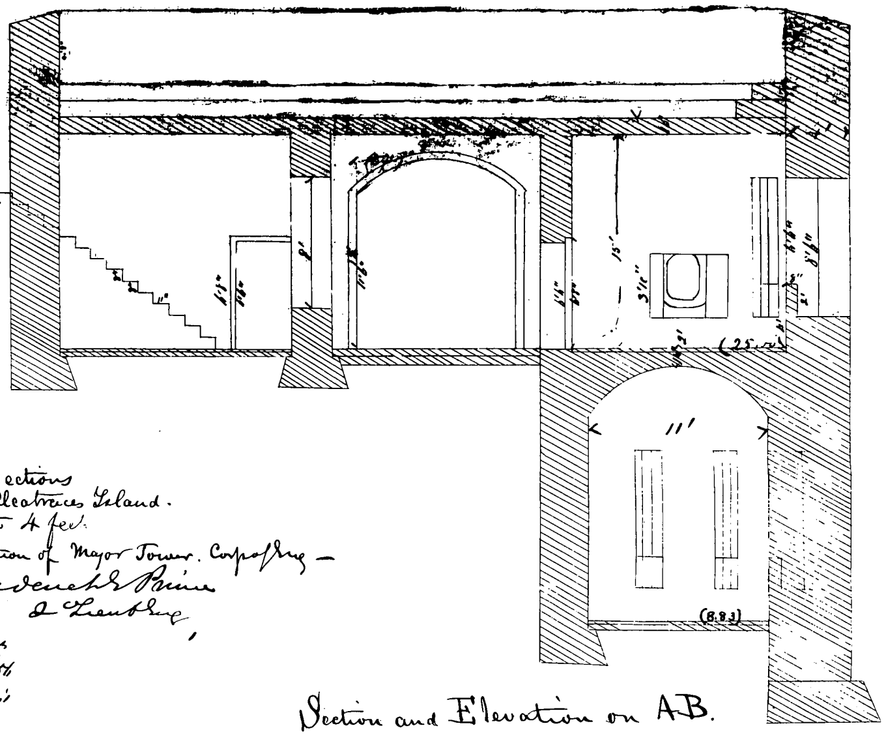


Map 4 - Guardhouse, 1856

This defensive guardhouse, constructed in a manner similar to the caponiers was to be armed with three 24-pounder howitzers. With the establishment of a general prison on the island in 1861, this guardhouse became the focus of the first prison on Alcatraz. Its howitzers never were mounted. The moat may still be found under the roadway today.

National Archives, Cartographic Archives Division, Record Group 77, Fortifications File, Drawer 95-15

Drawer 95.
Sheet 15.

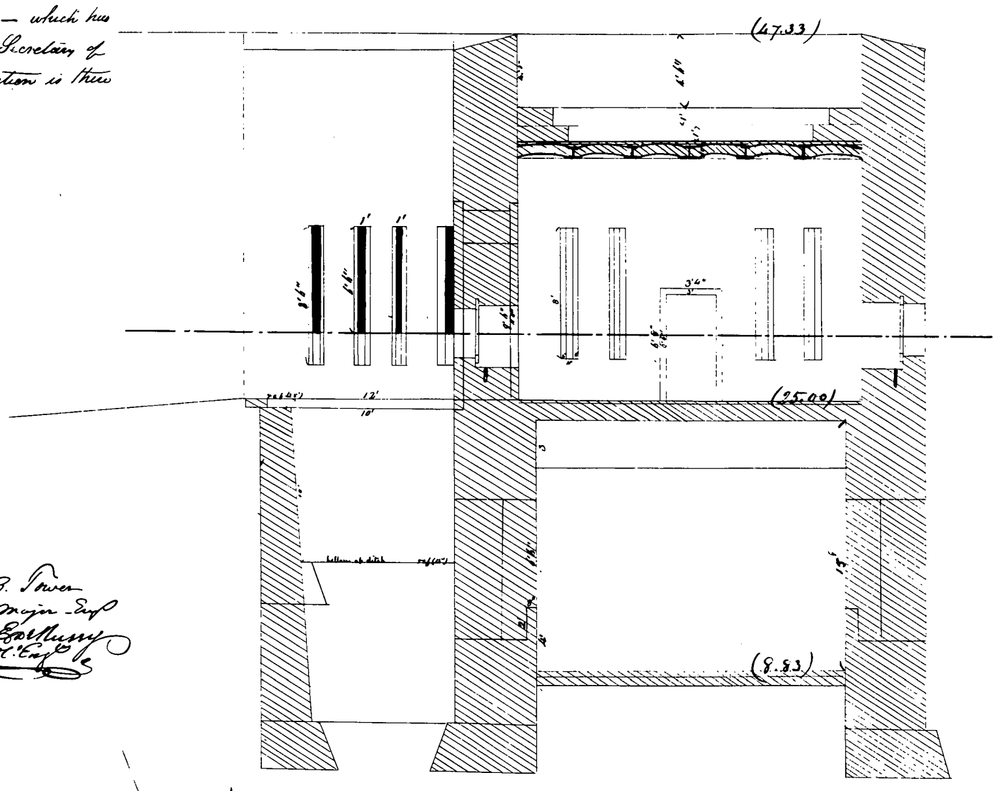


Plan and Sections
of Guard House at Alcatraces Island.
Scale 1" to 4 feet.
Drawn under direction of Major Turner, Corps of Eng —
by Frederick Prime
Jr Lieutenant

Engrs Office
May 24/54

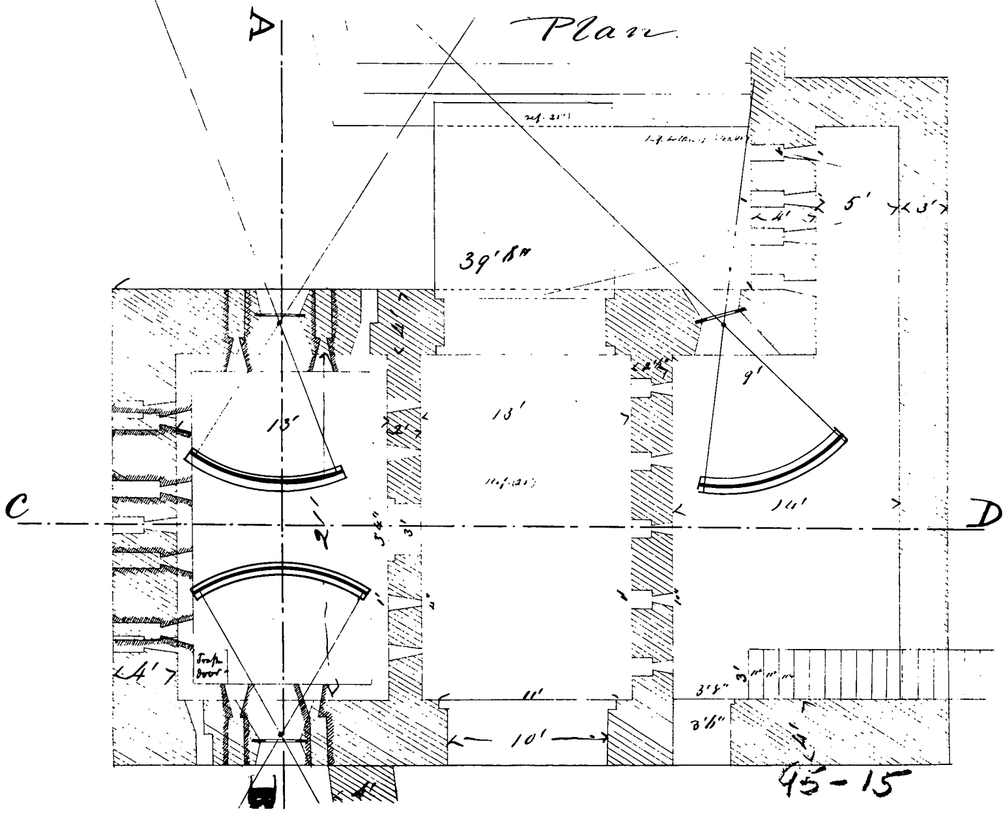
Recd with Col Abert's
letter of April 29/54
(B 6810) — which has
been before the Secretary of
War & his action is thereon
endorsed

Section and Elevation on AB.



L. B. Tower
Bvt. Major Corps
of Eng.
D. H. Rucker
Lt. Col. Eng.

Plan.



45-15

Map 5 - The Citadel, or Defensive Barracks, 1859

The engineers believed that this stout structure was capable of resisting the shot and shell of the day. No guns were mounted inside the building; it was to be defended by infantry only, should an enemy land on the island. Note the iron shutters for the musket-slit windows and the ornate iron fence that surrounded the dry moat. The underground cisterns shown at the bottom of the sheet were later greatly enlarged in volume.

National Archives, Cartographic Archives Division, Record Group 77, Fortifications File, Drawer 95-15

ALCATRACES ISLAND

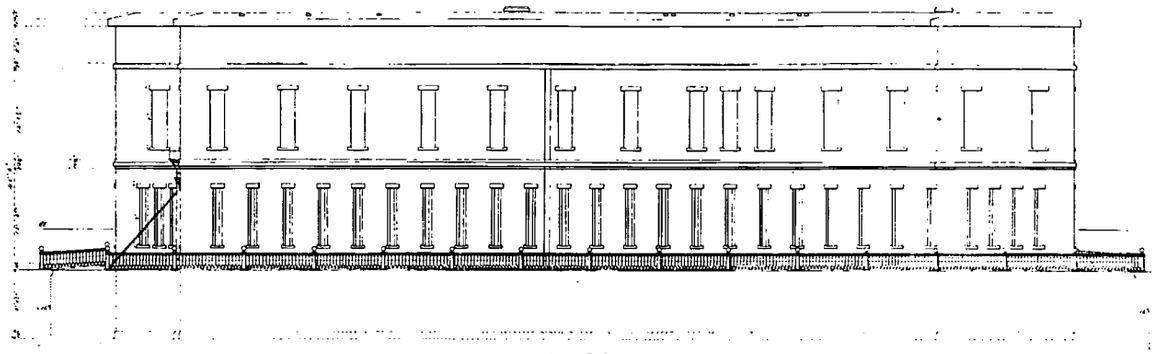
Drawer 95.
Sheet 29.

PLAN SECTIONS and ELEVATIONS
of
Defensive Barracks

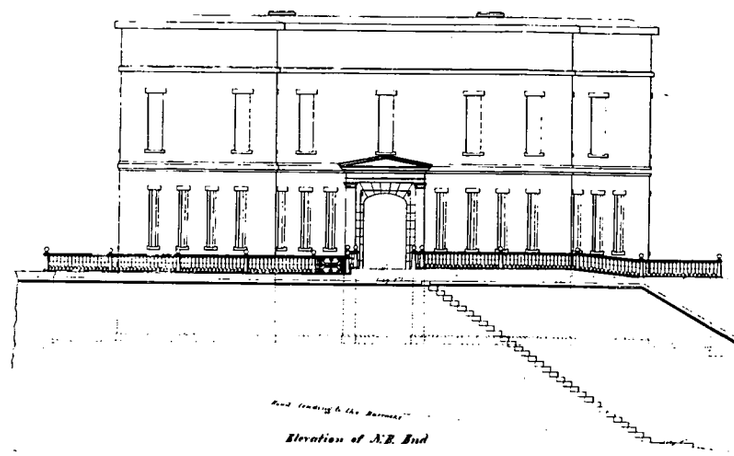
Sept. 1st 1859.

Jno. B. McPherson
1st Lt. of Engrs.

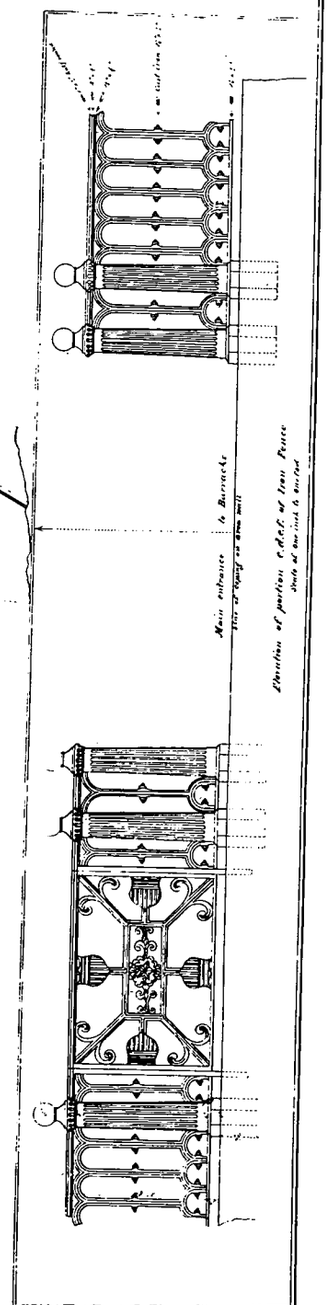
Engineer Department
October 29. 1859
Received with Lieut McPherson's
letter of Oct 4 1859 (M3524)



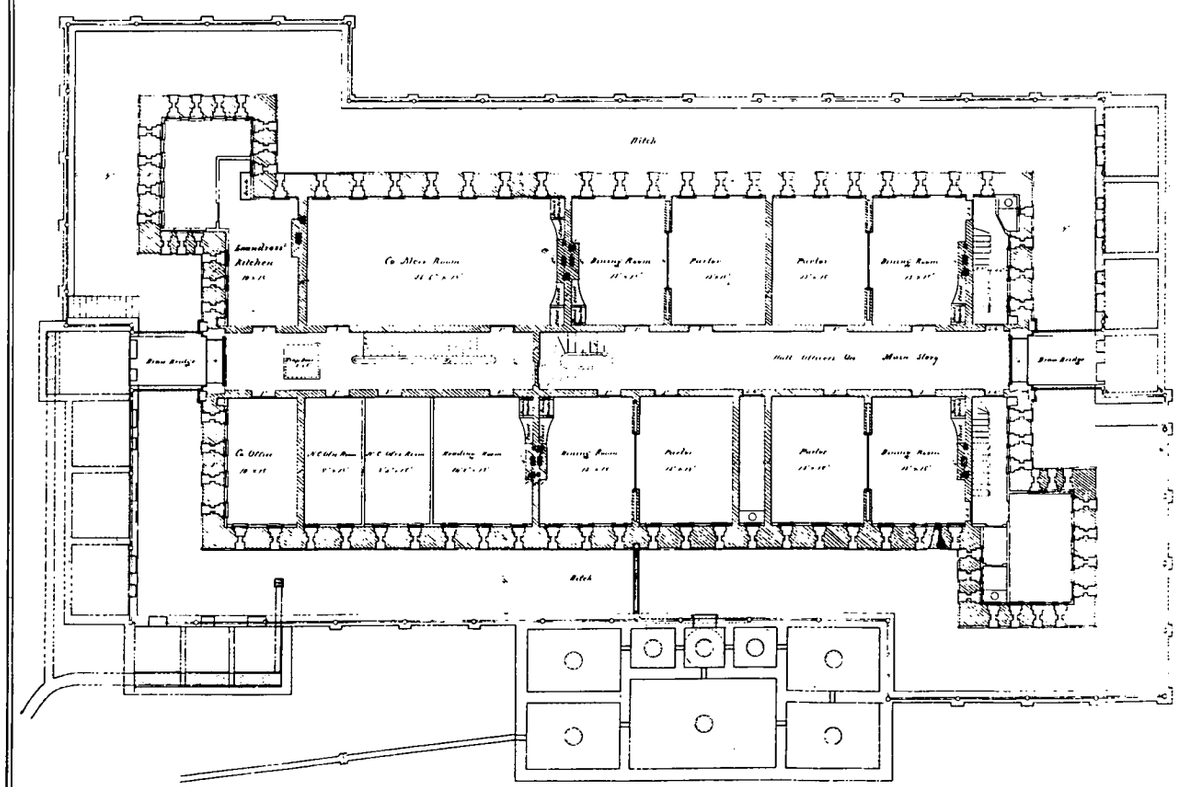
Elevation S.E. Side



Elevation of N.E. End

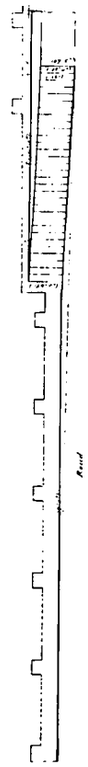


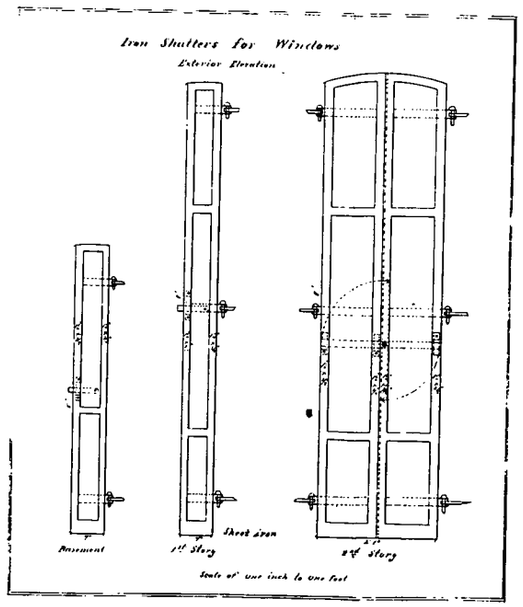
Elevation of portion C.D.E.F. of Front Parade
Scale of one inch to a foot



Plan and Section on A.B. 1st Story

Scale 1" to one foot





MAP #5 — DO NOT PAINT

95 - 29

Map 6 - Alcatraz Fortifications, 1863

The maps show the state of the fortifications on Alcatraz in 1863, in the midst of the Civil War, and at a time when Confederate raiders were reported to be in the Pacific. At the northwest end of Battery Mansfield someone has already penciled in the location of a 15-inch Rodman which would soon be mounted.

National Archives, Cartographic Archives Division, Record Group 77, Fortifications File, Drawer 95-43

Drawer 95.
Sheet 43.

A NEW MAP OF
ALCATRACES ISLAND
SAN FRANCISCO HARBOR

Scale 1 Inch to 50 ft

Respectfully forwarded to Chief Engineer
with letter of this date
San Francisco California
February 12th 1863

Engr. Dept. Mar. 13th 63 — George H. Elliot — Lieut. of Engineers.
Recd with Lt. Elliot's letter of Feb. 13th 1863.

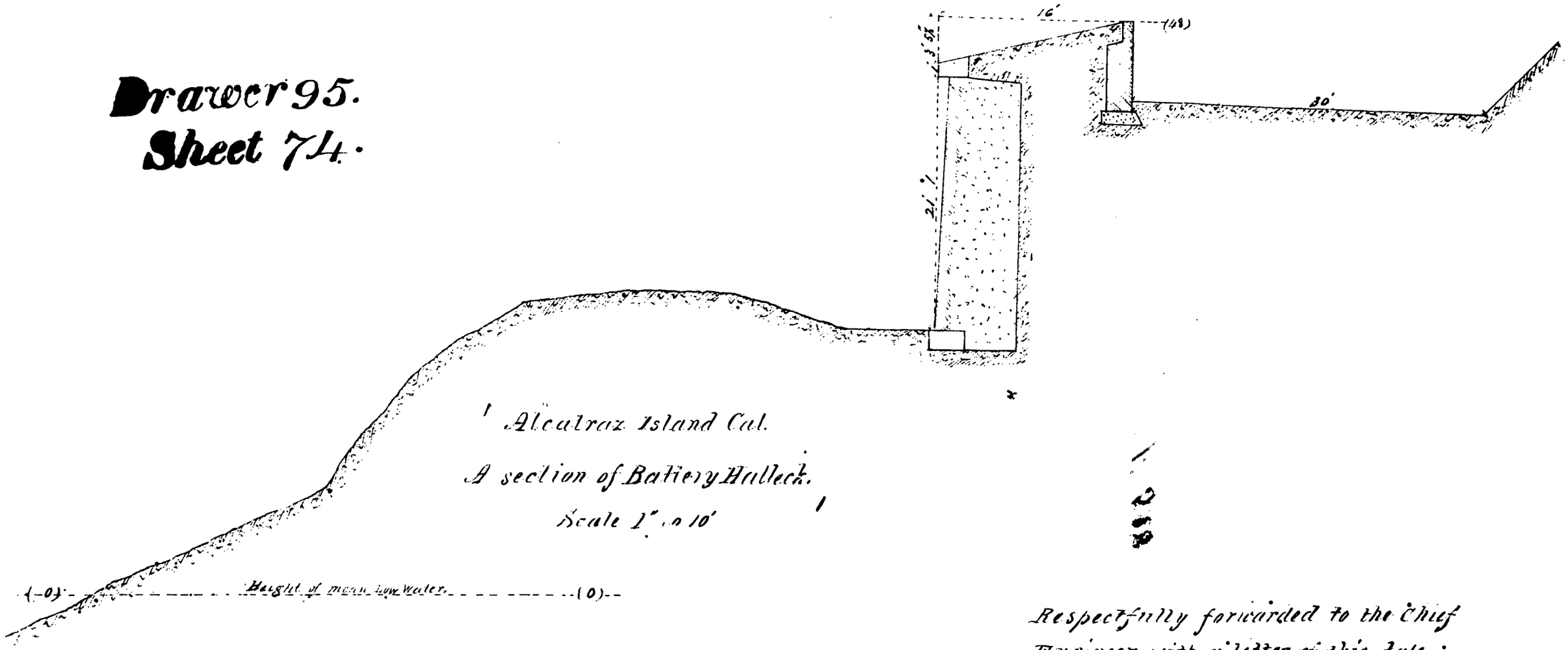
MAP # 6

Map 7 - Scarp Wall, North Battery (Battery Halleck), 1865

This brick and concrete scarp wall still stands under the model industries building. This report recommends that a gun emplacement for a 15-inch Rodman be reconstructed at North Battery.

National Archives, Record Group 77, Fortifications File, Drawer 95-74

Drawer 95.
Sheet 74.



Alcatraz Island Cal.

A section of Battery Halleck.

Scale 1" to 10'

Respectfully forwarded to the Chief Engineer with a letter of this date.

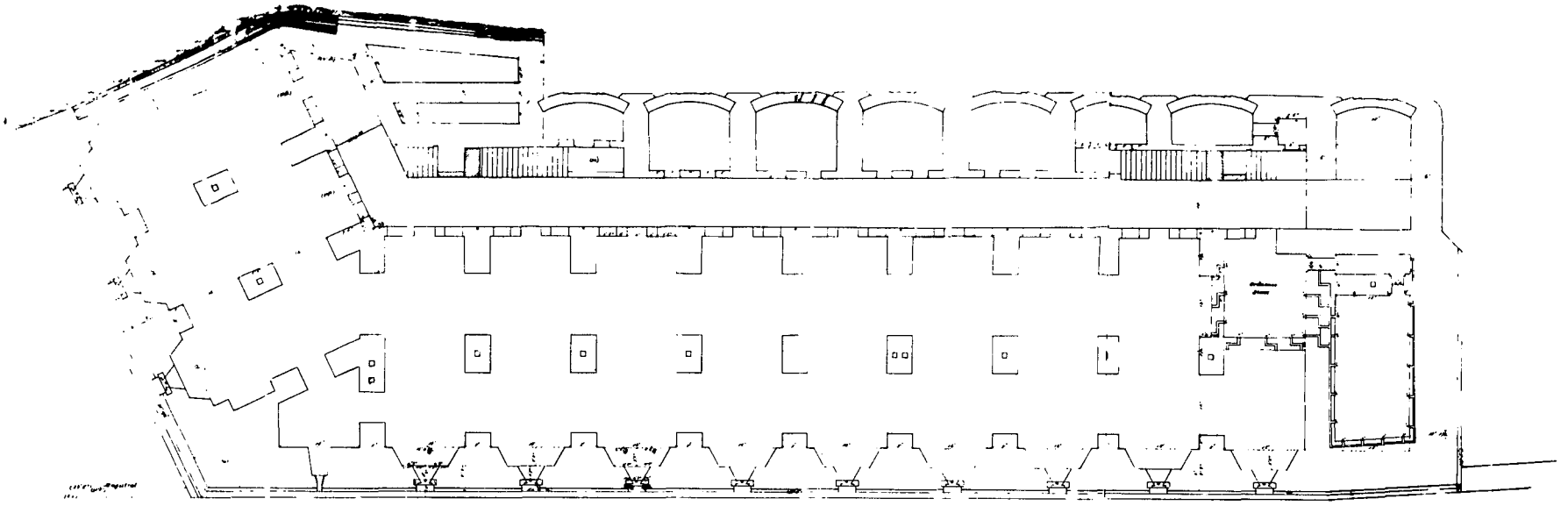
San Francisco Cal.
April 8th 1865.

George H. Elliot
Capt. of Engrs.

Map 8 - Bombproof (or casemated) Barracks, 1866

Only the first tier of the barracks was constructed, but both tiers of the rear area rooms were finished. In later years the passageway behind the barracks was called Chinatown. The casemates of the lower tier never had their guns mounted; they served several functions over the years, mostly as storerooms, mess halls, and kitchens. The magazine at the northwest end of the building served as the first storage area in San Francisco for submarine mines and as one of the first mining casemates.

National Archives, Cartographic Archives Division, Record Group 77, Fortifications File, Drawer 95-87



Plan of 2nd tier - (Quarters)

Alcatraz Island,
San Francisco Harbor
California.

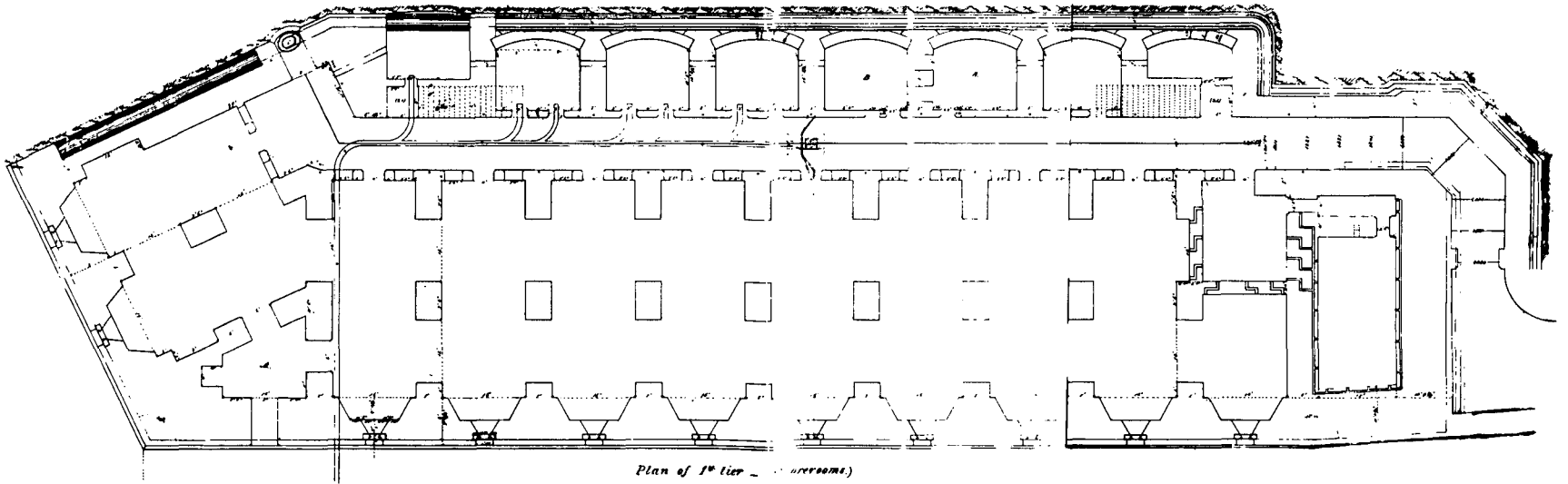
Bomb proof Barrack.

Scale 1" to 1'.
Sheet No 2

Respectfully forwarded to the Chief Engineer with letter of this date.

San Francisco Cal.
Dec 15th 1866.

Chas. H. Smith
Lt Col Engineers.

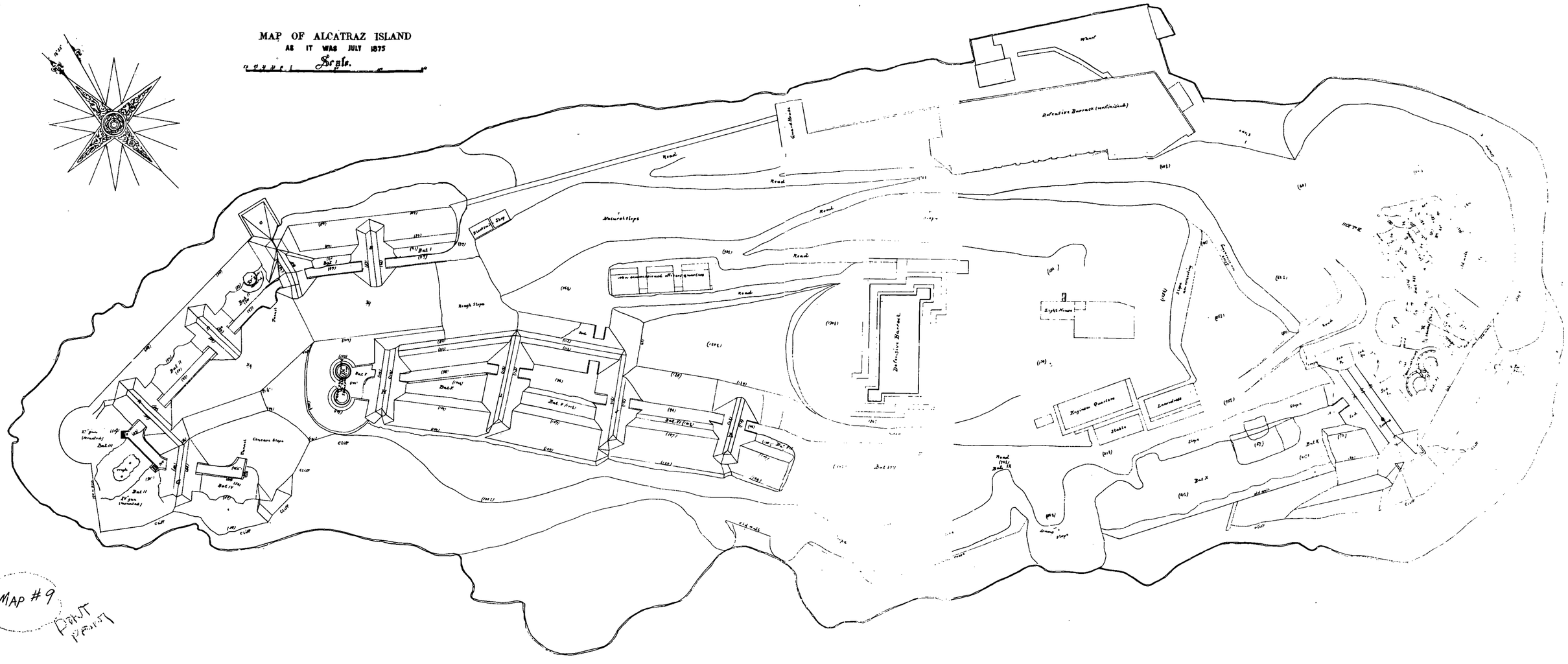


Plan of 1st tier - (Bareroome.)

Map 9 - Post-Civil War Fortifications

These fortifications were constructed by Col. George Mendell. Plans called for over thirty 15-inch Rodmans. As of 1875, five of these big guns were in place. Only a few more were mounted before Congress stopped appropriations for the construction of fortifications.

National Archives, Cartographic Archives Division, Record Group 77, Fortifications File, Drawer 95-108.


MAP OF ALCATRAZ ISLAND
AS IT WAS JULY 1875
Scale.
Wharf
Defensive Barrack (unfinished)
Guard House
Road
Seawall steps
Rough Steps
Defensive Barrack
Light House
Engineer Quarters
Stable
Lumber Shed
Bat I
Bat II
Bat III
Bat IV
Bat V
Bat VI
Bat VII
Bat VIII
Bat IX
Bat X
Pivot
Cement Steps
Cliff
Sidewalk
Steps
Slope
MAP #9

Map 10 - 1890 Batteries for Alcatraz (Endicott)

Modern Endicott-period batteries were planned for Alcatraz in 1890. Throughout the 1890s the engineers continued to think of Alcatraz as necessary to the defenses of San Francisco Bay, but early in the 20th century the island was dropped from the defense plans. Instead, it became the site of a permanent military prison.

National Archives, Cartographic Archives Division, Record Group 77, Fortifications File, Drawer 93-69-12

SHEET M. SAN FRANCISCO, HARBOR CAL.

PLAN AND SECTIONS OF NEW WORKS
ON
ALCATRAZ ISLAND.
PROPOSED BY
THE BOARD OF ENGINEERS.
NOVEMBER 21, 1890.

Scale for Plan. 1in.=50ft.

Scale for Sections 1in.=20ft.

Authority for Map: Drawing of Alcatraz Island, showing the condition of the work in November 1889. –

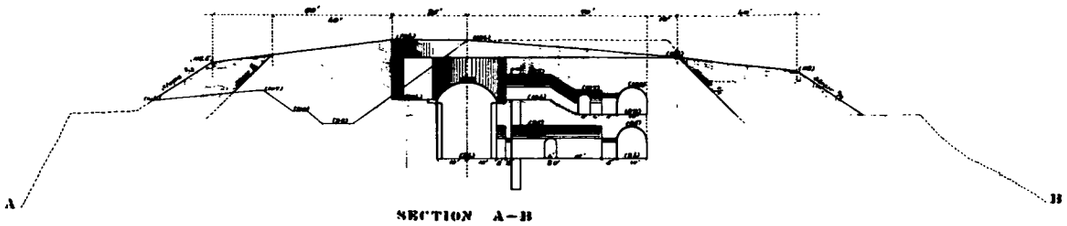
Legend for Plan: Existing work is shown in blue. — New work is shown thus: earth embankment and slopes , masonry , excavation . —

Legend for Sections: Existing work and natural ground are shown in blue, new masonry and new earth embankment are shown in black. —

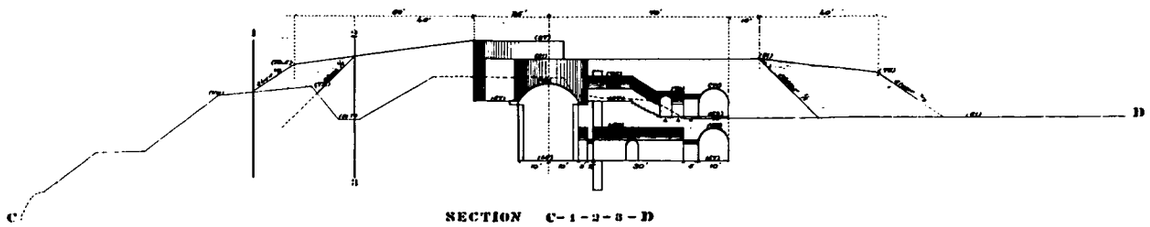
Note: In order to make the drawing intelligible slopes are indicated as plane surfaces with definite intersections; in actual construction the natural irregularities will be preserved to favor concealment.

The Board of Engineers.
New York, Nov. 21. 1890.
Submitted to the Chief of Engineers with report of this date.

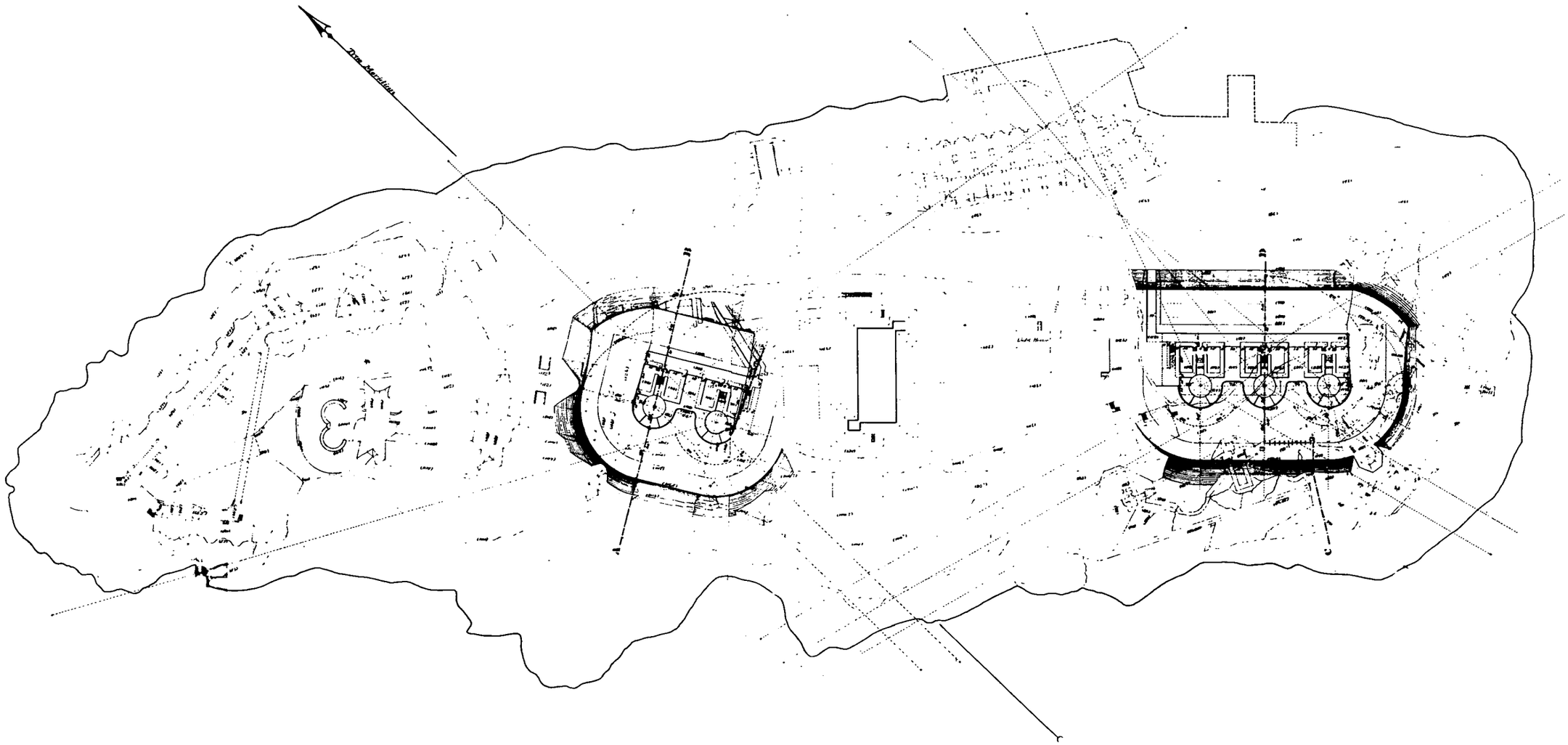
Approved.
Comdg Corps of Engineers
Henry L. Abbot
Col. Engrs Bvt. Brig Gen. U.S.A.
C. B. Comstock
Col of Engs Actg Engr
A. G. Houston
Col, Engrs,
G. L. Gillespie
H. Allbyne



SECTION A–B



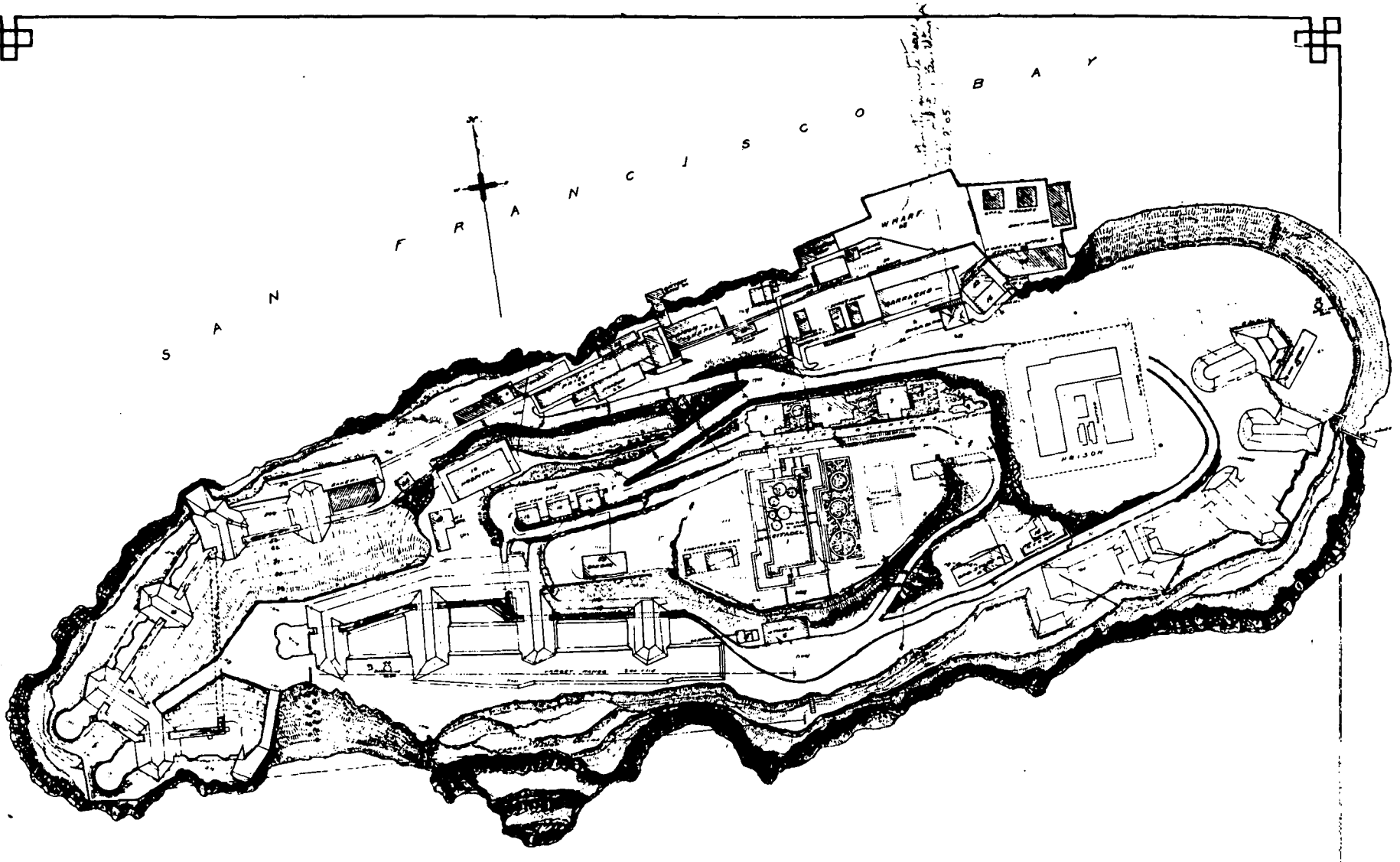
SECTION C–1–2–3–D



Map 11 - Alcatraz Island, 1894-1904

The expansion of the upper prison covers Battery 12 at the southeast end of the island. The batteries at the northwest end of the island are still in first-class condition. Note the target range for small arms firing.

National Archives, Cartographic Archives Division, Record Group 92, OQMG, General Record



ALCATRAZ ISLAND, CALIFORNIA.

SCALE

QUARTERMASTER GENERAL'S OFFICE.
JAN 1894.

—— FRESH WATER SUPPLY.
- - SALT WATER SUPPLY
—— SEWERAGE.

20 CISTERNS UNDER GARDEN
AND SIDEWALK N.E. OF CITADEL.

Map 12 - Alcatraz Island, 1909

This map shows the proposed military prison and the new lighhouse. Both the lower and the upper prisons are shown, as well as the magazine of the North Caponier.

National Archives, Cartographic Archives Division, Record Group 92, Blueprint File, Alcatraz

SKETCH OF ALCATRAZ ISLAND

FROM THE NORTH EAST

SHOWING PROPOSED MILITARY PRISON AND STOCKADE WALL

AND PROPOSED LIGHTHOUSE

Major R.B. Turner, 8th Inf. U.S.A.

Constructing Quartermaster

Scale 1in - 50ft. 3.K

APPROVED BY THE BOARD OF GOVERNMENT OF THE UNITED STATES MILITARY PRISON.

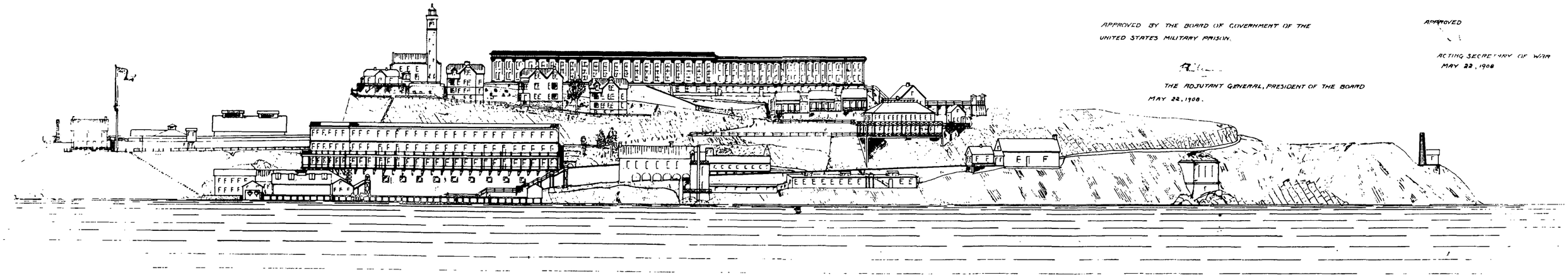
THE ADJUTANT GENERAL, PRESIDENT OF THE BOARD

MAY 22, 1908.

APPROVED

ACTING SECRETARY OF WAR

MAY 22, 1908



Map 13 - Alcatraz, 1910

This map shows all three prisons. The new power plant and shops complex destroyed part of the batteries at the northwest end of the island. Part of the barracks became officers' quarters.

National Archives, Cartographic Archives Division, Record Group 92, Blueprint File

MAP
OF
PACIFIC BRANCH
UNITED STATES MILITARY PRISON,
ALCATRAZ ISLAND,
CALIFORNIA.

Scale 1in = 50ft.

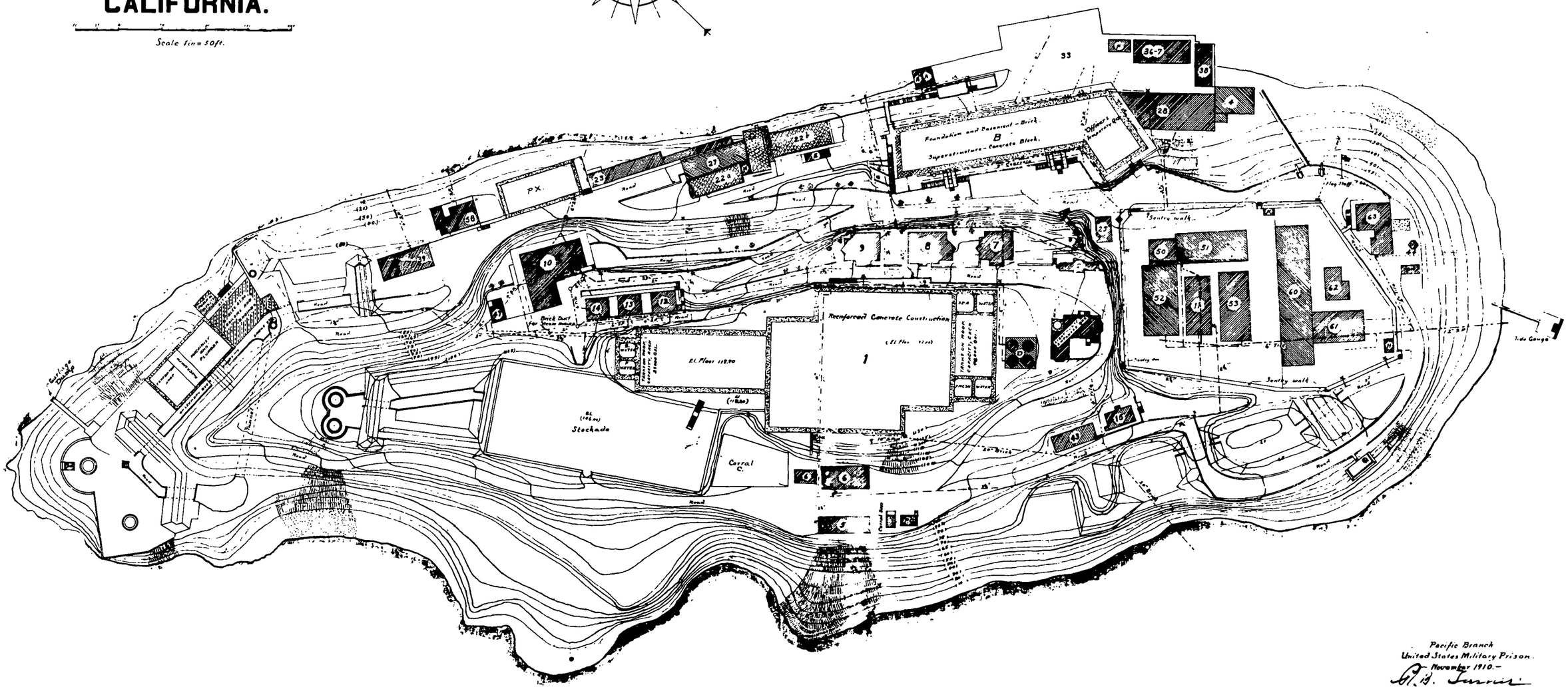
LEGEND

BUILDING BOOK DESIGNATION.	PRESENT USE
1 Citadel	New Prison
2 Headquarters.	
3 Conservatory	
4 Q.M. Store House	
5 Carriage "	
6 Stable	
7,8,9 Officer's Quarters	
10 Hospital	
11 Prison Lavatory	
12,13,14 N.C.S.O. Quarters	
13 Married Soldier's Qrs.	Civilian Employes Qrs.
22 Old Prison	22a: Plumbers Shop
" " "	22b: Gymnasium & Ordnance Sto. Hs.
23 " " Mess Hall	Laundry
23 Tool House	
27 Carpenter Shop	
28 Offices & Store Rooms QM & C.S.	
33 Wharf	

BUILDING BOOK DESIGNATION.	PRESENT USE
36,37 Coal Sheds	
38 Boat House	
39 Bakery	
43 Ordnance Building	Married Soldier's Qrs.
44 Baseline House	
47 Hosp. Stewards Qrs.	
50 Prison Library	
51 " No 1	
52 " " 2	
53 " " 3	
58 Old Prison Kitchen	Civilian Employes Qrs.
60 Prison Mess Hall	
61 " Kitchen	
62 " Shops	
63 Guard House & Prison Office.	
B New Barracks	
C Corral	
D Temporary Water Tanks	

NO.	DESCRIPTION
E	Paint Shop
F	Waiting Room
G	Salt Water Pump House
H	Tailor Shop
LH	Light House.
HH	Bell "
PO	Post Office
A	Company Row
	Sewers
	Drains
	Fresh Water
	Salt Water
	Gaspipe Railing
	All Pavements are Concrete.
	All Roads are Macadam
SP	Soil Pipe, Cast Iron.
K	Lodge
K	New Post Exchange.

B. R. Lockwood



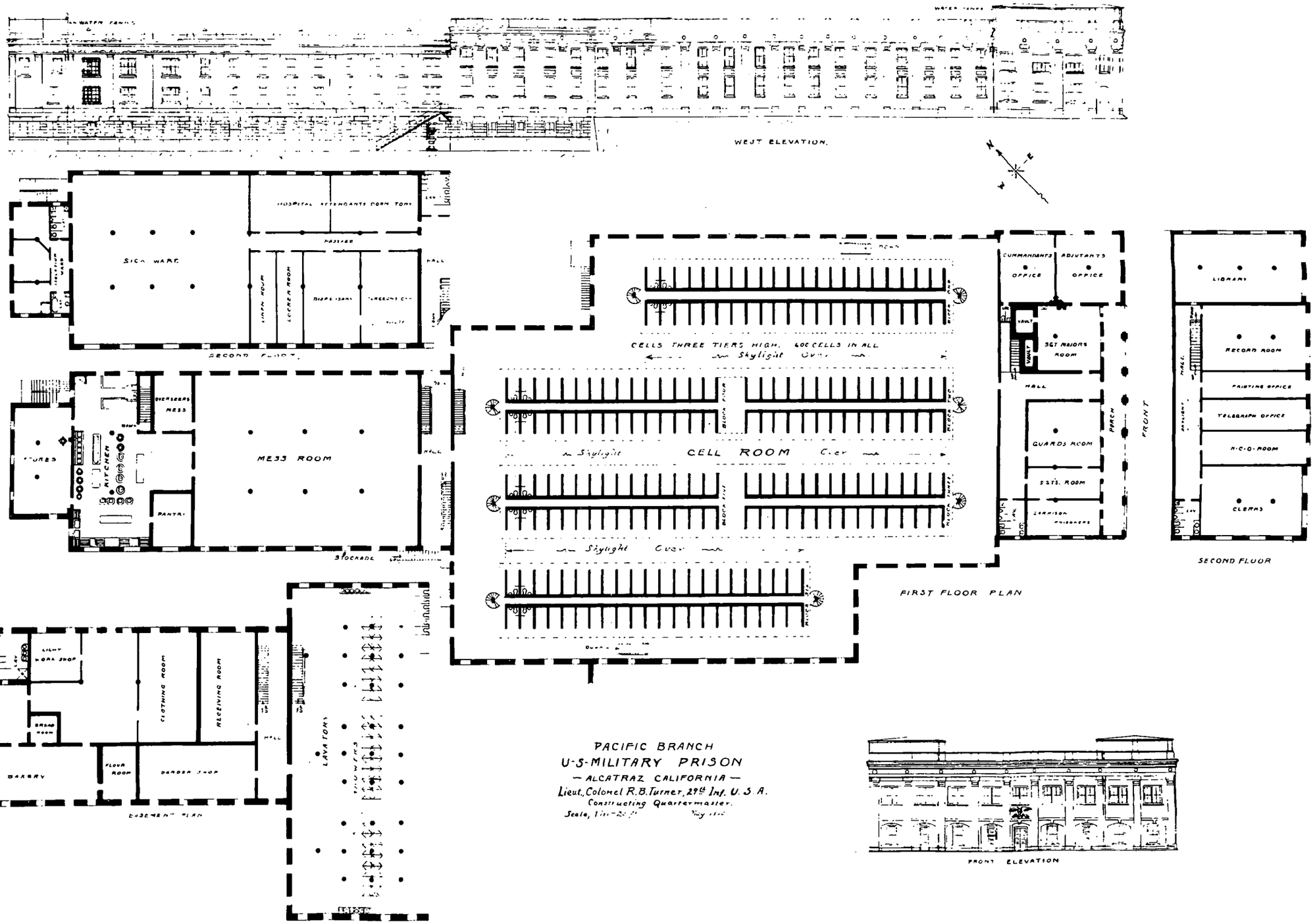
Pacific Branch
United States Military Prison.
November 1910.-

G. B. Davis
Lieut. Colonel 29th Infantry, U.S.A.
Commandant.

Map 14 - Military Prison, 1910

Colonel Turner's plan for a permanent military prison for Alcatraz Island in 1910. Note that the administrative section has a small prison room for the island's own garrison. The second floor of the administrative unit later became an assembly hall as well as a library.

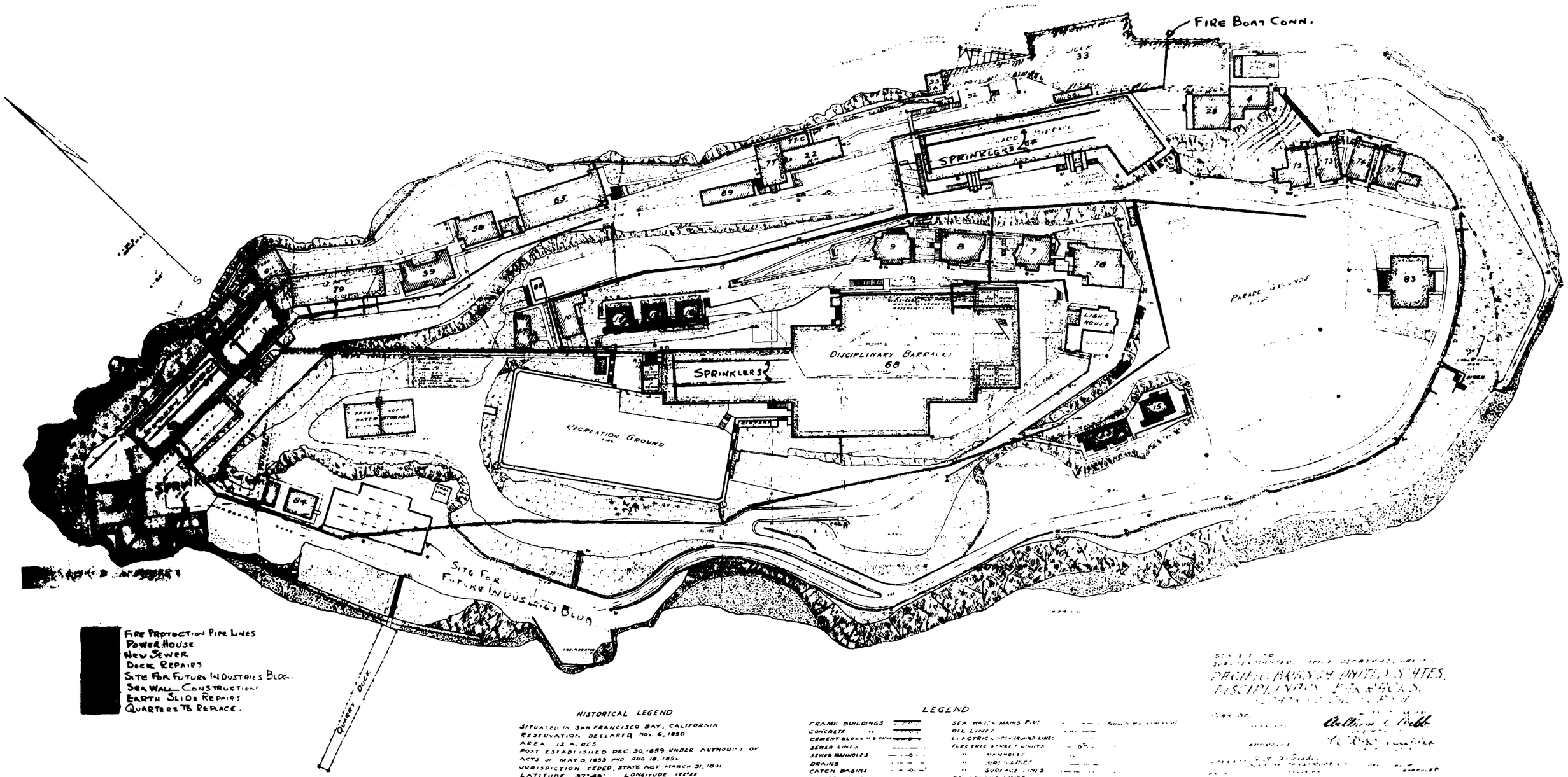
National Archives, Record Group 92, OQMG, General Correspondence File 1890-1914, Item No. 223810


WEST ELEVATION.
SICK WARD
HOSPITAL ATTENDANTS DORM TORY
PASSAGE
LINEN ROOM
LOCKER ROOM
BATHS
SECOND FLOOR
OVERSEERS MESS
MESS ROOM
KITCHEN
PANTRY
STORES
STOCKADE
CELLS THREE TIERS HIGH. 600 CELLS IN ALL
Skylight Over
CELL ROOM
COMMANDANTS OFFICE
ADJUTANTS OFFICE
VAULT
SGT MAJORS ROOM
HALL
GUARDS ROOM
S.S.T.S. ROOM
PORCH
FRONT
LIBRARY
RECORD ROOM
PRINTING OFFICE
TELEGRAPH OFFICE
N.C.O. ROOM
CLERKS
SECOND FLOOR
FIRST FLOOR PLAN
LIGHT WORK SHOP
FUEL
CLOTHING ROOM
RECEIVING ROOM
BREAD ROOM
BAKERY
FLOUR ROOM
BARBER SHOP
LAVATORY
BASEMENT PLAN
PACIFIC BRANCH
U.S. MILITARY PRISON
— ALCATRAZ CALIFORNIA —
Lieut. Colonel R.B. Turner, 29th Inf. U.S.A.
Constructing Quartermaster.
FRONT ELEVATION

Map 15 - Alcatraz Island, 1933

This map was made on the eve of the transfer from U.S Army to the U.S. Department of Justice. The structure numbers correspond to a list given in this report.

National Archives, Record Group 129, Bureau of Prisons, No. 4-49-2-36


FIRE BOAT CONN.
DOCK 33
SPRINKLERS
DISCIPLINARY BARRACKS 68
RECREATION GROUND
SPRINKLERS
PARADE GROUNDS
LIGHT HOUSE
SITE FOR FUTURE INDUSTRIES BLDG.
QUARRY DOCK
FIRE PROTECTION PIPE LINES
POWER HOUSE
NEW SEWER
DOCK REPAIRS
SITE FOR FUTURE INDUSTRIES BLDG.
SEA WALL CONSTRUCTION
EARTH SLIDE REPAIRS
QUARTERS TB REPLACE.
HISTORICAL LEGEND
SITUATED IN SAN FRANCISCO BAY, CALIFORNIA
RESERVATION DECLARED NOV. 6, 1850
AREA 12 ACRES
POST ESTABLISHED DEC. 30, 1859 UNDER AUTHORITY OF
ACTS OF MAY 3, 1853 AND AUG 18, 1854
JURISDICTION CEDED, STATE ACT MARCH 31, 1891
LATITUDE 37°49' , LONGITUDE 122°25'
THE UNITED STATES OWNS THE WHOLE OF ALCATRAZ ISLAND
INCLUDING LANDS EXTENDING FROM HIGH WATER MARK
OUT TO 300 YARDS BEYOND LOW WATER.
LEGEND
FRAME BUILDINGS
CONCRETE "
CEMENT BLOCK " & STONE
SEWER LINES
SEWER MANHOLES
DRAINS
CATCH BASINS
WATER MAINS
FIRE HYDRANTS
GATE VALVES
SEA WATER MAINS FIRE
OIL LINES
ELECTRIC UNDERGROUND LINES
ELECTRIC STREET LIGHTS
" MANHOLES
" SURFACE LINES
" SURFACE LINES
TELEPHONE LINES
STEAM LINES
STEAM LINES
PACIFIC DIVISION UNITED STATES
DISCIPLINARY BARRACKS
Walter C. Webb

HISTORICAL BASE MAPS

Map 1 - Historical Base Map, The Rock (Sheet 1)

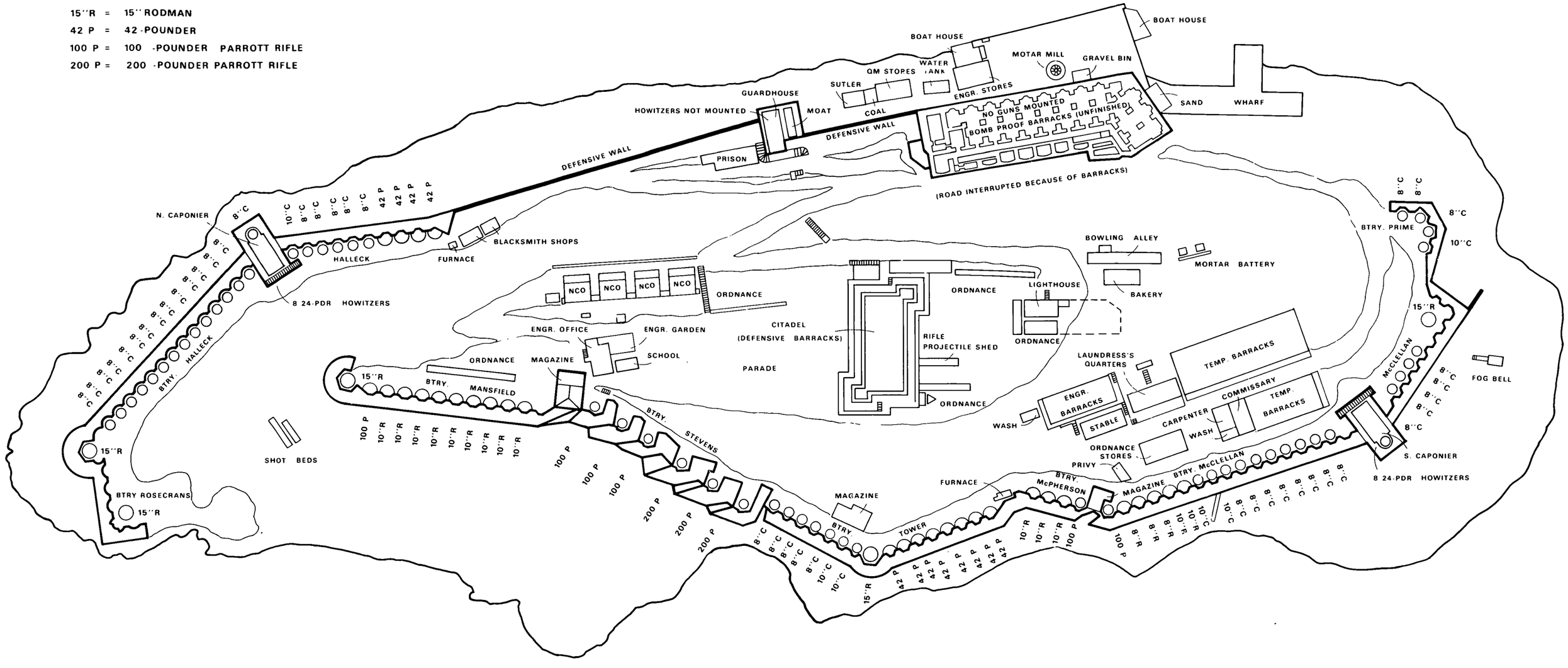
Map 2 - Historical Base Map, The Rock (Sheet 2)

Map 3 - Historical Base Map, The Rock (Sheet 3)

May 1 - Historic Base Map, The Rock: A History of Alcatraz, 1847-1977
Sheet 1

Compiled by Erwin N. Thompson, drawn by Frank E. Wines

8''C = 8'' COLUMBIAD
10''C = 10'' COLUBBIAD
8''R = 8'' RODMAN
10''R = 10'' RODMAN
15''R = 15'' RODMAN
42 P = 42-POUNDER
100 P = 100 -POUNDER PARROTT RIFLE
200 P = 200 -POUNDER PARROTT RIFLE



HISTORICAL BASE MAP

ALCATRAZ ISLAND 1867

108 Heavy Weapons Mounted

GOLDEN GATE NATIONAL RECREATION AREA

CALIFORNIA

N

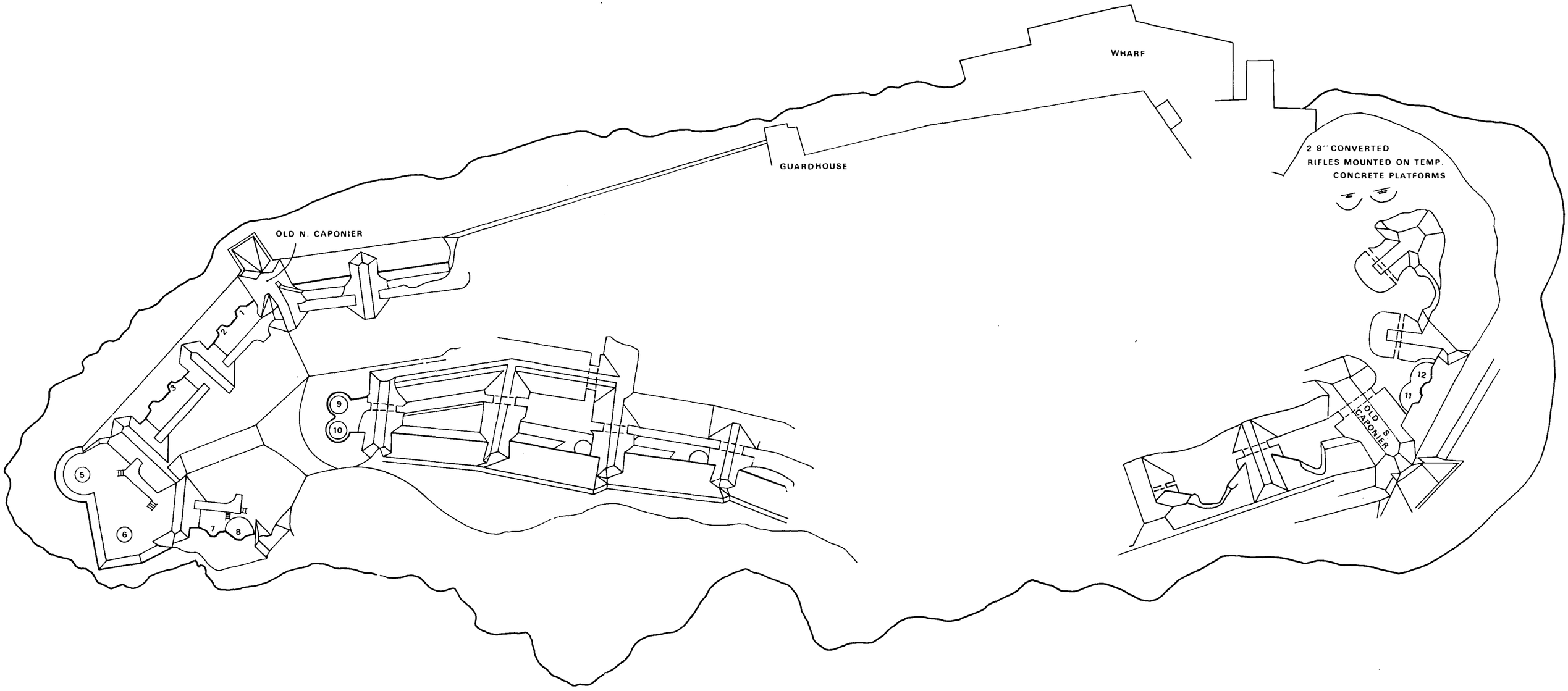
0 50 100 150 200 250 300 FEET
SCALE

SHEET 1 OF 3

641/20,062

May 2 - Historical Base Map, The Rock: A History of Alcatraz, 1847-1977
Sheet 2

Compiled by Erwin N. Thompson, drawn by Frank E. Wines



HISTORICAL BASE MAP

ALCATRAZ ISLAND 1899

Fortifications

7 15" Rodmans mounted, Positions 5,6,8,9,10,11,,&12

N

0 100 200 FEET

SCALE

GOLDEN GATE NATIONAL RECREATION AREA

CALIFORNIA

SHEET 2 OF 3

641/20,062

Map 3 - Historical Base Map, The Rock: A History of Alcatraz, 1847-1977
Sheet 3

Compiled by Erwin N. Thompson, drawn by Frank E. Wines

RESTROOMS 2
WHARF 211
14 WHARF TOWER
OFFICE 212 & 213
SEA WALL
SEA WALL
77 22 GUARDHOUSE
WALL 205
BARRACKS & CASEMATES 64
DEFENSIVE WALL 206
PX RUINS 65
89
72 73 74 75
OQ'S RUINS
OLD N. CAPONIER 208
QM & COMM WAREHOUSE 79
COMMANDANT'S QTRS
OQ RUINS
OQ RUINS
OQ RUINS
76 RUINS
TENNIS COURTS
WALL
LIGHT TOWER 3
RUINS
RUINS ?
PARADE GROUND 210
OQ 83 RUINS
POWER PLANT 67
1 WATER TOWER
MORGUE 12
PRISON 68 (CITADEL BASEMENT)
RESERVOIRS
FORTIFICATION
FORTIFICATION 204
202
HILL TOWER RUIN
11
TUNNEL 207
STOCKADE/YARD 201
FORTIFICATIONS 203
APARTMENT RUINS
5 FOG HORN
TOP OF SCARP
RUBBLE WALL
APARTMENT RUINS
FOG HORN 4
MODEL INDUSTRIES BUILDING 82
NEW INDUSTRIES BUILDING
DETECTOR SHED 8
SOUTH BATTERY SCARP
DRAIN
FORTIFICATIONS 209
SEA WALL

N

NO SCALE

HISTORICAL BASE MAP

ALCATRAZ ISLAND 1977

(Shaded Areas Recommended For Archeological Research)

GOLDEN GATE NATIONAL RECREATION AREA

CALIFORNIA

SHEET 3 OF 3

641/20,062

As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, and parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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