

Chapter 4. Landscape Analysis

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Alcatraz Island National Historic Landmark

Alcatraz Island was listed on the National Register of Historic Places (NRHP) in 1976, and in 1985 the Island was designated a National Historic Landmark (NHL). The recognition of the importance of Alcatraz Island as a nationally significant historic place, due to its possessing exceptional value and quality in illustrating the heritage of the United States, was described in the NHL nomination.¹

“Alcatraz Island has been the site of events that have had an important impact on the nation as a whole from before the Civil War through an Indian Occupation of the 1970s. Its significance in the area of military history, social history (penology), and maritime commerce is enhanced by the integrity of the resource which follows from the fact that access to the Island has been strictly limited by the U.S. Government throughout its history. Maritime commerce was aided by the first U.S. lighthouse on the Pacific Coast built here in 1854; its successor still serves. By the start of the Civil War, Alcatraz was the key fort in the center of the most important Pacific port in nineteenth century America, mounted the first permanent cannons on the West Coast of the United States, and featured a brick and masonry defensive barracks that may have been unique in the annals of American military architecture. In the areas of both military and social history, Alcatraz is noteworthy because it was the first army prison in the nation. When it became a civilian penitentiary in 1934, it quickly gained nationwide attention due to its association with many of the most infamous criminals of the gangster era and the bloody escape attempts made from there. It is representative of the far end of the penological spectrum, since it was a prison designed for punishment and incarceration only, rather than rehabilitation. It is of national importance in this regard because of its use as the repository of incorrigibles throughout the Federal prison system.”²

In terms of the NHL program, Alcatraz Island is nationally significant under several NHL themes, including Theme 5 (Political and Military Affairs), subthemes 5b (1830-1860) and 5c (1865-1941); Theme 7 (America at Work), subtheme 7j (Engineering), facet 5 (Military Fortifications); Theme 9 (Society and Social Conscience) Subtheme 9b (Social and Humanitarian Movements), facet 2 (Humanitarian Movements), subfacet c (Prison Reform).³

The statements of significance for the NRHP and NHL nominations note that Alcatraz Island is significant under National Register criterion A (association with historic events, themes and trends) for its association with maritime commerce; as the site of the first U.S. lighthouse on the Pacific coast; for its association with coastal and harbor defense, as the site of one of the first permanent U.S. defensive facility in San Francisco Bay; for its association with military penology, as the first military prison in the country; and for its association with federal penology, as the site of the Federal Bureau of Prisons maximum security detention facility.

Alcatraz Island may also be eligible for the National Register under criterion B (association with a person or persons) for its association with infamous criminals Robert Stroud (“Birdman of Alcatraz”), Alphonse Capone and George Kelly Barnes (“Machine Gun Kelly”), incarcerated at Alcatraz during the Federal Penitentiary period, and under criterion C (characterized by distinctive construction or design) for the Citadel that housed soldiers and officers during the military

¹ U.S. Dept of Interior, NPS revised 2009

² Haller 1985: 8-1

³ Ibid., 8-1

fortifications period. Additional research is required to ascertain the Island's significance under these criteria.⁴

Cultural Landscape Significance and Period of Significance

Cultural Landscape Significance and the NHL

Both the NRHP and NHL recognize the importance of the Island's cultural landscape to its historical significance. The NHL specifically identifies several landscape characteristics and contributing features as being significant including brick remains of military fortifications; the Main Road (switchback road); elements of the Wharf; defensive and scarp walls and topography associated with the batteries; remains of the Citadel dry moat in the Main Prison basement; the Parade Ground; the Stockade/Recreation Yard with its catwalks and guard stations; and guard towers, amongst others.

The identification of other characteristics such as small scale features and vegetation are less explicit in the NHL, but are mentioned with specific buildings and the features listed above, or with specific areas (similar to those noted as landscape character areas in the CLR).

The CLR provides additional, in-depth information on the cultural landscape that was not available at the time of the NHL nomination. In particular, the CLR describes the numerous and diverse extant small scale features that contribute to the Island's historical significance such as fencing, gates, railings, staircases, lights and utilities. The CLR also describes the vegetation and gardens on the Island that contribute to its historic significance including extant vegetation such as the Eucalyptus Grove; gardens that have been or undergoing rehabilitation through the Alcatraz Historic Gardens Project; hillsides and roadside beds.⁵

The NHL should be updated to explicitly acknowledge the importance of Alcatraz Island's cultural landscape, and to specifically include the cultural landscape features identified in the CLR, namely structures, small scale features, vegetation and archeological resources.

Period of Significance - 1847 to 1973

The Alcatraz Island NHL lists the period of significance as being 1847 to 1971, as this period captures the impact Alcatraz Island "had on the nation as a whole from before the Civil War through an Indian Occupation of the 1970s."⁶ The CLR is extending the end date to 1973 so that the period of significance includes all physical modifications related to the significance of the Island beginning with its initial occupation and continuing until the Island is established as one component of the GGNRA in 1973.

The revised period of significance begins in 1847 when the Island was first surveyed for military fortifications, and ends in 1973 following the General Services Administration (GSA) management

⁴ Bradley 2005: 1, 21

⁵ The Alcatraz Historic Gardens Project is a joint project of the Garden Conservancy and the Golden Gate National Parks Conservancy with the National Park Service, formed in 2003 to restore and maintain significant historic gardens on Alcatraz Island. The partner organizations rehabilitate and maintain select gardens originally built by those who lived on the Island during its military and prison periods, and interpret their history, horticulture, and cultural significance for visitors.

⁶ Haller 1985: 8-1

of the then-defunct penitentiary⁷ and its transfer to the National Park Service (NPS). It includes the eras of military fortifications and the military prison, the twenty-nine years as federal prison, the transfer of the Island to the GSA, the nineteen-month occupation by American Indians and the physical changes to the Island's facilities that the GSA made in response to the occupation. The period ends with the inclusion of the Island in the GGNRA under the auspices of the National Park Service.

The site history presented in Chapter 2, defines seven historic periods that illustrate the evolution of Alcatraz Island's cultural landscape throughout its period of significance. Landscape characteristics and features remain from each of these historic periods.

Evaluation of the Integrity of the NHL

The NHL nomination notes that Alcatraz Island “retains a remarkable degree of integrity in its physical features, setting and association,” related to the entire Island being a restricted government access reservation and in response to the large extent of extant cultural resources present at the time. In addition, the NHL nomination briefly describes the existing conditions of the Island and its cultural resources, stating that “the historic structures on Alcatraz Island exist in every state of preservation from very good and structurally sound, to ruins.” Most importantly, the nomination describes the integrity of the Island as, “in spite of some deterioration, Alcatraz Island remains an historic property of exceptional importance. The essential nature of the structures as fortification and prison buildings remains largely intact, and the qualities that made them important are still evident in abundance for public appreciation and understanding.”⁸

The NHL program notes four levels of evaluation for potential impacts to the integrity of an NHL related to foreseeable actions, danger or damage. The four are: Emergency, indicating that recent catastrophic damage has occurred that requires immediate intervention; Threatened - Priority 1, indicating a NHL that has suffered, or is in imminent danger of, a severe loss of integrity; Watch - Priority 2 indicating a NHL that faces impending actions or circumstances that likely will cause a loss of integrity; and Priority 3, indicating there are no known current or potential threats to the NHL.⁹

These three levels are referenced to assist with evaluating the current integrity of the Alcatraz Island NHL and potential actions that might impact its integrity now or in the foreseeable future. These levels of evaluation are used only to identify potential actions that might impact the integrity of the NHL and are not to be confused with the criteria used to evaluate condition presented in the CLR.

The Island currently retains integrity in its physical features, setting and association, as it did when it was listed as a NHL. However, deterioration of buildings, structures and features; loss of structures and small scale features; management of cultural and natural resources; and the GMP process may impact the Island's integrity.

- Two contributing buildings, the Post Exchange and Model Industries, and the Water Tower are showing signs of serious deterioration that may impact their integrity and that of the Island if they are lost or severely damaged. The buildings define historic land use, contribute to the Island's spatial organization and assist with its historic setting. The

⁷ Haller 1985

⁸ Ibid., 8-1

⁹ U.S. Dept of Interior, NPS revised 2009

integrity of these resources fall within the category of Watch – Priority 2. If stabilization measures are not undertaken, or if these structures and buildings are managed as ‘ruins’ without a plan for their stabilization, they will quickly move to Threatened – Priority 1 meaning the NHL may suffer a severe loss of integrity.

- The continual and cumulative loss of small scale cultural resources (such as steel catwalks, guard towers and portions of the Perimeter Sentry Walk built by the Bureau of Prisons) may impact the integrity of Alcatraz Island. The loss of small scale features such as original concrete railings, connecting staircases, paths and cyclone fencing also falls under this category. These features assist in defining the spatial organization of the cultural landscape, are contributing resources, and overall contribute to the integrity of the Island’s association and feeling.
- The CLR provides an in-depth description of the Island’s cultural landscape that identifies the full range of extant cultural resources. This inventory and acknowledgement of the value of all of the Island’s cultural resources, including visible and archeological resources is the first step in defining management decisions to protect these resources. Management of the cultural resources for their protection, stabilization and rehabilitation is necessary to alleviate potential impacts to the integrity of the NHL.

Landscape Analysis - Alcatraz Island

This section presents an analysis of those landscape characteristics that define the overall character of Alcatraz Island. Together, they combine to create the Island's distinct form and composition, and are analyzed as spatial organization, topography, views and vistas, circulation, land use, vegetation and natural systems. The inter-relationship of these characteristics has influenced the development of the Island's cultural landscape as a whole.

In addition to the comprehensive topics (listed above), a number of small scale features exist throughout the entire Island. Some date from the period of significance and others have been added by the NPS for way finding and visitor management. Because these features occur island-wide, they are presented in this section.

Additional analysis of each landscape character area follows this section and includes a more in-depth analysis of each character area's spatial organization, topography, views and vistas, circulation, land use and vegetation. The analysis for each landscape character area also presents an analysis of its buildings and structures, small-scale features, vegetation and archeology.

Spatial Organization, Topography, Views and Vistas - Alcatraz Island

The spatial organization of Alcatraz Island is the result of the manipulation of its natural form and topography for human use, and the placement of buildings and structures in response to its climatic conditions and orientation in the San Francisco Bay. Initially developed as a fortified island and an aid for navigation, the placement of features responded to the Island's natural sloping topography and its strategic location that allowed for unobstructed fields of fire over shipping channels with a visible highpoint for a lighthouse.

The rocky Island was continually modified to meet changing needs. The three dimensional composition of the Island evolved over time through extensive earth moving, construction and the demolition of buildings and structures, and the routing of the circulation system.

Alcatraz Island's original form was characterized by a long linear center ridge, oriented north to south (illustrated as line A₁-A₂ in A. in Figure 4-1), and defined by two rounded peaks at its summit. From these two high points, the Island's topography sloped downward to meet precipitous rocky cliffs that characterized most of the shoreline, in some cases rising as high as fifty feet from the water (1852 in Figure 4-2).

As the Island's topography was subsequently modified to make it suitable for the U.S. Army's defensive fortification, its spatial organization was created. Level areas were built on the Summit and atop the Island's perimeter following the cliffs (B. in Figure 4-1). The perimeter was ringed with batteries, fortification walls and structures, strategically located with views towards the Golden Gate and inner harbor.¹⁰ The plateau on the Summit was filled with cliff-top batteries, fortified barracks (the Citadel) placed to command the entire Island and provide a refuge in case of assault,¹¹ and the Lighthouse placed at the Island's peak. The wharf was built on the leeward side of the Island in a naturally occurring cove area at the lowest elevation of the Island, out of enemy sight from the Golden Gate and sheltered from the wind. The steep topography of the hillsides was ramped and retained in places by massive walls (called scarps) to accommodate a steep road, linking the Wharf with the Summit (1860 and 1865 in Figure 4-2).

¹⁰ Thompson 1979: 2

¹¹ Ibid., 63

As the Island transformed from masonry to earthen fortifications, batteries were widened, flattened and extended into the northern end of the Summit reducing its plateau (1882 in Figure 4-2). For most of the Island, spatial organization remained similar to its earlier arrangement with batteries ringing the perimeter, prominent buildings on the Summit and housing lining the Main Road. The greatest change in spatial organization occurred with the excavation of the south end of the Island where the bluff was cut down to create a large level plateau in 1870, providing additional space for earthwork gun batteries as it provided a “field of view.” The plateau later accommodated a prison facility (the Upper Prison). The excavation for the plateau resulted in the tall vertical Escarpment Slope separating the plateau from the Summit (C. in Figure 4-1). This arrangement substantially modified the south end into the topographic form and broad open space that exist today.

In the early 1900s, the Island’s form and topography were modified and repurposed again to meet changing needs.¹² Buildings and structures began to create a sense of enclosure on the north and south ends of the Island, (D. in Figure 4-1) refining the Island’s spatial organization. The earlier batteries ringing the Island were razed and support buildings and structures were built (Old Shops and Laundry Building, Stores/QM Warehouse, and Powerhouse) filling the perimeter terraces on the north. The south plateau was repurposed as a parade ground, surrounded and enclosed by quarters and barracks. The greatest modification was the construction of the new prison complex (Main Prison), Commandant’s (later Warden’s) House and new Lighthouse on the Summit. The large massive prison building now filled most of the Island’s highest plateau with the other buildings defining its southern edges (1917 in Figure 4-2).

During the Federal Penitentiary period, the patterns of development continued in a similar arrangement (E. in Figure 4-1). The Bureau of Prisons continued to fill former battery areas on the north, most notably the construction of the New Industries. Apartments for prison personnel were built on the western perimeter of the south plateau, enclosing the Parade Ground. The apartments faced inward and outward, capitalizing on views towards San Francisco while creating a sense of community on the interior.

Today, the Island’s form is characteristic of its development during the period of significance. The Island’s center ridge remains a dominant organizing feature of the Island, even though the scale of the plateau of the Summit expanded and contracted over time. The level plateau that originated with the construction of batteries is still evident as a ring around the perimeter of the Island, as is the Escarpment Slope and south plateau. The enclosure of the south plateau remains due to the remnants of the earlier apartment buildings as large mounds.

The Island’s topography represents the human intervention of blasting, excavating and filling the Island to accommodate changing use. The evolution of the Island’s topography is illustrated in Figure 4-3. Today, areas of the Island are eroding due to its harsh maritime environment, including the steep slopes and rocky cliffs on its perimeter. The greatest concern is the erosion of the Escarpment Slope between the Summit and Parade Ground.

The spatial organization, topography and views and vistas represent the evolutionary development of Alcatraz Island and contribute to its significance as a cultural landscape. Features that assist with this are the Island’s overall topographic form – steep slopes and series of level plateaus; clustering and arrangement of buildings and structures; and topographic forms particularly in the south Island.

¹² Thompson 1979: 201, Alcatraz Island was selected in 1907 by the Secretary of War as the site for a large permanent military prison.

Circulation - Alcatraz Island

Circulation on Alcatraz Island has remained very similar to the original access and basic routes that were established with its initial construction in the 1850s (illustrated through each historic period in Figure 4-4). Primary transit to the Island was historically, and continues to be by boat, landing on the wharf on the Island's east side. Pedestrian and vehicular primary circulation occurred primarily by road, first on the Main Road built in 1853 and later on additional roads that accessed various facilities and ringed the Island at certain points in time. Additional pedestrian circulation occurred via a series of staircases and ramps to access the different levels of the Island.

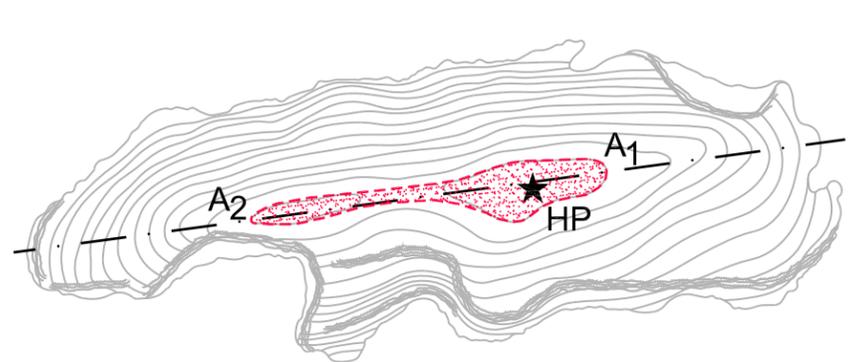
Many of the Island's extant circulation features were built or improved between 1922 and 1933 by the U.S. Army. These included the completion of the road system on the west and south side of the Island, paving of road surfaces, and building additions as well as staircases and walkways. During the Federal Penitentiary period, catwalks were constructed between the prison, guard towers and building rooftops on the northern end of the Island to facilitate guard patrols (Figure 4-8).¹³ They were not maintained after the Bureau of Prisons left the Island in 1963. Remnants still exist, but in general this system of circulation is only visible in the foundations of collapsed towers and walkways.

Today, Alcatraz Island's historic circulation system consisting of: the primary access at the Wharf; the Main Road that accommodates both vehicles and pedestrians; the extension of the Main Road and lower roads on the west side; and numerous walkways and staircases contributes to its significance as a cultural landscape. There have not been had any major additions to the Island's circulation since the end of the period of significance. However, there has been a loss of features associated with pedestrian circulation due to the Island's harsh environment and deferred maintenance. The continual deterioration of its small-scale features is beginning to impact the legibility of circulation routes.

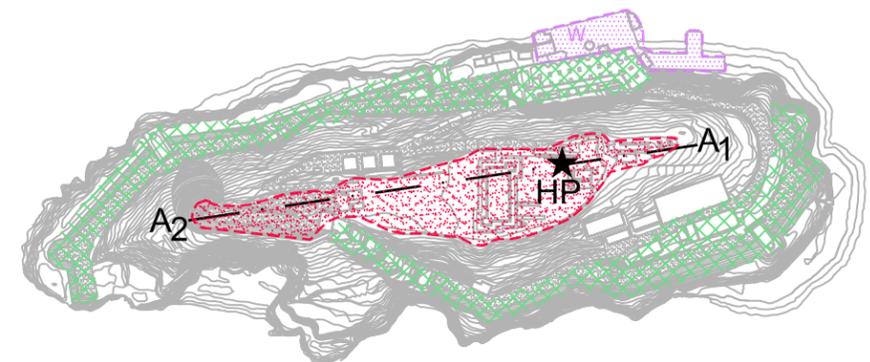
¹³ Refer to the discussion of small scale features, beginning on page 4-17 for additional information on this system.

Legend

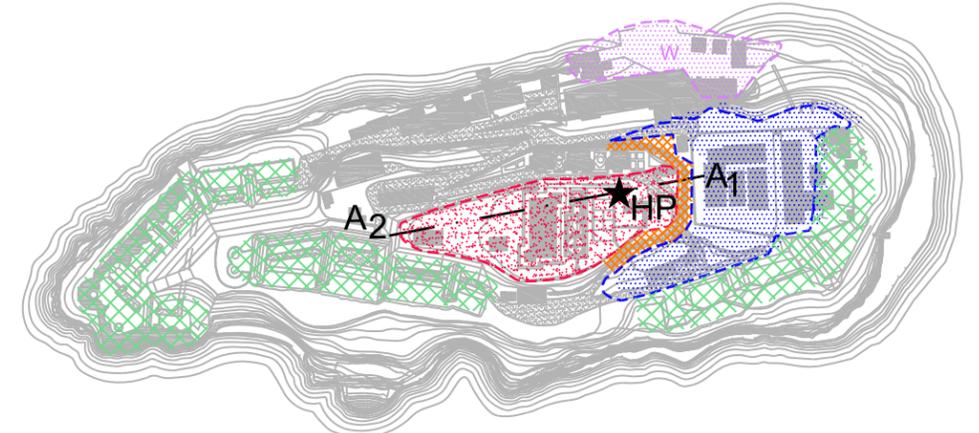
Spatial Organization		Wharf		Filled Plateau	
Elevational High Point		Ring		Plateau w/ Enclosed Edge	
Summit		Escarpment			



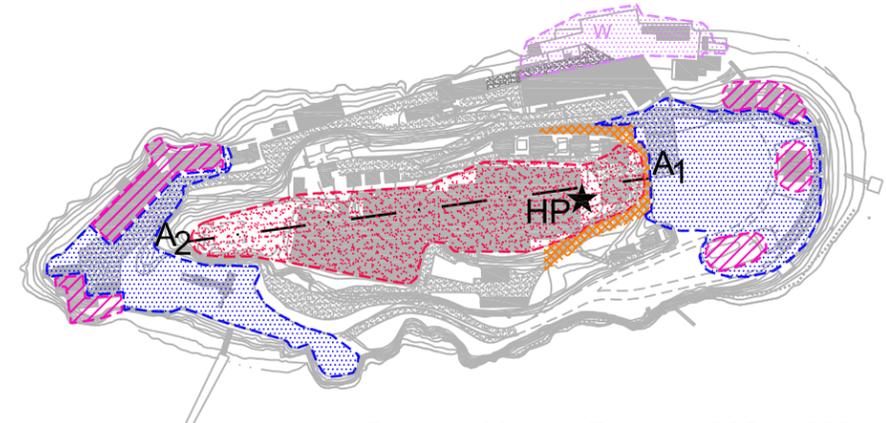
A. Pre-settlement: 1851 and Before



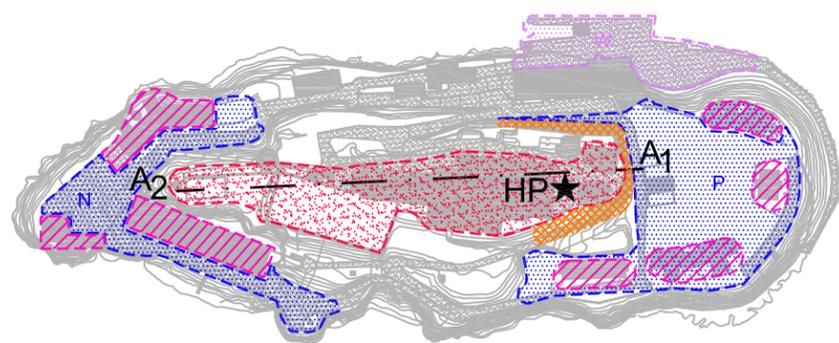
B. Initial Military Fortifications / Aid to Navigation: 1852 - 1867



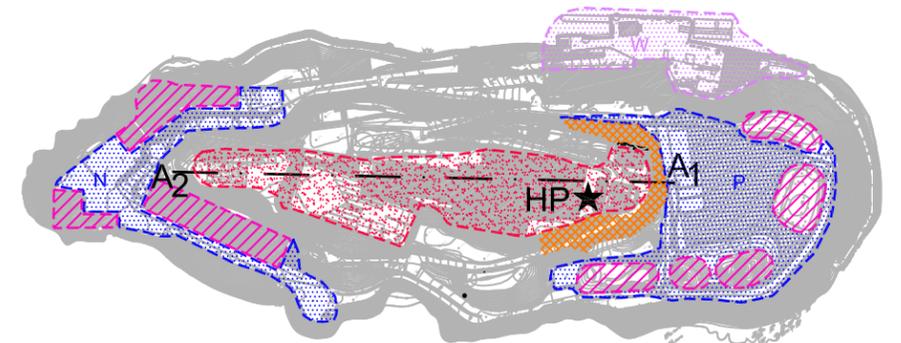
C. Earthen Fortifications / Early Military Prison: 1868 - 1907



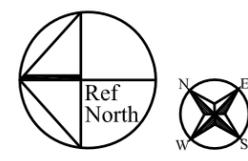
D. Later Military Prison: 1908 - 1933



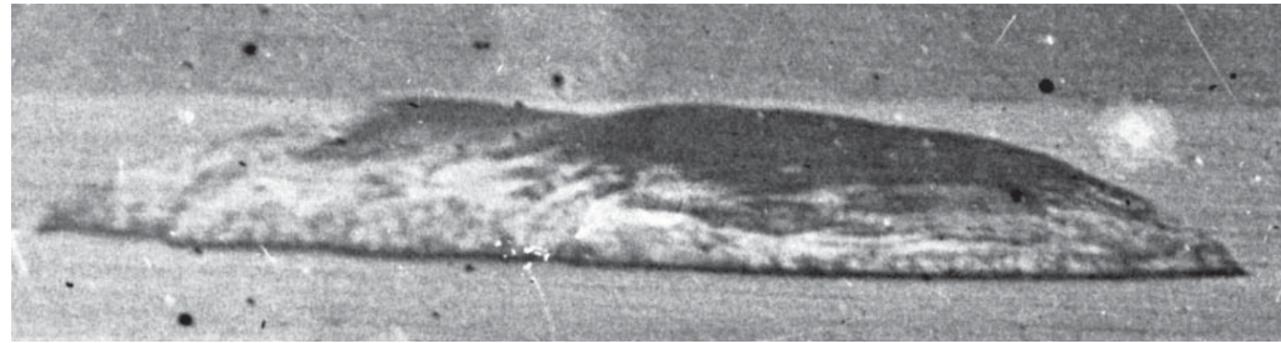
E. Federal Penitentiary / GSA: 1934 - 1973



F. NPS/GGNRA: 1974-Present

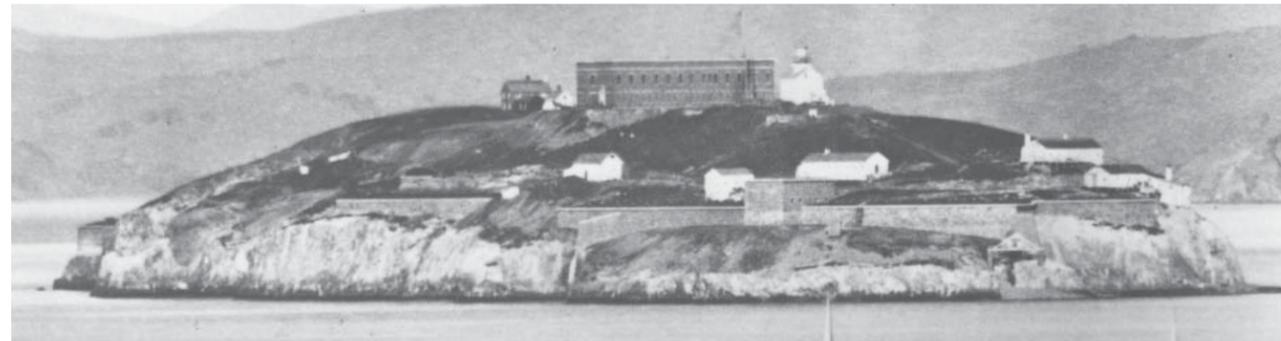


<p>FIGURE 4 - 1</p> <p>UNITED STATES DEPARTMENT OF THE INTERIOR</p> <p>NATIONAL PARK SERVICE GOLDEN GATE NATIONAL RECREATION AREA</p>	<p>TITLE OF PROJECT CULTURAL LANDSCAPE REPORT</p>
	<p>TITLE OF DRAWING SPATIAL ORGANIZATION ANALYSIS</p>
	<p>NAME OF PARK ALCATRAZ ISLAND NATIONAL HISTORIC LANDMARK</p> <p>REGION: PACIFIC COUNTY: SAN FRANCISCO STATE: CALIFORNIA</p>



Images are views to the Island from San Francisco

1852 , Source: Golden Gate National Recreation Area (1852c from Nob Hill (GOGA-3363)_cropped.jpg)



1860 , Source: California State Library (1860c Alcatraz from Telegraph Hill (CSL Watkins).jpg)



1865 , Source: California State Library (1865c profile (CSL).jpg)



1882 , Source: Bancroft Library UC Berkeley (Alcatraz from North Point c1882 (BANC, Hubbell)_cropped.jpg)



1917 , Source: John Martini (1917c partial walkway pc (JAM).jpg)

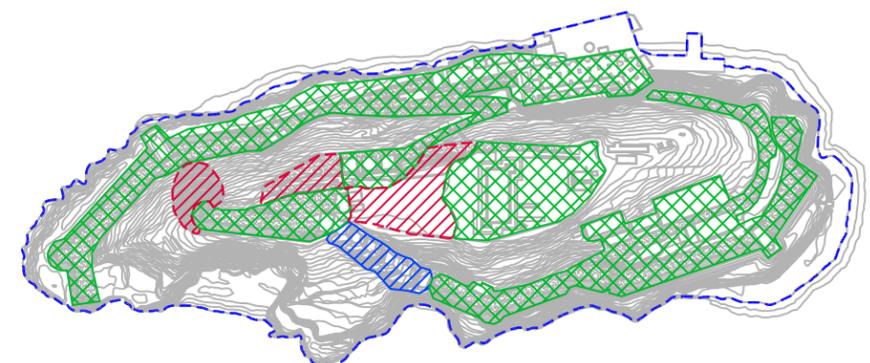
FIGURE 4-2		TITLE OF PROJECT CULTURAL LANDSCAPE REPORT	
UNITED STATES DEPARTMENT OF THE INTERIOR		LOCATION WITHIN PARK SPATIAL ORGANIZATION & TOPOGRAPHIC ANALYSIS	
NATIONAL PARK SERVICE GOLDEN GATE NATIONAL RECREATION AREA		NAME OF PARK ALCATRAZ ISLAND NATIONAL HISTORIC LANDMARK	
REGION PACIFIC	COUNTY SAN FRANCISCO	STATE CALIFORNIA	

Legend

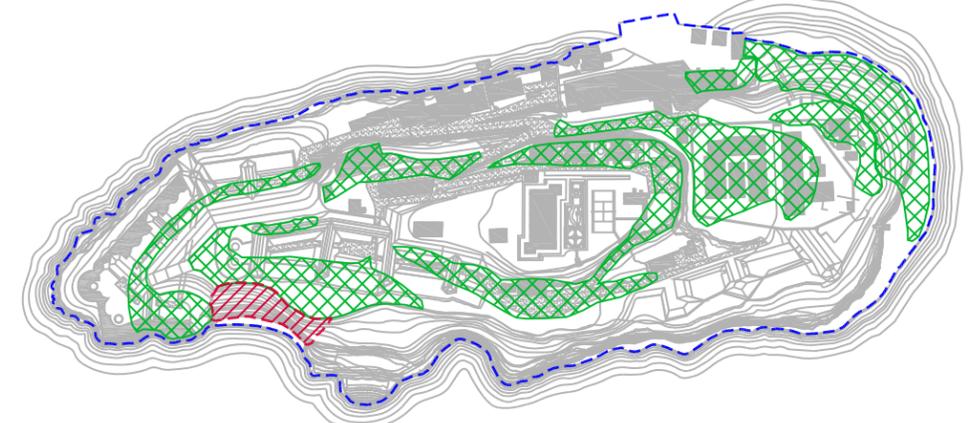
- Fill Areas 
- Shoreline (Info only) 
- Cut Areas 
- Interspersed Cut & Fill 



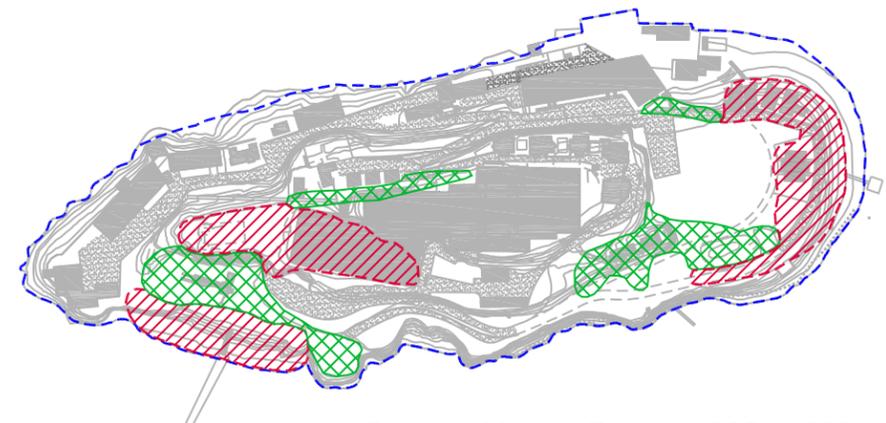
A. Pre-settlement: 1851 and Before



B. Initial Military Fortifications / Aid to Navigation: 1852 - 1867



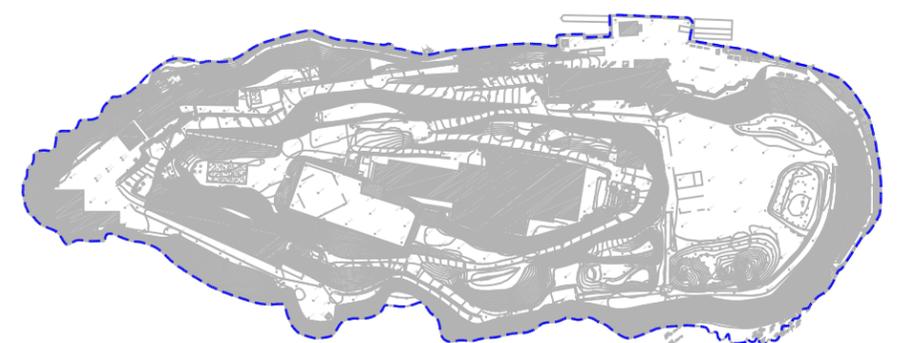
C. Earthen Fortifications / Early Military Prison: 1868 - 1907



D. Later Military Prison: 1908 - 1933



E. Federal Penitentiary / GSA: 1934 - 1973



F. NPS/GGNRA: 1974-Present



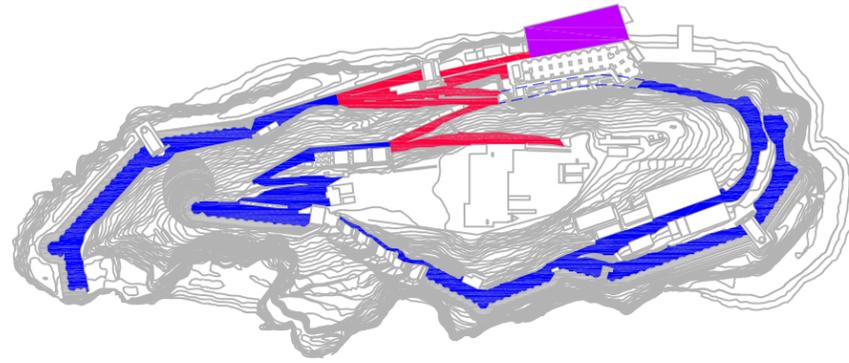
<p>FIGURE 4-3</p> <p>UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE GOLDEN GATE NATIONAL RECREATION AREA</p>	<p>TITLE OF PROJECT CULTURAL LANDSCAPE REPORT</p> <p>TITLE OF DRAWING MAJOR TOPOGRAPHIC CHANGES</p> <p>NAME OF PARK ALCATRAZ ISLAND NATIONAL HISTORIC LANDMARK</p> <p>REGION: PACIFIC COUNTY: SAN FRANCISCO STATE: CALIFORNIA</p>
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Legend

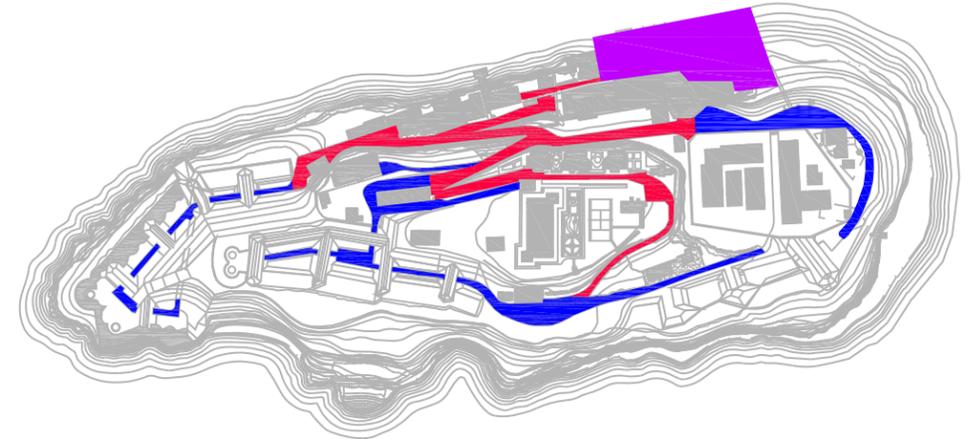
- Primary
- Secondary
- Seasonal Path
- Wharf



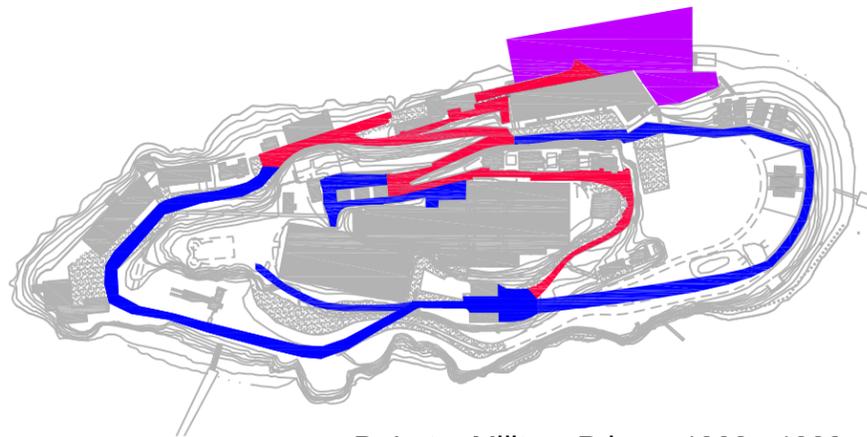
A. Pre-settlement: 1851 and Before



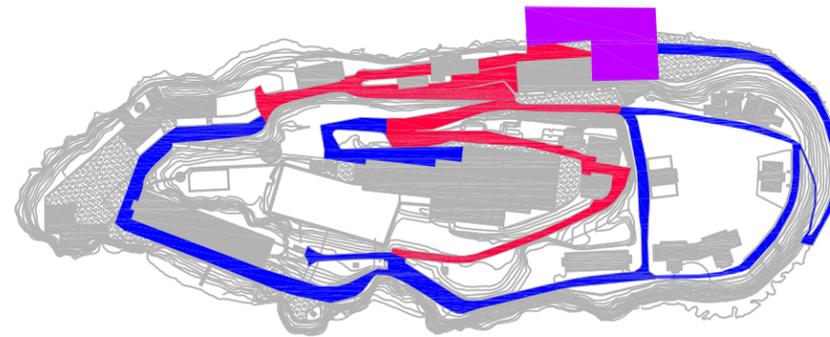
B. Initial Military Fortifications / Aid to Navigation: 1852 - 1867



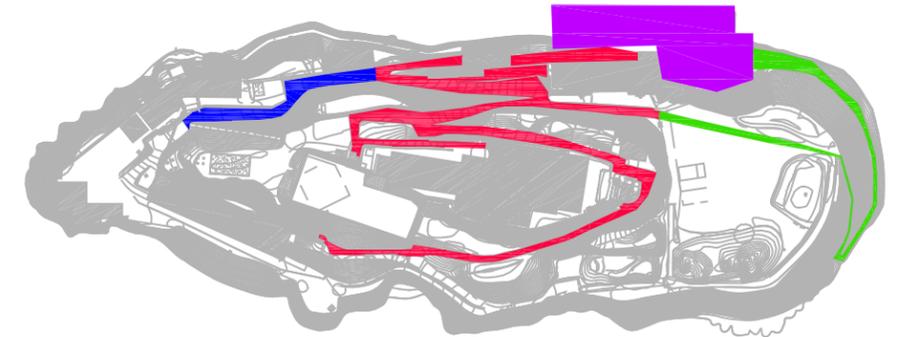
C. Earthen Fortifications / Early Military Prison: 1868 - 1907



D. Later Military Prison: 1908 - 1933



E. Federal Penitentiary / GSA: 1934 - 1973



F. NPS/GGNRA: 1974-Present



<p>FIGURE 4-4</p> <p>UNITED STATES DEPARTMENT OF THE INTERIOR</p> <p>NATIONAL PARK SERVICE GOLDEN GATE NATIONAL RECREATION AREA</p>	<p>TITLE OF PROJECT CULTURAL LANDSCAPE REPORT</p> <p>TITLE OF DRAWING CIRCULATION ANALYSIS</p> <p>NAME OF PARK ALCATRAZ ISLAND NATIONAL HISTORIC LANDMARK</p> <p>REGION COUNTY STATE PACIFIC SAN FRANCISCO CALIFORNIA</p>
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