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NAT. REGISTER OF HISTORIC PLACES
NATIONAL PARK SERVICE

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

1. Name of Property

historic name: ***Línea Avanzada*** **[Advanced Defense Line]**
other names/ site number: ***Línea de Apostaderos; Primera Línea Defensiva; Reducto de San Gerónimo del Boquerón; Cabeza de Puente de San Antonio; Batería del Escambrón; Polvorín de San Gerónimo.***

2. Location

street & number: ***eastern sector of the San Juan islet*** *N/A* not for publication
city, town: ***San Juan*** *X* vicinity
state: ***Puerto Rico*** code ***PR*** county ***San Juan*** code ***127*** zip code ***00902***

3. State / Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this *X* nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property *X* meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant *X* nationally ___ statewide ____ locally.

Lilliane D. López

Lilliane D. López, Architect — *August 4, 1997*
Signature of certifying official — Date

Puerto Rico State Historic Preservation Office
State or Federal agency and bureau

In my opinion, the property ___ meets ___ does not meet the National Register criteria. (___ See continuation sheet for additional comments.)

_____ _____
Signature of commenting or other official — Date

_____
State or Federal agency and bureau

4. National Park Service

I, hereby certify that this property is:

X entered in the National Register 9/25/97
____ See continuation sheet
___ determined eligible for the National Register
___ determined not eligible for the National Register
___ removed from the National Register
___ other (explain):

for Signature of Keeper Date of Action

5. Classification

Ownership of Property: ***public-State***
Category of Property: ***district***

Number of Resources within Property

Contributing	Noncontributing	
2	0	buildings (**Redoubt San Gerónimo and San Gerónimo Powderhouse**)
1	0	sites (**Remnants of Bridgehead San Antonio**)
1	0	structures (**Battery Escambrón**)
0	0	objects
4	0	Total

Number of contributing resources previously listed in the National Register *1*
Name of related multiple property listing: *N/A*

6. Function or Use

Historic Functions	Cat: ***Defense***	Sub: ***fortification***
	Defense	***arms storage***
	Recreation	***museum***
Current Functions	Cat: ***Recreation***	Sub: ***Outdoor recreation***
	Vacant/Not in use	

7. Description

Architectural Classification: ***Spanish Colonial***

Materials
foundation: ***stone***
walls: ***rubble masonry/brick***
roof: ***brick***
other:

8. Statement of Significance

Applicable National Register Criteria:

Criteria A: ***Property is associated with events that have made a significant contribution to the broad patterns of our history.***

Criterion C: ***Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.***

Criteria Consideration:	*N/A*
Areas of Significance:	***Military, Architecture, Engineering***
Period of Significance:	***1797-1800***
Significant Dates:	***April 17th to May 1rst, 1797***
Significant Persons:	*N/A*
Cultural Affiliation:	*N/A*
Architect/ Builder:	***Eng. Thomas O'Daly, Eng. Juan Francisco Mestre, Eng. Ignacio Mascaro y Homar***

9. Major Bibliographical References

Previous documentation on file (NPS)
___ preliminary determination of individual listing (36 CFR 67) has been requested.
_X_ previously listed in the National Register ***(Fort San Gerónimo del Boquerón)***
___ previously determined eligible by the National Register
___ designated a National Historic Landmark
_X_ recorded by Historic American Buildings Survey # PR-50 (Battery Escambrón)
PR-49 (Redoubt San Gerónimo)
PR-46 (San Gerónimo Powderhouse)
___ recorded by Historic American Engineering Record # _____

Primary Location of Additional Data
_X_ State Historic Preservation Office
_X_ Other State Agency
_X_ Federal Agency
_X_ University
___ Others

Name of repository: ***Archivo General de Puerto Rico*** (Puerto Rico General Archives), Institute of Puerto Rican Culture; ***Military Architecture Archives***, San Juan National Historic Site, National Park Service; ***Centro de Investigaciones Históricas*** (Historic Research Center), Río Piedras Campus, University of Puerto Rico; ***Fideicomiso de Parques Nacionales*** (Puerto Rico National Parks Trust).

10. Geographical Data

Acreage of Property: ***less than one acre***

UTM References

	Zone	Easting	Northing
1	19	807715	2043620 ***(Remnants of Bridgehead San Antonio)***
2	19	807095	2043965 ***(Redoubt San Gerónimo)***
3	19	807675	2044430 ***(Battery Escambrón)***
4	19	807235	2044106 ***(San Gerónimo Powderhouse)***

Verbal Boundary Description (see Continuation Sheet)

Boundary Justification (see Continuation Sheet)

11. Form Prepared By

name/title: ***José E. Marull, State Historian***
organization: ***Puerto Rico State Historic Preservation Office***
date: ***February 14, 1997***
street & number: ***Old Ballajá Barracks Bldg, Box 82, La Fortaleza***
telephone: ***(787) 721-3737***
city or town: ***San Juan*** state: ***Puerto Rico*** zip code: ***00901***

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NARRATIVE DESCRIPTION

Summary
The Línea Avanzada or Advanced Defense Line is a discontinuous district composed of three masonry Spanish Colonial pieces of fortification and one masonry powderhouse located on the eastern sector of the islet of San Juan, approximately one and a half miles east forward of the campaign front of Fortress San Juan, the fortified Spanish colonial capital city of Puerto Rico. Various fortifications have occupied the same area since the early sixteenth century, however, the existing fortifications comprising the district generally correspond to the late 18th and early 19th century. These fortifications were built to: 1) deny penetration into, and use of, Boquerón Bay and San Antonio Channel by enemy vessels; 2) deny the use of three suitable landing beaches by small craft; and 3) delay the crossing of San Antonio Channel by enemy land forces. The defense line successfully accomplished these missions during the thwarted investment of the city of San Juan by British forces in 1797. The district includes two structures (Redoubt San Gerónimo and Battery Escambrón), one building (San Gerónimo Powderhouse), and one ruin (Bridgehead San Antonio).

Environmental Settings: The north shore of Puerto Rico consists of massive beds of reef formed terraces. These are formed by consolidation of corals and shells or calcorenyte, of eolian origin cemented with calcium carbonate. They outcrop in isolated and widely scattered bluffs and cays along the northern coast of the island, and are known as the San Juan formation.

The city of San Juan was built upon this type of formation. The islet forms a striking promontory that extends as a spit four miles out from the adjoining mainland. This formation reaches its highest point at 100 feet above sea level, where the Fort San Felipe del Morro sits. The formation is composed of a series of fossil sand dunes dating from the Pleistocene as well as dunes of loose sand overlaying a broken barrier reef along the north coast. These bordering reefs with their dunes are essentially barrier beaches. Behind them lies a salt water lagoon once surrounded by marsh and mangroves (Lobeck 1922:361-362; Meyerhoff 1931:339-341).

The San Juan islet located at the east side of the main entrance to the San Juan Bay from the Atlantic, is bordered on the east by the San Antonio channel [See Figure 1]. This channel, serves as the secondary entrance to the San Juan Bay.

San Antonio Channel runs between Condado Lagoon and San Juan Bay. The channel is about 2 km long E-W , measured from Esteves Bridge (No. 86) to the lighthouse at the N.W. tip of Isla Grande. The average width is 250 meters (820 feet).

The channel is narrowest a the east end, at the site of Fort San Antonio. Here the width is 90 meters (295 feet). The maximum depth at this area is 6 meters (19.6 feet). This depth is the prodcut of antrhopogenic or human-caused erosion created by the bridges and landfill which have accelerated the current. The channel depth between the 16th and 18th centuries in this area was

probably under 2 meters [Vega 1997:13].

On the north side of the islet there are steep hills that look upon a small beach area protected from the wave action by shoals and rock formations that make approach by large vessels hazardous and difficult.

As described by Albert Manuncy and Ricardo Torres-Reyes,

> *Old San Juan is situated on the western end of a small barrier island which lies between the broad San Juan Bay and the open sea. A steep headland overlooks the only navigable entrance to the harbor; the rest of the island's rocky seacoast is skirted by a treacherous reef over which long Atlantic rollers crash like thunder. At the eastern end of the island is Boquerón Inlet, a passage too rocky and shallow for larger vessels of war and thus a natural water barrier against flanking attacks on the island [1983:7].*

The eastern shoreline of San Juan islet has three points that project into the Atlantic Ocean [See Figure 2. These three points, (Escambrón, Boquerón, San Antonio) are important in defining the physical environment of the eastern sector and for the defense of the San Juan islet.

The area, now containing 20th century constructions, used to be part of a Spanish military reservation which enclosed an entrenched maneuvering field designed to delay the approach of an enemy land force toward the fortified city. After the

demolition of the eastern defensive walls of Old San Juan in 1897, the first and second defense lines became the city's new urban delimitation [See Figure 3]. With the change of sovereignty in 1898 these lands were reserved by the Congress of the United States for military and naval purposes. In 1912 these lands, with the exception of the San Gerónimo Naval Reservation and the Military Reservation used as a Rifle and Machine gun Range by the Puerto Rico Regiment of Infantry, were leased to the Government of Puerto Rico. The range's firing line was located at the former School of Gunnery that the Spanish Army maintained on the northern portion of the Second Defense Line (formerly the "Midway Defense Line"), while the target pits were located in the vicinity of Battery Escambrón. The area was also used as an airfield. In 1925 the governments of Puerto Rico and the United States entered into an agreement whereby the former purchased and donated to the latter the lands necessary for the establishment of Camp Buchanan in exchange for the Escambrón rifle and machine gun range. Lands of the former firearms range were then destined to become the Luis Muñoz Rivera public park, completed in 1932.

Point Escambrón is the northernmost position in the sector, and its battery is located on a rocky promontory. From this point looking to the east is the San Jorge Island, a rock formation that serves as natural breakwater. South of the point the shoreline curves to southwest and gradually again to the southeast forming a sandy beach which is protected from the wave action of the sea. The beach area, called Salemas beach, lies between the Point Escambrón to the north, and

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Point Boquerón.

Redoubt San Gerónimo is located at Point Boquerón, and could dominate the Condado Peninsula across the entrance to Boquerón Bay with shoulder weapons and artillery. Redoubt San Gerónimo, as rebuilt in 1799, is a rectangular construction with rounded corners, upper battery, low battery, kitchen, latrine, guardhouse, and various interior rooms. An archaded stone bridge supports the surviving length of a masonry covered way which presently leads west to the open parking lot and the buildings of Hotel Caribe Hilton. Construction of the hotel in 1949 required the demolition of most of the defense line's entrenchments, covered ways, field-gun batteries, and infantry defense positions built by the Spanish Corps of Military Engineers during the initial decade of the 19th century, as well as the total obliteration of late-19th century Battery San Ramón. Only a sentry box and a small portion of Battery San Ramon's masonry fence is extant in the hotel's front patio.

Southwest of Redoubt San Gerónimo's covered way, following the coastline, is the northeastern perimeter fence of San Gerónimo Naval Reservation. An officer's housing area for the Staff of the 10th Naval District was built within the Naval Reservation in 1941.

The Reservation's southwest boundary faces a roadway parallel to the Luis Muñoz Rivera Avenue near the area of the bridges that connect the San Juan islet to the mainland. The chain-link fence facing the southwestern perimeter of the

Reservation runs between two section masonry brick walls that extends close to 458 feet into the islet and continues exposed close to 144 feet to the sea until it reaches the general vicinity of the two early 20th century bridges Dos Hermanos (constructed in 1905) and the Esteves Bridge (constructed in 1925). The remnants of Bridgehead San Antonio's east wing battery are visible at the point where both bridges converge.

In 1776 *Engineer-in-Second* Thomas O'Daly, at the time *Director of Fortification* and *Commanding Engineer* of San Juan, replaced the fortified bridge over San Antonio Channel with a newer structure which was in turn upgraded and converted into a bridgehead by *Engineer-in-Ordinaire* Ignacio Mascaró y Homar in 1796. Practically demolished by British artillery in 1797, its reformed reconstruction was ordered by Governor Ramón de Castro. The reform project, in which a two-gun upper battery was added, was essentially completed by 1800. After its reformation, the bridgehead (also called "fort" by tradition, although not by art) consisted of a vaulted superstructure with a gate, a two-gun embrassured battery atop the superstructure which could be reached through a ramp, a two-gun western wing, a one-gun eastern wing with firing steps for fusileers, a fairly-large triangular parade with guardhouse, and a four-gun eastern battery.

San Gerónimo Powderhouse

Approximately one half mile west of Redoubt San Gerónimo, within the grounds of Luis Muñoz Rivera Park, is San Gerónimo Powderhouse. The building has a rectangular plan and is surrounded by a masonry defensive wall [See Figure 4]. The

Powderhouse's wall is 13 feet in height and 1 foot thick [See Figure 5] and has two sentry posts; one at the southeast corner [See Figure 6] and the other at the northwest corner. The north and south sides have 11 and 16 musket loops, correspondingly, which were uncovered during the 1992 restoration project of the Powderhouse and Park [See Figure 7].

The Powderhouse is 199' long and 30'-6" inches wide. The vaulted interior is "supported on either side with 10 massive buttresses" (Addyman 1992:47) [See Figure 8].

The Powderhouse, constructed between 1769-1772, was designed by Director of Fortification and Commanding Engineer Thomas O'Daly. Construction was supervised by *Engineer-in-Extraordinaire* Juan Francisco Mestre.

The building's original function was to store powder, ammunition, pyrotechnic materials, weapons, and artillery equipment and accouterments during peacetime. If a land attack was imminent, however, the building was vacated and all goods transported inside the fortified city.

The original masonry wall surrounding the powderhouse had an entrance facing west, away from the campaign side. Another entrance was opened on the eastern side of the wall after the 1797 attack [See Figure 9]. Also after the 1797 attack a covered way was built to connect the powderhouse with the Advanced Defense Line. During the 19th century two brick towers were added to the north and south walls of the

powderhouse itself, and upon which lightning rods were attached.

The powderhouse was transferred to the United States Military authorities on October 18, 1898. The property was transferred from military to civilian ownership on January 12, 1912. No changes occurred in the structure until around 1935 when it was converted into the Museum of Natural History. The building's interior was subdivided and a new entrance was made on the center of the south side.

The Park Commission's new offices were constructed some time before 1940 on the outside of the north wall "causing various cuttings or piercing of the 18th century materials" (Addyman 1992:49).

Further changes were carried out after 1945 when a Zoo was constructed within the Old Powderhouse. Eight doors were integrated into the south (two) and north (six) facade of the powderhouse. Additional structures were constructed: on the northeast and southeast corners of the interior two toilet structures; on the southwest a storeroom; and on the northwest a café (Addyman 1992:52).

In 1974/5 the powderhouse underwent a major renovation when all of the four structures were enlarged. Eight window openings were made in the north protection wall.

In the 1992-94 restoration project, funded by the Puerto Rico Trust of National Parks, had many of the zoo cages within the

alleyway demolished. The exterior wall windows were resealed and the 1940's additions were eliminated [See Figure 4]. The false quoins that existed originally were reproduced in the eastern facade.

Battery Escambrón

A masonry and brick gun battery is located on a small outcrop of land called the Point Escambrón. Viewed from its southern side the battery is hidden away by dense vegetation [See Figure 10]. The north, east and west facades of the structure face the sea and Boqueron area and show the effects of weathering [See Figures 11-13]. This battery, documented extensively during the 1953 HABS Survey, shows five angling continuous sides (from north to east), an open western side and a parapet facing the southern or rear of the battery [See Figures 14-17]. On the battery's esplanade are the remnants of the foundations of a steel-and-concrete fire control tower used by the U.S. Army Coast Artillery during World War II.

Since the survey was conducted, the structure has suffered effects from erosion and new intervention. The erosion has worn away most of the fortification's merlons as well as most of the floor of the embrasures. The features of the north and west elevation's still retain a degree of integrity although it also has suffered from weathering {See Figure 18]. Although the west elevation's retains its merlons and embrasure it has been affected by the construction of a 23 step concrete stairway added after 1953 to provide access to the top of the structure [See Figure 19].

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Bridgehead San Antonio (ruins)

The ruins of Bridgehead San Antonio consist of a parapet wall {See Figures 20-23], two gun embrasures (part of the east wing battery, facing San Antonio Channel) [See Figures 24-27] and a portion of the bridgehead's pier. Other parts of the structure lay under the northernmost portion of the existing bridge. The visible portions of the wall are built with ashlar block.

Both Bridge and Bridgehead San Antonio were demolished in 1894 to make way for a new steel bridge. The two wing batteries survived the demolition, but during the construction of the new 20th century bridges the merlons and parapet of the west wing battery were demolished. A surviving 19th century square sentry box was demolished during the 1960's, and later replaced with a cylindrical sentry box made with concrete.

A masonry wall extended north from the bridgehead's eastern wing battery. A four-gun embrassured battery occupied the portion of wall nearest to the wing, integrated with the remainder of the wall. The embrasures' directrix was due east. This four-gun battery and portions of the wall were demolished during the construction of Condado Bridge. Another portion of the wall was demolished during a subsequent bridge-widening project. On its southern edge, a pier is integrated to the fortification's base. The fort basically has two fronts: one towards the east and one towards the north. Its geometrical composition responds to the fact that the fort had to defend attacks from land as well as water [See Figure 28].

Recent archeological investigations carried out by Dr. Jesús Vega on the Bridgehead San Antonio detected portions of its pier. A trench was excavated parallel to the San Antonio Channel three meters west of the Esteves Bridge's northern abutment. As result, the 1776 pier's wall was exposed and documented for 13 meters (Vega 1997:53). Also, additional pier remnants were found when a second trench inland north of the first excavation. The investigation's report concluded,

> *Fort San Antonio embodies the distinctive characteristics of Spanish permanent military installation of the 18th century. Its construction of local eolianite cutstone and rectangular brick, cemented dune with a lime-based mortar, is typical of many other forts, walls, and bulwarks....[Vega 1997:27-28].*

Redoubt San Gerónimo

Redoubt San Gerónimo is a rectangular ashlar block and masonry fortification with rounded corners. The redoubt is approximately 31 meters wide by 53 meters in length and rises nine meters above the sea. The redoubt rests on a flattened coastal reef and is connected with land through an arched masonry covered way bridge [See Figures 29-35].

The redoubt is a two-level structure with upper main battery and lower battery and parade. A guardhouse occupies the south portion of the parade. There are internal spaces in the north and south defensive walls. On the east portion of the parade there is arcaded hall with three arches, and beyond it a quarters building has been integrated {See Figures 36 & 37].

The parade is flanked by two stone ramps leading to the upper battery, which overlooks the northern (sea), eastern (Boquerón Canal and Condado peninsula) and southern (Boquerón Bay) sectors [See Figures 38 & 39]. The smaller low battery covered the exterior scarps of the covered way, and could provide limited fire north and south.

A wooden structure was added atop the main building in the second half of the 19th century. Although the 1899 the wooden structure was destroyed by the passage of the San Ciriaco Hurricane it was quickly rebuilt. The structure would remain until it was demolished by the San Juan Municipal Government in 1942. In 1921 the Redoubt was leased for 999 years to Col. Baker, a retired officer of the U.S. Navy, who used it as his private residence (Alegría 1969:14-16).

In 1942 the Government of Puerto Rico adquired the redoubt and adyacent lands to construct the Caribe Hilton Hotel complex. The redoubt was administered by the San Juan Municipality until 1956 when it was transfered to the Institute of Puerto Rican Culture (Alegría 1969:16). The redoubt housed a small military museum after a renovation carried out by the Institute of Puerto Rican Culture in 1957.

Later in 1982 the redoubt underwent another restoration by the Institute of Puerto Rican Culture. This time, trees were removed, cracks were fixed, walls were replastered and cannons replaced in their original positions. An iron gate was installed in front of the bridge and a small concrete pier located south of the structure and built in the late forties,

was demolished.

District Integrity Statement

The *Línea Avanzada* or elements of the Advanced Defense Line are spatially discrete. Furthermore, the brick masonry construction is surrounded by new construction such as hotels (Radisson Normandy and the Caribe Hilton) and Sports facilities; different in size, scale, function, style and construction materials than those used by the Spanish engineers in the 18th and 19th century. Although the visual continuity and unity of the significant properties of district has been affected due to the new construction, especially the case of the San Gerónimo Powderhouse, the coastal batteries retain their integrity of location.

The redoubt, bridgehead and battery are located facing the Boquerón Bay and San Antonio Channel and are interspersed among new constructions including two 20th century bridges, two hotel complexes and Sports facilities. The San Gerónimo Powderhouse is located west of coastal fortifications within the grounds of the Luis Muñoz Rivera Park, a 20th century public park.

Among the properties in the district the Redoubt San Gerónimo and San Gerónimo Powderhouse are in good condition. The Battery Escambrón has suffered some effects of weathering on its walls, embrasures and merlons. The Bridgehead San Antonio has suffered extensively from bridge construction which have left only the embrasures and merlons from the lower battery,

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part of the fort's covered way and remnants of its pier.

NARRATIVE STATEMENT OF SIGNIFICANCE

Summary

The *Línea Avanzada* or Advanced Defense Line is a nationally significant district composed of Spanish forts and batteries associated with the only battlefield site, within U.S. jurisdiction, directly associated with that part of the Napoleonic War of 1796-1802 between France, Britain and Spain. The British blockade, which lasted from April 17 to May 1, 1797, was concentrated primarily on the Advanced Defense Line, the outpost established on the eastern end of the San Juan islet bordering the Boquerón Inlet, Condado Lagoon and the San Antonio channel. This attack proved to be the last major undertaking by any European power against Puerto Rico. The battle tested the application of the exterior lines of defense fortifications on the eastern approaches of the city of San Juan that were designed and constructed by military engineers in the service of the Spanish Empire like Thomas O'Daly, Juan Francisco Mestre and Ignacio Mascaro y Homar.

B A C K G R O U N D

Puerto Rico's strategic location astride the Mona Passage maritime route used by the Spanish treasure fleets made the island a target for pirate, privateer and European navies. The Spanish crown invested large sums for the defense of the

island to protect the maritime route, and to prevent the island from being used as base to attack other Spanish possessions in the Caribbean Basin, especially Spanish Cuba and Hispaniola (today Dominican Republic and Haiti). Spain's involvement in European wars opened its Caribbean colonies and merchant ships to attacks as early as the 1530s, first by privateers, followed later by pirates and French, Dutch and English war fleets. The inability of the Spanish to effectively police the waters of the West Indies and stop the depredations by hostile naval forces caused the construction of massive fortifications at key positions in the Caribbean Basin, such as those at San Juan in Puerto Rico. The importance of Puerto Rico made it a target for European naval expeditions in 1595, 1598, 1625 and 1797.

The main city and port of Puerto Rico, San Juan, was located on the western end of an islet at the entrance of San Juan Bay. It was founded between 1519-1521 by the Spanish settlers who moved from the town of Caparra (designated an NHL in 1994). The choice for the site of city took into account its easy access to maritime commerce and its strategic features. The northern shore of the islet of San Juan was lined with steep hills and offshore reefs. On its southern flank, which overlooked the San Antonio Channel, there were mangroves and marshlands that made landings by armed forces difficult and hazardous. The new settlement's closest access to the mainland was in the eastern sector where the land gradually sloped, reaching sea level, close to the Cangrejo peninsula (today Condado) and the area where today Santurce and Miramar are located.

In 1540 a small outcrop of land along the southeastern edge of the islet was chosen as the construction site of a causeway across the San Antonio Channel to the mainland over which a horse could wade across at the deepest section. It would later be replaced, between 1551 and 1568, by a 500 foot long stone bridge with a removable wooden section in its middle over the deepest part of the San Antonio Channel (Zapatero 1990:312).

The strategic importance of this area was recognized by the city's *cabildo* (town council) in 1532 when they sought permission from the king to construct a defensive wall and a battery on the part of the islet that overlooked the Boquerón. Later the King approved a request for the construction of a tower to protect and defend the causeway of the islet (Alegría 1969:2-3).

In 1587 in a report to the Spanish Crown the Governor of Puerto Rico, Diego Menéndez de Valdés (1582-1593), stressed the importance of the bridge and of the cannon battery placed at Boquerón Point. In his report he related constructing a four cannon battery protected by embrasures but he admitted only having positioned two iron cannon at the site which were surrounded by an earthen trench.

Four years later (1591) Governor Menéndez again reported to the King of the construction of a redoubt close to the water with a small house to provide shelter to the artillery and its garrison of a corporal and with twelve soldiers. Further, he indicated that three artillery pieces were positioned in the

redoubt protected by a earthen trench facing the sea (Zapatero 1990:312).

However, the efforts to strengthen defenses of the port of San Juan ran into problems as the Spanish Governor and other royal officials disagreed on the design and placement of the fortifications.

> *In fact the defences of San Juan were the subject of much controversy among the local officers of the crown throughout the 1590s. In 1587 Diego Menéndez de Valdés, then governor, drew a detailed scheme and his report of 1590 indicated that he had begun construction of the Morro. The next year, however, Captain Pedro de Salazar took over the responsibility for the defence and reported that he had "leveled all the fortifications, redoubts and trenches that the Governor Diego Menéndez built, since I do not think they were of much value"* [Andrews 1972:151].

The work on the fortifications slowed by the lack of laborers and construction materials, supplies and artillery. The Captain General, Governor Pedro Suárez Coronel (1593-1597) "repeatedly complained of lack of manpower, building materials, tools, guns, powder, and ball". Later, "...Sancho Pardo and Pedro Tello both affirmed that the other works built by Menéndez, including the important redoubt of Santa Elena...were dismantled by Salazar and not re-established until Sancho Pardo himself took the defence in hand [in 1595]" (Andrews 1972:151).

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Sir Francis Drake's Attack (November 22 - 25, 1595)

England's Queen Elizabeth I's efforts to curtail Spain's Philip II influence in Europe led to conflict over the Netherlands which in turn led to the sortie of the Spain's *Invincible Armada* against England in 1588. After the destruction of the armada, English privateers were openly encouraged to raid the Spanish colonies in the West Indies.

On November 22, 1595, an English fleet of 26 ships and 3,000 men commanded by Sir Francis Drake arrived off the coast of Puerto Rico. Drake's intent was to steal "three million of ducats or five and thirty tunnes of silver"(Antilles Coastal Artillery Command, 1943:42) believed to have been stored at *La Fortaleza* (designated an NHL in 1960) and capture the island to use as a base of operations (De Hostos 1948:35-36). The treasure and cargo of the crippled galleon Santa María de Cabogeña (Tierra Firme fleet flagship), later estimated by Sancho Pardo's report at 2,164,836 pesos (Andrews 1972:162), had been brought to San Juan after the ship suffered damages during a storm as it was crossing the Bahamas Straits. However, alerted by the authorities in Spain and confirmed by Spanish naval units who captured and questioned the crew of the English ship *Francis*. The *Francis*, a ship of Drake's fleet, had been captured near the island of Guadalupe by a fleet of five Spanish frigates under the command of Admiral Tello Guzmán. Forewarned, the Spanish Governor of Puerto Rico, Pedro Suárez Coronel (1593-1597), knew of the impending attack and took the necessary steps to withstand the English assault. The garrison was strengthened with the crew and artillery of

Admiral Pedro Tello de Guzmán's frigates, which arrived on November 13, 1595 (Andrews 1972:164) and that of the crippled galleon under General Sancho Pardo.

Aware of the military importance of the eastern end of the islet Governor Suárez had a dirt platform constructed and emplaced two cannons to bolster fire power of Boquerón's four cannon battery. Additional infantry was sent to reinforce the military force on the eastern end of the islet. In the Escambrón's cove (known at the time as Cabrón's cove) were 100 men under Alonzo de Vargas and 150 men under Royal Ensign Pedro Vázquez at Boquerón and the bridge (Hoyt 1943:44-45).

These two positions opened fire on the English fleet when it anchored close to the Boquerón inlet. The Spanish gunners where able to get off 28 shots before the ships were repositioned west of the islet beyond the range of the guns of the Morro batteries. One shot fired by the Spanish burst into Drake's cabin killing three English officers as they were sitting down to eat dinner (De Hostos 1948:34-35). This initial probe of the eastern end defenses proved its importance as a possible landing site to bypass the gun positions of the Morro Castle. On November 25, 1595 Sir Francis Drake's fleet sailed away after an unsuccessful attack, the previous night, against the Spanish frigates within the San Juan Bay.

Lord George Clifford Expedition (June 16 - August 24, 1598)

The second English attempt was made three years later (1598)

under the command of Lord George Clifford, the Third Earl of Cumberland. Lord George Clifford's force consisted of 20 ships, including the Scourge of Malice, and a fighting force of 1,000 men.

The conditions on the island had changed considerably since that last attack. The Spanish forces in the city of San Juan, commanded by Antonio de Mosquera (December 18, 1597 - June 28, 1598), Spanish Governor of Puerto Rico, had been decimated due to a outbreak of disease that had reduced the fighting strength of the garrison.

> *The defense forces of San Juan that confronted Cumberland were not as strong as those that confronted Drake. When a new governor, Captain Antonio de Mosquera, arrived a short time before the English attack, he found the defenses in poor shape. A raging epidemic had killed off many of the inhabitants, both white and black. The garrison of El Morro had been reduced to one hundred and thirty four infantrymen and fourteen artillerymen, while the two hundred new soldiers, who had been sent over on royal order, were surly and difficult to manage* [Hoyt 1943:51].

On the June 16 the English expedition debarked two regiments (960 men) at a small bay at Cangrejos east of San Juan Islet. The English regiments marched through the night and arrived at day break on the 17th on the peninsula (today Condado) looking out on the body of water of the Boquerón and the eastern coast of the San Juan islet. It took the invading force the rest of

the day to reach the mainland end of the San Antonio bridge. The small Spanish detachment was reinforced by 80 Puerto Rican volunteers under the command of Gaspar Troche de Guzmán and Bernabé Sierralta (Hoyt 1943:54). The Spanish defenders had destroyed the wooden mid-section of the bridge in anticipation of the English arrival.

Lord George Clifford's forces faced at the islet's end of the bridge a strong wooden door enclosed by a vault crowned with embrasures and flanked by palisades to prevent efforts to bypass the doorway. Nearby, north of the bridge, the Boquerón Point with its battery defended the entrance to the Boquerón and the San Antonio Bridge. According to Adolfo de Hostos there also existed a fort at the Escambrón Point which was attacked by the English assault (1983:39,199). However, in both English and Spanish reports there is only the mention of the Boquerón Battery known as "Mata Diablo".

The English regiments, under the command of the Earl of Cumberland, charged the position of the Spanish defenders who, with the aid of the fire from the Boquerón Battery, were able to repulse the attack. It was during the storming of the bridge defenses that the Earl almost drowned after he fell into the channels waters, in full body armor, and had to be rescued by his soldiers. While he recuperated from this near drowning the attack continued under his Second-in-Command, Sir John Berkeley. For two hours, the English pikemen and musketeers tried to breach the fortified doorway and dislodge its defenders. The San Antonio fort's defense was sustained by the artillery pieces near the gate and at Boquerón Battery,

plus the musket fire that caused considerable damage to the invading forces. The outnumbered defenders were able to frustrate all the English attempts. Without being able to break the bridge's fortified doorway, the assault was called off due to the rising tide. Overall the English lost 50 soldiers in the attack while it is believed that the defenders suffered similar casualties.

After this setback the Earl of Cumberland regrouped his forces and ordered one of his ships to draw close to the Boquerón Battery in order to level fire at the fortification. Although the ship would be lost due to the reefs, the bombardment of less than one hour effectively neutralized the battery. Thereafter, the English proceeded to establish a beachhead in the Escambrón Beach with fifty musketeers and two hundred pikemen. Although the Spanish defenders had 50 musketeers in cliffs on either side of the silenced fort they were not able to prevent the enemy's landings (Hoyt 1943:55). The outnumbered Spanish forces in the sector fell back and left their positions retreating westward toward the city of San Juan. The English decided to spend the night at the abandoned fort before proceeding toward the city.

On June 18th the English proceeded unopposed through the area of Puerta de Tierra and entered the city, which was not at that time walled, and laid siege to Fort El Morro. The bombardment of the Spanish stronghold commenced on June 28th and the 400 men Spanish garrison surrendered the next day. Thereafter the British remained in control of the city of San Juan, if not of the country side, but were faced with an

epidemic that started in July. The epidemic caused 400 deaths among the invading force and convinced Lord George Clifford to abandon the city on August 24, 1598 (Coll y Toste 1917:5:56).

Strengthening the Eastern End's Fortifications, 1608-1620

The capture of San Juan by the English spurred efforts to make the port secure against possible future attempts. In addition to rebuilding Fort El Morro and adding artillery, work was also carried out in the period of 1608-1620 by the Spanish Governors Gabriel de Roxas Páramo (1608-1614) and Felipe de Beaumont (1614-1620) on the eastern coastal defenses. Governor Roxas rebuilt Battery San Gerónimo, replacing the old wooden fort with a stone construction. Later Governor Beaumont was involved with the reconstruction, in stone, of the bridge and "a small fort built connecting San Juan with the main land" (Hoyt 1943:59-60).

Boudewijn Hendrickszoon's Attack (September 24-October 27, 1625)

The dynastic struggles in Europe during the 16th and 17th century for Dutch independence from Spain, saw not only English, but also Dutch forays on Spanish possessions in the New World. In 1625 Puerto Rico became the target of a Dutch expedition financed by the Dutch West Indies Company led by Boudewijn Hendrickszoon. Hendrickszoon expedition's original purpose was to reinforce the Dutch garrison of Bahia, Brazil. However, by the time the expedition arrived Bahia had fallen to a joint Spanish and Portuguese force. Determined not to

leave the Caribbean empty handed he departed with part of his fleet, 17 ships, bound for Puerto Rico.

The Dutch arrived off the coast of the island on September 25, 1625. The Spanish governor Juan de Haro (1625-1630), in keeping with the expectations from the previous two English attacks ordered the transfer of cannon to the Boquerón Battery and the preparation of trenches in the Escambrón area in anticipation of an attack on the eastern end of San Juan (De Hostos 1983:48). However, Hendrickszoon, in a daring and skillful move, entered San Juan Bay through the western entrance in front of the guns of Fort El Morro. Notwithstanding the fire from the Spanish batteries the Dutch ships were able to gain entrance to the San Juan Bay. Caught by surprise the Spanish defenders tried in vain to prepare defenses on the southern peninsula of the islet (La Puntilla). Finally under the barrage of the Dutch fleet's cannon the Spanish infantry abandoned their positions and retreated to Fort El Morro. That day the Dutch debarked 800 men and were able to take the undefended city (Coll y Toste 1917:5:230).

The Dutch laid siege to Fort El Morro from September 26 to October 22, 1625 in which the Spanish defenders stubbornly fought back. As part of the Dutch strategy of cutting off supplies and reinforcements from reaching Fort El Morro's defenders from the mainland, the fort at the El Cañuelo Island was taken and the eastern sector's San Antonio bridge and Channel were secured. Hendrickszoon assigned two ships to patrol the channel and interdict any traffic that tried to reach the San Juan Islet. Also, he ordered the establishment

of trenches facing the San Antonio bridge.

However, the siege broke down as Spanish troops and Puerto Rican militia took the offensive against western and eastern Dutch positions reopening the flow of reinforcement and supplies to Fort El Morro.

> *At San Antonio Bridge militiamen kept the Dutch garrison under harassment and finally drove them out. Captain Andrés Botello* [of the Spanish Army} *and his guerrillas regained control of the Bayamón River then braved the cannon at El Cañuelo, took the Dutch garrison in a two-hour fight, and burned the fort. Again the way was open to reach El Morro with supplies* [Manuncy and Torres-Reyes 1982:57].

The Dutch commander decided to end the siege on October 22 and re-embark after setting the city of San Juan on fire. The Dutch fleet waited within the San Juan Bay until November 2 when favorable winds enabled the ships to run the gauntlet of El Morro guns.

Fortifications in the Late 17th century

The partial success of the Dutch attack demonstrated the need to protect the city against flanking attacks from the south and the west. Furthermore, new settlements of French, Dutch, Danish and English colonies in the Lesser Antilles heightened the sense of danger and reinforced the urgency of strengthening the defenses of the city of San Juan. Under the

leadership of the Spanish Governors Enrique Enríquez de Sotomayor (1631-1635) and Iñigo de la Mota Sarmiento (1635-1641) bastioned wall made with a stone foundation and poured rubble masonry was constructed to close off the southern and eastern approaches to the city. On the northeastern area of the city wall, atop San Cristobal Hill, a semi-circular redoubt and adjacent powder magazine were built to replace a 16th century entrenchment. Another defensive structure was built down at north beach to block a potential practically covert avenue of approach.

Outside the city the defenses of the western and eastern approaches were of special interest during this period. In 1635 the fort at the Boquerón, San Gerónimo, was rebuilt under the direction of master foreman of works Domingo Cortinas (Alegría 1969:7). In the 1660s Governor Juan Pérez de Guzmán (1661-1664) ordered the construction of a fifty foot square masonry battery, named *San Juan de la Cruz,* on *El Cañuelo* Island (Manuncy and Torres-Reyes 1973:62).

Fortifications Reforms of the 18th century

The second half of the 18th century saw changes in the defense of Spanish overseas possessions as result of the reforms instituted by the Bourbon Dynasty in Spain. Among the challenges confronted by Spain where the presence of large English fleets permanently based in the Caribbean. The English naval superiority proved a decisive factor in the 1762 capture of city of Havana, Cuba, during the Seven Year War, called the French and Indian War in North America. Since

Spanish control of the seas was no longer possible, Spain's goal was to strengthen key Caribbean fortifications so that they could withstand a major assault by Spain's enemies, in particular the British.

In early 1765, Field Marshal Alejandro O'Reilly arrived in Puerto Rico to investigate the state of the island's defenses. O'Reilly's report, dated May 20, 1765, underscored the need for new construction and the reorganization of the regular and militia units to make San Juan defensible against foreign aggression. On September 25, 1765 Charles III of Spain approved the defense plans suggested by Field marshall O'Reilly's report, including a "General Fortification Plan" for San Juan (Zapatero 1990:335). The Spanish Crown approved an annual grant of 100,000 *pesos* from the treasury of the Viceroyalty of New Spain, in Mexico, to pay for the massive construction project for San Juan.

The first phase of the work involved mostly the restructuring of the main forts (Fort San Felipe del Morro and Redoubt San Cristobal) and the city wall, which for the first time would enclose the northern sector of the city (De Hostos 1983:213). The eastern sector of the city wall was reinforced with a series of outworks (Ravelin San Carlos, Lunette Trinidad, and Ravelin del Principe), to disrupt an infantry assault and covered the main wall against direct-lay by enemy artillery.

After the construction of the city's land and sea defenses were completed the Spanish military engineers turned their attention to the eastern end of the San Juan islet in

particular the area of the Boquerón entrance and the San Antonio Channel. Military engineers Thomas O'Daly, Juan Francisco Mestre and Ignacio Mascaro y Homar, among others, developed three defense lines in the central and eastern sections of the islet. The exterior defense lines were designed for the following tasks: safeguard potential landing areas in the eastern sector (Advanced Defense Line); control the high ground immediately west of the landing areas to harass the enemy approaching from the east and offer cover for a retreat by the defending forces (Midway Defense Line); and a trench located between the outworks and the Midway Defense Line to further delay the enemy on its march to the city.

Before 1797 the Advanced Defense Line consisted of two fortified gun emplacements (Redoubt San Gerónimo at Point Boquerón and Bridgehead San Antonio at San Antonio Bridge), twelve infantry positions, and the San Gerónimo Powderhouse (1769). The Powderhouse provided the storage for ammunition and gun powder. In 1776, Bridgehead San Antonio was enlarged under the direction of Thomas O'Daly in 1776 and later reinforced by a 1783 plan by Juan Francisco Mestre.

The strong-house at Point Boquerón was reformed and turned into a square redoubt between 1791-1796 by Juan Francisco Mestre. One of the sources consulted mentioned a third gun position at Point Escambrón as constructed between 1779-1780 (Hoyt 1943:79). However, there is scant information available concerning the existence of this battery on the eastern coast. It seems not to have survived the passage of time because it is not mentioned by reports of the Spanish Governor Ramón de

Castro or the British commander Sir Ralph Abercromby after the 1797 attack.

In addition to the forts, batteries and Powderhouse in the eastern sector there were also twelve infantry positions or parapets. To the north of the sector four infantry positions (#1, #2, #3, and #4) were built in the area of Escambrón. These infantry positions consisted of earthworks reinforced with bound tree branches and were made to withstand naval gun fire because of their proximity to the sea. To the northeast three positions (#5, #6 and #7) were constructed on the Salemas Beach to contest enemy landings. One position (#8) was located northwest of the Redoubt San Gerónimo and served to reinforce the other positions and to cover a retreat. The last four positions (#9,#10, #11, and #12) defended the San Antonio Beach against enemy landing and were supplied with field artillery pieces.

The Midway Defense Line, located west of the Advanced Line, consisted of an entrenchment made of compacted earth constructed under the direction of military engineer Juan Francisco Mestre between 1777 and 1783 (Zapatero 1990:377). Although there is very little information available about this defensive line's physical development it is believed that it was an earthwork before 1797 which was "redesigned and constructed in masonry" (Manuncy and Torres-Reyes 1982:77) after the attack.

BRITISH EXPEDITION OF 1797 AGAINST SAN JUAN, PUERTO RICO

As result of the execution of his Bourbon cousin King Luis XVI of France on January 23, 1793 the King of Spain Charles IV joined the coalition of European nations composed of Austria, Prussia and Great Britain in the war against Revolutionary France. However, the French Republic vigorously pressed the war against her enemies in the field of battle to such a point that Spain was soon eager for peace. On July 22, 1795 Spain signed the Treaty of Basle ending her war with France. Afterwards, on August 18, 1796 Spain and France signed the Treaty of San Ildefonso forming an alliance which included a provision to go to war with Great Britain. The Alliance remained secret for a month and a half until October 5, 1796 when Charles IV declared war on Great Britain (Bosch 1983:211-212).

After this declaration of war, the Spanish main naval fleet slipped into to the French port of Toulon in the Mediterranean Sea for protection from the British Navy. This situation offered the British an opportunity to plan an offensive against the Spanish possessions in the Caribbean, which were unguarded by the Spanish fleet. However, the need to maintain the presence of a large British Mediterranean fleet did not permit the use of the needed warships for a planned English expedition against Spanish Buenos Aires. Therefore it was decided that Trinidad and Puerto Rico would be the targets of a smaller British offensive in the Caribbean (Duffy, 1987:268).

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> *Trinidad and Puerto Rico loomed successively as the preferred goals of the expedition. The latter island, if captured, could be used as a haven to the people of French Haiti who had claimed English protection. At the last moment, however, Abercromby was ordered to take Trinidad, an attack upon the island beging (sic) considered particularly desirable to eliminate agitators who were instigating disturbances against the British West Indian possession* [Morales 1974:113].

Trinidad was an ideal first choice of the British because of its close position to the South America mainland. Trinidad could be used as a "...stranglehold...on Spanish trade, and the entire northern coastline of the continent could be threatened..."(Duffy 1987:269). In addition the attack could be carried out with a smaller contingent available while the expected reinforcements from Great Britain arrived for the Puerto Rico's expedition.

The easy British's capture of Trinidad on February 17, 1797 was fundamental in the decision of carrying out their expedition to Puerto Rico. The British experience in Trinidad where the small Spanish Army and Naval units showed a lack of fighting spirit would influence the expectations in their campaign in Puerto Rico. In a February 28 letter Sir Ralph Abercromby indicated,

> *Every part of the conduct of the Spanish troops, both by sea and land, seems to indicate a decayed nation, and to point out the possibility of further conquests, if we*

> *were in condition to keep what we might acquire, with a small additional force* [Morales, 1974:113].

After leaving a garrison at Trinidad Abercromby was left with only 2,000 men to carry out the attack on Puerto Rico. The British commander's intention was to proceed immediately after taking Trinidad with the Puerto Rico campaign. However, he was advised that a French fleet had departed *"from Brest with troops on board and it was deemed prudent to return and remain at Martinique until further reinforcements arrived from England"* (Alonso and Flores 1997:157). Later, the Coromandel arrived with added forces he had a strike force of 3,910 officers and men to start the expedition. Although the British commander had deep concerns for the "small size and inferior quality of their [British] force," however, "their experience of the Spanish performance at Trinidad led them to believe the Puerto Rico enterprise was still viable" (Duffy 1987:283-284).

Abercromby gathered for the expedition the following:

Royal Artillery	160 men
Royal Engineers	47 men
26th Light Dragoons	171 men
42nd Foot	245 men
14th Foot	649 men
87th Foot	525 men

53rd Foot	573 men
60th Foot	231 men
Lowensteins Fusilers	785 men
Lowensteins Chasseurs	373 men
Tobago Black Corps	151 men

[Alonso and Flores 1997:258]

Rear Admiral Harvey's sixty warships and transports arrived off the northeast coast of Puerto Rico on the April 17, 1797. The fleet was composed of the five ship-of-the-line, three frigates, four corvettes, two brigantines, eighteen corsair-schooners, a large storeship and other vessels including transports (Zapatero 1990:395; Hoyt 1943: 83-84). Naval scouts started a search for a landing place to the east of the San Juan islet in the area of Cangrejos. The British commander followed the tactics of Lord George Clifford's 1598 expedition of not staging a frontal assault on Fort El Morro batteries and western approaches.

The British navy pilots concentrated in the search "for a way through the reefs, which ran one to two miles offshore on the north-east coast of Puerto Rico" (Duffy 1987:285). Finally, some three miles east of San Juan, Harvey's sloops Beaver and Fury with other lighter ship were able to locate a small sandy beach on Cangrejos Bay that would serve as landing place (Alonso and Flores 1997: 273). However, by the time this beach was found it too late in the day to make a daylight

landing.

The Spanish command had been alerted to the presence of the British fleet the moment it was sighted by Spanish lookouts on Loiza beach, about six o'clock in the morning. After ten o'clock, when the threat had been confirmed, the Spanish Captain General of Puerto Rico, Governor Ramón de Castro y Gutierrez (1795-1804) met with the high ranking officers of the city's garrison at *La Fortaleza* to review and implement the defensive plan developed by the military engineers Thomas O'Daly and Juan Francisco Mestre (Zapatero 1990:397). The Captain General who had recently assumed command of Puerto Rico *"was an able and energetic soldier who had won recognition under the brilliant Bernardo de Gálvez in the capture of Pensacola from the English in 1781"* (Manuncy and Torres-Reyes 1982:75).

The Spanish defenders had 4,029 men of which, according to Governor's report, only 200 - 300 were veteran soldiers while the others were new recruits or trained militiamen (Zapatero 1990:393). All of the Island's trained militia units were already in active duty, and the governor then called the urban militia units to be dispatched with all haste to the defense of San Juan (Alonso and Flores 1997:172-174). Throughout the period of the siege a total of 2,442 men (Blanco 1968:51) including three trained militia cavalry companies reinforced San Juan. In addition to these forces there were 200-300 crewmen from two French privateers, and other French citizens who were pressed into duty with the Spaniards by the French Consular Agent in San Juan (Zapatero 1990:393).

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On the 17th the Governor Castro prepared the western and eastern fortifications against the expected attack. The Governor ordered the evacuation of the San Juan's civilian population and the transfer of the powder stored in outlying powderhouses in San Gerónimo and Miraflores to ships in the San Juan Bay. In the eastern sector workmen were detailed with the necessary tools to start preparing a defensive line in the Escambrón area and two barges were stationed to defend the passage of the San Antonio bridge and another two to defend the Martin Peña Channel Bridge. Each barge was a floating battery with guns capable of firing sixteen-pound solid round shot. He also sent the military Engineer Ignacio Mascaro y Homar with a crew of laborers to build an entrenchment in the area known as *Seboruco de Barriga* "to cover the channel joining Lake San José and the inner harbor of San Juan, which crossed the Martín Peña Bridge (Hoyt 1943:85; Zapatero 1990:402).

On the dawn next day (18th) the English were able to make a landing in the area known as Torrecillas about nine miles east of the San Juan Islet. A force of three thousand soldiers led by Sir Ralph Abercromby, under cover of naval gun fire from the Fury, Beaver and Requin, was able to secure a beachhead for the invading army (Alonso and Flores 1997:273). Sir Ralph Abercromby established his headquarters at the Bishop's House in San Mateo of Cangrejos. A small mobile Spanish force of three hundred men led by Lieut. Col. Isidoro Linares sent (on the 17th) to delay the enemy's debarkation retreated to the San Antonio Bridge on the eastern sector of the islet. As soon as they were organized the British chased the retreating Spanish

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but were

> *...halted by heavy fire from the San Antonio fort and San Gerónimo and sixteen pounders on the barges inflicted heavy losses on the enemy. The main body of the troops then retired from the bridge to seek stronger positions leaving behind only advanced parties* [Hoyt 1943:87].

Sir Ralph Abercromby had accompanied his men as they reached the Condado peninsula, and was able to observe the strong Spanish position in San Juan which was

> *...was situated in the western half of a long narrow island forming the northern, seaward side of the capacious harbour of San Juan Bay. Its seaward face was unassailable, protected as it was by the reefs, cliffs, and a wall flanked by two castle-forts of El Moro (sic) and San Cristobel (sic). The site sloped from the seaward cliffs toward the harbour, and the harbour or south-eastern front was perhaps the weakest, but to reach it would have required gaining access to the harbour, and the entrance to that was protected by a fortified rock in its middle and by the heavily armed castle of El Moro (sic). The only other approach was from the east, where the island was connected to the mainland by a narrow 200 yards long San Antonio bridge, and the obstacles in this direction were substantial. The bridge was defended by a small* ***tête du pont*** *fortification and covered by a 9-gun battry at the San Geronimo redoubt at the eastern end of the island. In addition the Spaniards were steadily*

constructing an entrenchment across the island behind the bridge. Only when these works were overcome could the actual city walls be approached 2,000 yards further west, and these were not only substantial in themselves and well provided with embrasures for artillery, but also guarded by the heavily armed castle of San Cristobel (sic) [Duffy 1987:286].

Abercromby expected that the power of the British expedition would cause the collapse of the Spanish garrison's morale and its quick surrender without having to assault the fortifications, as it had happened in Trinidad. On that day the British commander sent a message written aboard Prince of Wales to the Governor Ramón de Castro asking for the surrender of the city of San Juan. The message read,

On board his Britannick Majesty's ship Prince of Wales: the 18th of April 1797.
Sir
We the Commanders in Chief of the British Force by Land & Sea in this Quarter of the World feel it our duty privius to the commencement of Hostillities to summons you to Surrender the Colonys of Porto Rico with its dependencies to his Britannick Majesty.
We are at this Moment disposed to Grant to yourself, to the Garrison & to the inhabitants the most favourable Conditions; extending to the Protection & Continuation of the injoiment of their Religion Property & Laws.
--But if you should unfortunately Refuse to avail yourself of our Present offer; you will be held

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> *Responsible alteration that will be made in the Terms upon which we Shall afterwards treat We have the honour to be*
> *Sir*
> *Your most Obedient hum.ble Serv.ts*
> *Ra Abercromby*
> *y*
> *Henr.y Harvey*
> *To his Excellency the Governor or officer Commanding in chief his Catholick Majestic's Forces at S.t Juan de P.Rico* [Zapatero 1990:407].

The Governor proudly responded that he would defend San Juan to his last drop of blood, and the garrison and inhabitants would sell dearly their lives.

After Lieut. Col. Linares' force reached the Bridgehead San Antonio, Lieut. Col. Vizcarrondo and 100 men were assigned as reinforcements for detachments guarding the advanced defense line. As soon as the English soldiers were seen in the mangroves in the vicinity of the Condado area a sally of 180 men led by Lieut. Col. Vizcarrondo charged across the San Antonio Bridge into the enemy advance positions. The force was composed of 50 men from the regular forces and militia, 100 French citizens, and a cavalry company of 30 men from Bayamón. The force was able to reconnoiter the English landing position at San Mateo before having to return to the Advanced Defense Line (Zapatero 1990:405).

Platoons of British fusiliers chased Vizcarrondo's force up to the area of the bridge. Governor Castro, who was at the time at Redoubt San Gerónimo, ordered the gun emplacements to open fire to cover Vizcarrondo's retreat. At this time considering the approach of the English forces the Spanish defenders cut San Antonio bridge (Zapatero 1990:405-406).

The Advanced Defense Line and Spanish gun barges opened fire on the British positions to impede work on siege gun positions. The Bridgehead San Antonio used two eight pounders, Redoubt San Gerónimo twelve pounders, while the barges used sixteen-pounders (Tapia y Rivera 1970:677-678).

The bombardment caused heavy casualties among the British. The following day (19th) a mortally wounded German grenadier captured during the previous night was questioned on the British force strength. Engineer Ignacio Mascaro y Homar, commander of Bridgehead San Antonio reported that according to the German prisoner, up to that time only 3,000 men had landed, but he believed the fleet had an additional 6,000 soldiers. Redoubt San Gerónimo was reinforced during the day with a howitzer, ammunition and other supplies (Tapia y Rivera 1970:678).

Other actions that occurred that day (19th), were the reconnoitering by a British frigate of the Fort Cañuelo and the Cabras Island west of the San Juan Islet. This action caused concern to the Spanish defenders for it indicated the interest of the enemy in landings west of San Juan. Spanish infantry and militia units were sent to keep a watch against

additional landings (Tapia y Rivera 1970:679).

On April 20th cannon fire from the Advanced Defense Line continued during the day. The lookouts noticed British preparation of a siege battery on a hill in the Condado area around seven hundred and seventy yards east of the San Antonio bridge (Hoyt 1943:88) which overlooked the Spanish positions in the eastern coast of the San Juan Islet.

> *It was more in hope than confidence that Abercromby began constructing batteries to batter down the defences of San Antonio and San Geronimo in order to force his way onto the island. In fact, even this soon appeared hopeless, for the Spanish matched the British efforts by bringing up more guns and strengthening their shore defences. Harvey provided 300 sailors to drag up artillery and serve the batteries* [Duffy 1987:287]

According to the prisoners and deserters captured by the Spaniards that day, the British had landed artillery pieces of heavy caliber including howitzers and mortars with substantial supplies of ammunition "within four miles of the enemy's works..." (Alonso and Flores 1997:274).

On April 21st outside the islet a Spanish mobile force led by sublieutenant Luis de Lara and Lieut. Vicente Andino was attacked by a force of 150 men who garrisoned the British outpost south of Martín Peña Bridge. The Spanish retreated to the vicinity of *El Roble* (today Río Piedras) where with the help of other militia units pushed back the British force

(Tapia y Rivera 1970:683-84).

At the eastern sector positions intermittent cannon fire was continued on the British force in the Condado and Miramar areas. The Redoubt San Gerónimo was reinforced with two 24 pounders, and two mortars (one of 9 and another of 12 inches) to aid in firing on two batteries being prepared by the invading force. Beside the aforementioned hill on the Condado area, one was being prepared in the *Rodeo* area, today known as Miramar, "at a distance of four hundred and fifty yards to the south of the Bridge" (Hoyt 1943:88). It was evident considering their position that the primary target of these batteries was the Bridgehead San Antonio. After reviewing the state of the defenses, which were limited in extension, Engineer Mascaro ordered two eight pounders be placed in the lower part of the bridgehead. He also had the *pretiles* or bridge's stone railing demolished so that it could not offer shelter to the enemy. Redoubt San Gerónimo gave covering fire to assist in the retreat of a 15-man party which was attacked 100 paces from the bridge (Tapia y Rivera 1970:684-685).

On April 22nd Governor Castro received reports of a large enemy troop concentration close to the San Antonio Bridge and of the movement of artillery pieces to the gun emplacements prepared in the previous days. The Governor ordered the following actions:

. Preparation of obstacles for cavalry in the beaches close to the San Antonio Bridge. It was expected that the cavalry would wade, supported by fusiliers and cannon

fire, across the San Antonio channel. Among the obstacles the Spanish placed were,

...chevaux de frise or barbed sawhorse were placed at the points it was easiest for the cavalry to cross and boards spiked with nails were placed on the banks to injure horses. Cylindrical fuses or ***salchichas cargadas*** *were laid together with incendiaries and hundredweight (sic) barrels of gunpowder* (Alonso and Flores 1997:191).

- Digging a trench in the area behind Bridgehead San Antonio and assigning 400 fusiliers as garrison.
- Sending one thousand five hundred infantrymen, cavalry and field pieces to the San Cristobal trench works. The purpose of this force was to reinforce the San Antonio defenders if the need arose.
- Positioning barriers with spiked planks at the entrance to the bridge.
- Building embrasures near the Bridgehead San Antonio's doorway to provide cover for the infantry.
- Construction of parapets and emplacement of a three cannon battery (two twelve pounders and one eight pounder) in the undefended rear area of Redoubt San Gerónimo.
- Reinforcing with additional troops the garrison in both Bridgehead San Antonio and Redoubt San Gerónimo.
- Moving closer to the eastern defenses barges with cannons and gunboats to provide additional fire power.
- Sending cavalry patrols to the Escambrón area and placing an infantry detachment with two field pieces to oppose

landing attempts (Zapatero 1990:418).

The British navy proceeded during the day to land heavy artillery, mortars and their ammunition stores.

> *The engineers with the pioneers were employed constructing works for the batteries opposite the town. A detachment of 300 seamen under the command of* [Captain] *Toddy of the Alfred and Captain Brown of the Beaver were landed and ordered to assist in working the artillery* [Alonso and Flores 1997:191].

Spanish artillery fire from the Advanced Defense Line continued their barrage on enemy positions on the April 22nd and 23rd. On the night of April 23rd Governor Castro met the Spanish high command in Redoubt San Gerónimo's vaulted room to make plans. It was decided to carry out a morning sortie to attack the English gun emplacements to harass the enemy (Zapatero 1990:420).

On April 24th early in the morning Sergt. Francisco Díaz led a Spanish force of 70 men across the San Antonio Channel on pirogues and made a surprise attack on an English battery where workers and were preparing a gun emplacement. After a fierce combat the Spanish overcame the British work party capturing fourteen prisoners (one captain and 13 men). They found a completed battery with a capacity of seven cannons. In the trench there were already mounted two 24 pounders, one 12 pounder, one howitzer and three mortars. Díaz' was unable to destroy the British guns because he lacked spiking equipment.

The Spanish forces were forced to abandon the British battery, taking their prisoners along, at the approach of a large British force (Tapia y Rivera 1970:689-670).

The Spanish raid stirred the invading army which started a barrage of cannon fire, around eight o'clock in the morning, on the Advanced Defense Line fortifications, that would continue intermittently until the night of April 30th [See Figures 40 & 41]. The English opened fire with eight, twelve, twenty-four and thirty-six-pounders and a nine-inch mortar from batteries located in the Condado-Santurce-Miramar area (Tapia y Rivera 1970:691).

The Bridgehead San Antonio's masonry construction suffered from the continuous enemy shelling. The bridgehead's defenders led by military Engineer Ignacio Mascaro y Homar, used sand bags and barrels filled with sand to plug the holes in the structure caused by the shell impacts. Many casualties were caused among the bridgehead's defenders and during the day the dead and gravely wounded were removed (Zapatero 1990:423). However, the Spanish defender's morale remained high causing consternation among the British who were, "...astonished at their [Spaniards] bravery as occasionally they exposed themselves on the ramparts hurraing, throwing stones in contempt of our artillery, and calling to come on" (Rigau 1988:84; Duffy 1987:288).

As the conditions of the defensive works in Bridgehead San Antonio continued to deteriorate from the April 24th to 25th more workers were employed to shore up the defenses. San

Antonio's defenders were faced with the problems of having limited space to accommodate the soldiers, gunners, ammunition and cannons. As a partial solution to this problem, two trenches were excavated one in front and the other at the southern side (south) of the bridgehead to shelter the soldiers. The cannon of the battery which faced the siege battery at El Condado, on its northern side, was crippled by the enemy shelling and a new emplacement was prepared in the bridgehead's interior courtyard. The cannon fire by the militiaman Cristobal Ortega, dismounted part of the English artillery. A trench was excavated to prepare for an eventual retreat from the eastern defenses and to improve communication with the Midway Defense Line. The trench would provide safe passage of troops and workers from the main trenches to the Advanced Defense Line (Tapia y Rivera 1970:692-693).

Redoubt San Gerónimo also received heavy fire from the British battery at Rodeo. The Redoubt's soldiers and workmen, led by Lieut. Col. Teodomiro del Toro, reinforced the breaches caused by gun fire with sand bags and sand filled barrels. A bomb hit the upper platform and destroyed the vault over the troop quarter killing and wounding many soldiers. To protect the garrison the roof was covered with sand. Militia gunner Domingo González fired a mortar and hit an ammunition supply point in the British side blowing it up (Tapia y Rivera 1970:693-694).

On the afternoon of the April 25th one of the English frigates blocking the entrance to the port closed in on the Redoubt San Gerónimo and opened fire with 24 pounders. However, the fire

was ineffective in damaging that structure due to the extreme range caused the nearby reefs. Also, the British army moved units to the area of the abandoned Miramar Powder Magazine **(included in National Register of Historic Places on March 9, 1984)** in an attempt set up a new battery with which to batter the eastern coastal defenses, the Midway Defense Line, and the city. The emplacement of this new battery was intended to break the impasse developed with the eastern defenses (Tapia y Rivera 1970:694).

Next day (26th) the British 14th Regiment secured the abandoned Powder Magazine at Miraflores Island. An attempt was made by Spanish infantry to dislodge the British. The small Spanish force sent to the pier of the Miraflores Powder Magazine were repulsed by 300 British fusiliers. On this day, the British navy again tried to get a frigate close enough to shell the Redoubt San Gerónimo but had to withdraw after receiving fire (Tapia y Rivera 1970:696-697).

According to British sources, on the 26th Rear Admiral Harvey sought to support Abercromby's ground forces. Two British ships-of-the-line the Bellona and Vengeance were ordered "to run down towards St. Geronimo battery and go as near the reefs of the rocks would permit...". However, the attempt was not successful since the shots "fell short of the shore..." (Alonso and Flores 1997:276).

On the 27th of April the Spanish sources reported the approach of one warship and two British frigates closing in and alternating in firing at the outworks of the Fort San

Cristobal and Redoubt San Gerónimo Fort. The naval attack again proved ineffective due to the extreme distance which made the fire inaccurate (Tapia y Rivera 1970:699).

The English opened fire with their battery at Miraflores Island on April 28th, but the results were disappointing because of the "extreme range, the great majority of the shells and fireballs aimed at the city fell short or exploded on the way" (Duffy 1987:288). The Spanish responded vigorously by returning fire from positions in the Fort San Cristobal and the pontoons in the harbor and five hours after starting their fire the British battery at Miraflores Island was neutralized. The British tried unsuccessfully to restore the bombardment but it was unable to reply to the superior Spanish artillery fire (Tapia y Rivera 1970:701).

The Spanish still expected a British assault. Among the actions undertaken were placing of two cannons in the lower battery of Redoubt San Gerónimo to impede passage through the Boquerón area (April 28th). Also under the cover of night (April 29th) 100 workmen were sent in boats to cast large ashlar blocks into Boquerón Channel facing the eastern defenses. The stone blocks would block the entrance of small craft into the Boquerón Bay (Tapia y Rivera 1970:702-703).

Sometime between April 29th and April 30th the British commander, Sir Abercromby, decided to lift the siege and withdraw from San Juan. His decision was made after considering the disadvantageous situation his forces were facing if the siege continued and the unlikelihood of

achieving success. Even if he overcame the eastern coastal defenses,

> *..this would only bring him against the main town defenses, where the Spanish could produce ten time the artillery fire-power he could achieve with his own small battering train* [Duffy 1987:289].

In addition, he was quickly becoming outnumbered as militia units poured in from the island to San Juan's main forces or to the mobile force in the vicinity of Río Piedras. The latter had been responsible for various attacks on foraging parties and attempted attack with 800 men on the Martin Peña Bridge on April 30th. If the English force were able to secure landings on the San Juan islet their lines of communication would be in danger of attack as they were extended toward the city.

The British commander's concern also reflected the disappointment with the continuous desertions from his german mercenary regiments. During the campaign his German troops, the Lowensteins Fusiliers and Lowensteins Chasseurs reported 70 and 39 men, respectively, as deserting to the Spanish (Duffy 1987:289).

Furthermore, changes in the climate made it necessary to consider a prompt retreat to assure the successful debarkation of the British force. By April 23rd changes in the weather forced the British fleet had to move away from the coast to prevent the northerly winds running the ships aground. Charles

Stewart of the 53rd commented after the debarkation "...*the sea and surf ran so high that the shipping were in danger and several flat-bottom boats lost endeavouring to land stores*" (Duffy 1987:289-290).

The British masked the planned withdraw under the semblance of making preparations for a major offensive. In the afternoon of April 29th the scaling ladders and other equipment for the assault were landed from the fleet. The latter were placed among the front lines in the following day while the sick and wounded were carried from the field hospitals to the ships. The troops were not told of the evacuation until late at night on the April 30th so deserters could not alert the Spanish authorities. Under the cover of darkness the English force was moved east five miles to the landing site and by dawn (May 1st) they were already at the beach. The force was embarked in less than three hours (7 AM -10 AM). In its retreat the invading force abandoned its siege train (seven iron guns, four iron mortars, and two brass howitzers) which were rendered unusable (Duffy 1987:290).

Early on the morning of May 1st the Spanish defenders were alerted to the British's pull out by the lack of activity in the enemy's camp. Governor Castro led three cavalry companies to Cangrejos to impede the reembarkation. However, by the time the forces arrived at the beaches the British had left.

Spanish governor Castro reported 208 casualties of which 156 were wounded and 42 dead (Tapia y Rivera 1970:711). While Abercromby reported on May 2, 1797 that 31 men were killed, 70

wounded and 124 were missing and presumed deserted or captured (Alonso and Flores 1997:270). The inability of the British, under general Sir Ralph Abercromby and Admiral Henry Harvey to overcome the San Juan's defenses spelled the end of the British Caribbean offensives.

Construction after 1797

After the May 1, 1797 Governor Ramón de Castro assessed the damages on the fortifications incurred during the British bombardment. Bridgehead San Antonio and Redoubt San Gerónimo had suffered so extensively that none of the eastward-facing walls had been left standing. Expecting additional British attempts, the Governor immediately ordered work to rebuild Redoubt San Gerónimo and Bridgehead San Antonio. By 1800 the work on both structures was completed. The Redoubt San Gerónimo was rebuilt adding two embrasures facing the sea and another two the bridge. The Bridgehead San Antonio was rebuilt providing it with thicker walls and adding an embrasure and constructing two batteries. One battery of six cannons faced Miramar while another battery of four cannons defended against attack from the Condado area (Blanco 1968: 57).

Between 1797-1800 the Spanish military engineers constructed a new battery at the Point Escambrón. The new battery reinforced the firepower of Redoubt San Gerónimo's northern perimeter and extended the range of Spanish guns beyond the area of Boquerón.

Furthermore, by 1833 a parapet of masonry and brick replaced the provisional earth trenches, constructed after the 1797, connecting the eastern coastal fortifications. The parapet ran from its northernmost at Point Escambrón, down to the marshland west of the Bridgehead San Antonio. West of the Redoubt San Gerónimo construction was finished of a new battery, San Ramón. The Battery San Ramón, flanked by the masonry parapet, provided added firepower to the defensive positions of redoubt and bridgehead during an enemy attack. Also, the Spanish engineers constructed another masonry parapet that ran from the eastern coastal fortification to offer cover for the movement of troops (reinforcements or withdraw) and munitions to the eastern coastal defenses. The parapet started in the area of Battery San Ramón and ran west until it reached the eastern entrance of the San Gerónimo Powderhouse.

In 1894 Governor Antonio Dabán y Ramírez de Arellano (1893-1895) ordered the demolition of the upper battery of the bridgehead and the masonry bridge to place a metal bridge (De Hostos 1983:217; Toro 1992:36-37). During the bridgehead's demolition the workers extracted close to a hundred solid shot and grenade fragments from the interior of its walls (Rivero 1972:55-56). It seems, likely therefore, that the foundations of the original bridgehead were used in the 1800 reconstruction.

The fortifications of the Advanced Defense Line or First Line of Defense, as they later became known, would remain unchanged until the 20th century construction projects.

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GEOGRAPHICAL DATA

Verbal Boundary Description
Please refer to attached site map.

Boundary Justification
The *Línea Avanzada* or Advanced Defense Line is limited to those properties (sites, structures or buildings) that were directly or indirectly associated with the Spanish attempt control of the Boquerón Inlet and San Antonio Channel constructed between 1768-1800. Of all the contributing resources the San Gerónimo Powderhouse precedes the 1797 attack. For the purposes of the boundary only the building and its outer protective wall are considered contributing resources. The Powderhouse is bounded to the north by a two story 20th century building and to south and east by the 20th century designed landscape of the Luis Muñoz Rivera Park.

On the eastern coast of the San Juan Islet two properties associated with the attack 1797 (Redoubt San Gerónimo and Remnants of the Bridgehead San Antonio) are considered contributing resources. The Redoubt San Gerónimo includes all

pieces associated historically with its development such as the bridge, covered way and gate. The Redoubt San Gerónimo is a site directly linked with the events of the 1797 attack. Although it was severely damaged it was rebuilt with few alterations of the original design. The remains of the Bridgehead San Antonio includes the two embrasures (but not the sentry box) found between the two 20th century bridges, covered way remnant running north from the Los Hermanos Bridge and a small remnant of the bridgehead's pier found recently through a 1997 archeological excavations west of the Esteves Bridge. The sentry box is not considered significant because it is a 1960's stylized reproduction of a Spanish Colonial sentry box. The bridgehead, rebuilt after the 1797 British attack, was constructed on the site of the previous 1776 structure. Although only remnants of the San Antonio survive, its links with transportation association remains as it rests by two 20th century bridges that provide that currently provide the only land access for vehicular traffic from the mainland to the islet. The embrasures' design and function supports the bridgehead's continued interpretation as a Spanish fortification. Beyond this components of the San Antonio Fort the area has been affected due to 20th century buildings, roads and landscaping design.

Battery Escambrón is included as part of the district as 1797-1800 modifications to the original eastern coastal defenses of San Juan. Only the structure is included because the surrounding area has been developed for the Recreational purposes. The boundary of this resource can be limited to five feet from the structure. The concrete stairway on its

western side is not considered as significant part of the resource since it was constructed by the Puerto Rico Recreation Department after 1953.

The discontiguous district excludes the wall and sentry box or *garita* from the Battery San Ramón {See Figure 42] located at the entrance of the Caribe Hilton Hotel. These remains are not included as contributing to the district because the ruins have lost distinctive details necessary for it to be included. The modern constructions that surround the ruins have affected its integrity. It is not able to present visually, surrounded by 20th century construction, its relation to the eastern coastal fortifications.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number _____ Page _____

Figure 1. Advanced Defense Line, San Juan, P.R. Map of San Juan Islet and Bay in 1898. (Courtesy of Military Architecture Archives, San Juan National Historic Site).

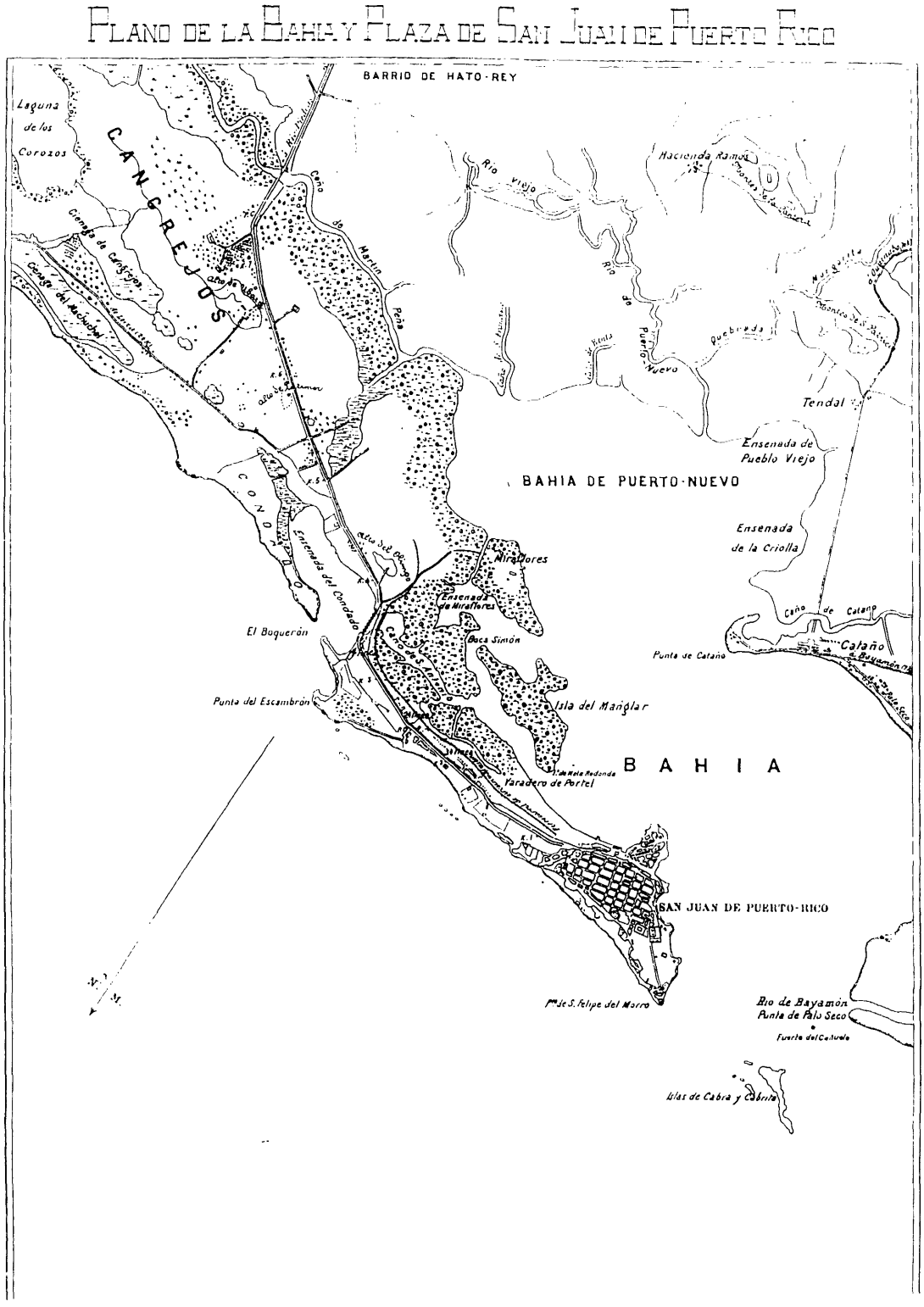
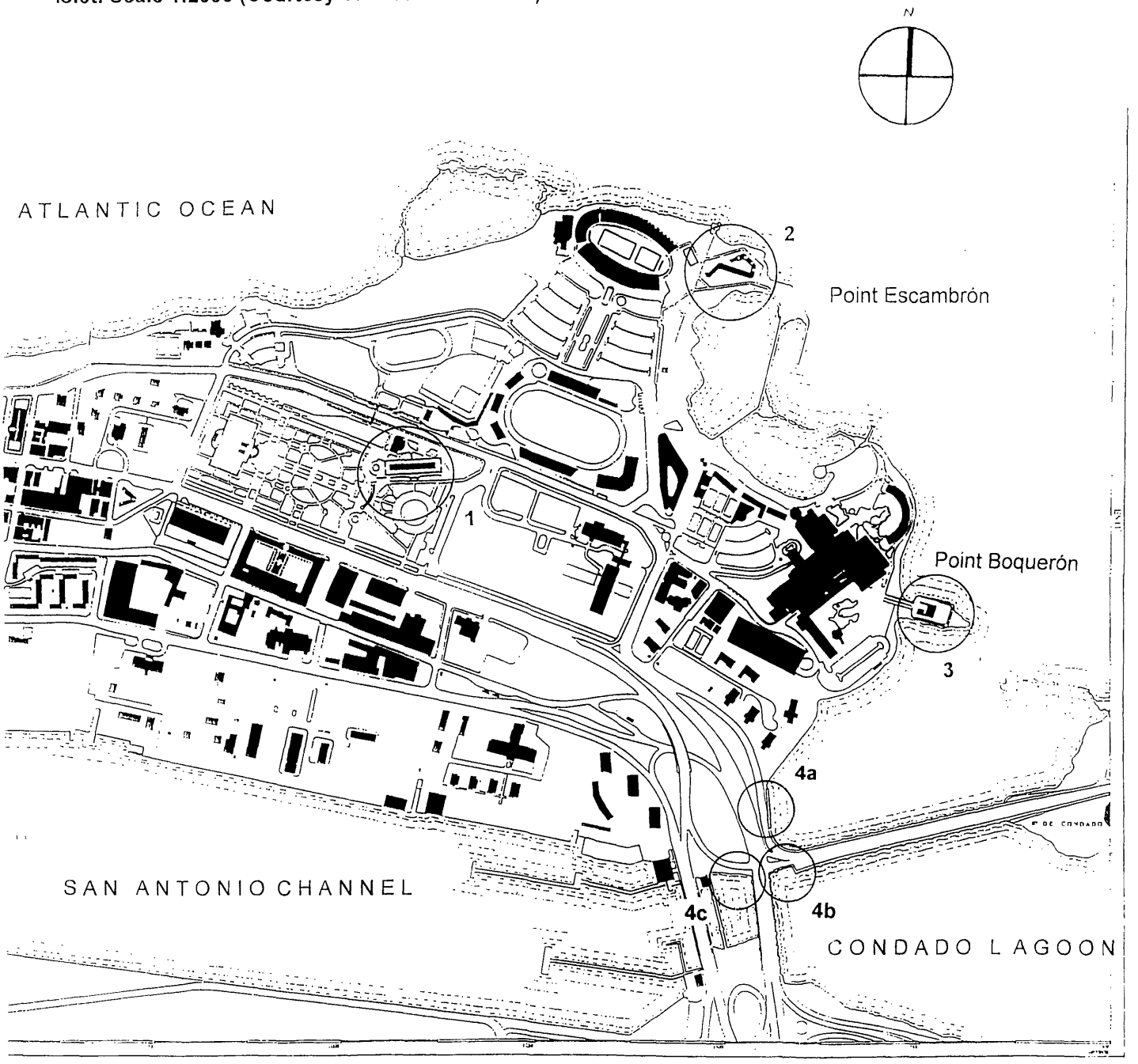


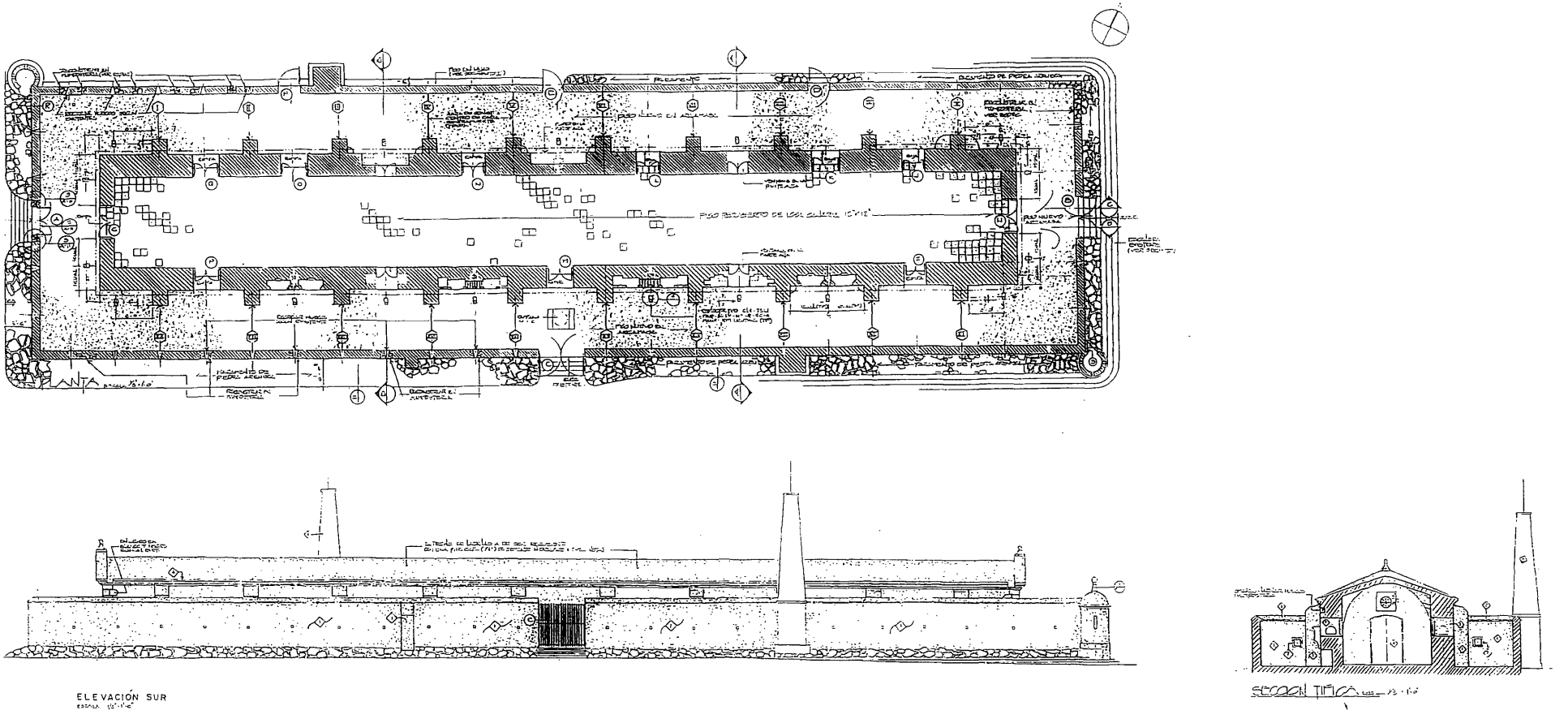
Figure 2. Advanced Defense Line, San Juan, Puerto Rico. Site map of eastern sector of San Juan Islet. Scale 1:2000 (Courtesy of Alberto del Toro)



1. San Gerónimo Powderhouse 2. Battery Escambrón 3. Redoubt San Gerónimo
4(a)-(c). Bridgehead San Antonio 4(a). covered way 4(b). battery 4(c). pier

Figure 3. Advanced Defense Line, San Juan, P.R. First Defensive Line of San Juan in 1901. Defenses of San Juan, San Cristobal & Outworks. U.S. Engineer Office. San Juan, Puerto Rico. December 31, 1901 (Courtesy of Military Architecture Archives, San Juan National Historic Site).

Figure 4. Advanced Defense Line, San Juan, P.R. San Gerónimo Powderhouse after the 1992-1994 restoration. Plan, South and West Elevations. (Courtesy of the Puerto Rican National Trust of National Parks)



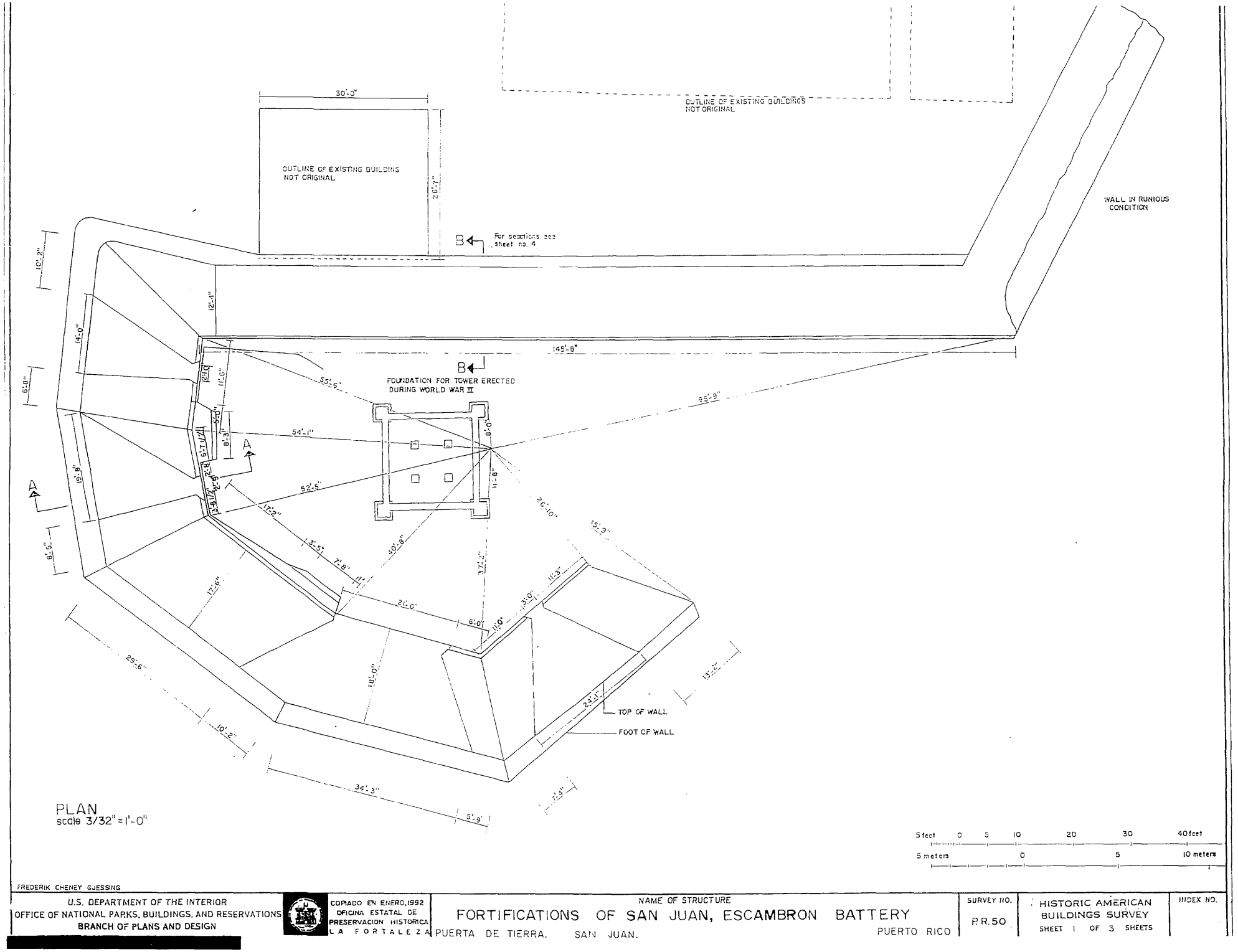
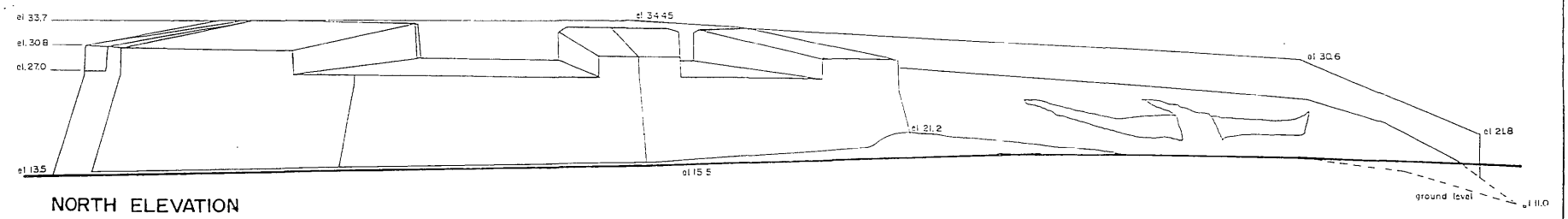
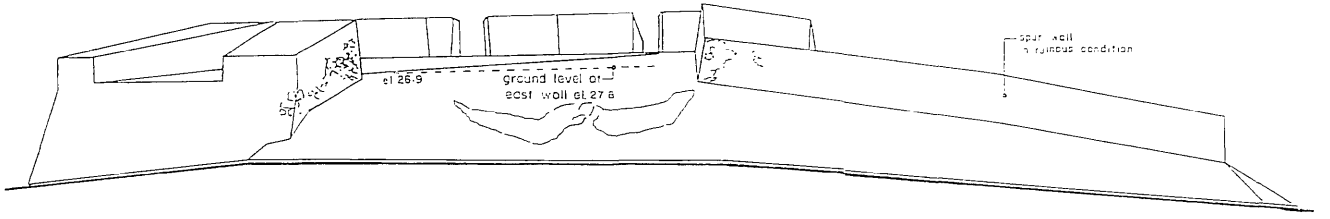


Figure 14. Advanced Defense Line, San Juan, P.R. Reproduction of HAER Battery Escambrón Plan (Courtesy of Military Architecture Archives, San Juan National Historic Site).

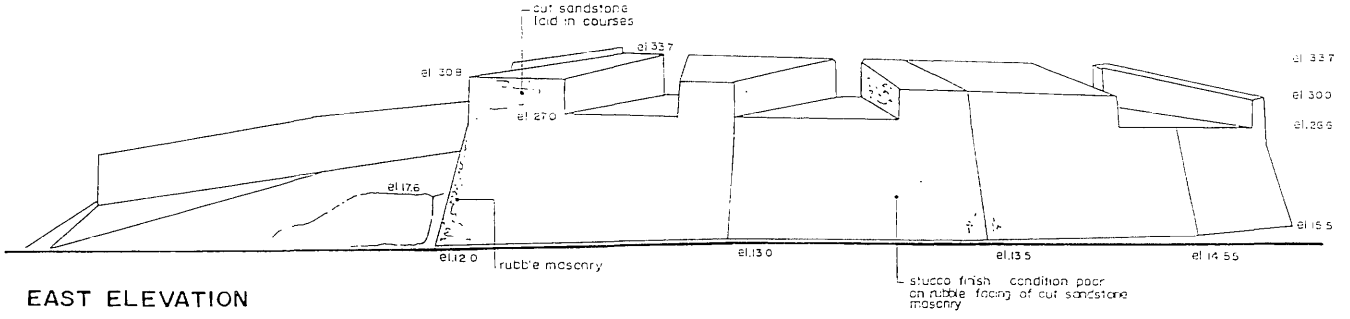
Figure 15. Advanced Defense Line, San Juan, P.R. Reproduction of HAER Battery Escambrón Drawings North, West and East Elevation. (Courtesy of Military Architecture Archives, San Juan National Historic Site).



NORTH ELEVATION



WEST ELEVATION



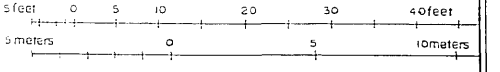
EAST ELEVATION

NOTES

all drawings in scale 3/32"=1'-0"

elevations in feet above mean low water.

measuring where indicated is faithfully reproduced as to no. of courses & as to type.



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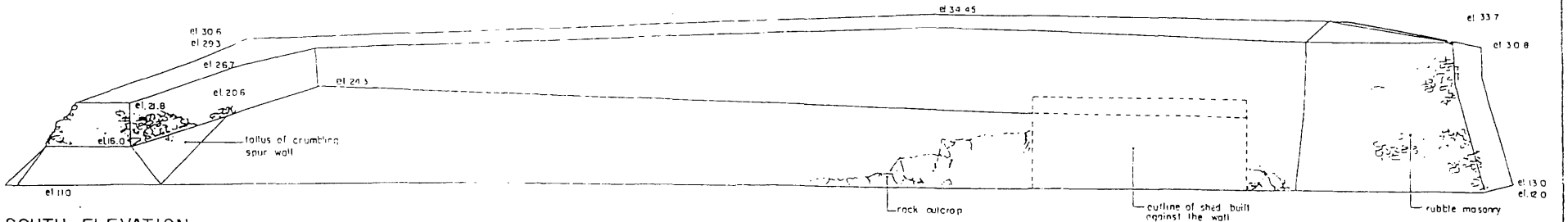
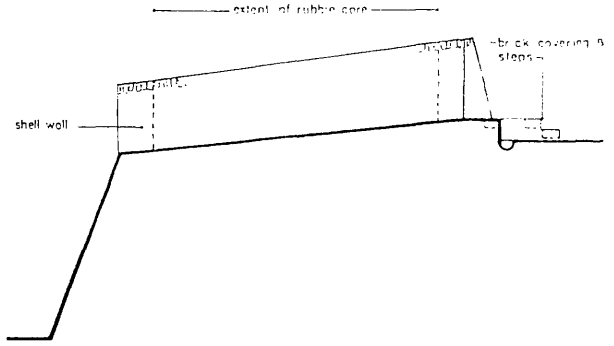
U.S. DEPARTMENT OF THE INTERIOR OFFICE OF NATIONAL PARKS, BUILDINGS, AND RESERVATIONS BRANCH OF PLANS AND DESIGN	COPIADO EN ENERO, 1992 OFICINA ESTATAL DE PRESERVACION HISTORICA LA FORTALEZA	NAME OF STRUCTURE FORTIFICATIONS OF SAN JUAN, ESCAMBRON BATTERY PUERTA DE TIERRA, SAN JUAN PUERTO RICO	SURVEY NO. P.R.50	HISTORIC AMERICAN BUILDINGS SURVEY SHEET 2 OF 3 SHEETS	INDEX NO.

Figure 16. Advanced Defense Line, San Juan, P.R. Reproduction of HAER Battery Escambrón Drawings South Elevation and Section A-A, B-B, and Plot Plan. (Courtesy of Military Architecture Archives, San Juan National Historic Site).



SOUTH ELEVATION
scale: 3/32" = 1'-0"



SECTION A-A
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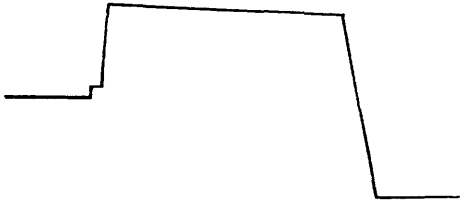
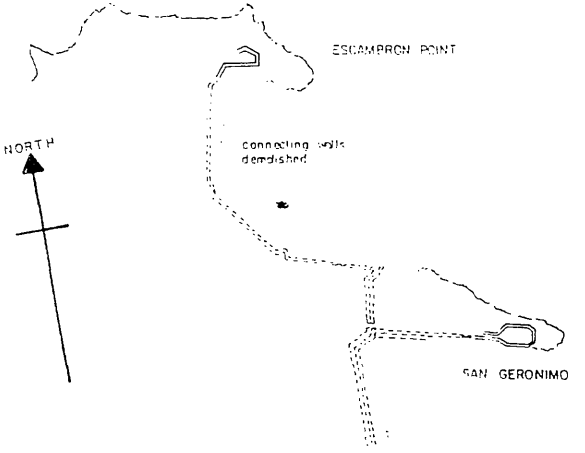


SECTION B-B
scale: 3/16 = 1'-0"



PLOT PLAN
scale: 1:5000

NOTE:
this plan was traced from "plano de la ciudad de san juan de puerto rico" dated march 15, 1898

scale: 1:5000
50 meters 0 150 250 350 450 550 meters
scale: 3/16" = 1'-0"
5 feet 0 5 10 15 feet
scale: 3/32" = 1'-0"
5 feet 0 5 10 20 30 40 feet
5 meters 0 5 10 meters

FREDERIK CHENEY GJESSING

U.S. DEPARTMENT OF THE INTERIOR OFFICE OF NATIONAL PARKS, BUILDINGS, AND RESERVATIONS BRANCH OF PLANS AND DESIGN	COPIADO EN ENERO, 1992 OFICINA ESTATAL DE PRESERVACION HISTORICA LA FORTALEZA	NAME OF STRUCTURE FORTIFICATIONS OF SAN JUAN, ESCAMBRON BATTERY PUERTA DE TIERRA, SAN JUAN PUERTO RICO	SURVEY NO. P.R.50	HISTORIC AMERICAN BUILDINGS SURVEY SHEET 3 OF 3 SHEETS	INDEX NO.

Figure 27. Advanced Defense Line, San Juan, P.R. Sketch Plan, Cannon Embrasures, SE Corner of Fort San Gerónimo, Overlooking Condado Lagoon. (Vega 1997:79)

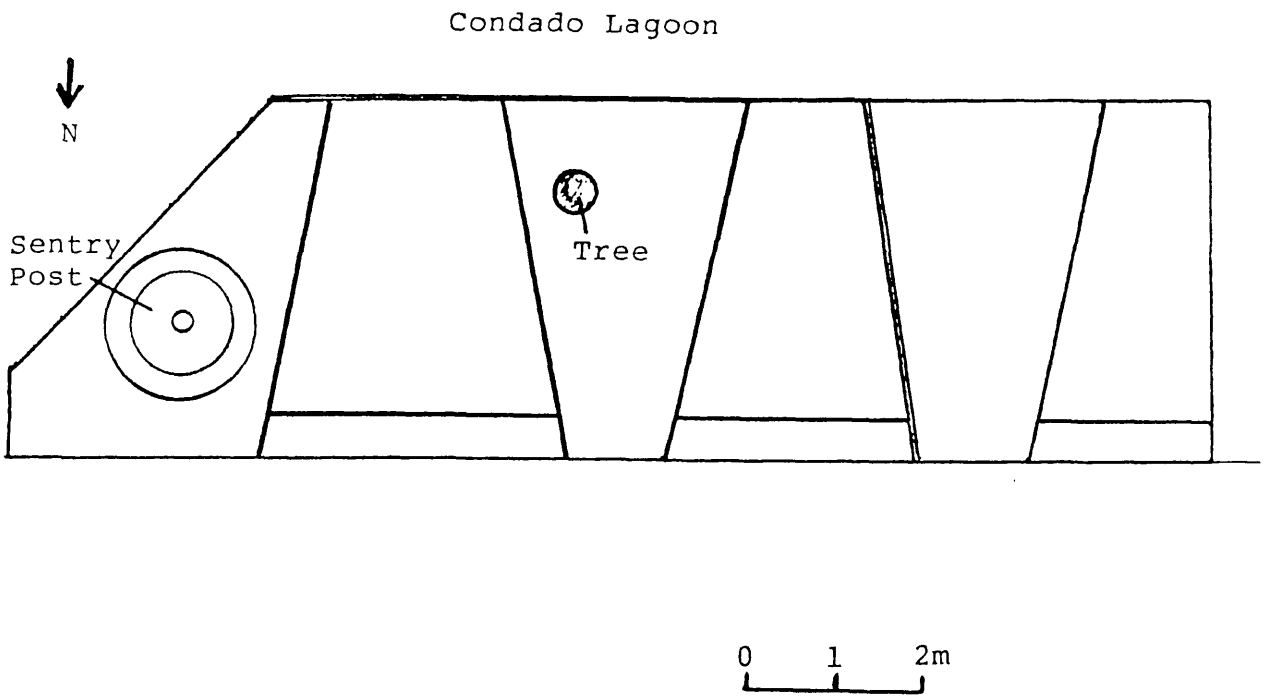
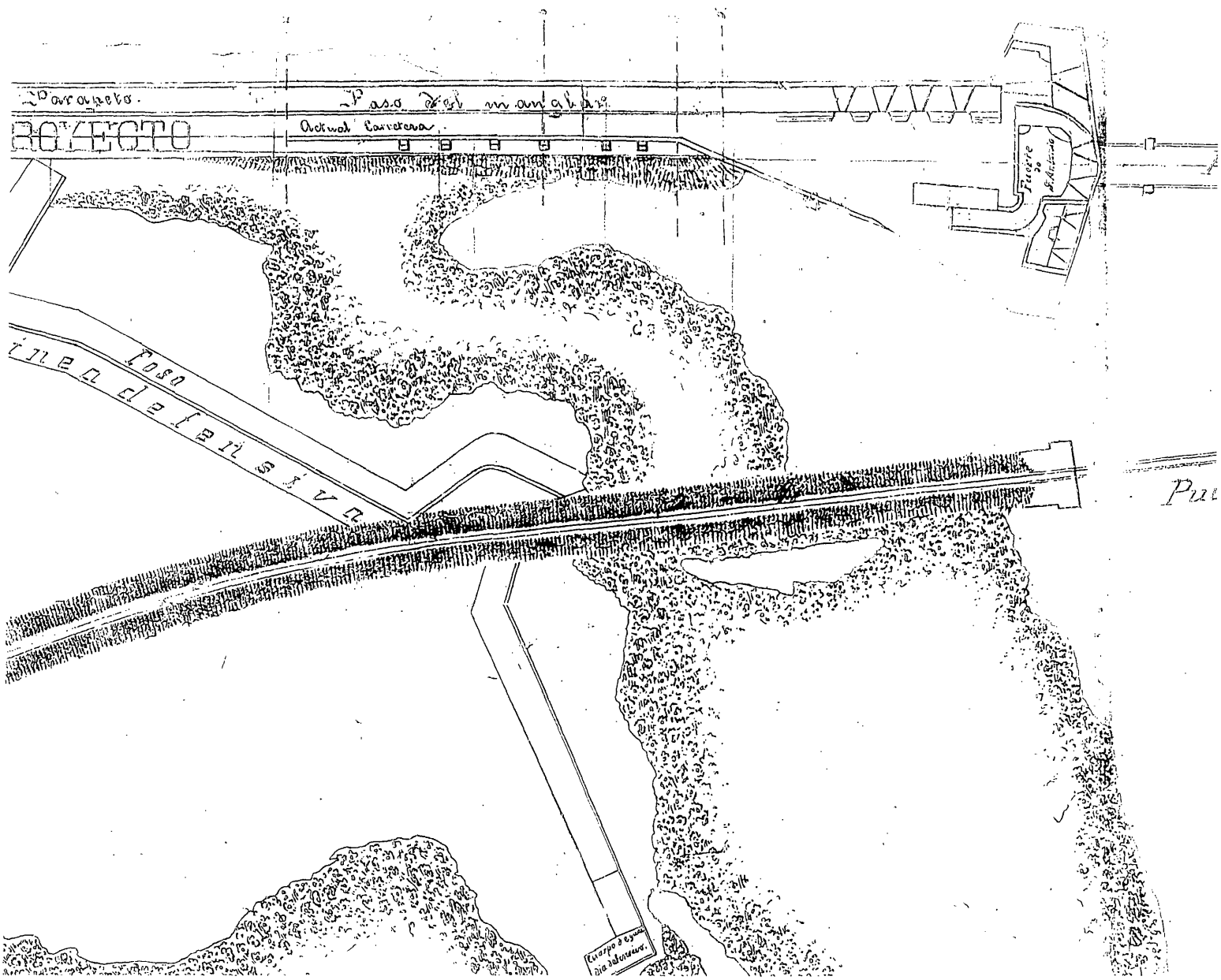
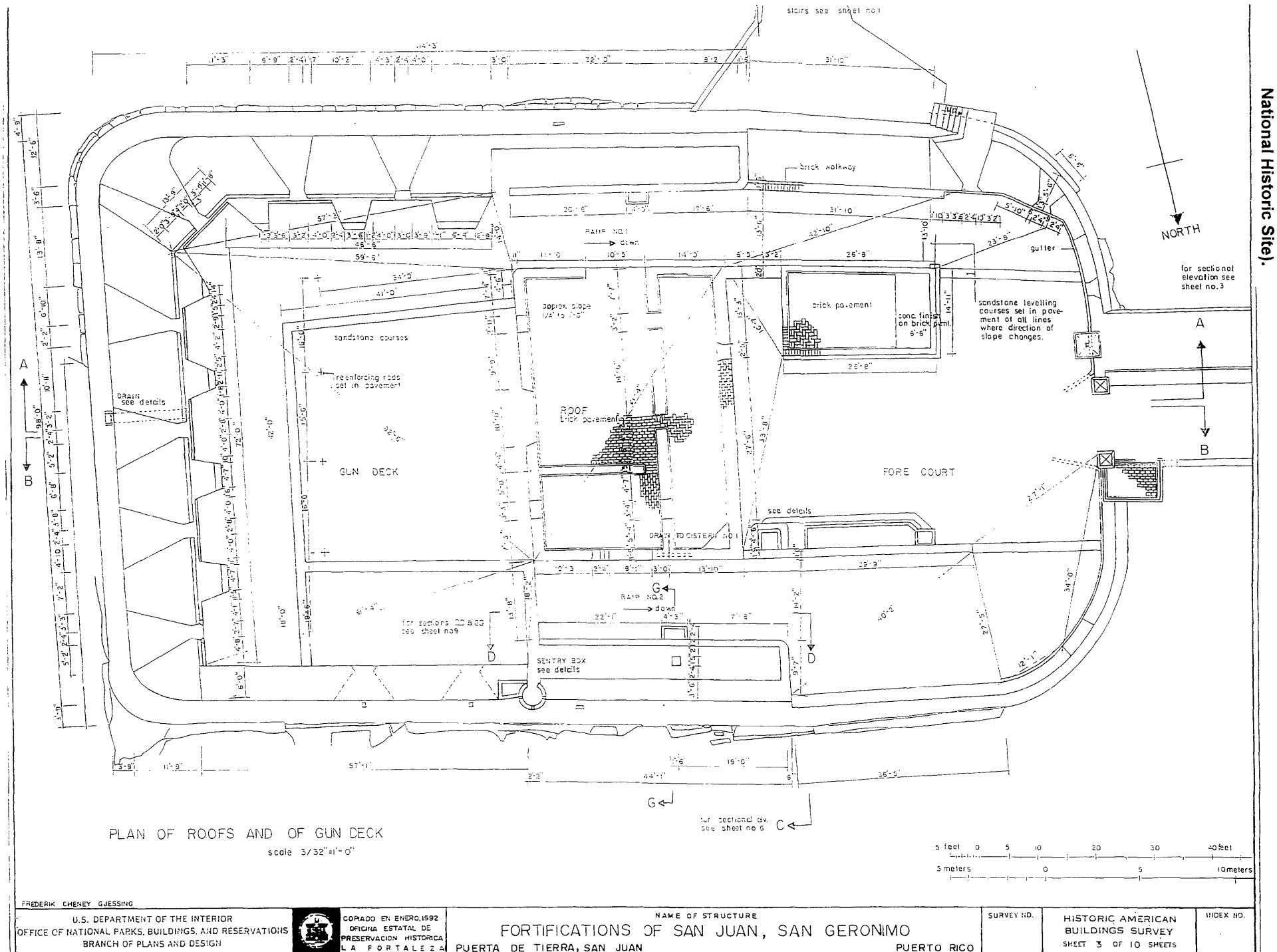


Figure 28. Advanced Defense Line, San Juan, P.R. Bridgehead San Antonio (Fuerte San Antonio) in 1886. (General Archives of Puerto Rico, Public Works, Roads, Box 2106, Document 1a).





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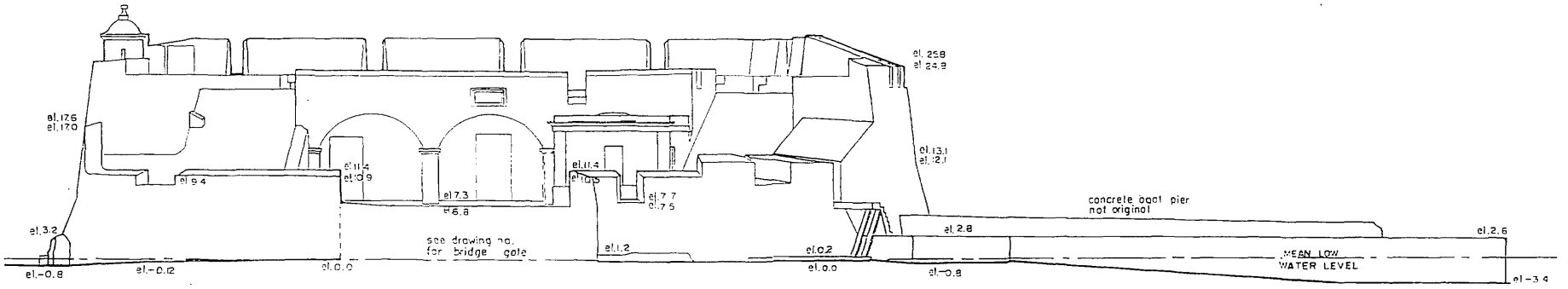
U.S. DEPARTMENT OF THE INTERIOR OFFICE OF NATIONAL PARKS, BUILDINGS, AND RESERVATIONS BRANCH OF PLANS AND DESIGN	COPIADO EN ENERO, 1992 OFICINA ESTATAL DE PRESERVACION HISTORICA LA FORTALEZA	NAME OF STRUCTURE FORTIFICATIONS OF SAN JUAN, SAN GERONIMO PUERTA DE TIERRA, SAN JUAN PUERTO RICO	SURVEY NO.	HISTORIC AMERICAN BUILDINGS SURVEY SHEET 3 OF 10 SHEETS	INDEX NO.

Figure 29. Advanced Defense Line, San Juan. P.R. Reproduction of HAER Redoubt San Gerónimo Plan of Roof and Gun Deck (Courtesy of Military Architecture Archives, San Juan National Historic Site).

Figure 30. Advanced Defense Line, San Juan, P.R. . Reproduction of HAER Redoubt San Gerónimo Drawings West and South Elevation (Courtesy of Military Architecture Archives, San Juan National Historic Site).



WEST ELEVATION

NOTE:

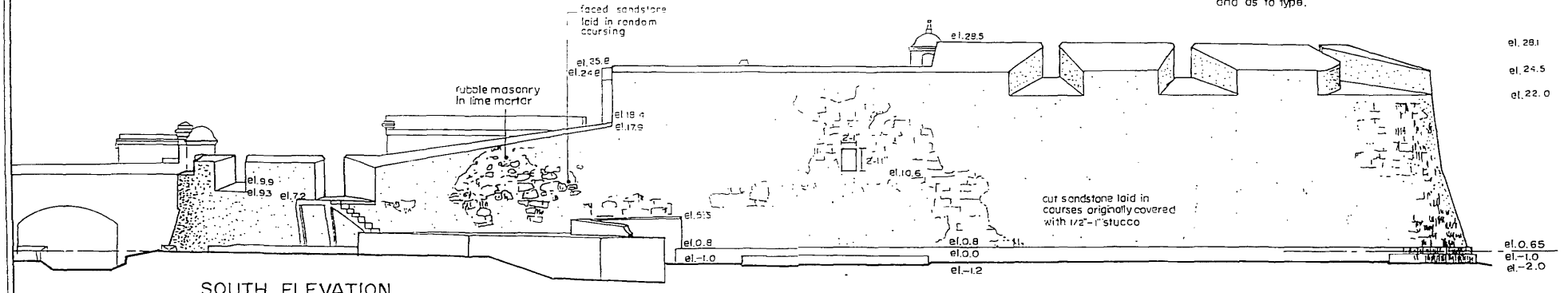
all drawings in scale 3/32"=1'-0".

elevations in feet above mean low water.

west & east elevations are projections on planes parallel to the east wall.

south & north elevations are projections on planes perpendicular to the east wall.

masonry where indicated is faithfully reproduced as to number of courses and as to type.



SOUTH ELEVATION

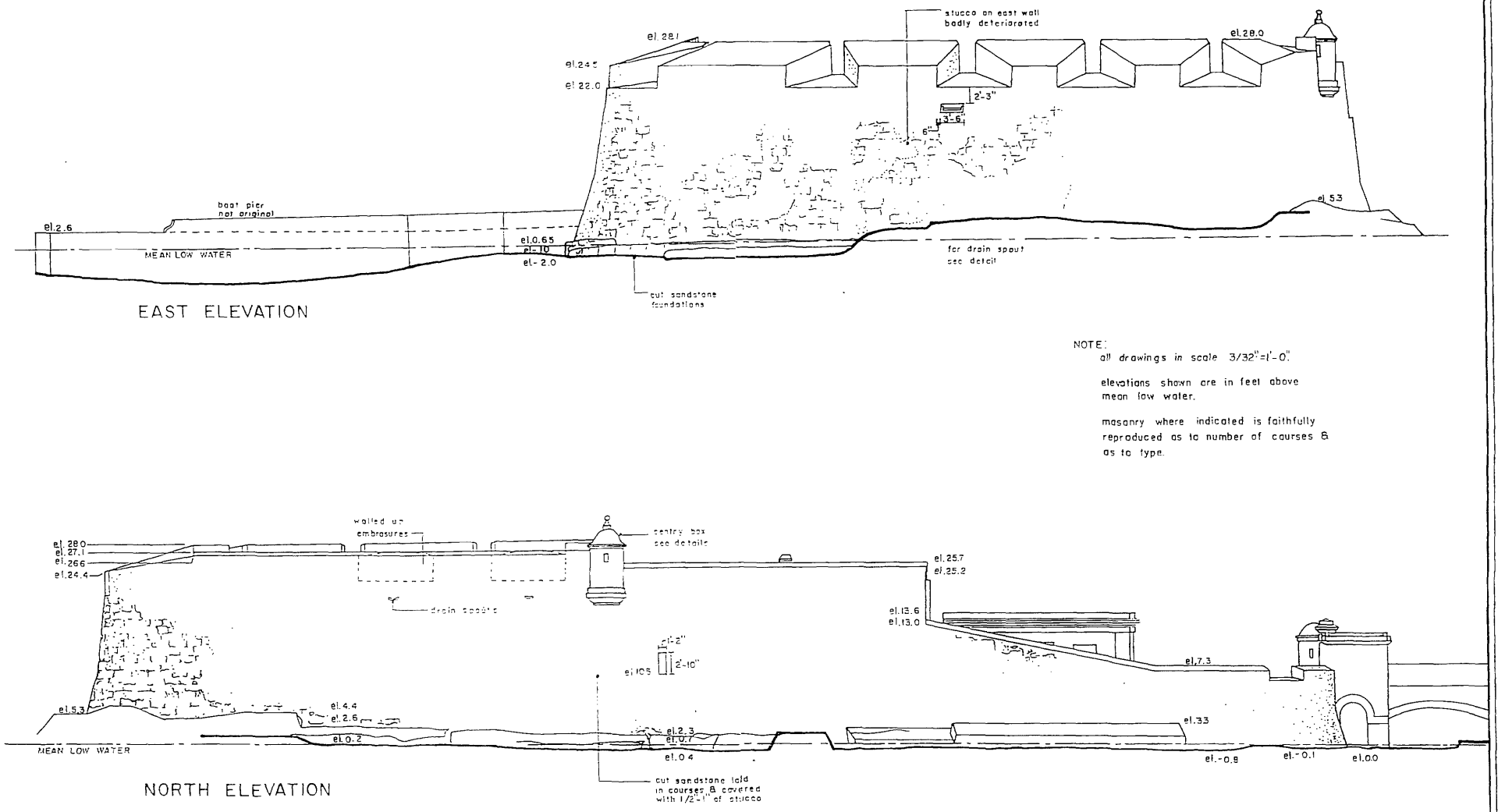
5 feet 0 5 10 20 30 40 feet

5 meters 0 5 10 meters

LUIS H. PEREZ CINTRON

U.S. DEPARTMENT OF THE INTERIOR OFFICE OF NATIONAL PARKS, BUILDINGS, AND RESERVATIONS BRANCH OF PLANS AND DESIGN	COPIADO EN ENERO, 1992 OFICINA ESTATAL DE PRESERVACION HISTORICA LA FORTALEZA	NAME OF STRUCTURE FORTIFICATIONS OF SAN JUAN, SAN GERONIMO PUERTA DE TIERRA, SAN JUAN PUERTO RICO	SURVEY NO.	HISTORIC AMERICAN BUILDINGS SURVEY SHEET 4 OF 10 SHEETS	INDEX NO.

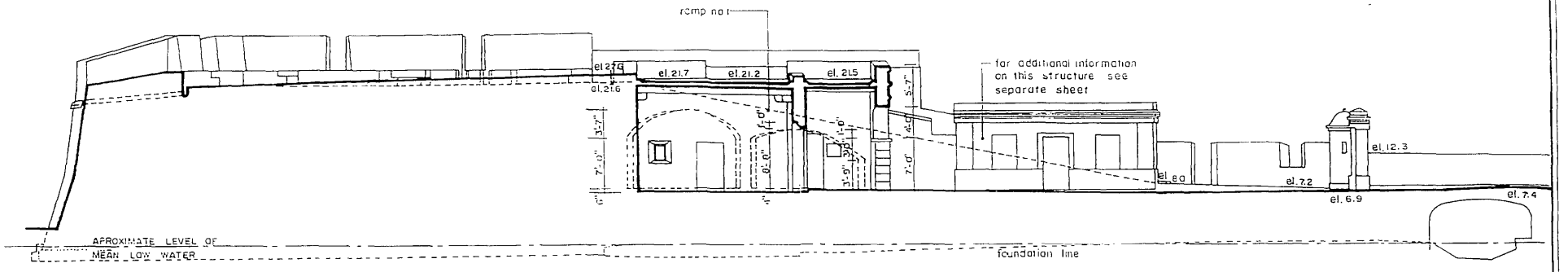
Figure 31. Advanced Defense Line, San Juan, P.R. Reproduction of HAER Redoubt San Gerónimo Drawings East and North Elevations (Courtesy of Military Architecture Archives, San Juan National Historic Site).



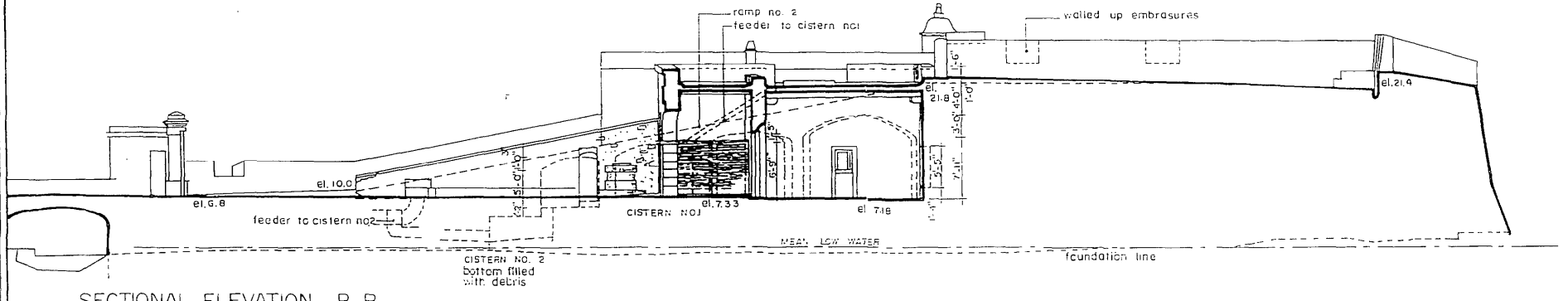
FREDERIK CHENEY GJESSING

U.S. DEPARTMENT OF THE INTERIOR OFFICE OF NATIONAL PARKS, BUILDINGS, AND RESERVATIONS BRANCH OF PLANS AND DESIGN	COPIADO EN ENERO, 1992 OFICINA ESTATAL DE PRESERVACION HISTORICA LA FORTALEZA	NAME OF STRUCTURE FORTIFICATIONS OF SAN JUAN, SAN GERONIMO PUERTA DE TIERRA, SAN JUAN, PUERTO RICO	SURVEY NO.	HISTORIC AMERICAN BUILDINGS SURVEY SHEET 5 OF 10 SHEETS	INDEX NO.

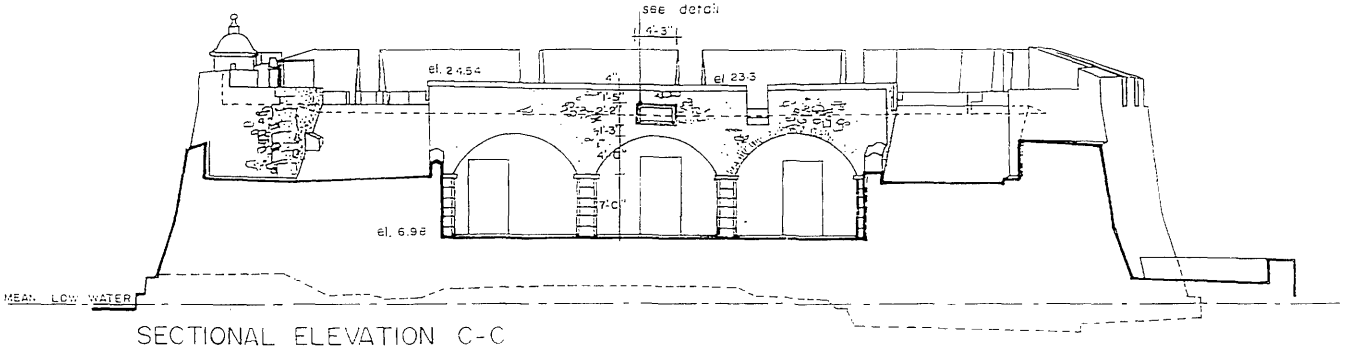
Figure 32. Advanced Defense Line, San Juan, P.R. Reproduction of HAER Redoubt San Gerónimo Drawings Sectional Elevations A-A, B-B and C-C. (Courtesy of Military Architecture Archives, San Juan National Historic Site).



SECTIONAL ELEVATION A-A



SECTIONAL ELEVATION B-B



SECTIONAL ELEVATION C-C

NOTE:
all drawing in scale 3/32" = 1'-0"

masonry where indicated is faithfully reproduced in these drawings.

elevations in feet above mean low water.

5 0 5 10 20 30 40 feet
5 meters 0 5 10 meters

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OFICINA ESTATAL DE PRESERVACION HISTORICA
LA FORTALEZA

NAME OF STRUCTURE
FORTIFICATIONS OF SAN JUAN, SAN GERONIMO
PUERTA DE TIERRA, SAN JUAN PUERTO RICO

SURVEY NO.

HISTORIC AMERICAN BUILDINGS SURVEY
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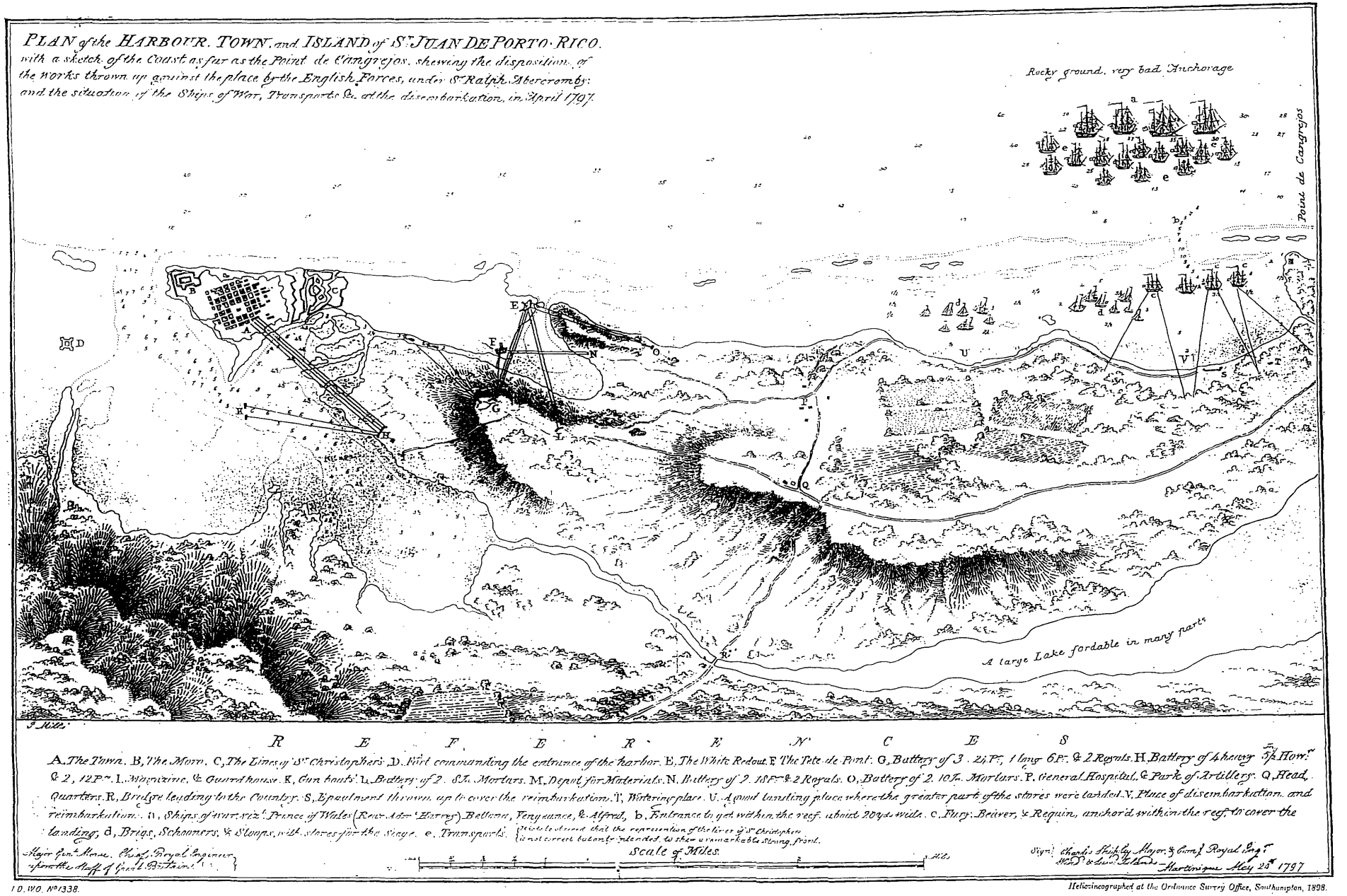
Figure 40. Advanced Defense Line, San Juan, P.R. Map prepared by the British on 1797 attack. Taken from The Eighteenth Century Caribbean & the British Attack on Puerto Rico, reproduced with permission of the British Museum, London. (Courtesy of Military Architecture Archive, National Park Service, San Juan, Puerto Rico).



I.D.W.O. No 1338.

Heliozincographed at the Ordnance Survey Office, Southampton, 1898.

Figure 41. Advanced Defense Line, San Juan, P.R. Painting of 18th century Puerto Rican painter José Campeche depicting the 1797 British Attack.

1 CASTILLO DE SAN CRISTOBAL
2 PUERTA DEL ABANICO
3 PUERTA DE SANTIAGO
4 BALUARTE DE SANTIAGO
5 BALUARTE DE SN PEDRO
6 BATA DE SAN FRANCISCO DE PAULA
7 BALUARTE DE LA PALMA
8 PUERTA DE SAN GERONIMO
9 PUERTA DE SAN ANTONIO
10 BATA Y POLVORIN DE MIRAFLORES
11 FUEZAS SUTILES (CAÑONEROS)
12 ID ID ID
13 BUQUES DE LA ESCUADRA INGLESA
14 BATA DE LAS FUERZAS INGLESAS DE DESEMBARCO EN EL CONDADO
15 BATA DE LAS FUERZAS INGLESAS DE DESEMBARCO EN EL OLIMPO