

San Juan

The Forts of Old San Juan

San Juan National Historic Site
Puerto Rico

National Park Service
U.S. Department of the Interior



Guardian of the Spanish Main

The 400-year-old castles and battlements that encircle Old San Juan are protected today as part of San Juan National Historic Site. Begun by Spanish troops in the 16th century, these massive masonry defenses are the oldest European-style fortifications within the territory of the United States. The silent bastions and batteries are constant reminders of Spain's historic power in the New World.

In the 50 years after Columbus discovered the island of Puerto Rico in 1493, Spain built a vast and lucrative New World empire that helped it become the leading European power of the day. The conquests of Mexico and Peru provided the Spanish treasury with dependable sources of great wealth in precious gems, gold, and silver. To assure safe delivery of these riches, Spain sent two armed ship convoys to the New World each year,

entering the eastern Caribbean Sea near Puerto Rico. One convoy took on Mexican gold and silver and Philippine merchandise at Vera Cruz; the other picked up pearls at Cartagena and Peruvian treasure at Portobelo on the Isthmus of Panama. The two fleets met at Havana for the voyage back to Spain past the shores of Florida.

To these treasure ships, the Caribbean Sea was a vital passageway. It was also a dangerous maze of islands with few harbors of refuge. Spain claimed the Caribbean as its exclusive territory by right of conquest and papal dispensation, but its authority was constantly being challenged by pirates and by traditional European enemies—England, France, and Holland, whose roving corsairs regularly attacked Spanish shipping and towns. To safeguard New World possessions and maintain its trade monopoly,



Sir Francis Drake (left) provoked Spain's King Philip II (right) into



building up San Juan's harbor defenses. Drake put San Juan through

its baptism of fire when he attacked a small fleet of Spanish frigates anchored in the harbor on the night of November 23, 1595 (above).

Spain built massive fortifications at key harbors in the Caribbean and the Gulf of Mexico. The most critical strategic location on the island of Puerto Rico was San Juan harbor, which King Philip II called "the key to the Indies."

For the first 20 years after San Juan was established in 1521, the town's defenses consisted mainly of houses local settlers fortified to protect themselves against Carib Indian attacks. The most important of these was Casa Blanca, originally a small blockhouse built in 1525 as a home for the heirs of Juan Ponce de León, colonizer and first governor of Puerto Rico. Another stronghold, La Fortaleza, was completed in 1540 overlooking the anchorage in San Juan Bay. It was so poorly located, however, that the Spanish historian Gonzalo Fernández de Oviedo complained that "only blind men could have chosen such a site for a fort."

The first effective fortification designed to defend San Juan harbor was a round masonry tower built in the 1540s on the rocky headland (*el morro*) at the east side of the harbor entrance. It only had room for four cannon. The water battery, a semicircular platform for three guns, was later constructed over the rocks at the foot of the slope below the tower. In 1591, after an increase in enemy raids on Spanish ships and settlements in the Caribbean, a "hornwork" (so-called because the fortification resembled the horns of a bull) was built from north to south across the promontory above the tower to protect the headland against land attack. For the first time El Morro began to take on the aspects of a proper citadel.

El Cañuelo
This masonry fortification, San Juan de la Cruz (St. John of the Cross), is usually called El Cañuelo because it stands close to the main channel into San Juan Harbor (below). A circular, wooden stockade defended this site in the 16th century, but Dutch attackers burned it in 1625. This stone fort was built in the 1660s to help El Morro defend the harbor entrance and mouth of the Bayamón River, which linked San Juan to inland settlements.



Old San Juan, founded in 1521, stands on the western end of a rugged, rocky islet that is bordered on the north by the Atlantic and on the south and west by a vast and graceful bay. On the eastern side, historic San Antonio Bridge joins the islet to the mainland of Puerto Rico.

framed by a formidable ring of walls and castles. A combination of old houses and modern buildings imparts variety to the cityscape, and gives San Juan its colorful and picturesque character. It is a city with a proud and rich heritage, tempered by ancient calamities of war, pirate attacks, earthquakes, and hurricanes.

Juan—cobblestone paving, inner patios and courtyards, overhanging balconies, and religious shrines. The city's most impressive features are the old castles and fortifications, which both provided defense and restricted its growth. Now part of the national historic site, they include the castles of El Morro and San Cristóbal, El Cañuelo fort, and most of the city walls.

Col. Thomas O'Daly, an Irish-born engineer, was largely responsible for creating the San Juan fortifications that stand here today. No

portrait of O'Daly exists, and this symbolic figure wearing the uniform of chief engineer honors his contributions to the city's history.

The Soldier's Fare
San Juan's soldiers and settlers grew food on small plots inside the great walls. Plátanos, a banana from Africa,

and such West Indian crops as sweet potatoes, pumpkin, yucca, malanga, and yautia, supplemented regular military rations.



Spain in the Caribbean, 1500s-1700s

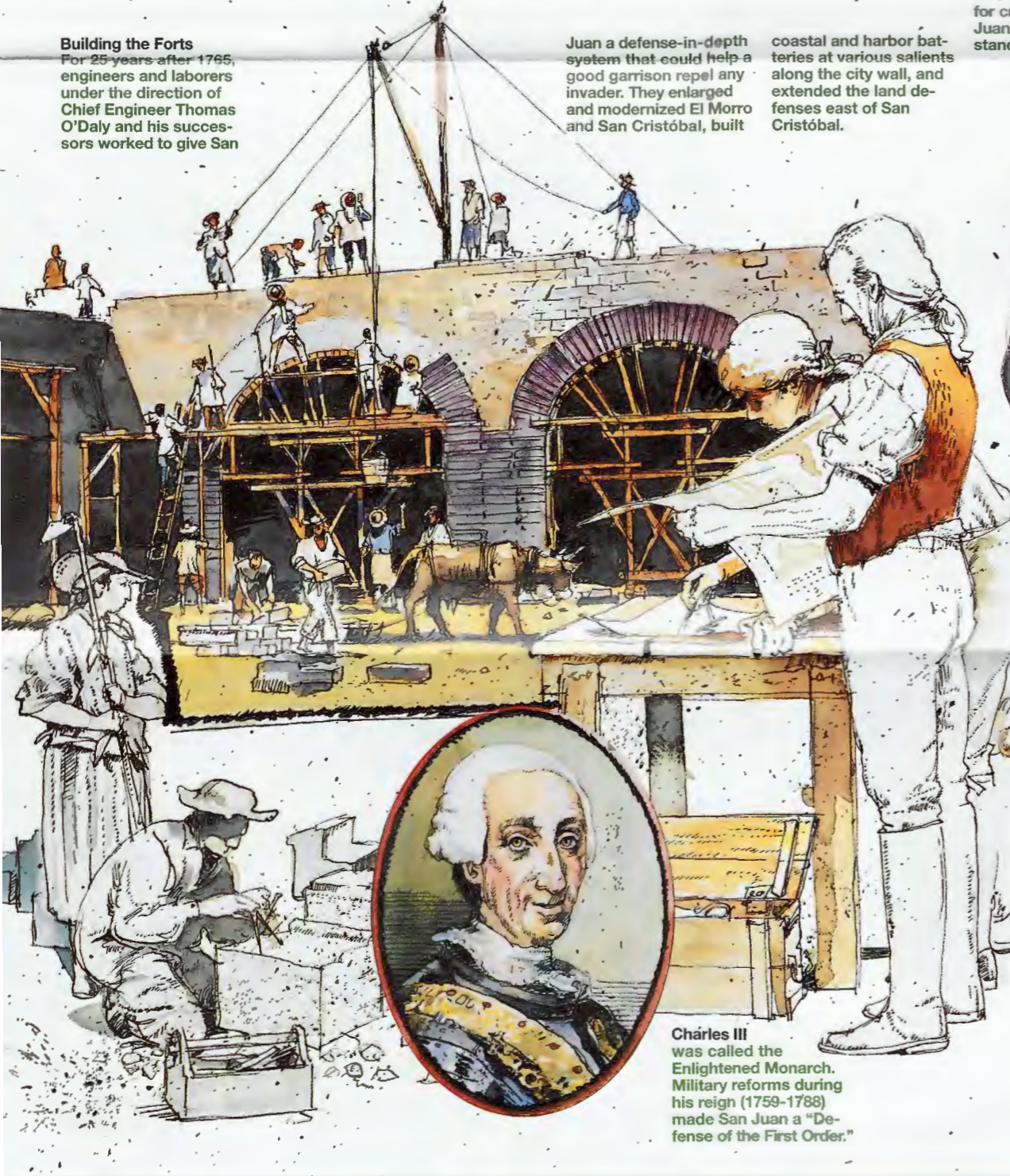
The colonial city shows its best side from the harbor. Built on natural slopes, the crowded clusters of buildings take the form of a great amphitheater

The face of colonial Spain, undisturbed by modern innovations, can still be seen in the streets of San

Building the Forts
For 25 years after 1755, engineers and laborers worked under the direction of Chief Engineer Thomas O'Daly and his successors to give San

Juan a defense-in-depth system that could help a good garrison repel any invader. They enlarged and modernized El Morro and San Cristóbal, built

coastal and harbor batteries at various salients along the city wall, and extended the land defenses east of San Cristóbal.



Charles III was called the Enlightened Monarch. Military reforms during his reign (1759-1788) made San Juan a "Defense of the First Order."

"A Defense of the First Order"

Like many other fortified ports of the Spanish Main, San Juan served a strategic rather than a commercial purpose. It was not a major link in the convoy system; the fabled treasure fleets usually did not stop here on their way to Central and South America. San Juan's fortifications, however, did keep the port and the island from becoming an enemy base for raids upon Spanish settlements and trade.

Three years later another Englishman, the Earl of Cumberland, successfully besieged El Morro and captured Gov. Antonio de Mosquera. After a brief occupation, an epidemic of dysentery forced Cumberland to abandon his plans to make San Juan a permanent English station in the West Indies. A new governor, Alonso de Mercado, arrived from Spain with fresh troops to repair the defenses. Most important, El Morro's hornwork was rebuilt stronger than ever, and behind its walls a broad new gun deck overlooked the harbor channel.

invaders. Before sailing away the Dutch sacked and burned the city, including La Fortaleza, which had become the official residence of the governors of Puerto Rico. The Dutch attack, and the occupation of many islands in the Lesser Antilles by the English, French, and Dutch, spurred

the building of new defense lines in San Juan. Beginning in the early 1630s and continuing intermittently for the next 150 years, engineers and workers labored to raise massive walls, some of them 50 feet high, around the city. About 1634, on a promontory about a mile east of El

Morro, they built a redoubt called San Cristóbal. By 1678, as the city walls enclosed the redoubt, San Cristóbal began to take on something of its present design.

No new major defense works were undertaken in Puerto Rico until after the Seven Years War (1756-1763), a worldwide conflict that virtually eliminated France from the Americas and left Spain and Great Britain holding most of the territory in the Western Hemisphere.

With an eye to protecting his holdings in the Caribbean from the potent threat of British attack, King Charles III, who had come to the Spanish throne in 1759, resolved to make San Juan a "Defense of the First Order." He ordered two Irishmen—Field Marshal Alexander O'Reilly and Chief Engineer Thomas O'Daly—to take on the job. In 1765 these officers, who held Spanish military commis-

sions, started to transform San Juan into one of the most powerful strongholds in the Americas. By the end of the 1780s, O'Daly and his military engineers had made El Morro what it is today. They also completed the wall around the city and expanded San Cristóbal by digging its deep dry moat and erecting immense outworks. The largest fortress built by Spain in the Americas, San Cristóbal mounted more than 450 cannon. These formidable land defenses helped Gov. Ramón de Castro's soldiers repulse Sir Ralph Abercromby's 7,000-man British army when it besieged San Juan in 1797.

During the 1800s, most of Spain's New World colonies revolted and gained their independence. By the 1890s only Cuba and Puerto Rico remained as remnants of the former far-flung Spanish empire in the Americas. When a revolution in Cuba sparked the Spanish-American War, a U.S. naval flotilla under Adm. William T. Sampson bombarded San Juan on May 12, 1898. (Sampson was trying to find the main Spanish war fleet under Adm. Pascual Cervera y Topete.) No great damage was done, nor was there any more United States military action against the city. In July 1898, Gen. Nelson Miles landed American troops on the southern coasts of Puerto Rico. An armistice with Spain was signed as his soldiers were advancing to the outskirts of San Juan. Spain's 400-year rule of the island came to an end on October 18, 1898, when the defenses of San Juan were formally turned over to the U.S. Army.

In World War I, Puerto Rico was an outpost for detecting and controlling hostile activities directed against the Panama Canal. Many of the old San Juan bunkers and batteries were adapted to 20th century military use. El Morro was converted into part of the sprawling administrative, housing, and hospital complex known as Fort Brooke. During World War II, the U.S. Army added coastal defense observation posts and hidden command and communications centers in both El Morro and San Cristóbal. These blocky concrete additions can still be seen.

Today, San Juan National Historic Site is managed and protected by the National Park Service. These weathered battlements, so important in protecting Puerto Rico from enemy occupation, are landmarks in the cultural and historical heritage of the island.



Old San Juan about 1625, A Dutch engraving

The Forts of Old San Juan



El Morro from the harbor entrance



The courtyard or plaza at San Cristóbal



A section of the city walls



El Cañuelo

El Morro: From Tower to Fortress

The name of this massive fortification is *Castillo de San Felipe del Morro*, which means "Castle of St. Philip of the Headland." Named for the patron saint of Spain's King Philip II (1556-1598), it is the oldest of the two great forts that anchored the sea and landward defenses of San Juan. Bautista Antonelli, a prominent Italian engineer in the service of Philip II, contributed the first design concepts in the 16th century. The way El Morro looks today is largely the work of Thomas O'Daly, a Spanish military engineer born in Ireland. The fort attained its present form late in the 18th century.

The earliest military structure placed on this headland was a round tower made of stone and resembling the chess piece known as a "rook" or "castle." Built in 1539-40, it once stood as the only defensive structure protecting the entrance to San Juan harbor. The tower, which was so small it could only mount four cannon, is still there today, but it has been incorporated into El Morro's Santa Bárbara Bastion and can be seen only from within. When the U.S. Navy bombarded San Juan in 1898, a shell penetrated El Morro and lodged in the tower's wall. Fragments of that shell are still visible in the wall, tangible reminders of the Spanish-American War in Puerto Rico.

El Morro evolved into its present shape between 1539 and 1786. From the ancient gun platform (the water battery) washed by the Atlantic, this huge, six-tiered pile of sandstone sweeps upward 145 feet to the broad, windswept ramparts that crown the promontory and anchor the corners of the land defenses—the Ochoa and Austria Bastions. They are connected by a curtain wall through which a Sally port allows entry to the fortress. Cannon mounted on the bastions and atop the curtain wall could cover the land approach, as well as that from the sea. Storerooms, gunrooms, troop quarters, chapel, and prison surround a large courtyard or assembly plaza. Huge cisterns lie beneath. Ramps, tunnels, and stairways offer

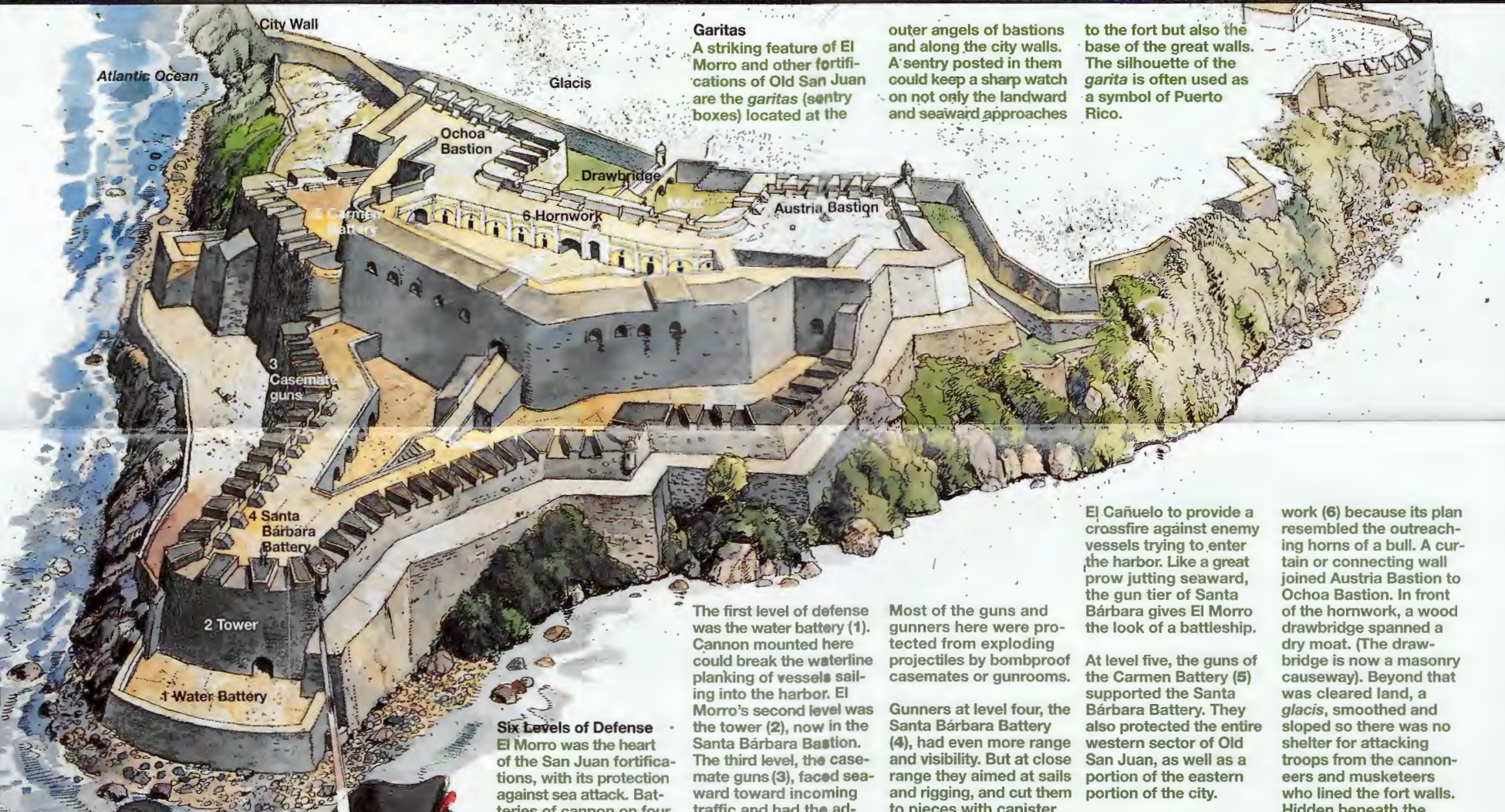
access to the different parts of the fort. El Morro is the chief tourist attraction of Old San Juan.

Approaching El Morro from the landward side, you quickly notice that the fort is set very low in the ground, a marked contrast to its dramatic appearance from the ocean side. Such a low fort profile is typical of good military construction of the 16th to 18th centuries, when fortresses were designed to offer as small a target as possible to besiegers' cannon. By digging a dry moat along the entire length of the landward side of El Morro, the main wall could be sunk low in the ground and still maintain considerable height from base to parapet. This effectively frustrates any attempts to scale the walls. The moat itself is yet another obstacle, which any attacker would have to overcome to take the fort.

Three lighthouses have stood on El Morro's sixth level. The first one was constructed in 1846. A second lighthouse replaced it in 1876, and the third in 1899-1900. The El Morro lighthouse took a direct hit during the Spanish-American War bombardment, but the brick foundation was salvaged and used to erect the lighthouse in use here today. This aid to navigation still serves to help ships entering San Juan harbor, one of the busiest ports in the Caribbean.



El Morro in 1595



Garitas
A striking feature of El Morro and other fortifications of Old San Juan are the *garitas* (sentry boxes) located at the

outer angles of bastions and along the city walls. A sentry posted in them could keep a sharp watch on not only the landward and seaward approaches

to the fort but also the base of the great walls. The silhouette of the *garita* is often used as a symbol of Puerto Rico.

Six Levels of Defense
El Morro was the heart of the San Juan fortifications, with its protection against sea attack. Batteries of cannon on four of six levels were deadly deterrents to any enemy warships trying to enter San Juan Bay. The sixth level provided defense against land attack.

The first level of defense was the water battery (1). Cannon mounted here could break the waterline planking of vessels sailing into the harbor. El Morro's second level was the tower (2), now in the Santa Bárbara Bastion. The third level, the casemate guns (3), faced seaward toward incoming traffic and had the advantages of range and visibility over ships' cannon. Gunners here would try for hull and deck damage; with luck they might cut a mast or two.

Most of the guns and gunners here were protected from exploding projectiles by bombproof casemates or gunrooms.

At level five, the guns of the Carmen Battery (5) supported the Santa Bárbara Battery. They also protected the entire western sector of Old San Juan, as well as a portion of the eastern portion of the city.

El Cañuelo to provide a crossfire against enemy vessels trying to enter the harbor. Like a great prow jutting seaward, the gun tier of Santa Bárbara gives El Morro the look of a battleship. Named after the patron saint of artillerymen, this was the largest harbor battery. It was designed to work with the guns of

San Cristóbal: Defense in Depth

Here, as at El Morro, the military engineers placed their fortification on high ground provided by nature. *Castillo de San Cristóbal*, or "St. Christopher Castle," was named in the 17th century for the large hill on which it is built. Rising nearly 150 feet above sea level on the northeast edge of old San Juan about a mile from El Morro, it is the largest of San Juan's forts.

Unlike El Morro, whose main job was to prevent enemy ships from entering the harbor, San Cristóbal protected the land approaches to San Juan from the east. This massive fortification was first tested in battle in 1797, when Sir Ralph Abercromby's 7,000 British troops unsuccessfully attacked the city. A hundred years later, in 1898, Spanish troops fired the first shot of

the Spanish-American War in Puerto Rico from one of San Cristóbal's gun batteries that faced north toward the Atlantic.

The need to protect land approaches to San Juan was first shown when the Earl of Cumberland's English troops swept through the city in 1598 on their way to El Morro. The Dutch attack of 1625 confirmed the need. In 1634 San Cristóbal was begun as a small triangular-shaped redoubt. As many as 400 men a day—some day laborers, some convicts, some soldiers of the Toledo Regiment, and some slaves—worked feverishly to enclose all of San Juan behind a fortified wall.

By the time it was completed in the mid-1780s, San Cristóbal had grown

into a network of interdependent fortifications covering about 27 acres of land. It remains a spectacular example of the "defense-in-depth" principle. Defense-in-depth means, simply, that each part of a fort is supported by one or more other parts. If a fort has a single barrier and the enemy breaks through it, its defense is broken. But if a fort has several barriers, each higher and stronger than the one in front of it, and the enemy captures one of them, the attacker can still be driven out by fire from the barriers behind it.

The main part of San Cristóbal is a hornwork that essentially forms a continuation of the city walls. In front of the hornwork are the San Carlos Ravelin and the Trinidad Counter-guard, both surrounded by a deep,



dry moat. Beyond the moat is a sizable *plaza de armas* (open area) leading out to a strong, arrow-shaped fort called *El Abanico* (The Fan) because of its triangular shape. Seaward from *El Abanico* are Santa Teresa, an ocean battery, and La Princesa, whose guns could fire both to sea and land. These works, in whole or in part, are still standing today. Other vital parts of the San Cristóbal system—the east wall, the Santiago Ravelin fronting the Santiago Gate, and the Santiago Bastion on the southeastern corner of the city wall—were demolished when the city expanded in 1897.

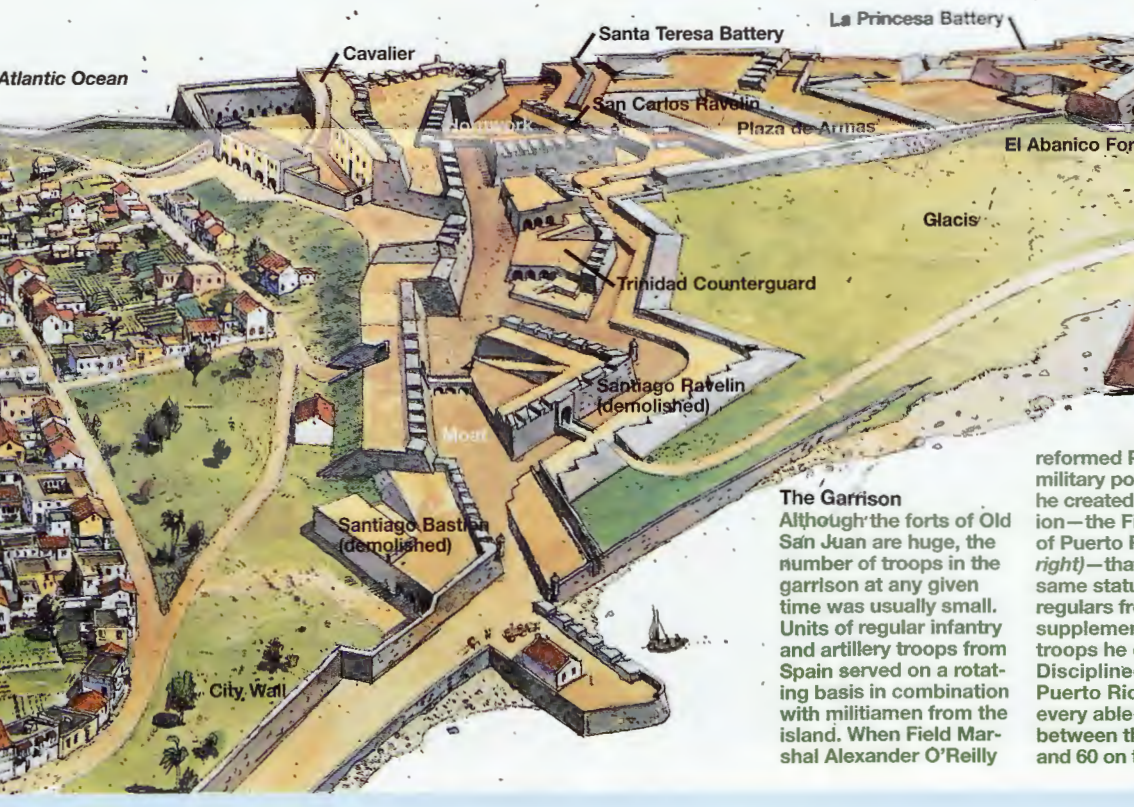
The highest part of San Cristóbal is the cavalier (*caballero*), a large gun platform built on top of the hornwork. Its formidable armament commands the eastern approaches. The tower-

ing height of the cavalier was made feasible only by following one of the most important rules in fort construction: protect the foundations from direct hits and an enemy cannot destroy the walls. The base of the cavalier was protected by the hornwork; the hornwork by the ravelin and counter-guard; and they in turn by the *plaza de armas*.

San Cristóbal took on its present shape after 1765, when Chief Engineer Thomas O'Daly started work that would make this fortress the backbone of an improved and enlarged defense system for San Juan. The project, the largest fortress built by Spain in the New World, was completed 20 years later under the direction of Juan Francisco Mestre, who became chief engineer following the

death of O'Daly in 1781. During the 19th century, Spanish officials modified San Cristóbal several times, as did the American troops who garrisoned San Juan in the years following the Spanish-American War. In 1942, following United States entry into World War II, American troops installed a harbor defense system of concrete bunkers and observation posts to update the 18th century defenses.

Although most of what we see today in San Cristóbal is the design of Engineers O'Daly and Mestre in the years 1765-1785, the fortress still retains visible elements of all its major stages of development from the 17th to the 20th century, a fascinating study of the evolution of military engineering.



The Garrison
Although the forts of Old San Juan are huge, the number of troops in the garrison at any given time was usually small. Units of regular infantry and artillery troops from Spain served on a rotating basis in combination with militiamen from the island. When Field Marshal Alexander O'Reilly reformed Puerto Rico's military posture in 1765, he created a new battalion—the Fixed Regiment of Puerto Rico (above right)—that was given the same status as a unit of regulars from Spain. To supplement the regular troops he created the Disciplined Militia of Puerto Rico, to which every able-bodied man between the ages of 15 and 60 on the island was eventually expected to belong. The militia included whites, mulattoes, and, in San Juan, free black men (above left). Both the Fixed Regiment and the Disciplined Militia helped drive the British army from the island during the 1797 invasion.

Countless hours of musket and cannon drills in the tropical sun kept the garrison of San Juan ready to repel attacks. Today the forts still fly the white flag with the Cross of Burgundy, the old military flag of the Spanish empire under which these soldiers served, a reminder of 400 years of Spanish heritage.

Visiting the Park

San Juan National Historic Site is made up of the Spanish-built forts of El Morro, San Cristóbal, and El Cañuelo, and the city walls. El Cañuelo is temporarily closed to visitors, but El Morro and San Cristóbal are open daily except December 25. A fee is charged.

Parking in the historic district is extremely limited. Vehicles are not permitted on the grounds of El Morro, so be sure to leave enough time to walk the 0.25-mile distance from Calle Norzagaray to the drawbridge. It is an easy stroll of about five minutes. The site is administered by the National Park Service, U.S. Department of the Interior.

More Information
Fort San Cristóbal
Norzagaray Street
Old San Juan, PR 00901
787-729-6777
www.nps.gov

Other Points of Interest

If you have time after you have seen El Morro and San Cristóbal, you will want to discover some of Old San Juan's other historic and cultural sites, a few of which are identified on the map at right. Because the historic streets are narrow and often congested by heavy traffic, we encourage you to explore by walking. It is the best and easiest way to get to know the city. Except for Fort San Gerónimo, located behind the Caribe Hilton in Puerta de Tierra, all sites are within easy walking distance of El Morro or San Cristóbal. Buses, trolleys, and taxis are available for those who want them.

Maps and detailed information about Old San Juan's many points of interest can be obtained at the tourist information centers near the cruise ship docks, the Alcaldía on Plaza de Armas, and Paseo de la Princesa.

- 1 Alcaldía** San Juan's city hall, built in 1602.
- 2 The Institute of Puerto Rican Culture** Preserves the history and culture of Puerto Rico.
- 3 Casa Blanca** Ancestral home of the Ponce de León family, now a museum of 16th- and 17th-century art and furnishings.
- 4 La Fortaleza** Oldest governor's mansion in continuous use in the New World, a part of the World Heritage Site.
- 5 San José Church** Built 1532-39, second oldest church in continuous use in the New World.
- 6 San Juan Cathedral** Built in 1540, burial site of Ponce de León.
- 7 San Juan Gate** The traditional entrance to Old San Juan.
- 8 Ballajá Barracks** Museum of the Americas highlights colorful folk art.
- 9 La Casa del Libro** Museum of the art and history of books through five centuries.



For Your Safety

Watch your step and your children as you explore the ramparts, stairways, and tunnels of the forts of Old San Juan. These ancient, weathered surfaces are rugged and uneven, and frequent passing tropical rain showers can make them wet and slippery. Good sturdy footwear will make your visit safer and more pleasant. The tropical sun is strong, and we urge you to bring and wear a hat during your day in Old San Juan.

Keep away from the edges of the steep walls. To prevent falls and injuries, keep your children from climbing on cannon ball pyramids and cannon. Food and drink are not permitted inside El Morro and San Cristóbal. Smoking is also prohibited. Pets must be leashed at all times on park lands, and they are not allowed inside the historic forts. Stow trash in receptacles.

A World Heritage Site

What do the Pyramids of Egypt and the Great Wall of China have in common with the forts of Old San Juan? Or the Alhambra in Spain or Chartres Cathedral in France? Or the Taj Mahal in India and Machu Picchu, the lost city of the Incas high in the Andes? All are monuments whose splendor enriches each of us, and all are World Heritage Sites, whose exceptional universal cultural value has been recognized by the international community. These World Heritage Sites have been pledged by their nations to be preserved and protected, with the assent and support of the entire community of nations, for future generations as the greatest treasures of humankind. Please help us safeguard this special place by treating it with care and respect.