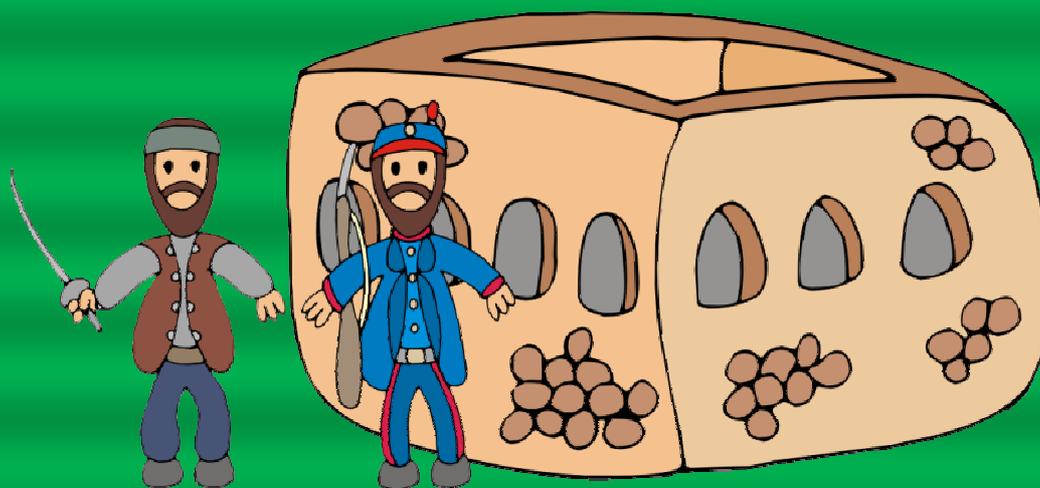


ATTACK ON CHRISTMAS FORT



fuertedenavidad
Cartagena

ATTACK ON CHRISTMAS FORT



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- a. TEACHER'S WORKBOOK
- b. POWER POINT

2. AFTER YOUR VISIT

- a. STUDENT'S WORKBOOK: ELEMENTARY AND HIGH SCHOOL

ATTACK ON CHRISTMAS FORT

TEACHER'S EDITION



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🌀 GOALS 🌀

1. Locate Christmas Fort in its environment.
2. Learn about the history of Christmas Fort.
3. Discover the defensive function of Cartagena's military batteries, including Christmas Fort.
4. Learn about and identify the different areas of the fort.
5. Understand what life was like for the soldiers who worked at Christmas Fort.
6. Learn and internalize vocabulary related to military batteries.
7. Enjoy and appreciate the cultural and natural environment of the city of Cartagena.

🌀 CONTENT 🌀

CONCEPTUAL

- Maps and layouts.
- Vocabulary related to military batteries.
- Function of military batteries.
- Areas of Christmas Fort.

PROCEDURAL

- Location of Christmas Fort on a layout or map.
- Knowledge of the general aspects of the history of Christmas Fort.
- Identification of the different areas of Christmas Fort on a layout or map.

ATTITUDE-RELATED

- Enjoyment and appreciation of the cultural and natural environment of the city of Cartagena.
- Empathy regarding the lifestyles of the soldiers who worked at Christmas Fort.

✧ GRADING CRITERIA ✧

1. Correct use of maps and layouts.
2. Knowledge of vocabulary related to military batteries.
3. Understanding of the function of military batteries.
4. Ability to identify and explain the different areas of Christmas Fort.
5. Ability to locate Christmas Fort on a layout or map.
6. Knowledge of the general aspects of the history of Christmas Fort.
7. Knowledge of and empathy regarding the lifestyles of soldiers during this period of history.
8. Enjoyment and appreciation of the cultural and natural environment of the city of Cartagena.

✧ INTERDISCIPLINARITY ✧

If we define interdisciplinarity as a dynamic methodological process by which the goal of study is approached comprehensively using all available educational materials, we can say that this activity, within a school framework and for any stage, cycle or educational level, is of an interdisciplinary nature.

Through this activity, teachers can incorporate various educational subjects, including:

Language. Due to the large amount of new vocabulary that can be acquired.

Math. Through work on information gathering, mapping location, etc.

Social and Natural Sciences. Through the history of Christmas Fort, its operation, studying the lifestyles of the period, etc.

Spanish. Thanks to audio guides in different languages available at the fort.

Arts Education. Due to the possibility of doing artistic projects related to Christmas Fort and its surroundings.

Physical Education. Through treasure hunts and movement activities inside and outside of Christmas Fort.

Doing these activities with our students from this interdisciplinary approach will result in intercommunication and mutual enrichment between the students, the various subjects and their teachers.

🌀 INTERDISCIPLINARY TEACHING SUGGESTIONS 🌀

Physical Education

Hiking, walking...

Arts Education

Shoe box dioramas, pencil drawing, flags, nineteenth century uniforms, cannons, architectural elements such as: arches, embrasures, spiral staircases...

Math

Measure a cannon with hands, a room with steps and drawing the plan to scale. Calculate the area of the various geometric shapes on the front door...

Technology

Power of cannons, bullets.... Speed of the cannon rails, rings, bayonet rifle...

Language

Writing workshop, new vocabulary based on life in the barracks and theatre with a play about pirates and soldiers...

Music

Listen to the music of military marches plus characteristics; identify the sound of the trumpet...

Health Education

All the elements that influence health related to life in a fort or garrison at different times and under different conditions at Christmas Fort.

Natural Science

Identify local plants, animals,... See natural resources for the survival of the region.

🌀 ABOUT THE COASTAL DEFENSES OF CARTAGENA AND CHRISTMAS FORT 🌀

I. COASTAL DEFENSES OF CARTAGENA. BRIEF HISTORY OF CARTAGENA AND ITS DEFENSIVE SYSTEMS

The port of Cartagena is a large bay surrounded by mountains that make it an excellent refuge for protection from strong winds and storms. It is accessed through a narrow estuary.

Cartagena and its port have been a prized and disputed strategic and economic point since antiquity; as such it has been under possession and control of many civilizations and peoples: Carthaginians, Romans, Byzantines, Visigoths, Muslims, Castilians, the English...To prevent, resist and defeat enemy attacks and raids, towers, walls and fortifications were built at strategic locations.

Over the course of centuries, changes that were happening in science and military technology led to the evolution and adaption of these defensive structures to new requirements, such as the use of gunpowder, armour-plated ships, greater accuracy and destructive power of cannons, the development of aviation, etc.

There are excellent examples of these defences within Cartagena and along its coastline: the Punic Wall, the Castillo de la Concepción (Conception Castle), the Torre de Santa Elena (Santa Elena Tower) in Azohía, the Wall of Carlos III, the castles of La Atalaya (the Watchtower), Galeras, and Los Moros, Christmas Fort, the Castle of San Julian and numerous coastal batteries, such as Castillitos in Cabo Tiñoso or Cenizas in Portman.

In the late seventeenth century Cartagena was chosen as the wintering port of the Galeras in Spain, which is why strategic points were armed in the estuary: Trincabotijas and Santa Ana, Podadera and Navidad (Christmas).

In 1726 Cartagena became the capital of the Maritime Department of Levante (for the entire Mediterranean), at which point the arsenal, a large shipyard, the artillery, barracks and fortresses, the military hospital, and the wall were constructed. These brought with them an unprecedented gunner and defensive deployment on the coast.



Figs. 2 and 3 Torre de Santa Elena (La Azohía, 16th century) Atalaya Castle (18th century)

In the nineteenth century, at the height of the industrial and technological revolution, steam-powered vessels and the first battleships began to appear. Muzzle-loaded cannons were replaced by more powerful breech-loaded pieces and rifled barrels, resulting in quicker, more accurate and destructive firing. Christmas Fort was conceived and designed under the "Defence Plan of 1860", also known as the "O'Donnell Plan", and was completed by the end of the century.

Over time these defences were increasingly moved away from the city and its port, leading to the construction of the impressive Castillitos and Cenizas batteries in the 1930s which featured artillery pieces with a maximum range of 35 km.

By the late twentieth century classic defensive systems had long since become obsolete and completely outdated, so in 1994, under the Army's "North Plan" all coastal batteries were closed, leaving only a few of them with intact (Castillitos and Las Cenizas)

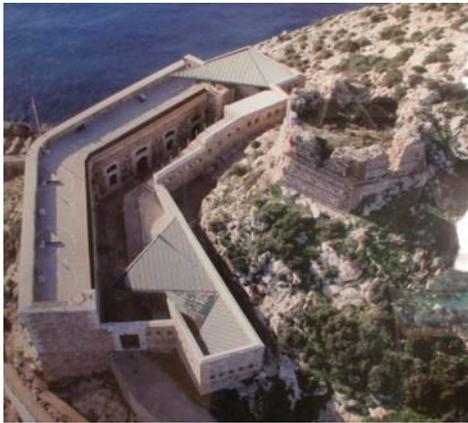


Fig. 4
Firing of a
cannon at
381mm.
(gunpowder
tests in
1992)

2. CHRISTMAS FORT

In the late seventeenth century a battery with an open-air space (rampart) was installed on which construction of Christmas Fort began in 1860. In 1914 it was conditioned as a saluting battery until it was disarmed and abandoned in 1941.

It is a large building made of stone (limestone blocks) and solid brick; it has a contoured layout that adapts to the hillside where it sits. It has two levels, the lower part consisting of 8 interconnected casemates and the terrace, equipped to install another 9 more pieces of artillery. Overall, Christmas Fort would be armed with 17 pieces.



Figs. 5 and 6 Christmas Fort, layout and facade after restoration.

Casemates

The eight casemates of Christmas Fort are interconnected; communication with the exterior is done through openings that served as ventilation to quickly eliminate the fumes that were produced after firing the cannon. Inside the connecting passageways between the casemates there were niches on both sides where gunpowder and bullets were stored.

To protect the casemates from the impact of projectiles there was a landfill over two meters thick over the vaults. This system is known as **bomb-proof vaults**.

The artillery of the casemates

In each casemate there was a cannon mounted on a carriage and rotating frame; a system of pulleys and ropes, the rigging, facilitated the movement of the piece on its frame so it could be loaded, aimed and fired. There were two stone arches on the floor on which iron rails were fixed to facilitate the movement of the cannon. The roof ring allowed the cannon to be moved up and down.



Fig. 7 Muzzle-loaded artillery piece, 19th century, in one of the casemates at C.F.

The piece installed today is an iron, muzzle-loading, smoothbore cannon from the early nineteenth century.

The crew/operators of an artillery piece in the nineteenth century

Until the early twentieth century the men who operated a piece of artillery had to work very hard to reposition the weapon after firing, load it, aim it and maintain an effective firing cadence. The loading crew would typically include:

- 1) The attacker or sponger had a long staff with sponge at one end and a wood rammer on the other. First he would wet the sponge and introduce it into the bore to extinguish any existing sparks and clean the gunpowder residue.
- 2) The loader was responsible for introducing the sacks of gunpowder and projectiles.

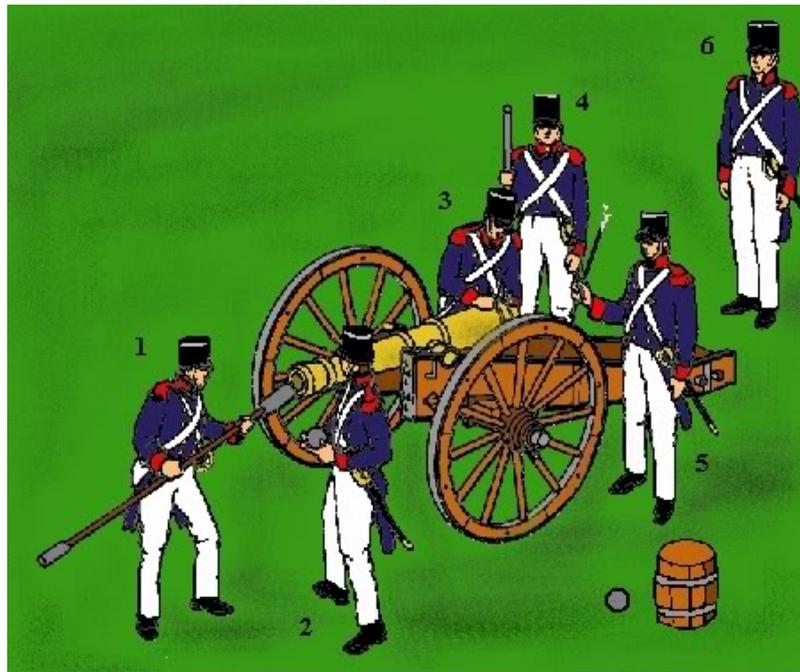


Fig. 8 Representation of the position and roles of the different crewmembers of a field cannon in the nineteenth century.

- 3) The cartridge operator, after the cannon had been loaded, would punch the cartridge thereby piercing the sachet and then he would place a fuse that was used to fire the cannon after lighting it.
- 4) Aides: using ropes, wedges, levers and pulleys, at least three would proceed to point the cannon in the direction and elevation. After each fire, there was strong recoil that caused the cannon to jump out of position, so it had to be repositioned.
- 5) The firer or foguero lit the cartridge and fired the piece using a pike that had a lit fuse on the end.
- 6) The aimer or head gunner was the oldest and most experienced gunner of the group. He gave instructions to reposition the piece, aim it and order it to be fired.

The Spanish army in the second half of the nineteenth century

The Armed Forces were deployed between the mainland and overseas territories (Cuba, Puerto Rico, the Philippines, North Africa and Equatorial Guinea).

The best-equipped army and that which suffered the most casualties was stationed overseas, immersed in continuing colonial wars. The main units on the Peninsula were located in major urban centres: it was an internal control army responsible for suppressing or carrying out frequent political insurrections and uprisings.

The civil society of the time was reflected in the army, and its hierarchical structure reproduced the social classes:

- The commanders and officers came from wealthy families with long military traditions.
- NCOs tended to come from poor families and reached this rank by seniority and merit of war.
- Soldiers were from poor homes that did not have the 1500 or 2000 pesetas needed to pay off the "fifths" draft for mandatory military service.

The uniform

They have been many different rules related to uniforms. In 1861 the "Uniform Rules" were approved, which specified that the gunners' uniform was to be made of blue cloth with two rows of 6 buttons and pants with a crimson stripe on the sides.



Fig. 9 Uniform of gunners in the late nineteenth century; model available on the terrace and in courtyard of Christmas Fort.

The gunner of 1870 carried a breech rifle with bayonet. Officers typically carried a gun and a sword.

The "Uniform Rules of 1943" did away with the uniform that worn only by the gunners, unifying the four ranks (infantry, cavalry, artillery and engineers) with khaki uniform currently in use.

Life in the fort

This soldiers of this quartering belonged to the artillery corps. A sergeant, a corporal and twelve soldiers was assigned to the fort in peacetime. In times of war the garrison could be increased to about 40 men.

The soldiers got up early at dawn; the reveille marked the start of the day. After they groomed themselves and put on their uniform, the lined up for the count, the hoisting of the flag and the distribution of the daily chores (cleaning, cooking, guard, maintenance of weapons, training, shooting simulation...). At noon they ate together out of bowls; after a break, they continued with the tasks until the flag lowering ceremony at sundown.

At night they entertained themselves by playing cards by candle and oil lamp light or wrote letters to their family or significant other. On weekends, those who were off-duty could go out and walk around Cartagena.

The kitchen

Generally food was poor and scarce, and the menus varied hardly at all, usually consisting of a broth made of meat to which potatoes and vegetables were added. The meal was served with a piece of bread, which was often several days old, a roll, and some wine.

The soldiers would eat out of their bowl, sitting anywhere they could. It would take several decades before the use of dining rooms became standard for troops.

The bedroom

At the entrance of Christmas Fort, there is a room to the right that was the bedroom of the troops, and attached to it was the head officer of the detachment. Today it is used as a screening room and exhibition space.

The latrines

The Military Health Regulations of 1846 standardized the installation of latrines in new and already existing quarters. In Christmas Fort a round of five latrines and a toilet (for the head of the detachment) was built that emptied directly into the sea.

Other rooms and elements of interest

The terrace, spacious and equipped to install 9 more cannons with barbets. The gun powder magazine, a small room on the ground floor in the middle of the casemates where projectile ammunition was kept. Two spiral staircases, with steps carved in stone which connect the ground floor with the terrace. The loopholes and embrasures, to aim with rifles and cannons, respectively. The magnificent views, especially from the terrace, are very enjoyable, covering the entire mouth of the harbour and overlooking the batteries on the east side, the Castle of San Julián and the Isla de Escombreras.

3. GLOSSARY

Bore: In firearms the interior space of the cannon pipe.-
Smoothbore is the smooth firearm inside the cannon.- **Rifling** refers to the grooves along the inner surface of the cannon that turn to the right or left causing the projectile to rotate before leaving the cannon as it leaves turning on itself, resulting in its stable trajectory, increased scope and aiming capability.

Arsenal: Establishment for the construction, repair and storage of weapons and munitions.- **Naval arsenal:** where ships are built and repaired.

Artillery: Set of military weapons designed to shoot projectiles over long distances driven by an explosive charge.- The military unit that handles artillery.

Loophole: Also called window splay, arrow slit, arrow loop, embrasure or fusilier; a vertical, thin and deep opening formed in a wall allowing weapons to fire out of it.

Muzzle loading: This is when the firearm is loaded at the muzzle or mouth (the powder and projectile).

Bulwark/Bastion: In military architecture, a pentagonal or rhomboid fortification intended to house artillery pieces at the vertices of a fortification or protruding from the walls thereof.

Barbette: A parapet designed to pull the artillery in open air.- *en barbette:* This refers to the fortification whose parapet does not fully cover the gunners or the piece.

Battery: Set of artillery pieces placed next each other to fire at the enemy.

Calibre: This refers to the interior diameter of the cannon, also called the bore.- The diameter of the projectile fired by the weapon.

Casemate: Solid, strong construction, usually vaulted, designed to house any type of defensive weapons (artillery, machine guns...). It is usually made of reinforced concrete and earth cover (to test). One or more openings are kept from which they fire over the areas to cover.

Gun carriage: Structure made of wood, metal or other material on which the cannon (the pipe) sits.

Chusco: roll or piece of bread, especially dry and hard, which was distributed as ration to soldiers.

Dyke or Breakwater: Coastal structure intended to protect the coast or harbour from waves.

Dry-dock: Port facility designed to keep the boats out of the water for exterior repairs.

Latrines: In certain institutions such as camps and barracks, a place intended for defecation and urination.

Mess: Communal meal prepared for many, for example in a barracks.

Breech loading: Unlike muzzle loading, the projectile and propellant (gunpowder) are introduced into the weapon from the rear (the base). These became standard beginning in the second half of the nineteenth century. They were safer and had a greater fire cadence.

Gun power magazine: gun powder storage place of a ship, fort or other facility.

Crew: Group of people in charge of maintaining, loading, aiming and firing an artillery piece.

Siege: A military blockade of a plaza or fortress with the intent of conquering by attrition or assault.

RECOMMENDED READING AND WEB SITES

- GARCÍA, R. and ALCARAZ, J. (1999). *El Cantón. Cartagena 1873*. Murcia: La Verdad y Ayto. de Cartagena.
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- SANTAELLA PASCUAL, F. (2006). *La Artillería de la Defensa de Cartagena y su Base Naval. Desde los orígenes al Plan Vickers de 1926*. Editorial Áglaya.
- W.AA. (2004). *Estudio y catalogación de las defensas de Cartagena y su bahía. Proyecto "Puertos antiguos del Mediterráneo"*.
<http://www.arqueomurcia.com/index.php?a=pu> mono defct
- Website of Patrimonio Arquitectura Militar en Cartagena: www.aforca.org
- Website of Cartagena Puerto de Culturas www.puertoculturas.com

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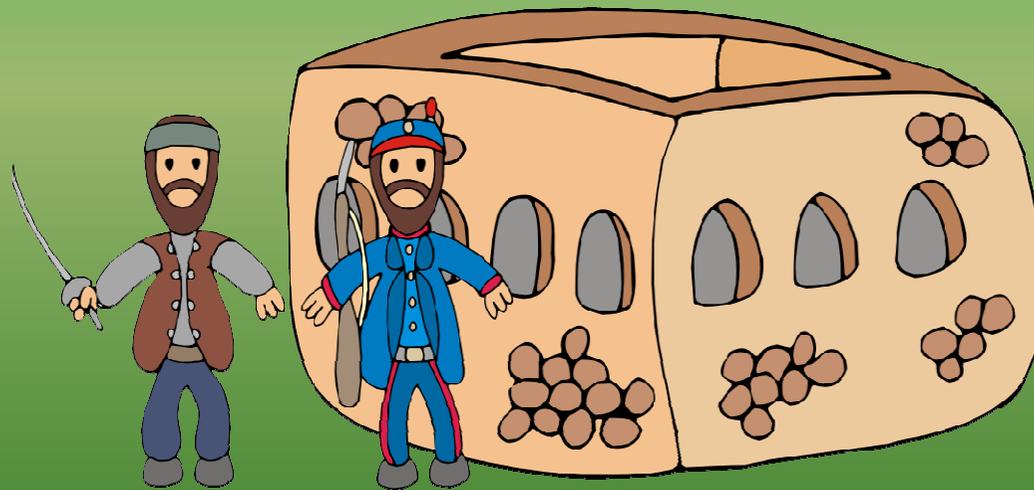
- Atica Idiomas

In collaboration with CPR de Cartagena



Cartagena, 2012

ATTACK ON CHRISTMAS FORT



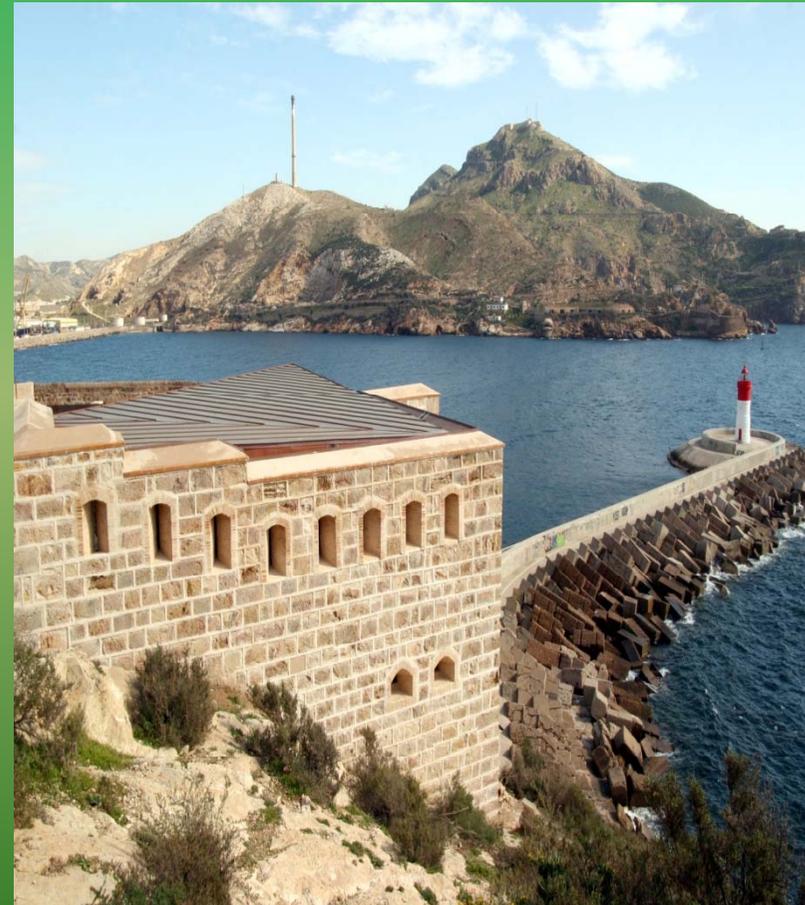
ATTACK ON CHRISTMAS FORT

Soon you will visit Christmas Fort where you'll learn a few things:

- Learn more about the Fort
- Find out how the soldiers lived
- Learn how cannons and arms were used
- Have an exciting adventure in which you are the protagonist

Are you ready for this adventure?

Follow us and gear up for this exciting adventure



Where is Christmas Fort?



Christmas Fort is located next to Christmas Lighthouse on the right edge of the Bay of Cartagena.

You can get there by boat, car or, if you want to do some exercise, biking or walking.

Do you know any coastal batteries?

Many coastal artillery batteries were built in the port of Cartagena between the seventeenth and twentieth centuries. You can see many of them from Christmas Fort. Here are a few of them.



San Julián



San Isidoro and
Santa Florentina



Galeras



Fajardo

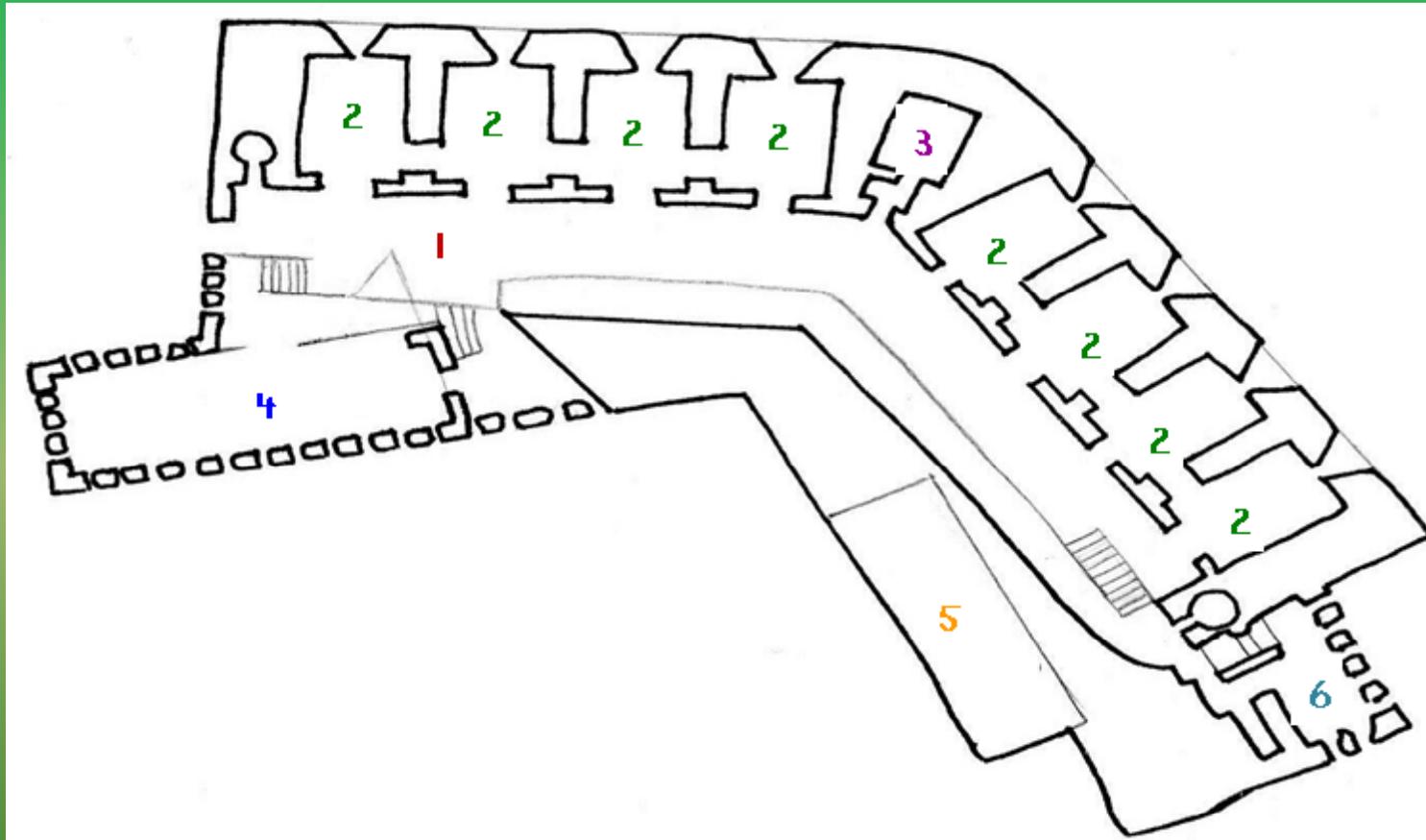
Want to know more batteries?

Go to www.regmurcia.com and you'll see a video entitled

BATERIAS DE DEFENSA

S.XVII - PR. S.XIX

Christmas Fort



- 1. PATIO
- 2. CASEMATES
- 3. POWDER MAGAZINE
- 4. BEDROOMS
- 5. KITCHEN
- 6. LATRINES

What is a casemate?

- ◆ A CASEMATE is the space where the cannon was placed
- ◆ Christmas Fort has 8 interconnected casemates, so there were 8 cannons on the ground floor. On the terrace there were 9 more cannons
- ◆ Inside the passage between the casemates there were niches on either side where gunpowder and projectiles were kept
- ◆ They had large windows to quickly ventilate smoke after firing
- ◆ Above the roof of the casemates there was earthfill 2 feet thick to protect them from enemy attack. This system is known as BOMB-PROOF VAULTS

Want to see a real cannon?



Life in the fort

- ✦ The soldiers got up at dawn to hoist the flag and start their tasks: cleaning the cannons, standing guard or preparing the meals
- ✦ They cleaned themselves in the latrines, though they did not do so everyday
- ✦ The entire troop slept in a large dormitory. The officer had his own room
- ✦ They made just one meal a day. Their diet was potato-based
- ✦ The evening was a time to relax, play games or write letters to family

How many soldiers lived in the fort?

14 soldiers during peacetime

40 soldiers during wartime



Credit

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In collaboration with CPR de Cartagena-La Union



ATTACK ON CHRISTMAS FORT STUDENT WORKBOOK

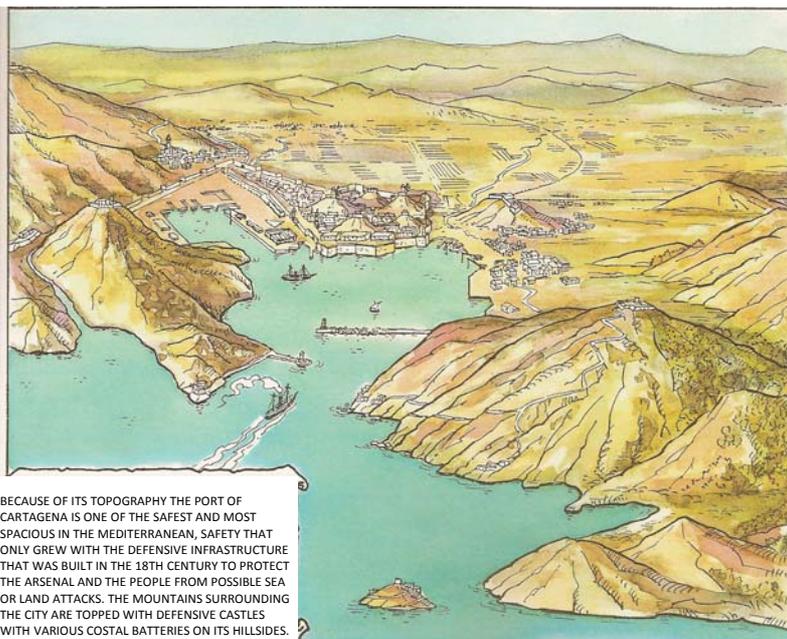


☞ Surely at some point while wandering around Cartagena you have looked up at the top of the hills and seen some towers, walls or ruins of buildings that have caught your eye. If you've never done it, try it. We're going to find out what that's all about.

DISCOVERING DEFENSES

Have you tried it? Have you looked up at the top of the hills? Everything you see there is part of what we call Defensive Systems. Among them, in our city we can find military batteries, forts, walls, castles, etc.

These are very old constructions that were made to protect and defend the city from enemy attacks. For throughout its history, Cartagena has been a very important city for all those who have inhabited it at some point: Carthaginians, Romans, Byzantines, Visigoths, Muslims... And they've all fought a great deal to conquer it.



BECAUSE OF ITS TOPOGRAPHY THE PORT OF CARTAGENA IS ONE OF THE SAFEST AND MOST SPACIOUS IN THE MEDITERRANEAN, SAFETY THAT ONLY GREW WITH THE DEFENSIVE INFRASTRUCTURE THAT WAS BUILT IN THE 18TH CENTURY TO PROTECT THE ARSENAL AND THE PEOPLE FROM POSSIBLE SEA OR LAND ATTACKS. THE MOUNTAINS SURROUNDING THE CITY ARE TOPPED WITH DEFENSIVE CASTLES WITH VARIOUS COSTAL BATTERIES ON ITS HILLSIDES.

Many years later, some of those defenses are now in ruins. Others are still standing or have been restored so we can visit them. Would you like to learn more about them? Read on!

➤ Watchtowers

These were built in Cartagena in the sixteenth and seventeenth centuries.

They were used to notify the people of pirate attacks using smoke signals. The most important that remain today are: Santa Elena Tower, El Negro Tower, El Moro Tower and Rubia Tower.



Photo of Santa Elena Tower

➤ Walls



To protect the city of Cartagena, walls were built surrounding it. We can still find the remains of the Punic Wall and Wall of Carlos III, who you can see in the photo on the left.

➤ Castles

At the top of some hills we find castles like the La Atalaya (pictured right) Galeras, Los Moros, San Julian and Concepcion. Some are restored while others are in ruins, but all of them remain today.



➤ Batteries



These were built on the coast of Cartagena to control the entrance to the city from the port. They were highly camouflaged and blended with the landscape so enemies could not see them, and they had canons to defend when necessary. Today we can see batteries such as

Trincabotijas, Cenizas, Santa Ana, Podadera, Castillitos (pictured) and Christmas Fort or Fuerte de Navidad.

It is precisely the latter, Christmas Fort, that we're going to talk about now. Want to find out more about it? Here we go!

CHRISTMAS FORT

Over 300 years ago, a military battery was built on a clearing near the port, where in 1860 Christmas Fort was built, and it was to be abandoned many years later in 1941.

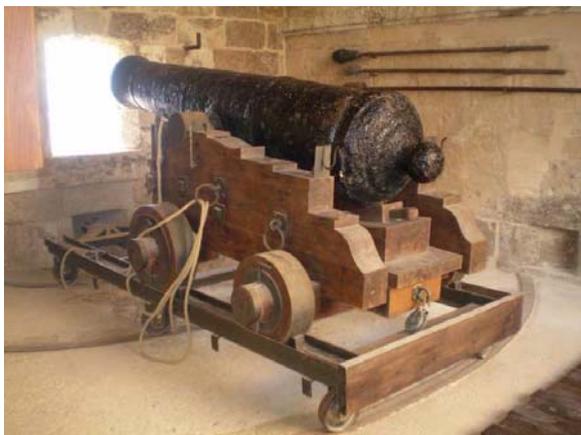
It is tucked away on the side of a mountain and made of stone and brick, ready for any enemy attack.



It has two floors with different areas. Should we walk through the Fort to get a closer look? Follow me!

➤ Casemates

These are rooms where cannons were kept well hidden and ready to shoot from small window called an embrasure. Christmas Fort has 8, and each of them had a cannon operated by between 6 and 9 soldiers. Among the casemates was the powder magazine, which was a smaller room where the projectiles and gunpowder for cannons were kept.



Cannon casemate



Powder magazine

➤ Bedrooms

There was only one bedroom for all of the soldiers, though there was a separate area for the general.

➤ Latrines

This was the bathroom and toilet area situated on the top floor. It was a room with several holes in the floor facing the sea, where the soldiers would relieve themselves. They were all in a row, without divisions or seats, except the general who again had a separate area with a seat all to himself.



➤ Kitchen



Upstairs there was also an area where a few soldiers prepared daily meals for the entire Fort.

➤ Terrace

In the same area we find the terrace with its lovely views. Here they could place up to 9 cannons with barbettes, i.e. outdoors, which were well hidden by a high wall so that they could not be seen by enemy ships.



We have already seen where the soldiers of the fort lived and worked, but can you imagine what life was like inside?

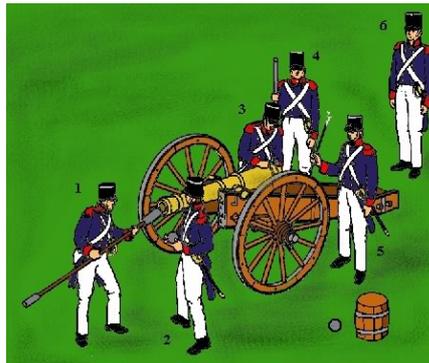
LIVE INSIDE CHRISTMAS FORT

The soldiers of the fort belonged to the artillery corps, i.e., they were specialists in the handling of weapons. They wore a blue uniform with red stripes on the sides and carried rifles with bayonets.

During peacetime there were 14 soldiers in the fort (1 sergeant, 1 corporal and 12 soldiers). In times of war there could be up to 40 soldiers at the fort. Why so many? Because look at the photo below just how many troops were needed for a single cannon!



Artillery soldiers



Soldiers needed to load a cannon

The soldiers got up very early at dawn. After washing up and getting dressed, they raised the flag, took attendance and divided up the tasks do that day (clean, cook, guard, shooting tests, maintenance of weapons, etc.)

At noon they ate what little they had, usually a broth made with a little bit of meat, some potatoes and vegetables, a piece of hard bread called *chusco* and a small glass of wine. There was no dining room and they had to eat anywhere in the fort any way they could.

After a break they continued their tasks until sunset, when the flag was lowered.

At night they would pass the time writing letters by candle light or playing cards. Only a few weekends were they allowed going for a walk around town.

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Cartagena, 2012

ACTIVITIES

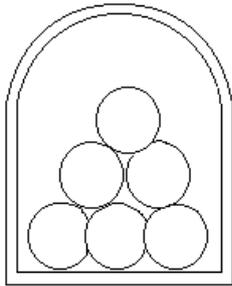
1st, 2nd AND 3rd GRADE
ELEMENTARY SCHOOL



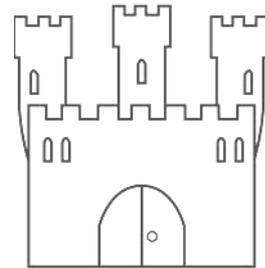
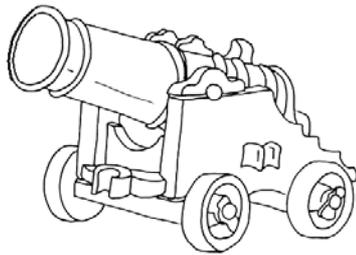
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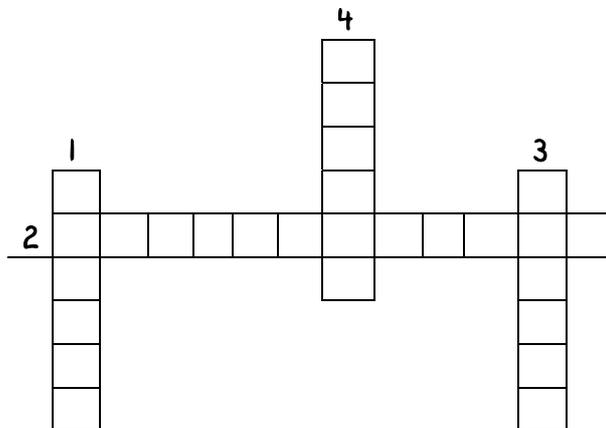
Match each word to its drawing and color it in.



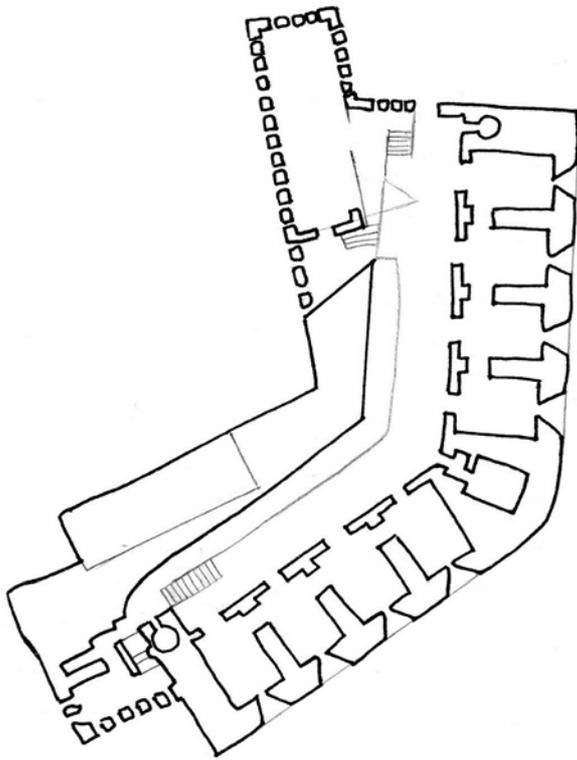
1. Castle
2. Artilleryman
3. Cannon
4. Powder



Now place the words of the previous exercise in the puzzle according to their numbers.



🌀 Look closely at the layout of Christmas Fort. Color in each area of the Fort as indicated.



Kitchen (red)

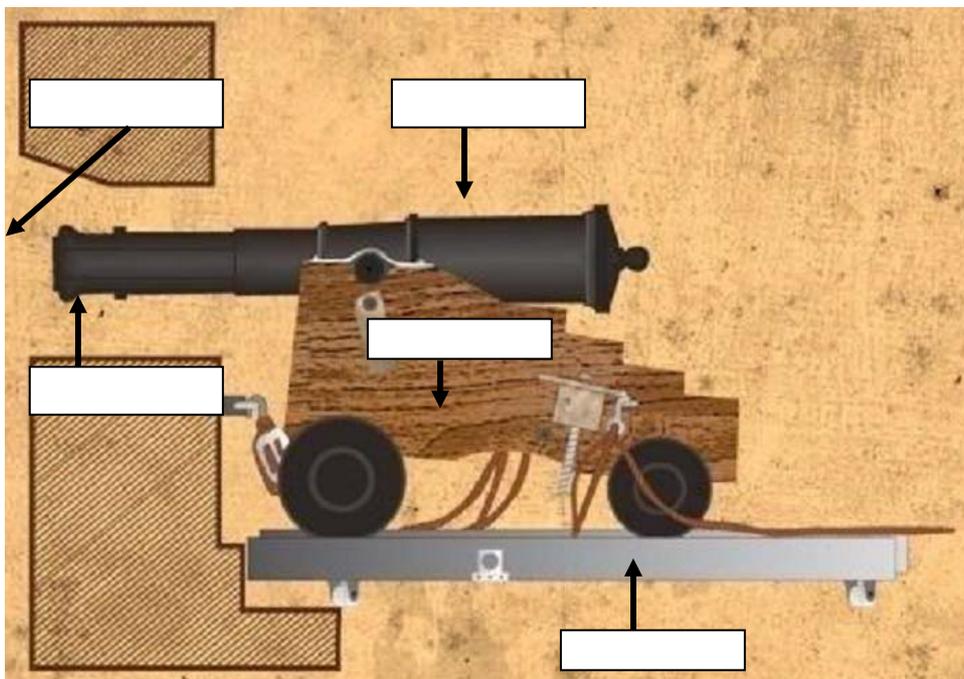
Latrines (blue)

Powder magazine (green)

Cannon (pink)

🌀 Place the names of the parts of the cannon.

gun carriage - embrasure - rails - mouth - cannon



This document has been prepared by:

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Translation:

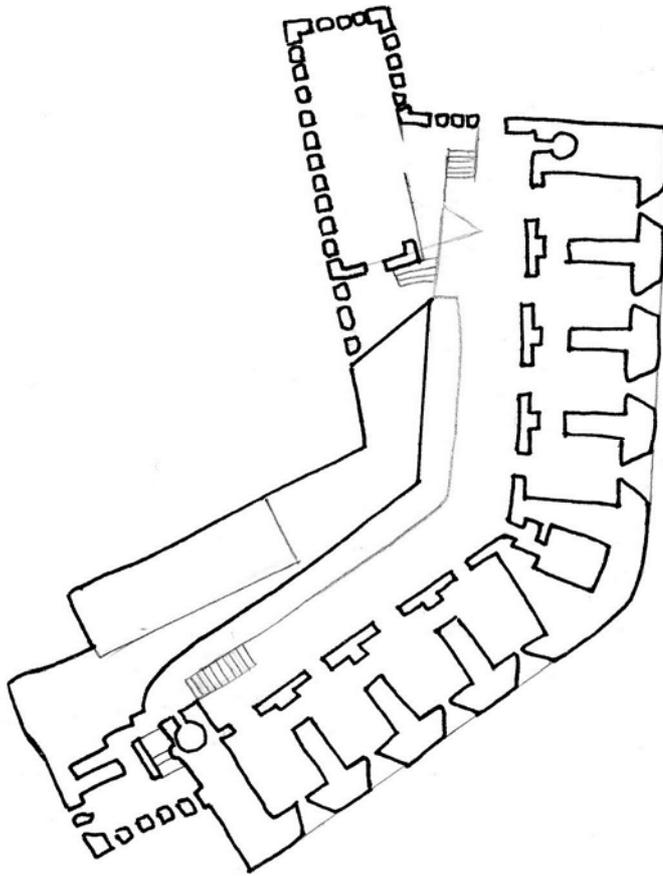
- Atica Idiomas

In collaboration with CPR de Cartagena



Cartagena, 2012

🌀 Look closely at the layout of Christmas Fort. Place the numbers of each area of the Fort and color in the casemates.



1. Kitchen
2. Latrines
3. Powder Magazine
4. Cannon
5. Entrance

🌀 Unscramble the letters to form words related to Christmas Fort.

TE CA MA SE _____

NO CN NA _____

BR UE MA SR E _____

NG UC RA RAI EG _____

TIL JEC PEOR _____

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