

The background of the slide is a repeating pattern of faint, light gray architectural drawings. These drawings include various types of fortifications: rectangular bastions with crenellated tops, irregularly shaped forts with multiple bastions, and smaller structures that appear to be internal fortifications or outposts. The drawings are arranged in a grid-like fashion, creating a textured, historical feel to the slide.

Unearthing the Colonial Military Past of Santa Marta:

The urban renovation around the fortress of
San Fernando in Santa Marta, Colombia.



**Politecnico
di Torino**



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Abstract

The urban renovation around historical architectural sites, is a practice that aims for the enhancement of historical buildings, through the development of urban strategies, in order to create new relations with the surrounding contexts and the enhancement of the site’s values. Through the urban renovation of the historical sites, a new relation between the site and the city can be enhanced, aiming for the building’s protection and the city’s growth to be carried out in a balanced way, without affecting the heritage, social, or landscape values, around the site.

The following master’s thesis, develops a master plan project that aims for the urban integration of the Fortress of San Fernando in Santa Marta, Colombia, in which the current context related to the fortress was studied as a way to understand its dynamics and main characteristics, which could be translated into potentials. The project considers the importance of the fortress as a colonial military heritage of the city, and the urban dynamics that over the years have led to its deterioration. The master plan takes into account the needs of the city to grow, and the current urban plans that have been proposed that affect the area that borders with the fortress, therefore, the thesis has been divided into three chapters, where the history of the colonial military fortifications of Santa Marta, has been studied to understand their importance to the city, and also to understand the dynamics that lead to their decline, secondly, through the analysis of reference projects that share the original function of the site, a series of lessons were learned to allow the urban renovation or acti-

vation of this typology of sites, and finally, the project was developed to provide a response to the urban needs of the city and the protection needs of the fortress of San Fernando in Santa Marta, Colombia, through a master plan that provides a transition from the dense city to the heritage site, to enhance its values while allowing the growth of the city.

Key words: Urban renovation, Colonial Military Fortress, Heritage site, Heritage, social, landscape.

Introduction

Heritage sites are an important part of a community’s identity and its values, as they constitute the representation of the history of the community and its culture, but nowadays, as a repercussion to the unbalanced urban growth of cities, heritage sites; small, medium or in large scale, face a threatening situation. The uncontrolled growth of cities have lead and can affect the values of these sites, as the urban dynamics and characteristics of the sites are modified, due to, the urban development of cities. Therefore, it is needed to provide a balanced urban development able to include the urban needs of cities and the protection needs of the heritage sites, when these are being affected by the growth of cities.

Santa Marta, the oldest still inhabited colonial city in South America, is an example of how urban development historically has affected heritage sites, and how new opportunities can be implemented in the city in order to safeguard the heritage sites that the city has.

The colonial military fortresses of the city, have been directly affected by the growth of Santa Marta over the years. The current urban development plans for the city should provide urban strategies, that could protect the remnants of the Colonial military fortresses that are still present in the city, as it is the case of the fortress of San Fernando, which over the years has been in a constant abandonment, as a repercussion of its location, bordering a military base, which does not allow its accessibility. But with the new POT (Territorial plan of ordinance) of the city, a new question arises, when the military base is planned to

be relocated, what will happen to the fortress of San Fernando, in terms of its urban surroundings that are planned to be developed, how can these new plans affect or benefit the fortress situation?.

Methodology

The following thesis, has been structured in three chapters within which the importance of the colonial military fortresses of the city of Santa Marta is covered, from its construction, consolidation and destruction or abandonment, in relation to the parallel urban development of the city. The objective is to propose a strategy of urban development, which allows the reactivation and inclusion of the ruins of the fortresses in the current urban development of the city. Within the first chapter of the thesis, a historical review of the city of Santa Marta is made, from the point of view of the construction of its fortresses, the historical growth of the city, and the current urban development plans. In the second chapter, an analysis of urban and architectural references is developed in order to identify implementable strategies in the city of Santa Marta that allow the integration of the city’s fortresses or ruins in its urban development. Finally, in chapter three, the Fort of San Fernando is selected as the case study in the city of Santa Marta, and based on an analysis of its urban context, a Master Plan is developed, which seeks the integration of the Fort in the urban growth of the city and the approach of a project that allows the activation of the heritage site as a cultural node of the city.

Chapter 1

Santa Marta and its Colonial Military Fortresses

Chapter 1, Santa Marta and its colonial military fortresses

- General information of Santa Marta
- Climatic characterization
- History of the city
- Study of historical cartographies of Santa Marta
- General analysis of the colonial military fortresses of the city
- Historic urban growth
- Current urban planning for the city, “POT 500 años”

Santa Marta,

general information

Santa Marta is the oldest still inhabited colonial city of Colombia, founded the 29th of July in 1525, by Rodrigo de Bastidas, it is one of the Cultural, Touristic and Historical districts of Colombia, along with **Cartagena de Indias, Riohacha, Santa Cruz de Mompox**, and **Santiago de Cali**.

As explained by José M. de Mier in the presentation of the book “*Historia de las fortalezas de Santa Marta y Estudio asesor para su restauración*” (*History of the fortresses of Santa Marta, and advisory study for their restoration*) by Juan Manuel Zapatero, the city was the partition point for who explored the new kingdom of Granada in the seek of “**El Dorado**”.

“La “época de la promesa” se inicia con los viajes de descubrimiento de las costas de la hoy Colombia y prosigue con la fundación de la ciudad de Santa Marta, desde entonces punto de partida de quienes descubrirán el territorio que formará el Nuevo Reino de Granada, Impulsados ante todo por el afán de encontrar a Eldorado.” (Zapatero 1980, 16).

Establishing some of the importance that the city had during the first years of the colony, as the starting point for the explorations of the inner land, and later first processes of fortification in the **New Kingdom of Granada**, and the land, nowadays known as Colombia.

In 1954, with the legislative act 3640 of December 17th, it was created the category of “**Special District**”, under the government of the General Gustavo Rojas Pinilla, within this

act, the capital of Colombia, was cataloged as “Special District of Bogotá”, with the municipalities of Usaqué, Suba, Engativá, Fontibón, Bosa y Usme. In 1991 with the article 286 of the constitution. Santa Marta, Barranquilla and Cartagena de Indias, the three main cities of the northern coast of the country, were cataloged as “Special Districts”, due to their Geographical, Historical, Cultural and Economical values.

Nowadays, Santa Marta is the capital city of the region of Magdalena and it is the third (3rd) important urban center of the Colombian Caribbean region after Barranquilla and Cartagena de Indias. Additionally it is one of the main touristic destinations of the country, due to its numerous beaches, natural reservoirs, and its cultural and historical heritage, the city has an area of 239.335 hectares in which there are located two (2) national natural parks, the national park Tayrona and the Sierra Nevada national park and the indigenous reservoir Kogui - Arsario Kankuamo.

The touristic, cultural, and historical district of Santa Marta, according to the “Informe de gestión 2020” by the municipality, has a population of 538.612 inhabitants, of which 89,86% are located in the municipality and the remaining 10,14% are distributed among the surrounding towns and rural areas, and it is divided into 3 localities:

1. Locality, Cultural Tayrona - San Pedro Alejandrino, with a population of 147.611 people, distributed in the “comu-

Glossary: Cartagena de Indias, Riohacha, Santa Cruz de Mompox, Santiago de Cali, El Dorado, New Kingdom of Granada, Special District, Region of Magdalena, Kogui, Arsario Kankuamo.

nas” 1,6 and 9, plus the towns of Bonda and Guachaca.
2. Locality, Historic-Rodrigo de Bastidas, with a population of 209.017 people, distributed in the “comunas” 2,3,4, and 5, plus the town of Taganga.
3. Locality, Caribbean pearl, with a population of 112.438 people, distributed in the “comunas” 7 and 8, plus the town of Minca.

The district of Santa Marta is conformed by a territorial sea, a mountain area, which corresponds to “La Sierra Nevada de Santa Marta”, water bodies, islands and the bay, these natural elements have been historically highlighted as main characteristics of the city and some of the reasons to its importance, as explained by Zapatero, in the descriptions that Martín Fernández de Enciso wrote about the city.

“Sancta Martha está al Oeste en 11^o grados, es un buen puerto, tiene un isleo delante -El Morro-; es el mejor puesto de toda esta Costa, la arena de los rios es toda margarita que es de piedra de color oro. Hay en ella muchos puercos y muchos ciervos. Las Sierras Nevadas comienzan en Sancta Martha y lugar de Yaharo es lo mas alto. Desde Sancta Martha vuelve la Costa al Sur veinte Leguas y en la vuelta esta Gaira que es la gente mui mala y adelante esta Aldea Grande -Santa Marta de la Ciénaga, cerca del hoy Pueblo Nuevo o San Juan- y mas adelante entra un Rio Grande -Magdalena-”. (Zapatero 1980, 24).

Along with this description, in 1601, Antonio de Herrera y Tordesillas, estated some of the characteristics that were recognized in Santa Marta, and which rendered the city important for its natural resources.

“La provincia, i Governacion de Santa Marta en la Costa de Tierra Firme, 70 Leguas de ancho i largo, entre Cartage- na y el Rio de la Hacha, es tierra fertil de mais, i Batatas, mucho Oro, i Cobre, i algunas esmeraldas, i otras Piedras. Hai en ella cinco Pueblos de Castellanos, i aunque hai muchos Naturales, los mas estan en Guerra. Pobló a la Ciudad de Santa Marta el Adelantado Bastidas, año de 1525, junto a la Mar, en 10 Grados de Latitud, i 74 de Longitud, 1.420 Leguas de Toledo, adonde reside el Governador, i Oficiales Reales, i la Catedral, sufraganea del Nuevo Reyno. Es el puerto Razonable. Esta Governacion tiene quatro Provincias: Pociguay, Betona, Chimiea, i Tayrona que significa Fra- gua, i con razon, porque hai en aquella Tierra infinita cantidad de Metales, i piedras de mucha estimacion”. (Herrera y Tordesillas 1601), (Zapatero 1980, 29)

What does it mean for the city to be a “Cultural, Touristic and Historical District”

With the legislative act 3640 of December 17th of 1954, the category of “District”, was creat-

Colombia - South America



Glossary:

Fig 01, Elaborated by the author

ed and the Special district of Bogotá with the annexed localities was established. By 1991, with the expedition of the new Political Constitution, the article 286 established that in order for a municipality to be cataloged as a district, it was required to produced a “consti- tutional reform” (*reforma constitucional*), meaning, that there must be executed a process of debates, in the congress, in order for the categorization to be done.

Within the Law 1617 of 2013, it is established that the districts have special faculties diver- gent to the municipalities, and it was declared in the article 322 of the Colombian constitu- tion, Bogotá as Capital District, and in the article 328 it was defined that the Touristic and Cultural District of Cartagena de Indias, and the Touristic, Cultural and Historical District of Santa Marta, would keep their category previously stated in the 1991 constitution.

The districts posses a special character, but in order to be given such categorization, they need to have specific criteria elements, in order to be provided with a special national budget, some of the criteria elements that are required for the classification as districts are; the need to be located in the coast of the country, the need to have touristic, cultural and historical potentialities, to have the potential for the construction of a harbor and to be the capital of a region (***Departamento***).

Colombia - Special Districts



- ① Bogotá, Capital District
- ② Cartagena de Indias, Touristic, Cultural and Historical District
- ③ Santa Marta, Touristic, Cultural and Historical District

Glossary:

Fig 02, Elaborated by the author

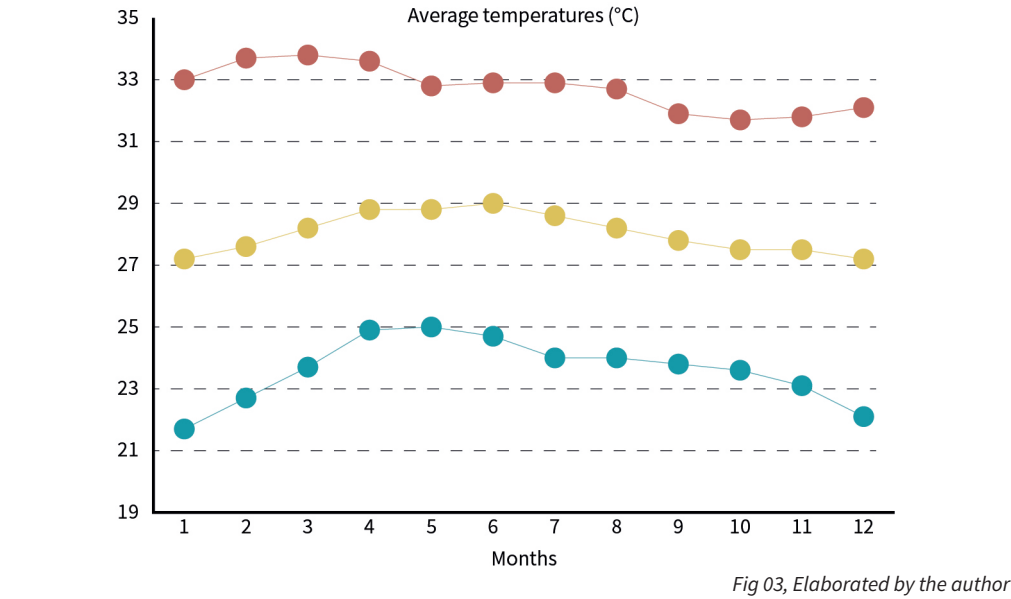
Santa Marta, Climatic characterization

According to the IDEAM, Santa Marta’s climate is classified as a warm-very dry climate, and its forest is classified as tropical dry forest, which according to the country’s Ministry of Environment, is found in 3 regions of the country, the Caribbean plain, including the south of La Guajira, the dry region of the Magdalena River valley, in the departments of Tolima, Cundinamarca and Huila, and finally the Geographic Valley of the Cauca River.

The tropical dry forest “is defined as a vegetation formation with a continuous forest cover distributed between 0-1000 m altitude, with temperatures above 24°C (warm thermal floor) and rainfall between 700 and 2000 mm per year, with one or two periods of drought per year” (IAvH 1998).

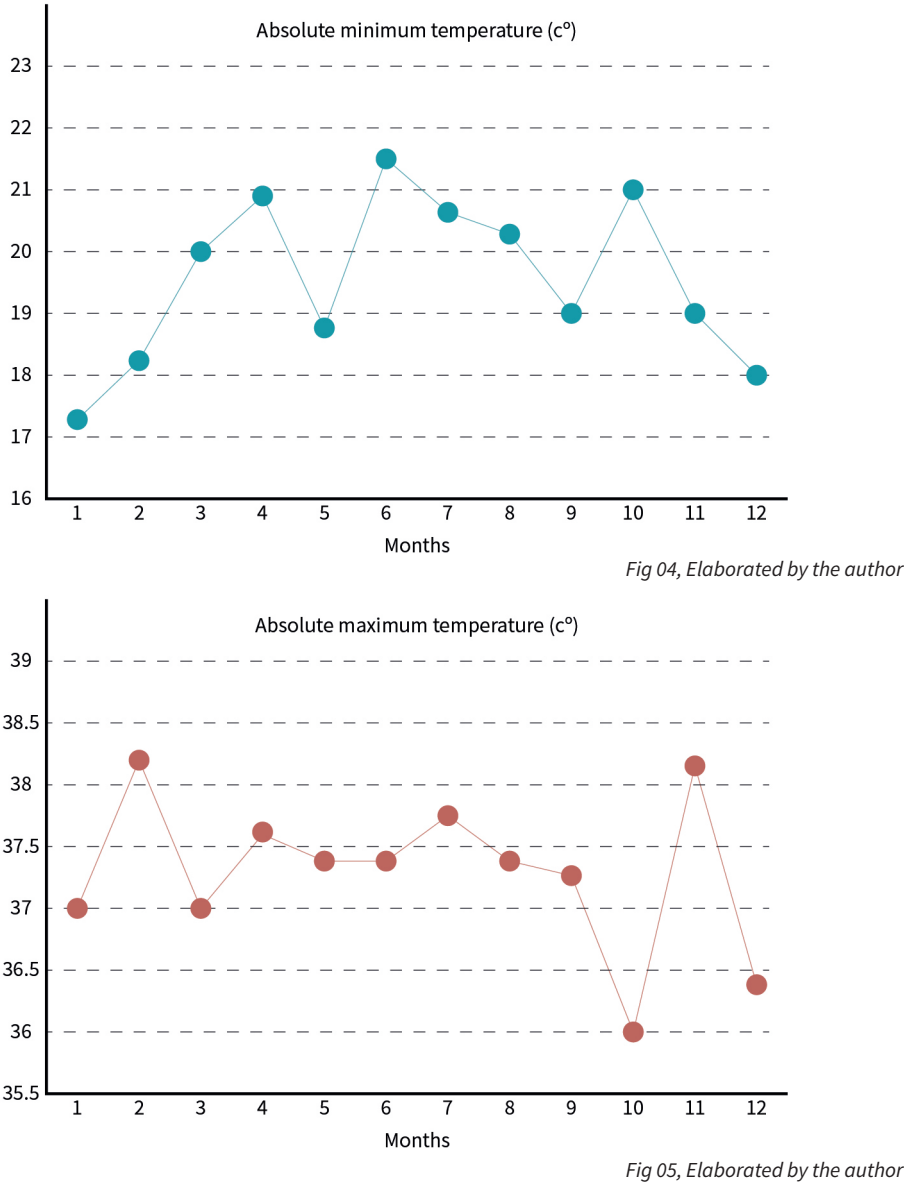
Santa Marta’s climate has maximum temperatures that exceed 33.0°C between February and April. The highest monthly temperature averages that exceed 28°C are between April and July, and the lowest minimum temperatures are below 22°C between December and January.

From December to April, rainfall is scarce over the city of Santa Marta. Between July and August there is a decrease in rainfall due to the summer of San Juan. Because of its proximity to the Caribbean Sea, relative humidity values are high; however, multiyear averages range between 72% and 79%. The lowest average relative humidity is in March, which coincides with the dry season on the Colombian Caribbean coast, and the highest value coincides with the wet season in October.



Glossary: Historic Center, Iglesia Mayor, Military Engineers.

Sustainable development goals



Glossary: Historic Center, Iglesia Mayor, Military Engineers.

Sustainable development goals

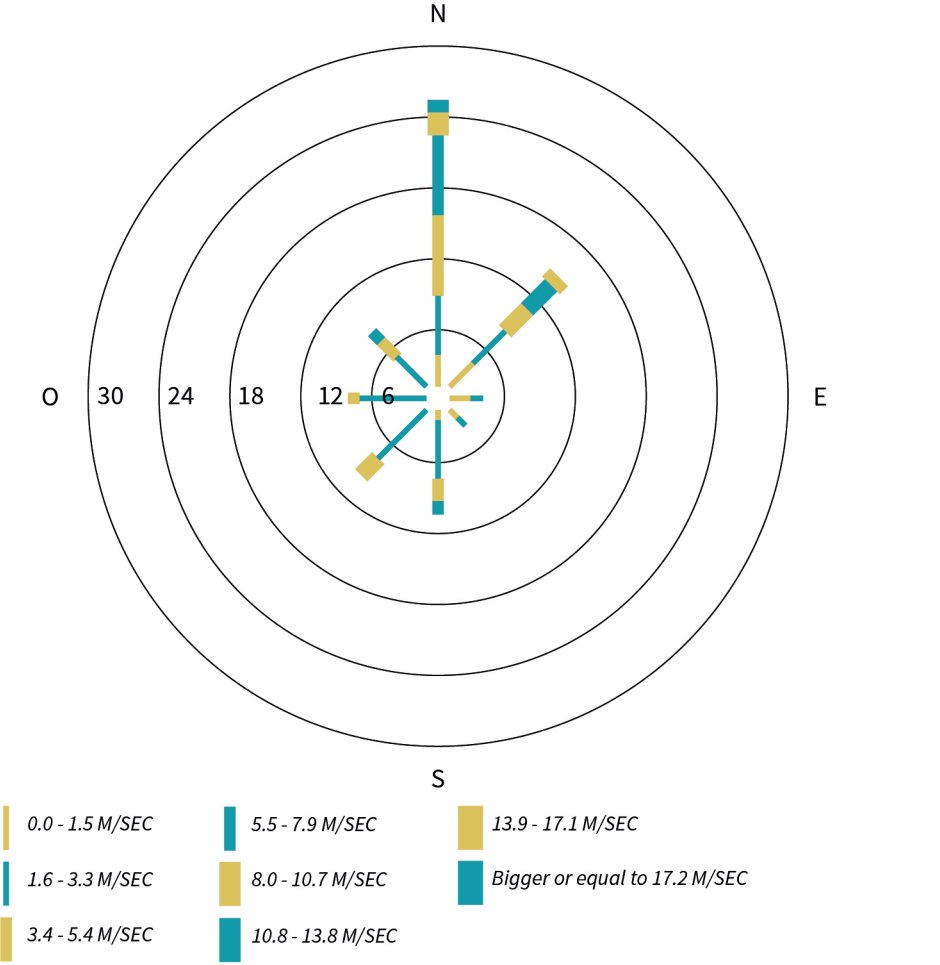


Fig 06, Elaborated by the author

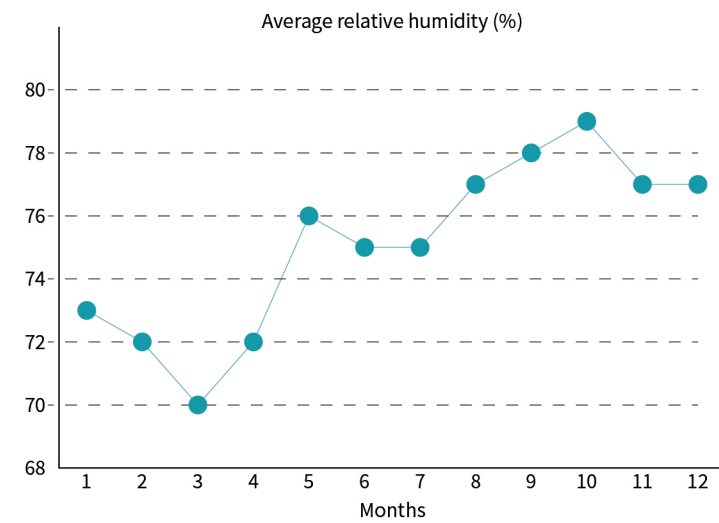


Fig 07, Elaborated by the author

The evaporation data clearly shows the predominance of the two most significant periods in the Caribbean, with abundant evaporation in the first months of the year and then a significant decrease from October to November, due to the abundant rainfall.

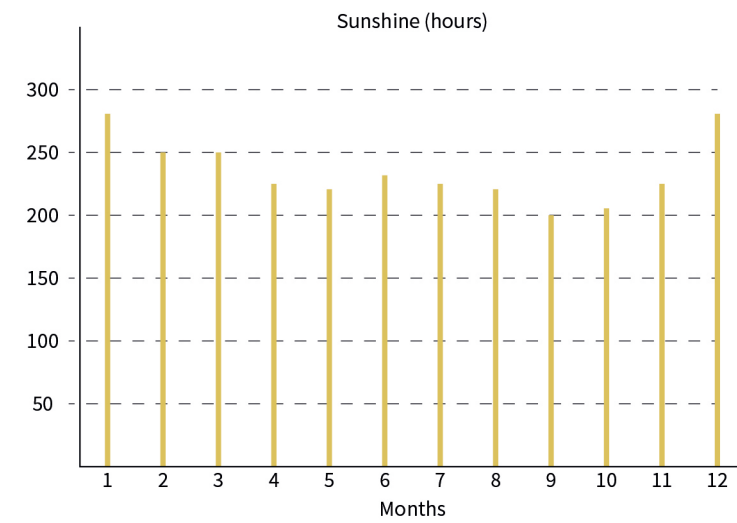


Fig 08, Elaborated by the author

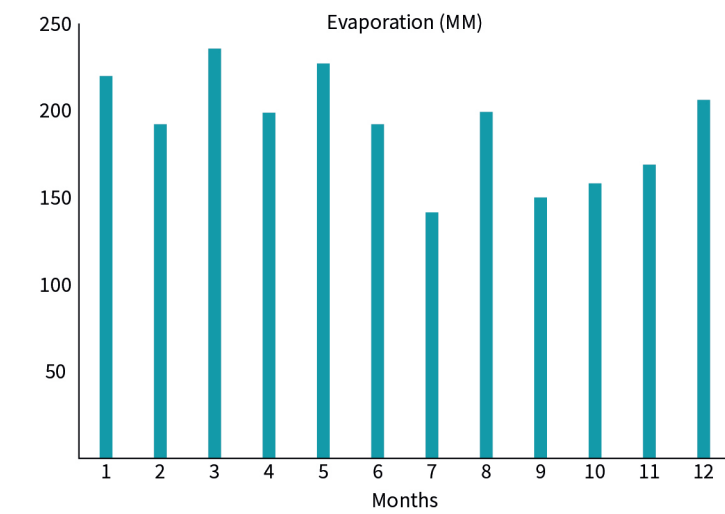


Fig 09, Elaborated by the author

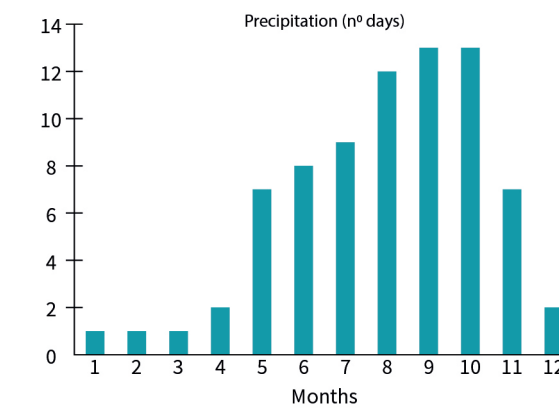
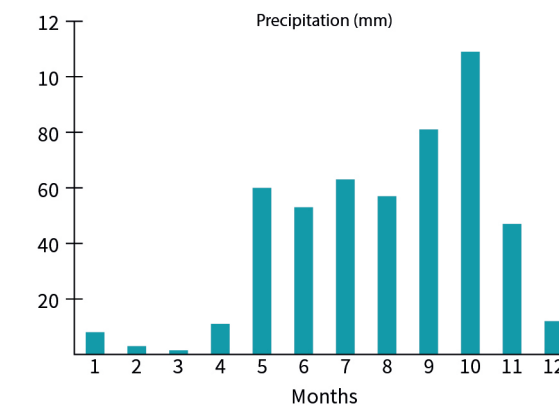


Fig 10, Elaborated by the author

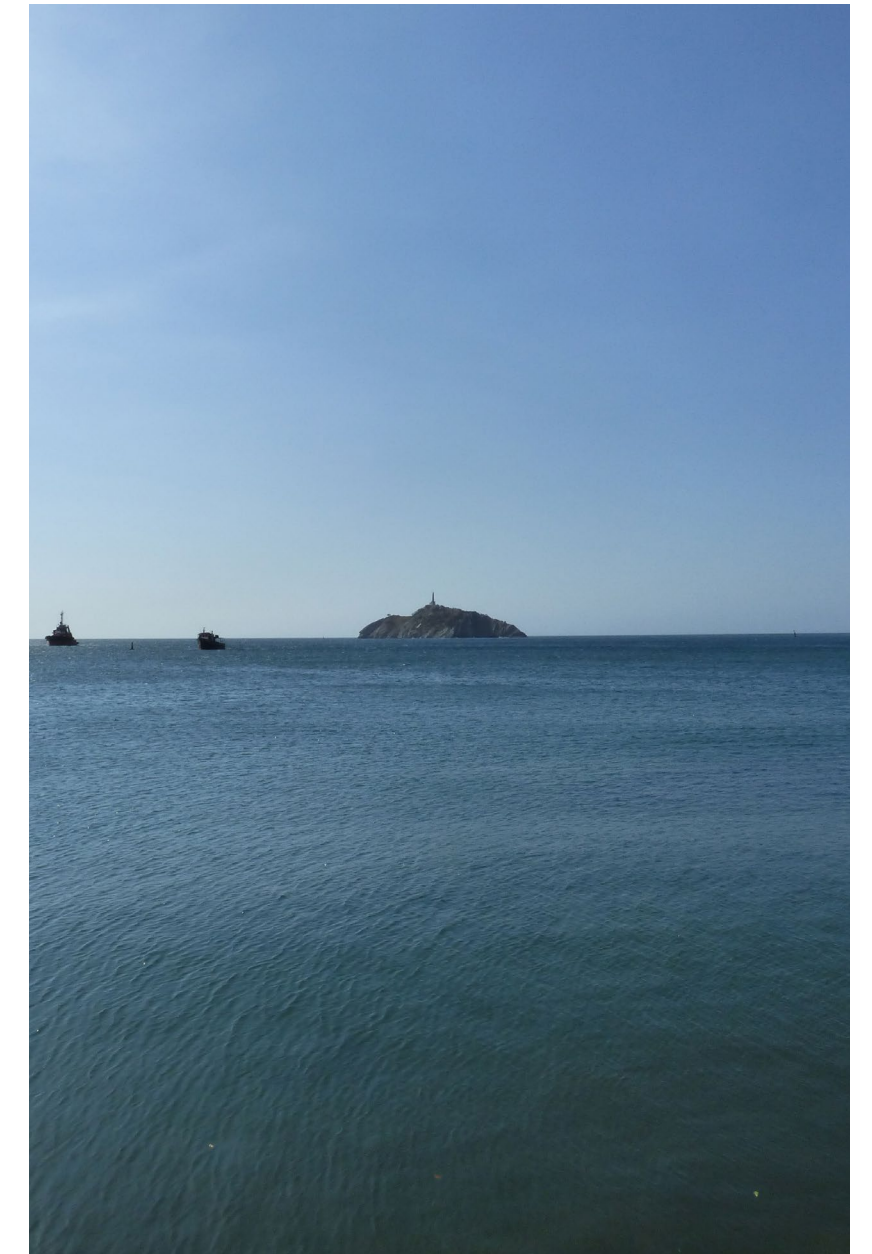


Fig 11, Elaborated by the author

Glossary: Historic Center, Iglesia Mayor, Military Engineers.

Santa Marta, history

Santa Marta is the oldest inhabited city in Colombia, founded in the first years of the colony, in 1525 on the 29th of July, and it became a starting point for the explorations carried on in the new kingdom of Granada, by the Spanish colonizers during the XVI Century, the history of the city, relates the attacks to which it was subjected, by pirates and enemies of the monarchy, which affected the city due to fires and robberies, of which it was the target.

During the XVII Century the city needed to protect itself against the attacks of English, and French corsairs, as well as pirates, who threatened it, and it is due to this reason that it was involved in the confrontations, that occurred, in the northern sea, (Mar del norte), as was known the Caribbean sea during the Colony, therefore, these confrontations were also the reason to the continuation of the fortification process, to which the city needed to be involved, following the “Laws of the Indies” (Leyes de Indias), but it was as well, the reason to which why, the city was dragged into a state of abandonment, destruction and misery.

Later during the XVIII Century the city was left unprotected, as a way to make it less valuable for the attackers, and as explained by Juan Manuel Zapatero in his book “Historia de las fortalezas de Santa Marta, y Estudio Asesor para su Restauración”, also it was left in this unprotected state, due to four (4) conflicts in which the monarchy was involved, The War of the Spanish Succession, The war of Jenkin’s Ear, The war for the Third Family Compact and The war of the Quadruple Alliance. Additionally there was a rethinking on the American possessions by Europe, and the repercussions to which the American independence led to.

“La más antigua fundación española en Tierra Firme que sobrevivió a los tormentosos años del afianzamiento de la cultura europea en estas regiones, hoy conservada como santuario de la patria, por ser el sitio que recogió los últimos días del Libertador Simón Bolívar”. (Zapatero 1980, 15).

XVI Century

It was after his first expedition in what were called the minor voyages or Andalusian voyages, that Rodrigo de Bastidas, founded Santa Marta, as signed by Carlos I, on the capitulations of the 6th of November of 1524 in Valladolid; Zapatero explains that, Bastidas was named “Capitán vitalicio” and “Adelantado” of the province and port of Santa Marta, it was declared on these capitulations that Bastidas “should perform the expedition with no less than 50 men, of which 15 should be married, recruited in the island, in Jamaica or San Juan de Puerto Rico, it would be set settlement and would build up a fortress in the time limit of 2 years” (Zapatero 1980, 47).

“Debería contar la expedición con no menos de 50 hombres, de los que 15 serían casados, reclutados en la isla, en Jamaica o San Juan de Puerto Rico. Asentaría población y levtaría fortaleza en el plazo de dos años, nombrandose contador a Juan de Ledesma”. (Zapatero 1980, 47)

Glossary: Laws of the Indies, The war of the Spanish Succession, The war of Jenkin’s Ear, The war for the Third Family Compact, The war of the Quadruple Alliance

But previously on the 1519, Bastidas, had been given from the “ Consejo de Indias” “Council of the Indies”, authorization to fund a settlement in land and to take 100 farmers. Among the main dispositions provided to Bastidas for the foundation of settlement, there was the need to build up a Fortress capable of four (4) bombards and eight (8) men, in order to protect themselves from the indigenous people Caribe.

Although the capitulations gave Bastidas the possibility to fortify the settlement, with the first Fortress of the city, it was believed by Friar Pedro de Aguado, that the first Fortification in the area, was built up in 1498-1499, by Alonso de Ojeda, who after the recognition of the coast, built up, close to where nowadays is located Santa Marta, in the “Aconcito” possibly on the southern shore of the “Morro”, the oldest Fortification in the area.

“hizo cierta fortaleza de tierra, cuyas ruinas y paredones á manera de antigualla se parecieron y vieron mucho tiempo después;” (Aguado XVI 1906, 13).

Although the “cédulas reales”, prohibited that the indigenous people would work and be used for hard work in the settlement, Zapatero explains that the “Slavery business” was imposed, and changed the way of how the indigenous communities, reacted and relate with the new settlers, starting the numerous and continuous confrontations to which the city’s damaged was the target. Additionally around these years, internal conflicts started to be vivid in the city, as Captain Pedro de Villafuerte, was determined in building a Fortification in the style of the “Casas-fuerte” located in Castilla, but which would not be built.

“A las difíciles circunstancias, suelo y hostilidad, hubo que añadir en la empresa de Bastidas las rivalidades internas. Uno de los capitanes, Pedro de Villafuerte que había quedado en la recién fundada población, empeñado en levantar fortaleza -un refugio de muros, y estacada al modo de las casas.fuertes de Castilla-, de la que el comendador D. Rodrigo de Grajeda, declararía, no llegó a ser terminada aunque se habían dispuesto en la playa los materiales: piedras de cal, cantos rodados, ladrillos y las herramientas” (Zapatero 1980, 52)

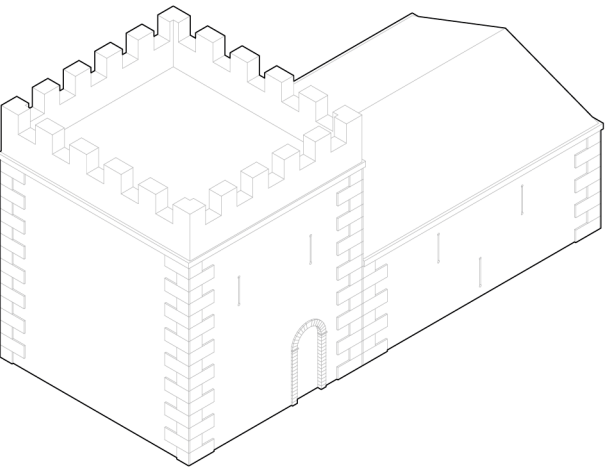
Due to these internal confrontations, Bastidas was the target of an assassination attempt, from which was able to recover, but, due to his age, decided to return to Santo Domingo, and left Rodrigo Alvarez Palomino as successor, of the governance of the city. Although the aimed was to return to Santo Domingo, the “slave ship”, in which he returned, and with whom he had discussions, decided to stop in Santiago of Cuba, where Bastidas was imprisoned and where he died, do to the calamities that suffered.

Santa Marta - Fortresses of the first half of the XVI Century



- A Fortress -Palenque-, 1499-1500, Alonso de Ojeda
- B Fortress -Palenque-, 1525, Rodrigo de Bastidas
- C Fortress -Palenque-, 1528, D. Pedro de Vadillo - D. Pedro de Heredia

Fig 12, Re-elaborated by the author, source (Zapatero 1980, 53)



Typological representation of the “Casas-fuerte”

Fig 13, Elaborated by the author

Glossary: Fortress, Indigenous people Caribe, Fortification, Aconcito, Morro, Cédulas Reales, Casas-Fuerte, Slave ship

When the “**Audiencia Real de Santo Domingo**” found out about the events that happened to Bastidas in the island of Cuba, which led to his death, decided to name Juan de Vadillo, as the new Governor of Santa Marta. When Vadillo traveled to the city, with Pedró de Heredia (Founder of Cartagena de Indias) as General, they were not received in the city as, it has been planned, as the people, had respected the decision of Bastidas, of having Alvarez Palomino as their governor, leading to a confrontation between Palomino and Vadillo, the people of the city gather in the **Fortress** located on the **beach of Santa Ana**, and forced Vadillo to retreat and build up a **Fortress** on the bay of **Taganga**.

“Se entabló una disputa que obligó al gobernador Vadillo y al capitán Heredia a abandonar la playa de Santa Ana, reembarcando para dirigirse por el este, pasando la punta de El Morro -en el istmo de La Caldera- y alcanzar la playa de La Concha, en la orilla derecha de la bahía de Taganga. Heredia levantó fortaleza, para obligar a Alvarez Palomino y a los de Santa Marta a renunciar a sus propósitos. La fortaleza construida por Heredia, a dos leguas aproximadamente de la ciudad, fue hecha con troncos de árboles a manera de estacada, fábrica sencilla que protegía un reducido edificio de mampostería llamado palenque”. (Zapatero 1980, 58-59)

Although the **Fortress** was built up for the confrontation that was going to take place between Vadillo and Palomino, the Cleric Juan Rodriguez, decided to take place, and ease the confrontation between both governors, and recommended to let the Monarchy to decide who of the governors should be elected and respected as such. On the meanwhile, both Vadillo and Palomino share the governance of the city, and decided together the objectives to enter the valleys. But time after this, Palomino died.

When the “**Consejo Real de las Indias**” found out about Bastidas faith in Cuba, decided to recommend to the emperor, that D. García de Lerma, should be named governor of Santa Marta. In 1528 when Garcia de Lerma arrived in Santa Marta, and after finding out about the events of the governors Vadillo and Palomino, he decided to dispatch Palomino to the **Metropolis**, who died on his way.

In 1528 when Garcia de Lerma was named governor, it was decided, to start the construction of the **Fortress** on the beach of Santa Ana, with “**stonecutters**” brought from Spain, but who dedicated themselves to seek after the graves of the Indigenous people, in which it was possible to find pieces of gold; by 1531, it was started the construction of the Cathedral, that coincided with the death of Garcia de Lerma, leaving as Governor, the Hearer of the “**Audiencia de Santo Domingo**”, Rodrigo Infante, who had arrived in the city, with the

Santa Marta - XVI Century Cartography of a Fortress for the beach

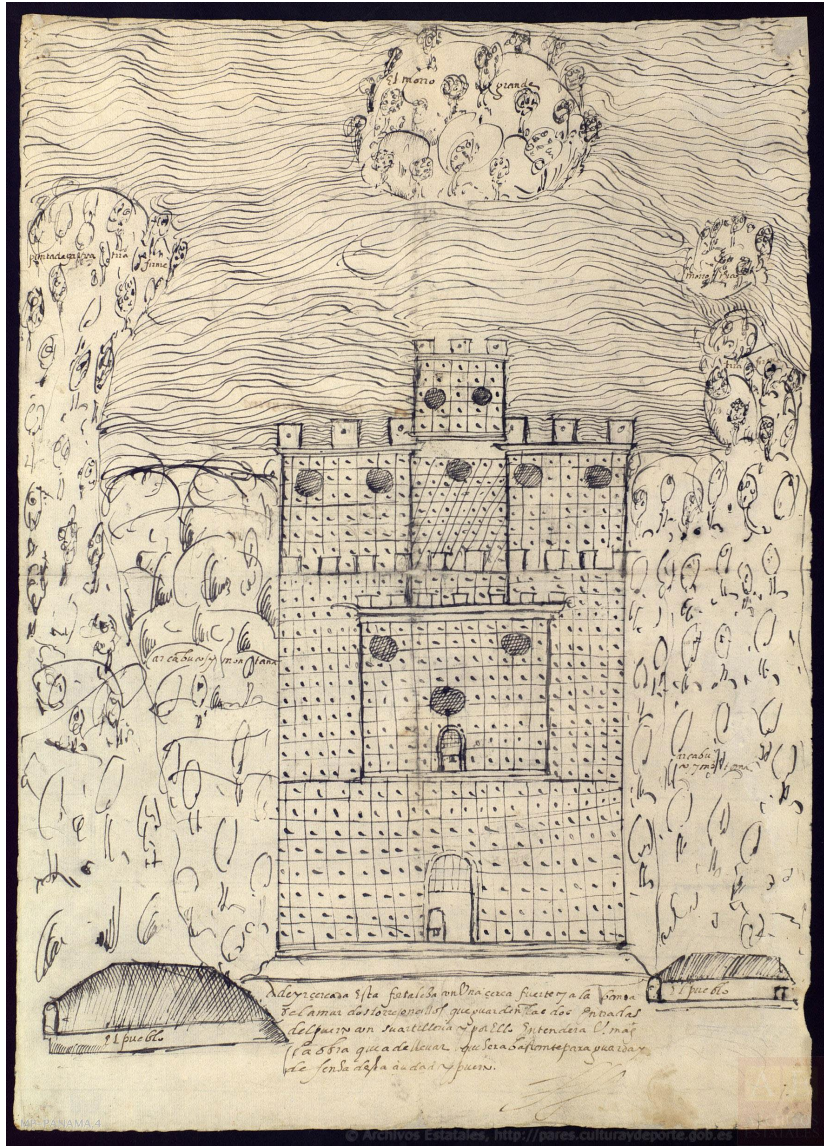


Fig 14, “Modelo de la fortaleza que sea de hazer en Santa marta”. ES.41091.AGI//MP-PANAMA,4, 1573.

Glossary: Audiencia Real de Santo Domingo, Beach of Santa Ana, Taganga, Consejo Real de las Indias, Metropolis, Stonecutters.

objective of putting to trial to Garcia de Lerma, and found the city with high difficulties, due to the fire of the 1531, the inhabitants were abandoned, without energy in order to make the expeditions in land, due to this, in August of 1534, Infante left the governance to Antón de Bezos, who kept it for two (2) months.

The city was surrounded by enemies and in a state of decay, without a proper **Fortress** that could protect it, therefore, Freir Tomás de Angulo declared to the “**Consejo General de las Indias**”, on a letter of the 31st of May of 1535 what follows;

“No hay necesidad de abrir la puerta á que mas Cristianos vengan. Antes hay necesidad de sacar muchos de los que hay, porque ellos están perdidos y mueren de Hambre”. (Angulo 1535) (Zapatero 1980, 62)

The territories between “**El cabo de la Vela**” and the recently founded Cartagena de Indias, were considered to be abandoned due to the conflicts with the “**Caciques**”, therefore the Spanish Crown, decided to facilitate **Capitulations**, for the Governor of Tenerife and La Palma, D. Pedro Fernandez de Lugo, these capitulations were signed by his son D. Alonso de Lugo in January of 1535.

It was conceived in the capitulations, that the territories of Santa Marta, would be the same as the ones that Bastidas had, not overpassing the **River Magdalena** and adding the unknown terrains to the valley of the river. The rights were conceived for two (2) lives, which meant for the Governor and his son, and it was provided the license to build up two (2) **Fortresses**, in the lands that would be found as convenient for the protection of the city.

On the 2nd of January of 1536, the Governor arrived to the city, where the inhabitants accepted, without opposing, the new authority of Fernadez de Lugo, but, with the arrival of 2000 men, it was necessary to plan new explorations into the land, in order to find the graves of the **Cacique of Bonda**, as there was lack of food and resources. The first contact that the Governor had with the Indigenous communities, was pacific, Therefore, it was decided to camp, in “**Bonda**”, in a simple defense with stakes, from where he ordered his son, to explore the “**Sierras**” in seek of gold. When Alonso de Lugo (son) found the gold, he convinced the soldiers, not to inform the Governor, his father, about the loot found, and on his return to Santa Marta, arranged a ship to Spain, leaving the Governor with debts and concerns.

Santa Marta - Location of the Ruins for the Fortress of Bonda



Fig 15, Source; Google Earth

Glossary: Consejo General de las Indias, El cabo de la Vela, Caciques, Capitulations, River Magdalena, Cacique of Bonda, Bonda, Sierras.

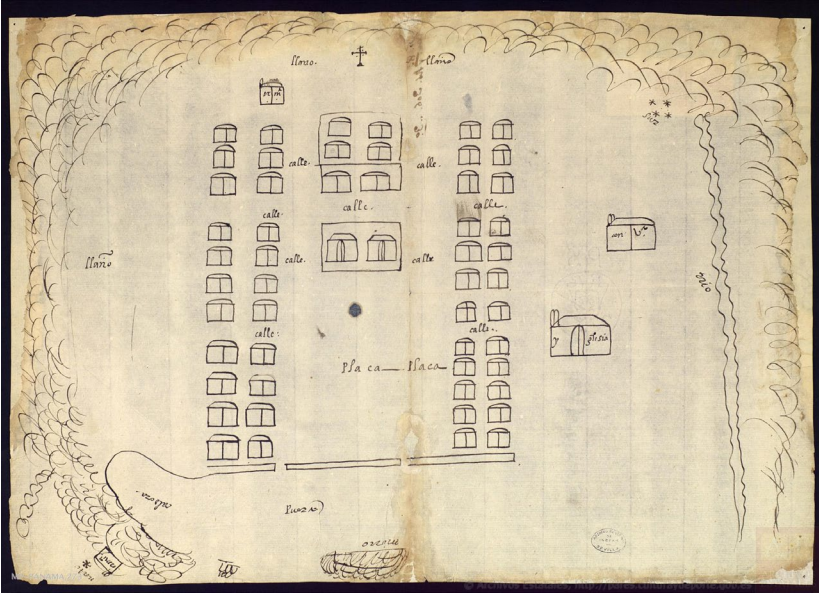


Fig 16, “Plano de la ciudad de Santa Marta”. ES.41091.AGI//MP-PANAMA,273, 1551.

Glossary: Chibchas, Antioquia, Audiencia de Santa Fe.

“más de 800 Libras de Oro fino, la qual puso en muy buen cobro, y con proposito de hazerle lo que despues hizo. Habló a los Capitanes y Soldados, y les dijo y rogó que no curasen de dar parte a su padre del Oro que avia avido ni se promoviesen á que les desposeyere de lo que con tanto trabajo y riesgo él avia havido” (Zapatero 1980, 65).

Due to the security problems that the city had, the emperor reaffirmed the license, for the construction of two (2) **Fortresses**, which had been previously authorized to the Governor Pedro Fernandez de Lugo, and now under the governance of his son Alonso Luis de Lugo, who lacked of aptitudes for the governance of Santa Marta, as stated by Zapatero.

“Las pocas aptitudes del Gobernador D. Alonso Luis de Lugo, su avaricia y crueldad ´, le desacreditaron” (Zapatero 1980, 67).

On the 14th of November of 1540, with a new **capitulation** of the 26th of February of 1541, it was authorized the transport of twelve (12) bronze cannons from Spain. As a consequence of his bad governance, Alonso Luis de Lugo is set to trial, and D. Miguel Díez de Armendáriz, is named Governor, and as well as the previous Governor, ambitioned the territory of the “**Chibchas**”, through an exploration carried on, it was reached the territory of “**Antioquia**” and it was found Sebastian de Belalcazar, who was captured, accused of crimes and sentenced to death, but after appealing, he died in Cartagena de Indias, in October of 1546, before sailing for the **Metropolis**. The “**Audiencia real de Santo Domingo**” sentenced Armendáriz to trial and named D. Juan Lopéz in 1551 as Governor of the province of Santa Marta, and shortly after D. Pedro de Ursua, in 1551-1554 was named Governor, when Carlos I, through a “**Real Cédula**” of the 17th of June of 1549, had funded the “**Audiencia de Santa Fe**”, Installed formally in April of 1550.

On the 20th of April of 1573, the Governor of Santa Marta, D. Luis de Rojas, wrote to the King of Spain, Felipe II, that although the city was conformed by trustful and loyal minions of the king, who defended it, in previous attacks from enemies, it was lacking of a **Fortress** or defense, in which they could gather to protect.

“La disposicion desta Ciudad y Puerto della ser tan ynportantisimo al servicio de V.M. rreal y á q.e se guarden y defiendan q. ay en ella solamente diez V.os y muy povres y alcanzados á causa de ser rrovados muchas vezes de corsarios Françeses Enemigos y de las coyunturas q. se ofreçen en tanto defienden esta Çiudad y Puerto de V.M. como muy buenos y leales bazallos y en esta forma Çiudad y Puerto no ay defenza ninguna ny Fortaleza en donde los V.os con sus personas, mugeres é hijos se puedan defender de los enemigos” (Rojas 1573) (Zapatero 1980, 69)

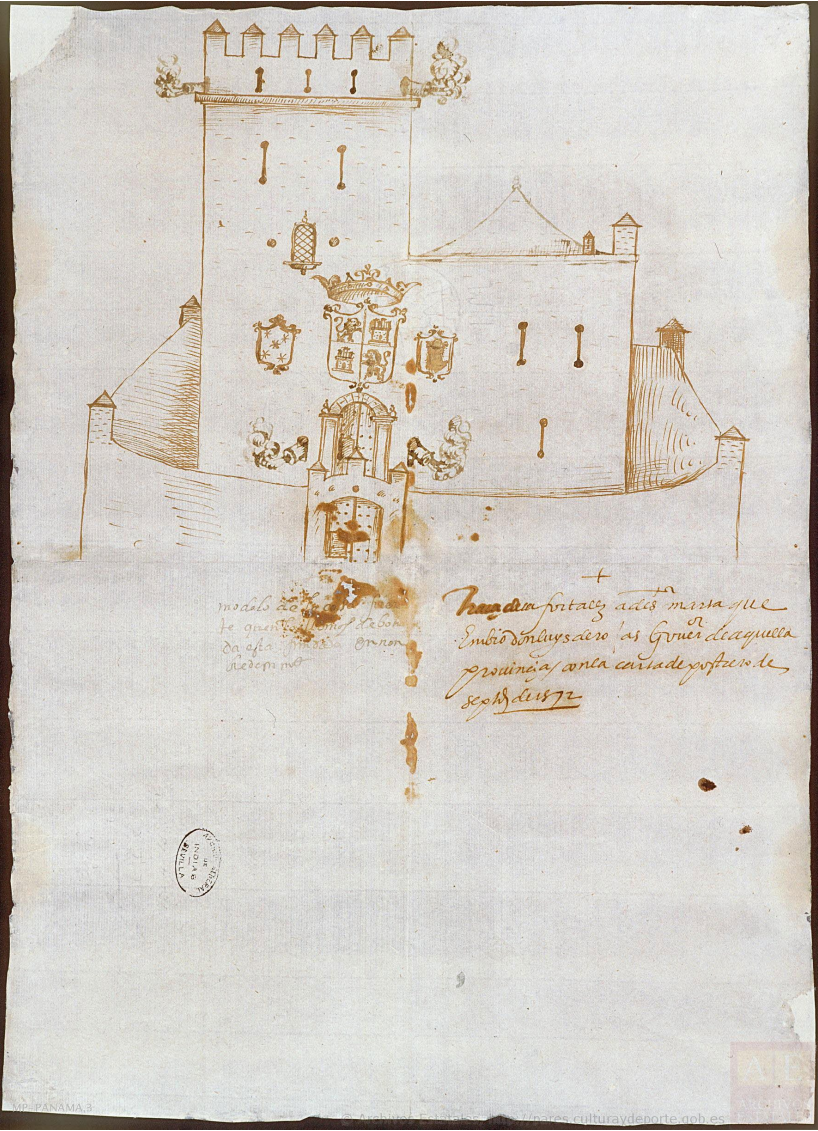


Fig 17, “Traça de la foteleza de santa marta que enbio don Luys de rojas Gouernador de aquella provincia con la carta de postrero de septiembre de 1572”, ES.41091.AGI//MP-PANAMA,3, 1572

Glossary: Plazas Fortificadas, Palenque, Rancherias.

For the second half of the XVI Century, Santa Marta, as well as, all the Spanish American “**Plazas fortificadas**” was in a state of “threat”, due to the political conflicts of the King Felipe II, with France, and England, there was a continuous presence of sailors and pirates, that threatened the cities and their population. The first attacks, started with Roberto Bad in 1543 in Cartagena de Indias, and Riohacha, which were continued by Martin Coté and Jean de Beautemps in 1559, and by Francis Drake in 1586.

In 1571, the Governor Pedro Fernandez de Busto, left Santa Marta, as, he was entrusted Cartagena de Indias, but before leaving the city, he communicated to the King that, it was needed to build **Fortresses** and to secure the previously existing ones, due to the risk of attacks, from sea and land.

In 1572, the Governor D. Luis de Rojas, wrote to the King, that neither in the port, the ships were secure, nor the plantations on the valley, as they were attacked by the indigenous people, causing the inhabitants, to leave the city.

“An rrobado y quemado mucho Nabios ansi Fragatas como Nabios grandes que á sido grandisima lastima, y del propio puerto de Cartagena salieron dos o tres dellos é hizieron lo propio de lo qual toda esta Costa esta muy alterada” (Rojas 1572) (Zapatero 1980, 73).

In 1572, due to the continuous confrontations that were carried against the indigenous communities, that attacked the city regularly, the Governor Rojas, found the need to build up a **Fortification** in the land of “**Bonda**”, where there were the graves of the natives, and where in 1536, D. Pedro Fernandez de Lugo, had built up a “**Palenque**”, as were known the initial **Fortresses** and “**Rancherias**”, in the new Kingdom of Granada, the style of **Fortification** that was built up by the Governor, followed the treaties of the military art, known as “**Torre-fuerte**”, and which were commonly built up at the end of the middle ages, in the XIV Century.

“La fortaleza tengo ya acavada y muy mejor de lo questava antes sin la qual esta Ciudad no se puede sustentar, cuyo modelo enbio con esta” (Rojas 1572) (Zapatero 1980, 74)

On the letter sent by the Governor to the King and with the graphical representation attached to it. It is possible to identify, some of the characteristics that conformed the **Fortification**, and which are described by Zapatero on his book “*Historia de las fortalezas de Santa Marta y Estudio Asesor para su Restauracion*”, as a crenelated tower, and crenelated

parapets for arquebuses and bombards. This typology of **Fortification** was common during the initial years of the Colony, and were considered a transition phase, from the irregular **Fortification** of the middle ages, to a more regulated style in the renaissance. Six months after the first communication to the king, in which the Governor explains the need for the construction of the **Fortress** of Bonda, in April 20th of 1573, the Governor writes to the King about two more **Fortifications** that were required for the protection of the city, and for the planning of a defensive triangle, established to protect it. The first **Fortification** that Rojas mentions on the letter, refers to the one built up, on the same spot where Fernandez de Lugo, built one on his arrival in 1536, between the River Manzanares or Santa Marta, and the city, years later this **Fortification** would be converted into the **Fortress San Juan de las Matas**, by the Governor Guiral and then rebuilt by the Military engineers Betin and Ficardo.

The second **Fortress** mentioned by Rojas, refers to another **Fortification** built up on the beach of Santa Ana, at the northern area, close to the “**Caldera**”, and years after would be the one **Fortress** that Governor D. Vicente de los Reyes, would reform in 1643 and name as **Fortress of San Vicente**, and which Ficardo rebuilt in 1666-1667.

“Que la dha. Fortaleza se aga y se puede hazer un poco Arriva del sitio donde antes estava, lugar competente para la Defenza de la Mar y de la tierra” (Rojas 1573) (Zapatero 1980, 80).

Although the initial **Fortification** of the defensive triangle of the city, the one located in **Bonda**, was built up, in order to protect the cultivated fields, and to keep the indigenous communities away from the city, six months after its construction, **Chimilas** and **Bonda**, got together, in order to attack and set the faith of the **Fortification**, which was destroyed, and never again rebuilt, meaning the disappearance of the defensive triangle of the city, only the **Fortifications** on the beach of Santa Ana remained protecting the city from the sea, but leaving it exposed to the attacks that could be display from the land.

In 1576, D. Lope de Orozco was named Governor of the city and arrived to Santa Marta in an expedition with two (2) ships and 400 men with families, by that moment the city was in an advance state of abandonment, it was almost depopulated, as most of the inhabitants left, when Governor Rojas left the governance, fourteen (14) soldiers remained, and a couple of expeditionaries, were awaiting for the next explorations to be carried out in land. When Orozco arrived to the city, among his plans, there was the objective to make peace with

Santa Marta - Defensive triangle in the second half of the XVI Century

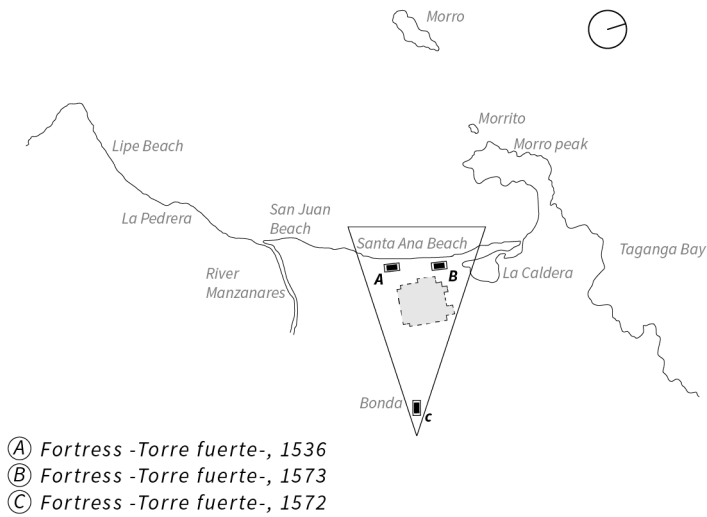


Fig 18, Re-elaborated by the author, source (Zapatero 1980, 71)

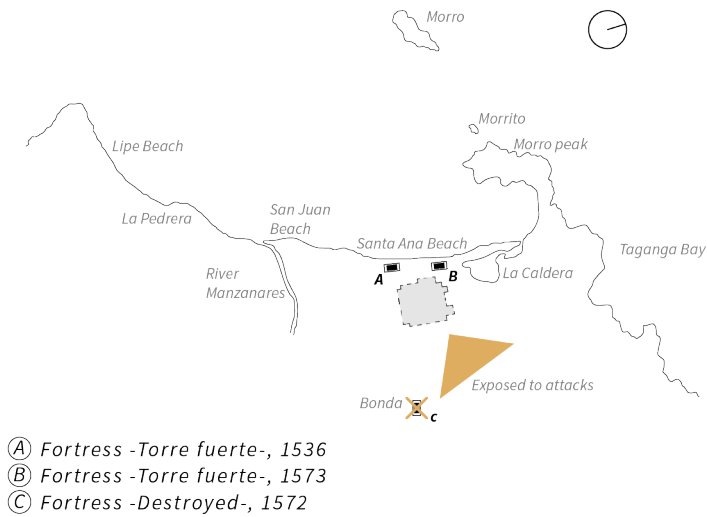


Fig 19, Re-elaborated by the author, source (Zapatero 1980, 71)

Glossary: Fortress San Juan de Las Matas, Caldera, Fortress of San Vicente, Chimilas, Bonda.

the indigenous people, but this resulted in confrontations, due to their resistance, leading to the killing of almost all the families in the city, and leading it to a brink of no return, as it was about to disappear. By 1586, D. Diego Hidalgo de Montemayor, the next Governor of the city, arrived to Cartagena de Indias, but did not manage to be in charge of the city, but his son, who had his same name, did, as it was in the capitulations, however, the “**Cabildo**” chose the captain Francisco Marmolejo, which was later destitute due to the treatment on the indigenous people and was set to trial. Therefore, Manson de Contreras, judge of Hidalgo and Marmolejo, became Governor.

XVII Century

At the beginning of the XVII Century, the state of warning was still present along the cities located on the coast, due to, the continuous conflict that the monarchy had with the English, additionally, not only the English sailors who treated the “**Spanish Plazas**”, were the enemies to worry about, the presence of pirates on the Caribbean Sea, added an extra layer of awareness, to which the **Plazas** could not react to, as the Spanish Crown, had America unprotected, as it needed to defend the European land.

“Al dar comienzo el siglo XVII, las relaciones de Espana con Inglaterra continuaban tensas, persistía la hostilidad en los litorales americanos con la temida presencia de la piratería. La corona espanola se veía impotente para frenar los desmanes, al tener que acudir al mismo tiempo a los escenarios de Europa” (Zapatero 1980, 93)

When Jacob I, was crowned King of England, assumed a pacifist politic relation with Spain, through the “Treat of Friendship and Alliance” signed in London on the 28th of August of 1604, this treaty, led to change ambassadors in both monarchies. The count of Gondomar, work the cordiality between the monarchies, until 1618. During this period of time, the Piracy that affected and aware the “**Plazas**” of Spain in America decreased, but did not mean the complete disappearance of it.

It was until 1618 that the treaty allowed the pacific relation with the monarchies, but when the 30 years war (1618-1648) started, and the not successful marriage between Carlos, Prince of Wales and the Spanish “**Infanta**” Maria did not come to terms, the conflict between Spain and England revived, plus the conflict with the King of France, Louis XIII, affected the important “**plazas**” that Spain had in America.

“La politica exterior de Felipe III, 1598-1621, y de Felipe IV, 1621-1665, iba a repercutir en las Indias Occidentales, comprometidas por los negocios de Europa. Las importantes plazas de Cartagena de Indias, Santa Marta, Rio Hacha, Portobelo, Panama, Veracruz y los puertos de las Antillas serán testigos de excepcional importancia” (Zapatero 1980,94).

Meanwhile in Santa Marta, and as explained before, the conflicts in Europe, had a repercussion in America, between the governance of Juan Guiral Belon, governor of the city between 1600-1606, there were numerous confrontations in order to defend the Beaches of Lipe and Concha, from pirates and English sailors, who treated them; but these confrontations, had additionally an impact in the defensive system of the city. During his period, the previous “**Tower-fortress**” built up by the Governor D. Luis de Rojas in 1573, was re-built, reinforced with bronze cannons and increased in size, it was named after this “**Fortress San Juan de las Matas**”.

“Le dio la denominación del fuerte San Juan de Las Matas, su traza la de estrella con cuatro rayos a modo de baluartes, parapetos y troneras. Puso en el frente del mar varios canones de hierro y culebrinas, y dos garitas para la vigilancia” (Zapatero 1980, 95)

Santa Marta - Defensive system and weak points

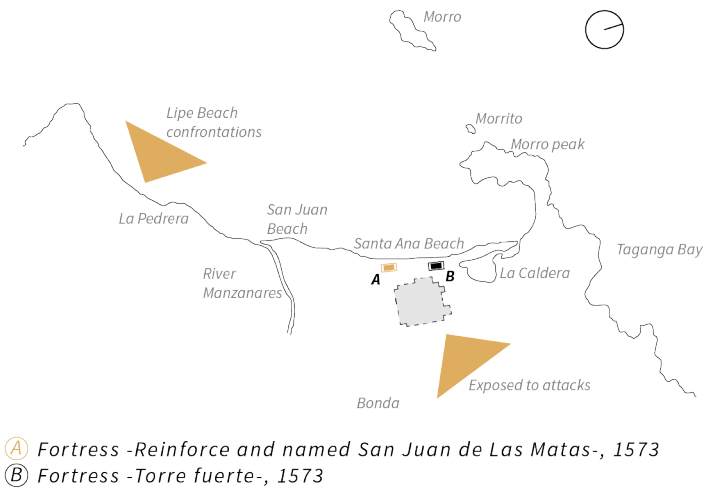


Fig 20, Re-elaborated by the author, source (Zapatero 1980, 71)

Glossary: Cabildo, Spanish Plazas, Plazas, Infanta.

Additionally, the Governor prepared a “**trench**” along the beach, in order to complete the one in the **Fortress** and to reinforce it.

In 1606 D. Andres Salcedo arrived in Santa Marta, in order to take on the Governance of it, and with the objective of taking over the pearls of **Riohacha**, due to, the presence of English corsairs, that bargained with the indigenous people, Salcedo, reinforced the defensive system of the **Fortress of San Juan de Las Matas**, that he found, in a decay state, due to, the numerous storms, that affected it. As a result of his deficient governance, the city was poor, therefore, the corsairs coming from Spain with men and commodities, would go directly to Cartagena de Indias and would not stop in Santa Marta.

“La proximidad de Cartagena, preferida por la administración para el gran tráfico comercial, le perjudica abiertamente. Su extraordinaria importancia estrtégica no basta en ningún momento para hacer de ella uno de los pivotes de la organización del Caribe” (Navarro García 1976, XIV).

D. Diego Fernández de Argote (1610-1617) on his writings to the King, described the deficient state of the **Fortress of San Juan de Las Matas**, and recommended its reconstruction, as the inhabitants of the city, did not have trust in the defensive system of it, and were willing to leave, it is due to this reason that Argote, asked in **Santa Fe** fundings for the reconstruction, but which were not provided, on his return to Santa Marta, he decided to explore the land of the **Bonda** and **Masingas**, but this attempt, only occasioned problems for the city, as the indigenous people, displeased, attacked back causing most of the inhabitants of the city to leave for the coasts of Venezuela.

When the new Governor, D. Francisco Martinez de Rivamontan, arrived in the city, Santa Marta found itself in a continues confrontation with the indigenous people, due to, the hostility, that D. Luis de Coronado, previous Governor, had with the **Goajiros**, **Cocinas** and **Macuiras**. On his arrival Martinez de Rivamontan, found out a fleet of English pirates, causing the need, to prepare a company of arquebusiers, who defended the ruined **Fortress of San Juan de Las Matas**, driving away the pirates.

D. Gerónimo de Quero 1629-1630, highlighted that the city, had two (2) ports, which were qualified to accommodate 200 vessels, with five (5) coves and the “**Ancon of Gaira**”, but due to the abandonment of the city, its only **Fortress**, **San Juan de Las matas**, could not



Fig 21

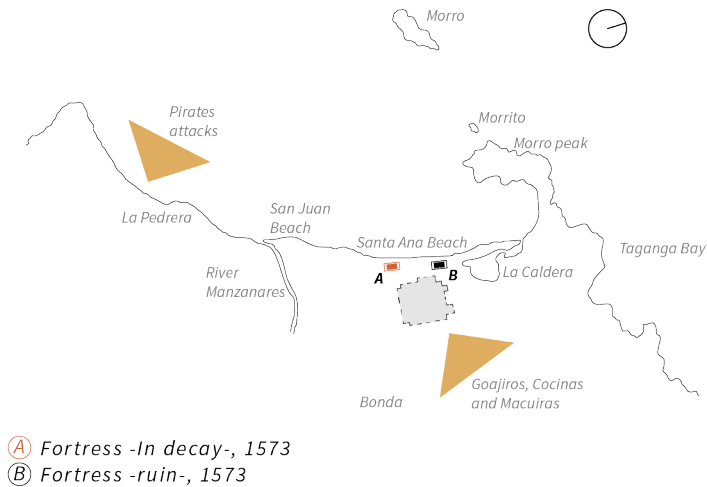


Fig 22, Re-elaborated by the author, source (Zapatero 1980, 71)

Glossary: Trench, Riohacha, Santa Fe, Masingas, Goajiros, Cocinas, Macuiras, Ancon of Gaira.

accommodate more than five (5) men, and did not have weapons or ammunition. However, in such **Fortress**, Cristobal Matute, would defend the city from the Dutch Adriano J. Patter, on the 26th of February of 1630.

The attacked perpetuated by the Dutch, and the defense hauled by Matute, were the needed arguments for the Governor Quero, to request, the construction of a **Fortress**, that would require to be ruled by the military principles, walls in masonry, and carved stone corners, gunpowder stores, lodgings, and supplies for a garrison of no less than 40 soldiers.

In 1629, D. Rodrigo de Velasco is named Governor, but his arrival to the city would be in 1630, in that period of time, one of the soldiers who fought side by side with Matute, had presented a defensive plan for the city, to the court, but due to the information provided by the Governor, which would be contradictory to the one presented by the soldier, the plan was rejected.

On the following years, the city continue to live an abandonment on its defensive system, until, in 1643, when Governor D. Vicente de los Reyes Villalobos, rebuilt the other **Fortress**, built up by Luis de Rojas in 1573, and naming it as **Fortress of San Vicente**. The **Fortification**, was rebuilt with, low walls, in order for the cannons to target the enemy ships, a reduced parade ground, buildings for the stores of gunpowder and supplies, and a sentry box for the surveillance of the beach, it lacked a moat and stockade.

Due to the “**Thirty years war**”, the military power that characterized Spain, was affected, and although, there were carried out, peace treaties with Holland and France, in America, the attacks perpetuated by Dutch and French corsairs, kept on affecting the Spanish cities and ports.

Santa Marta, was not out of the war scene, as it was constantly being attacked by corsairs, but also attacked in land by the indigenous people, who controlled the connections and unable the communication with **Riohacha** and with **Cartagena de Indias**.

As a consequence, in 1659, the Captain Marcos del Puerto, new Governor of the city, together with the “**Castellano**” of the **Fortress** on the beach, Captain Sebastian Fernandez de Gamboa, presented a defensive project for the city, sent directly to the King Felipe IV; In the project it was solicited, the construction of a **Bastioned defense**, and not the recon-



Fig 23, Elaborated by the author

Glossary: Thirty years war, Cartagena de Indias, Castellano, Bastioned defense.

struction of the two (2) **Fortresses** on the beach of Santa Ana, as it was needed, a defensive system for the current times.

It was also recommended to rebuilt, the buildings close to the port, which were destroyed by the French, to protect the graves, the cattle, and exploit the gold and silver mines, besides, defending the paths that connected Santa Marta, with the other cities.

On relation to the defensive system of the city, Fernandez de Gamboa, exposed the **Fortres of San Vicente** and the **Fortres of San Juan de Las Matas**, as destroyed and abandoned buildings. In his project Gamboa, proposes to extend the defense of the city to the “**Punta la Caldera**” or **Morro**, and on the lookout hill, proposed a closed **Fortress** as a redoubt with two (2) bastions on the exterior angles, with the objective of defending the pass through the channel and the “**surgidero**”, additionally proposed a **Fortress** on the site where years later the look-out “**Vigía**” would be built.

Santa Marta - Bay of the city (Place of location of the Fortresses)



Glossary: Punta la Caldera, Morro, Surgidero, Vigía, Front, Plaza fuerte, Virrey, Fortres Nuestra Señora de la Caridad, Punta Betín.

Finally for the beach of Santa Ana, Gamboa proposed the construction of a “**Front**” as in a “**Plaza fuerte**”, with five (5) regulated bastions.

In 1663, when the governance of D. Marcos del Puerto ended, the military engineer Juan Betín, would come to replace Captain Fernandez de Gamboa, as designated by the “**Virrey**” of Santa Fe, and although his short time in the city, his works were characterized by the measures adopted against the pirates that threaten Santa Marta. Among the works performed by Betín, there was the advance reinforcement promoted for the **Fortress of San Juan** and **San Vicente**, and the construction of the **Fortress Nuestra Señora de la Caridad** on “**Punta del Morro**”, which years later would come to be recognized as “**Punta Betín**”, due to the **Fortress** built up by the engineer. Thanks to this new construction by Betín, the three **Fortresses**, **San Juan**, **San Vicente** and **Nuestra señora de la Caridad**, would come to represent a new defensive triangle system, for the protection of the city and the beach of Santa Ana.

“construyó una importante fortaleza que denominó fuerte Nuestra Senora de la Caridad, para dominar el surgidero, la playa de Santa Ana, la ensenada del Ancón y la canal del Morro, capaz de mantener ideales planes de fuego con los fuertes San Juan de Las Matas y San Vicente” (Zapatero 1980, 113).

In order to study the strategy of Santa Marta, the Military Engineer Francisco Ficardo was sent to the city, by order of D. Iñigo de la Mota Sarmiento, Governor of San Juan. On his arrival in 1664, Ficardo expressed the state in which the **Fortress of San Vicente** was found, and the reinforcement and works performed in it, for its adequate use in the military defensive system of the city. Ficardo described the **Fortress** as a “**Platform**” a simple square building with two (2) thundered breastworks for the east and sea fronts, gunpowder and ammunition stores, but lacking a moat.

As explained by Zapatero the works performed by Ficardo on the **Fortress** consisted in:

1. Closing the fortress with a wall of masonry, of 1.5 “**varas**” height, triangular, thundered on the sea front for 5 cannons protected by Saracinesques; on the sides it made two crossings for flanking, and on the west the door with a simple drawbridge.
2. Palisade, secured with buttresses at the corners.
3. Moist ditch five “**varas**” wide and one deep.
4. In the “Old building”, in the left corner of the sea front, he built a steep sentry box and a flagpole.
5. Gunpowder store, not bomb-proof.
6. Equipment store
7. Barracks for the troops
8. Cistern or pool
9. Reduced parade ground

Although the reinforcement performed by Ficardo to the **Fortress of San Vicente**, improved the defensive system, it was still required to extend the defended area.

“Ficardo convenció al gobernador Barranco de la conveniencia de ampliar el horizonte defensivo de las playas, extendiéndolo por el oeste hasta los acantilados del cerro de La Pedrera, donde construyó una fortaleza simple consistente en una plataforma de altos muros, parapeto a barbata y un edificio a manera de torre fuerte, parecida a las de Bonda y Santa Marta hechas por Rojas en el siglo XVI - Fábrica de mampostería y verdugadas de ladrillo, según técnicas de Castilla- Así nació el fuerte que anos más tarde, en 1725, en tiempos de la gobernación de D. Juan Beltrán de Caicedo, fue consolidada y artillada con cuatro canones de hierro, atronerando los parapetos y aumentando los alojamientos para la tropa, dándole también la denominación de San Fernando” (Zapatero 1980, 123).

XVIII Century

The political and military events happening in Europe, during the XVIII Century, were characterized by the conflict between Spain and England, which had a strong influence in America, in what would be known as the “**Guerra del Caribe**”, such conflicts, were the repercussion of four (4) wars, in which the Spanish monarchy had part. The “**War of the Spanish Succession**”, The “**war of Jenkin’s Ear**”, The “**war for the Third Family Compact**” and The “**war of the Quadruple Alliance**”. As a result, all Spanish possessions in America were at risk and threaten by corsairs and pirates, and nevertheless was the case of Santa Marta, which at the beginning of the Century and although the conflicts in which Spain was involved, the city remained unprotected, even if considered the key of access “**Llave de acceso**” and protection of the “**River Magdalena**”.

“En su caliente litoral, una plaza maravillosamente fortificada, Cartagena de Indias, asumia ser la llave de las riquezas del Perú. Próxima a Cartagena, y portillo para penetrar por el rio Magdalena hacia Santa Fe, desprovista de fortificaciones, la ciudad de Santa Marta, llave de la defensa por indefension.” (Zapatero 1980, 130-131).

At the beginning of the Century, the only **Fortresses** that protected the city, were distinguished for being outdated concepts of defense, from the XVI Century, as followed the style of the “**Torres - Fuerte**”, which had been reinforced and rebuilt, in the XVII Century, by the military engineers Betín and Ficardo. On top of it, the city found itself unable to grow, due to the continuous attacks of the indigenous people, who prevented any attempt of it.

In 1741, after the attack in **Cartagena de Indias**, by Edward Vernon, it was needed to focus protection on Santa Marta, as it was exposed and lacking of enough protection, as to fight back, in a combat. What’s more, the territory in which it is located, risked the city, as it was a perfect place to land. Bringing the doubt of how to protect it and more over, what to do with the city.

“Santa Marta ciudad muy abierta, destacaba como lugar muy propicio para los desembarcos y planes de invasión. Se hacía preciso reconocer sus defensas, posibilidades defensivas, guarnición, etc.” (Zapatero 1980, 136)

As a reaction to this awareness and doubt with the city, Antonio de Arevalo y Porras, was entrusted, the study and identification of the **Fortresses** in the city, however, due to an ambush by the English, near the port of Puerto Rico, found himself in the need of landing

Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.

in Cuba, and by 1743, was once again entrusted the task in Santa Marta. During this second trip to the city, the Governor was, the Frigate Captain of the Royal Navy D. Juan de Aristegui y Aviles, 1743-1747

Among the tasks, that Arévalo needed to perform in the city, there were, the need to draw a map of the bay, the drawing of the plans and sections of the existing fortresses, to which would be included the projects to be carried on them, aiming for the less expending in sources, proving that the city was not thought to be a “**Plaza armada**”.

On the map that Arévalo drew in 1743, on the 18th of June, the Engineer, projected, the avenues, streets, places for landing and the movement that the enemy would require in order to attack the city. Later in 1764, Arévalo would redraw another plan of the bay, having as a base the one drawn in 1743.

Regarding the **Fortresses** in the city, Arévalo expressed in his plans, the ones originally built, together with the ones reinforced and rebuilt. Additionally established that the only ones to be reinforced were; the **San Vicente** and the **Fortress of Betín**, by adding an extension of them. Among the plans produced by Arévalo, there can be found the **Fortress of San Fernando**, the **Fortress** on the island “**El Morro**”, the **Fortress of Betín**, the **Fortress of San Antonio**, the **Fortress of San Juan de las Matas**, the **Fortress of San Vicente**, and the **Fortress La Concepción**, (this fortress had not been built by this moment, as it was later proposed).

On the plans drawn by Arévalo, regarding the **Fortress of San Fernando**, there can be visible, the platform with “**Parapeto atronerado**”, and the tower, with the accommodation for the troops, deposits, etc. Arévalo proposed the extension, of new quarters, which were not built, and which would have allowed the extension of the defensive coverage, to the **Fortress of San Vicente**, as a strategical defense.

By 1762, Antonio de Narvaez, designed the post “**La Vigia**”.

And the **Fortress** on the island “**El Morro**”, consisted of several factories located on the crest, and had been built by Governor D. Gregorio de Rosales Troncoso, during the “**war of Jenkin’s ear**” 1739-1748, it consisted of, the **Platform of Santa Ana**, rectangular in shape

Santa Marta - Plans and Sections of the Fortresses

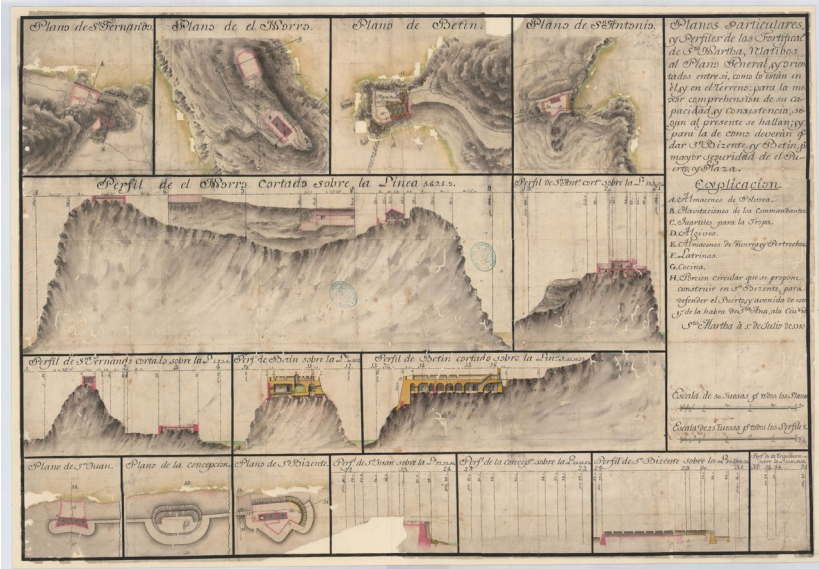


Fig 25

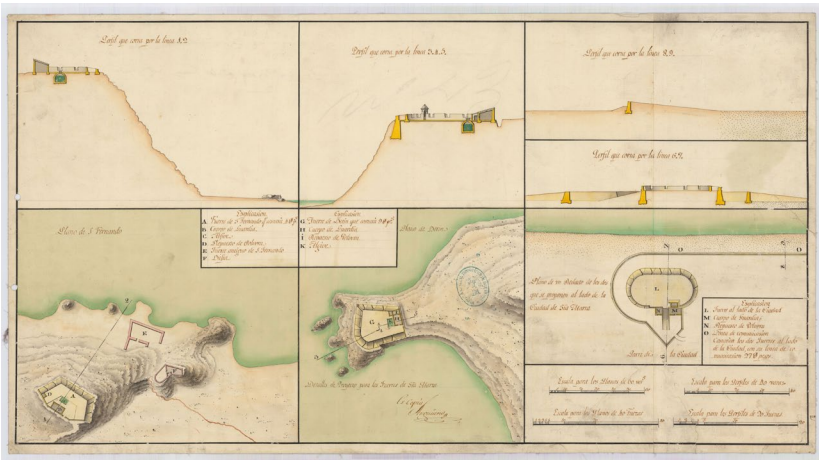


Fig 26

Glossary: Plaza armada, Fortress of San Fernando, Fortress la Concepción, Parapeto atronerado, Platform of Santa Ana.

with barbette breastwork with four bronze cannons, and a simple barbette breastwork, except for an embrasure for a stone cannon with a firing arrangement towards the bay and the “**Morrito**” channel, on the esplanade there could be found the buildings for officers and troops, warehouses for food and supplies and latrines.

In 1762, Antonio de Narvaez, made extensions to the **Fortress**, by closing the parapet on the north and east sectors, providing them with 14 iron cannons and carrying out the construction of the **Battery of San Carlos**.

The **Fortress of Betín**, due to its strategic position; The engineer Arévalo considered it opportune to expand it, by means of a powder store, rooms for officers, for the troops, a cistern, food stores, latrines, and a kitchen, but according to Zapatero, the projected reinforcement, was neglected, and it fell, into decay.

On the northern coast of “**Punta Betín**”, or “**El Morro**”, as a way of protection to the bay of **Taganga**, the **Fortress of San Antonio**, supported the defensive system of the city, however, unlinked to the defensive triangle of the city’s bay, conformed by the **Fortress of San Fernando**, the **Fortress of San Vicente**, and the **Fortress** on the island “**El Morro**”. The **Fortress of San Antonio**, was characterized for having an irregular trapezoidal form, one level for the platform, with a Barbette Parapet, a gunpowder store, barracks for the troops, a cistern, and was surrounded by a well, that had been excavated into the rock.

Between 1600 and 1606, the Governor D. Juan Guiral Belón, rebuilt the **Fortress of San Juan de Las Matas**, with an irregular star trace, of 4 bastions, which 50 years later, the engineers Betín and Ficardo, would reformed, but in 1743, when the Military Engineer Arévalo carried on the recognition of the city’s defenses, the **Fortress of San Juan**, was found in a decay state.

As explained by Zapatero, the bastions conformed a front “**plaza**” of 10 **toise** (19.49 meters), and one of 15 on the city’s front (29.24 meters), on the sides the measure was 12 **toise** (23.39 meters), the **Fortress** was conformed with a Barbette Parapet for 14 cannons. Among the reinforcements proposed by Arévalo, there were the reconstruction of the gunpowder store, the barracks for the troops and for the officers, latrines, a well for the city’s front, a trench on the east, allowing the communication with the **Fortress** of “**La Concep-**

Santa Marta - Plans and Sections of The Fortresses of San Fernando and San Antonio

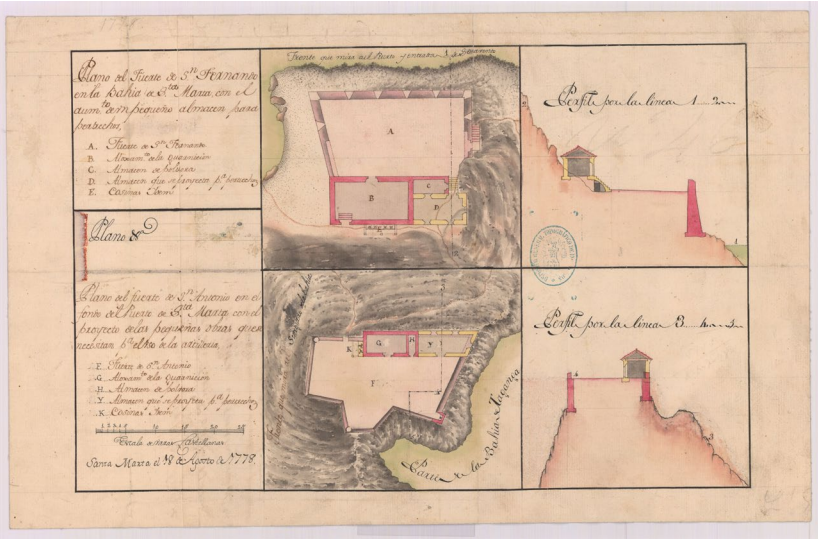


Fig 27

Glossary: Morrito, Battery, Battery of San Carlos, Toise.

ción”, and with the **Fortress** of “**San Vicente**”. Additionally, there was another trench on the west, in order to enable the flood of the well.

The **Fortress** of “**La Concepción**” which originally was conceived as a **Battery** “**La Inter-media**”, should have been located between the **Fortress** of “**San Juan de Las Matas**” and the **Fortress** of “**San Vicente**”, distant between of them with 500 “**Varas Castellanas**” (417.57 meters), the **Fortress** construction, was proposed in 1761, by Governor D. Gregorio Rosales de Troncoso.

Arévalo, disagreed on the construction of the **Fortress** “**La Concepción**”, as it did not mean an improvement for the defensive system of the city, along with generating a major cost in expenses, for the intervention.

The trace of the **Fortress** was an ellipse, which was not recommended by the Governor Troncoso, but followed the regulations for Batteries by the “**Real Academia de Matemáticas de Barcelona**” and the “**Junta de Fortificación de la defensa de las Indias de Madrid**”, the building had a low-leveled platform, almost on the sea level, in order to provide a better performance, its walls were characterized by the Barbette Parapets and endowment for artillery.

The **Fortress** of San Vicente, due to its strategical location defended the beach of Santa Ana, the “**Caldera**”, the “**Surgidero**” and the “**Punta del Morro**”. When Arévalo provided his recognition on the **Fortress**, it was in a decay state, but proposed its reconstruction, with the aim of endowing it with, Platforms, Barbette, Officer Barracks, Troop Barracks, and a Trench with benches for gunmen.

Finally, on his last opinion, Arévalo concluded that the “Defensa por Indefension” (Defense by Defenselessness) as described by Zapatero, was the path to follow for the city, as the exposure, that the city suffered, established the reason of not transforming it, into a “**Plaza de Armas**”.

“Los Enemigos de la Corona no tienen necesidad de tomar aquel Puerto, ni exponerse á los riesgos de residir en una Ciudad nuestra abierta p.r todas partes con el peligro de ser sorprendidos en ella siempre” (Zapatero 1980, 176)

In April 1752, the Governor D. Ignacio Sala, the Military Engineer Manuel Hernadéz, and the

Captain Agustin de Iraola, prepared a description of the city and its **Fortresses**, during the Governance of the Captain Juan Toribio de Herrera y Leiva. Hernández and Iraola drafted the plans of the **Fortresses of San Fernando** and **Betín**, together with the composition of diverse projects of Platforms in the beach of Santa Ana.

On the plans drafted by Hernández, of the **Fortress of San Fernando**, it can be seen the XVII Century works carried on the “**Punta de Lipe**”, with the Platform, Barbette Parapete, and the Barracks and storage tower. On the Hill “**La Pedrera**”, the Engineer Hernández, proposed the construction of a **Fortress** of six (6) sides, and Barbette Parapet, with seven (7) cannons, Guardhouse, Cistern, Gunpowder Store; the **Fortress** would represent a reinforcement for the existing building. However, the position that Arévalo had in relation to the defensive system of the city, neglected the construction.

The **Fortress of Betín**, among the plans presented by Hernández, proved to be an important asset in the defensive system of the city, defending the “**Surgidero**”, “**La Caldera**” and the beach of “Santa Ana”; Hernández, pretended to increase the building with a Guardhouse, a Gunpowder store, and a Cistern. However, in the recognition of the **Fortresses**, carried out by Arévalo, in 1764, the project was criticized (contradicting his own extension project of 1743).

The **Batteries** proposed by Hernández, for the defense of the beach, should have been built on the ruins of the **Fortresses** “**San Juan de Las Matas**” and “**San Vicente**”, however, Hernández did not call these buildings proper “**Reductos**”, as they did not follow the norms and laws of the military art. But nevertheless, could have been cataloged as **Batteries**. They were projected with an access with ramps, with protected doors, on which on the sides were located the Guardhouses, the Gunpowder stores, Troop barracks, and a communication line, for the protection of both **Fortresses**.

In May 29th of 1752, a month after his visit to the city, the Governor of Cartagena de Indias, D. Ignacio Sala, handed over his opinion, about Santa Marta, and proposed that the city’s bay and port, together with the river mouth of the Magdalena, although being good, and of importance, were affected due to the possibility of landing in Taganga, Gaira and Concha

Glossary: Battery La Intermedia, Varas Castellanas, Real Academia de Matematicas de Barcelona, Junta de Fortificación de la defensa de las indias de Madrid, Caldera, Surgidero, Plaza de Armas, La Pedrera, Reductos, Batteries.

beach, as they were zones, where the enemies could land, without being directly affected by the city’s defense, this situation, together with the expense that would have supposed the reinforcement of the **Fortresses**, step down the interventions on the buildings.

“No hallo razon de conveniencia p.a.q.e la Ciudad de S.ta Martha sea Plaza de G.rra”.

On a communication to the “**Virrey**” Marqués de Villar, Sala explained;

“debería quedar como una de las otras del reyno, dexandole solam.te por la razon del Puerto, e impedir el comercio clandestino, una Guardia y oficina correspond.te como la q.e está establecida en el Rio del Hacha” (Sala 1752) (Zapatero 1980, 203).

However, with the recognitions provided and sent to the King, in which it was promoted the “defenselessness” of the city, as its main proof, to not be a target of attacks; The King Carlos III, insisted to continue the recognitions of the city, with the aim of establishing, if the city needed or not an advance defensive system, through the reinforcement or construction of new **Fortresses**; therefore, the King would ask Governor of Santa Marta, Rosales de Troncoso, for a recognition in 1761, and in 1762, to the Military Engineer Narvaez.

In September 28th of 1761, The Governor of Santa Marta, D. Gregorio de Rosales Troncoso y Osore, through his representation to the King, established and communicated that, since his trips carried between Cartagena de Indias and Santa Marta, and from his recognition of the coast, the city, is found at seven (7) “**Leguas**” from San Juan, which is an accessible place for the landing of enemies; making it an access route to the inner land of the province of Cartagena de Indias. The Governor, explained that this, represented an easy access for the enemies, to get to the River Magdalena, and from there to get to the bay of Cartagena, making it a risk for the city, additionally, established that not only Cartagena was at risk but also Santa Fe, as the route of Magdalena, was the route of the “**Virreyes**”, and that from there, it was possible to get to **Popayan** and from there to **Perú**.

“El motibo de proponer á la alta consideracion de V.M. es haver óbservado con gran cuidado en el Viage que hice desde Cartagena á esta Ciudad, la situacion de la Costa, como el desembarcadero del Rio de La Magdalena, que divide la Jurisdicción de este Gobierno, con áquel, y por las Cienagas Navegables, que tiene el Rio, siempre que los Enemigos sean Dueños de este Puerto” (Rosales Troncoso y Osore 1761).

Glossary: Virrey, Leguas, Popayan, Perú.



Fig 28



Fig 29

In his recognition of the city and the fortresses, Rosales described the presence of the **fortresses** on the beach, **San Juan de Las Matas** and **San Vicente**.

“Tienen quatro cañones de Bronze, de á 18, con las Cureñas Ynutils, y colocados en parage que á un Corto exfuerzo de Enemigos pueden perderse por el corto numero de Tropa, y de mala calidad” (Rosales Troncoso y Osore)

Troncoso described the **Fortress of San Fernando**, as a reduced inefficient site, and “**La Vigia**” as the defense for the channel of “**El Morro**”, and of the “**Veladero**”, additionally, recognized the abandoned **Fortress of Betín**; For each of the **Fortresses** recognized by the Governor, it was established the need of building emplacement for artillery.

With the objective of solving the “defenselessness” of the city, Rosales, established the need of a defensive system, in which, the **Fortress of San Fernando**, required a **Battery** with cannons, for protecting the beach of Santa Ana, as a complement to the **Fortresses** on the beach, **San Juan de Las Matas** and **San Vicente**, the Governor, proposed the construction of a **Fortress “La Intermedia”**, squared, regular, with four (Bastions), troop barracks for 300 or 400 soldiers, officer barracks, gunpowder store, and houses for the Governor and accountant’s officie.

In the defensive plan, the Governor highlighted the defenses on the island “**El Morro**”, built during the “Jenking’s Ear war”, and the works to be performed.

“Y por haora se pensase en fortificarla, pues para ponerla en estado respetable comprehendo es nezario hazer Aljibe á prueba de Bonba; y sobre parte de él fabricar Quartel capaz de Cien hombres, con viviendas para los Ofiziales, Almazenes para Viveres, y Muniziones; lo que es yndispensable para poder hazer una vigorosa, y larga defensa.

“Respecto ser todo de una piedra pizarra, y estar escarpado por todas partes, y la vereda por donde se sube bastante agria, que aun corto trabajo está quitada como el desembarcadero, que en él no puede entrar, sino es un pequeño Bote el qual se descubre desde lo alto, que hechando á rodar piedras ympedirán el que se pueda hazer pie firme; á esto se añade que no puede ser Bonbardeado por la parte del Mar á causa del mucho fondo, y solo puede ser, estando Dueños del Puerto” (Rosales Troncoso y Osore)

On his defensive system, the four (4) **Fortresses, San Juan de Las Matas, San Vicente, San Fernando** and **Betín**, would defend the bay of Santa Marta, protecting the paths for the beaches of Lipe and Gaira, while the **Fortress** of **San Antonio**, would protect, the bay of Taganga, and the Concha beach, with the path to Rio Hacha.

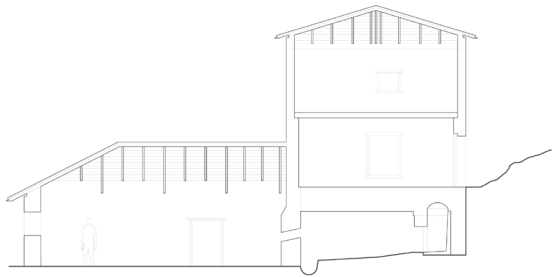


Fig 30, Re-elaborated by the author



Glossary: La Vigía, Veladero.

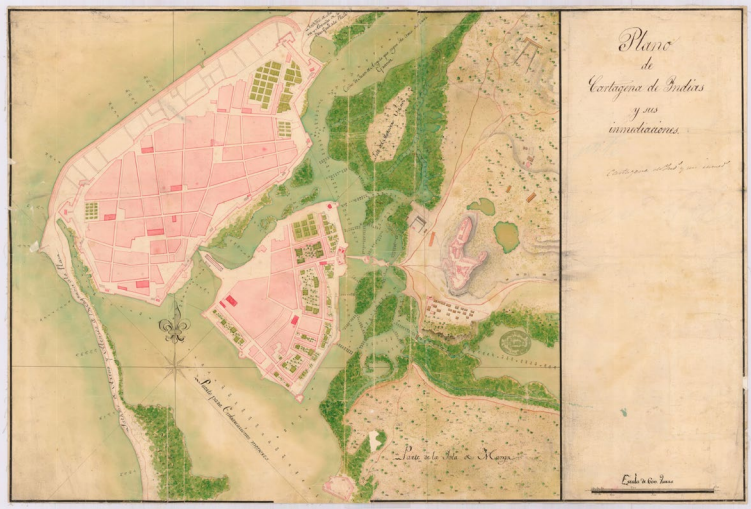
On the 15th of August of 1761, the Spanish Monarch Carlos III and Luis XV of France, signed the III Family Compact, as a repercussion of the continuous attacks carried by the English, against the Spanish ports in America, which did not allow the fluent commerce in the Atlantic. The compact, meant a mutual defense for both monarchies, as a result the English response was expected, and on the 1st of May, of 1762, war was declared.

On the 6th of 1762, the fight for Havana, between Spanish and English started, ending in the surrounding of the Spanish, although the defense carried out by the Captain D. Luis Velasco, the Governor Juan de Prado, found himself in the obligation of surrendering the “**Plaza**”. On the other hand on the 22nd of April, admiral conquered Manila, which surrendered by archbishop D. Antonio Rojo.

While, these conflicts of war, were taking place, in the Caribbean coast of the “**Virreinato**” of **Santa Fe**, the conflict affected and situated the coastal plazas, in a defensive position. Cartagena de Indias, although being protected and after defeating the Admiral Vernon’s fleet, was not stranger to the conflict triggered by the III Family Compact, and found itself in the apogee development of its **Fortresses** as a place of war, being recognized as the key to the kingdom. Regarding Santa Marta, it was recognized as the key to the River Magdalena, to the “**Rica promesa**”, safest way to **Santa Fe**, capital of the “**Virreinato**” and “**Portillo**” of **Popayán**, in order to go to **Perú**, it was unprotected, with a defensive system; the old buildings, of **San Juan de Las Matas, San Vicente, Betín, San Fernando** and **San Antonio**, and the **Batteries** of “**El Morro**”, protected the bay, in spite of lacking, guns, barracks, nor garrison, however, as a result of the war, the “**Junta de Fortificación y Defensa de las Indias**”, disposed that Cartagena and Santa Marta, would be defended. Therefore the Governor Rosales de Troncoso, got recommended the development, of a defensive plan for the city, but nevertheless, the plan’s construction and reinforcement, is denied by the Military Engineer Arévalo.

Later to the recognition and proposes made by the Governor, by order of the **Virrey**, the Military Engineer Antonio de Narvaez followed the recognition.

In 1762, Narváez recognized the coast of Santa Marta, and proposed a defensive reinforcement of the city, by a new construction on the hill “**La Pedrera**”, aiming to reinforce the



Glossary: Plaza, Santa Fe, Virreinato, Portillo, Rica promesa, Junta de Fortificación y Defensa de las Indias, La Pedrera.

Fortress of San Fernando. The new **Battery**, would reinforce together with the **Fortress of Betín**, the defense of Santa Ana beach, and the **Fortresses of San Juan de Las Matas** and **San Vicente**. As Arévalo, was the chief Engineer, the proposal, was display to him and after its studied, it was classified as interesting, specially on the fact of reinforcing the hill “**La pedrera**”; However, once the peace was signed in 1763, on his sentence of May 14th of 1764, the chief engineer manifested his negativity, against the construction or reinforcement of the **Fortresses** in the city.

The written representation, by Governor Rosales, was sent directly to Carlos III, and although, its studied was carried out, due to the conflict and war against England, the reply took time to be emitted, in Madrid, the “**Junta de Fortificación y Defensa de Indias**”, suggested to the Monarch, that the representation should be emitted to the “**Virrey**” D. Pedro Messía de la Cerda, but, the information took time in arriving, due to the conflict, and would get to Santa Fe, in March of 1764, Messía after the arrival of the information, sent to the Military Engineer Arévalo, a letter, asking him, the review and design of a defensive system of the city, with the cost, that the construction would require.

On the 14th of May, Arévalo, would emit, his sentence, together with the costs of construction, the plan of the bay of Santa Marta, a map of the provinces of Cartagena de indias and Santa Marta, for the studies carried out by D. Gregorio Rosales on the 28th of September of 1761. In his sentence, Arévalo, studied the 29 points methodized by Rosales, the **Fortification** of “**El Morro**”, the **Fortification** of “**El Veladero**”, the **Fortification** of “**San Antonio**”, the **Fortification** of “**San Fernando**”, the construction of a **Fortress** between **San Juan de Las Matas** and **San Vicente**.

The **Fortification** of “**El Morro**”, would require, the construction of new buildings, barracks for a garrison of a 100 men, housing for the officers, and a cistern reinforce for bombing, these works should have been performed on the **Battery** made by Rosales, lowering the terrain, and with a Barbette Parapet, for eight cannons, that would cover the bay, the river mouth of **Manzanares**, and the **Fortress of San Fernando**. The costs of the construction would be of 17.642 pesos.

Rosales, also proposed a tactic variant, for the defense of the channel between the Island “**El Morro**” and “**Morrito**”, which would require the construction of another Battery, increasing the costs.

To fortify the position at the “**Veladero**”, it was recommended to install, artillery, Arévalo informed that there was already the “**Vigia**”, and for having a Battery of eight (8) cannons, it would be needed to buil barracks similar to the ones in the “**Morro**”, with a major extension, as the characteristics of the place, would make it necessary, to produce works on the terrain, in order to avoid, enemies to climb. The costs, would be of 24.000 pesos.

To fortify the **Fortress of San Antonio**, due to the size of the **Fortress**, Arévalo established that, it would be needed, to raid the “**Cerrito**”, on which the **Fortress** is funded, for this reason, it would be necessary to demolish the **Fortress**, and build a new Battery, of eight (8) cannons, with the required barracks. The cost would be of 19.292 pesos.

To fortify the **Fortress** of “**San fernando**”, according to Rosales, it was necessary the construction of a Battery with esplanades, for cannons; but according to Arévalo, it was not possible to build it, on the area where the old **Fortress** was located, as it was too reduced, and next to a hill. Therefore its construction, should be carried out on the peak of the hill, with six (6) or eight (8) cannons, with its buildings similar to the ones in the “**Veladero**”. The costs would be of 22.000 pesos.

The construction between the **Fortresses of San Juan** and **San Vicente**; the proposal by Rosales, suggested a square or quadrangular trace, between the existing in decay **Fortresses**, the **Fortress** should have had four (4) regular bastions, barracks for 200 to 300 men, barracks for the officers, house for the Governor, “**sala de la real contaduría**”, archive, etc. Arévalo placed the **Fortress** in the best location, on his general plan of the city, with a “quadrilonga” trace, as it followed the main rule “*Todas las partes de la Fortificación deben ser vistas, y flanqueadas las unas de las otras*”(Zapatero, 1976) (Zapatero 233, 1980), with no welland with twelve (12) cannons. Its cost would be of 112.600 pesos, and the overall cost of the **Fortifications** would be of 200.000 pesos.

“Supondiendo que todas estas Fortificaciones se construyesen en los parages señalados por el Govern.or en los terminos dichos, ó en otros á poco más, ó menos (aunq. no son asumptos q. se deban tratar en estos terminos) me parece q. con todo no serían bastantes á imposibilitar á los Enemigos la entrada en el Puerto, ni á asegurar la Ciudad de una sorpresa como se propone” (Arebalo 14, 1764)

The plan by Governor Rosales, was criticized by Arévalo, stating that the bay and the city, could be attacked by enemies, as the fire back from the **Fortresses**, would not be enough, due to the long distances, between the buildings, not allowing the **Fortresses** to carry on, a proper defensive system. This statement is also explained by Arévalo through a schematic idea of a possible attack carried on the city.

“Santa Marta, sin recinto real ni fortalezas regladas, era una ciudad abierta, fácilmente atacable a barlovento o sotavento, con parajes cómodos para los desembarcos como La Concha, Taganga, la playa de las Vacas, la de Gaira y caminos transitables por el Tamacal y haciendas de Pedro Granados o el de Ureche” (Zapatero 235, 1980).

On his analysis of the city and the **Fortresses**, Arévalo sentenced his negativity against the construction and intervention on the defensive system of the city, and stated on his opinion, the impossibility or minimum access for the enemies, who in case of attack, and in case of taking over the city, if were to attack Cartagena de Indias, would find themselves in the need of going through the channels and swamps of the river Magdalena, which as explained by Zapatero, Arévalo is based on three ideas to justify his opinion; the first one, the engineer justifies his opinion on the cost that would required the constructions, the second one, the maintenance in terms of costs that the **Fortifications** would require, would be higher than the benefits, and the last one, the city, did not count with enough troops, therefore it would be easily surrendered.

On this period the projects of reinforcement or intervention in the defensive system of the city are concluded, until 1779-1783, when the monarchy enters in another conflict with England.

As explained by Zapatero, after the opinion of Arévalo, on the construction or reinforce-

ment of the **Fortresses**, the construction of religious buildings is the new topic. In 1776, the Military Engineer Antonio Narvaéz y La Torre, together with Juan Cayetano Chacón, drafted the plans and sections for the new Cathedral of the city, the engineer produced a studied which emitted to the “**Virrey**”, and four (4) years later, Arévalo, would request the return of the engineer to Cartagena de indias, due to the amount of work, needed for the construction of the **Fortresses** in that city; therefore, the “**Virrey**” asked to the Minister Arriaga, the permission for the Engineer to return, to Cartagena, together with Chacón.

In 1776, While Narvaéz was in Spain, is named Governor of Santa Marta, due to his promotion as lieutenant colonel, and to the knowledge that had on the city. In 1777 Narvaéz travels to Santa Marta.

As a means of preparation for the war, the monarchy, sends Brigadier of Infantry and Chief Engineer, Agustin Crame, as general visitor of the American plazas of Spain. Crame arrived to Santa Marta, in 1778, with copies of the previous recognitions and plans of the city, provided, in order to plan a defensive proposal in accordance with the city.

“Traía, entre los papeles, copias de los escritos del gobernador Rosales Troncoso en 1761; del propio Narváez, gobernador de Santa Marta en tiempo de la visita del brigadier; de Arévalo en 1764; y referencias de los informes del ingeniero Hernández y de D. Ignacio Sala en 1752” (Zapatero 244, 1980).

Regarding Santa Marta, Crame, proposed a defensive plan, in which displayed the different causing reasons, for the city’s poorness, as its proximity to Cartagena de Indias, the disposition of the “**Virrey**” for the cattle, to be taken to Santa Fe, and the short rents, due to the poor attention to agriculture. However, Crame established that the city had importance as a military enclave, thanks to the valleys and the proximity to the river Manzanares, but nevertheless, it is also established that, these advantages for the city, were not used, and that its **Fortresses** were weak and in decay. On his visit, Crame could check, the number of **Fortresses** and **Batteries**, located between Lipe and La Concha beaches, as well, as the state in which they were, and highlighted, the **Fortress of San Fernando**, the **Fortress of San Antonio**, and the **Batteries of Santa Ana and San Carlos**, on the island “**El Morro**”.

Glossary: Manzanares, Morrito, Cerrito, Sala de la real contaduría.

Glossary: Virrey.

patriot forces of the republic.

“El 6 de enero de 1813 entró triunfante a Santa Marta el coronel francés Pierre Labatut, al servicio del gobierno de Cartagena.

El pillaje y las humillaciones a que sometió Labatut a la ciudad de Santa Marta y sus habitantes, fue un ingrediente más para que esta comarca se declarara partidaria del Rey de España y rechazara las ideas republicanas que encarnaba el coronel francés y su tropa.” (Viloria de la Hoz, 2017)

Due to this reason, and as a response to the objective of securing the coast of Santa Marta and Cartagena, in the area of “Boca de Ciénaga Grande”, there were built nine (9) campaign Fortresses, the last of the province.

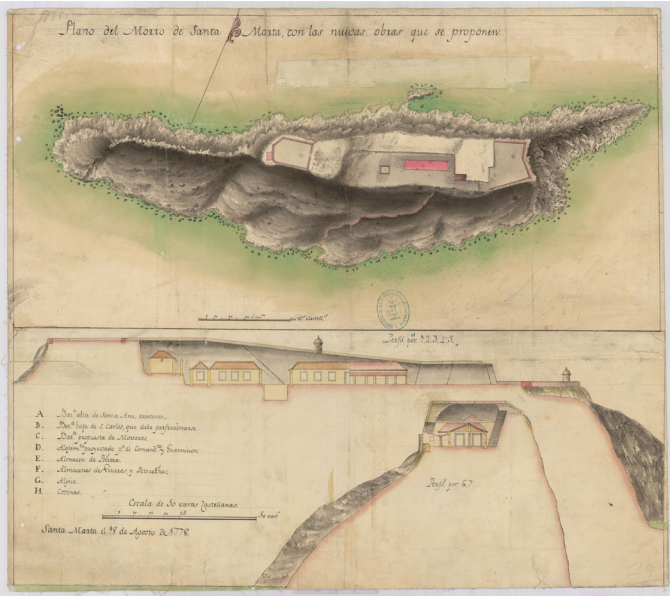
Bateria san fernando o de la Barra, construida en 1811 y reformada en 1812, con 3 canones.
Bateria San Andres, con un canon.
Bateria san miguel, con un canon.
Camino cubierto o trinchera, para unir la bateria de San andres y de san miguel.

Reducto san francisco, para fusileros, construida en 1813.
Bateria de Pueblo Viejo, construida en 1812, con dos canones.
Reducto del Socorro, para fusileros, construido en 1812.
Trinchera y bateria de la tenaza, construida en 1812, con cuatro canones.
Bateria del Carmen, construida en 1813, con dos canones.

After the independence period, in 1834, the city of Santa Marta, was affected by an earthquake, which left it in state of ruin; However, in the period between 1840 and 1872, the city is conceived as the main importing port of the “**Nueva Granada**”, overcoming the ports of Cartagena and Sabanilla, the economical growth of the city, contributed for the appearance of new port companies, However, with the construction of the railroad, between Barranquilla and Sabanilla in 1871, the port commerce decrease and the city stopped being the main port.

Although the decrease in the importance of the port, during the XX Century, another of the companies, which helped in the economical growth of the city, was the railroad, when in 1881, was signed the contract for the construction of it, between Santa Marta and “Ciénaga del Cerro de San Antonio”, 95 kms were built and the “Zona bananera” was crossed. Until

Glossary: Nueva Granada.



1960 the railroad got connected to the one coming from Bogotá.

In 1889, when different companies conformed the “United Fruit Company”, it was possible an increase in the exportation of Bananas, boosting a migratory wave to the zone. In Santa Marta, this economical increase, allowed, in urban terms the appearance of the neighborhood “El Prado”, where the American workers of the company lived, isolated from the rest of the city, with the commodities, that the American cities of that moment had, on the other hand, local businessmen, built a series of houses in republican style along the avenues “Libertador” and “Santa Rita”.

XX Century

Later, during the XX Century, the city started to develop its touristic potential, offering touristic attractions, as the Tayrona National Park, the area of the Rodadero, Taganga, “El Morro”, La Sierra Nevada, among others. However, around 1970, the city suffered due to the conflict, and until 1990, the touristic sector, was affected by this.

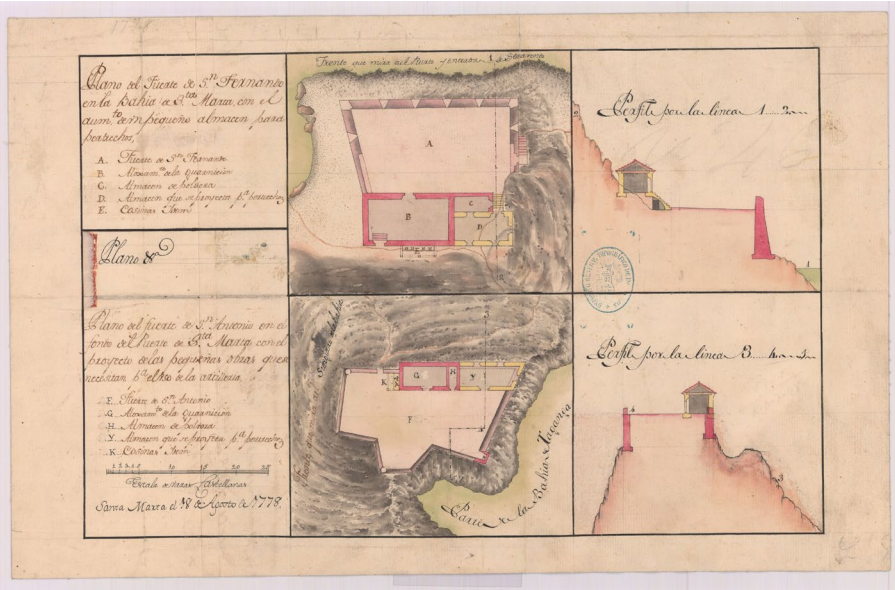
In 1991, with the article 286 of the constitution. Santa Marta, Barranquilla and Cartagena de Indias, the three main cities of the northern coast of the country, were cataloged as “Special Districts”, due to their Geographical, Historical, Cultural and Economical values.

On November 20th of 1989, with the decree 2673, the **Fortress of San Fernando** was declared national monument, and its influence area is delimited.

On October 19th of 1995, with the decree 1803, the **Fortress of “El Morro”**, is declared as national monument.

By the end of the XX Century, the city started to be projected as a touristic city with a specialized commercial port.

“La Santa Marta de finales del siglo XX y principios del XXI se debate entre su proyección como ciudad turística y la especialización de sus costas en puertos carboneros” (Viloria de la Hoz, 2017).



Glossary:

The defensive plan proposed by the Brigadier of Infantry, regarding the political and military situation, with England, was characterized, by its urgent character, and due to this reason, its approval was imminent, and the person in charge of its realization, would be Engineer and Governor, Narvaéz y La Torre.

The **Fortress of San Fernando**, in Crame’s plan, would be extended with a storage for supplies, which would give the **Fortification**, a quadrangular trace, with access from the platfrom, allowing a communication with the gunpowder storage, a room for the kitchen, behind the barracks for the troops, and seven (7) cannons.

The **Fortress of San Antonio**, should have been extended, with a storage for supplies, which would be accessible from the platform, a gunpowder store, barracks for the troops, and the installation of a kitchen, plus two (2) cannons.

For the **Batteries of Santa Ana and San Carlos**, it was proposed to perfect the **Battery** of San Carlos, by joining it with the **Battery** of Santa Ana, with a wall, without an embankment and a Barbette Parapet, the construction of a mortars battery, between both batteries, barracks for the commander of the island, barracks for the troops, gunpowder store, supplies storage, cistern with the capacity for 100 men, and kitchen for the officer and the troop.

Later between 1785 and 1792, under the Governance of José de Astigarraga, who was successor of Narvaéz y La Torre, there was no major advance or development on the **Fortifications** of the city, the last works performed by Narvaéz, were the last reforms, on the defensive system of the city. The following concerns, were the ones of fighting against the traffic, allowed by the beaches between Santa Marta en Rio Hacha, which lacked of security and surveillance.

XIX Century

On the years of the independence 1810, the city was characterized by its isolation, therefore, the freedom ideologies, took longer in arriving to Santa Marta, and this provoked that the city remained loyal to the monarchy, until 1820, when it was finally occupied by the



Fig 35, Puerto de Santa Marta, Edward Walhouse Mark, 1843, Banrepcultural, AP0006

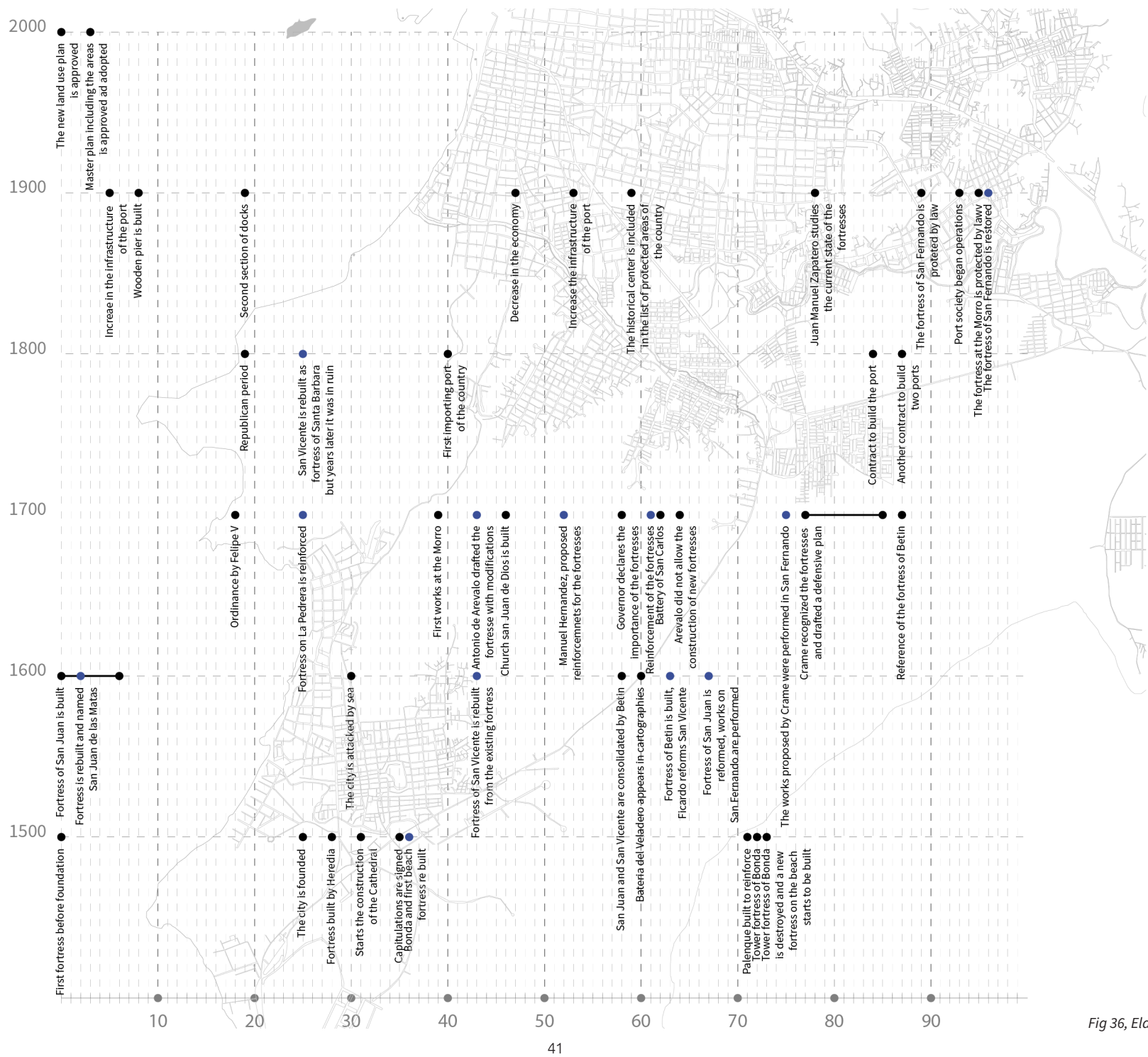


Fig 36, Elaborated by the author

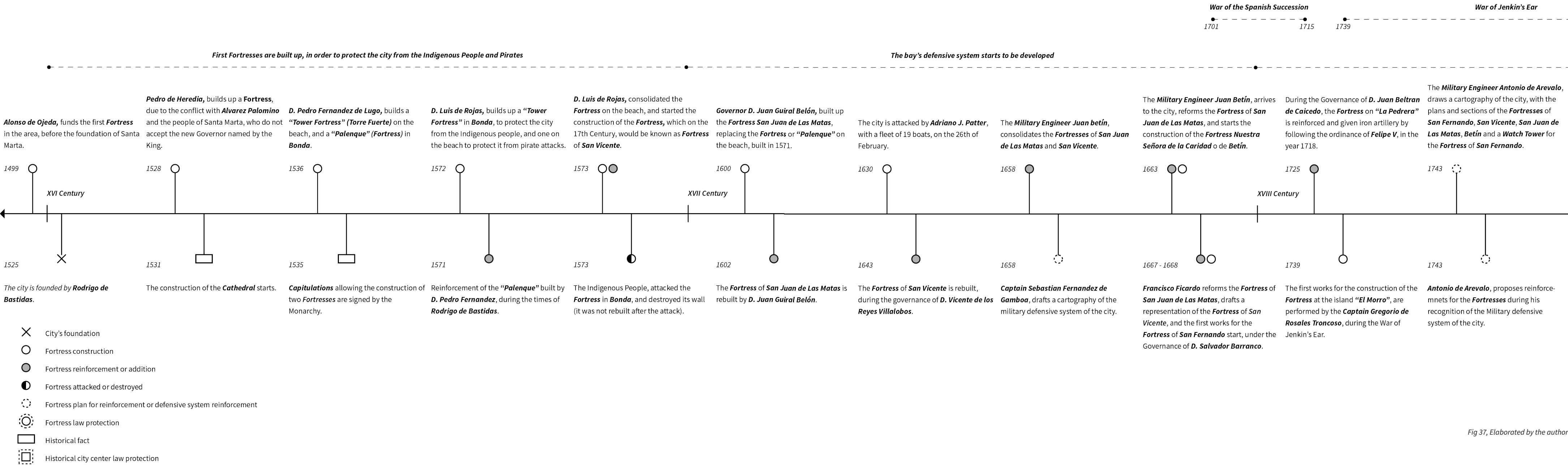


Fig 37, Elaborated by the author



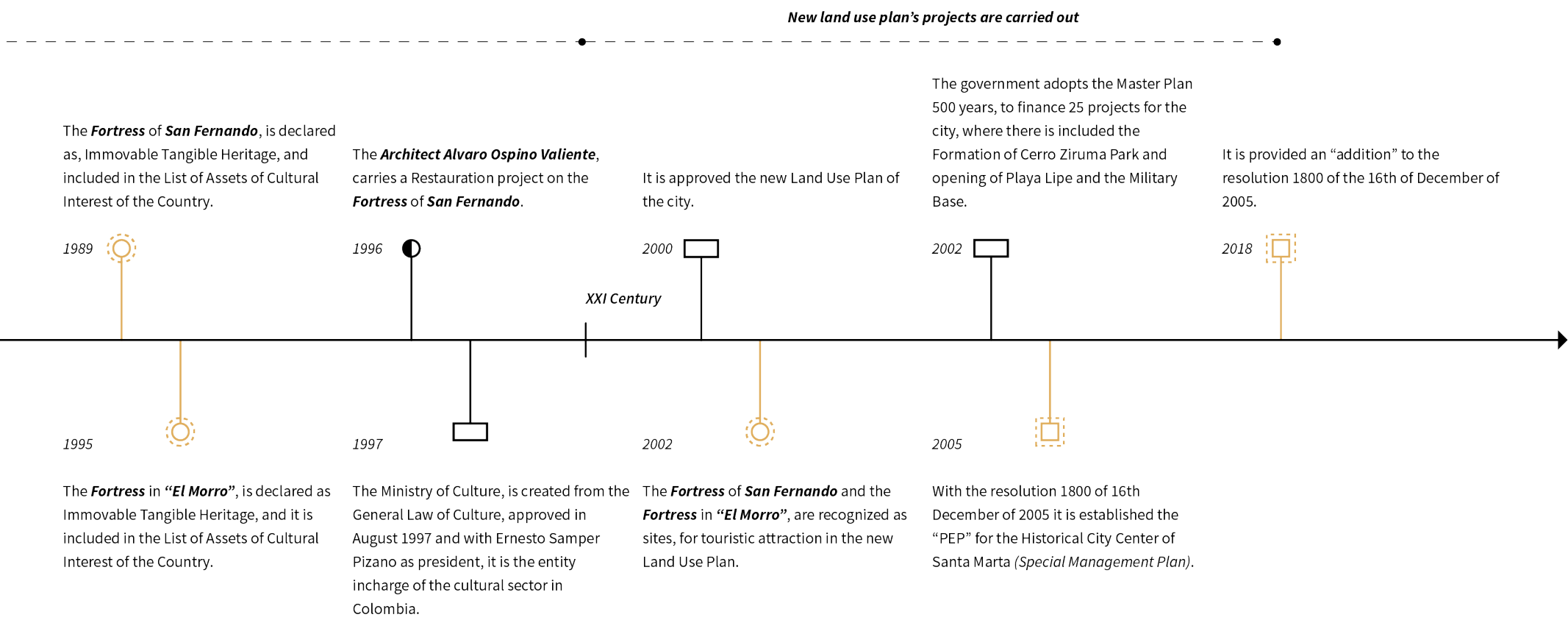


Fig 38, Elaborated by the author

Santa Marta, Historical cartographies

With the analysis of the historical **cartographies** of the city it can be understood, along the history, the importance of the fortresses for Santa Marta, as a defensive system along the bay and in the inner land, in order to protect it from pirates and indigenous attacks, but it also displays how the city fluctuated and which areas were considered to be more relevant to be either protected or needed a better defense, this is how along the cartographies, the different fortresses that were ever built in Santa Marta, are relevant depending on the year of the cartography.

Additionally of the relevance of the fortresses for the city, another insight that can be analyzed in the cartographies, is the landscape, as it is represented in all cartographies, the hilly -mountain landscape of the city is perceived and displayed, because as it was described by Bastidas, it was a natural protection for the city, but also it was the cause that lead the fortresses to be built with major adaptations to the usual constructions of which they were base, and that can be still studied nowadays in Spain.

As well, it is important to understand when compare with the historical sources of the city, that the cartographies allow us to verified, how the city, was protected and how its defensive system worked, in relation to the events that the Monarchy was going through, with the English, Dutch and French.

It is important to mentioned that this graphical reconstruction of the historical cartographies, was produced, taking into consideration the book “Colección cartográfica del puerto

y ciudad de Santa Marta” by the architect, Alvaro Ospino Valiente, and the book “Historia de las Fortalezas de Santa Marta y Estudio Asesor para su Restauración” by the historian Juan Manuel Zapatero, in which there are collected the known cartographies of the city, and were a valued asset to understand the historical urban evolution and defensive system of Santa Marta.


In the annexes section of this thesis, there can be found all the cartographies, with the information required for later studies.

For each diagram, it is presented the year in which the original cartography was drafted, its author, the fortresses that can be located, and other buildings that are represented in the historical cartography.

- Built fort
- Destroyed fort
- Reinforced fort
- Misplaced fort
- Trench
- Bastion (not-built)


Glossary:
Laws of the Indies, Morro

Santa Marta - Study of historical cartographies



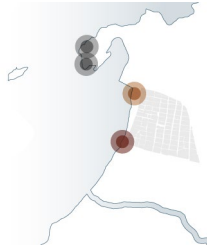
Cartography 1:
Year: 1551-1580
Author: Unknown
Fortresses: Trench along the beach
Other buildings of interest: Convent of San Francisco and Santo Domingo, “Ermita de la Veracruz”

Fig 40, Elaborated by the author



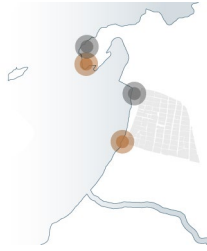
Cartography 2:
Year: 1631
Author: Simón Martín, Governance of Rodrigo de Velasco
Fortresses: San Juan de Las Matas
Other buildings of interest: “Plaza Mayor”

Fig 41, Elaborated by the author



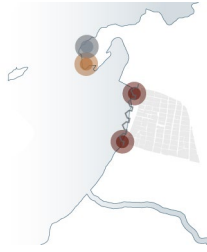
Cartography 3:
Year: Around the XVII Century, (1644 - 1663)
Author: Unknown
Fortresses: San Vicente, San Juan de Las Matas
Other buildings of interest: Cathedral
Note: Wrong trace for the Fortress of San Vicente

Fig 42, Elaborated by the author



Cartography 4:
Year: Second half of the XVII Century
Author: Unknown
Fortresses: San Juan de Las Matas, Betín
Other buildings of interest: Cathedral, “Plaza Mayor”

Fig 43, Elaborated by the author




Cartography 5:
Year: 1660
Author: Sebastián Fernández de Gamboa
Fortresses: San Vicente, San Juan de Las Matas, Betín, Vigía, proposal to fortify the beach
Other buildings of interest: Cathedral, Governor’s house

Fig 44, Elaborated by the author

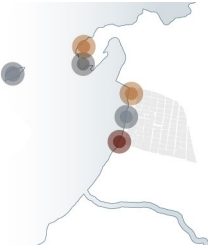
Fig 39, Elaborated by the author

Glossary: Ermita, Plaza Mayor, Iglesia Mayor, Plaza Menor.



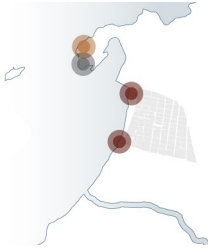
Cartography 6:
Year: Second half of the XVII Century, after 1663
Author: Unknown
Fortresses: San Juan de Las Matas, Betín, Vigía
Other buildings of interest: Wooden stockade on the site, where the Fortress of San Vicente was located

Fig 45, Elaborated by the author



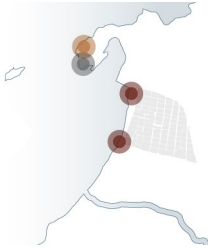
Cartography 7:
Year: 1680
Author: Jean Baptiste de Gennes
Fortresses: San Juan de Las Matas, San Vicente, Vigía
Other buildings of interest: Church

Fig 46, Elaborated by the author




Cartography 8:
Year: 1699
Author: Unknown
Fortresses: San Juan de Las Matas, San Vicente, Vigía
Other buildings of interest: “Iglesia Mayor”, Convent of Santo Domingo

Fig 47, Elaborated by the author



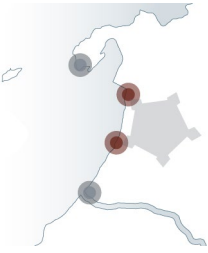
Cartography 9:
Year: 1699
Author: Unknown
Fortresses: San Juan de Las Matas, San Vicente, Vigía
Other buildings of interest: “Iglesia Mayor”, Convent of Santo Domingo

Fig 48, Elaborated by the author




Cartography 10:
Year: Beginning of the XVIII Century
Author: Unknown
Fortresses: San Vicente (with restored walls), San Juan de Las Matas, Betín
Other buildings of interest: “Iglesia Mayor” rebuilt in 1669

Fig 49, Elaborated by the author



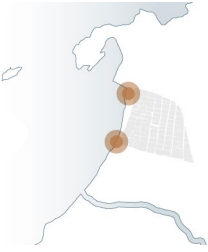
Cartography 11:
Year: 1701
Author: M. Berquin and M. Bouchard
Fortresses: San Juan de Las Matas, San Vicente
Note: The city’s trace is represented wrong

Fig 50, Elaborated by the author




Cartography 12:
Year: 1704
Author: Louis Éconches Feuillée
Fortresses: San Juan de Las Matas, San Vicente
Other buildings of interest: “Plaza Mayor” and “Plaza Menor” of San Francisco

Fig 51, Elaborated by the author




Cartography 13:
Year: 1713
Author: Berthou
Fortresses: San Juan de Las Matas, San Vicente
Other buildings of interest: “Plaza Mayor” and “Plaza Menor” of San Francisco

Fig 52, Elaborated by the author



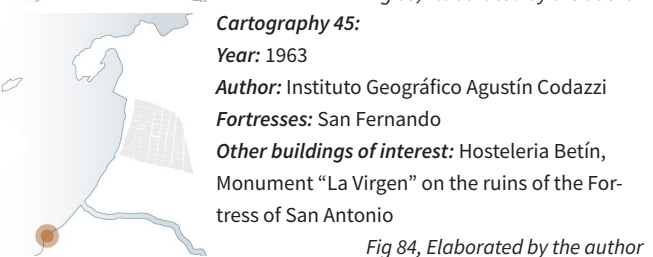
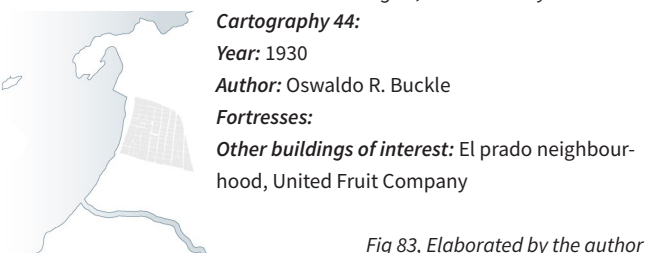
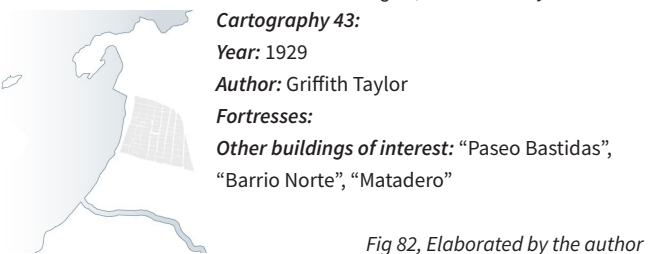
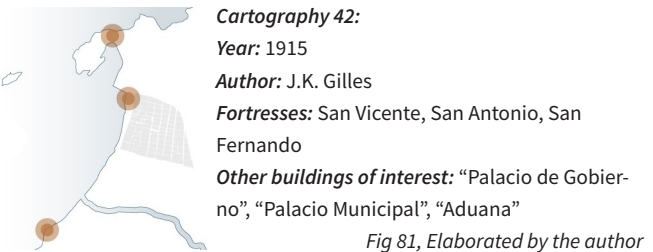
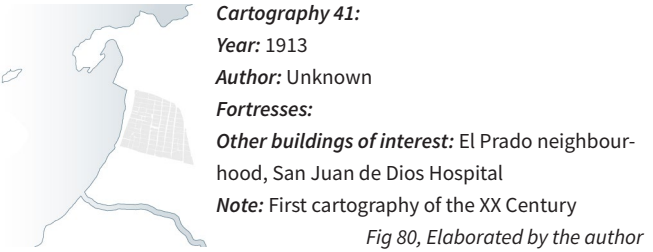
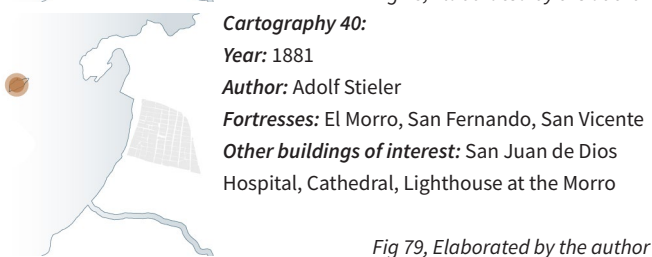
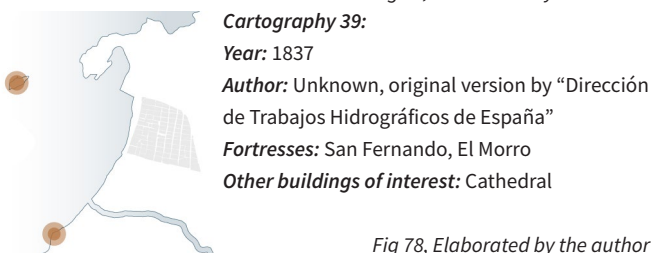
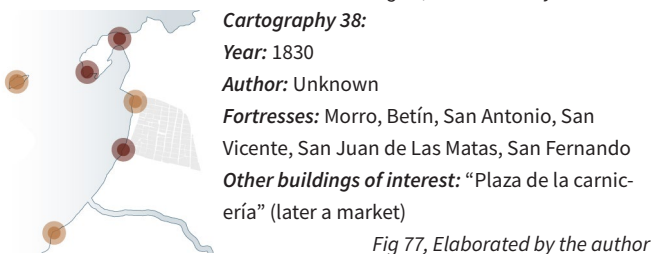
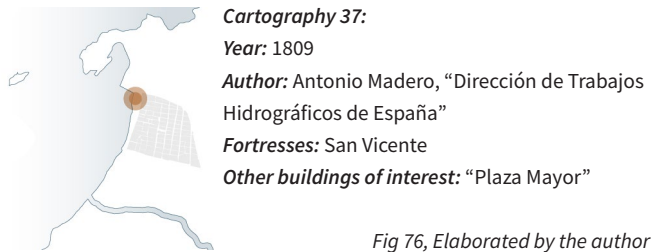
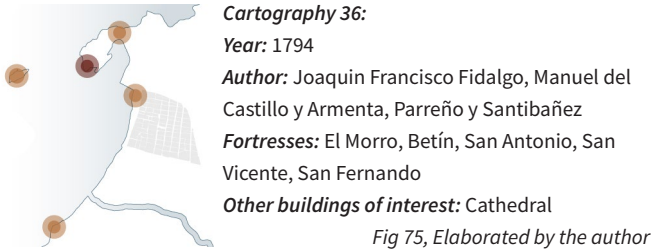
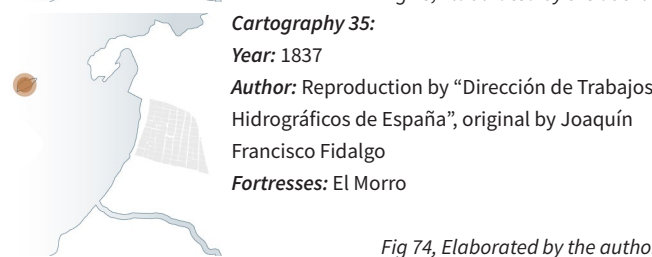
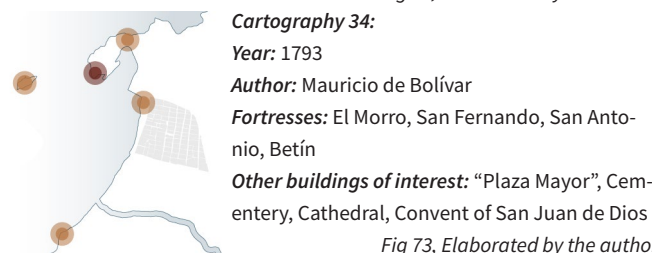
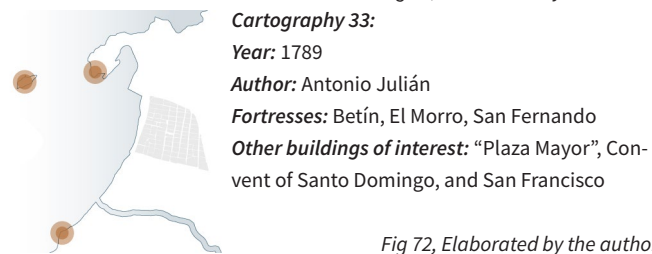
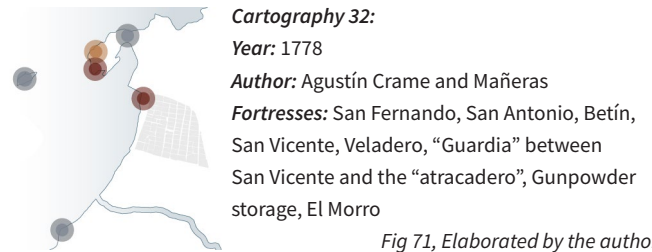
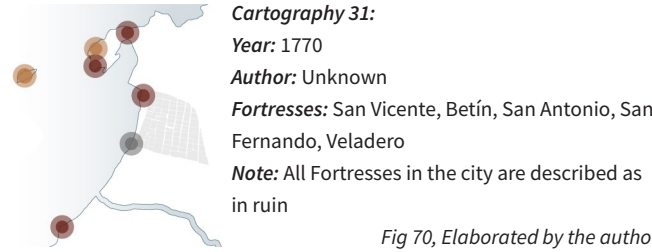
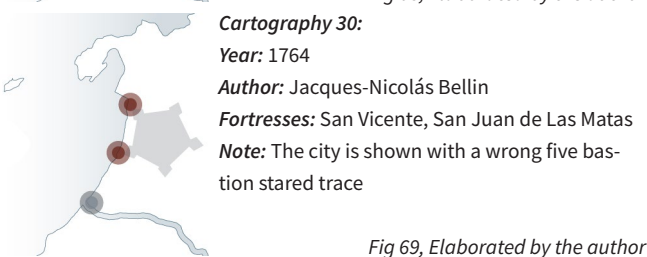
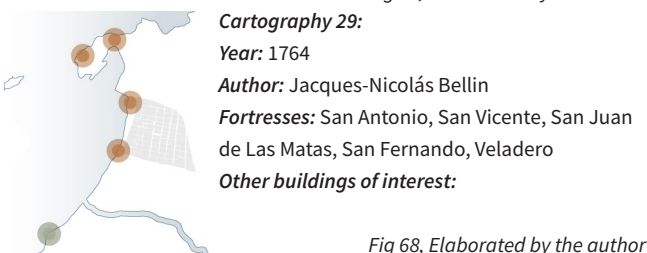
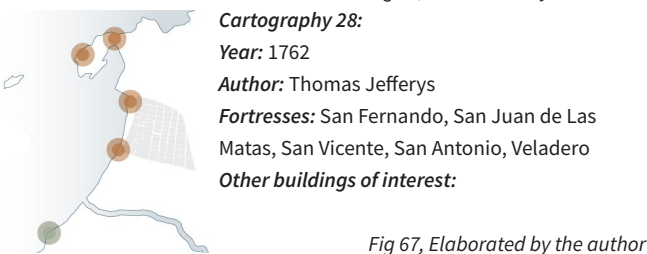
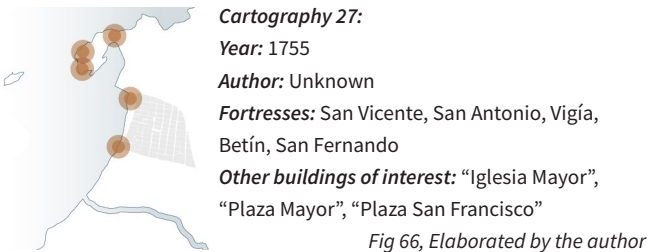
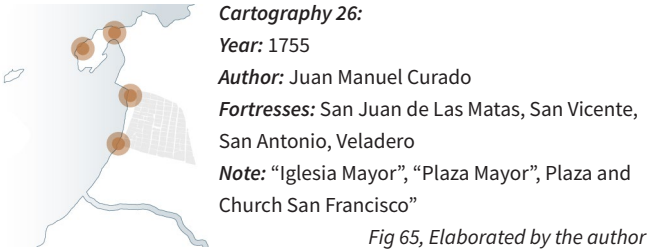
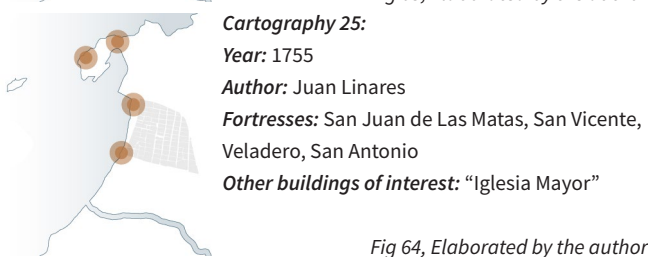
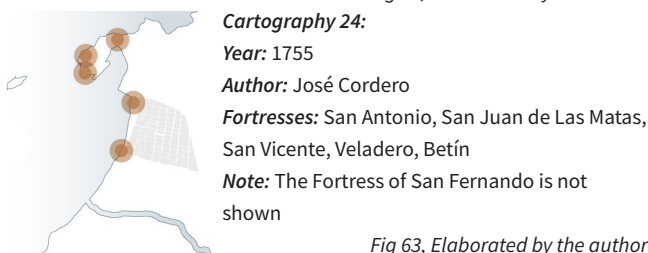
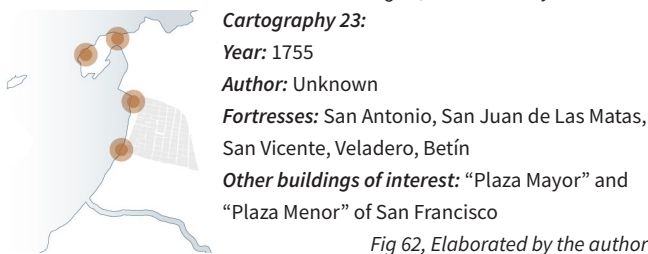
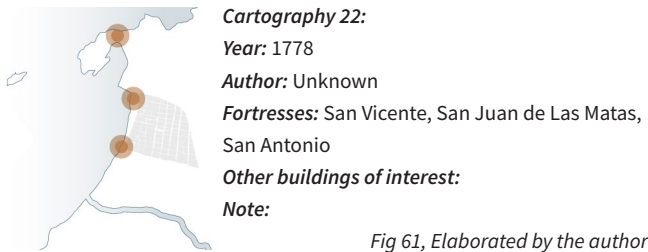
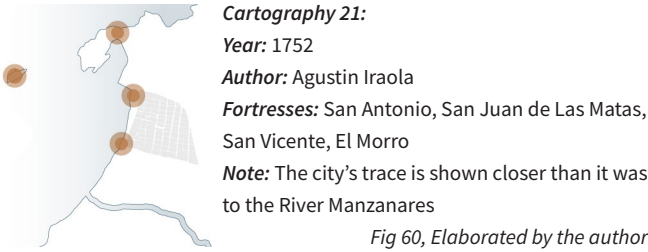
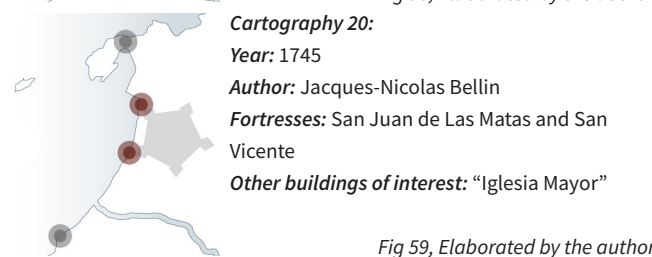
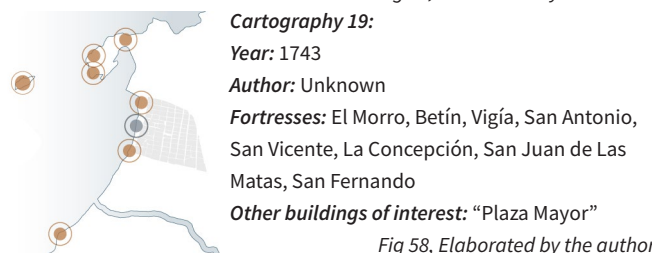
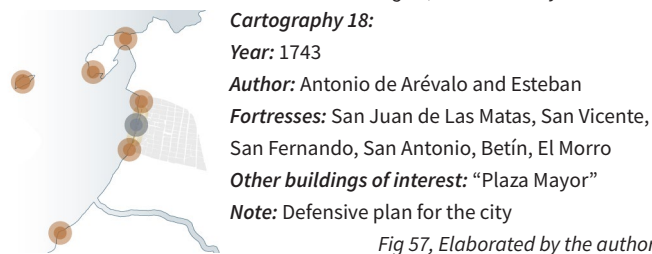
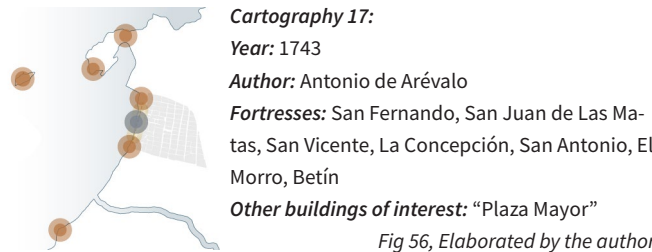
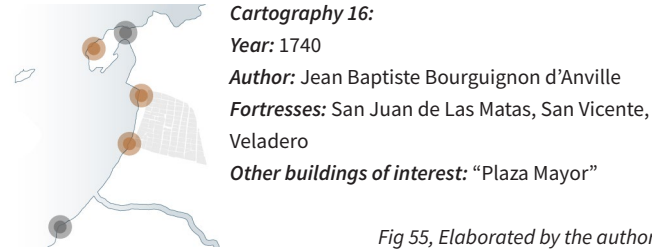
Cartography 14:
Year: 1735
Author: Jorge Juan and Antonio de Ulloa
Fortresses: San Antonio, Veladero, San Juan de Las Matas, San Vicente
Note: A wooden stackade between the Fortresses on the beach

Fig 53, Elaborated by the author



Cartography 15:
Year: 1725
Author: Unknown
Fortresses: San Antonio, Veladero, San Juan de Las Matas, San Vicente, Vigía
Other buildings of interest: “Plaza Mayor” and “Plaza Menor” of San Francisco, “iglesia Mayor”

Fig 54, Elaborated by the author



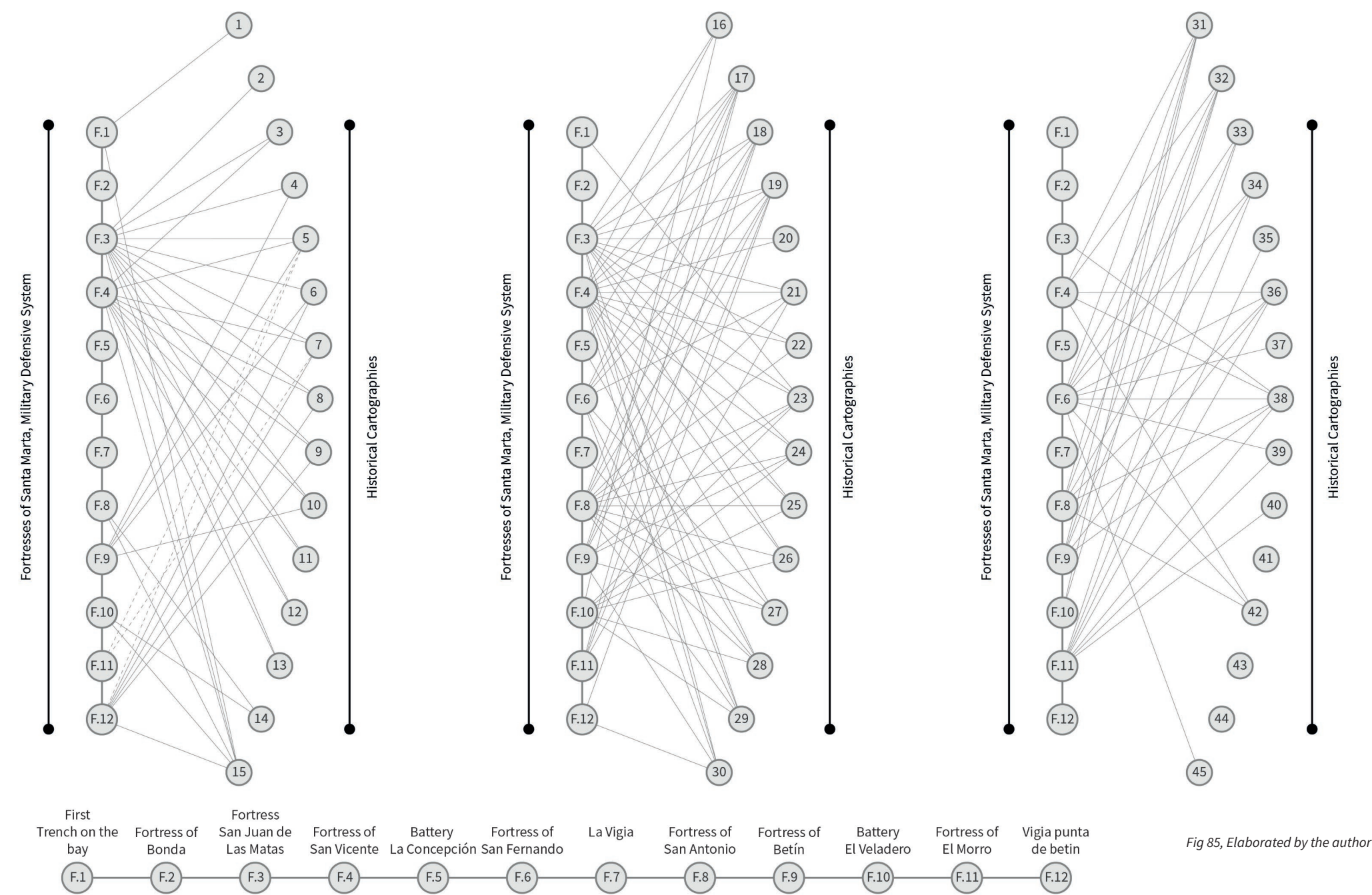


Fig 85, Elaborated by the author



Fig 86, Elaborated by the author

Santa Marta, *The Colonial Military Fortresses*

Santa Marta as Explained by Ramón Gutierrez, on his book; *Fortificaciones en Iberoamérica*, was considered, one of the best natural ports of America, and gained importance at the beginning of its foundation, reason for it to be the episcopal office, before its transfer to Santa Fé de Bogotá in 1571. And on its bay numerous were the Fortresses and Projects of fortification that were drafted, in order to provide a proper defensive system for the city, however, due to, the different conflicts that the Monarchy went trough, which had been previously mentioned, the Fortresses and defensive system of the city found themselves affected.

“Considerada como uno de los mejores puertos naturales, Santa Marta, fundada hacia 1525 por Rodrigode Bastidas, adquirió tal importancia en sus comienzos que fue la primera sede episcopal colombiana en 1529 hasta su traslado a Santa Fe de Bogotá en 1571. En este fondeadero hacían sus recaladas las flotas que iban a Nombre de Dios y tenía la peculiaridad de permitir el paso entre islotes llamados el Morro y el Morrito, muy próximo este último a la «Punta del Morro» que formaba el surgidero”.

Additionally, it is important to mentioned, that the sites where the Fortresses were built, had an influenced in the way how they were, as the typologies of fortifications, which were required, would follow the ones, built in Spain, and therefore, needed to be adapted to the new land and its topography.

“La ocupación precisa y ajustada del espacio muestra la utilización de los recursos topográficos cuando están condicionadas las trazas de base geométrica. Ello puede apreciarse en el fuer te de San Fernando en Santa Marta”



Fig 87, Elaborated by the author

Santa Marta - Study of historical cartographies

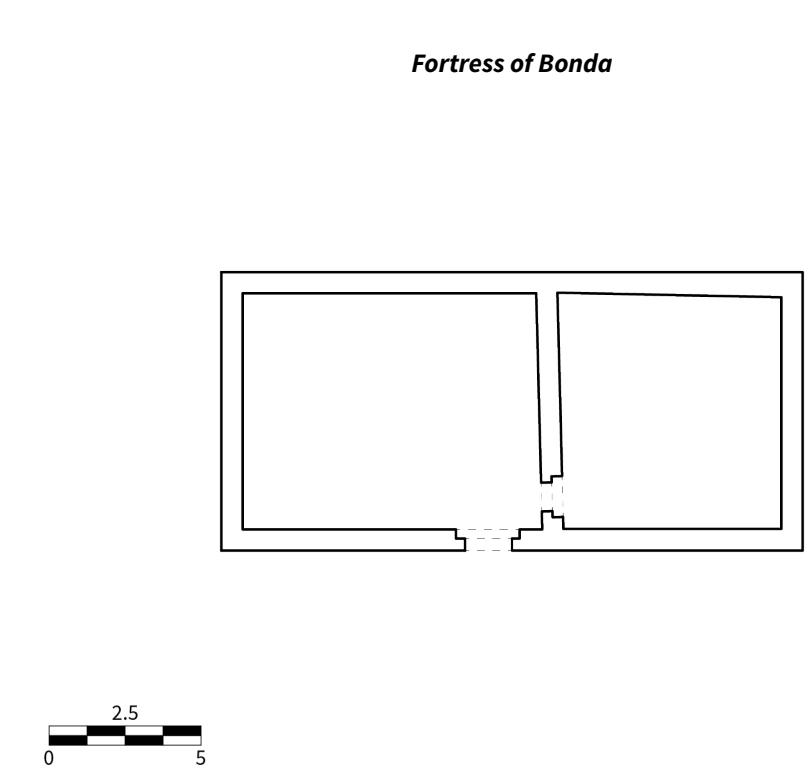


Fig 88, Re-elaborated by the author

Santa Marta - Defensive triangle in the second half of the XVI Century

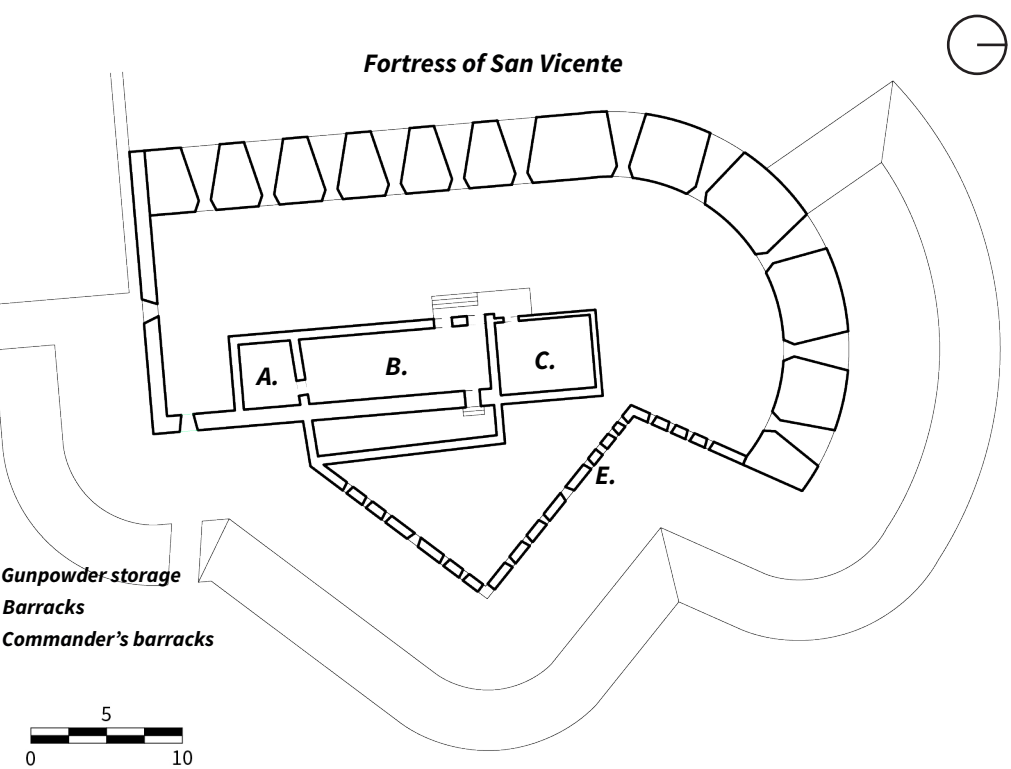
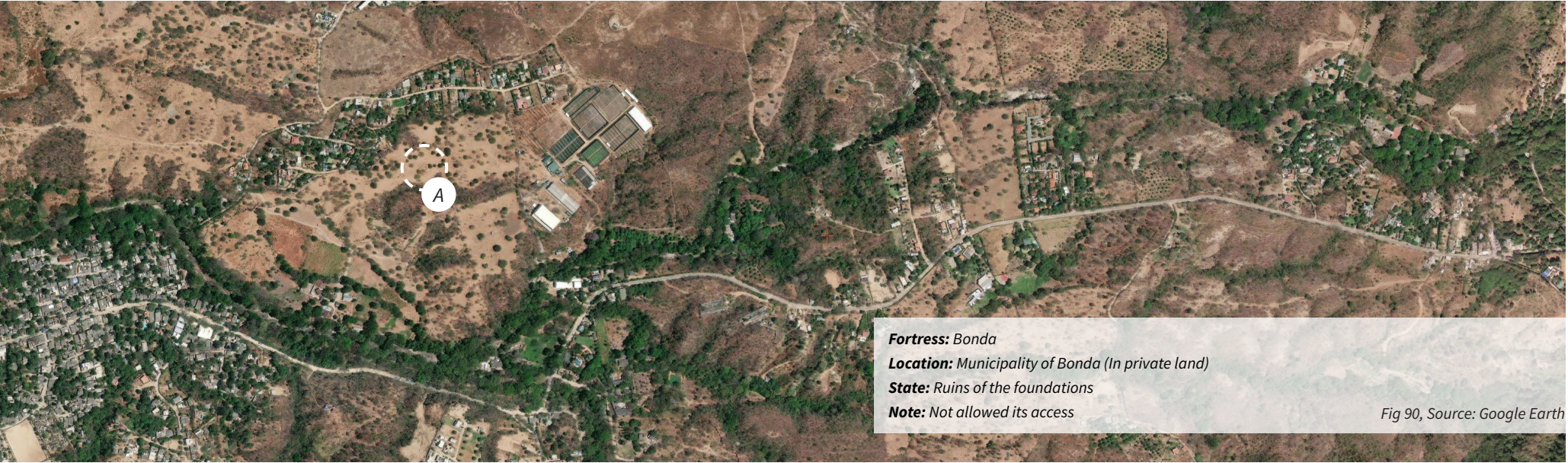


Fig 89, Elaborated by the author



Fortress: Bonda
Location: Municipality of Bonda (In private land)
State: Ruins of the foundations
Note: Not allowed its access

Fig 90, Source: Google Earth

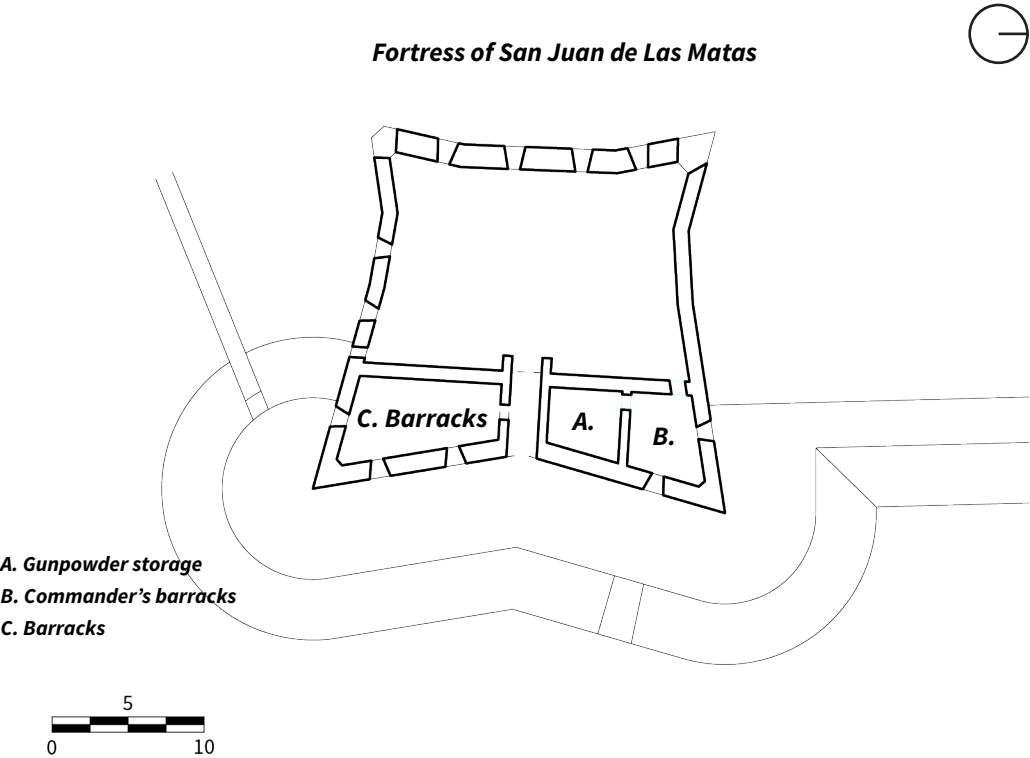


Fig 91, Elaborated by the author

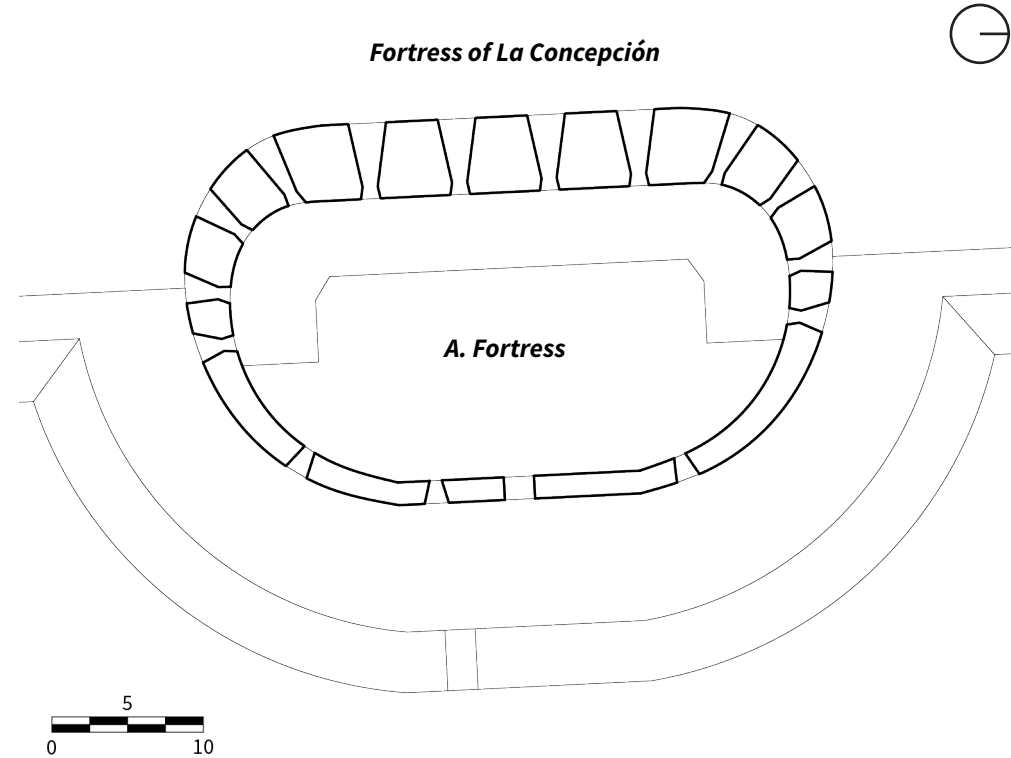


Fig 92, Elaborated by the author

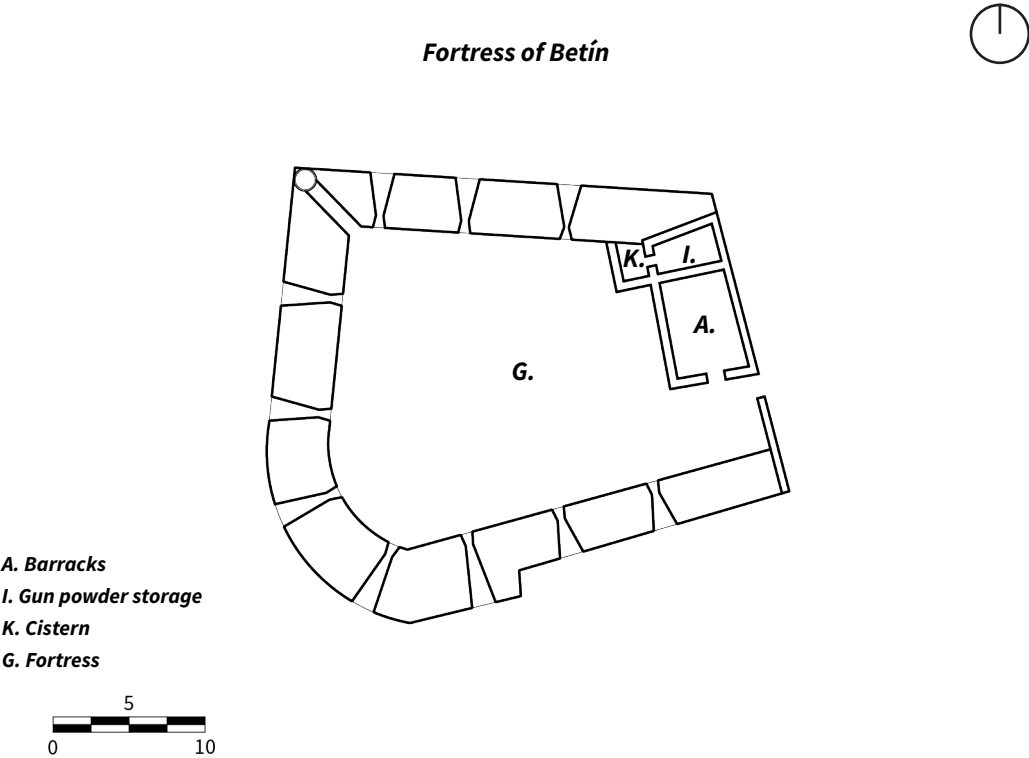


Fig 94, Elaborated by the author



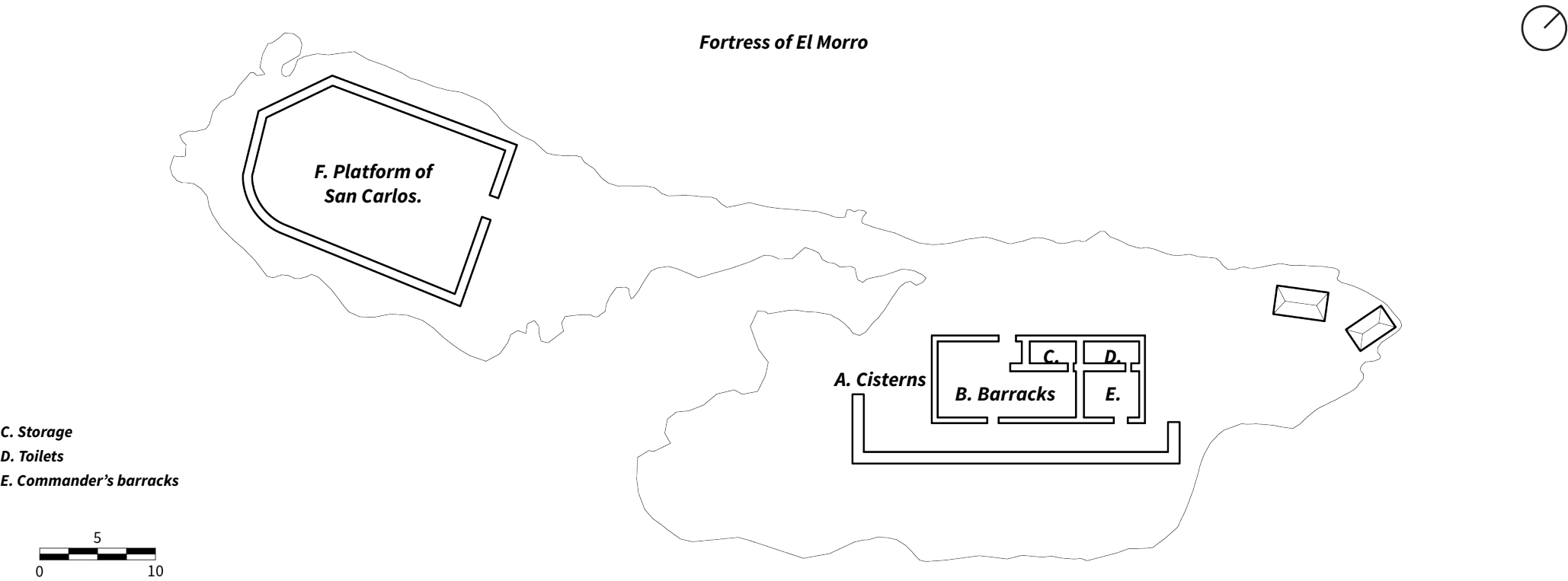


Fig 97, Elaborated by the author

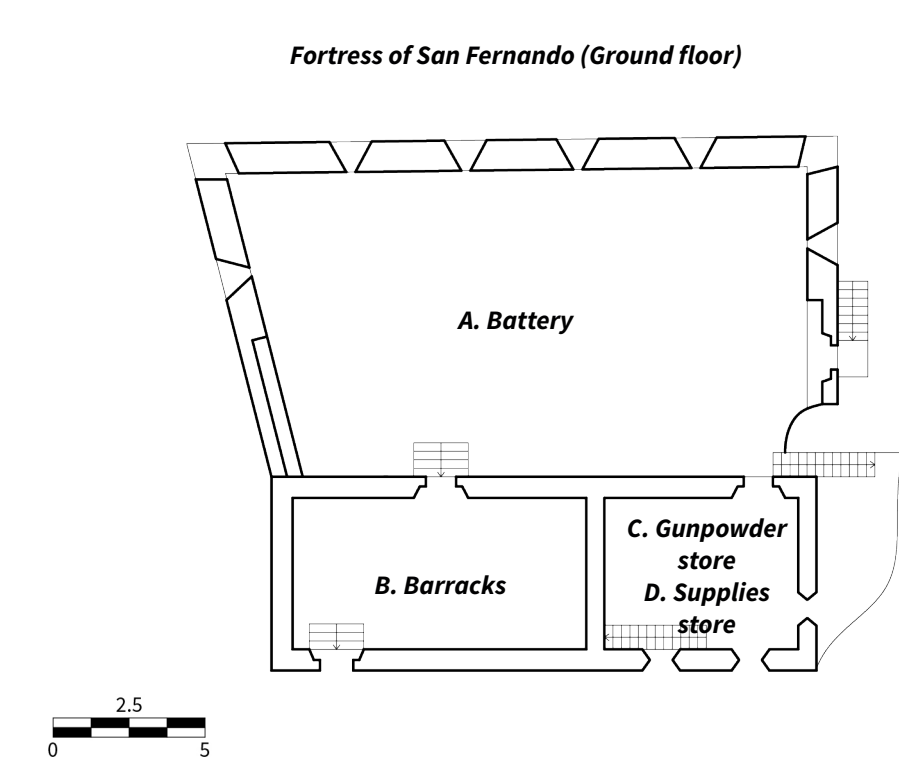


Fig 99, Elaborated by the author

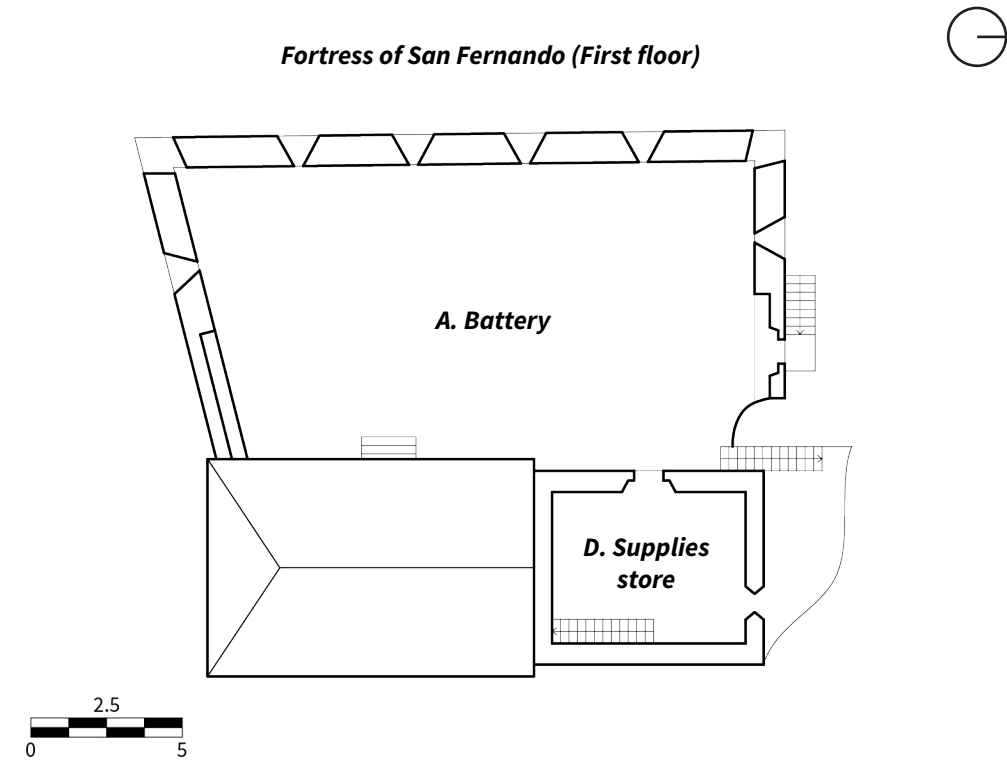
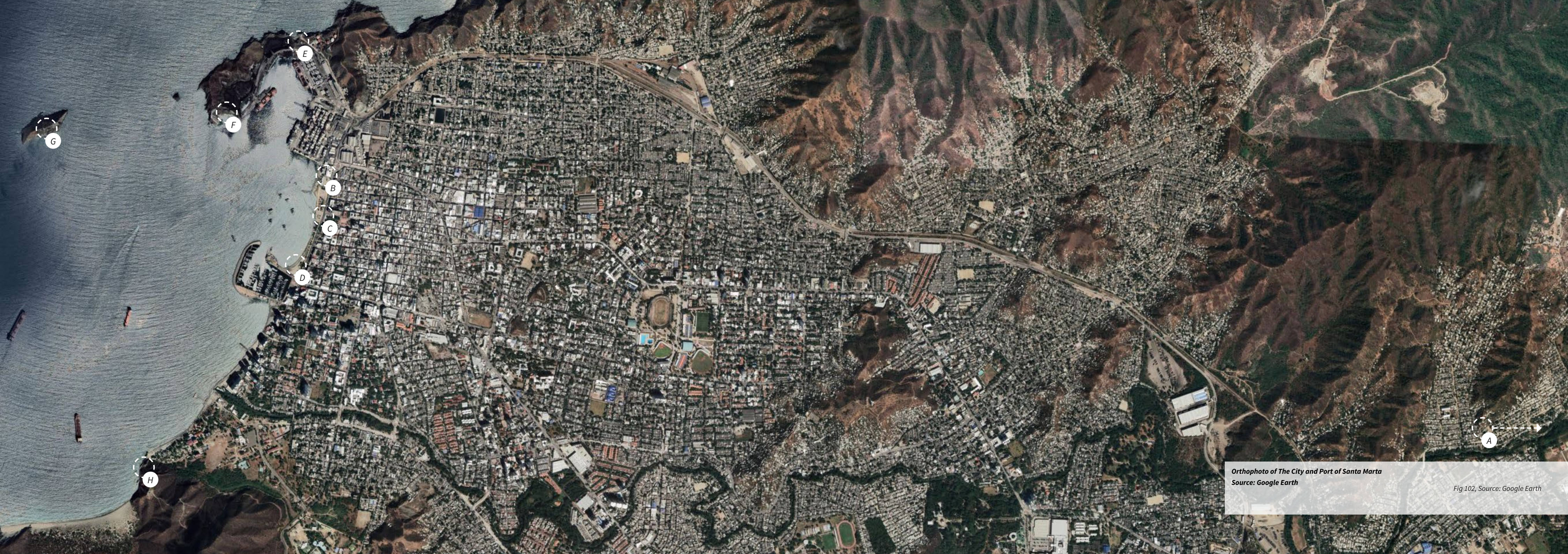


Fig 100, Elaborated by the author





Orthophoto of The City and Port of Santa Marta
Source: Google Earth

Fig 102, Source: Google Earth

Santa Marta, Historic urban growth

The urban growth of Santa Marta, the oldest colonial city in South America still inhabited, was characterized by a slow and gradual process, due to the various events it suffered, such as fires, looting, attacks by corsairs and pirates, indigenous attacks and internal political and military conflicts. The city, as defined by the architect Alvaro Ospino Valiente, underwent a traumatic process in order to reach its consolidation (**historic center**).

“La consolidación de la vieja ciudad que hoy se reduce al actual Centro Histórico de Santa Marta, fue un proceso largo, lento y traumático” (Ospino Valiente, 2).

According to Ospino, the multiple reconstructions carried out as a result of the fires, caused during the attacks by the indigenous people of the area, allowed the city to correct decisions made in urban and environmental aspects.

“De aquel incipiente villorrio con casas construidas con los materiales que ofrecía el medio natural, como troncos y varas para levantar los muros o paja para la cubierta, sólo quedó el registro de las ocho veces que la resarcieron de las cenizas después de los incendios provocados por los indígenas en 1531 y 1573, más los saqueos incendiarios de corsarios y piratas en 1543, 1555, 1559, 1586, 1655 y 1658, oportunidades aprovechadas para rectificar algunas consideraciones urbanas y ambientales que la experiencia les indicaba, como asentarla en el lugar más favorable del llano y retirarla un poco más de la playa”. (Ospino Valiente, 2)

During the 17th century, according to Ospino and as evidenced in the historical maps of the city, religious buildings stand out within the urban profile of the city, such as the **Iglesia Mayor**, located on San Francisco Street, today 13th Street, the San Francisco Church, and

the Santo Domingo Convent, these buildings stand out from the city’s profile, as they are among the few buildings in brick, stone and lime; Along with these buildings, the **San Juan de Las Matas** and **San Vicente Forts**, located on the city’s beach (Santa Ana Beach), stand out at the time.

The gradual urban growth, as well as the economic growth, were direct effects of the constant state of threat in which the city found itself, due to the enemies of the Spanish crown who sailed the waters of the Caribbean Sea.

For this reason, it is during the XVII century that different **Military Engineers** visited the city, with the purpose of making a study of the state of the city and its fortifications (Forts of **San Fernando, San Antonio, Batería alta y baja del Morro, San Vicente, San Juan de Las Matas, Punta de Betín** or **Nuestra Señora de la Caridad, La Intermedia**), in order to carry out a study of the city and its fortifications, with the purpose of developing different reinforcement works in these defensive fortresses, allowing for a greater consolidation of the city, since it was better protected, therefore, in the XVIII century, as Ospino explains, the city was in a different state.

“La primera mitad del siglo XVIII, presentó un panorama distinto a los siglos anteriores. Una ciudad con una malla

Glossary: Historic Center, Iglesia Mayor, Military Engineers.

Santa Marta - Historic urban growth

Current district of Santa Marta XXI Century

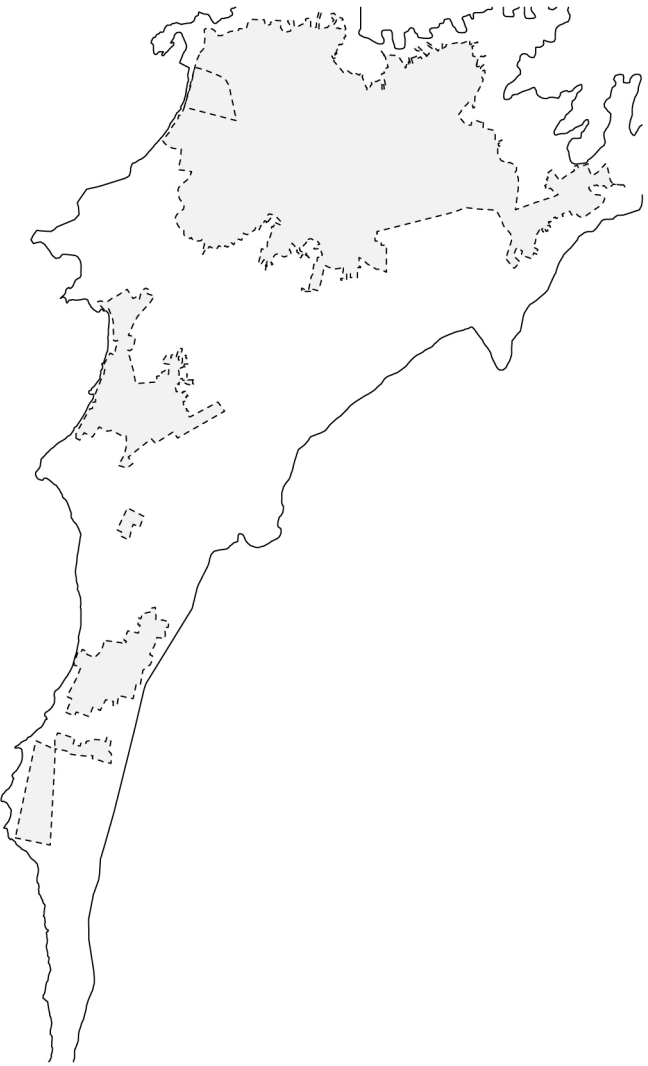


Fig 103, Elaborated by the author

Glossary: Special district of Santa Marta.

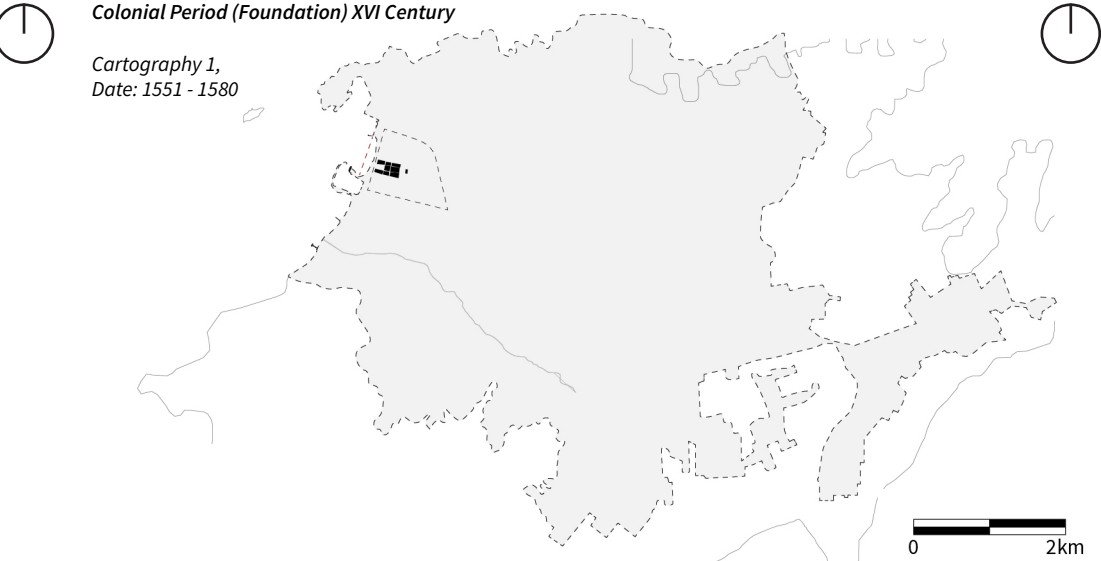


Fig 104, Elaborated by the author



Fig 105, Elaborated by the author

Santa Marta - Historic urban growth

urbana en proceso de consolidación con sus calles alineadas y cuyas longitudes más largas, estaban orientadas hacia el norte y sur, evitando de esta manera el fuerte sol del este (naciente) y oeste (poniente) en sus fachadas; este planteamiento es heredado del urbanismo islámico” (Ospino Valiente, 2).

Later, at the end of the XVIII century and beginning of the XIX century, a urban growth in the city of Santa Marta is evident, thanks to a greater port and economic activity, which had an influence on the architectural and urban growth of the city. It is evident in 1793, a greater consolidation of the city blocks, it was also evident the presence of the main square and two smaller squares, San Francisco and the Cathedral, showing an increase in its urban development.

“De aquella ciudad que en 1766, contaba más que con 15 casas bajas. 2 altas: Cabildo (Casa Consistorial) y la de don Miguel de Vergara, con una plaza Mayor y dos plazuelas, ocho calles delineadas de oriente a occidente, cortadas por otras dos casi en ángulo recto y algunas callejuelas, pasó a nueve calles en 1793. Esta trama partía de la Calle de Mamatoco (11) hasta la Calle de la Carnicería (19), cruzadas por cinco callejones. Tenía 27 manzanas consolidadas con menos del 20 % de lotes libres, 9 manzanas con el 50% consolidado y 20 manzanas delineadas con un incipiente porcentaje de área construida; contaba además con la Plaza Mayor y dos plazas menores: San Francisco y Catedral”

Foundation Period XVIII Century

Cartography 3,
Date: 1762

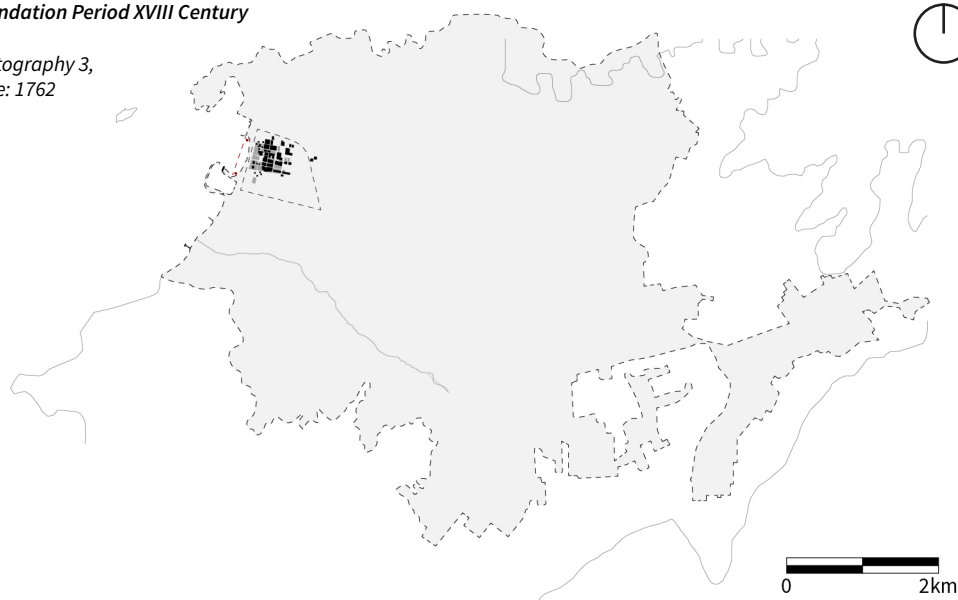


Fig 106, Elaborated by the author

Glossary:

Foundation Period XVIII Century

Cartography 4,
Date: 1793

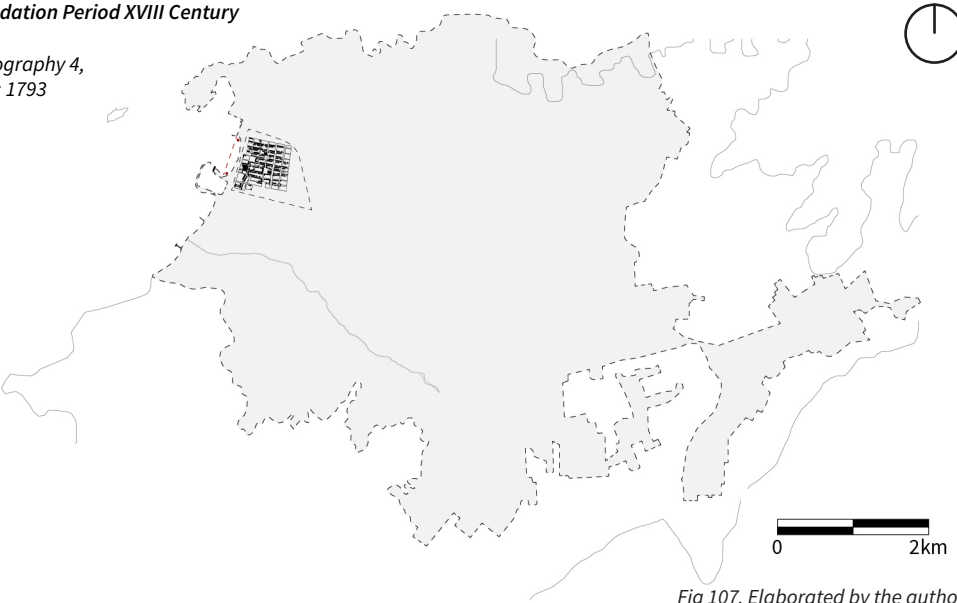


Fig 107, Elaborated by the author

Foundation Period XIX Century

Cartography 5,
Date: 1809

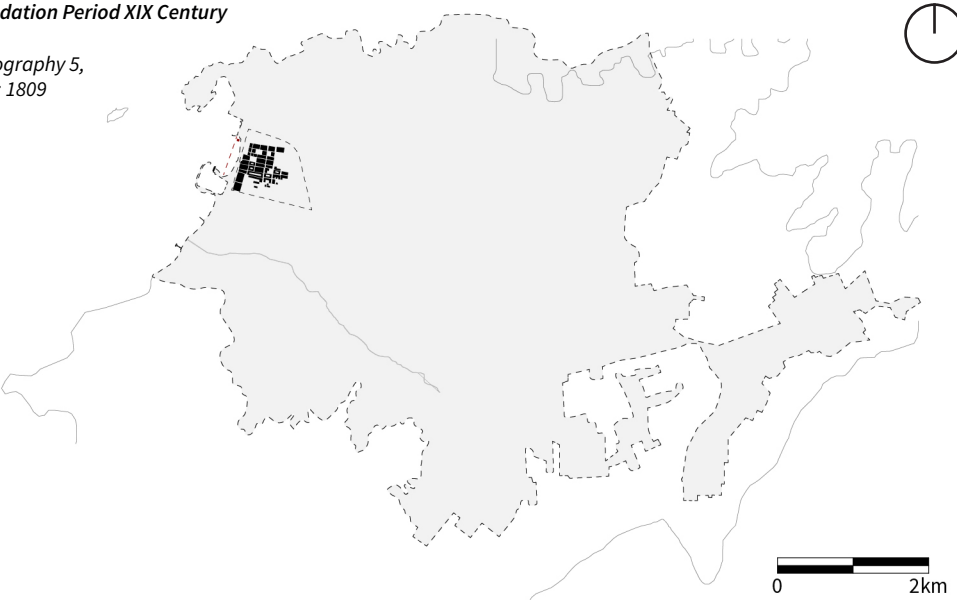


Fig 108, Elaborated by the author

Santa Marta - Historic urban growth

(Ospino Valiente, 3).

The urban development of the city was also evident, with different infrastructure works, such as the construction of the **Alameda**, the **Acequia** and the **Plaza Mayor** Fountain; together with a greater construction of architectural typologies, which allowed the consolidation of the city, such as the San Juan de Dios Hospital, the cemeteries, the convents and churches, and the Fortifications of the defensive system.

After the period of economic boom at the beginning of the 19th century, which allowed the urban growth of the city, the independence period took place, which also affected the urban growth of the city, as Santa Marta and its people were distanced from the revolutionary ideals; however, despite the period that the city experienced during the independence process, between 1793 and 1835, the city went from having 3,598 inhabitants to 5,929 inhabitants. However, during this century the city experienced political conflicts and natural disasters, which again affected its urban growth.

Industrial Period (First years) XX Century

Cartography 6,
Date: 1913

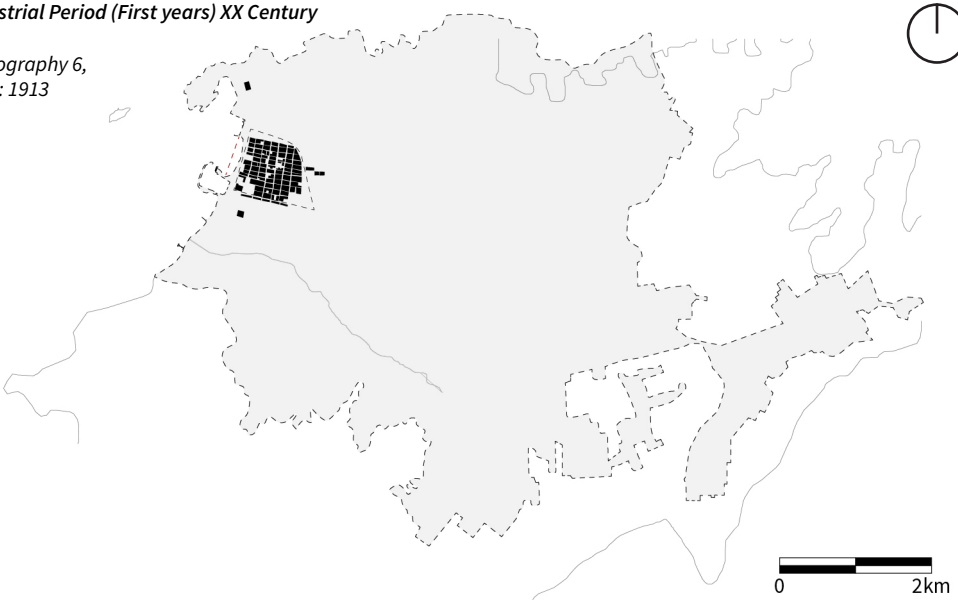


Fig 109, Elaborated by the author

Glossary: Alameda, Acequia, Plaza Mayor.

Industrial Period (First years) XX Century

Cartography 7,
Date: 1915

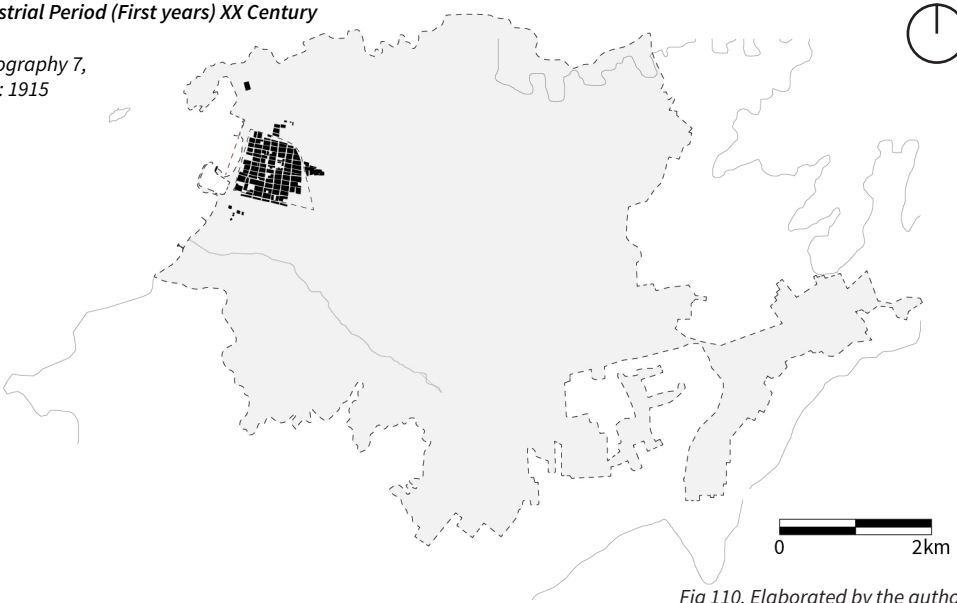


Fig 110, Elaborated by the author

Industrial Period (First years) XX Century

Cartography 8,
Date: 1929

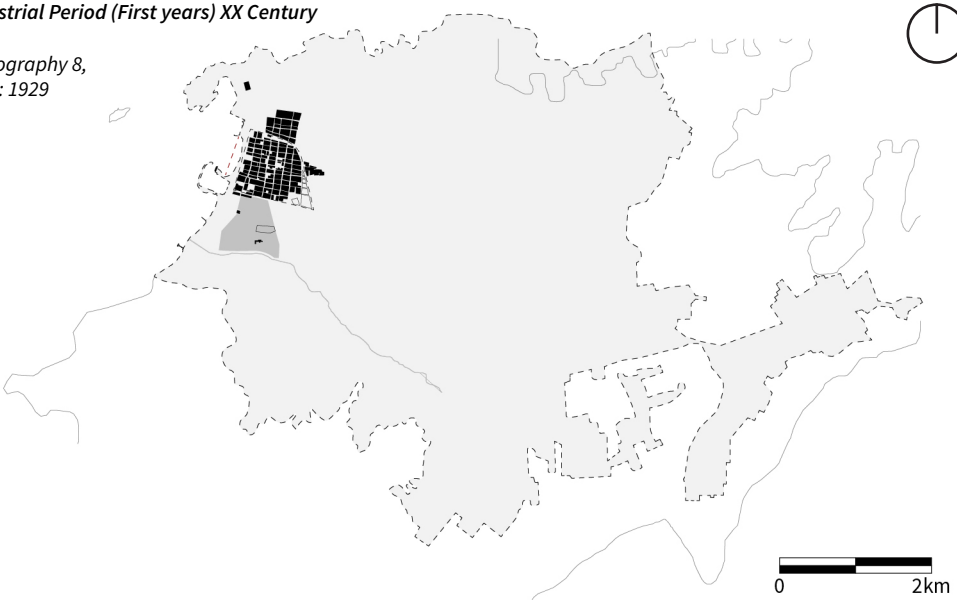


Fig 111, Elaborated by the author

Later, at the beginning of the 20th century, with the appearance of a new economic activity in the region, the urban growth of the city would be influenced again, thanks to the construction of the railroad, which, together with the **banana activity**, would produce an internal migratory movement, bringing with it the construction of new infrastructure for the city. It is evident in the historical cartographies, as a result of the development of the port and railroad infrastructure, a growth towards the north and south of the city, beyond the railroad line, began to take place; To the north, the “northern neighborhood” began to appear, where port workers settled, and to the south, in a new urban typology of condominium style, the American workers of the **United Fruit Company** settled, founding what would be known as the Prado neighborhood. Also in the city, **Republican style buildings** began to appear, which once again configured the urban image of the city.

However, this urban growth, produced in the mid-twentieth century would be the cause of the disappearance of buildings and colonial style goods, as well as the affection on some

Industrial Period (First years of touristic city) XX Century

Cartography 9,
Date: 1930

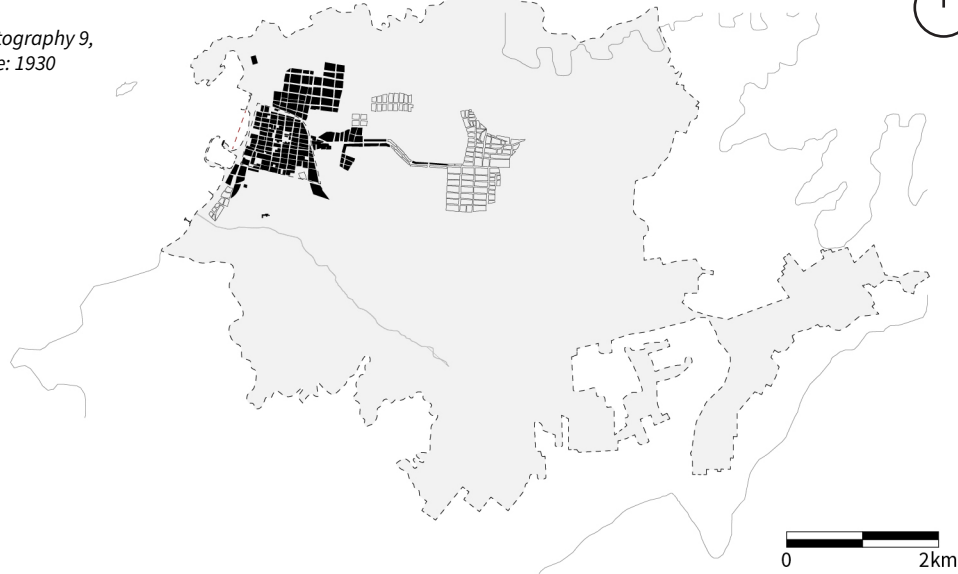


Fig 112, Elaborated by the author

Glossary: Banana activity, United Fruit Company, Republican style buildings.

Modern Period (Touristic city) XX Century

Cartography 10,
Date: 1963

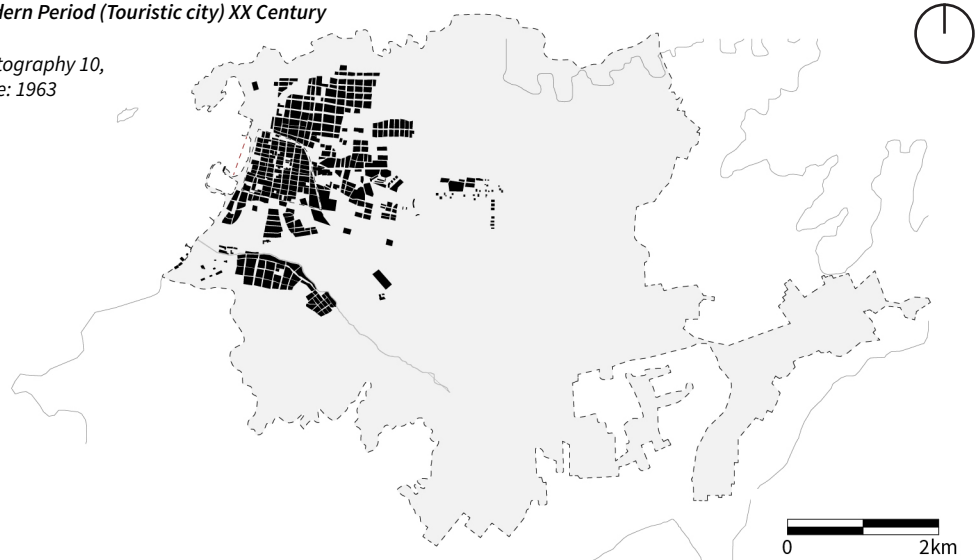


Fig 113, Elaborated by the author

Contemporary Period (Special District) XXI Century

Cartography 11,
Date: 2023



Fig 114, Elaborated by the author

of the ruins of the colonial defensive system of the city, such as the affections made on the **fort of San Antonio**, which would be used for the construction of a religious monument, and later limited its access, due to being located in a private sector of the port of the city, also influencing its deterioration. On the ruins of the **Betín fort**, which, like the **San Antonio Fort**, would be used as a foundation for a later building; or the case of the **San Fernando Fort** and the **Morro**, which, due to their position, are disconnected from the city.

The **San Fernando Fort** is located and its use is limited by the presence of the **José Maria Cordova military battalion**, which has affected the property, due to its disuse and abandonment; and the **El Morro Fort** has limited access due to the city’s coast guard. Causing its abandonment and disuse.

At present, the urban growth of the city and the new land use plan may affect the **Fort of San Fernando** and the **Fort of Morro**, as the military battalion area is proposed as an area for urban development and as an area for the extension of roads. The unplanned growth of the sector, without an understanding of its effect on the colonial military fort of **San Fernando**, may have negative repercussions on urban actions for the material good.

The **Morro Fort**, along with the ruins of the **San Antonio Fort**, **Betín**, **San Vicente**, **San Juan de Las Matas** and **Palenque de Bonda**, could be integrated or become part of the urban and touristic-cultural growth of the city as generating or energizing elements of the city.

It is important to mention that the **Colonial Forts** of the city are part of the growth and urban evolution of Santa Marta, having been built under the “**Laws of the Indies**”, which were the **ordinances** issued by the Spanish crown, in order to establish how the Spanish settlements were to be founded in America, Within these laws were established the regulations to be followed in urban terms, during the colony, and the regulations were established in relation to the fortifications that should be erected in places like Santa Marta, in order to protect the city and allow its growth, also established the conditions of their constructions, in order to understand the places of location of these.

Glossary: José Maria Cordova Military Battalion, Colonial Forts, Ordinances, Laws of the Indies.



Fig 115, Elaborated by the author



Orthophoto of The City and Port of Santa Marta
Source: Google Earth

Fig 116, Source: Google Earth

Santa Marta, ”Plan Maestro Quinto Centenario and POT 500 años”

The **master plan 500 years of the city of Santa Marta**, was presented and approved on February 5th, 2013, through article 111 of Law 1617 of the same year, by which the regime for special districts is issued, in chapter III. Special provisions applicable exclusively to the tourist, cultural and historical district of Santa Marta, states that;

“El Distrito Turístico e Histórico de Santa Marta se declara patrimonio cultural de la Nación por ser la ciudad más antigua sobreviviente fundada por España en América del Sur y en razón a su riqueza biogeográfica y ecológica, a su diversidad cultural con presencia de los pueblos indígenas Kogui, Arhuaca, Arzaria, Chimila y Wayúu y de población afrocolombiana.
En razón a esta condición se declara proyecto estratégico de interés nacional la celebración del quinto centenario de la fundación de la ciudad de Santa Marta en el año 2025 para lo cual el Gobierno Nacional dentro de los seis meses a la expedición de esta ley concertará con las demás autoridades nacionales relacionadas con la materia, con las autoridades distritales, con los diferentes estamentos y poderes públicos, gremios y asociaciones sociales y culturales la adopción mediante decreto del Plan Maestro Quinto Centenario de Santa Marta, así como los recursos que garanticen su ejecución”.

Through which the execution and implementation of the master plan for the city is established, likewise in article 110 of the law, it is established;

“El Gobierno Nacional promoverá la celebración de convenios y tratados internacionales para organizar un centro de convenciones, un museo, y una biblioteca que funcionarán en la Quinta de San Pedro Alejandrino, que recoja e integre bienes, memorias, elementos, documentos y demás objetos y obras que forman parte del patrimonio histórico y cultural de los países bolivarianos e hispanoamericanos.
Para ello el Gobierno Nacional, procederá en estrecha coordinación con las entidades y autoridades distritales encargadas de los mismos asuntos y organizará, en asocio con instituciones de educación superior, asociaciones cívicas y gremiales, entidades públicas, un centro de estudios internacionales para el área del Caribe”.

The 500-year Plan establishes four fundamental axes to be followed, which include a series of 25 projects aimed at achieving sustainable and equitable development of the city by addressing the main current challenges. These axes and projects are categorized as follows;

The axes and projects to be developed in the 500-years Plan for the city

Axis 1; Environmental Sustainability

1.1. Basic sanitation and potable water

- 1. Assurance of water supply: Study of new sources, water collection and treatment (short, medium and long term).
- 2. Implementation of the Water Supply and Sewerage Master Plan in the urban area and improvement of Basic Sanitation and sewerage in the rural towns and villages.

1.2. Water sources and urban drainage.

- 3. Integral improvement of the water courses: **Manzanares, Gaira** and other secondary waterways. Creation of a Linear Park around the recovery of the **Manzanares River**, integrating it into the life of the citizens.
- 4. Flood control and rainwater drainage for the city of Santa Marta. Map of vulnerability, threats and risks. Design and construction of a storm drainage system and tidal ponds.

Glossary: Master plan 500 years, Manzanares, Gaira.

Santa Marta - Historic urban growth

1.3. Waste management and environmental remediation.

- 5. Integral management of urban solid waste.
- 6. Recovery of natural parks, beaches and environmental protection zones. Recovery of the Santa Marta Beach and integral action on **Cerro Ziruma** and its surroundings.

Axis 2; Economic Sustainability

2.1. Infrastructure for competitiveness and connectivity.

- 7. Modernization and expansion of the Simón Bolívar International Airport.
- 8. Aerópolis: Business center and logistics services center around the airport.
- 9. Expansion of the infrastructure and logistics areas of the Port of Santa Marta. Enabling of the dock and annexed services for cruise ship docking and passenger transportation. Modernization and rehabilitation of the railroad for mixed cargo and passenger transportation.

2.2. Urban and tourism development

- 10. Second phase of rehabilitation of the Historic Center.
- 11. Urban renewal of the Port environment (under its expansion project, cfr. #9).
- 12. Visitor Center (Ecotourism and rural tourism in the Sierra Nevada).
- 13. **Pozos Colorados** Tourism Corridor
- 14. Theme Park (Caribbean Cultures, Marine World, Oceanographic).
- 15. Tourist mobility: (i) Construction of tourist docks or piers for transportation between bays. (ii) Construction of a network of cable cars.

2.3. Agricultural development, handicrafts and trade.

- 16. Development of agricultural projects.
- 17. Center for the promotion of handicrafts
- 18. Commercial reorganization: Public Market and Central Market.

2.4. Sustainable intermodal mobility.

- 19. Strategic Public Transportation System - SETP and construction of the new interurban transportation terminal.
- 20. Rehabilitation of the rail transportation system for urban use, connecting the urban expansion sectors, the airport and the historic center.

Axis 3; Social Sustainability

3.1 Sports venues

Glossary: Cerro Zimura, Pozos Colorados.

Santa Marta - Defensive triangle in the second half of the XVI Century

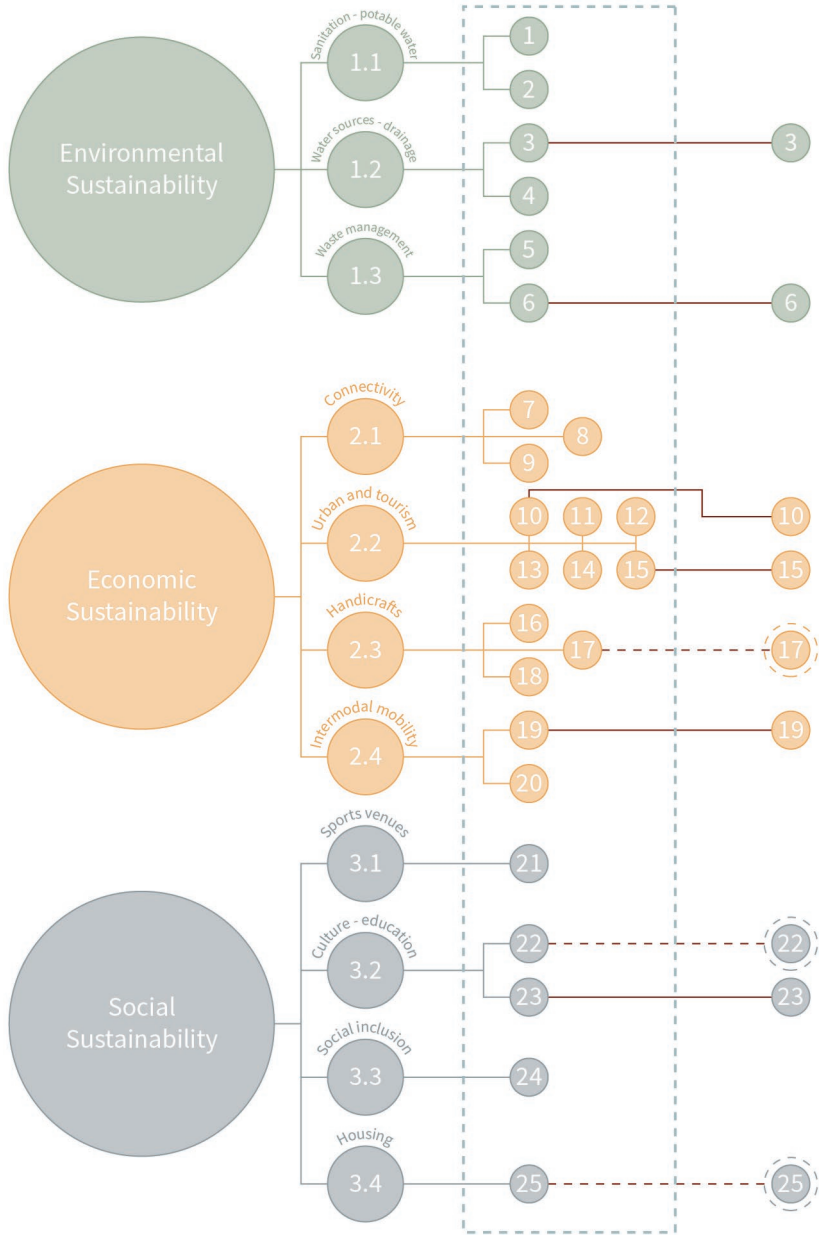


Fig 117, Elaborated by the author

21. Construction of the new soccer stadium and the Bolivarian Village. Recovery of sports venues in the Olympic Village (Bolivarian Games 2017).

3.2 Culture and education

- 22. Strengthening of human capital.
 - Comprehensive plan to improve urban and rural public schools and colleges.
 - Creation of the Polytechnic District University.
- 23. Consolidation of the cultural dimension of the District
 - Bolivarian cultural center (Quinta de San Pedro Alejandrino).
 - Network of museums and cultural centers: articulation of existing museums and creation of soccer and agro-industrial museums.

3.3. Social inclusion

- 24. Integral program for social development (equity-development and peace network).

3.4 Housing

- 25. Urban development of the expansion area with **VIS** and **VIP housing projects**.

Axis 4; Institutional Sustainability

- 26. Santa Marta 5th Centenary Foundation.
- 27. Pro Santa Marta Foundation

The 25 projects for the city

The 25 projects proposed in the 4 axes of the plan, seek not only to face the main challenges present in the city, but also to promote its cultural, touristic and historical identity, qualities present in Santa Marta and which allowed its declaration as a special district and as a national cultural heritage, in addition these characteristics of the city, seek to be implemented as a strengthening element of the economic system of Santa Marta, by being able to attract new national and international tourists to the city, and the generation of new jobs.

Glossary: VIS housing, VIP housing.



Fig 118, Elaborated by the author



Fig 119, Elaborated by the author



Fig 120, Elaborated by the author

Within these projects it is possible to identify specific issues capable of affecting or having an impact on the historical remnants of the city's colonial military forts, such as the **San Fernando Fort** and the **Morro Fort**. Through a correct implementation of these projects, it is possible to generate an appropriate connection with the city and enjoyment of the **Fortifications**, in addition to the inclusion of these assets of cultural interest, within the tourist,

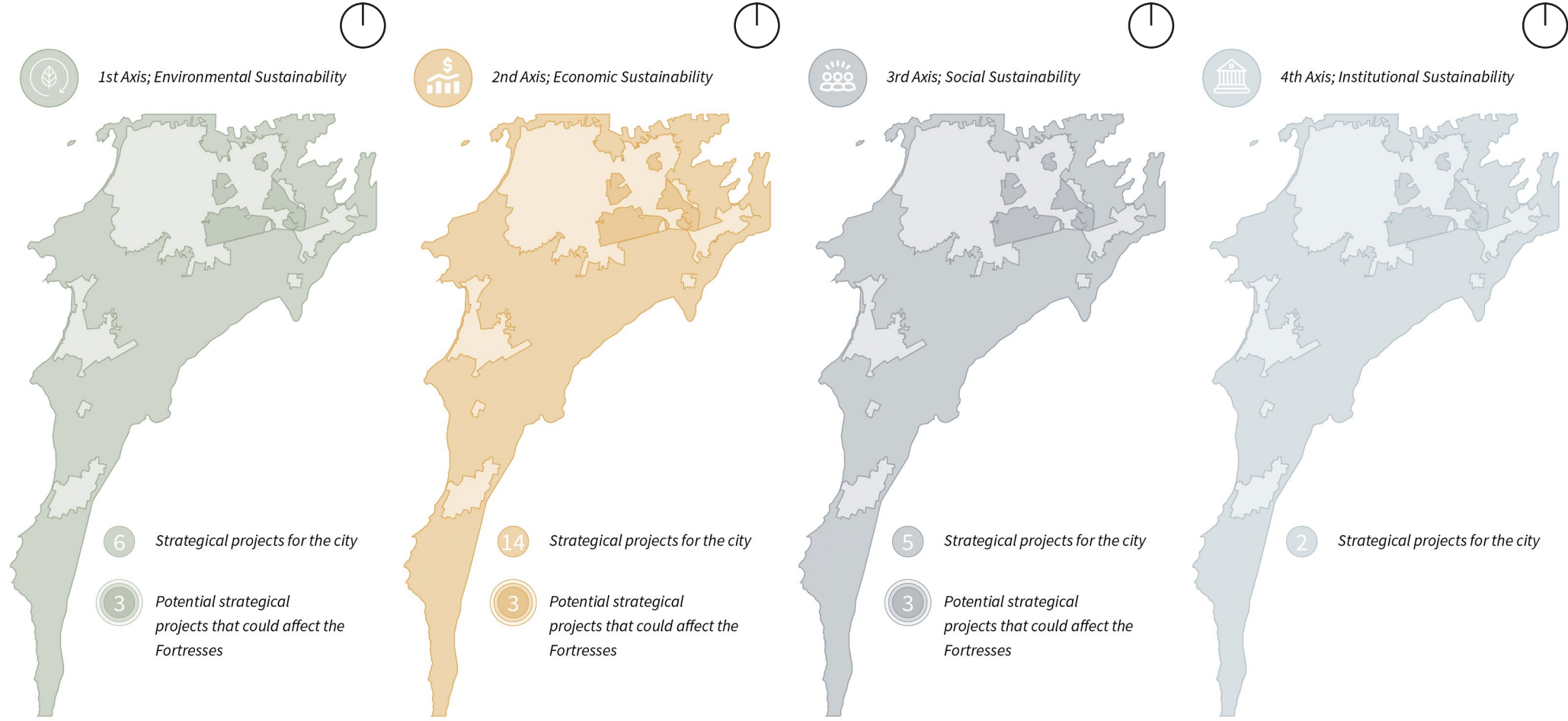


Fig 121, Elaborated by the author

Glossary:

The “Plan 500 años” and the Colonial Military Fortresses of Santa Marta

Among the projects presented in the axes of the “Plan 500 años”, there are highlighted the following projects, due to their potentiality to integrate, influence nor affect the remaining ruins of the **Colonial Military Fortresses of Santa Marta**, with a focus on the **Fortress of San Fernando** located in the Military Base “José María Cordova”.

Although, there is the potentiality to include the **Fortresses San Fernando** and **Morro**, into the projects, it is highlighted, that there are not projects, which take directly into consideration the **Fortresses** in order to be integrated into the urban life of the city.

Project: 3. Integral improvement of the water courses: Manzanares, Gaira and other secondary ones.
Axis: Environmental sustainability
Challenge: Building city, inclusive society.

Project: 6. Recovery of natural parks, beaches and environmental protection zones. Santa Marta Beach and Zimura Hill.
Axis: Environmental sustainability
Challenge: Building city
Note: “Formation of the Cerro Ziruma Park and opening of Lipe Beach and the Battalion area. The Cerro Ziruma is located between the central urban area of the city and El Rodadero, and in general terms is in a good state of conservation, with few developments on its slopes. Because of its strategic location within the city’s most dynamic urban areas, it is proposed that this zone, without losing its character as a forest reserve area, be integrated into the city’s system of parks and beaches as a natural area with minimal interventions (ecological trails that facilitate pedestrian and bicycle mobility, basic service points, tourist information and security) articulating the existing natural and built public spaces. In addition, a viewpoint over the bay will be built, which could be accessed by a cable car”.

Project: 10. Inclusive reactivation of the historic downtown area.
Axis: Economic sustainability
Challenge: Building city

Project: 15. Tourist mobility: construction of (I) tourist docks or piers for maritime transportation between bays; (II) construction of a network of cable cars.
Axis: 2. Economic sustainability
Challenge: Building city

Glossary:

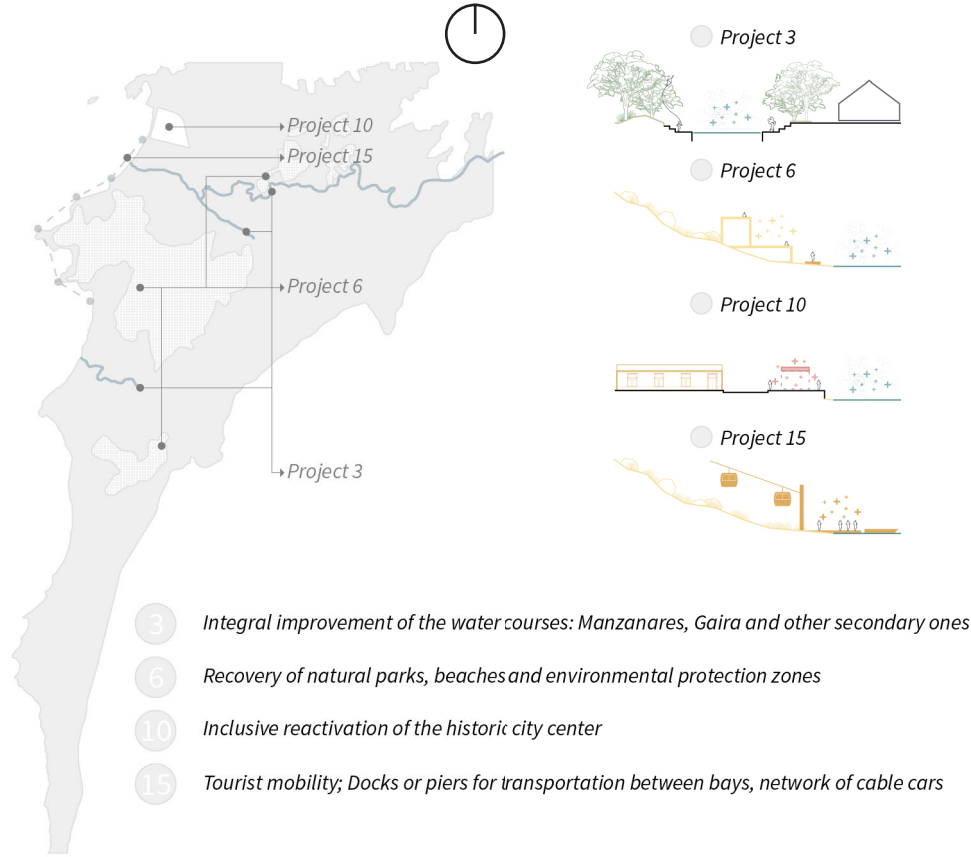


Fig 122, Elaborated by the author



Fig 123, Source: Plan 500 Años de Santa Marta

Note: It is proposed to develop alternative transportation systems that facilitate the mobility of tourists between the District’s main points of attraction, at the same time that they themselves become a new point of attraction. Two complementary systems are envisaged: docks and maritime services, on the one hand, and cable cars, on the other. The maritime docks will provide transportation services between the historic center of Santa Marta and Rodadero, on the one hand, and Taganga, Tayrona Park and Villa Concha, on the other. The cable car network will be developed in several phases, connecting the historic center with Rodadero (through the Ziruma hill) in the first place, and with Minca. In later phases the network could be extended to include other destinations, such as Taganga and the airport.

Project: 17. Crafts promotion center
Axis: Economic sustainability
Challenge: building a city. Inclusive society. Economic development.
Note: “The idea is to promote a multisectoral productive project, with several components: (i) training (technical and business), (ii) research (which crafts can be considered linked to tradition, to the history of the city and its surroundings), (iii) associativity, (iv) technical assistance, and (v) marketing. Two infrastructures are included as landmarks:

- a training center or artisan workshop (linking the SENA, educational centers, the future Universidad Universidad Distrital and the Universities of Santa Marta)
- a Crafts Market that will serve as a pole of attraction oriented towards certifiable quality craftsmanship, located in the Historic Center.

The District will play a catalytic role in this process, promoting the creation of what in other times was called “arts and crafts workshops”, fostering associativity among the existing activity nuclei, particularly promoting the link with the indigenous communities of Santa Marta, and facilitating a suitable location to concentrate the activity, providing it with visibility in the face of quality tourism”.

Project: 19. Strategic public transportation system - SETP, (Interconnected with light rail). New interurban transport terminal
Axis: 2. Economic sustainability
Challenge: Building a city. Inclusive society
Note: A strategic route is planned for Carrera 4, as it is one of the 4 main corridors of the city.

Project: 22. Strengthening human capital
Axis: Social sustainability
Challenge: Building the city
Note: Includes two subprojects:
- Comprehensive plan to improve urban and rural public schools and colleges (right and access to quality education). The aim is to continue working to reduce illiteracy and overcome problems with the quality of education at all levels, as well as to take action to stop school dropouts in primary, secondary and middle school.

Glossary:

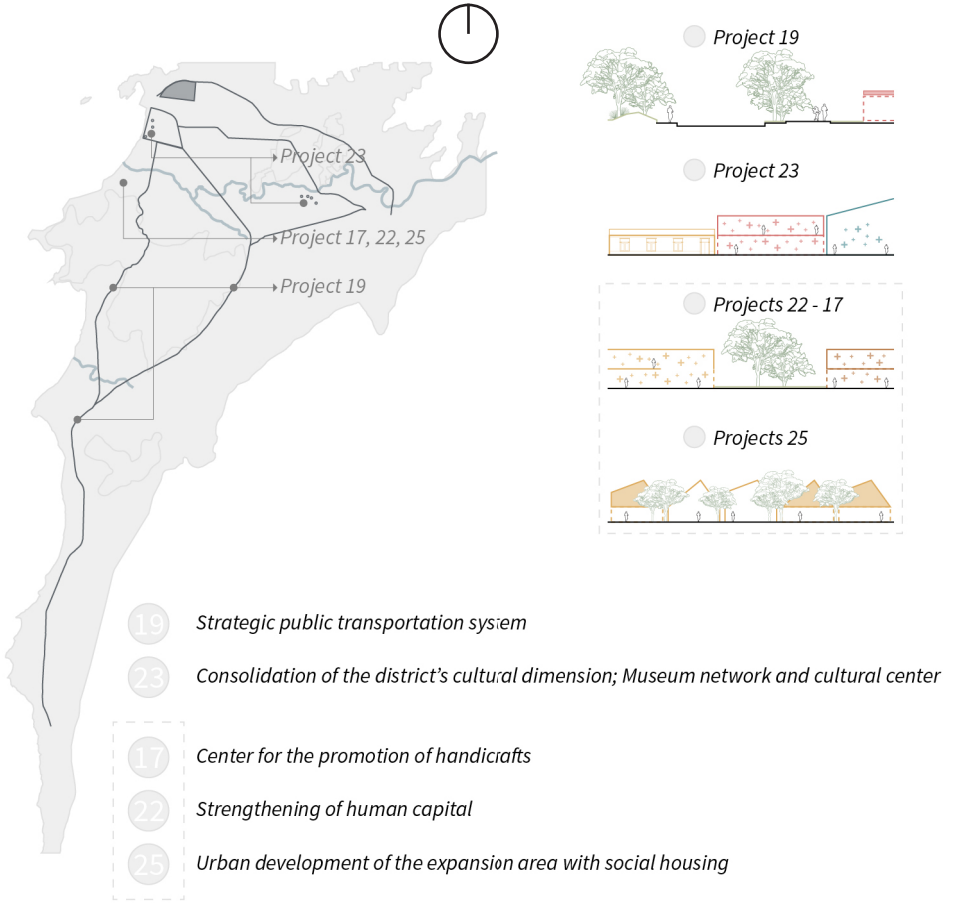


Fig 124, Elaborated by the author



Fig 125, Source: Plan 500 Años de Santa Marta

Santa Marta - Historic urban growth

- Polytechnic District University. Creation of a University in the modalities of technical, professional and technological training (Law 749 of 2002), organized to grant sequential degrees, each of which officializes labor competencies relevant to the productive system of the District and the Department. The programs envisaged would be Technical, Technologist and Engineering.

Project: 23. Consolidation of the district's cultural dimension: museum network and Bolivarian cultural center.

Axis: 3. Social sustainability

Challenge: Building city

Note: "It is intended to reinforce the condition of Santa Marta as a historical, tourist and cultural District by strengthening existing museums, building new museums and articulating the whole as a powerful network of museums and cultural centers that gather the essential components of the history, culture, identity and ways of life of the District and the Magdalena Region".

Project: 25. Urban development of the expansion area with VIS and VIP housing projects.

Axis: 3. Social sustainability

Challenge: Build city. Inclusive society.

The POT 500 años 2020 - 2032

The **POT** 500 years is composed of three dimensions which function as axes for the correct development and territorial urban planning of the city, whose approach seeks the development of Santa Marta, towards a sustainable, equitable and productive city.

In the environmental dimension, the **POT** 500 years recommends connecting, conserving, restoring and taking advantage of the ecosystems present in the city. It seeks to generate a continuous environmental system, with the appropriate conditions for biodiversity, and capable of allowing the restoration of wetland ecosystems, capable of mitigating the impacts of climate change on the coast. Within the ecosystem connectivity approaches, the recovery of the continuity of the dry forest and the recovery of the mountain, coast, and sea connection in urban areas and around population centers are proposed.

In the social dimension, it is proposed to develop an infrastructure that allows accessibility to public services in populated areas, through the construction, expansion, improvement and replacement of infrastructure; the development of a sustainable transportation and

Santa Marta - Defensive triangle in the second half of the XVI Century

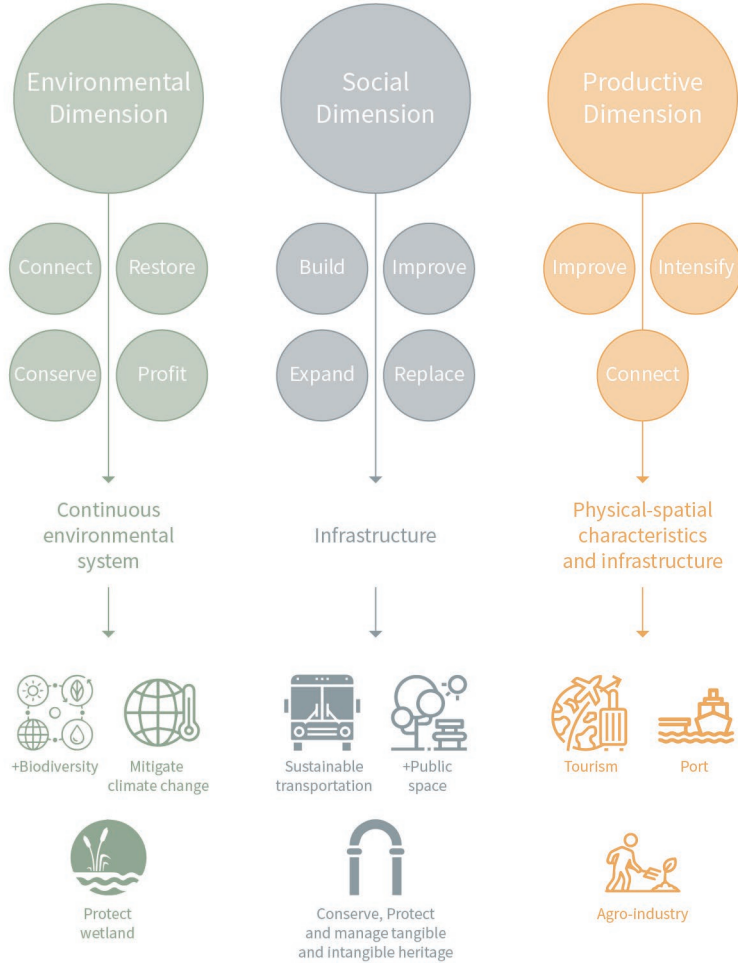


Fig 126, Elaborated by the author

mobility system, in which it is essential to understand the semi-arid climate of the city, and how the implementation of strategies that generate shade and fresh air is fundamental to the development of such a system, a system capable of including access, connectivity and improvement of equipment and public space must be generated; a plan for the conservation, protection and management of the city's tangible and intangible cultural heritage must be developed.

The productive dimension includes tourism, as one of the main economic activities of the

city, as a result of its historical and cultural characteristics, in this aspect the **POT** proposes to improve, intensify and connect the physical and spatial characteristics of the city, in order to guarantee the productive chain of tourism; For the port sector, connectivity, expansion and improvement of infrastructure are recommended in order to guarantee a productive logistics and port chain; in the agricultural and agro-industrial sphere, it is necessary to strengthen and harmonize the necessary infrastructure for the agricultural, livestock, fishing and agro-industrial productivity chain.

But then...

How can, the remaining Colonial Military Fortresses and ruins of the fortifications of Santa Marta, be integrated into the new city's life and urban plan development?

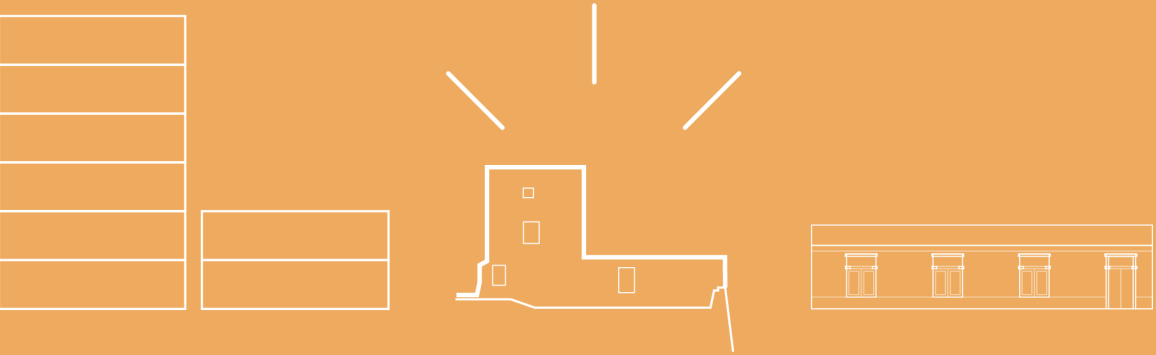


Fig 127, Elaborated by the author

Glossary: POT.



Fig 128, Elaborated by the Author

Chapter 2 Comparable case studies

Chapter 2, Comparable case studies

Comparable case studies introduction

- Introduction to the master plan scale comparables
- Analysis of Suomenlinna sea fortress, Helsinki, Finland
- Analysis of the Citadel of Spandau, Berlin, Germany
- Analysis of the Castle of San Felipe de Barajas, Cartagena de Indias, Colombia

- Enhancement of architectural ruins
- Analysis of enhancement of architectural ruins case studies
- Enhancement of architectural ruins possible strategies for Santa Marta

Comparable case studies, objective

In the second chapter of the thesis, three urban references and three architectural references have been selected, in order to study the strategies that could be replicated in Santa Marta and its fortifications, in order to provided and design a balance Master plan capable of allowing the growth of the city and the correct transition from the city, to the surrounding contexts of the heritage sites.

In order to fulfill the objective, the references have been divided in both categories, urban and architectural as a result of the situations and strategies implemented in each case; for the selection of the urban references, it was taken into consideration the need of selecting sites, that share the original function (defensive fortification) with the fortresses of Santa Marta, and the situation of being in relation with the urban growth of the cities where they are located, for the purpose to study the response that each site, went through, during the urban growth and the adaptations that were needed to be taken.

The architectural references, were selected, by understanding the current decay situation of the fortresses of Santa Marta, which can be described and cataloged as ruins due to their advanced state of abandonment and ruinosity. therefore the references selected, carry out different strategies of enhancement of ruins, according to the situations of the sites, and which could be implemented in Santa Marta, due to the diverse situations, in which the fortresses of the city can be found.

Finally through these references, it is seek to highlight lessons and strategies, that could be integrated, in order to allow the urban growth of the city, while the protection of its colonial military heritage is taken into consideration.

Glossary:

Urban Comparables, *case studies*

As explained before, the urban references have been selected, as a result of sharing with the fortresses of Santa Marta, the initial function of the sites, (defensive fortification), and the urban response that each site had, to the urban growth of the city where they are located, therefore, it is studied the strategy adopted for each case.

The urban references selected are:

- Suomenlinna sea fortress, in Helsinki, Finland.
- Spandau citadel, in Berlin, Germany.
- Castillo de San Felipe de Barajas, in Cartagena de Indias, Colombia.

Throughout the study of the references, the objective is to understand which urban models are carried out, in order to allow a balance relation between the need of the city to growth and the need of protection of heritage sites, as part of the studies, it is also understood which models cannot be replicated in Santa Marta, as for scale reasons or diverse urban needs. Additionally it is understood that the references have a different level of urban affection by the urban growth, and this situations is taken into consideration, in order to, understand properly how, a none regulated urban growth - heritage protection plan, can affect the heritage, social or landscape values of a protected site.

From these studies there are highlighted lessons, to be taken into consideration, in order to avoid, the affection of the heritage sites, due to the urban growth.

Glossary:



Fig 129, Elaborated by the author

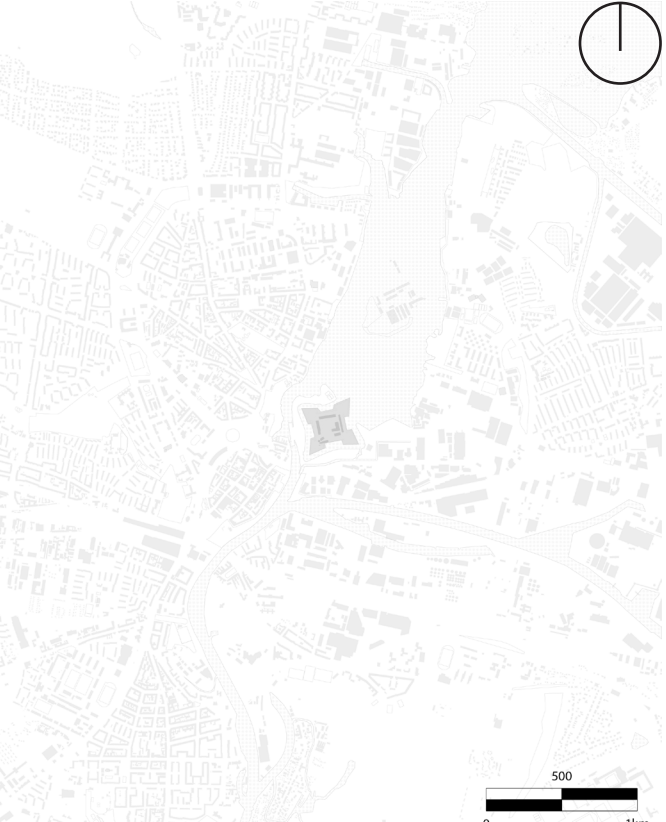


Fig 130, Elaborated by the author

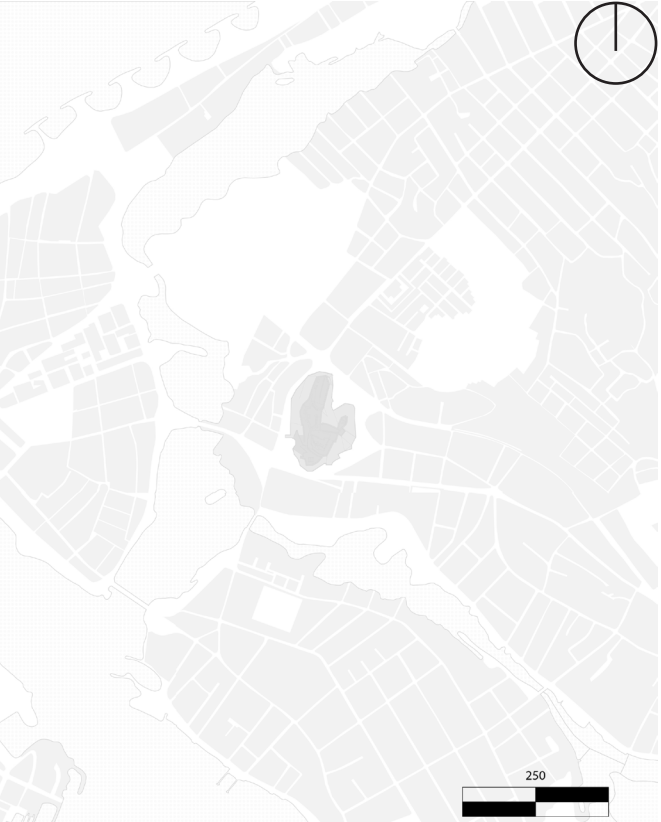


Fig 131, Elaborated by the author

Suomenlinna Sea Fortress, Helsinki - Finland

Suomenlinna is a sea fortress located in Helsinki, Finland, enlisted as a UNESCO heritage site in 1991, and considered to be one of the most visited sites of the country. Among the highlighted characteristics of Suomenlinna, it stands out that Suomenlinna is a group of islands, in which the Fortress' walls and layout were conditioned to the terrain's characteristics, which explains the fortification's adaptation to it, and the strong relation that Suomenlinna has with its natural context/landscape.

"Suomenlinna was established as an island fortress first by the Swedish and then by the Russian occupiers. After Finnish independence in 1917, it continued to be used for military purposes. The bastion fortress was mainly built in the 18th century with improvements being made in the 19th century" (Ebejer, John 2019).

In 1919, the Fortification was enlisted as a National Monument of Finland, allowing its protection and restoration works. Although still being under military management, the site was considered not only to be a monument to be protected, but as a functional area, district of Helsinki.

In the 1970s, the Governing Body of Suomenlinna, was created, for the management and protection of the site, by 1974, a Master Plan for the site was drawn up, aiming to provide it, with the needed functions, for the development of a resident community, and the enhancement of the site, as a cultural and recreational touristic place to visit.

Suomenlinna Sea Fortress - Helsinki

Fig 132, Elaborated by the author

Suomenlinna Sea Fortress - Timeline

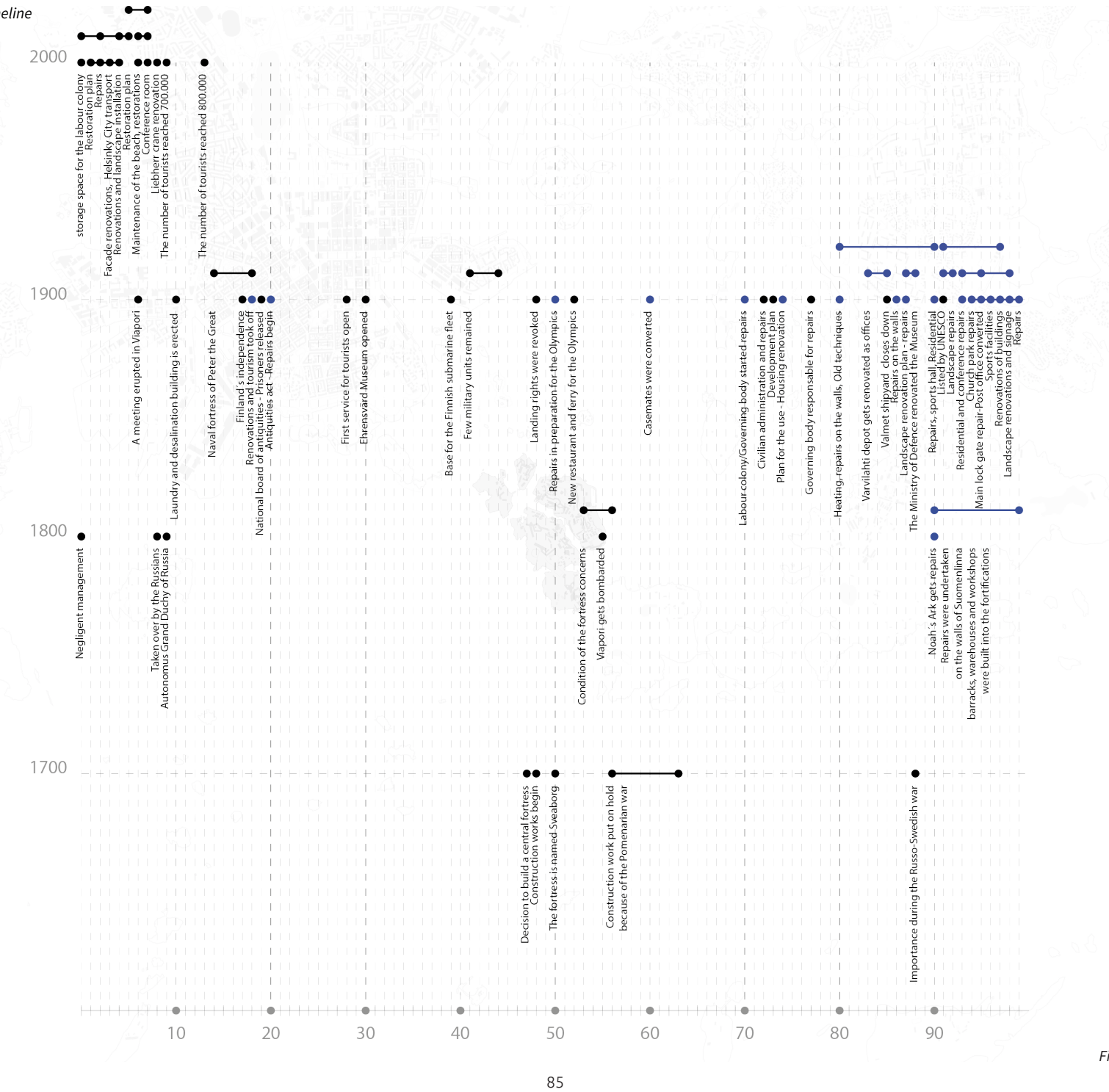


Fig 133, Elaborated by the author

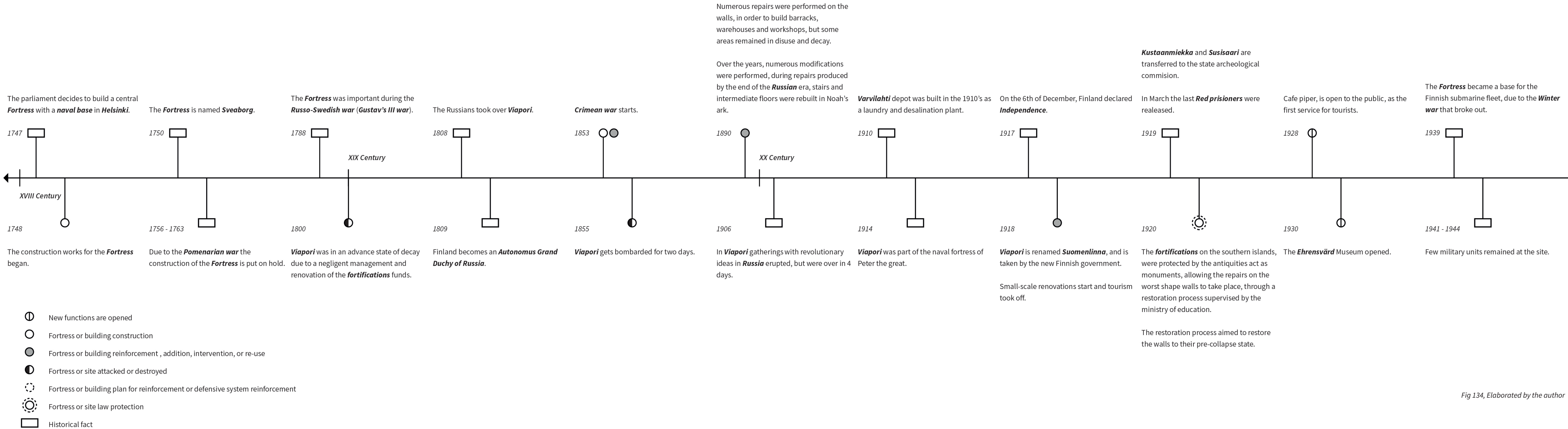


Fig 134, Elaborated by the author

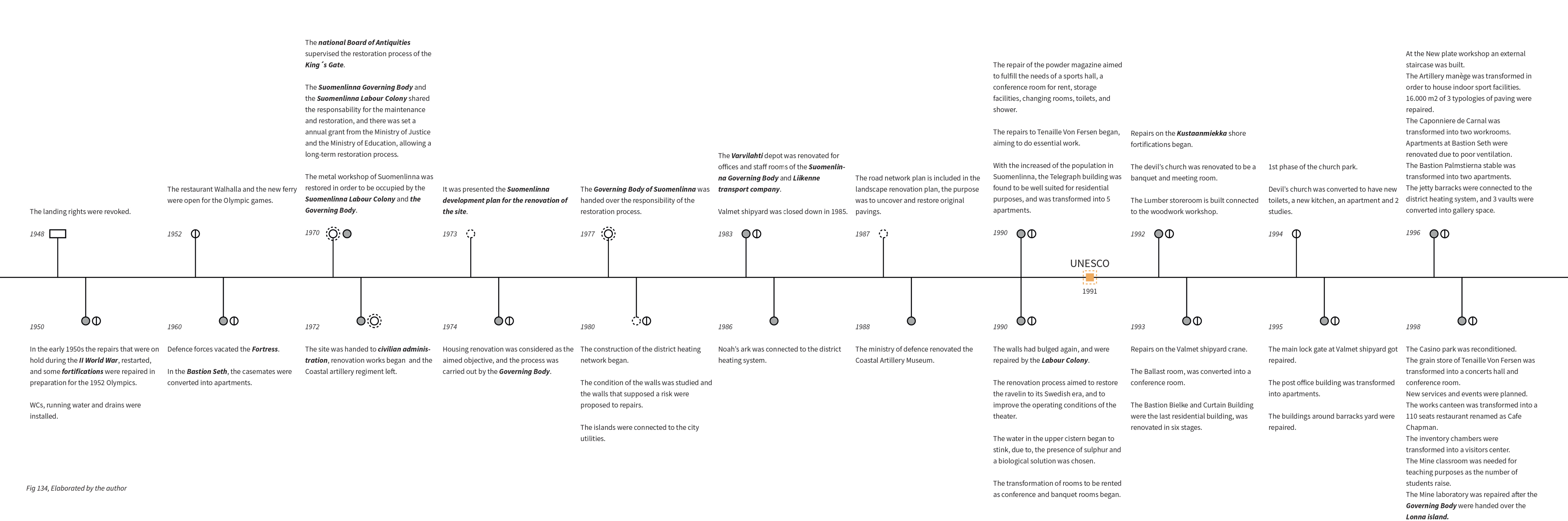


Fig 134, Elaborated by the author

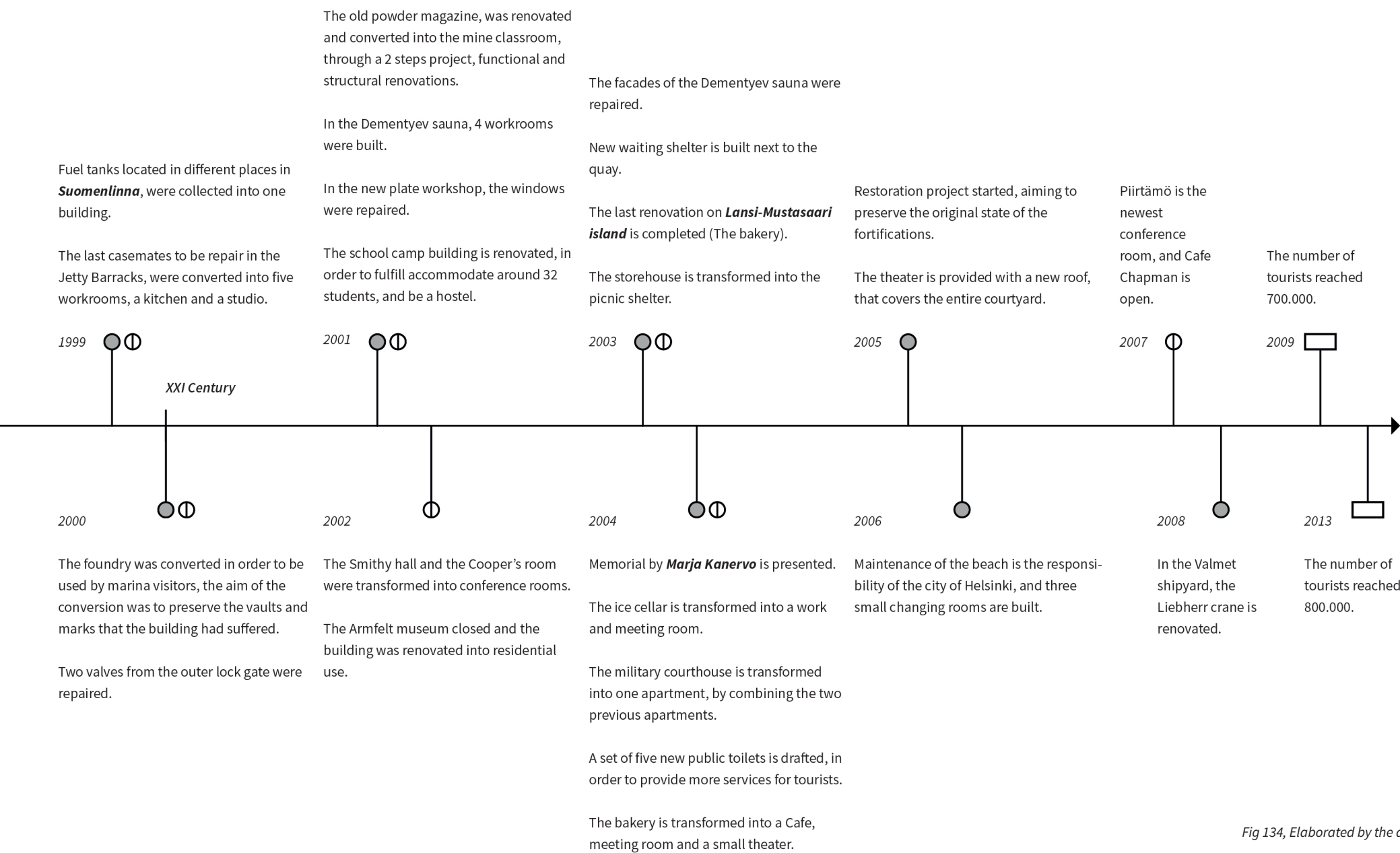
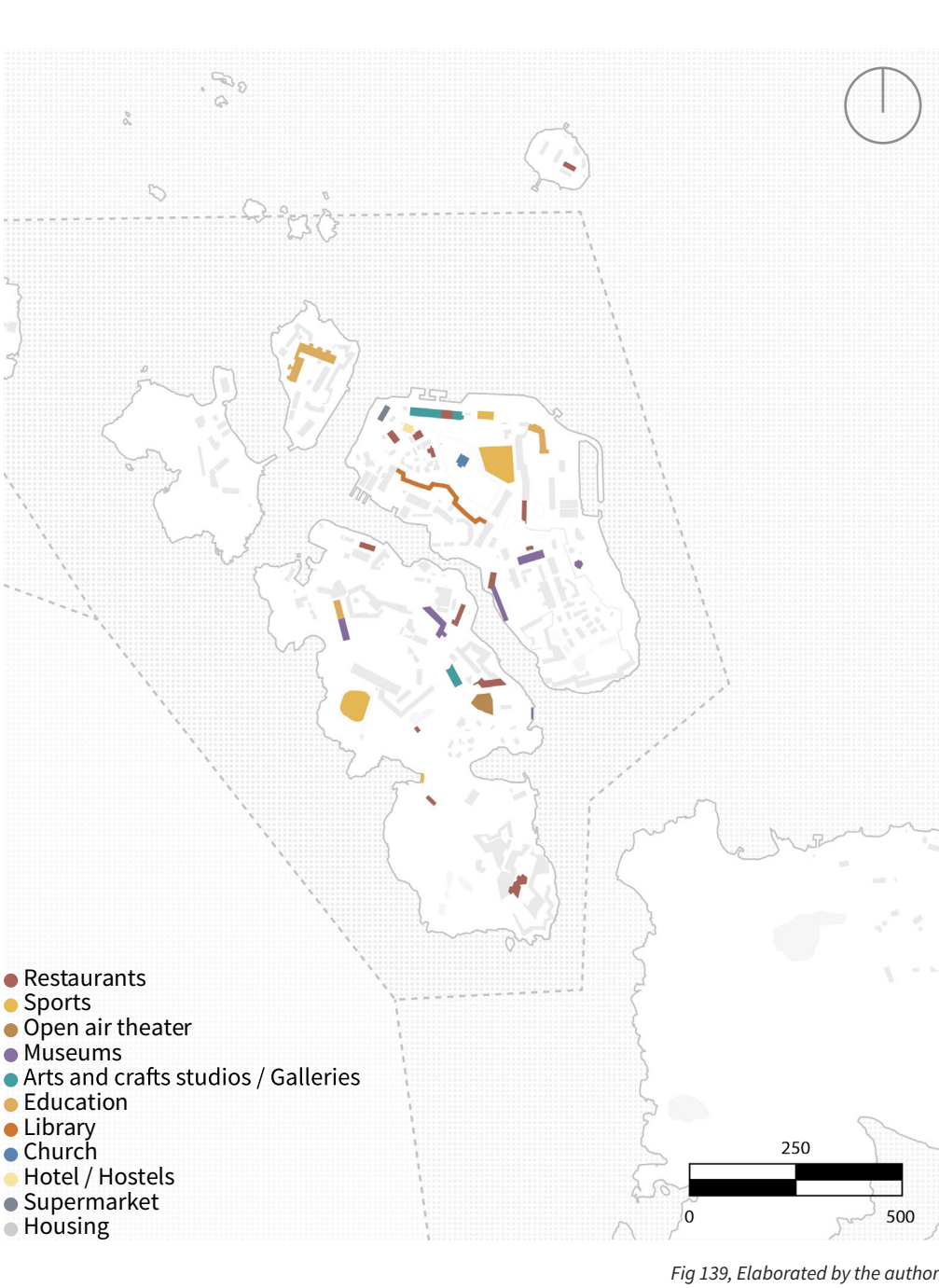
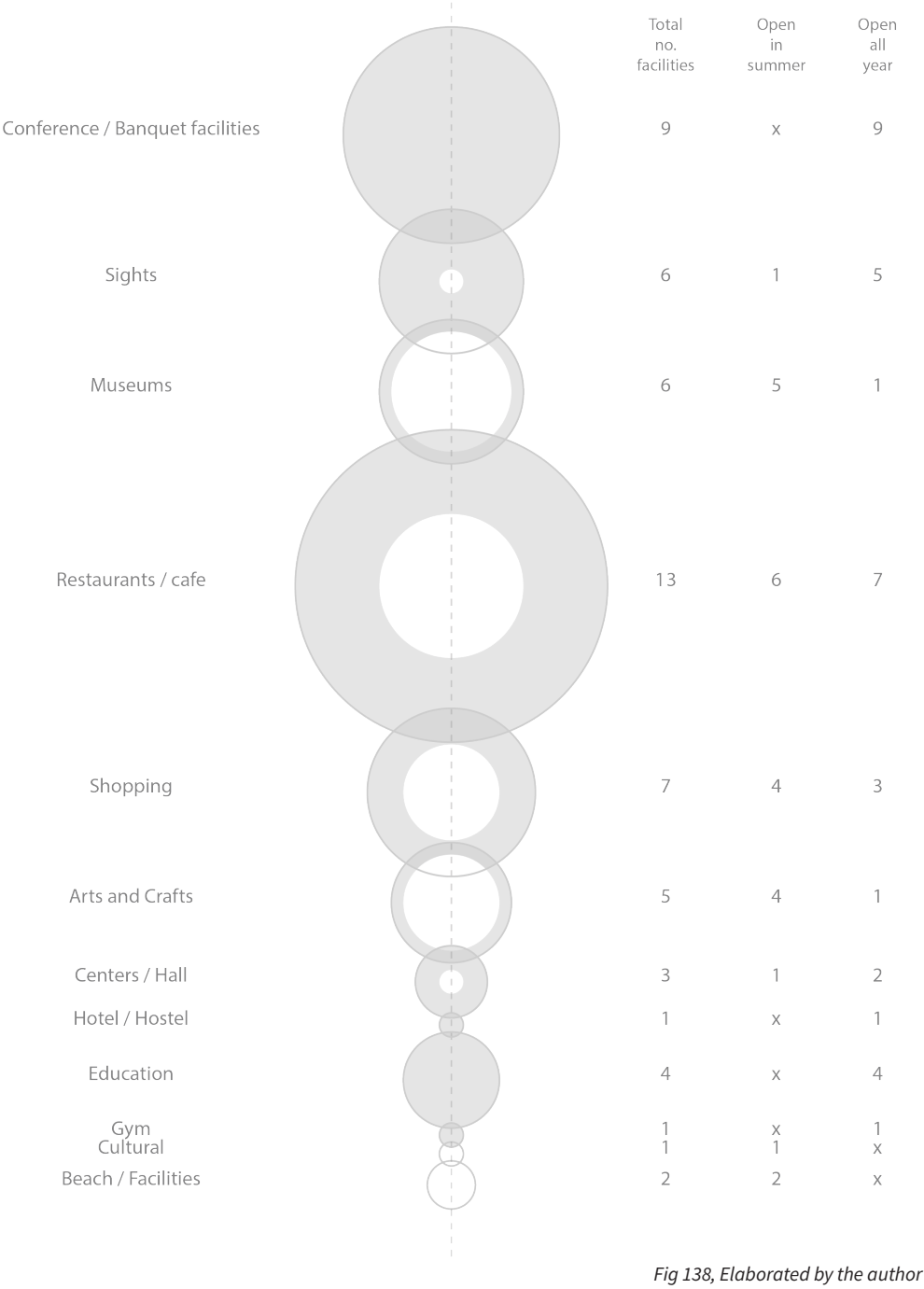
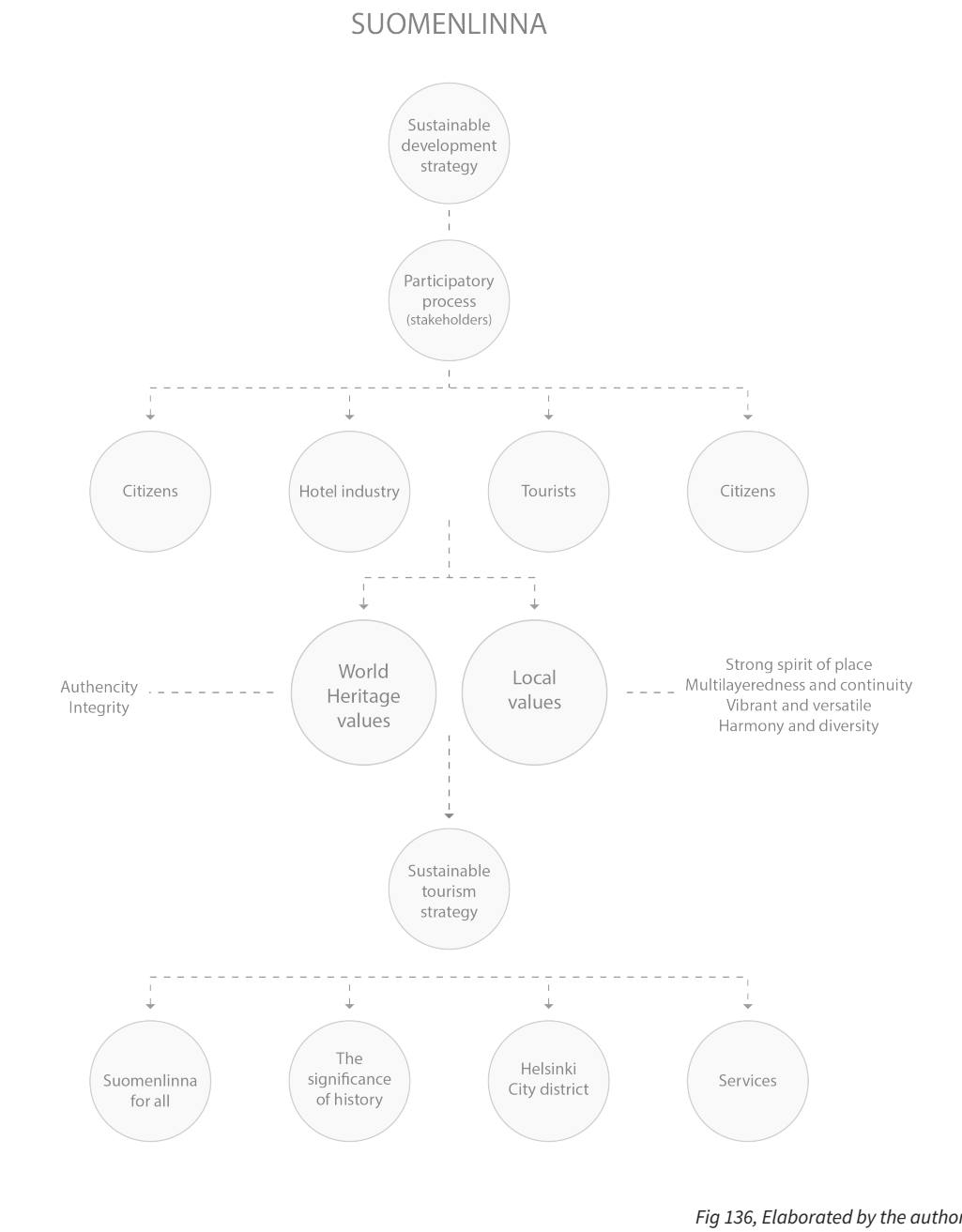


Fig 134, Elaborated by the author



Fig 135



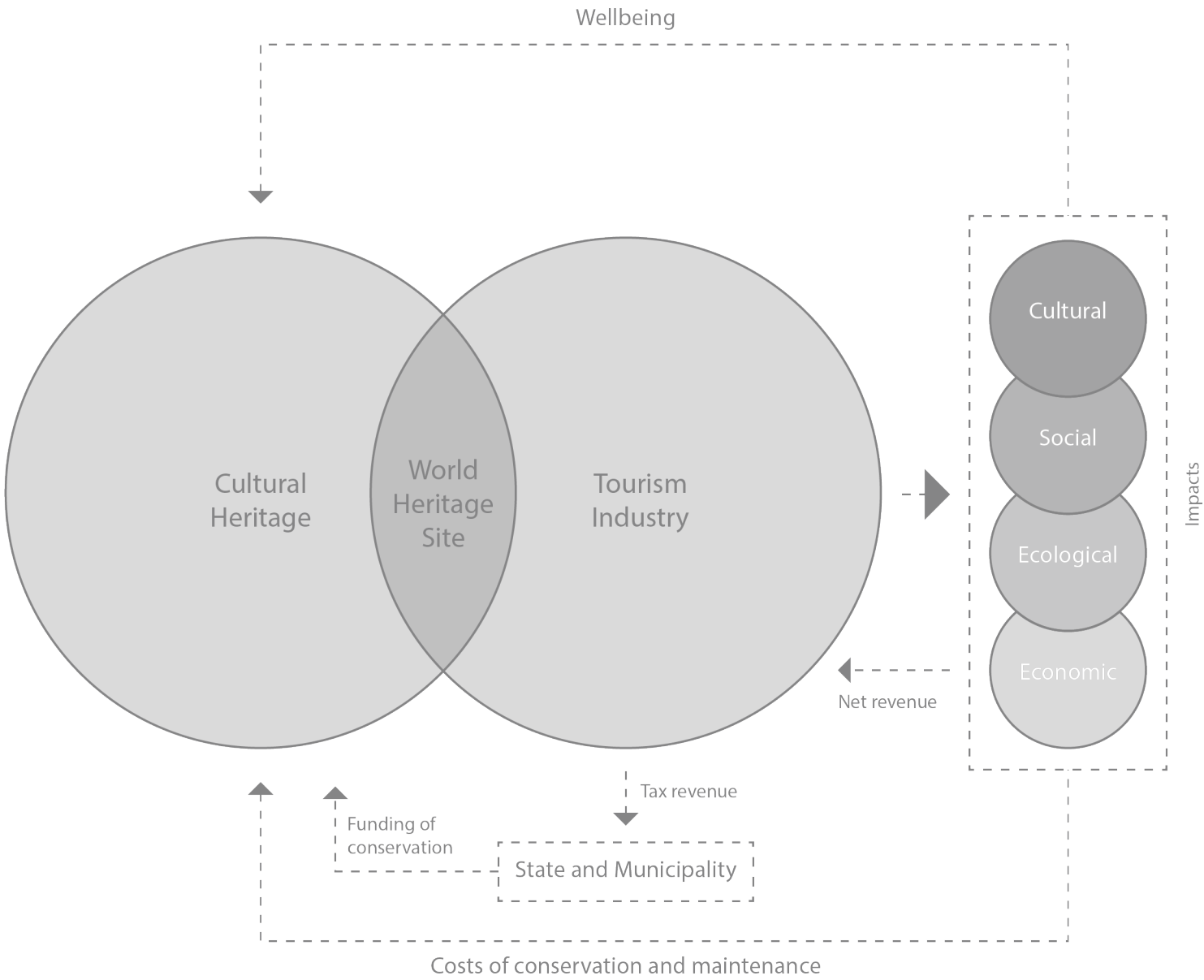


Fig 140

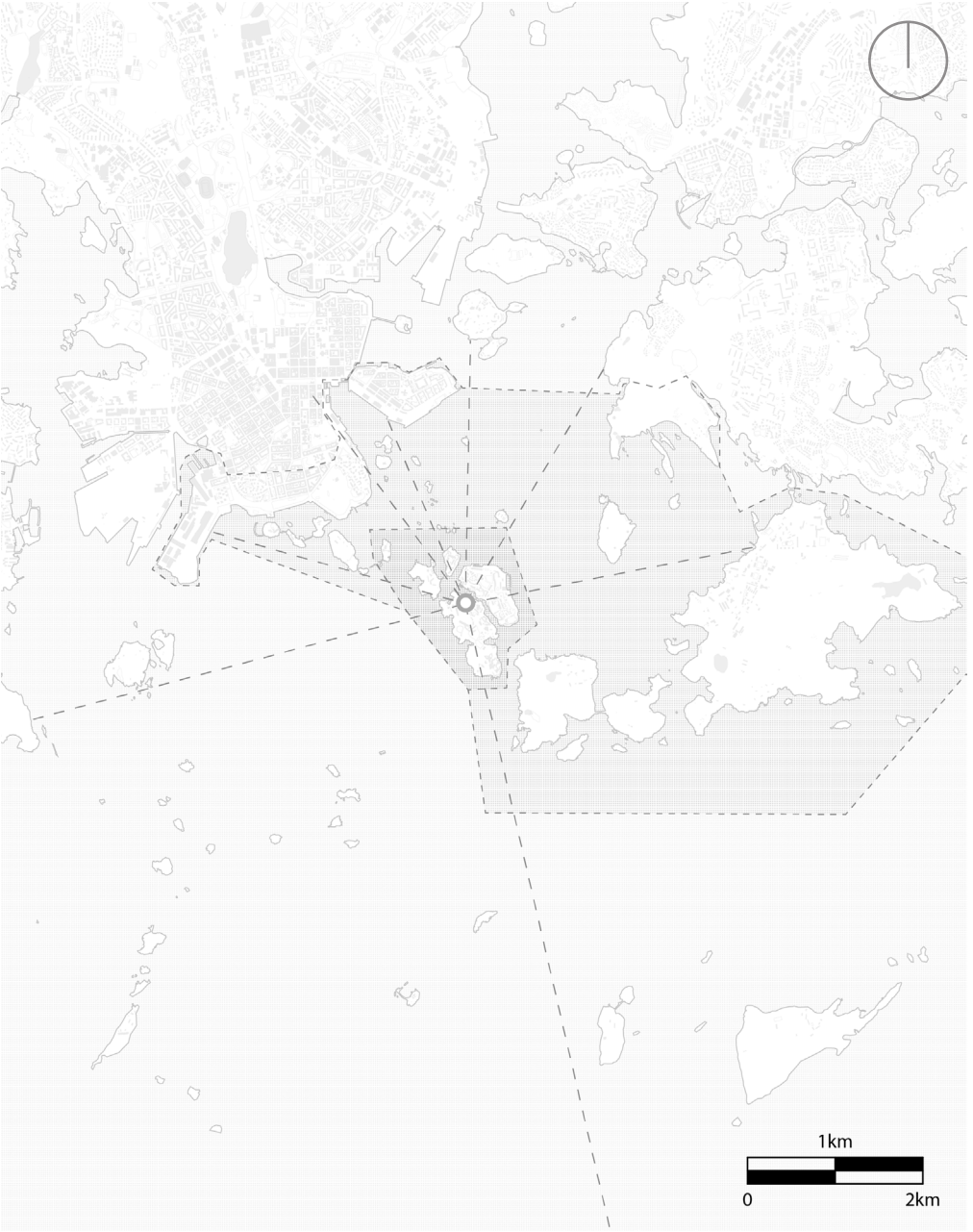


Fig 141, Elaborated by the author

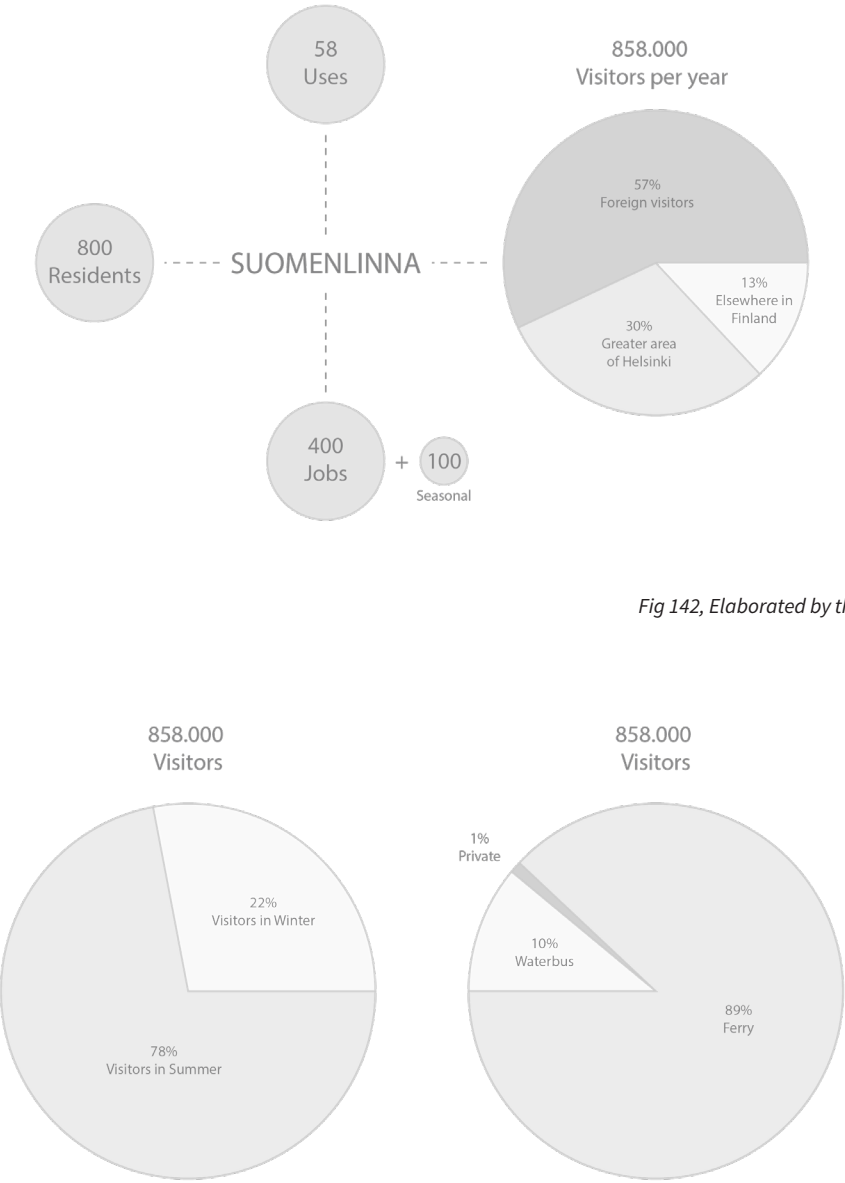


Fig 142, Elaborated by the author

Fig 143, Elaborated by the author



Fig 144

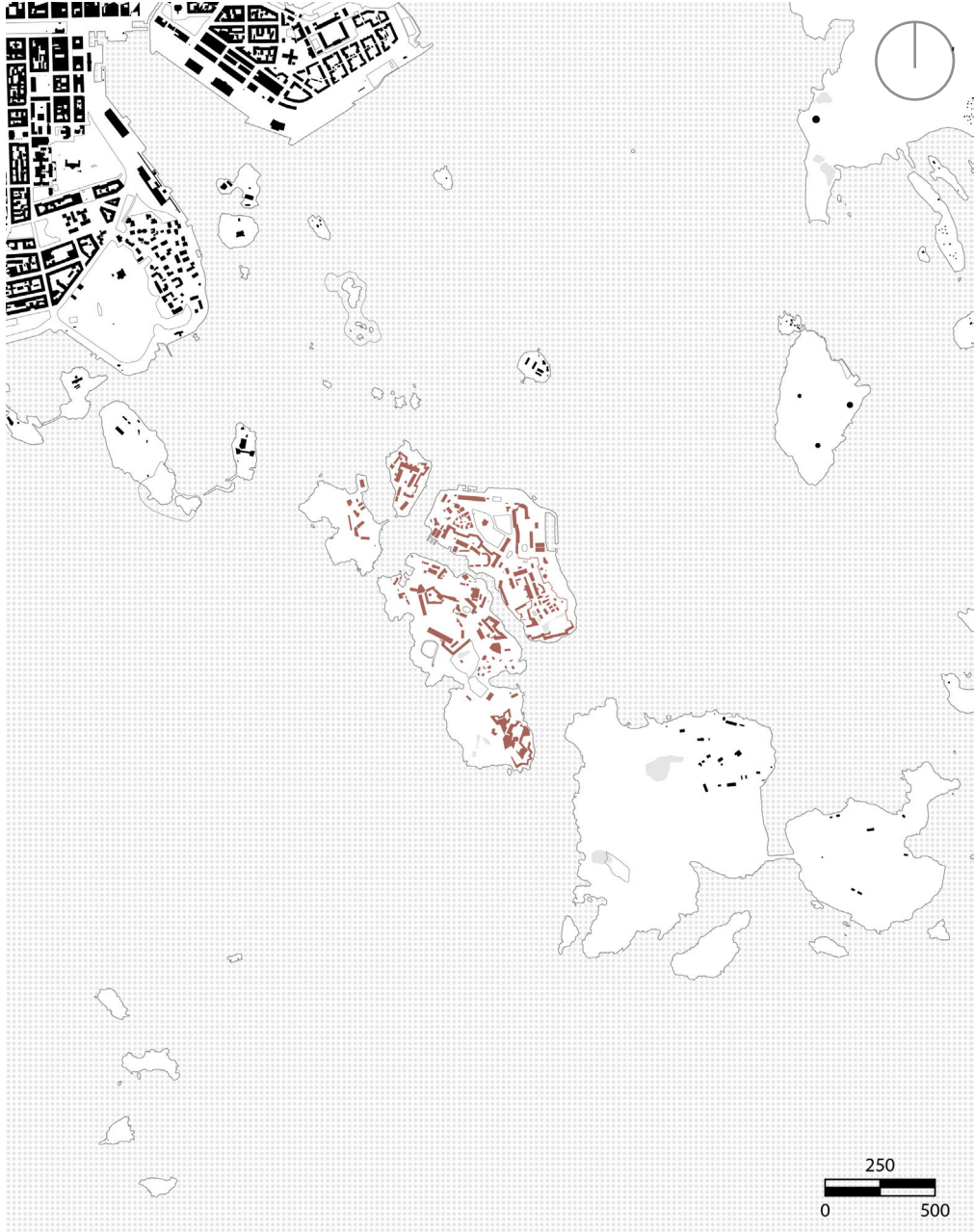


Fig 145, Elaborated by the author

Suomenlinna	Net Area	Gross Area	Interior Area
Area of the site	210 Ha		
Buffer zone	2.641 Ha		
Defensive wall	6 Km		
Mine classroom	558 M ²	770 M ²	
New shipyard shed	-	186 M ²	
Dementyev sauna	196 M ²	348 M ²	
Boat sheds	-	290 M ²	
Caponniere de Carnal	140 M ²	296 M ²	
Bastion Härleman	671 M ²	1.957 M ²	
Construction office	723 M ²	904 M ²	
Warehouse	103 M ²	-	
Metal workshop	650 M ²	814 M ²	
Woodwork workshop	101 M ²	1.146 M ²	
Varvilahti depot	392 M ²	-	
Lumber storeroom	392 M ²	-	
Ice cellar	-	153.5 M ²	
Artillery manège	635 M ²	-	
Mine laboratory	-	160 M ²	
Military courthouse	97 M ²	114 M ²	
Non-commissioned officers' building	1.345 M ²	-	
Bastion Carpelan	-	991 M ²	
Bakery	613 M ²	1.547M ²	
Länsi-Mustasaari island barracks	2.686 M ²	-	
Bastion Seth	-	400 M ²	
Bastion Palmstierna stable	141.5 M ²	207 M ²	
Bastion Bielke and Curtain Building	2.436 M ²	-	
Military kitchen	188 M ²	258 M ²	
Powder magazine	260 M ²	-	440 M ²
Public toilets	-	17 M ²	
Picnic shelter	197 M ²	214 M ²	
Hostel Suomenlinna	433 M ²	564 M ²	
Marina	272 M ²	459 M ²	
Yläkerho restaurant	371 M ²	420 M ²	
Jetty Barracks	1.540 M ²	-	
Traverse Adlerfelt	446 M ²	720 M ²	
Suomenlinna Visitor Centre	2.330 M ²	-	

Fig 146, Elaborated by the author

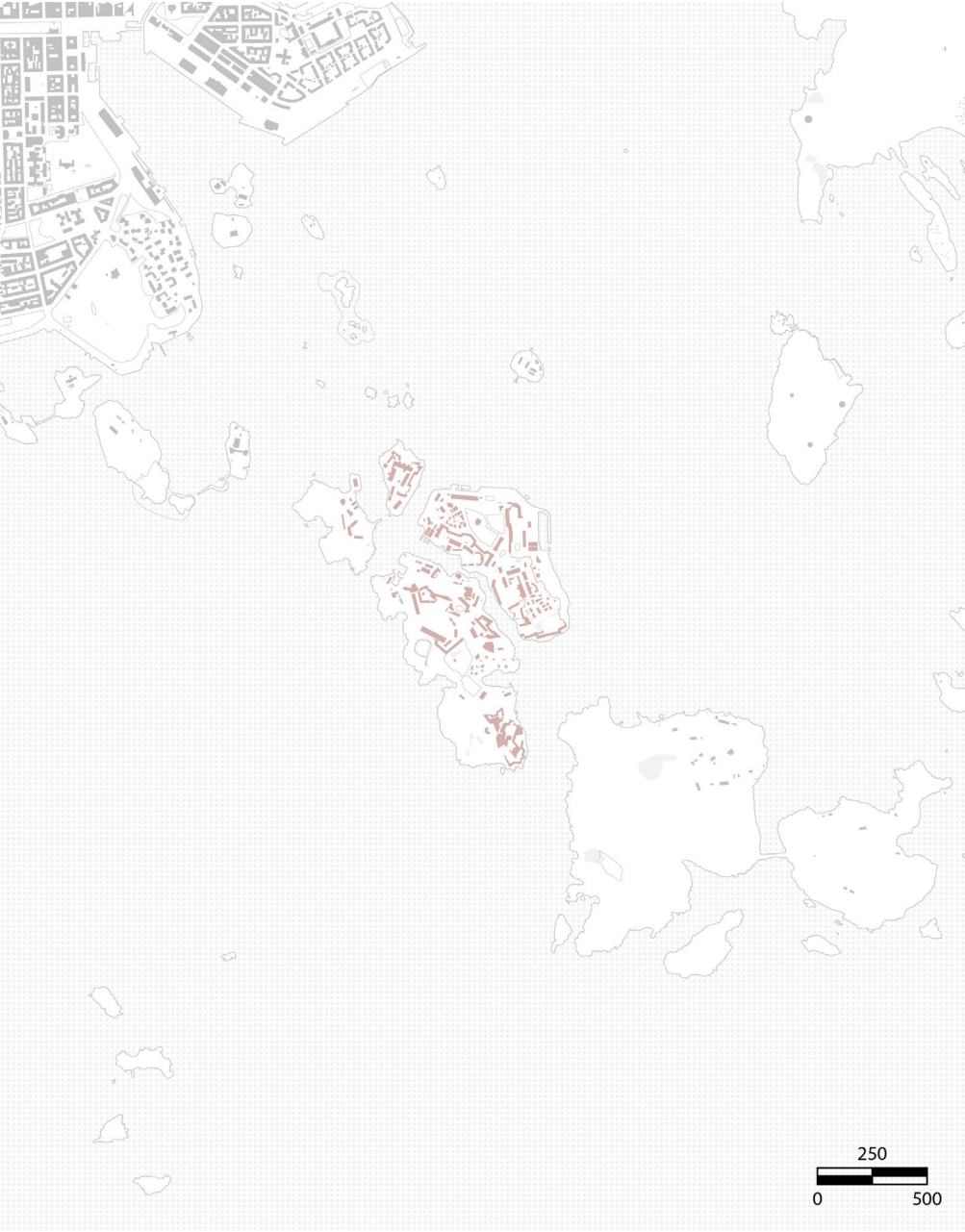


Fig 147, Elaborated by the author

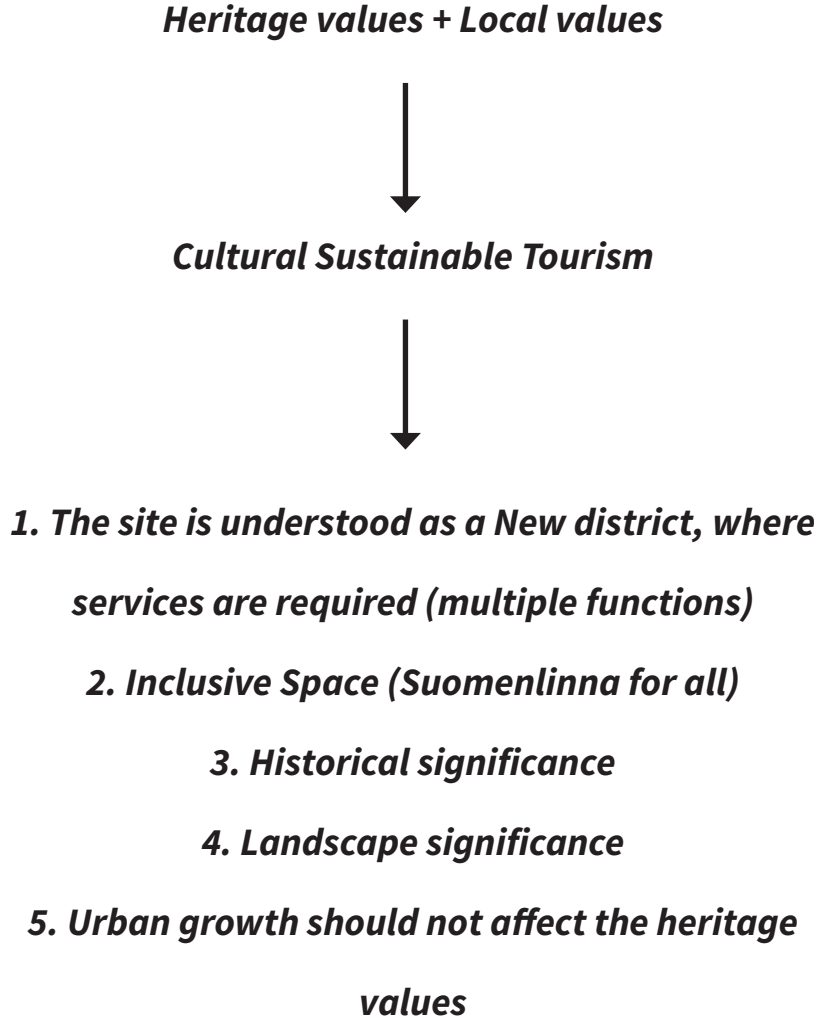


Fig 148

"The Citadel has become a real little town with various utilizations and a varied place for tourism. It is an interesting place of sightseeing, has different museums and exhibitions, a theater, programs for nature education, possibilities to go for a walk and a lot of activities for children as a Youth Art School, workshops for making music, a wool workshop, a puppet theater, bat tours and many offers in cooperation with „Kulturprojekte Berlin GmbH“” (At Fort 2013).

The Bastion King, is built following the defense concept of the 16th century, it can be seen nowadays.

Cannon tower housed gunds, that served to protect the havel side, nowadays, the italian courts that can be seen, used to be part of the lowest floor of the tower.

The **Brandenburg Elector Joachim II** had a **fortress** built, for the protection of the west side area of **Berlin-Cölln**.

In the intial plans of the **fortress**, there can be seen the port.

The **casemates** from the Bastion King, were filled, as weapons and defense technology changed. Lighting struck the **powder tower**, and caused the **gunpowder** to produce an explosion, at the bastion Crown Prince. After the explosion, the port suffered changes, as the enlargement of the portal. The **offiziantehaus** is damaged in the explosion produced by lighting in the bastion Crown Prince. The great hall interiors are given a baroque style.

The classicist yellow building from the 19th C. is transformed into barracks.

The provisions magazine is rebuilt.

The barrel vaults in the italian courts were changed to the 19th century style.

The great hall is rebuilt in a classicist style.

The three arched openings in the gate passage, were bricked up and plastered.

The **Kaserne Königshaus** building is built, and it is know as the “Old barracks” since 1935.

The **Offiziantehaus** is demolished, and a new buildig is built.

The Italian courts are put to test, to measure their gravitational forces.

The buildings on the plateau of Bastion Brandenburg are built, and used as laboratories by the **Wehrmacht**.

16th

1560

1578

17th

1811

1817

1820

1838

1860

1884

1930

1197

1525

1580

19th

1813

1818

1836

1856

1881

1886

1935

The **citadel** was built in the 12th Century, belonged to the **Margraves of Brandenburg** from the **Ascanian dynasty**.

Bastion Crown Prince is built.

The Bastion Brandenburg, dates from the plans made by **Rochus Lynar**.

The Drill hall is built in order to protect the uniforms of the Prussian soldiers.

The Bastion king´s corridors were accessible again.

Some buildings on the west-side courtyard of the bastion crown prince were rebuilt in baroque style and others in a classicist style.

The cannon tower on the bastion brandenburg is damaged by bombardment.

The provisions magazine burnt down.

The bastion queen is rebuilt after being destroyed due to a fire.

The port’s portal is redesigned in a classicist style.

The battlements in the Julius tower are converted by a design of **Karl Friedrich Schinkel**.

The arsenal’s building is built, with Prussian historicism style, designed by **Carl Ferdinand Busse**, director of the **Berlin Bauakademie**.

The exterior masonry of the bastions is restored.

The new building **Offiziantehaus** is finished, and used by the **Wehrmacht** as a laboratory.

The great hall is transformed into an administration building for the **Wehrmacht**, larger windows were installed and floor divisions changed.

New conversions and new buildings, produced changes on the Bastion Queen.

The Bastion Crown Prince, was used as a storage for toxic materials, use by the **Wehrmacht**.

- ① New functions are opened
- Fortress or building construction
- Fortress or building reinforcement , addition, intervention, or re-use
- ◐ Fortress or site attacked or destroyed
- ⦿ Fortress or building plan for reinforcement or defensive system reinforcement
- ⦿ Fortress or site law protection
- ▭ Historical fact

Fig 151, Elaborated by the author

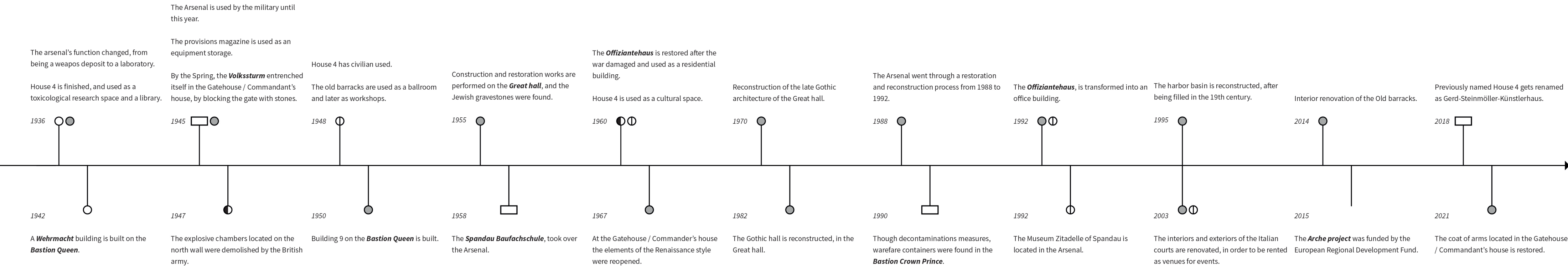


Fig 151, Elaborated by the author

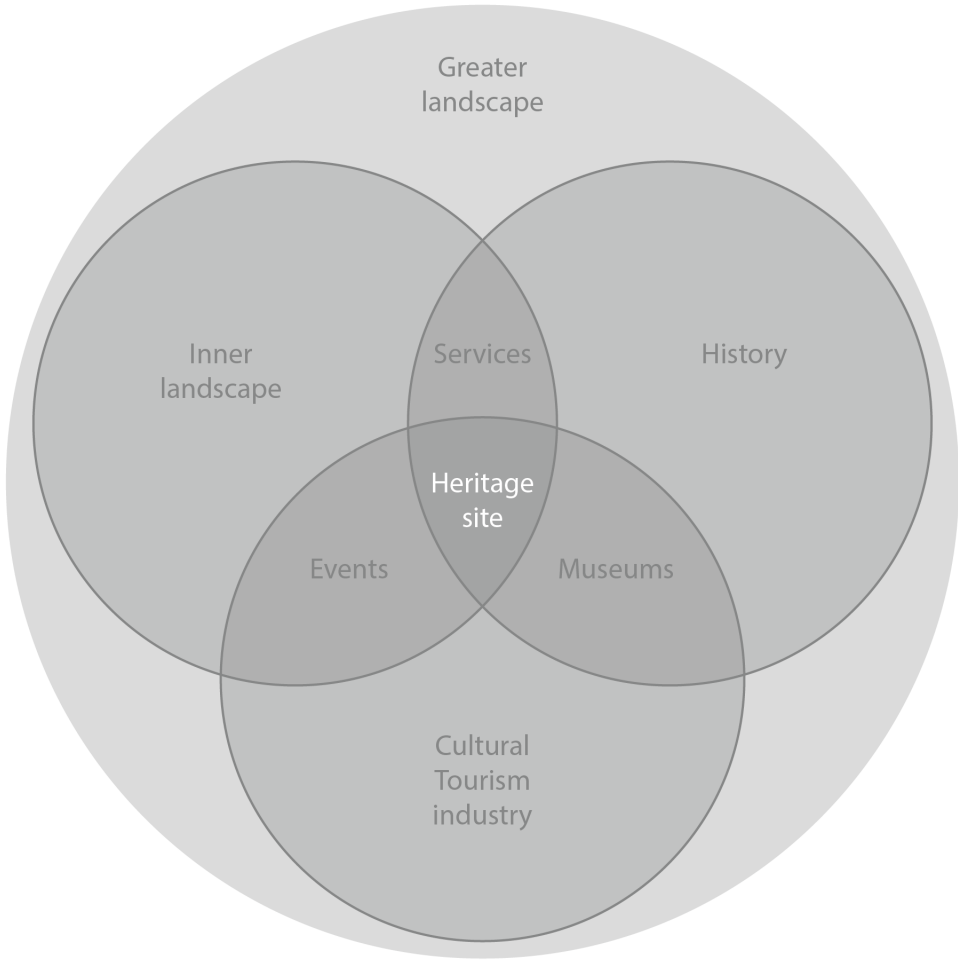


Fig 152, Elaborated by the author

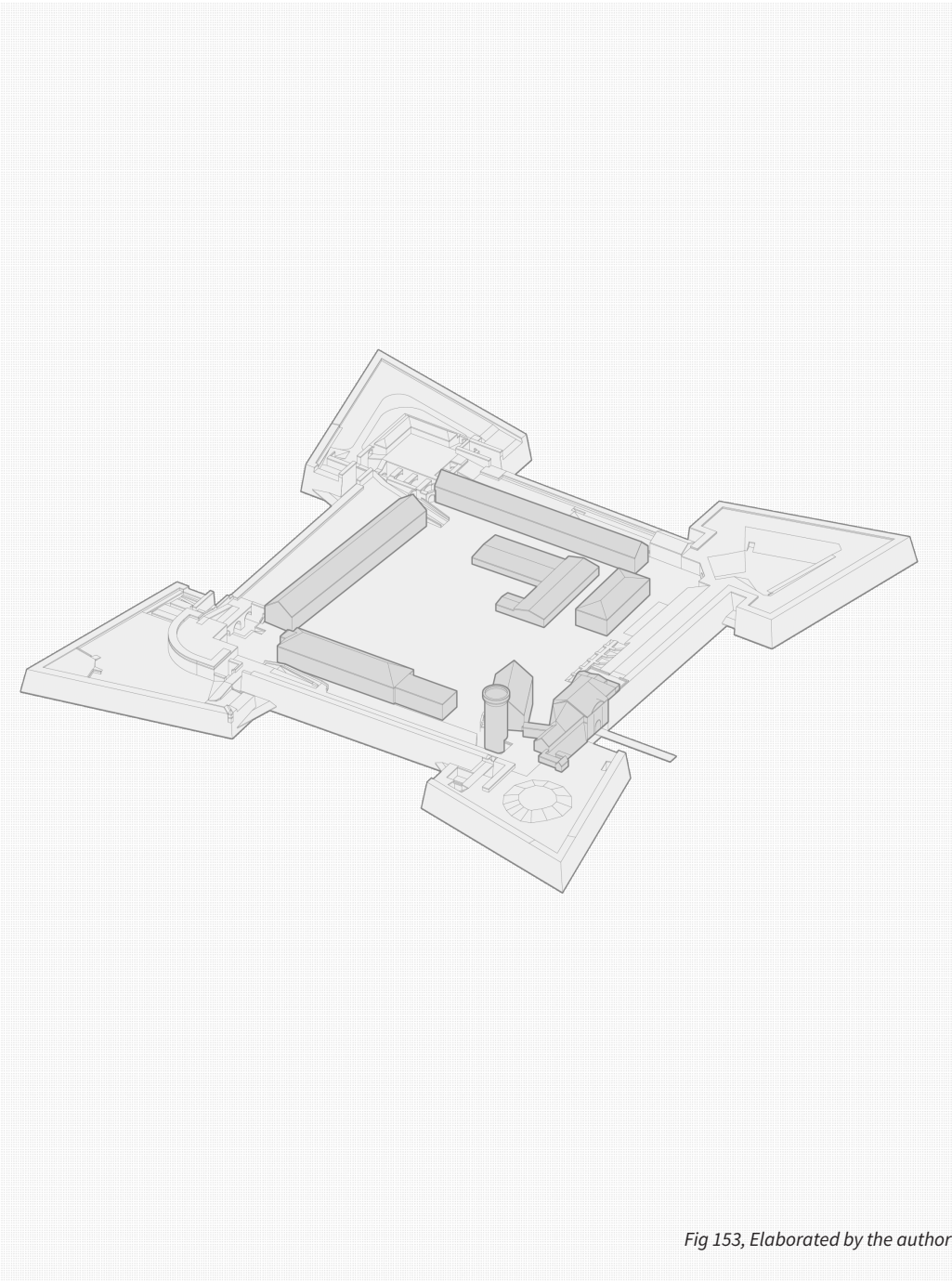


Fig 153, Elaborated by the author

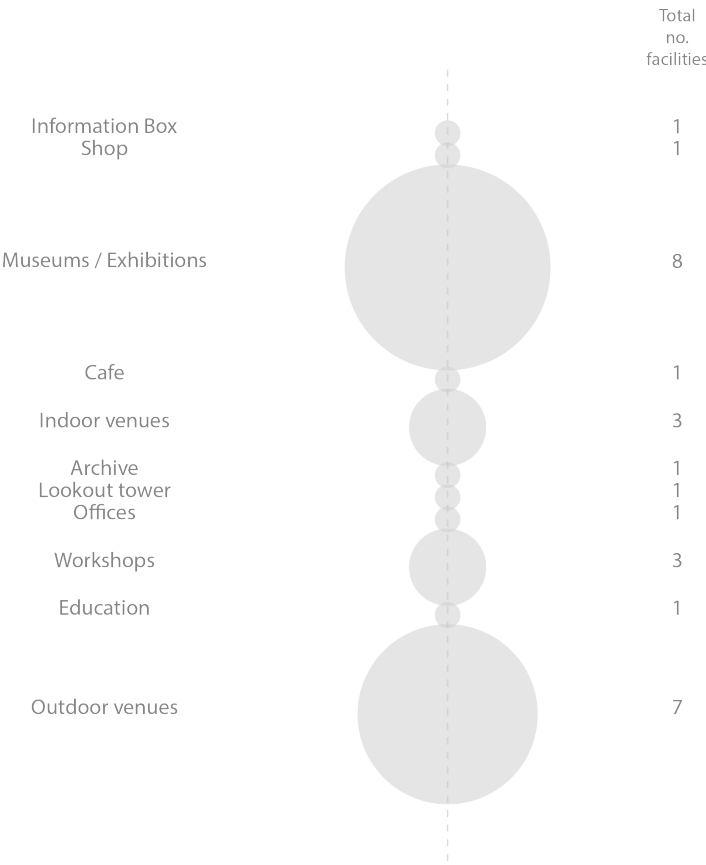


Fig 154, Elaborated by the author

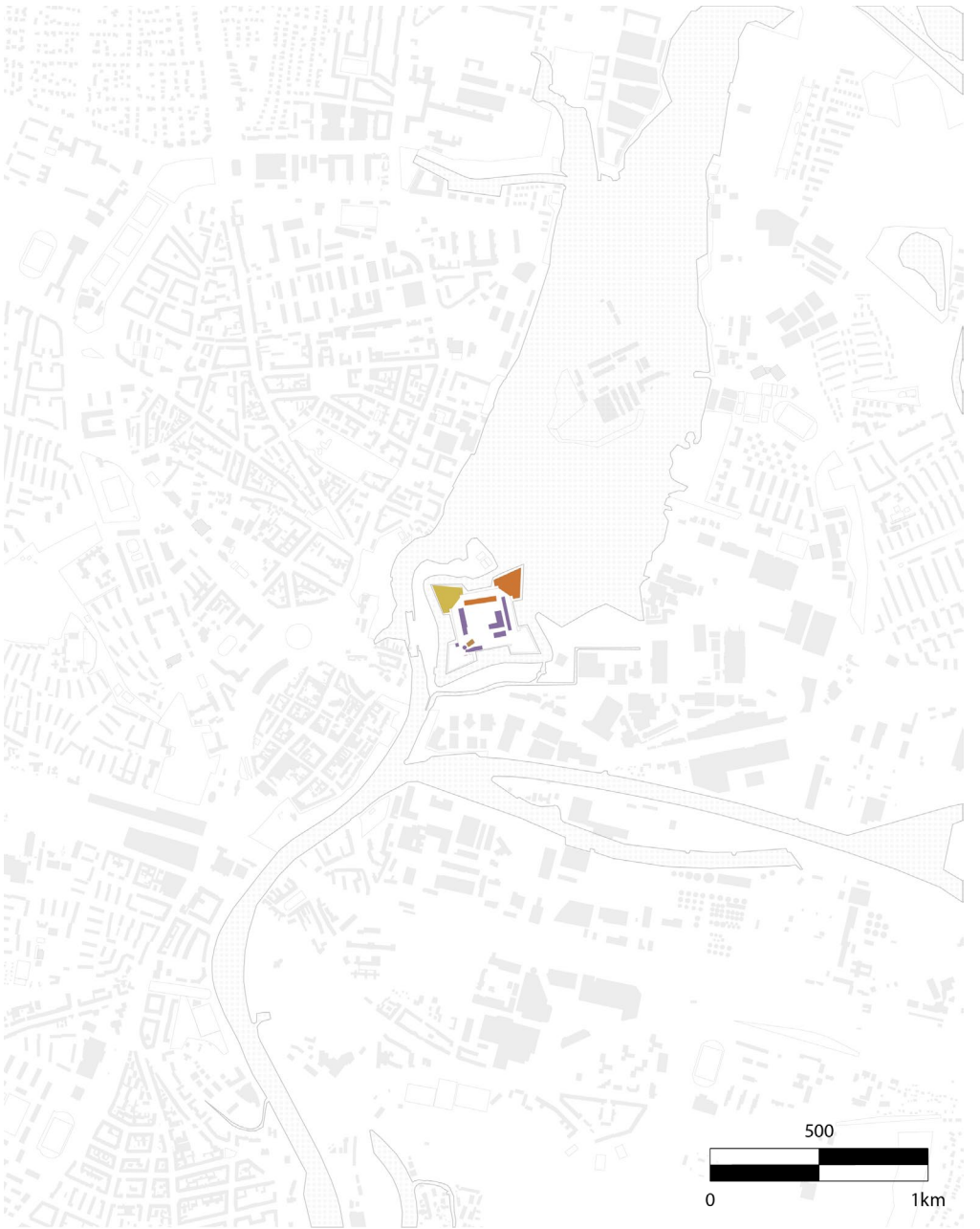


Fig 155, Elaborated by the author

Citadel of Spandau - Short and long landscape view

Citadel of Spandau - Monument protected area



Fig 156

Fig 157, Elaborated by the author

Fig 158, Elaborated by the author



Fig 159, Elaborated by the author

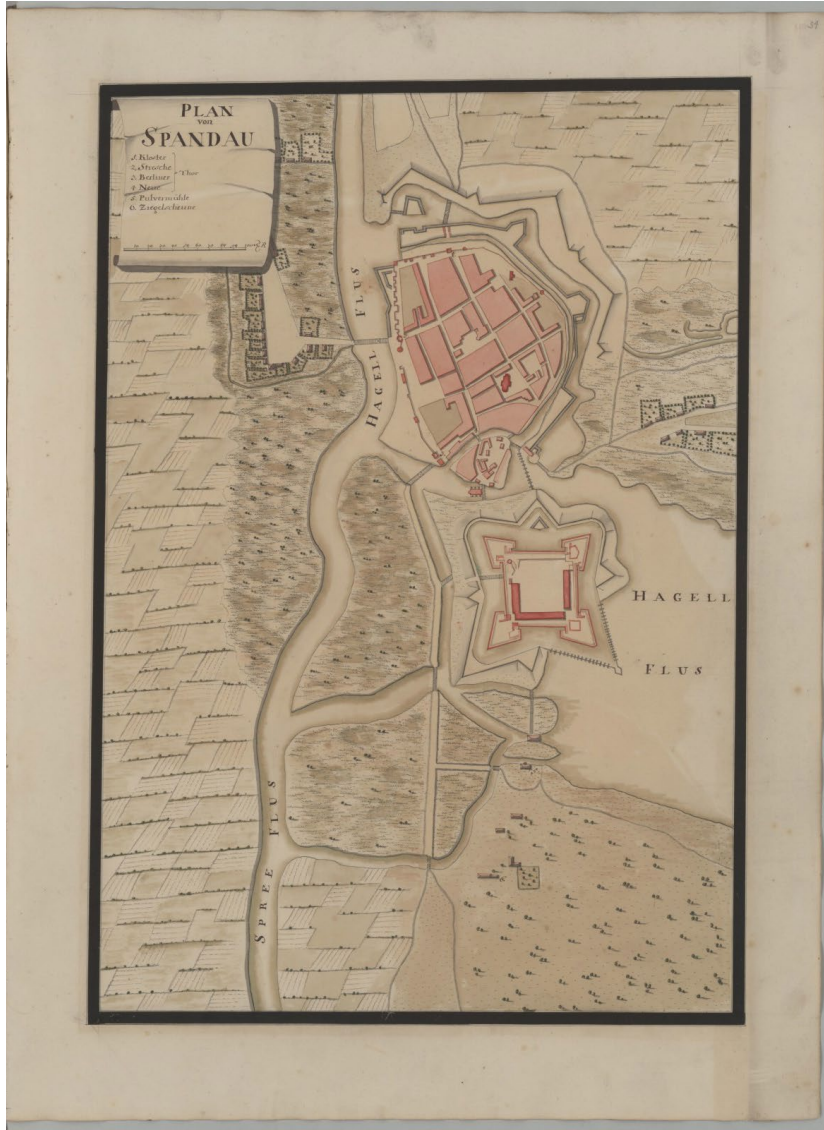


Fig 160, Elaborated by the author



Fig 161, Elaborated by the author

Citadel of Spandau	Area
Area of the site	*61.448 M2
Bastion Crwon Prince	2.000 M2
Bastion King	1.000 M2
Courtyard	4.500 M2
Gothic hall	300 M2
Foyer	250 M2
Italian courtyards room 1	279 M2
Italian courtyards room 2	204 M2
Italian courtyards room 3	112 M2
Italian courtyards room 4	74 M2
Italian courtyards room 5	85 M2
Italian courtyards (outdoor)	464 M2
Old barracks hall A	460 M2
Old barracks hall B	414 M2
Old barracks hall C	77 M2
Old barracks group room	63 M2
Provisions depot	*1.370 M2
Commander's House	*718 M2
Arsenal – ground floor	*739 M2
West Curtain	*124 M2
Parade Hall	*124 M2

Fig 162, Elaborated by the author



Fig 163, Elaborated by the author

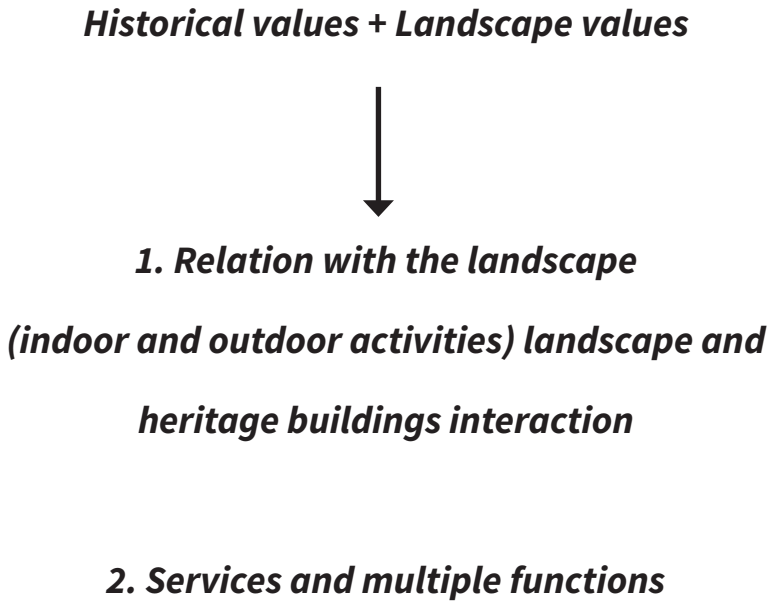


Fig 164

Castillo San Felipe, Cartagena de Indias - Colombia

The Castillo de San Felipe de Barajas whose construction started in 1656, from the initial years of the foundation of Cartagena de Indias, represented an important fortification for the city, as it was the main protection against enemy’s attacks, as the fortification built on the Cerro San Lázaro, would protect the Walls and the main entrance of the city.

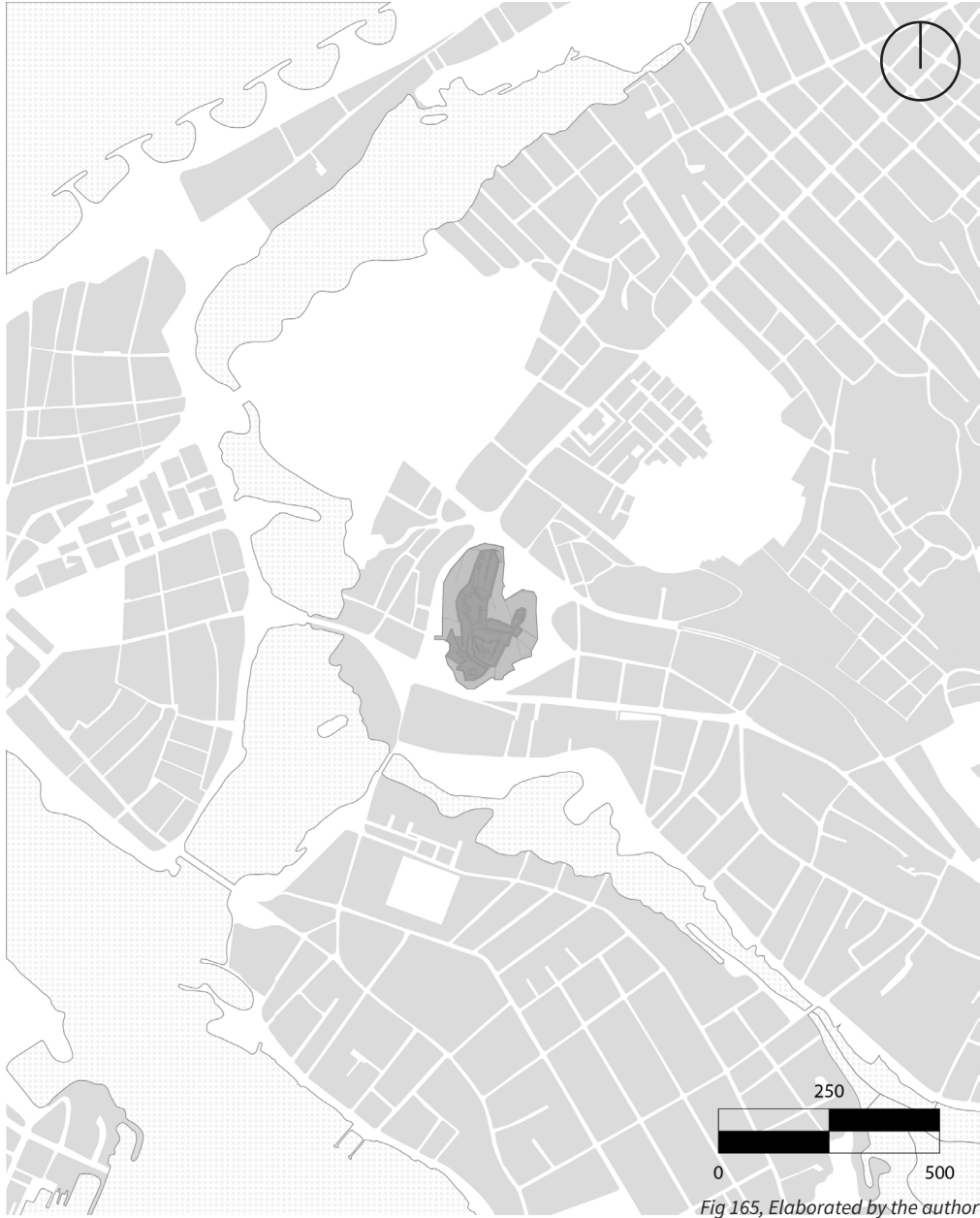
“El fuerte primitivo es un buen ejemplo de las “fortalezas abaluartadas” utilizadas entre los siglos XVII y XVIII en el Imperio español, con objeto de proteger los territorios de ultramar, así como para ejercer poder sobre ellos”. (Salto Santamaría, 2015).

The Castle of San Felipe, was inscribed in the UNESCO world Heritage list in 1984, together with the set of fortifications and the historical city center of Cartagena de Indias, today it is one of the best preserved fortifications of the colonial period of Colombia, and it is one of the biggest fortifications built by the Spanish Crown in America.

“La edificación está rodeada por siete baterías, que servían para contener la artillería. Cada una se adapta a las irregularidades del cerro de San Lázaro, creando un sistema asimétrico: al nivel del fuerte triangular se encuentra la batería de la Redención, que consiste en un parapeto, es decir, un terraplén corto que defiende la fortaleza de los golpes del enemigo, orientado hacia el lado norte” (Salto Santamaría, 2015).

Although its importance for the city’s and country’s history, and its title of World Heritage site, the castillo de San Felipe faces a challenge against the urban growth of the city, which has grown around the site, and threatens its protection and values.

Castle of San Felipe de Barajas - Cartagena de Indias



Glossary:

Castle of San Felipe de Barajas - Timeline



Fig 166, Elaborated by the author

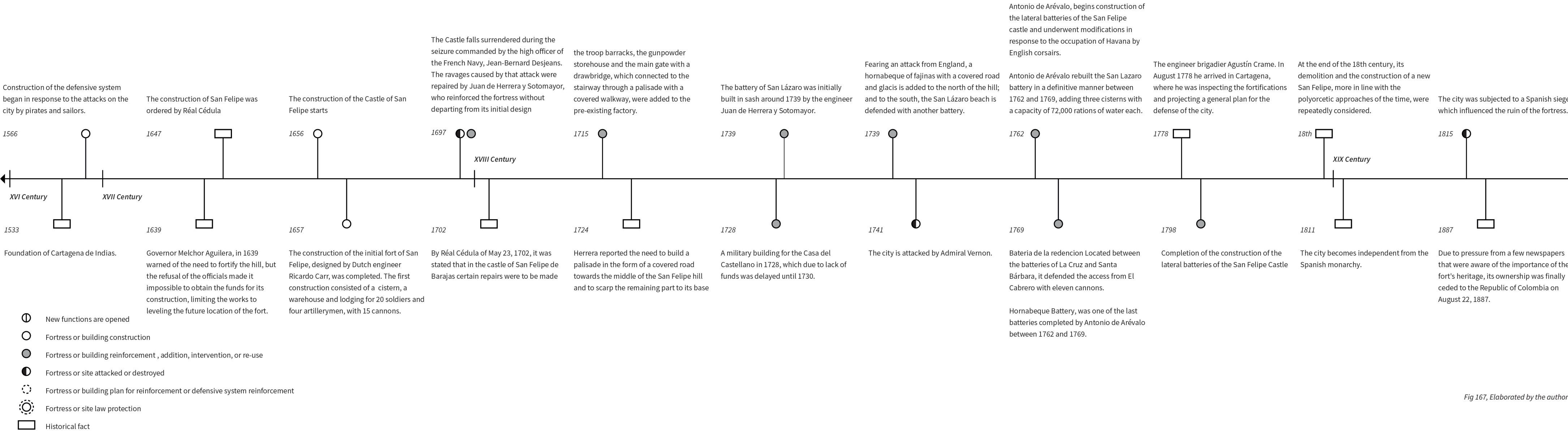
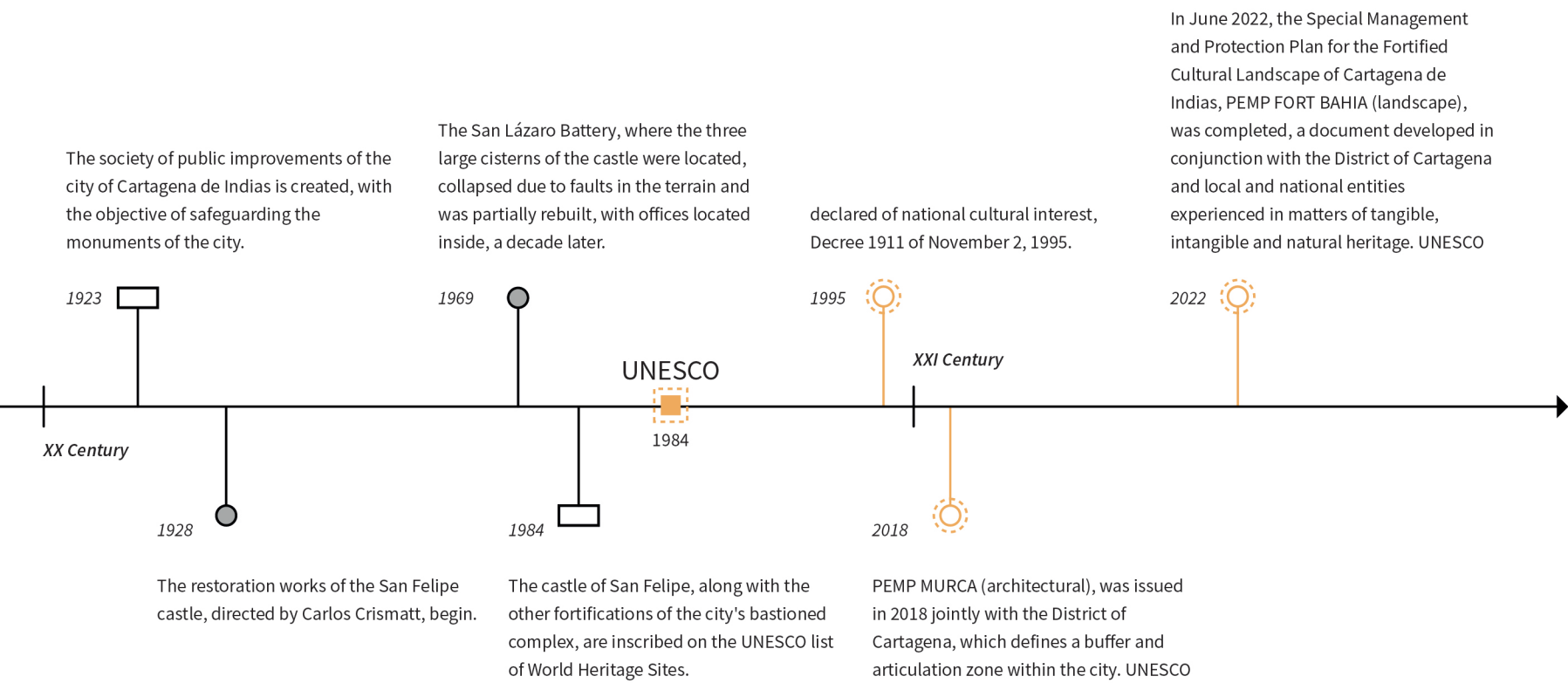


Fig 167, Elaborated by the author



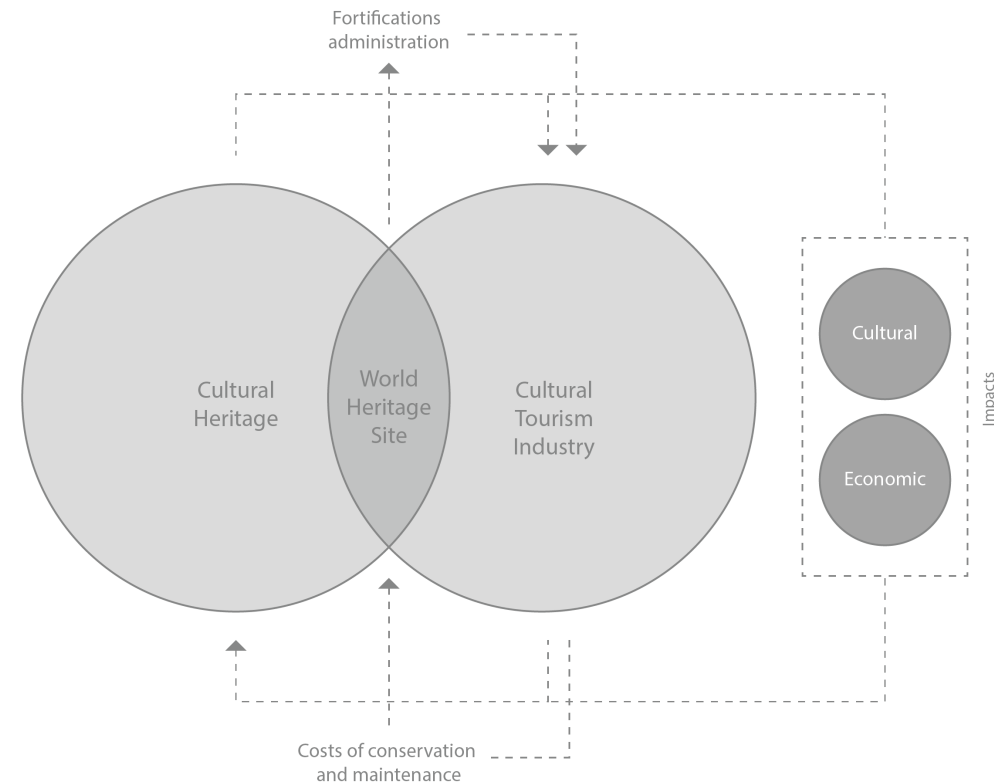


Fig 168, Elaborated by the author

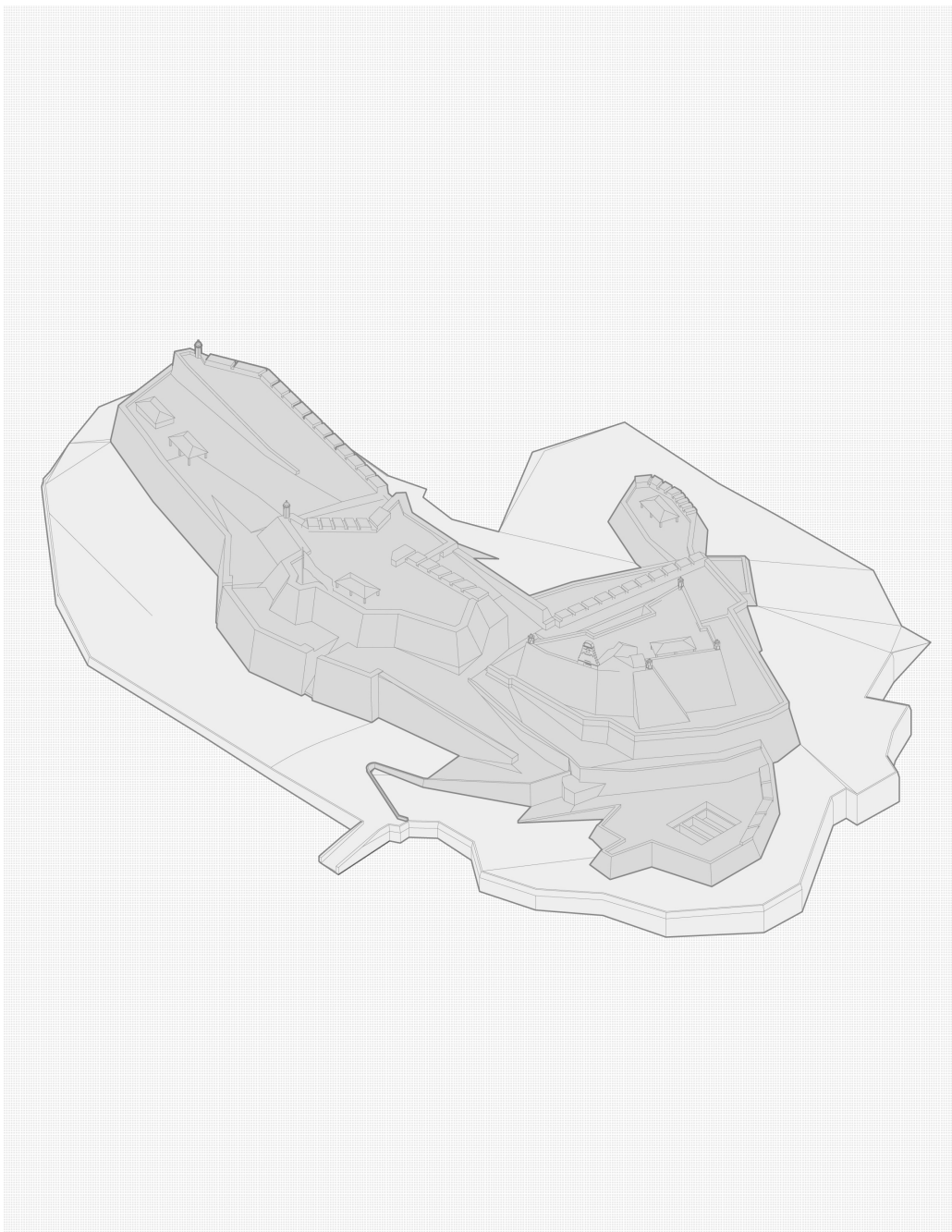


Fig 169, Elaborated by the author

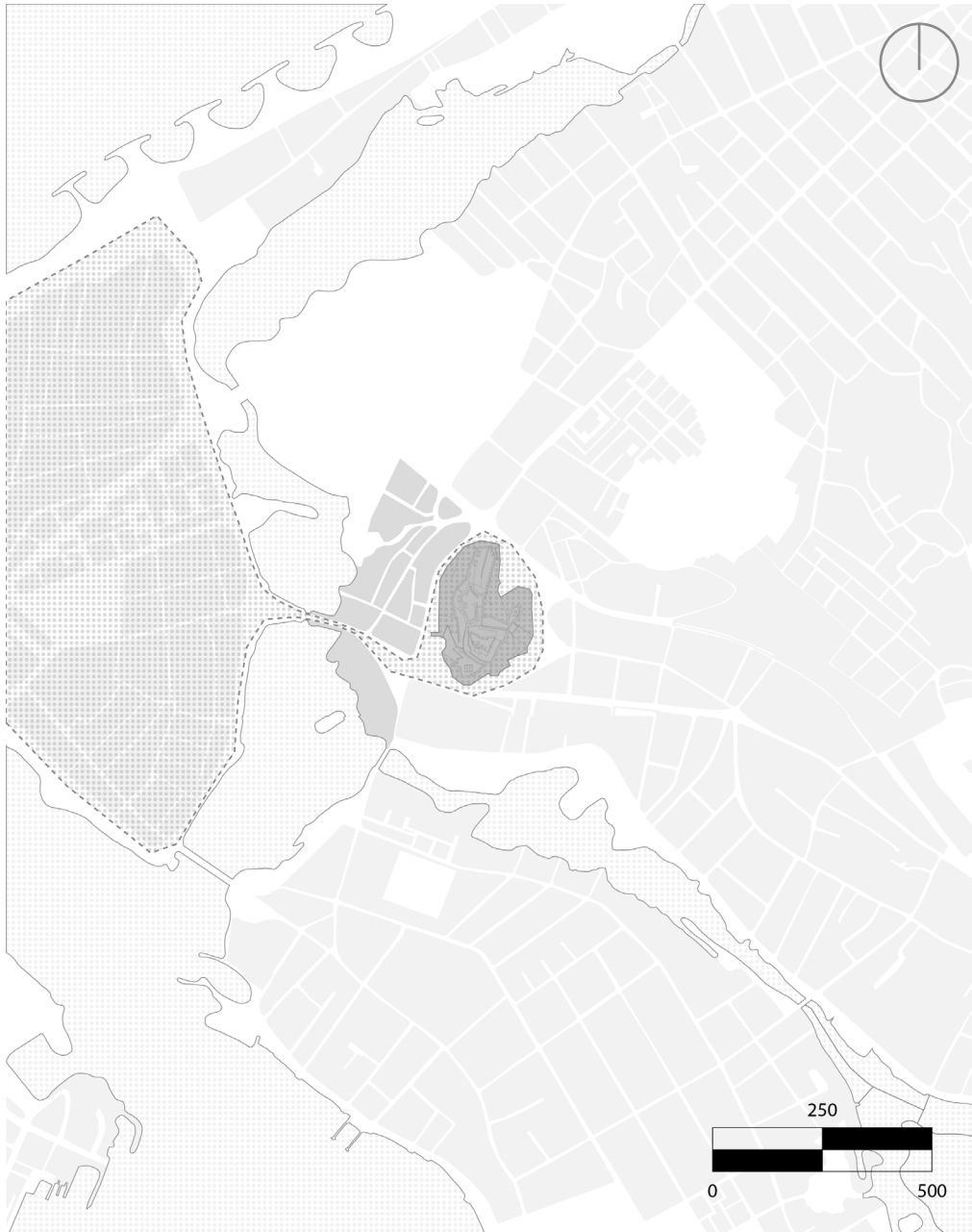


Fig 170, Elaborated by the author

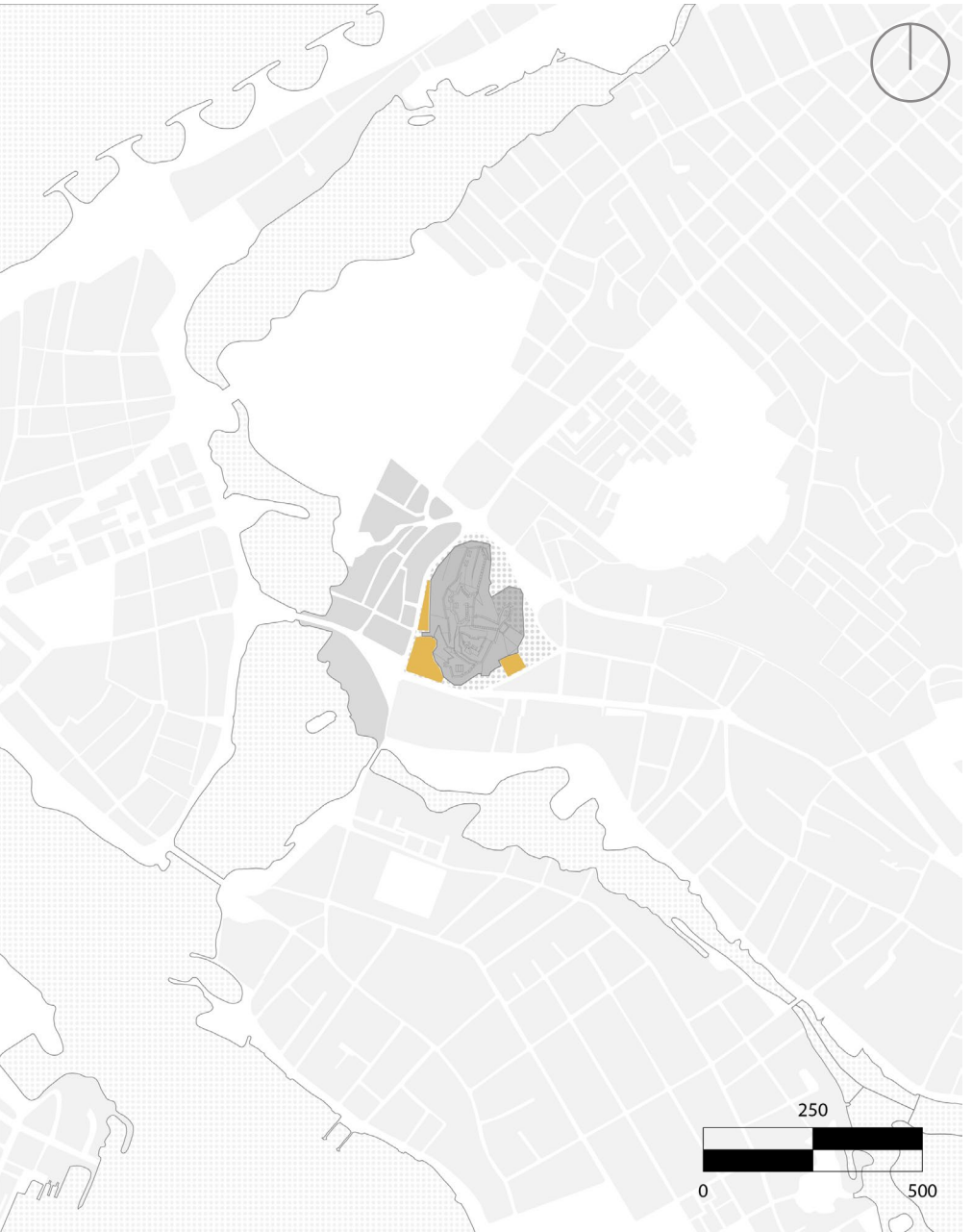


Fig 171, Elaborated by the author

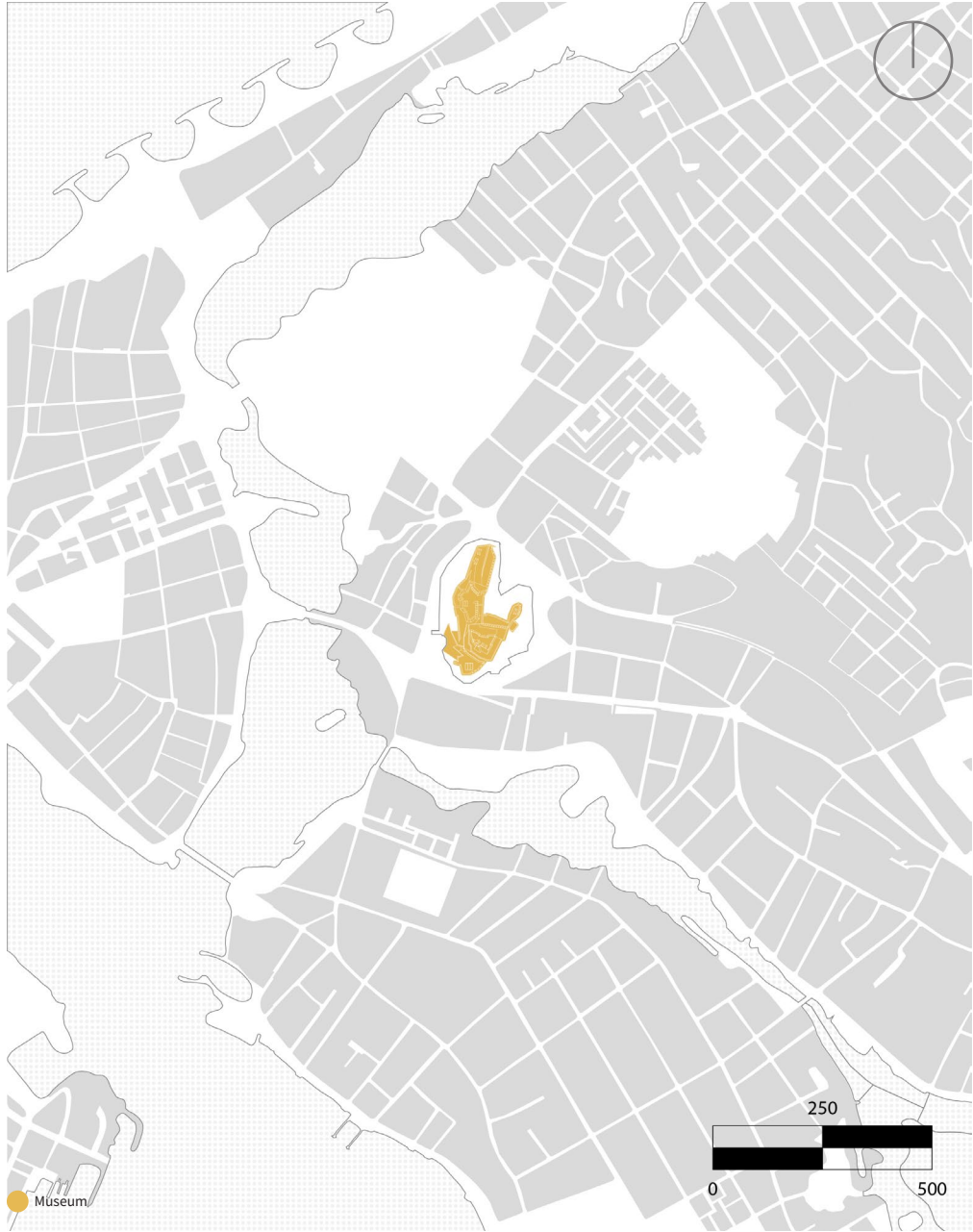


Fig 172, Elaborated by the author



Fig 173

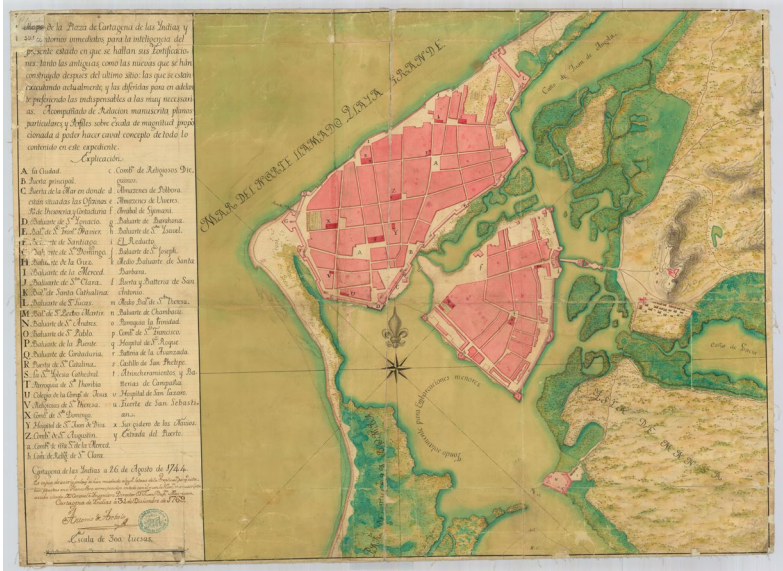


Fig 174



Fig 175, Elaborated by the author

Castle of San Felipe de Barajas	Area
Area of the site	*50.300 M2
Areas within the Castle of San Felipe de Barajas	Functions
Bonete	Institutional, corporate and social events/ film and photographic activity/ sociocultural activities
Batería de la Redención	Institutional, corporate and social events/ film and photographic activity/ sociocultural activities
Batería de la Cruz y el Hornabeque	Institutional, corporate and social events/ film and photographic activity/ sociocultural activities
Batería de San Carlos y los Apóstoles	Institutional, corporate and social events/ film and photographic activity/ sociocultural activities
Plazoleta de los Ingenieros Militares	Institutional, corporate and social events/ film and photographic activity/ sociocultural activities
Batería Santa Barbara	Passive Entertainment
Auditorium Carlos Crismatt	
Room Ramiro Lemaitre	
San Lázaro Battery	Institutional, corporate and social events/ film and photographic activity/ sociocultural activities

Fig 176, Elaborated by the author

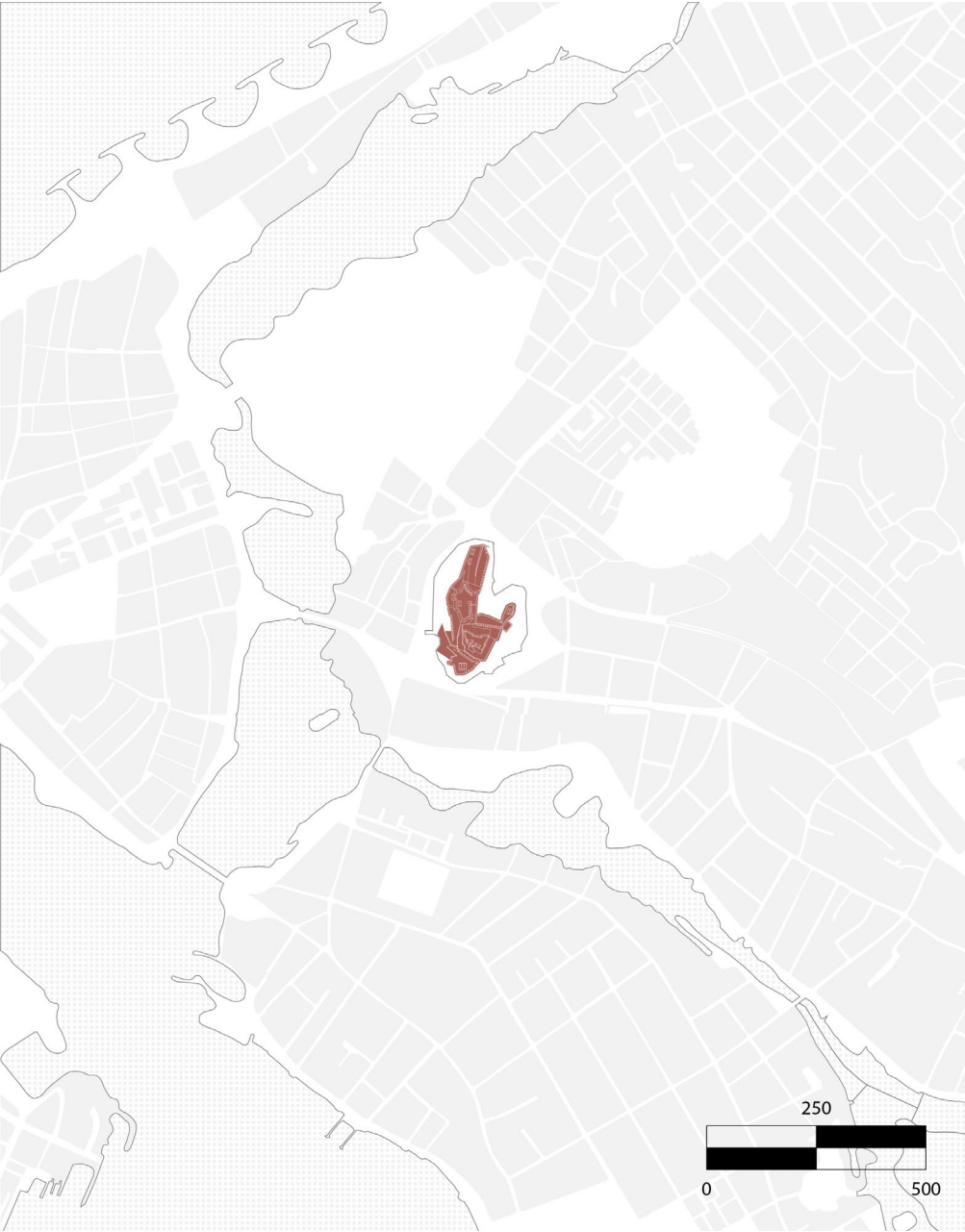


Fig 177, Elaborated by the author

Urban growth + heritage site



- 1. Urban growth around heritage sites, should be planned not to threaten the site’s values**
- 2. Heritage site’s contexts should enhance the relation with the site**



Fig 178

Enhancement of Ruins, *strategies*

Architectural ruins can be understood as the physical remnants of the past, which although have no function today, could be implemented in urban development strategies, as nodal elements capable of generating an influence on their closer context, it is under this vision, that the architectural ruins, should be elements to reintegrate to our cities, for their cultural significance, but also for their strong capability of transformation.

Nowadays the enhancement projects on architectural ruins have led to new ways of preserving the sites and their significance value for the communities, through contemporary strategies, which has allowed the communities to have new interactions with their ruins, and new ways to link them to the urban fabric of the cities.

“In passato le strutture che avessero perso la loro funzione o che fossero danneggiate al punto da non poterne assumere una nuova, divenivano rovine e ruderi, restando solamente mere o romantiche tracce di un passato appena noto. quasi tutte le strutture archeologiche sono delle rovine, poiché si tratta comunque di forme incomplete, di materia deteriorata, interrotta e senza alcuna possibilità d’uso” (Di Salvo 2010, 55).

“Il professore Francesco Rizzo sostiene che per valorizzare il bene culturale bisogna comprenderne la funzione di testimonianza materiale avente valore di civiltà, di contesti narrativi e messaggi significanti aperti all’interpretazione della collettività. L’espressione bene

culturale implica il concetto di collettività, di società quindi risulta più chiara l’espressione patrimonio culturale, heritage, che comporta anche il concetto di contesto, di insieme, perciò di un legame con chi, o meglio con coloro, che quei manufatti hanno prodotto” Di Salvo 2010, 53).

The significance of the ruins can also be understood due to, their potentialities in community-making spaces, as a result of the representation of the past and culture that the structures evoke.

What are the approaches for the enhancement of Ruins?

Nowadays as explained by Frenda, Soldano and Borlizzi, There could be study three typologies for the enhancement of architectural ruins, which evoke and enhance the values of the sites, without affecting them, the strategies that Frenda, soldano and Borlizzi, identify are; the conservation of the ruin in its material authenticity, shape and mutilate image, The on-site museums and the Reintegration of the image with contemporary design.

In order to understand the three approaches, there have been selected three case studies, that, enhance the relation and values of ruins, by using one of the approaches mentioned.



Fig 179

Kalø Tower, Rønde - Denmark

The Kalø Tower, as a reference for “the conservation of the ruin in its material authenticity, shape and mutilate image”.

The tower is located in Rønde, Denmark, and dates from 1313, when it was built for the nobility of Jutland, it is one of Denmark’s best preserved medieval ruins, located within a natural landscape, which is an isthmus of the coast.

“On an island south of the great Djursland peninsula on the east coast of Jutland, is one of the most visited ancient monuments in Denmark. There are still considerable remains of the castle, with its surrounding banks and ditches, and the whole island was once part of the monument. The cobbled causeway, which leads out from the mainland to the island, was probably constructed at the same time as the castle” (Engberg et al. 2008, 209).

The site, has been part of the community, and has become over the years in a social and touristic node, thanks to its history, and the layers, that can be perceived from the ruin, additionally the location of the site, has preserved its authenticity, as it is within the area of the national natural park Mols Bjerge, allowing the access to the site to become an immersive experience, in which the approach to it, stands for being part of its historical characteristics.

“Men det er stadigvæk C M Smidt, vi kan takke for at ruinen står der endnu i dag, og at vi har borgfundamenterne og tårnet bevaret, så vi kan danne os et indtryk af borgens udseende i middelalderen. Det er også C M Smidt, der

Glossary:



Fig 180



Fig 181, 182, 183, 184, 185, 186

gennem sit utrættelige arbejde for at gøre slotsruinen kendt har æren for, at Kalø Slotsruin i dag er erkendt som et nationalt klenodie, og at der hver eneste dag, i solskin eller regn og blæst, er en konstant vandren af mennesker over dæmningen til og fra ruinen. Kalø blev stedet for de store folkefester for 50 – 100 år siden, men den er stadigvæk samlingssted for veteranbil-entusiaster og motorcykel-folket, der mødes her hver tirsdag aften i sommerhalvåret. Den hedengangne Rønde Kommune benyttede tårnruinen som symbol på egnen i sit kommunevåben, og talrige foreninger, firmaer og organisationer benytter Kalønavnet som kendetegn” (Friborg H., Vilfred 2012, 6).

“But it is still C M Smidt that we can thank for the ruin still standing there today, and that we have the castle foundations and the tower preserved, so that we can form an impression of the appearance of the castle in the Middle Ages. It is also C M Smidt who, through his tireless work to make the castle ruins known, has the credit for the fact that the Kalø Castle Ruins are today recognized as a national treasure, and that every single day, in sunshine or rain and wind, there is a constant wanderer of people over the dam to and from the ruin. Kalø became the place for the big folk festivals 50 – 100 years ago, but it is still a gathering place for vintage car enthusiasts and the motorcycle crowd, who meet here every Tuesday evening during the summer. The defunct Rønde Municipality used the tower ruin as a symbol of the area in its municipal coat of arms, and numerous associations, companies and organizations use the Kalø name as a distinguishing feature” (Friborg H., Vilfred 2012, 6).

The access to the tower, is possible throughout the longest medieval rode in Denmark, dating from the same period as the castle, in addition to this, the natural views and forests surrounding the site, transform it, into a contemplative area.

Although it’s historical, social and touristic importance, until 2016 the accessibility to the inside of the tower, was not possible, due to its interior structure being collapsed as a result of a process of years of abandonment, therefore and as an response to this situation, in which, the fruition of the Tower was limited, Realdania funded the project of enhancement of the tower, as it was part of the Stedet Tæller project, in which sites located in peripheral areas were enhanced, aiming to provide a major relation between visitors and the site.

“There were accessibility problems in the site. The Medieval path to the castle had a rough surface: walking on it was difficult. Also, water level affected by high tide, flooding and global warming was a potential threat for the path. There was lack of presentation and service facilities fulfilling visitor needs. The remains of the castle were abandoned since the 17th century. Access to the castle had problems because of the structural and material aging of the drawbridge that was placed at the entrance of the castle. The castle had damages caused by the waterfront, rough weather, possible coastal erosion especially in the southwestern side and vandalism such as the effects of the weight of visitors on the walls which were statically unstable. Also, grazing of the animals in the site, and the excrement of the birds could have damaged the ruins. Because of limited presentation with just a map of the landscape and geographical information about how the landscape was formed, the site could

Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.

not be fully conceived by the visitors” (Kenar, Aylin 2021 , 49).

The enhancement project for the tower, understands the importance of the site not only as a historical building for Denmark, but understands its importance, as a ruin, which has been representative also in the closer history of the people; the relation that the community has had with the site, has been with it, being a ruin, therefore the approach taken, fundamentals the importance of it, being a ruin, and remaining a ruin, that people can have the opportunity to interact with, and enhance it.

The project, could be described as a simple staircase-structure, which allows the accessibility to the site, and the levels that the tower used to have, but, additionally, has a complex study of the tower, and aims to enhance the most of the architectural and semiotic features of it, while protecting it and not affecting the heritage structure. The project, allows the visitors to access the tower, contemplate the surrounding contexts from the different levels of the site, and be in a closer relation with the different layers of history of the tower, while enhancing or putting in display the relation with the nature that surrounds the site, and allowing the perception of it.

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Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.



Fig 187

Santa Marta - Fortresses of the first half of the XVI Century

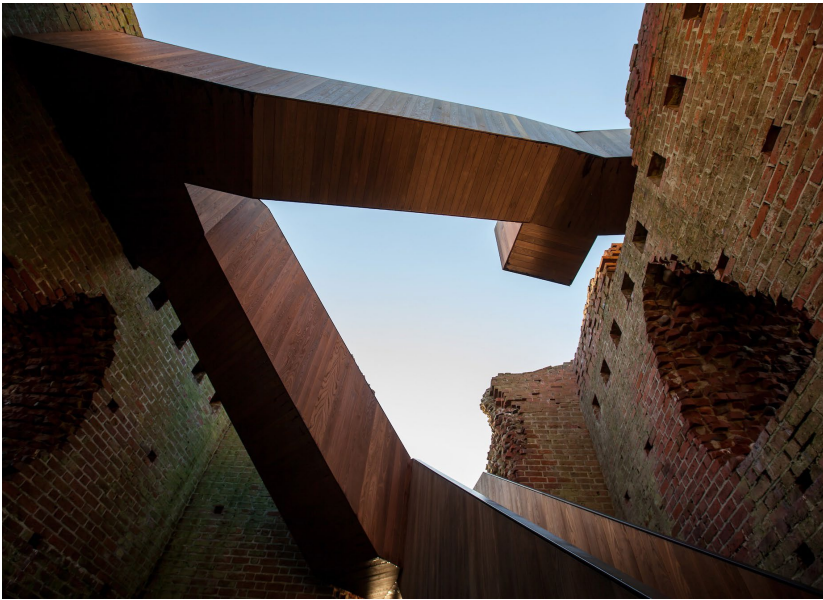


Fig 188



Fig 189

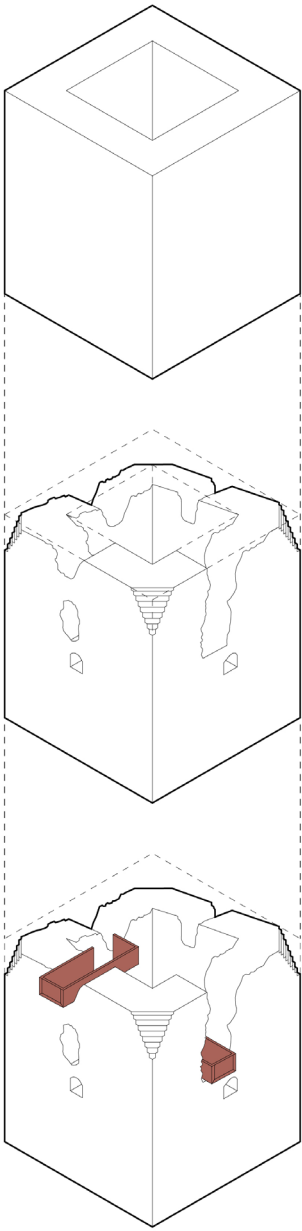


Fig 190, Elaborated by the author

Kannikegården, Ribe - Denmark

The Kannikegården, as a reference for “On-site museums”.

The ruins located at the site just across the cathedral, on the square in Ribe, belong to what used to be the canonical monastery cloisters, which burned down at the end of the 1100’s, and which is considered to be, one of Denmark’s first brick-built buildings, the ruins, as explained by, Thomas Bo Jensen, represent the historical significance and importance of Ribe’s history.

“During the excavation works on the site, archeological remains were found of the cloisters, built in 1100 and possibly the earliest brick building in Denmark. The find was a sensation, and another testament to Ribe’s historical significance. The ruins were excavated in 2012 and a preservation order served on them right away” (Jensen, Thomas Bo 2016).

The project aimed to preserve the ruins, throught-out the construction of a new covering building around the site, which allows the protection of the ruins and the development of new activities and functions, that can be in relation with the site. The building has been projected aiming to host public events for the inhabitants of Ribe, and to house the facilities of the parish council and the churchs staff offices.

The ruins are considered to be ancient remanents, which tell more about Denmark’s his-

Glossary:

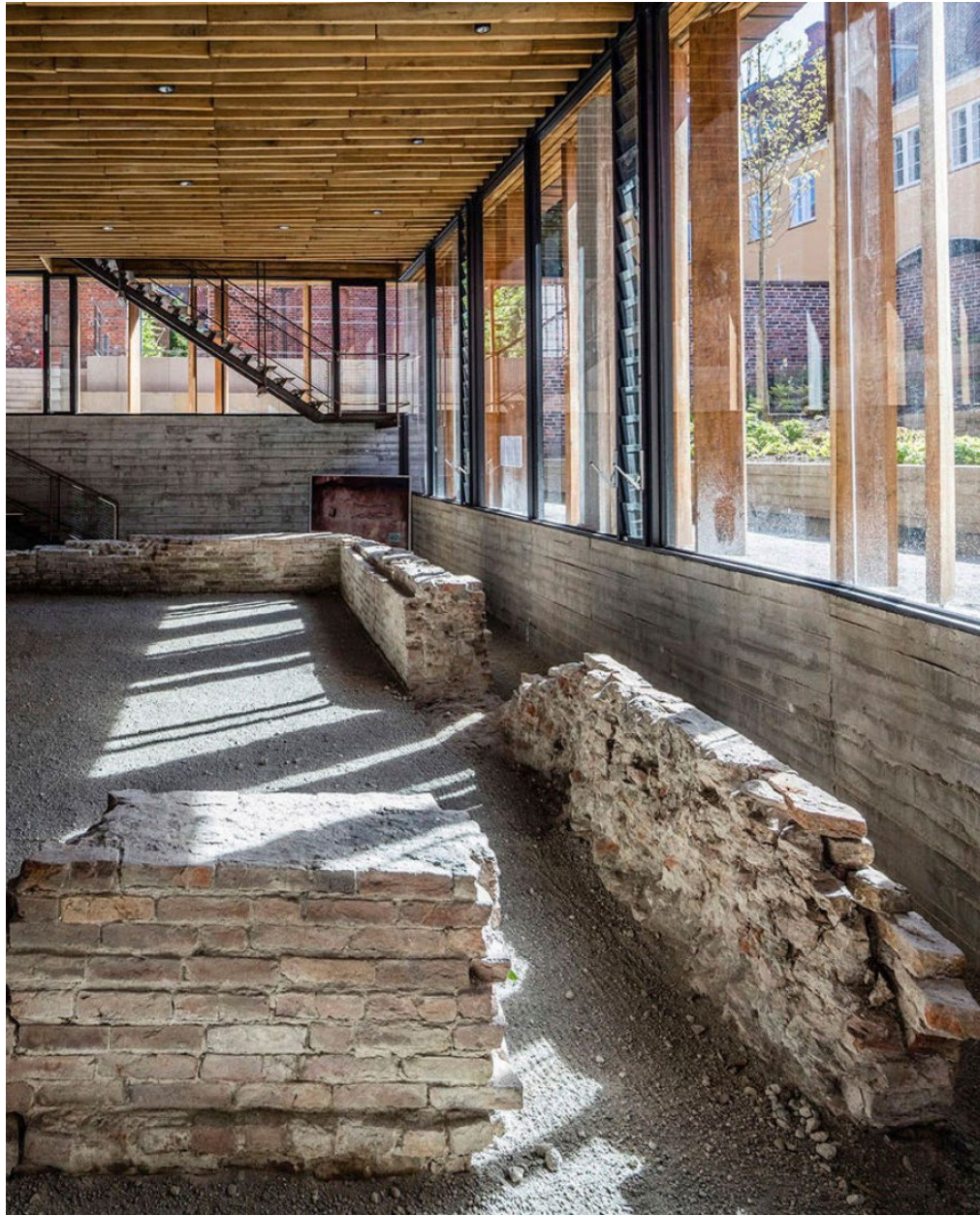


Fig 191



Fig 192, 193, 194, 195, 196, 197

tory, therefore, it has been designed an exhibition space, around them, in order to protect them and communicate, the history of the site; as part of the idea and objective, of communicating the site’s history and what it meant or represented, the building’s ground floor, is visually opened or exposed, allowing tourists and citizens to appreciate and be in relation with the ruins.

Mod syd er der indrettet en have, som er skærmet mod gaden med en mur. Haven er åben for besøgende, som ved at stige ned ad flere terrasser kan se den blotlagte ruin (Realdania 2016).

“To the south there is a garden, which is shielded from the street by a wall. The garden is open to visitors who, by descending several terraces, can see the exposed ruin” (Realdania 2016).

Besides the importance and protection required for the ruins, the building deals with, layers of history, connected through it, and which display the complexity of the site.

“Domkirken og resterne af dennes koromgang, som Kannikegården er forbundet med, er de bygninger, som den nye arkitektur bør måles med. Kirken er af historiske grunde et komplekst anlæg, et legeme af tilbyggede fragmenter, som siden 1100-tallet har taget plads og form i byen” (Keiding, Martin 2017).

“The cathedral and the remains of its chancel, to which Kannikegården is connected, are the buildings with which the new architecture should be measured. For historical reasons, the church is a complex structure, a body of added fragments, which since the 1100s has taken its place and shape in the city” (Keiding, Martin 2017).

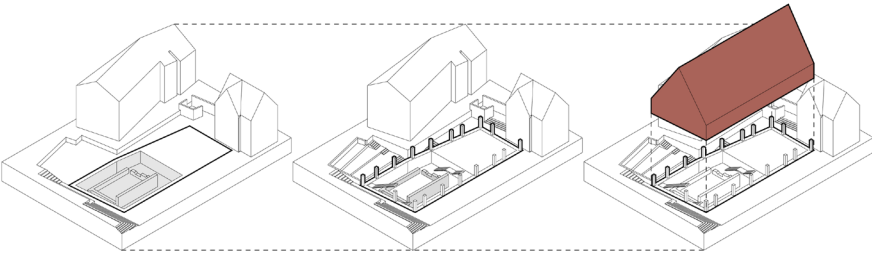


Fig 198, Elaborated by the author

Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.

Tower of Merola, Puig-Reig - Spain

The Tower of Merola, as a reference for the “Reintegration of the image with contemporary design”.

The ruins of the Merola tower, are located in the municipality of Puig-reig, and used to be part of the complex of the Merola Castle, built in the XIII Century, but as a result of the earthquakes in the 1500s, most of the tower was affected, leaving one of its facades standing still, until 2016, when a part of it, collapsed, and the Municipality, started a process for its conservation. In order to recover the heritage site, as a representative landmark of the area’s history, and an important touristic node for the municipality, the project aimed for the consolidation and reinforcement of the tower, through a structure in wood, capable of representing, the original volumetry of the site.

“I aquí ens marcarem els primers objectius, seguint un criteri bàsic. La restauració del monument, a més de garantir la seva pervivència, havia de permetre incrementar els seus valors com a monument, o sigui els valors històrics i documentals, significatius i arquitectònics, a banda de garantir l’estabilitat de la resta de l’edifici que ens havia arribat als nostres dies. D’aquesta manera es va plantejar una solució que reconstruís el volum de la torre” (Closa Pujabet, Joan 2020).

“And here we will set our first goals, following a basic criterion. The restoration of the monument, in addition to guaranteeing its survival, had to increase its values as a monument, i.e. historical and documentary, significant and architectural values, in addition to guaranteeing the stability of the rest of the building that had reached us in our days. In this way, a solution was proposed that would reconstruct the volume of the tower” (Closa Pujabet, Joan 2020).

Glossary:



Fig 199, Elaborated by the author



Fig 200, 201, 202, 203, 204, 205

The project proposed the consolidation and reinforcement of the tower, throughout the addition of a wood structure, that allows the recovery of the tower’s original function and access to its levels, which allows the visitors to contemplate the landscape surrounding it, as a defensive watchtower. The intervention highlights the tight relation between the military building and its surrounding landscape

“The project aims to recover the remainings of a defense tower from the thirteenth century with a new structure to preserve the heritage monument. This structure recovers the tower’s volumetry and it’s original function with a staircase that provides access to the levels of circulation and facilitates future maintenance” (European prize for contemporary Architecture, Mies Van Der Rohe Award).

The new addition proposed in the project, and its materiality, allows a strong dialogue between the new and the old, in which both can be distinguished and work as a uniform building, instead of the new fighting against the old.

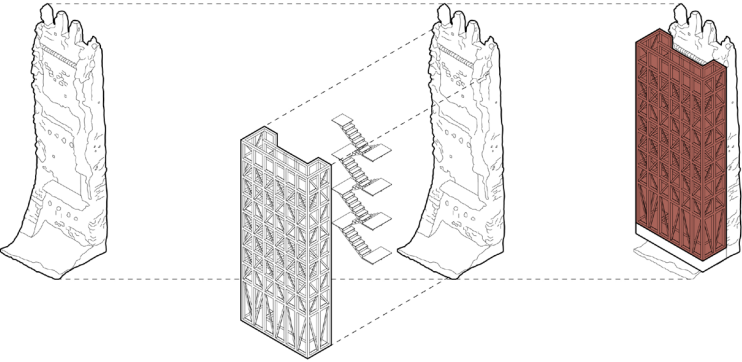


Fig 206, Elaborated by the author

Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.

Enhancement of Ruins, Possible strategies for Santa Marta

From the understanding of the possible strategies that can be carry out in order to enhance architectural ruins, as the conservation of the ruin’s image and shape, On-site museums and the reintegration of the image with contemporary design, on relation to the significance of the ruin in its ruinosity state, there can be proposed different strategies for each of the fortresses of Santa Marta.

In order to understand which strategy could be proposed for the fortresses, it is important to establish, the relation that the citizens of Santa Marta have with the fortresses, the state in which the fortresses can be found, the possible physical relation that can be achieved, and its landscape and urban context relation.

Following these elements to take into consideration, it has been carried out the proposal for the possible strategies to be done for the fortresses of Santa Marta, taking into consideration their state, accessibility, urban growth affection, landscape and urban contexts values. Additionally there have been highlighted the potentialities that each of the sites have, in order to understand if, they can be cataloged as sportive, cultural, monument, contemplative or natural-landscape nodes in the city.

Urban growth influence: 1. building modified, 2. context modified, 3. has not been affected
Building state: 1. ruins-foundations, 2. ruins, 3. lost

Natural landscape: 1. no-relation, 2. natural-urban, 3. natural
Urban space: 1. yes-relation, 2. no-relation
Accessibility: 1. private, 2. private-pedestrian, 3. private-pedestrian-bike, 4. public transportation
Missing urban functions: 1. health, 2. sport, 3. religious, 4. education, 5. cultural

Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.

Fortress of Bonda

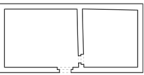


Fig 208, Re-elaborated by the author



Fig 209, Google Earth



Fig 210, Google Earth



Fig 211, Google Earth

Fortress of San Vicente

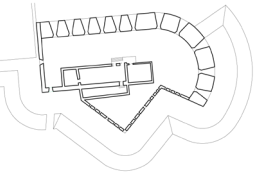


Fig 225, Re-elaborated by the author



Fig 226, Elaborated by the author



Fig 227, Elaborated by the author



Fig 228, Elaborated by the author

Fortress of San Antonio



Fig 212, Re-elaborated by the author



Fig 213



Fig 214



Fig 215

Battery La Intermedia

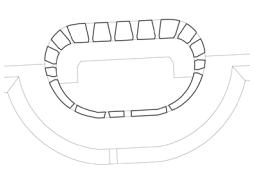


Fig 229, Re-elaborated by the author



Fig 230, Elaborated by the author

Fortress of Betín

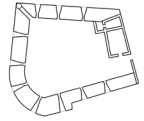


Fig 216, Re-elaborated by the author



Fig 217, Elaborated by the author



Fig 218



Fig 219

Fortress of San Fernando

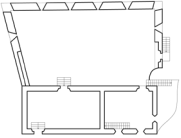


Fig 231, Re-elaborated by the author



Fig 232, Elaborated by the author



Fig 233, Elaborated by the author



Fig 234, Elaborated by the author

Fortress San Juan de Las Matas

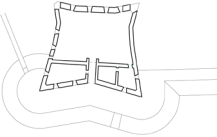


Fig 220, Re-elaborated by the author



Fig 221, Elaborated by the author



Fig 222, Elaborated by the author



Fig 223, Elaborated by the author

Fortress of El Morro



Fig 235, Re-elaborated by the author



Fig 236, Elaborated by the author



Fig 237, Elaborated by the author

Fortress of Bonda

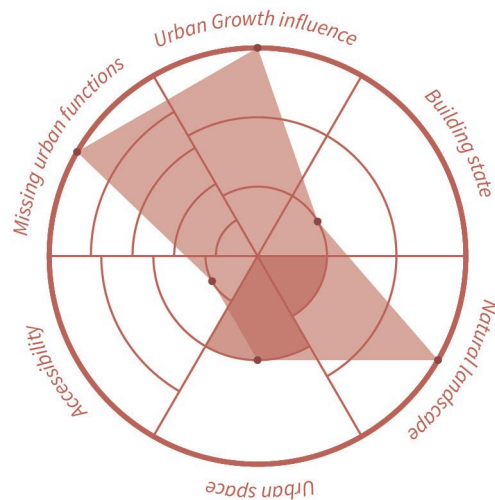


Fig 238, Elaborated by the author

Fortress of San Antonio

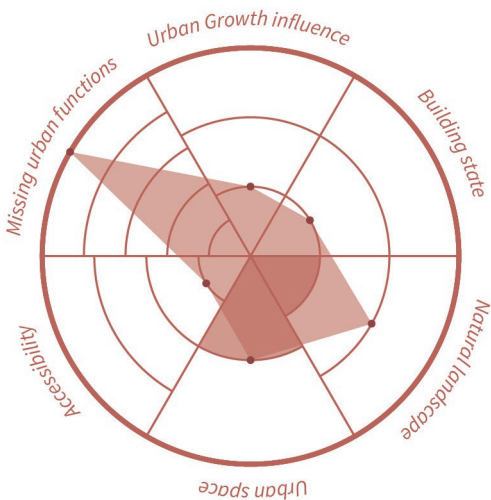


Fig 239, Elaborated by the author

Fortress of Betín

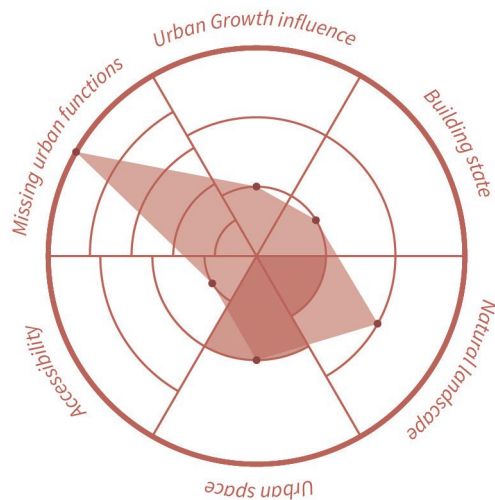


Fig 240, Elaborated by the author

Fortress of San Juan de Las Matas

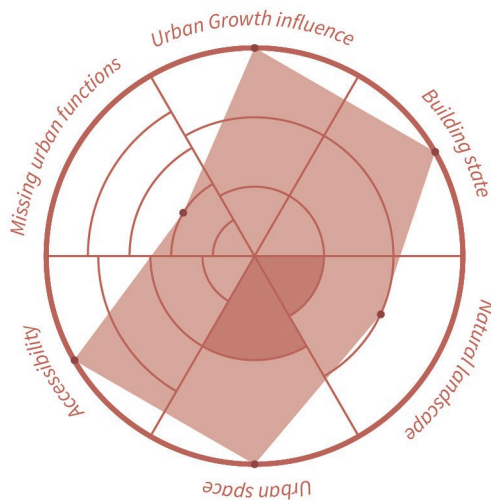


Fig 241, Elaborated by the author

Fortress of San Vicente

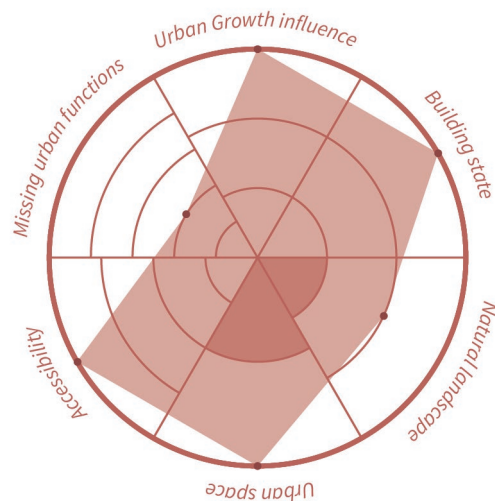


Fig 242, Elaborated by the author

Fortress of La Concepción

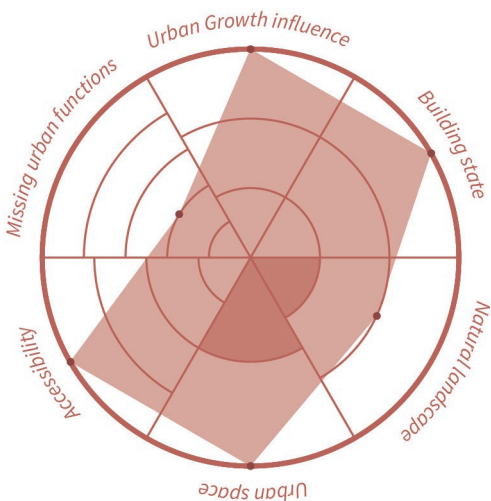


Fig 243, Elaborated by the author

Fortress of San Fernando

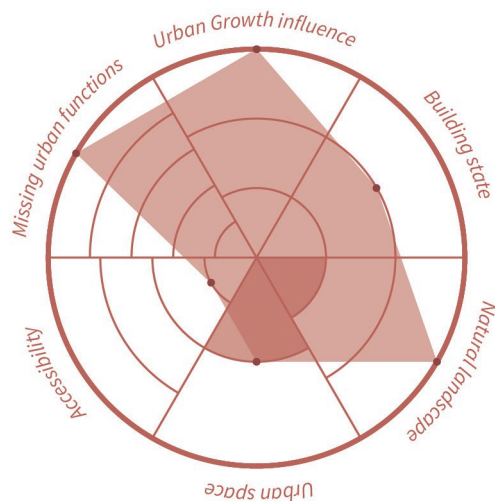


Fig 244, Elaborated by the author

Fortress of El Morro

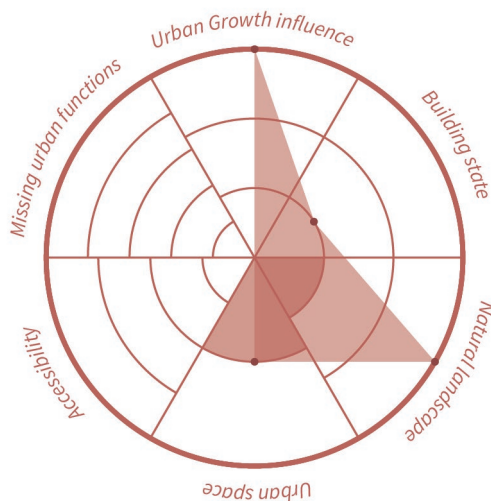


Fig 245, Elaborated by the author

Fortress

Situation and location

Potentialities

Strategy

Fortress of Bonda

The ruins of the Fortress, are located on the east area of Santa Marta, the remnants of the walls are 70cm height and have a width of 70cm, and from these, there can be identify two areas, that used to conform the building.

1. To be a cultural or sportive node.
2. Within a natural landscape.
3. Not in conflict with the urban growth.

1. Reintegration of the image with contemporary design.
2. On-site museums.

Fortress of San Antonio

The ruins of the Fortress are located on the northern area of the bay of Santa Marta, inside the private area of the harbor, its ruins were used as a base for a religious monument, leading to a major deterioration of it.

1. To be a contemplative or monument node
2. In conflict with the urban growth. located inside the private area of the harbor.

1. Reintegration of the image with contemporary design.
2. The conservation of the ruin in its material authenticity, shape and mutilate image.

Fortress of Betín

The foundation ruins of the Fortress were used as the foundation for a new building, causing a major deterioration of them, it is located in the private area of the harbor.

1. No potentiality

1. The conservation of the ruin in its material authenticity, shape and mutilate image.

Fortress of San Juan de Las Matas

Due to the change on the bay and beach of the city, the ruins of the Fortress are thought to be submerged underwater, the state of them is unknown.

1. To be a cultural, contemplative or monument node.

1. The conservation of the ruin in its material authenticity, shape and mutilate image.

Fortress of San Vicente

A fragment of the ruin is displayed as a monument, on the northern side of the waterfront of the city, the rest of the ruins are thought to be submerged underwater.

1. To be a cultural, contemplative or monument node.

1. The conservation of the ruin in its material authenticity, shape and mutilate image.

Fortress of La Concepción

Due to the change on the bay and beach of the city, the ruins of the Fortress are thought to be submerged underwater, the state of them is unknown.

1. To be a cultural, contemplative or monument node.

1. The conservation of the ruin in its material authenticity, shape and mutilate image.

Fortress of San Fernando

The ruins of the Fortress are located inside the military base, in the southern area of the city, the Fortress' image is still identifiable as, it was last, submitted to preservation in 1996.

1. To be a cultural, contemplative, sportive or monument node.
2. Within a natural landscape.
3. Located in an expansion area for urban growth.

1. Reintegration of the image with contemporary design.
2. The conservation of the ruin in its material authenticity, shape and mutilate image.

Fortress of El Morro

The ruins of the higher Battery allocated in the island, were used as a base for the lighthouse of the bay, and the ruins of the lower Battery, are in an advance state of deterioration.

1. To be a cultural, contemplative, or monument node.
2. Within a natural landscape.
3. Not in conflict with the urban growth.

1. Reintegration of the image with contemporary design.
2. The conservation of the ruin in its material authenticity, shape and mutilate image.

Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.

Chapter 3 Master Plan and Urban integration of the Fortress of San Fernando

Chapter 3, Master plan proposal for the Fortress of San Fernando

- Proposal introduction
- Sustainable development goals
- Urban analysis of the fortress of San Fernando - current dynamics

- Master plan introduction
- Master plan proposal

- Fortress of San Fernando + Museum/institute introduction
- Fortress of San Fernando + Museum/institute proposal



Fig 246, Elaborated by the author

Proposal, aim

Through the project it is promoted a new relation with the colonial military heritage of the city, in which nature and landscape play a particular and important role, it is studied the balance needed for the protection of cultural building heritage affected by the urban growth of cities, in this scale, it is proposed a master plan project, capable of responding to the city’s needs but additionally able to prevent the affection of architectural ruins at risk.

As part of the project, it has been proposed a projection of nodal and supporting structures, which would allow a continues flow of activities, aiming to reactive the landscape surrounding the site.

Landscape and Heritage

Through the project, it is proposed not only the protection of the existing heritage architectural ruin, by decreasing the urban growth of the city, that threatens its protection, but it is promoted the recovery of the strong historical relation between the ruins and the characteristic landscape. The hills and the Sea, are and have been historically described as main elements of the city, and as explain in the history of the city, have been in multiple occasions the reason factors, for their place of location and situation. Therefore have been integrated as main enhancing axis. The recovery of the landscape, is additionally proposed, as it is an element of which the city lacks in the public space.

Forest border within the city

The natural public space proposal, connects the historical city center, with the natural representative elements of the city, as the hills, sea, beaches, views, heritage, fauna and flora. Additionally it increases the extension of public space needed in the city and important for the well-being of the inhabitants.

Connectivity as a rehabilitating element

The project aims to connect the site with main urban public space projects, proposed and built in the last years, that have a strong impact in the city scale, such as the “Malecón Bastidas”, the “Cerro Zimura path”, and the “Cable way”. The project location is the central node between these 3 main urban projects of the city, and would allow the connection between them, while providing an efficient public space for the city.

Through this connection, it would be develop a system that identifies the needs of the users in the city, and which would promote the idea of pedestrians and cyclists as principal actors, in the green infrastructure.

Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.

Sustainable development goals

The master plan proposal responses to the sustainable development goals adopted by the United Nations, in order to promote more balance social, economical and environmental aspects in Santa Marta, while preserving the city’s values and enhancing its heritage.

GOALS



Fig 247



Fig 248



Fig 249

3. GOOD HEALTH AND WELL-BEING

7. AFFORDABLE AND CLEAN ENERGY

11. SUSTAINABLE CITIES AND COMMUNITIES

TARGETS

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

11.4 Strengthen efforts to protect and safeguard the world’s cultural and natural heritage

11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

GOALS



Fig 250



Fig 251

13. CLIMATE ACTION

15. LIFE ON LAND

TARGETS

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

Lipe beach seen from the fortress of San Fernando



Fig 252

El Morro seen from the fortress of San Fernando



Fig 253

Urban scale

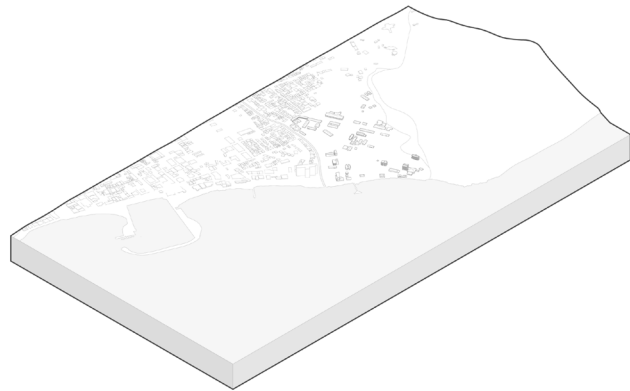


Fig 254, Elaborated by the author

Urban scale

The first scale of analysis for the context of the fortress of San Fernando, covers the area from the fortress to the historical city center and the sectors “comuna 1 and 2” of the city, in order to understand the urban dynamics that have a direct impact between the city and the fortress, as well as, to understand the potential elements around the fortress site.

Greenery and biodiversity urban scale



Fig 256, Elaborated by the author



Military base scale

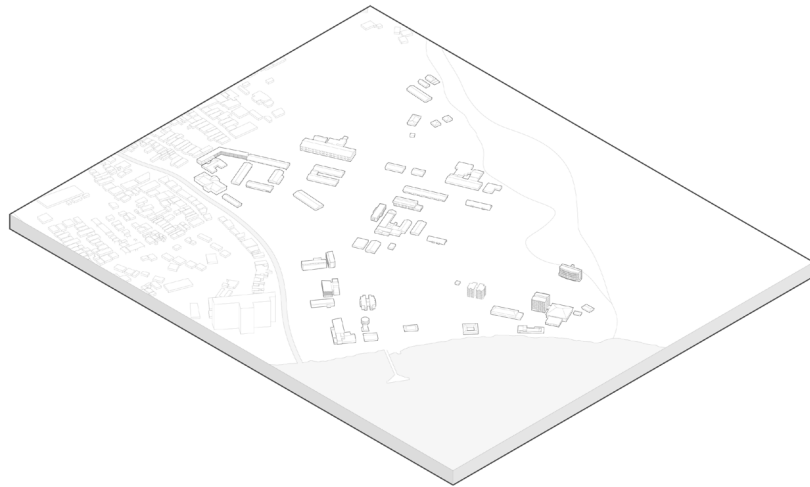


Fig 255, Elaborated by the author

Military base scale

The second scale of analysis for the context of the fortress of San Fernando, is the military base, in which the fortress is located. The base dynamics have been studied in order to understand the influence, that has on the site, and that could be a potential or a treat for its protection.

Greenery and biodiversity military base scale



Fig 257, Elaborated by the author

Tree species in Santa Marta (representative graphic)



Fig 264, Elaborated by the author

Land uses urban scale

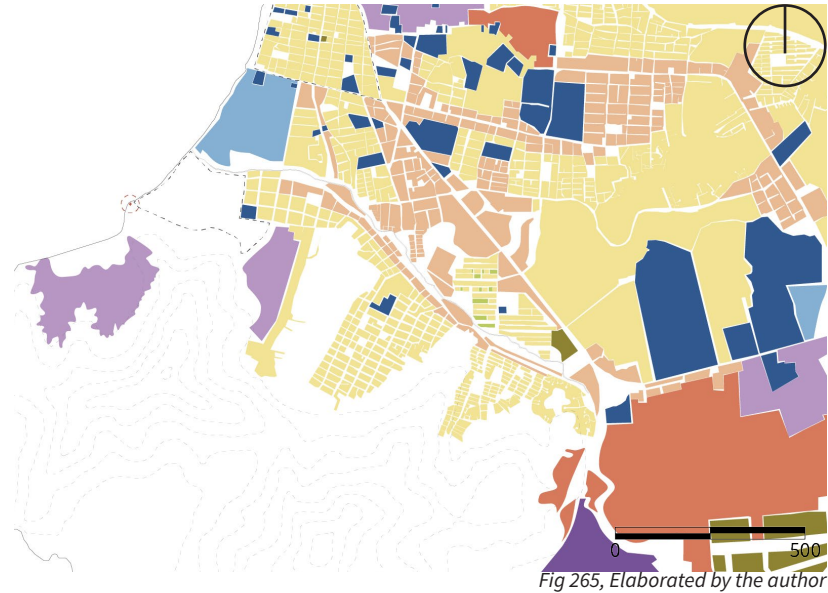


Fig 267

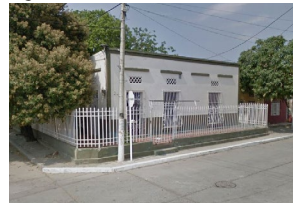


Fig 270

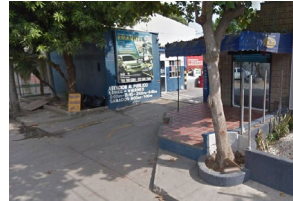


Fig 268



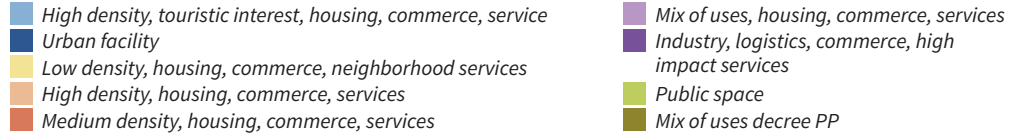
Fig 271



Fig 269



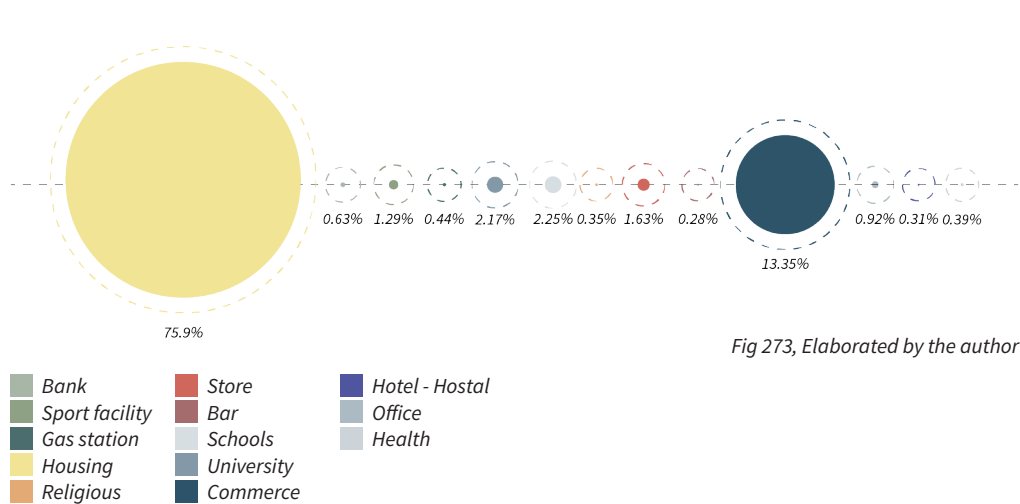
Fig 272



Land uses military base scale



Percentage of land uses military base scale



Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.

Water sources urban scale

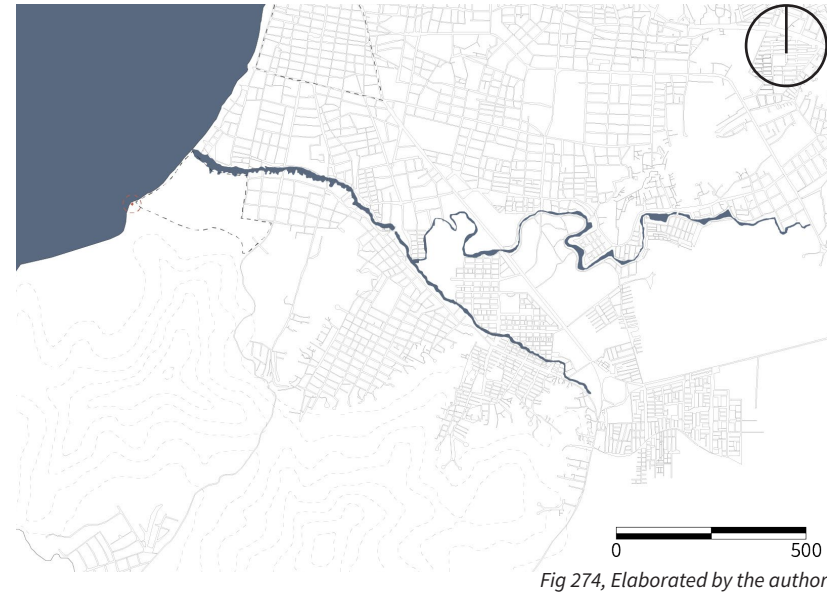


Fig 276



Fig 279



Fig 277



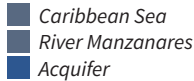
Fig 280



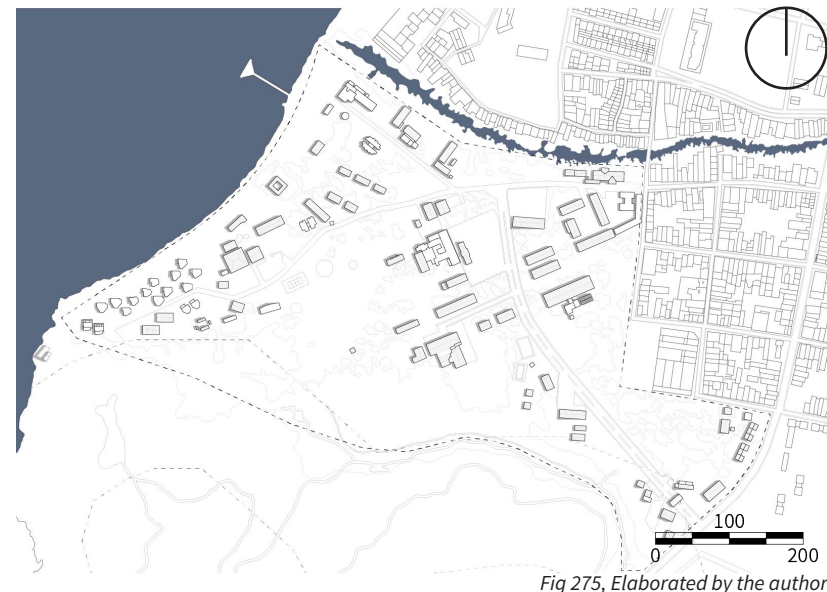
Fig 278



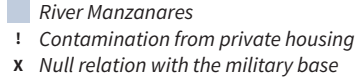
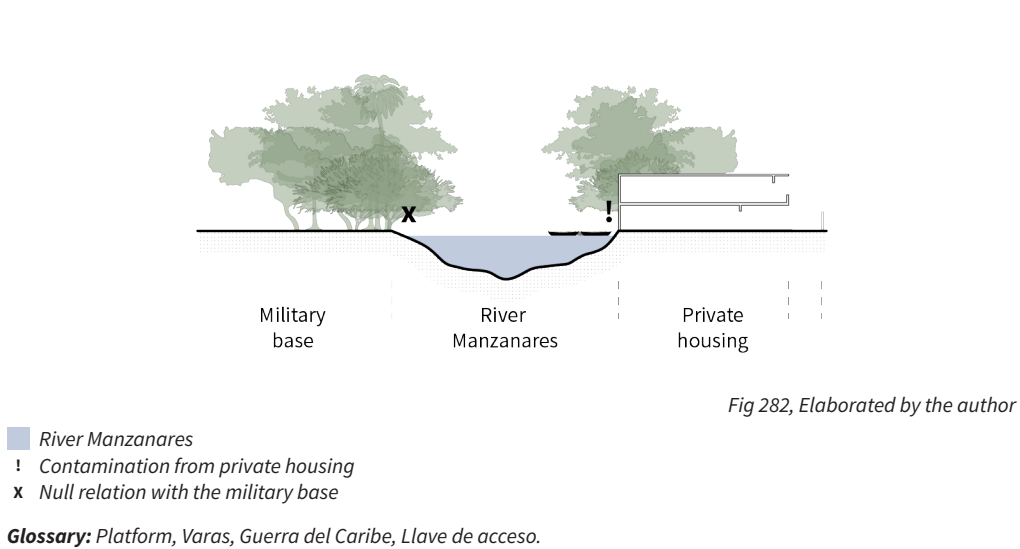
Fig 281



Water sources military base scale

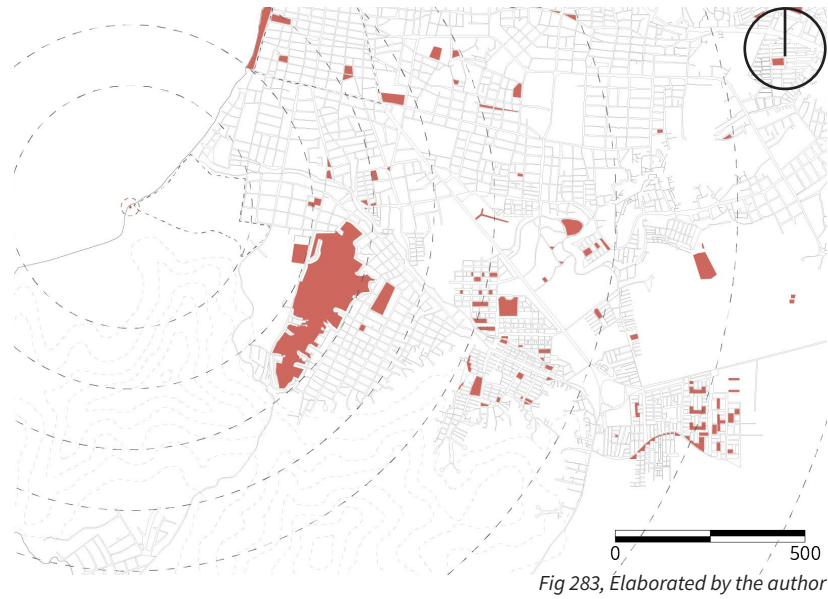


Section River Manzanares (representative graphic-section)



Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.

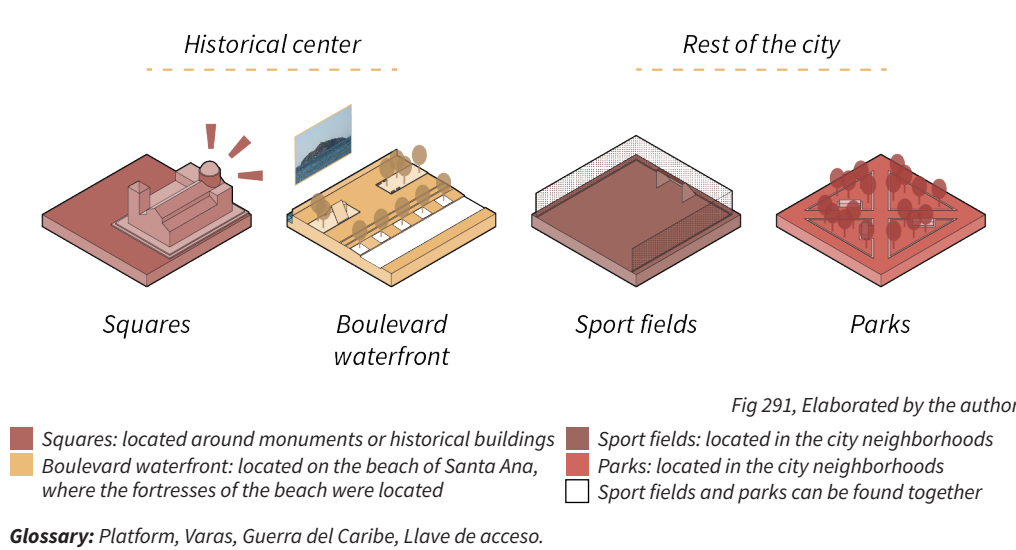
Public space urban scale



Public space military base scale

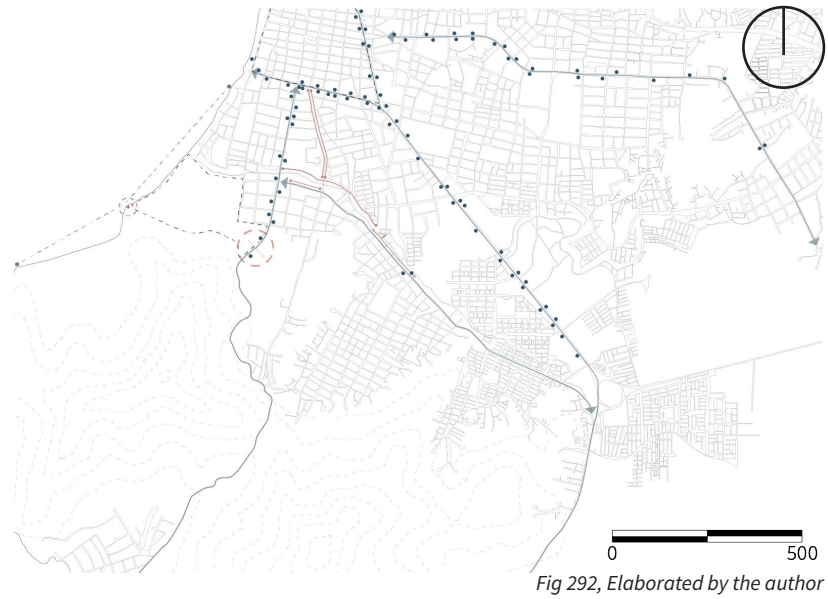


Public space typologies (representative graphic)

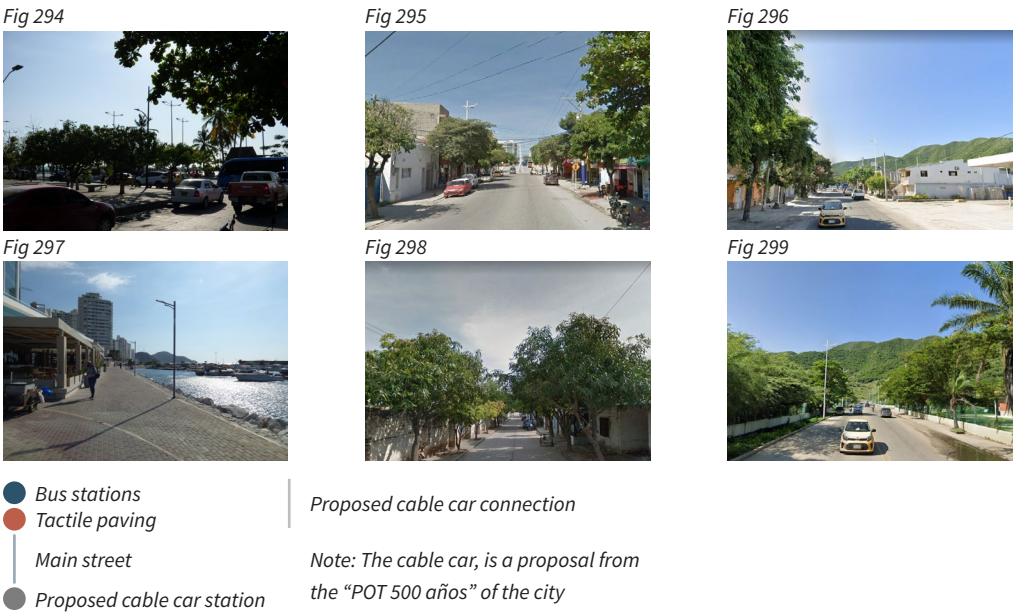


Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.

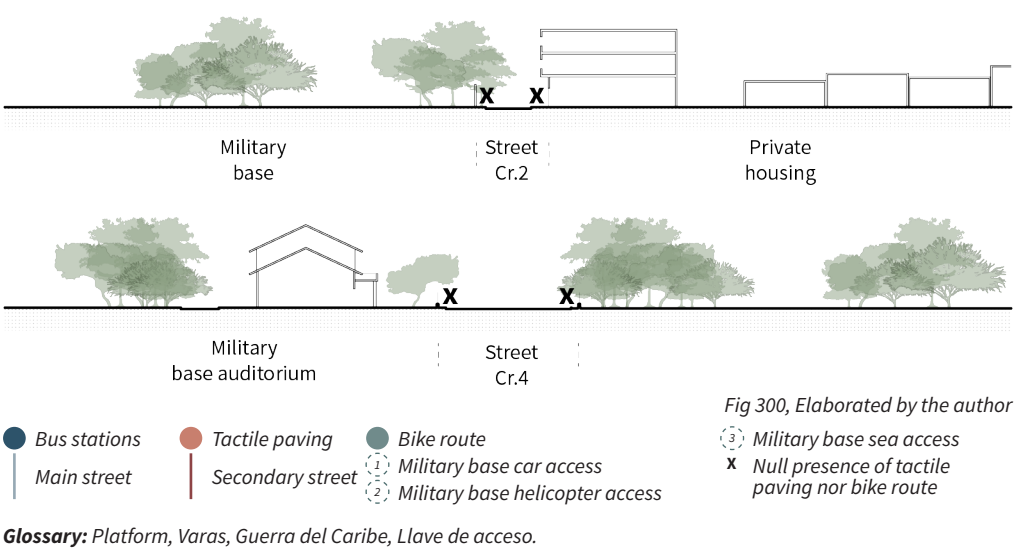
Accessibility urban scale



Accessibility military base scale



Accessibility around the military base (representative graphic)



Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.

Heritage urban scale

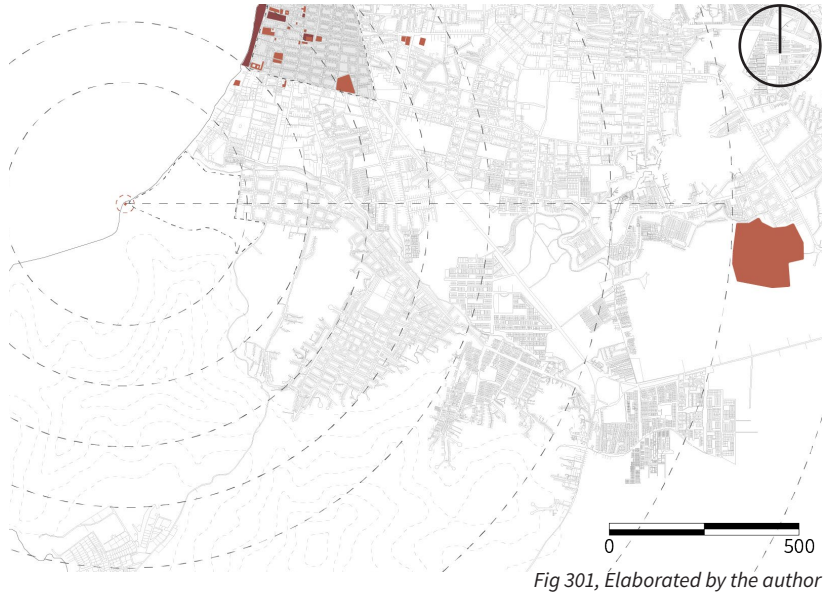


Fig 303



Fig 306



Fig 304



Fig 307



Fig 305



Fig 308



Military base as a barrier urban scale

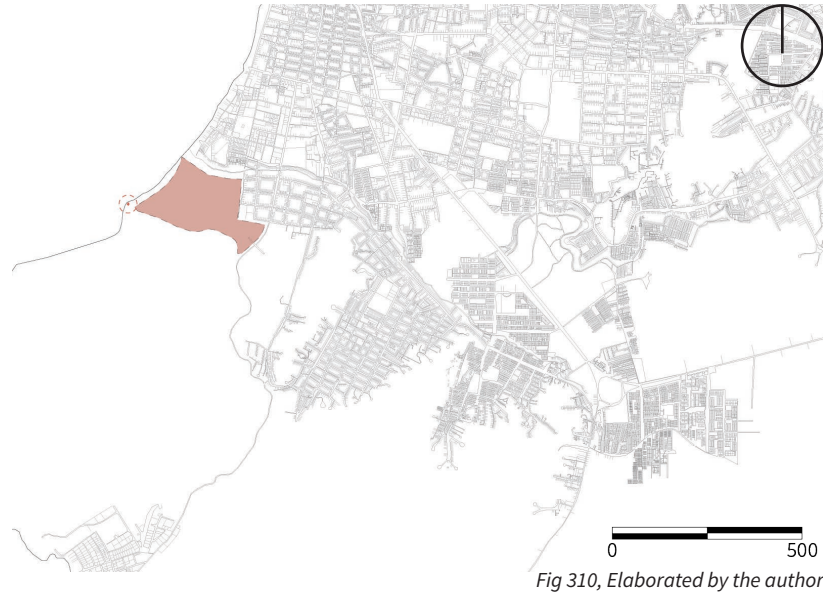


Fig 312



Fig 315



Fig 313



Fig 316



Fig 314



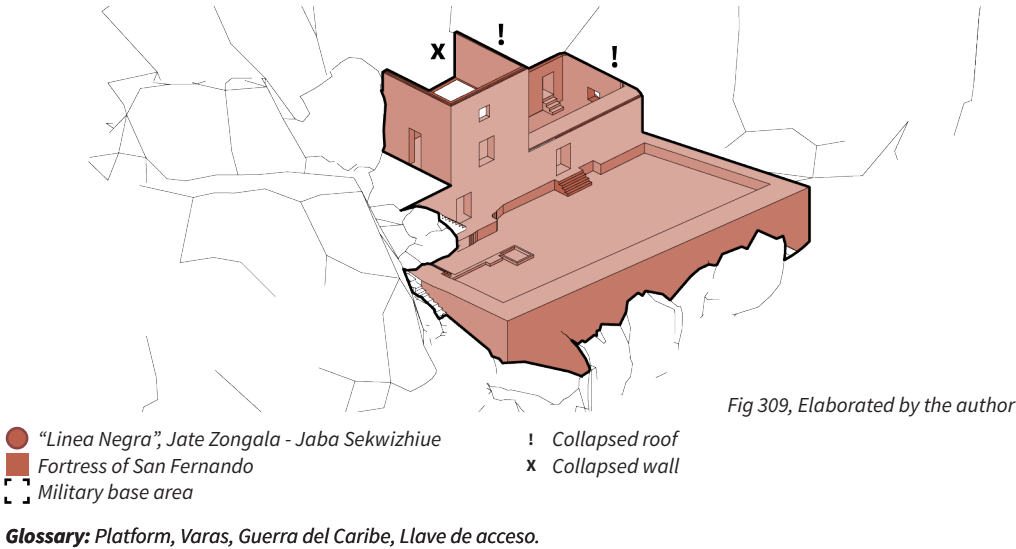
Fig 317



Heritage military base scale



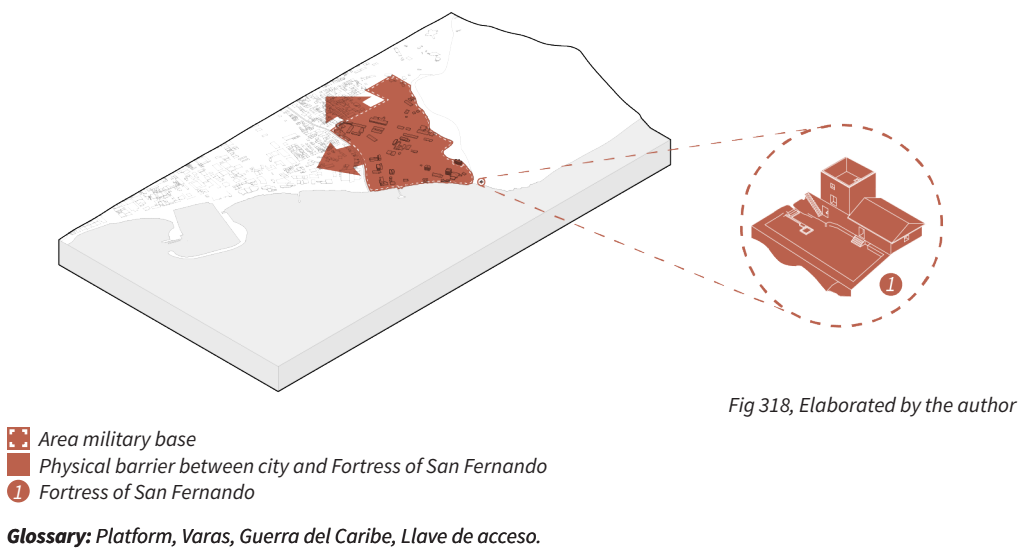
Axonometry Fortress of San Fernando (representative graphic)



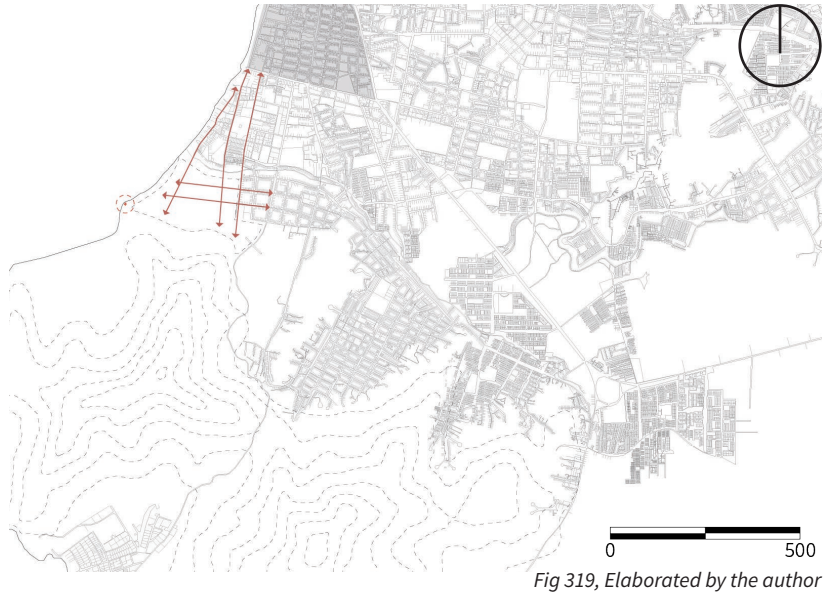
Military base as a barrier military base scale



Axonometry military base as a barrier (representative graphic)



Streets extension (POT 500 AÑOS PROPOSAL) urban scale



Streets extension (POT 500 AÑOS PROPOSAL) military base scale

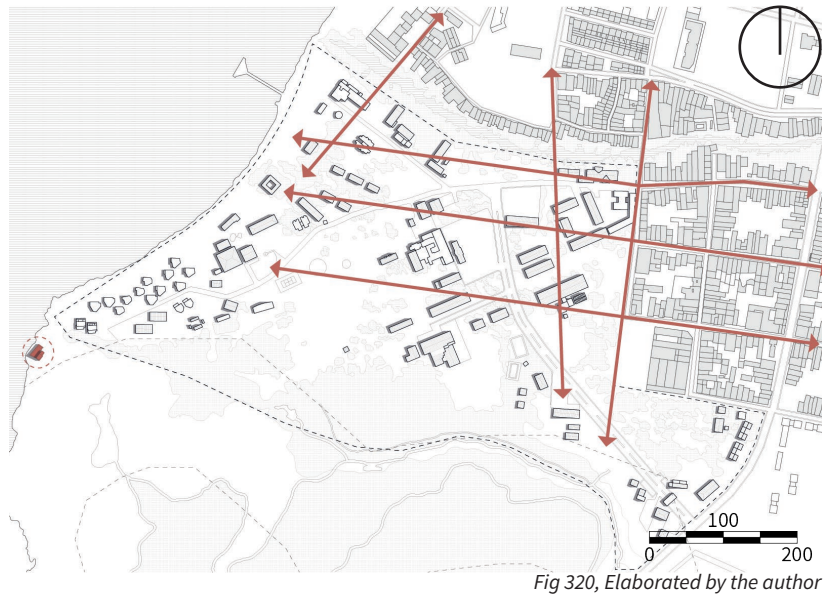


Fig 321



Fig 324



Fig 322



Fig 325



Fig 323

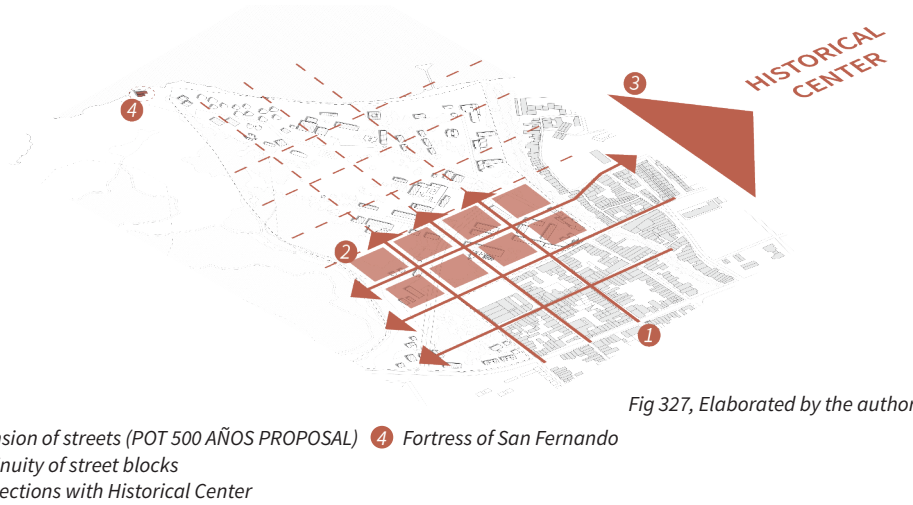


Fig 326



- ↑ Extension of streets (POT 500 AÑOS PROPOSAL)
- █ Historical city center
- Fortress of San Fernando

Axonomy streets extension (representative graphic)



- 1 Extension of streets (POT 500 AÑOS PROPOSAL)
- 2 Continuity of street blocks
- 3 Connections with Historical Center
- 4 Fortress of San Fernando

Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.



Fig 328

City analysis resume

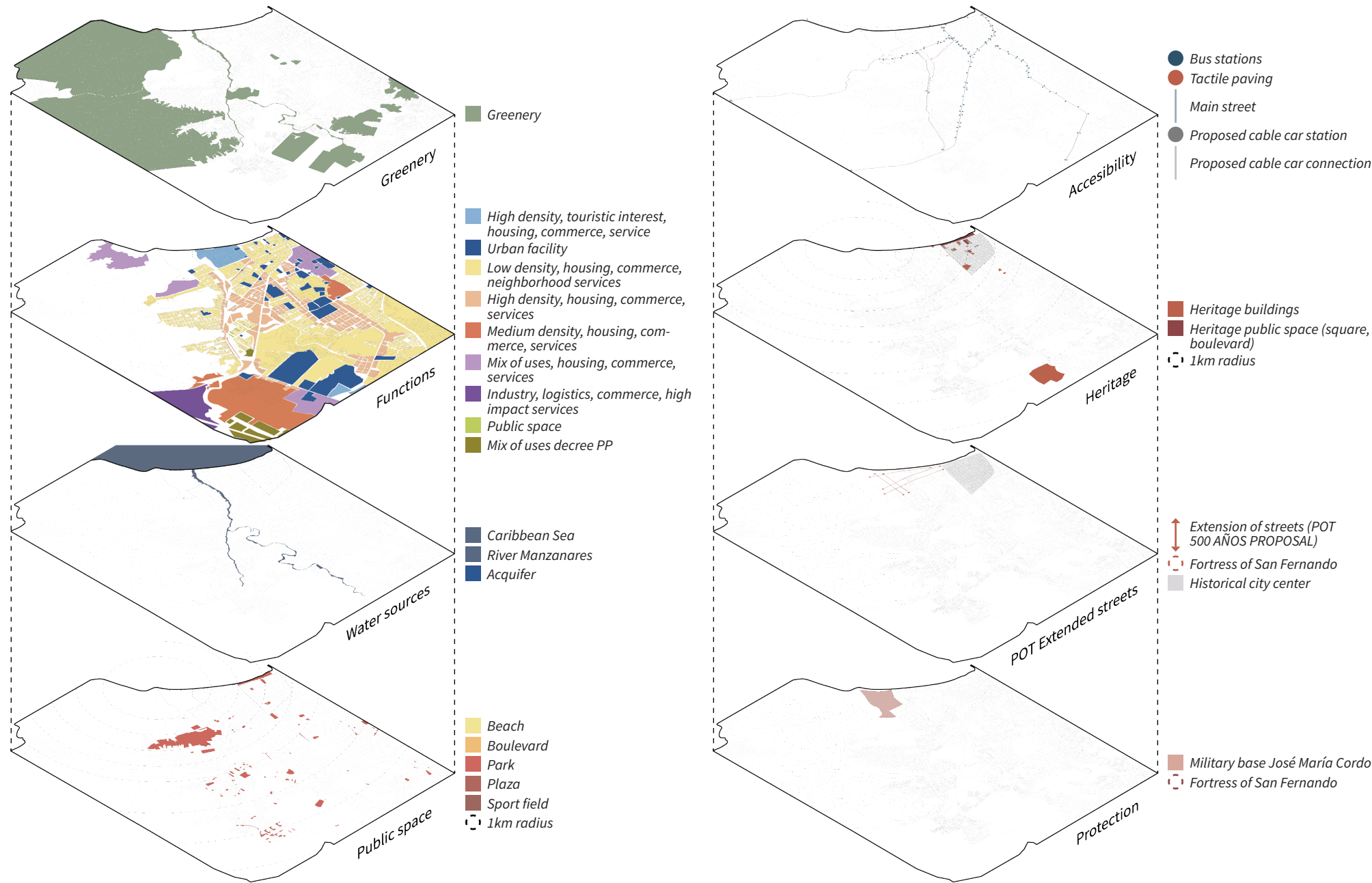


Fig 329, Elaborated by the author

Military base analysis resume

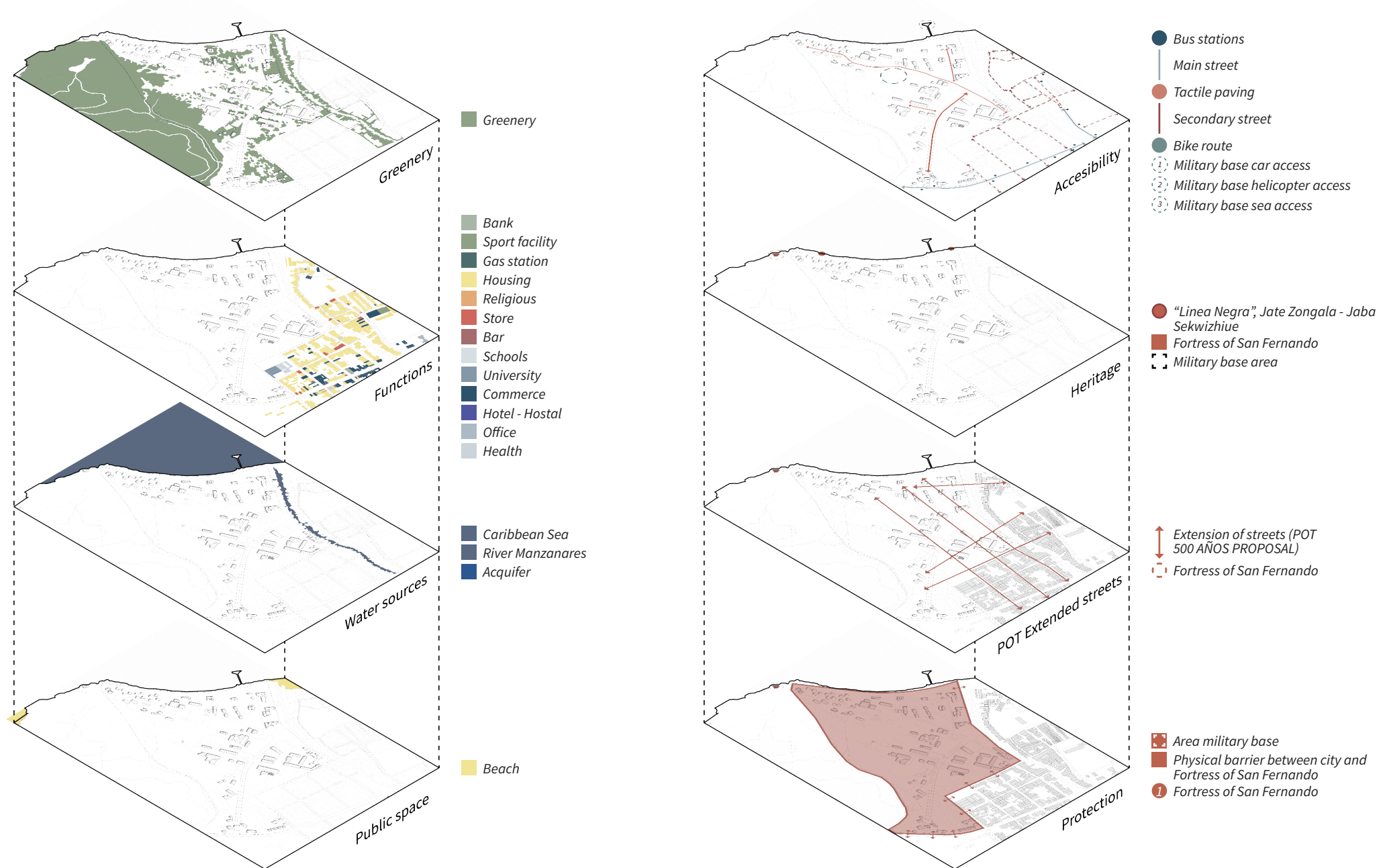


Fig 331, Elaborated by the author

Military base areas analysis

Within the military base José María Cordova, there can be identified three areas that characterize the infrastructure and building components located in it, which correspond to their general function in the base, and are cataloged as, **Military buildings** (barracks and offices) in used by the military, **Naval-Air buildings** (barracks, offices, control tower, garages) in used by the Batallón de Movilidad y Maniobra de Aviación Ejército and Guardacostas, and the **Military resort** (Hotel) in used by the military and their relatives, for vacational activities along the year.

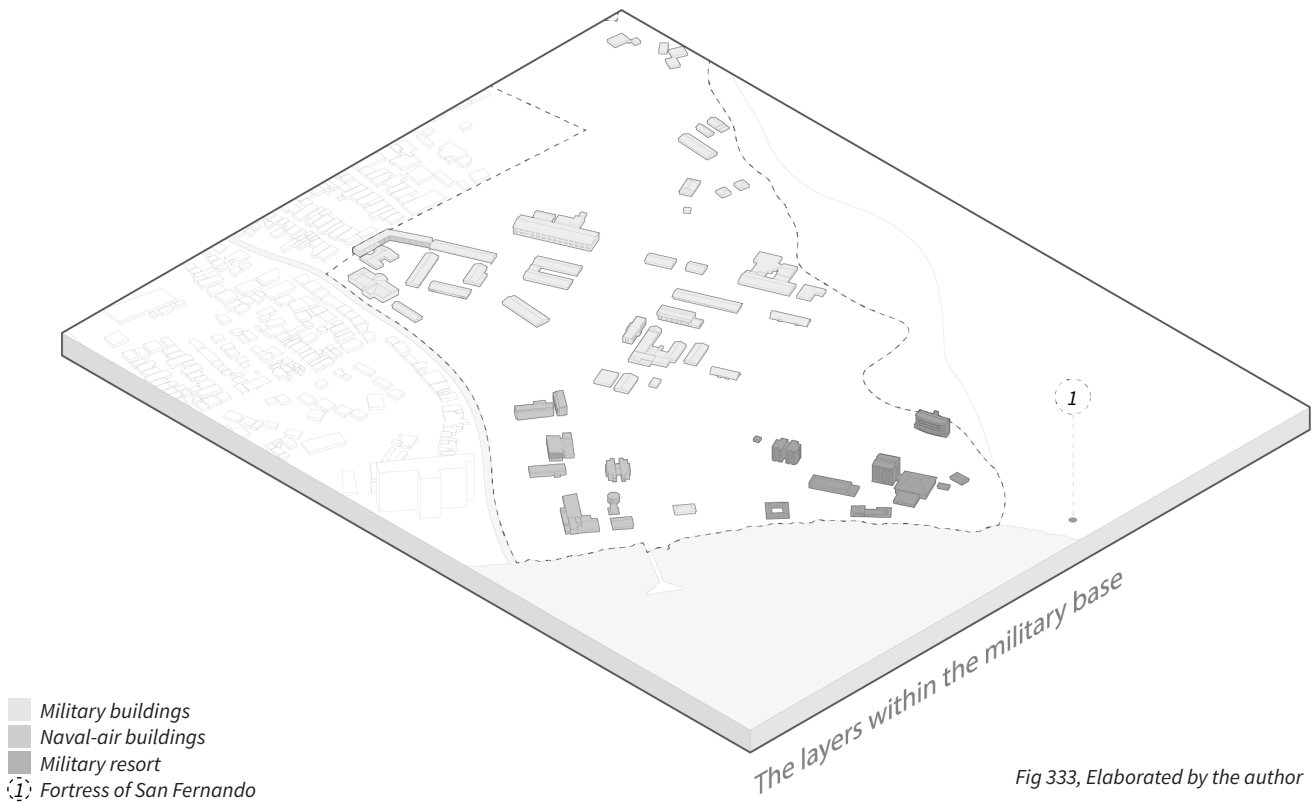


Fig 333, Elaborated by the author

Note: the reconstruction and identification of the base and building components has been carried out, from a reconstruction of images, videos and photos taken of the site by visitors of the hotel and published on google maps, the functions identified in the buildings correspond to a hypothesis produced from the architectural characteristics of the buildings.

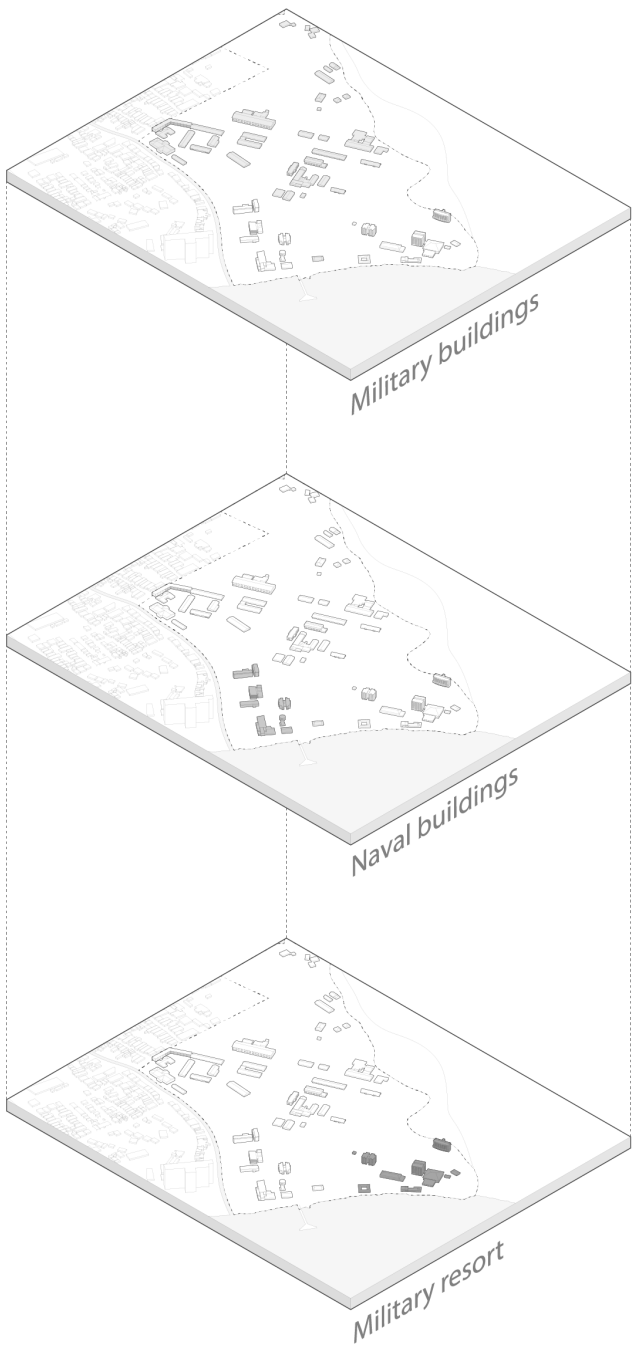
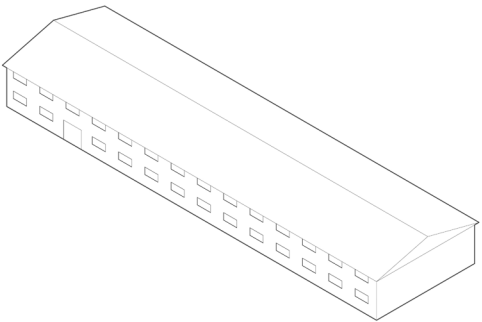


Fig 334, Elaborated by the author

Military base building typologies

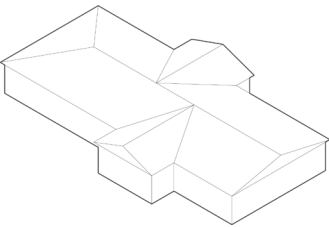
Building typology 1:



Location: Military area
Function: Barracks
Potentiality: Spatiality due to its structure
Ground floor area: 1.932 m²
Total area: 3.864 m²

Fig 335, Elaborated by the author

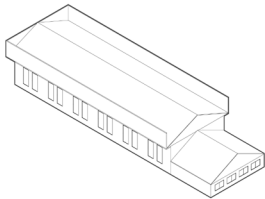
Building typology 5:



Location: Military area
Function: Offices
Potentiality: Relation with the river
Ground floor area: 1.477 m²
Total area: 2.439 m²

Fig 339, Elaborated by the author

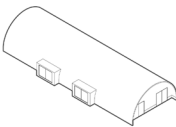
Building typology 2:



Location: Military area
Function: Offices
Potentiality: Centrality
Ground floor area: m²
Total area: m²

Fig 336, Elaborated by the author

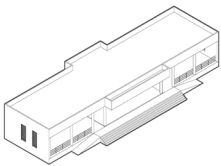
Building typology 6:



Location: Military area
Function: Barracks
Potentiality: Centrality and spatiality
Ground floor area: 290 / 400 m²
Total area: 690 m²

Fig 340, Elaborated by the author

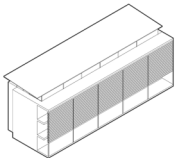
Building typology 3:



Location: Military area
Function: Stage
Potentiality: Centrality
Ground floor area: 411 m²
Total area: 411 m²

Fig 337, Elaborated by the author

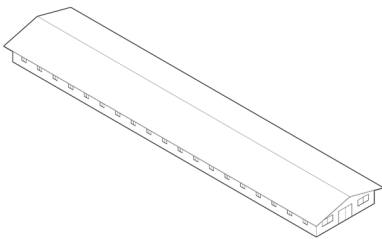
Building typology 7:



Location: Coast guard area
Function: Offices
Potentiality: Relation with the river
Ground floor area: 736 m²
Total area: 2.208 m²

Fig 341, Elaborated by the author

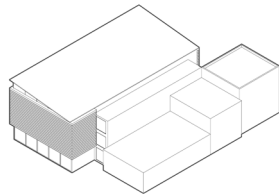
Building typology 4:



Location: Military area
Function: Barracks
Potentiality: Centrality and spatiality
Ground floor area: 1.050 m²
Total area: 1.050 m²

Fig 338, Elaborated by the author

Building typology 8:

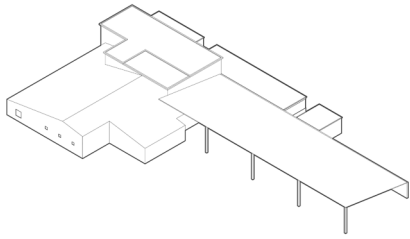


Location: Coast guard area
Function: Offices
Potentiality: Relation with the river-beach
Ground floor area: m²
Total area: m²

Fig 342, Elaborated by the author

Military base building typologies

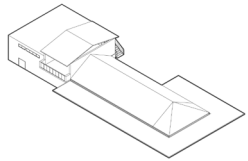
Building typology 9:



Location: Coast guard area
Function: Garage
Potentiality: Relation with the beach
Ground floor area: 1.363 m²
Total area: 1.573 m²

Fig 343, Elaborated by the author

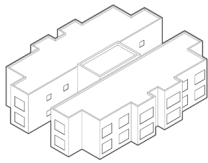
Building typology 13:



Location: Resort-Hotel area
Function: Hotel restaurant
Potentiality: Relation with the beach
Ground floor area: 322 m²
Total area: 446 m²

Fig 347, Elaborated by the author

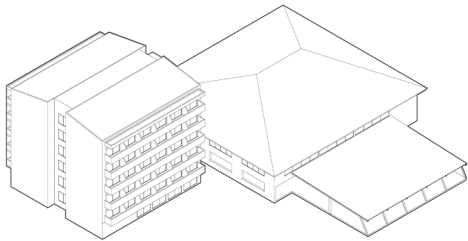
Building typology 10:



Location: Coast guard area
Function: Housing
Potentiality: Relation with the greenery
Ground floor area: 506 m²
Total area: 1.012 m²

Fig 344, Elaborated by the author

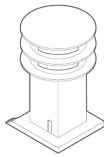
Building typology 14:



Location: Resort-Hotel area area
Function: Hotel
Potentiality: Relation with the beach
Ground floor area: 1.858 m²
Total area: 5.366 m²

Fig 348, Elaborated by the author

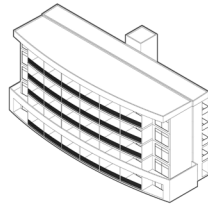
Building typology 11:



Location: Coast guard area
Function: Control tower
Potentiality: Visual relation
Ground floor area: 113 m²
Total area: 262 m²

Fig 345, Elaborated by the author

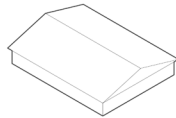
Building typology 15:



Location: Resort-Hotel area area
Function: Hotel
Potentiality: Relation with the beach
Ground floor area: 383 m²
Total area: 1.915 m²

Fig 349, Elaborated by the author

Building typology 12:

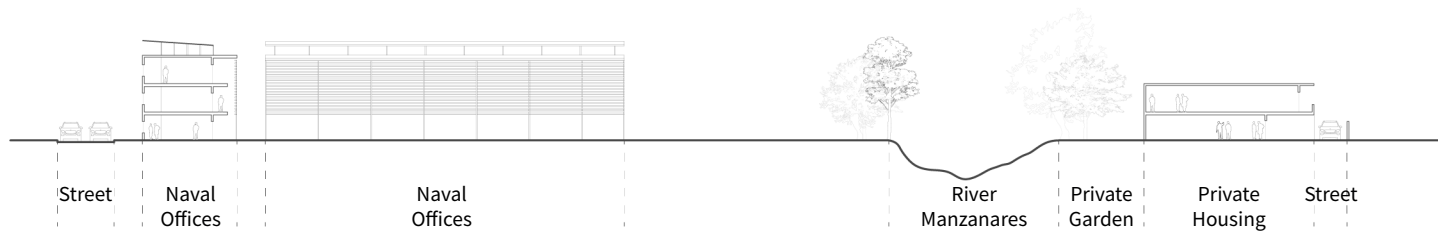


Location: Coast guard area
Function: Barracks
Potentiality: Relation with the beach
Ground floor area: 2.016 m²
Total area: 2.016 m²

Fig 346, Elaborated by the author

The military base's relation with the surrounding context

Section 1: Null relation with the river, today the River Manzanares works as a physical barrier between the city and the area, its natural values are an element to enhance.



Section 2: The buildings within the military area have null relation with the neighborhood context and present null relation between them, the area works as a void in the city.



Section 3: There is no relation with the main street Cr4, which works as an access street to the city.

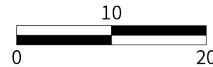
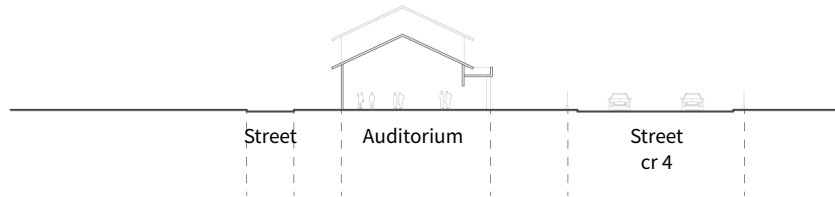


Fig 350, Elaborated by the author

Master plan, *proposal*

The master plan proposal seeks the balance transition from the city to the heritage site, allowing the city to grow while preserving and protecting the colonial military fortress of San Fernando located within the area of the military base José María Cordova, the master plan follows four intension ideas, chosen, in order to protect the heritage site and develops the transition needed from the city.

The first intension seeks in the plan the extension of the greenery, in order to enhance the importance of the landscape that surrounds the site, and that historically has been a representative element of the city, while providing the city with more natural public spaces.

The second intension is the enhancement of the relation with the sea and the river, as historically, these water sources have shaped the city and its fortresses, as have been borders but sources and reasons for the development of the city.

The third intension is the enhancement of the views, the site has a strong relation with the large landscape, as due to the natural characteristics of the bay, has a visual connectivity with all the sites where the previous fortresses were located, and with the historical city center.

The forth intension is the connectivity througout a system, the proposal plans a nodal con-

nectivity system, in order to create a path, where nodal points reactivate the public space and allow the transition from the city to the heritage site.

Additionally the master plan follows the lessons from the urban references, in order to provide a project, that seeks the protection of the colonial military fortress, while allowing the urban growth of the city.

Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.



Fig 351

Project Master plan intensions

Intension 1: To extend the greenery



To extend the greenery surrounding the site, from the Cerro Ziruma and River Manzanares.
Fig 352, Elaborated by the author

Intension 3: To enhance the views



To enhance the visual relation with the greater landscape around the site.
Fig 353, Elaborated by the author

Intension 2: to enhance the relation with the sea and river



To enhance the relation with the sea and the river Manzanares.
Fig 354, Elaborated by the author

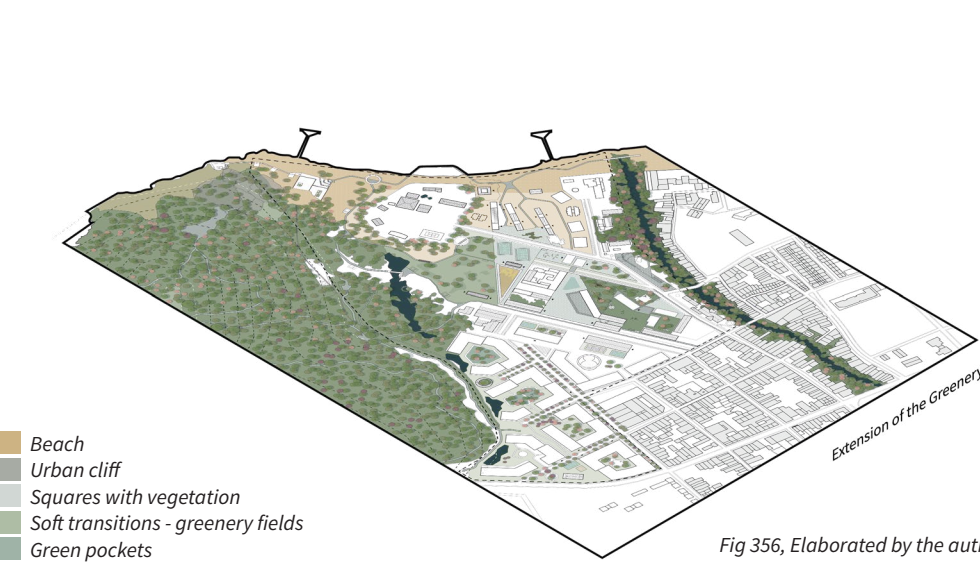
Intension 4: To connect through a system



To proposed a node system, to enhance the accessibility and relation with the Fortress San Fernando.
Fig 355, Elaborated by the author

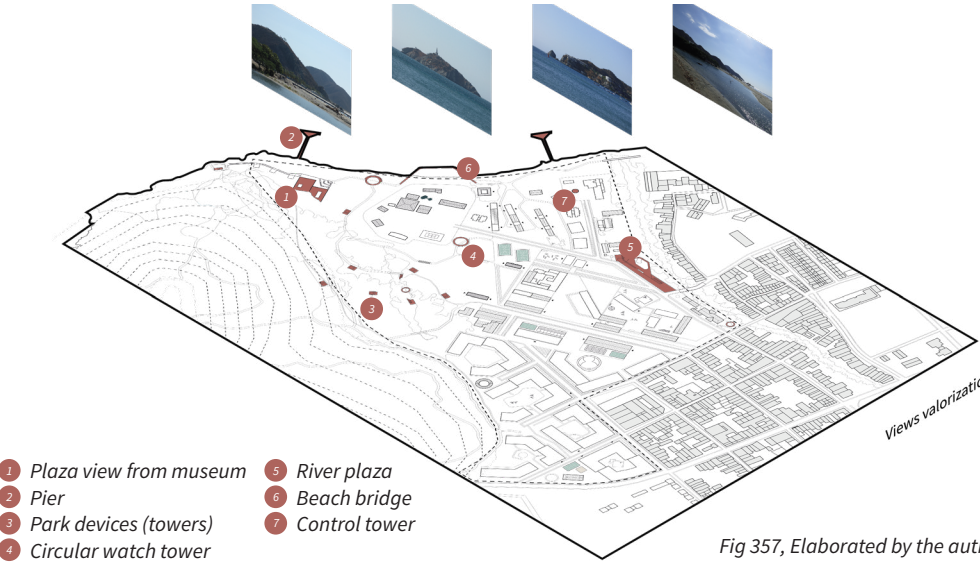
Project Master plan urban answers

1. Urban answer - Greenery extension:



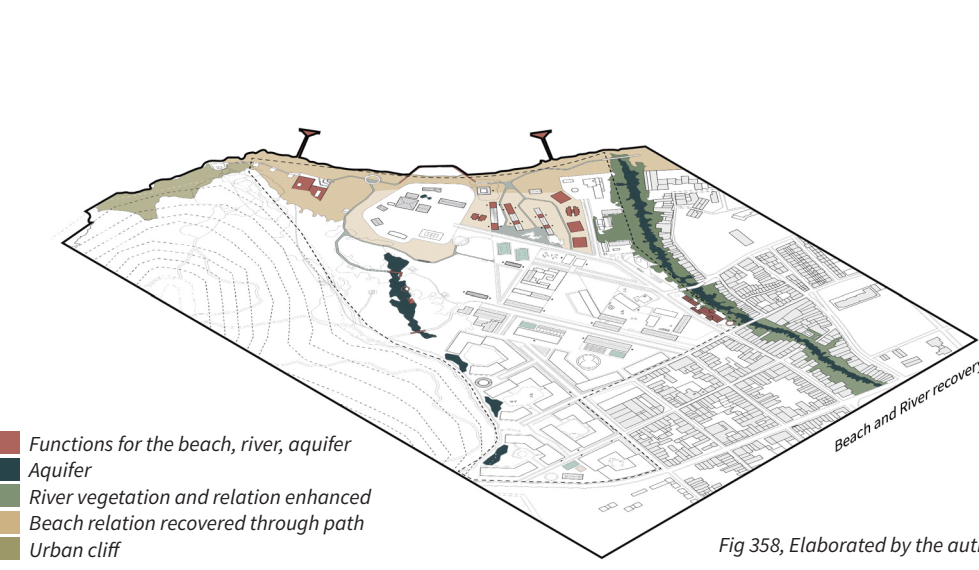
The greenery is extended by creating a “soft” transition area between the cultural central area of the mas-
ter plan and the Fortress, and by increasing the relation of nature and the buildings.
Fig 356, Elaborated by the author

3. Urban answer - View enhancement



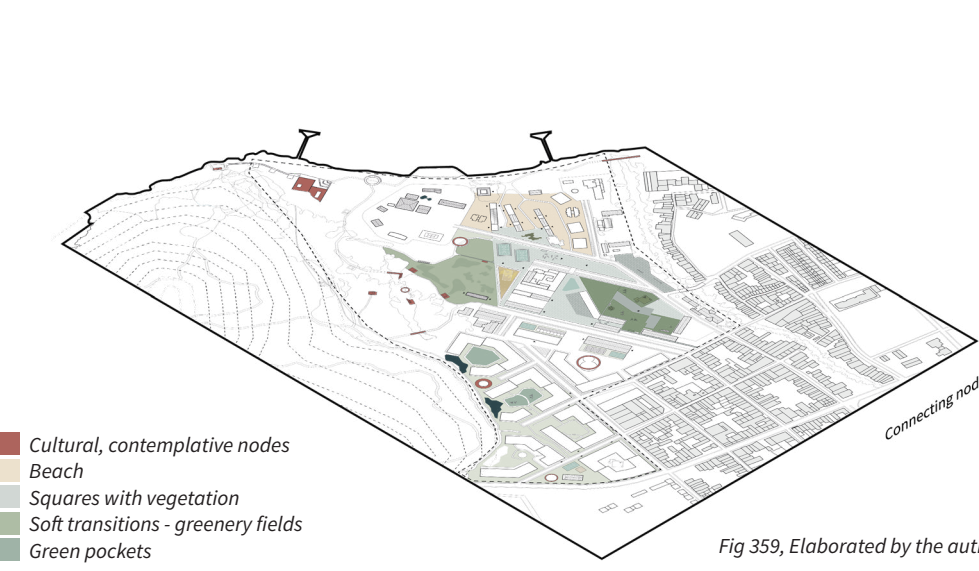
The visual relation with the greater landscape is enhanced, through the implementation of contemplative
nodes for the Caribbean Sea, “Cerro Zimura”, and River Manzanares.
Fig 357, Elaborated by the author

2. Urban answer - Beach-River-Aquifer recovery



The river is enhanced with a contemplative node, the beach is recovered through its active function with commercial
and contemplative nodes, and the aquifers are integrated as part of the “soft” transition area and path.
Fig 358, Elaborated by the author

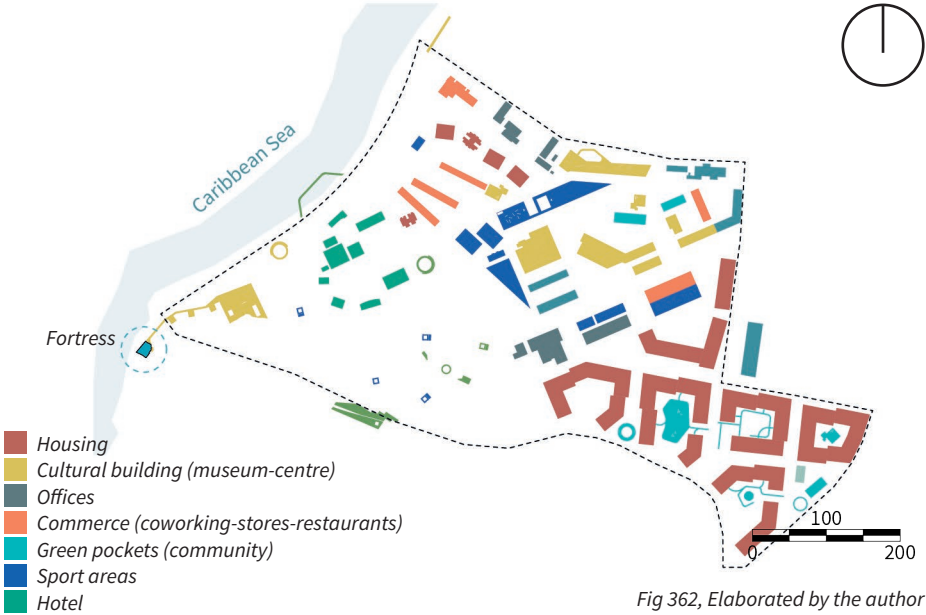
4. Urban answer - Nodal system



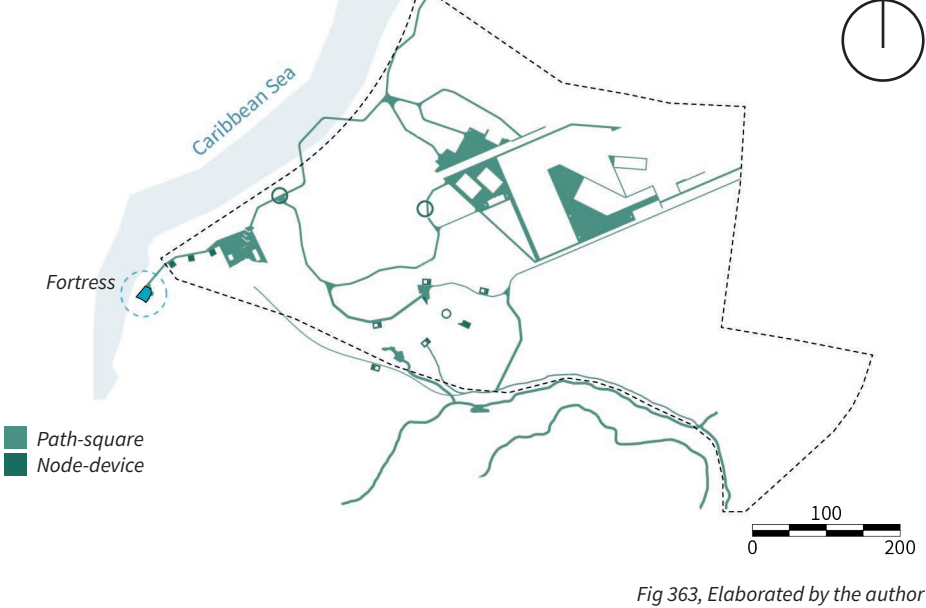
Through a system of plazas and nodes, there is created a nodal urban system in which the path to the
Fortress of San Fernando is characterized for cultural, contemplative, and nature-related activities.
Fig 359, Elaborated by the author



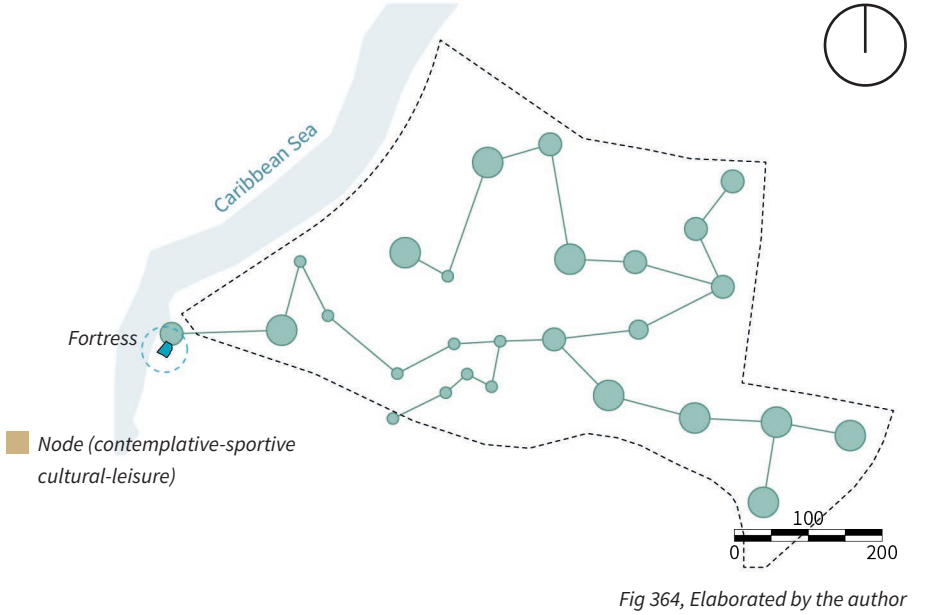
1. Functions



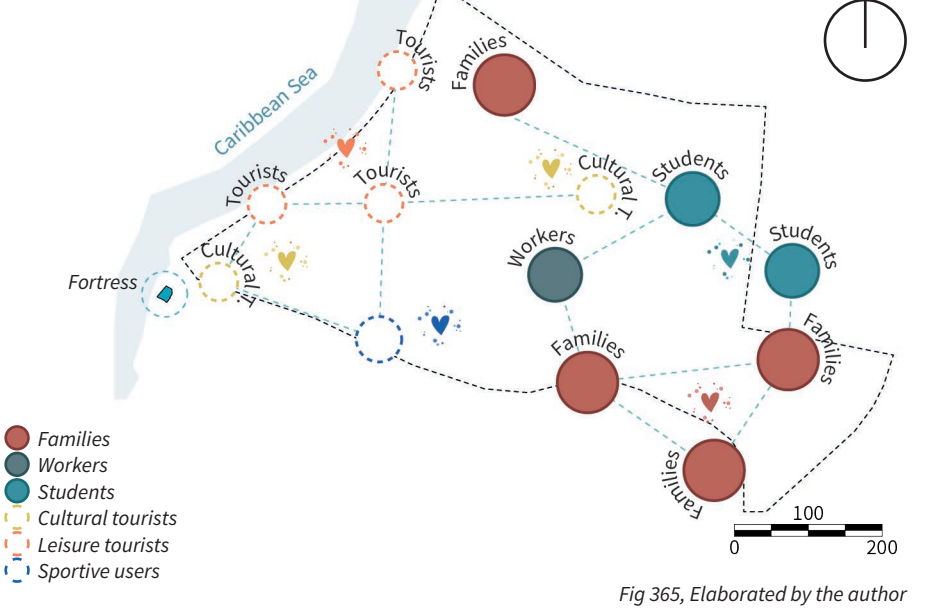
3. Path



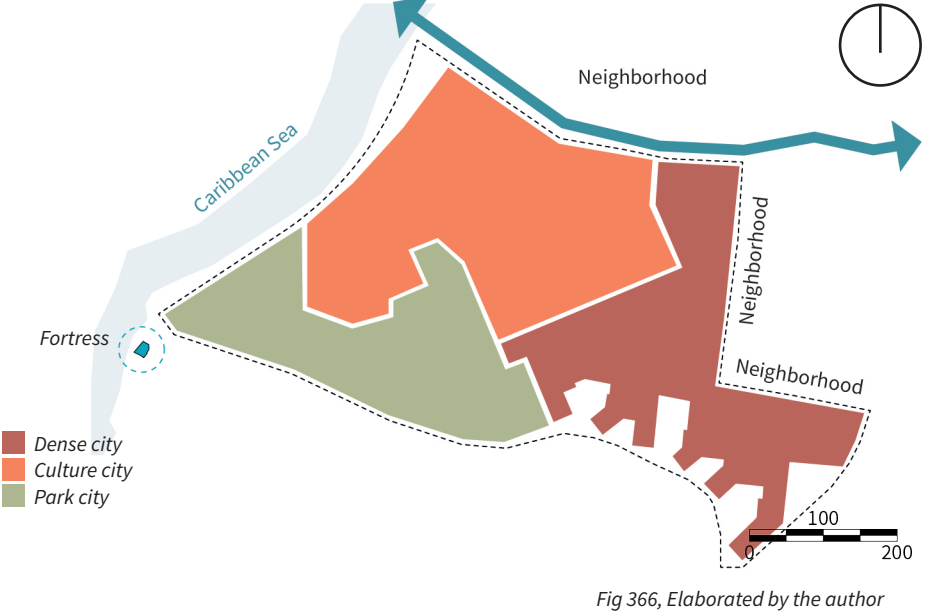
2. Nodal system



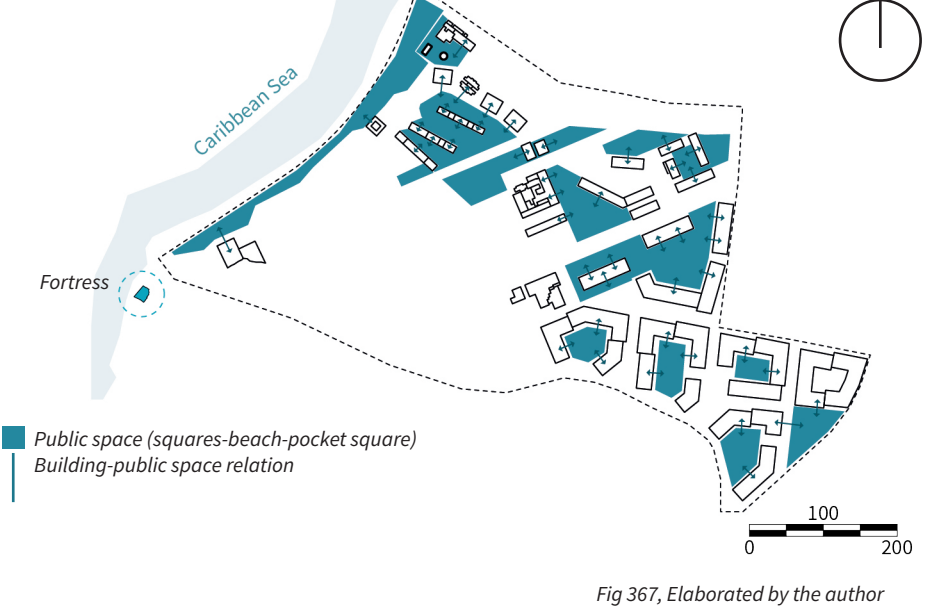
4. Users - community making



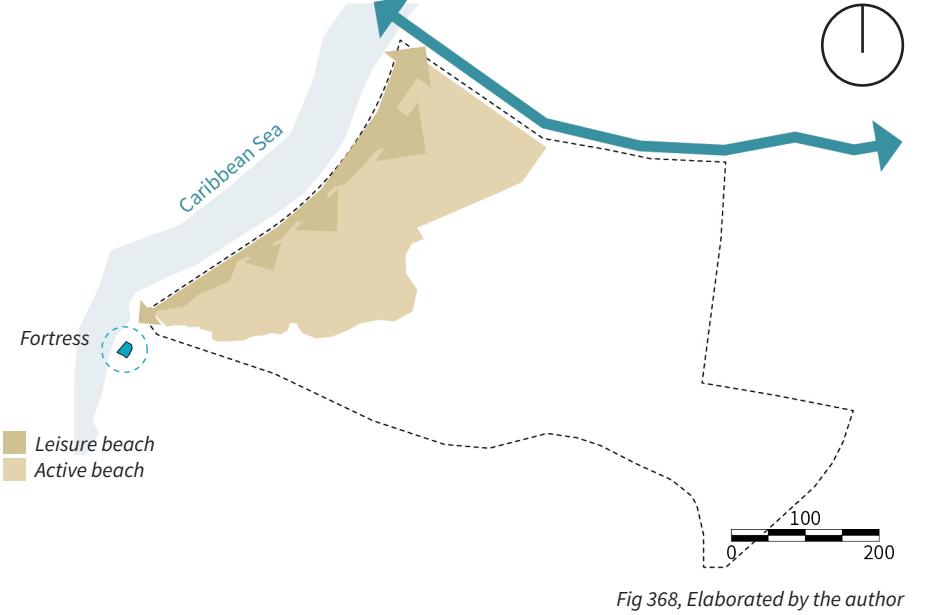
5. Dense city, culture city, park city



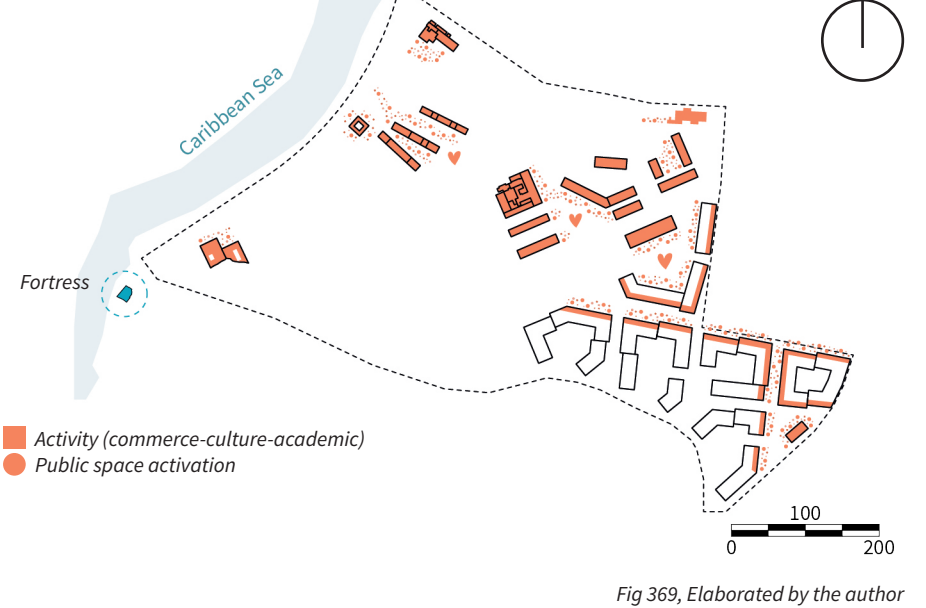
7. Public space - buildings



6. Beach recovery



8. Activation of public space



Fortress heritage communication

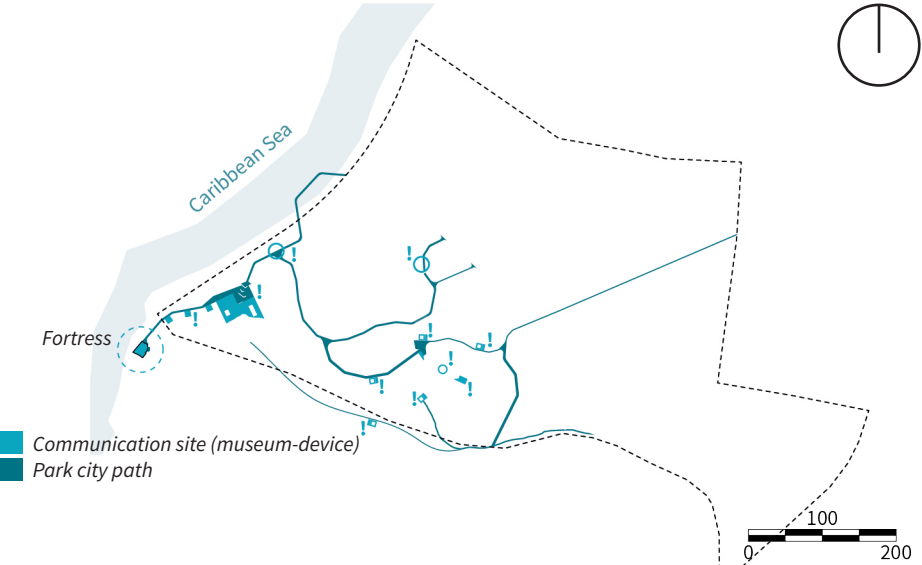


Fig 370, Elaborated by the author

Plazas

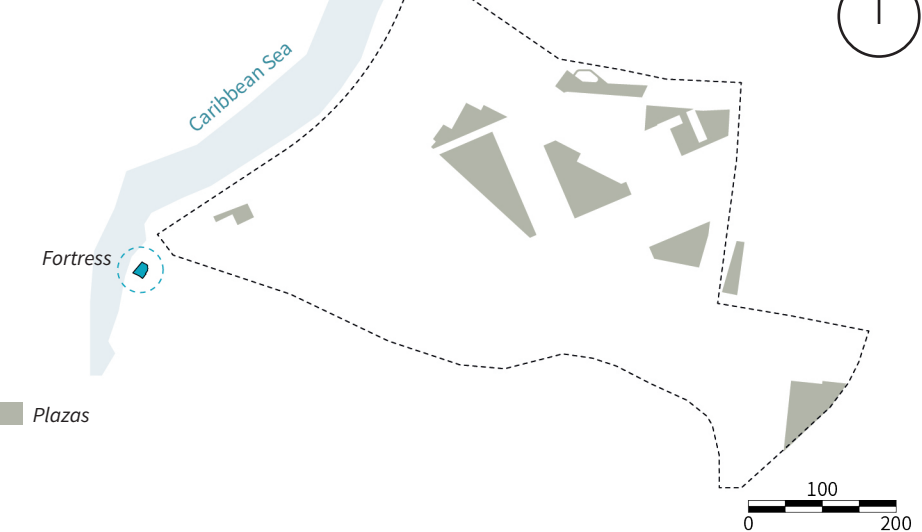


Fig 371, Elaborated by the author

Greenery

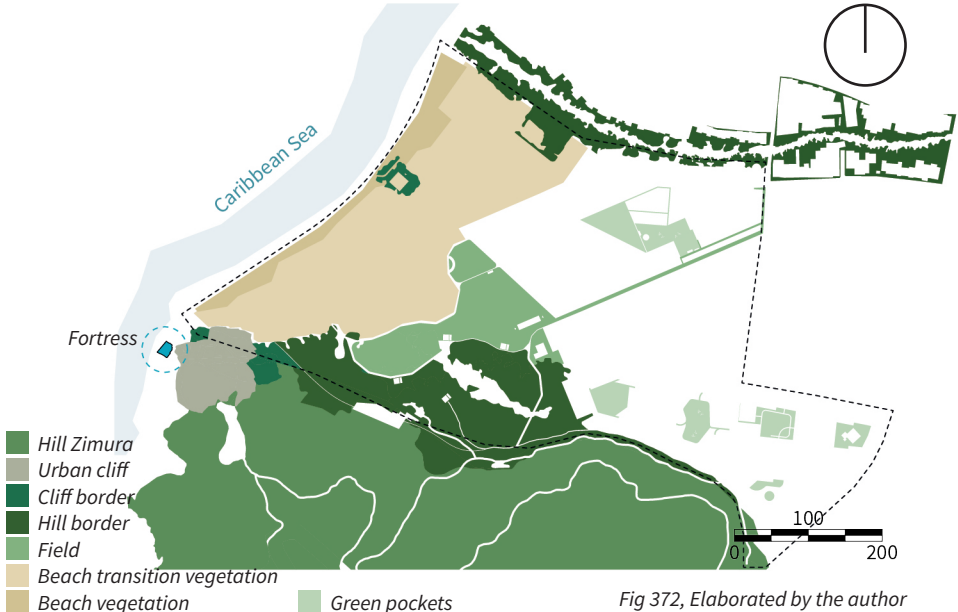


Fig 372, Elaborated by the author

Accessibility

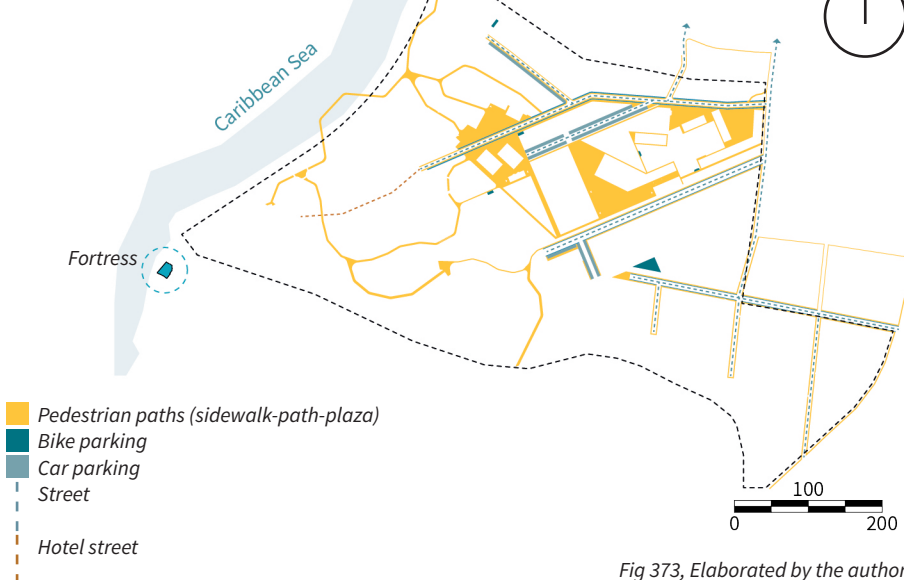


Fig 373, Elaborated by the author

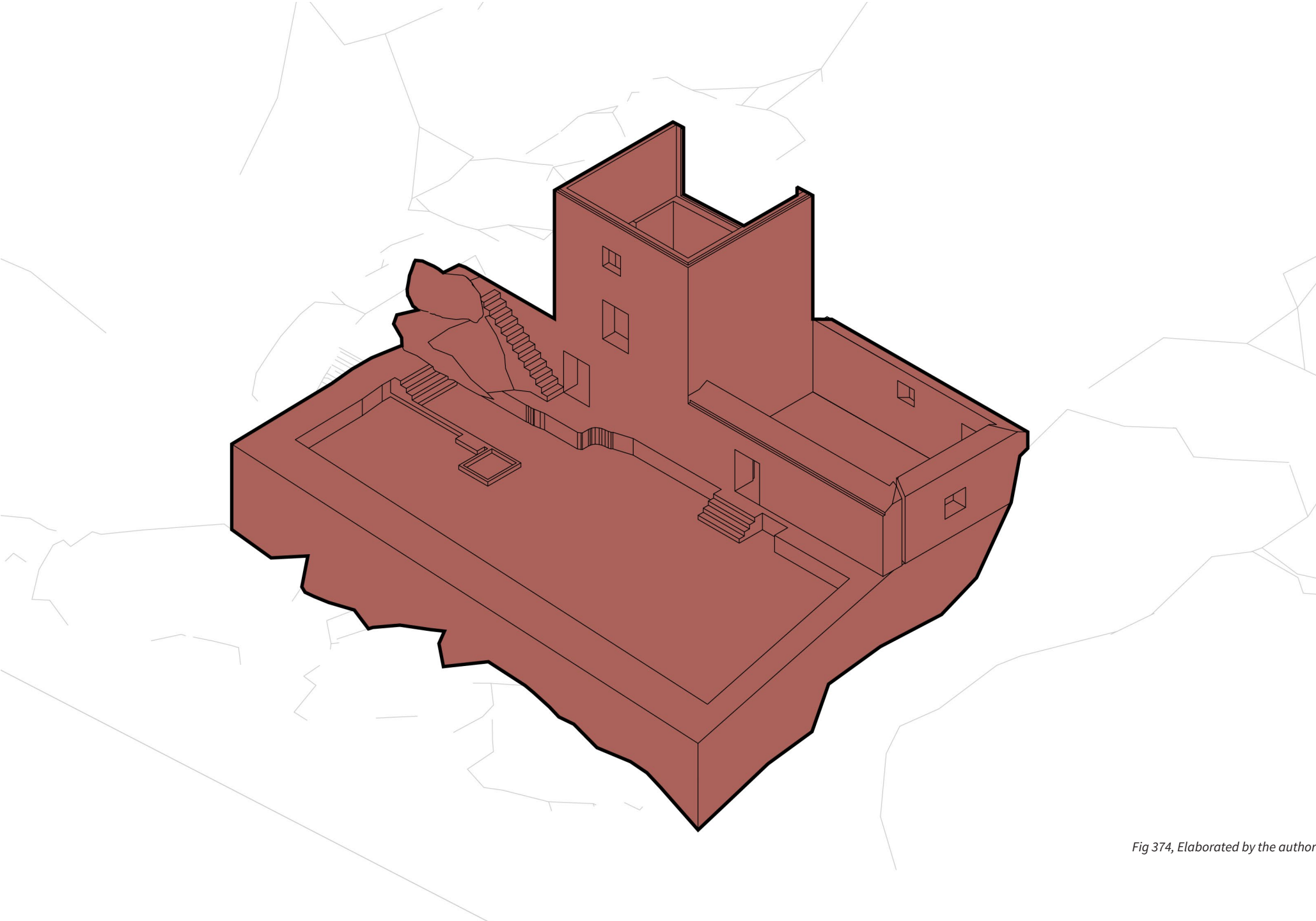
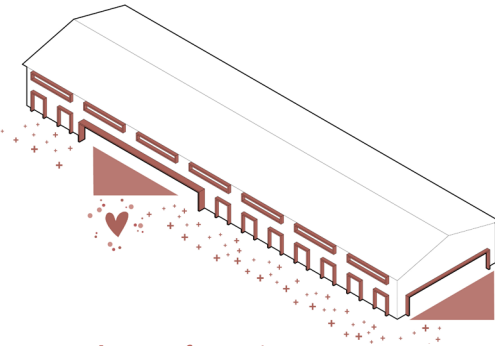


Fig 374, Elaborated by the author

Building interventions

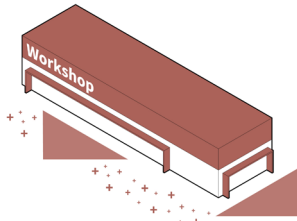
Building typology 1:



Approach: Transformation
Current function: Barracks
New function: Commerce and Co-working
Ground floor area: 1.932 m²
Total area: 3.864 m²

Fig 375, Elaborated by the author

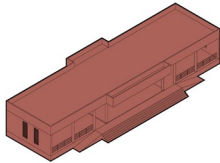
Building typology 2:



Approach: Transformation
Current function: Offices
New function: Workshop and exhibition
Ground floor area: m²
Total area: m²

Fig 376, Elaborated by the author

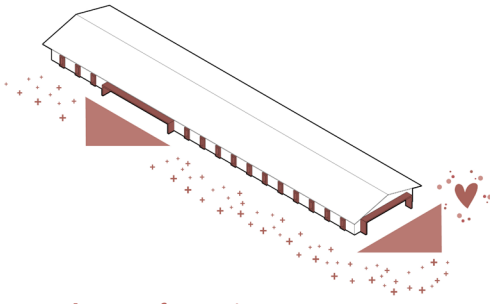
Building typology 3:



Approach: Demolition
Current function: Stage
New function: None
Ground floor area: 411 m²
Total area: 411 m²

Fig 377, Elaborated by the author

Building typology 4:

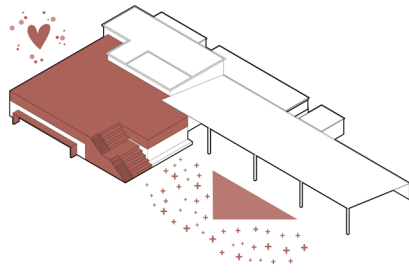


Approach: Transformation
Current function: Barracks
New function: Workshops arts and crafts
Ground floor area: 1.050 m²
Total area: 1.050 m²

Fig 378, Elaborated by the author

Building interventions

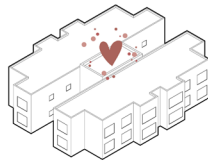
Building typology 9:



Approach: Transformation
Current function: Garage
New function: Commerce restaurants
Ground floor area: 1.363 m²
Total area: 1.573 m²

Fig 383, Elaborated by the author

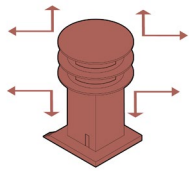
Building typology 10:



Approach: Reuse
Current function: Housing
New function: Housing
Ground floor area: 506 m²
Total area: 1.012 m²

Fig 384, Elaborated by the author

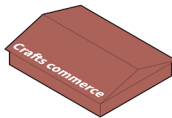
Building typology 11:



Approach: Reuse
Current function: Control tower
New function: View tower (attraction)
Ground floor area: 113 m²
Total area: 262 m²

Fig 385, Elaborated by the author

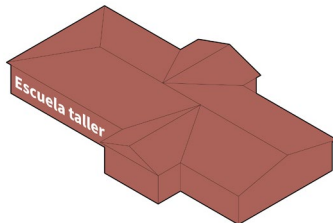
Building typology 12:



Approach: Transformation
Current function: Barracks
New function: Commerce and leisure
Ground floor area: 2.016 m²
Total area: 2.016 m²

Fig 386, Elaborated by the author

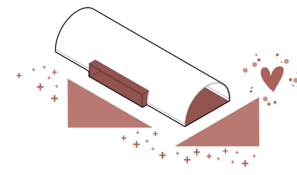
Building typology 5:



Approach: Transformation
Current function: Offices
New function: Escuela taller
Ground floor area: 1.477 m²
Total area: 2.439 m²

Fig 379, Elaborated by the author

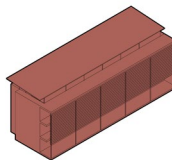
Building typology 6:



Approach: Recycling
Current function: Barracks
New function: Sport and picnic shelter
Ground floor area: 290 / 400 m²
Total area: 690 m²

Fig 380, Elaborated by the author

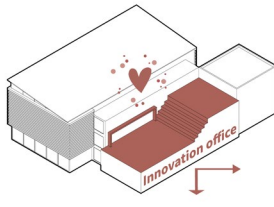
Building typology 7:



Approach: Reuse
Current function: Offices
New function: Office
Ground floor area: 736 m²
Total area: 2.208 m²

Fig 381, Elaborated by the author

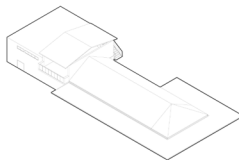
Building typology 8:



Approach: Reuse
Current function: Offices
New function: Innovation office
Ground floor area: m²
Total area: m²

Fig 382, Elaborated by the author

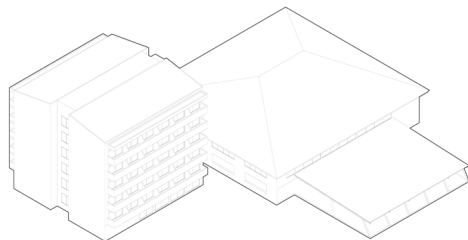
Building typology 13:



Approach: None
Current function: Hotel restaurant
Function: Hotel restaurant
Ground floor area: 322 m²
Total area: 446 m²

Fig 387, Elaborated by the author

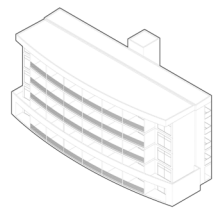
Building typology 14:



Approach: None
Current function: Hotel
Function: Hotel
Ground floor area: 1.858 m²
Total area: 5.366 m²

Fig 388, Elaborated by the author

Building typology 15:



Approach: None
Current function: Hotel
Function: Hotel
Ground floor area: 383 m²
Total area: 1.915 m²

Fig 389, Elaborated by the author

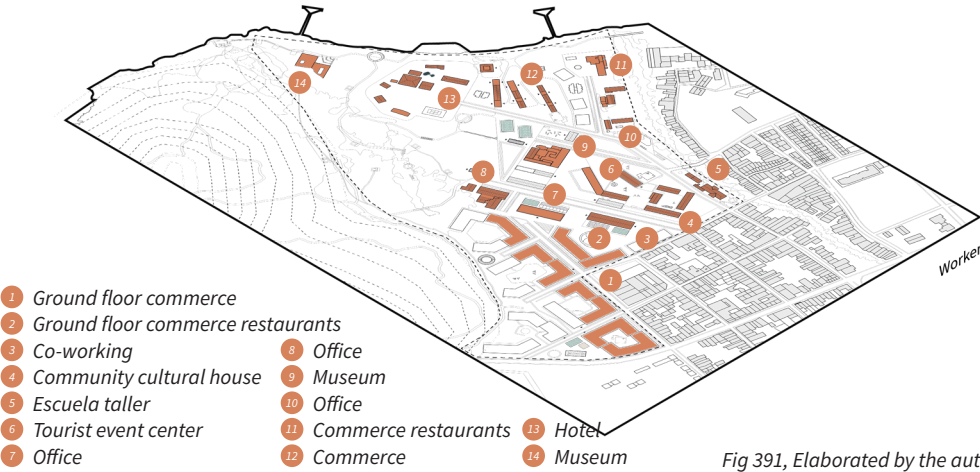
Project Master plan, building users

1. Citizens



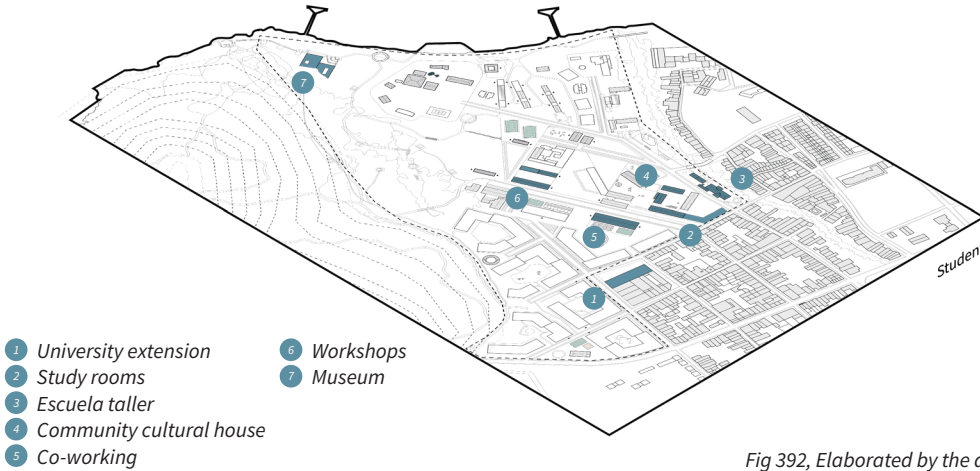
The housing areas implemented in the master plan allows the site to be inhabited all year long by a permanent community, with the objective to create a community value at the site.

3. Workers



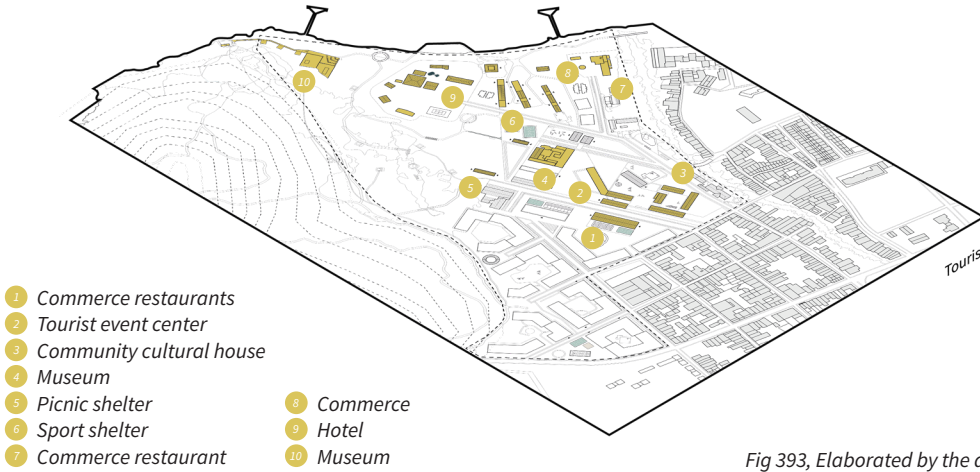
The functions proposed in the master plan, allow the creation of new commercial, cultural and touristic activities, which allow the creation of new jobs for the community.

2. Students



As part of the objectives to enhance human quality, the master plan proposes a series of functions, where people can learn, and share knowledge and culture.

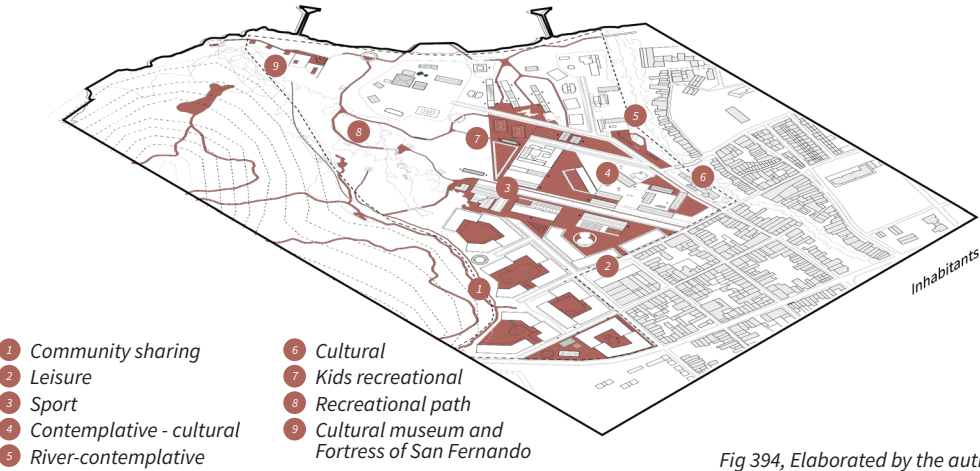
4. Tourists



As part of the objective to enhance the cultural and museum nodes in the city, the master plan proposes a series of touristic attractions or functions, which allow the relation with natural and cultural values.

Project Master plan, public space users

1. Citizens



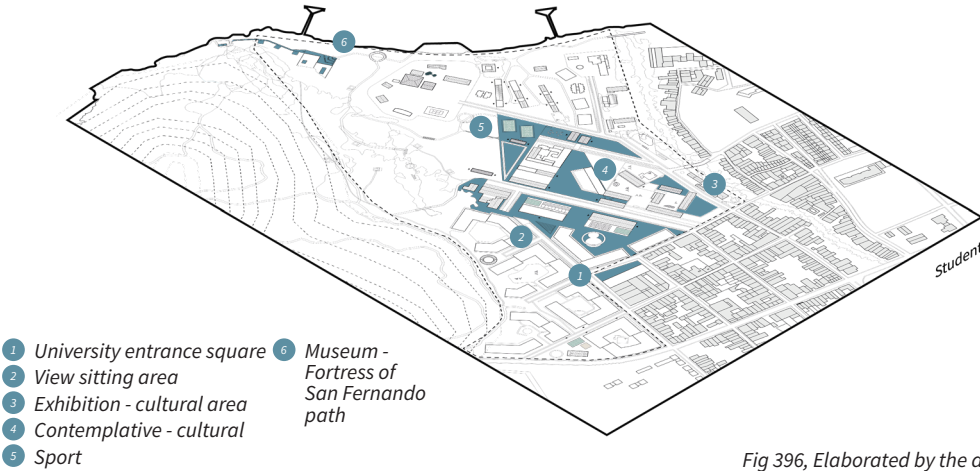
The master plan proposes a series of paths, nodes, and squares, which invite inhabitants to live the site and explore its cultural and natural values.

3. Workers



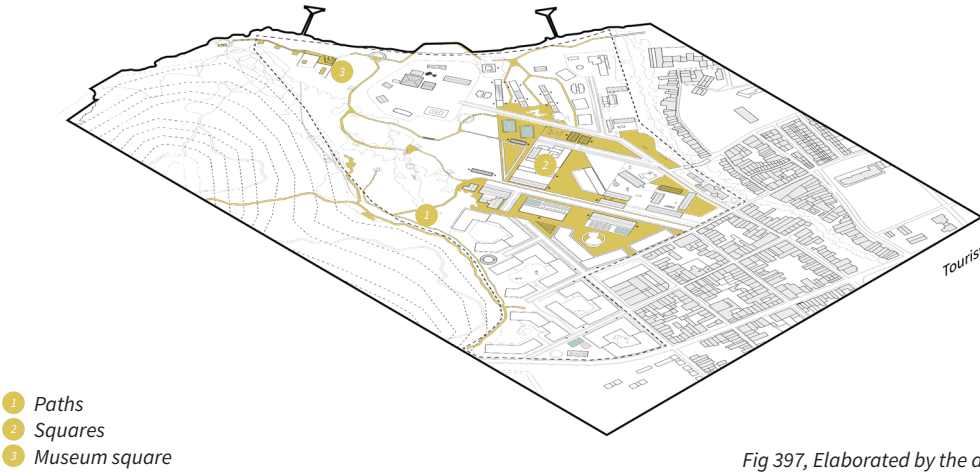
The master plan contemplates sportive, recreational and contemplative public spaces for the working community, in order to provide functions that complement their relation with the city.

2. Students



In order to enhance the relation that the educative community has with the site, the master plan proposes areas, where the community can share their knowledge, create relations and enjoy the site.

4. Tourists



Through a sequence of squares, paths and view points, tourists are invited to enjoy the public space and create a stronger relation with the city's culture, history and values.

Project Master plan, users times
Monday to Friday times

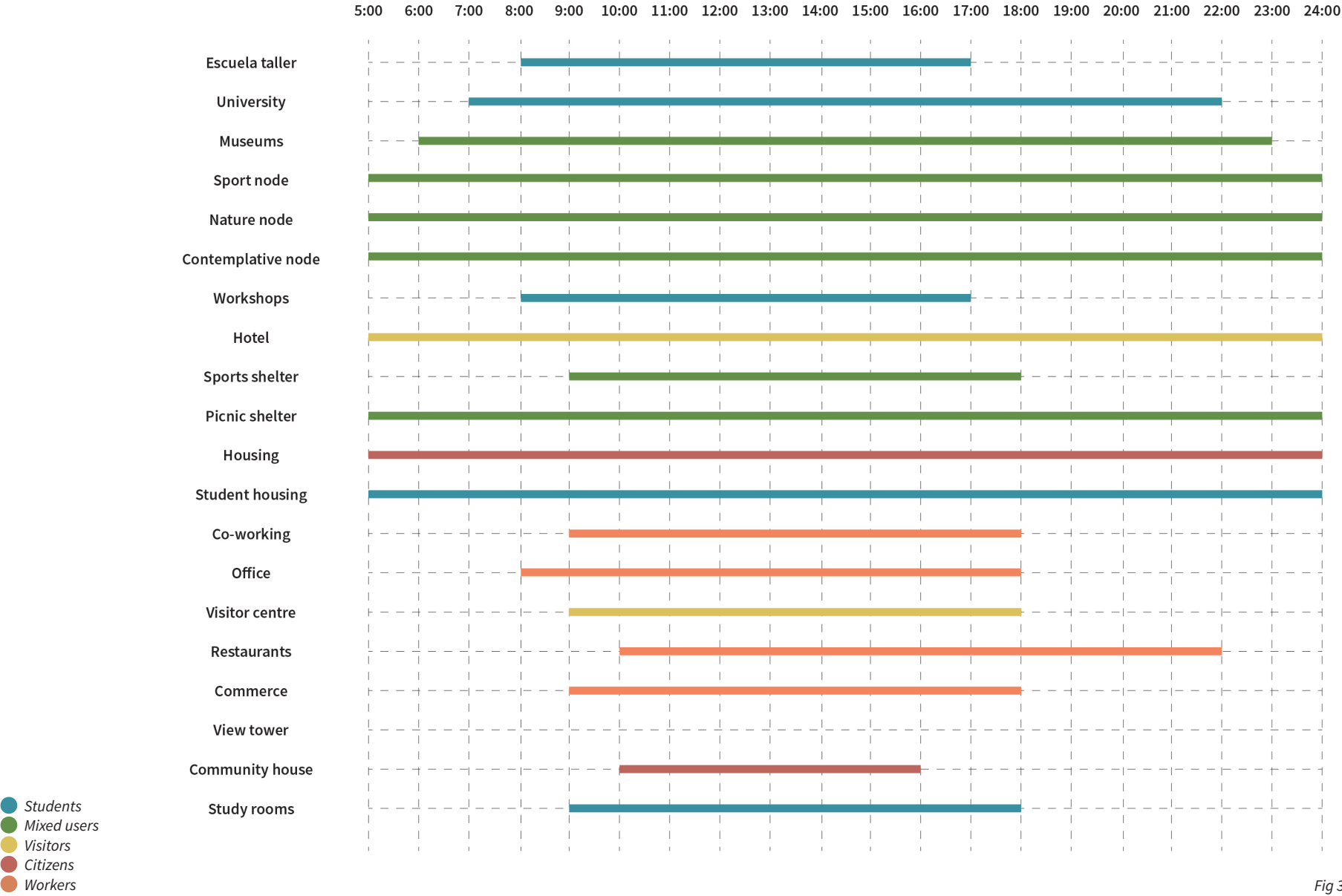


Fig 398, Elaborated by the author

Project Master plan, users times
Saturday to Sunday times

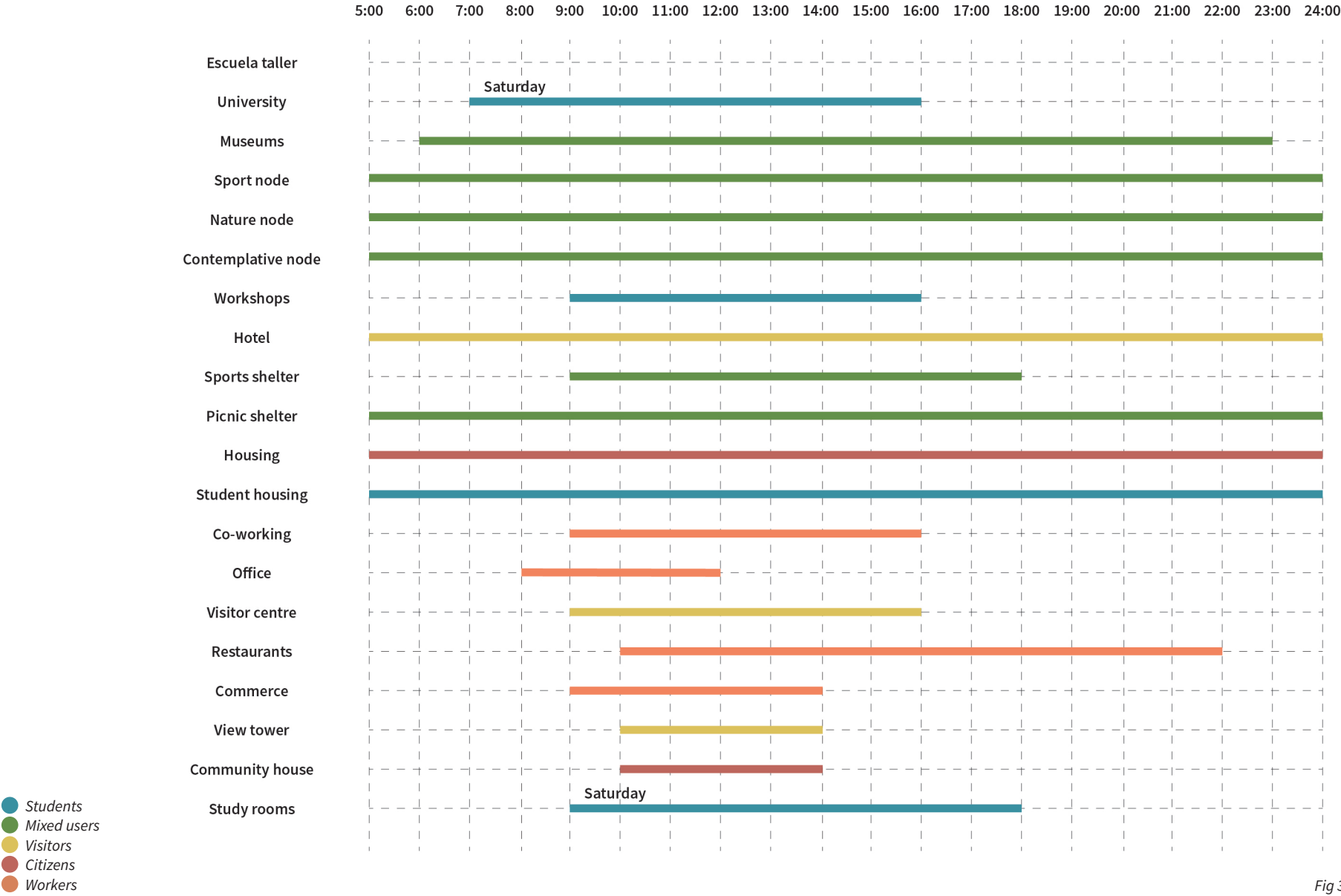


Fig 399, Elaborated by the author



Fig 400



Fig 401



Fig 402

Lessons from the urban references:

From the urban references studied in the previous chapter (The Suomenlinna Sea Fortress, The Citadel of Spandau, and the Castillo de San Felipe de Barajas), there are highlighted five lessons to take into consideration.

1. Inclusive and accessible for all:

Promote and provide the social integration of people, in order to create a sharing environment, where communities are created, social and cultural values strength, and accessibility to cultural sites are enhanced.

2. Community values and identity:

Enhance the community values around the heritage cultural sites, by means of cultural activities, in order to create an identity and relation between the heritage site and the community.

3. Multi-functional:

Promote the multifunction development around the sites, in order to allow a diverse access of users, in order to increase, the values and relations with the heritage site.

4. Protected:

Provide a balanced buffer zone around the site, in order to allow a control urban growth and a protection for the sites values and characteristics.

5. Natural and Architectural values:

Strengthen the relation between the surrounding natural landscape and the sites, in order to enhance the landscape heritage system as a unique element.

Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.



Fig 403, Elaborated by the author

1. Inclusive and accessible for all:

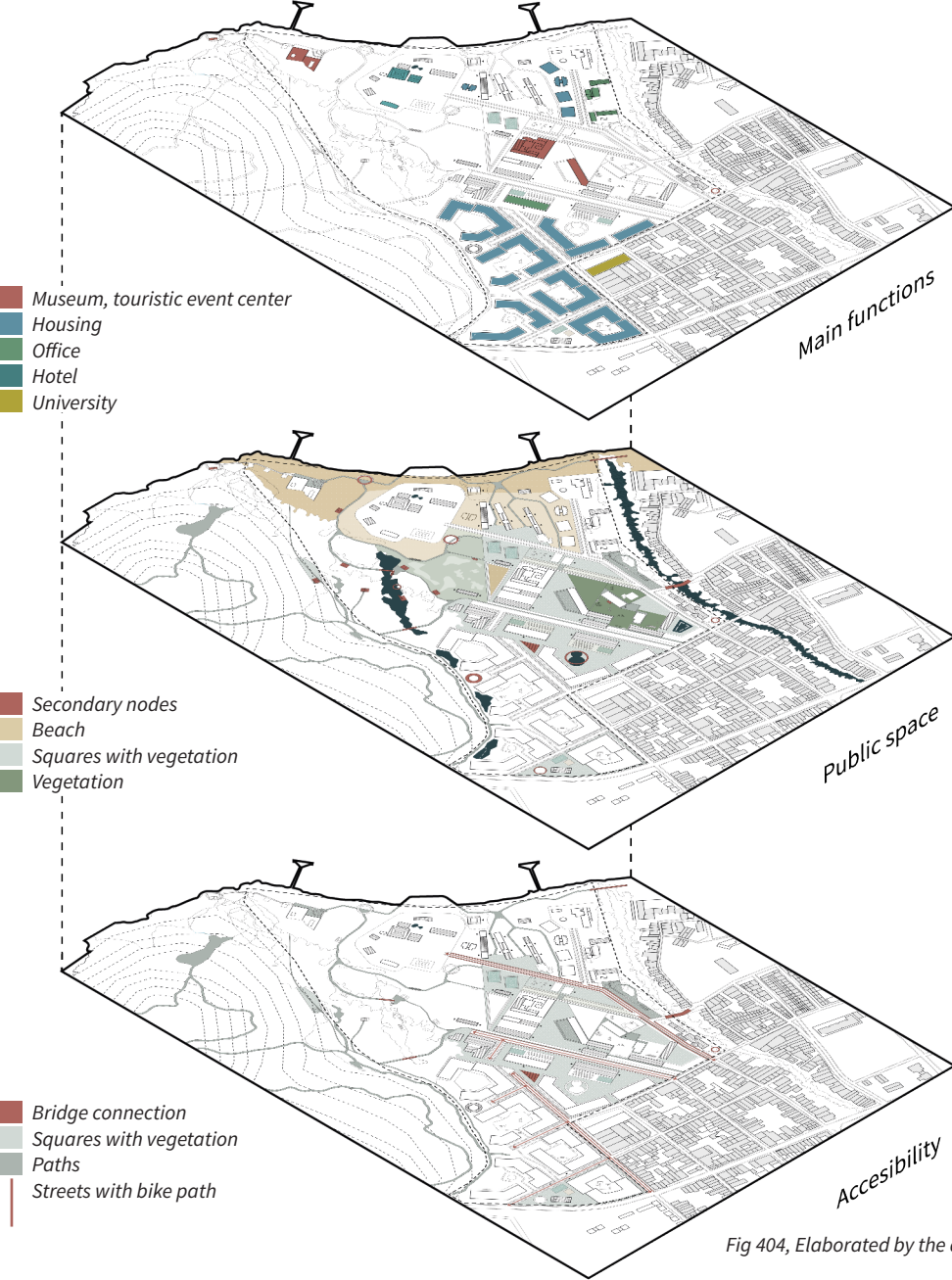


Fig 404, Elaborated by the author

2. Community values and identity:

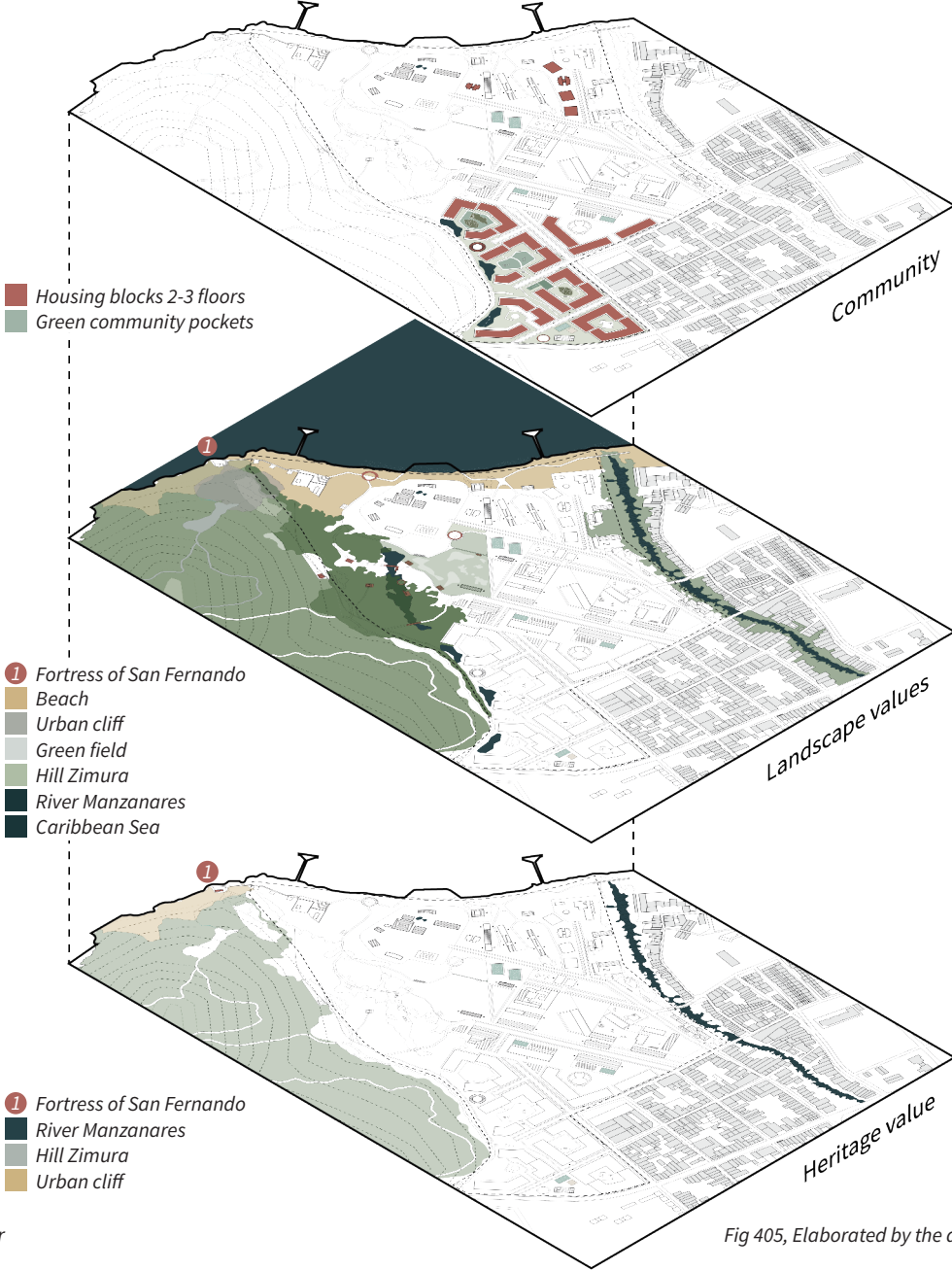


Fig 405, Elaborated by the author

3. Multi-functional:

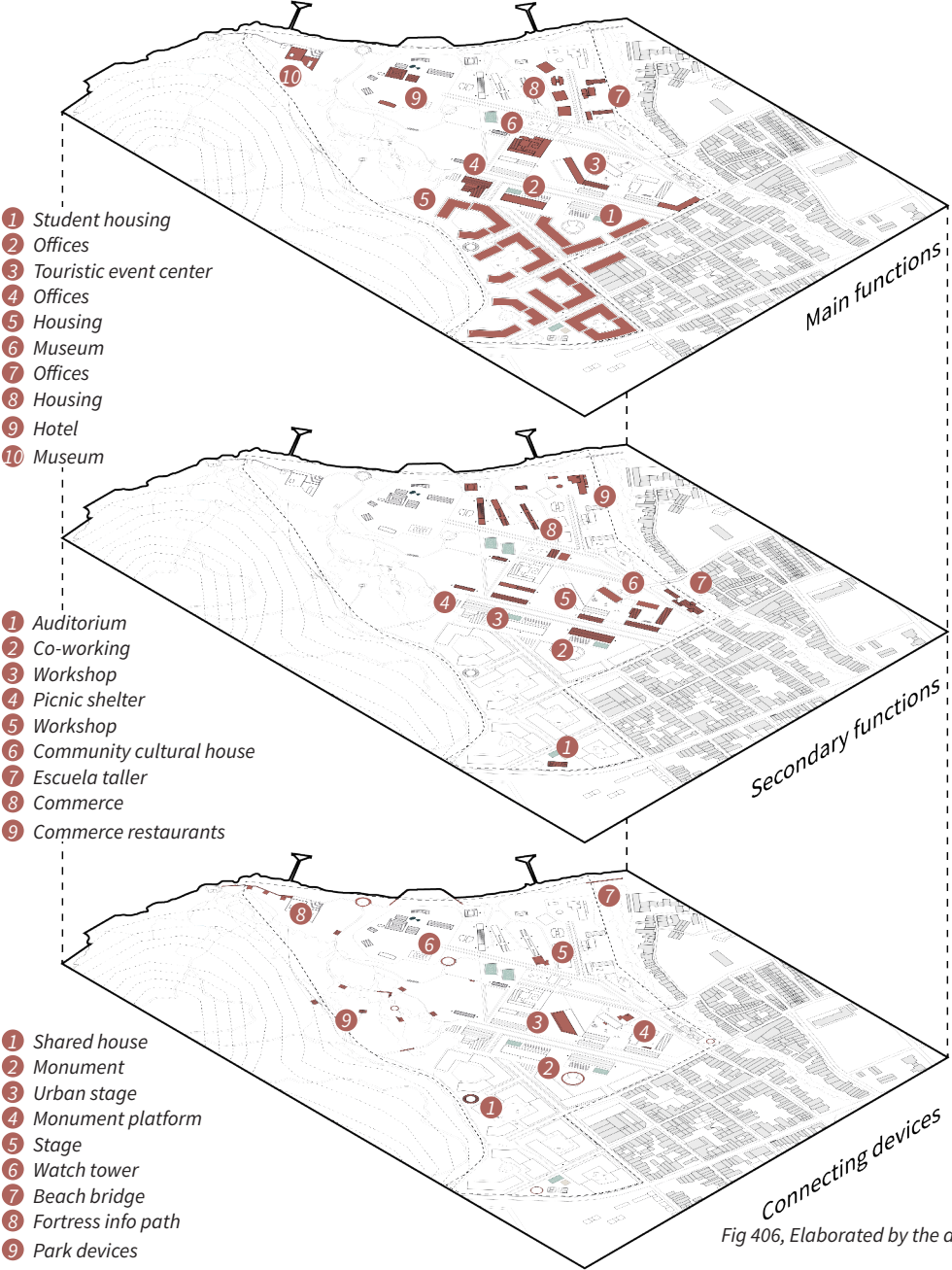


Fig 406, Elaborated by the author

4. Protected:

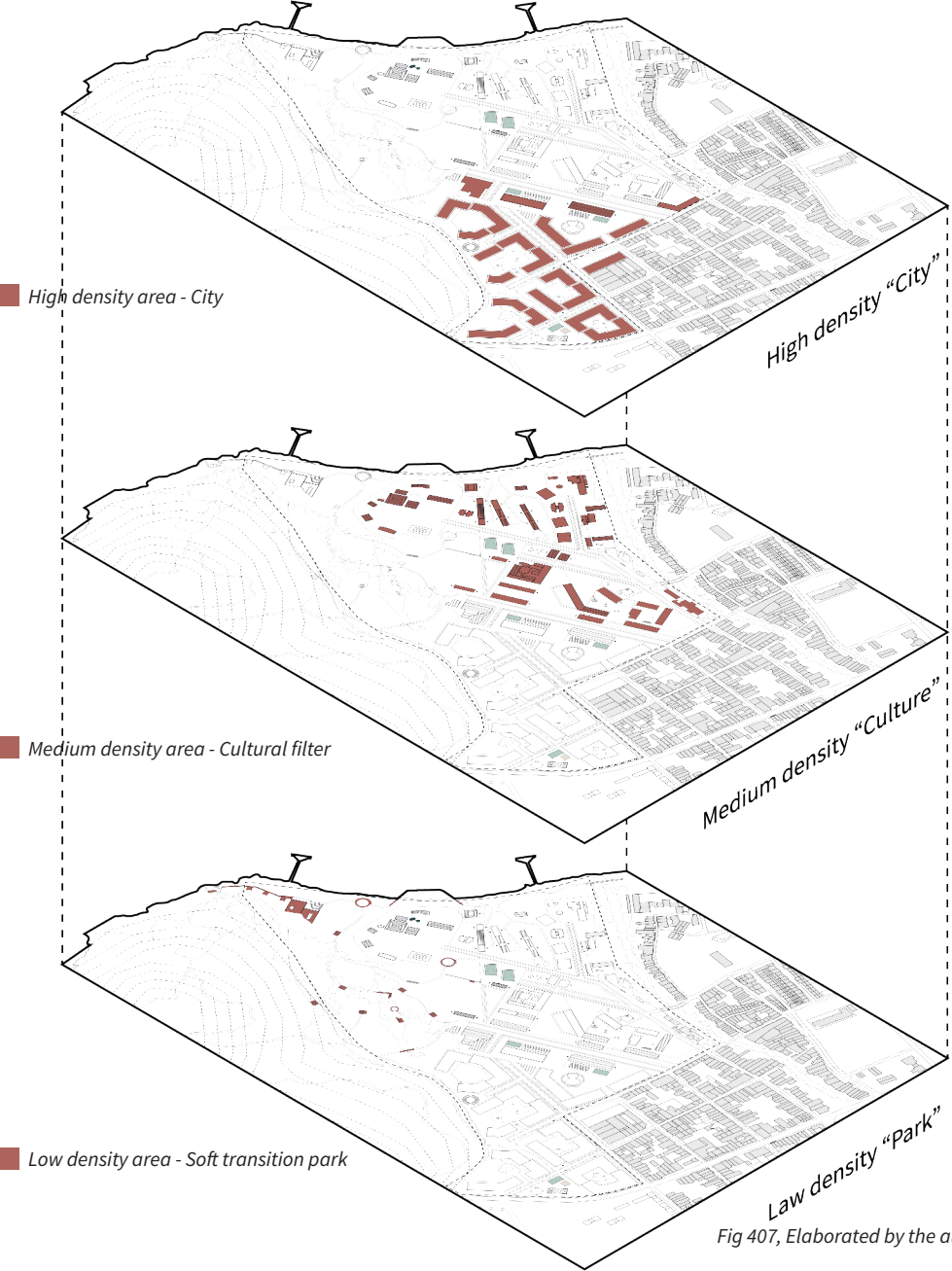


Fig 407, Elaborated by the author

5. Natural and Architectural values:

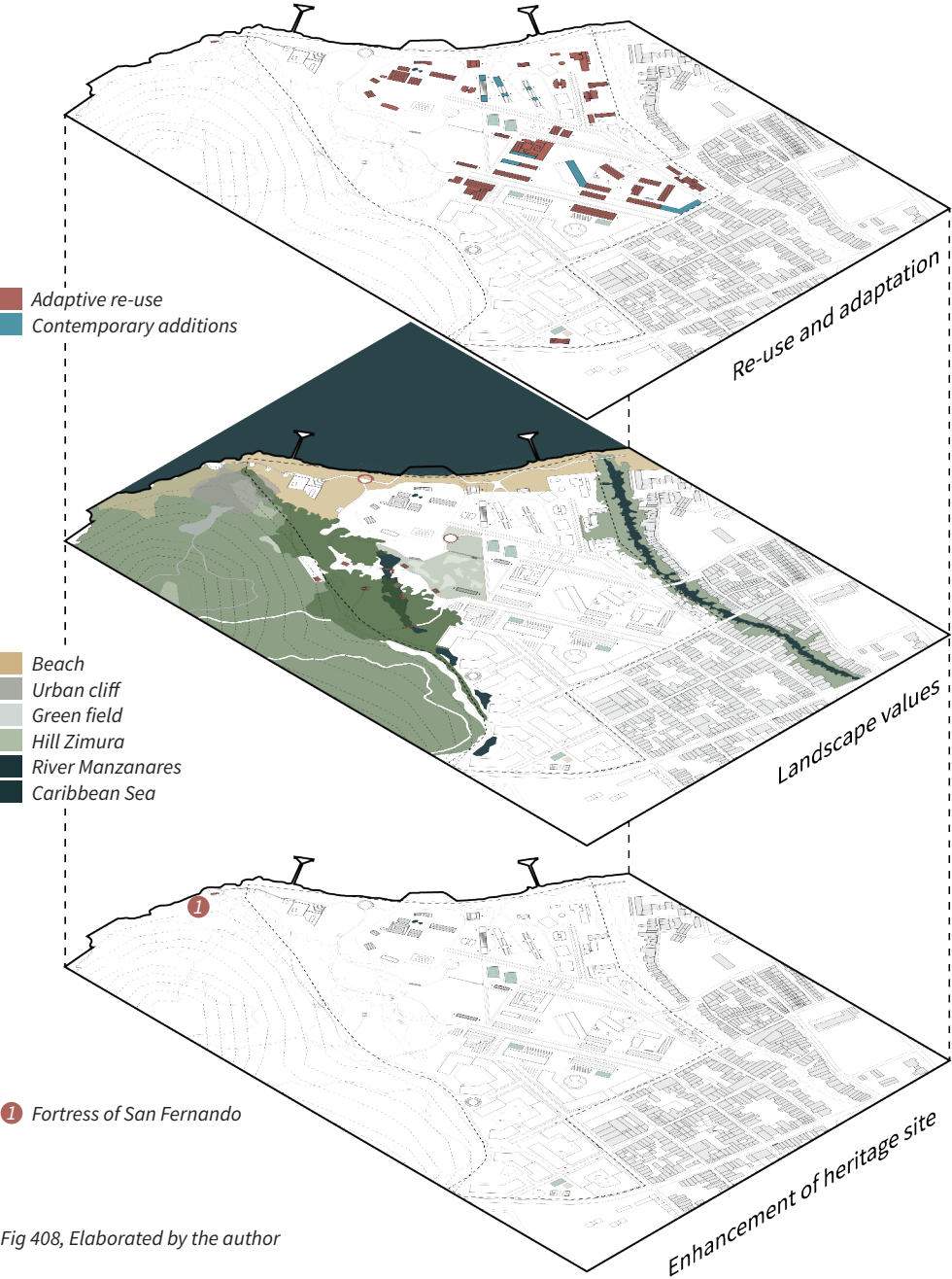


Fig 408, Elaborated by the author

Areas:

Fortress of San Fernando	Area
Building typology 1	3.864 M2
Building typology 2	0 M2
Building typology 3	411 M2
Building typology 4	1.050 M2
Building typology 5	2.439 M2
Building typology 6	690 M2
Building typology 7	2.208 M2
Building typology 8	0 M2
Building typology 9	1.573 M2
Building typology 10	1.012 M2
Building typology 11	262 M2
Building typology 12	2.016 M2
Building typology 13	446 M2
Building typology 14	5.366 M2
Building typology 15	1.915 M2
Museum	2.460 M2
Fortress	181 M2
Housing	95.664 M2

Fig 409, Elaborated by the author



Fig 410

Fortress of San Fernando + Museum/institute, *proposal*

The proposal for the fortress of San Fernando and the Museum / arts and crafts institute, seeks to developed the idea following the Master Plan guidelines for the reactivation around the fortress of San Fernando, and the fortress itself as a cultural nodal point of significance in the city, the project aims to developed a transition path from the dense city to the park city, where the fortress is located.

the idea of the project seeks to develope a path through which visitors and citizens, can experience and learn the history of the fortifications of the city, thoughout the relation with a series of “devices” which lead to the final nodal point which is the fortress of San Fernando.

As part of the Master plan, it has been proposed a museum / arts and crafts institute, which together with the fortress of San Fernando but as an enhancing building of the experience with the fortress, aims to communicate the history of the fortifications of the city and their importance throughout its history, while working as a “pulling” node, within the master plan.

As part of the master plan idea of the relation with the landscape, the project for the museum/ Arts and crafts institute, is the one to develope a balanced project where the landscape is a fundamental part of the building, therefore it is aimed to develop a project where the building evokes the relation that the fortresses have with their locations, aiming

to propose a project, where the building emerges from the terrain.

For the fortress of San Fernando, the project seeks to proposed an enhancing strategy for the ruin, where the ruin image of the buildings is preserved while, adapting the site, to held cultural activities, or work as a contemplative node, where visitors and citizens can develop new relations with the fortress.

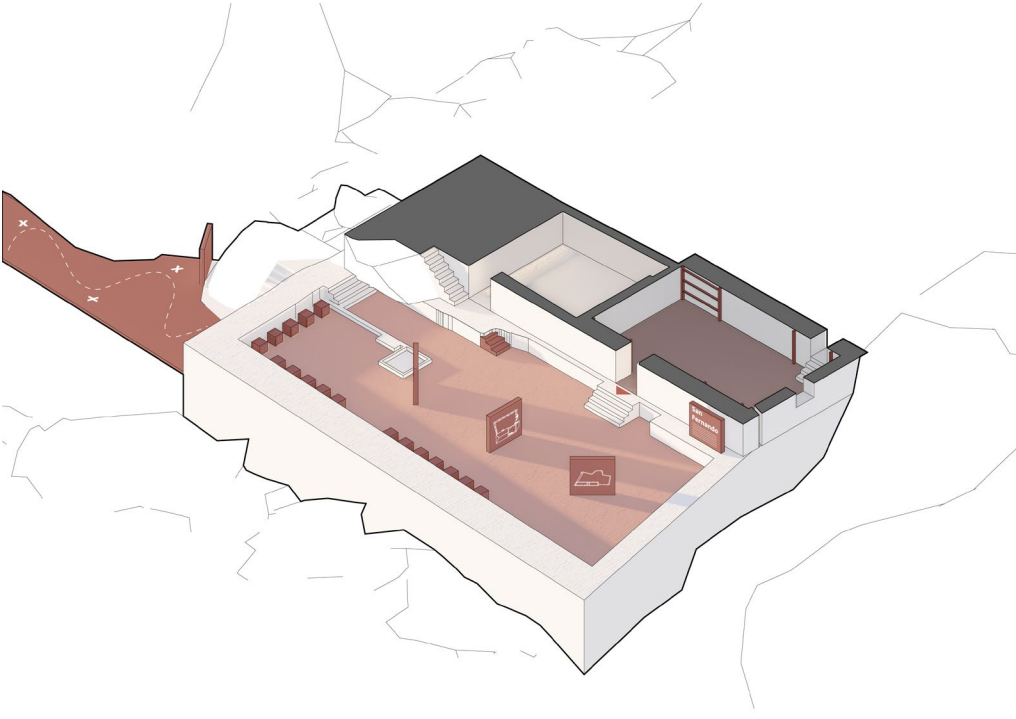
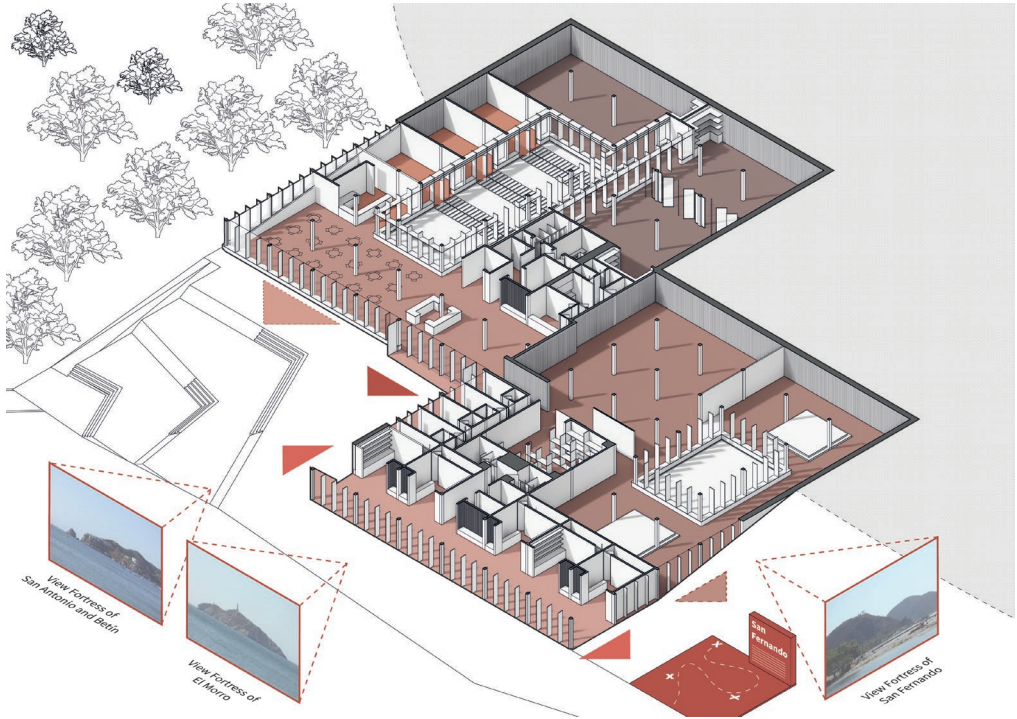


Fig 411, Elaborated by the author

The path San Fernando + Museum

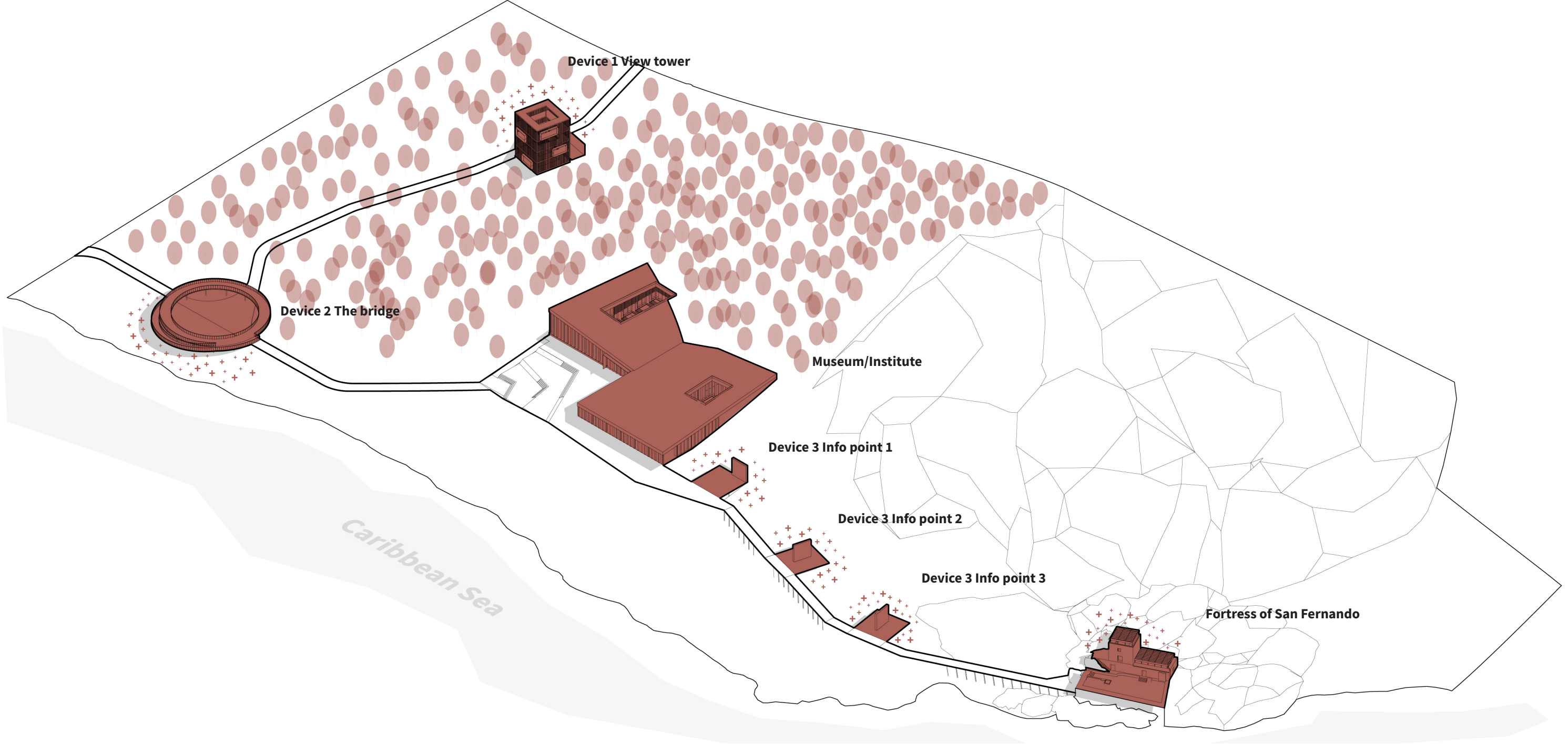


Fig 412, Elaborated by the author

Ground floor, Fortress of San Fernando + museum

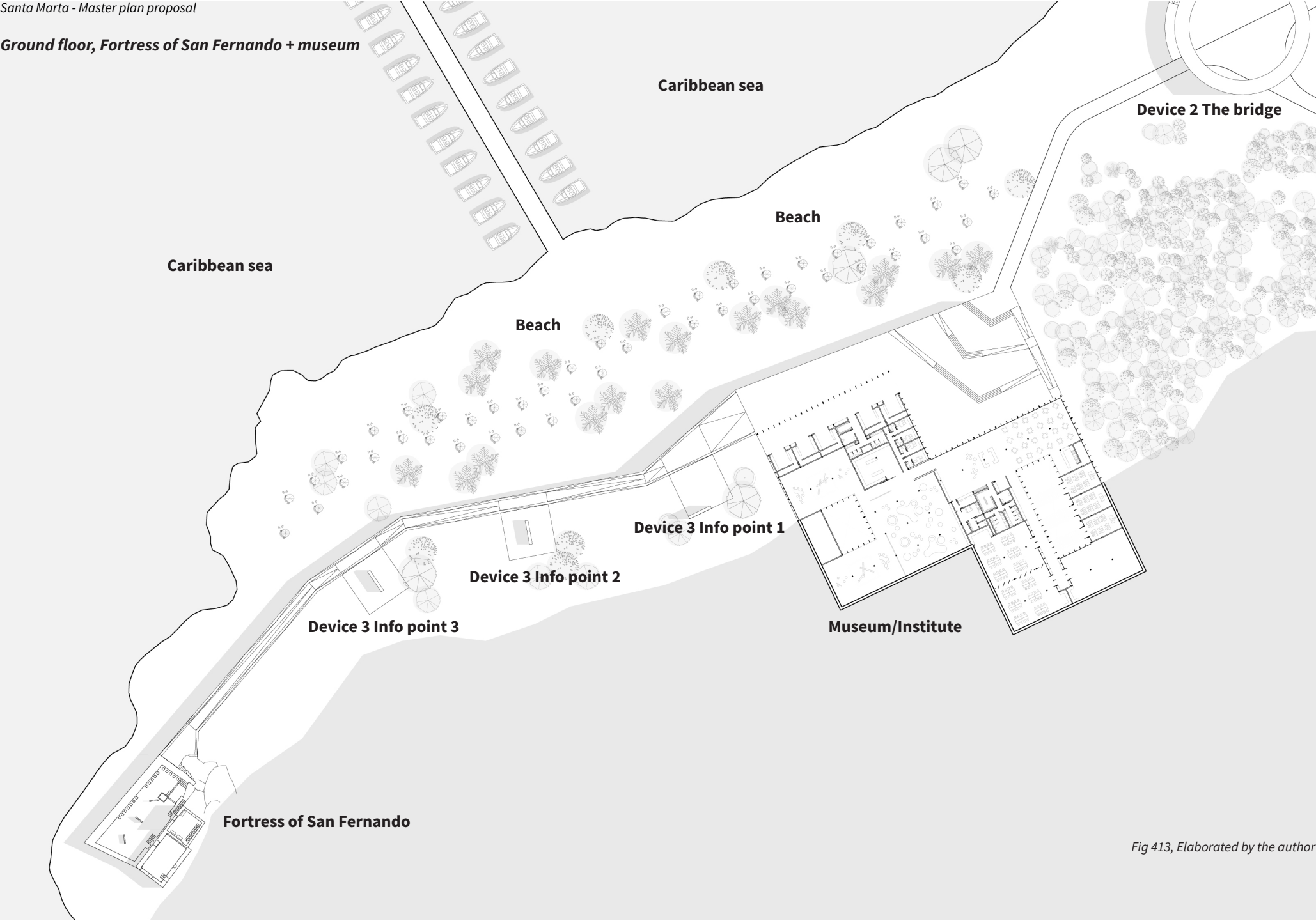


Fig 413, Elaborated by the author



Fig 414, Elaborated by the author

1. Museum/Institute area

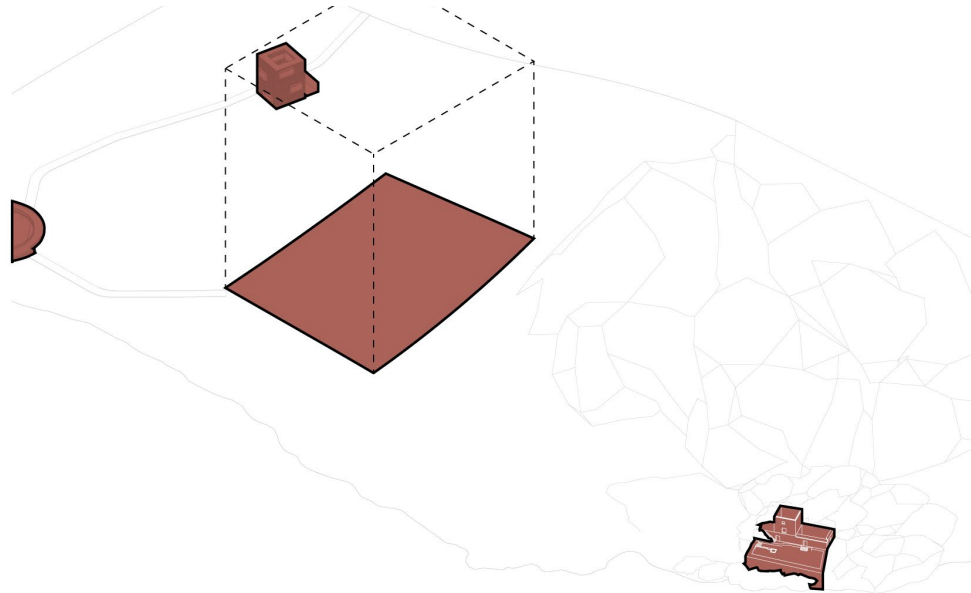


Fig 415, Elaborated by the author

2. Terrain modification

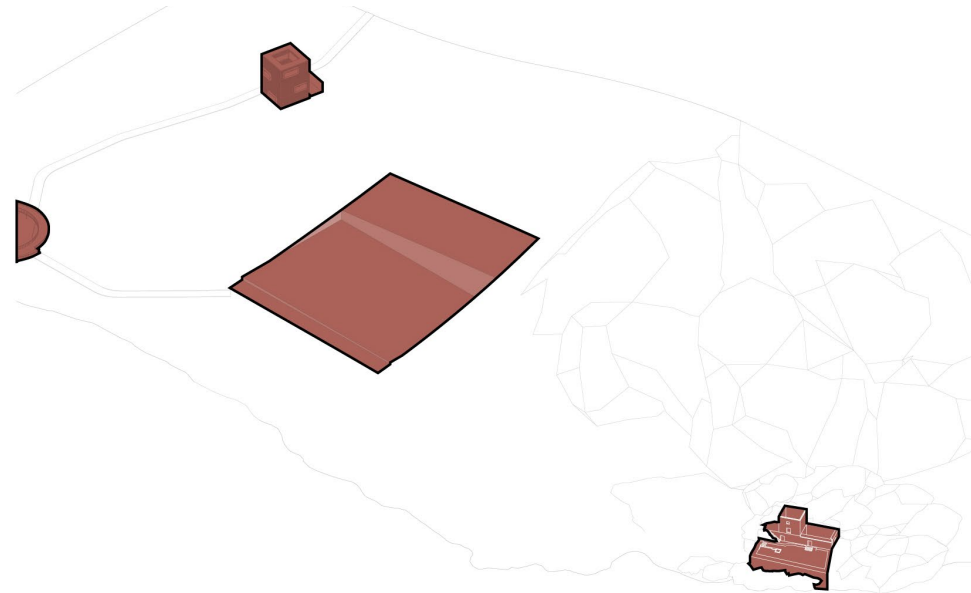


Fig 416, Elaborated by the author

3. Volume approach 1

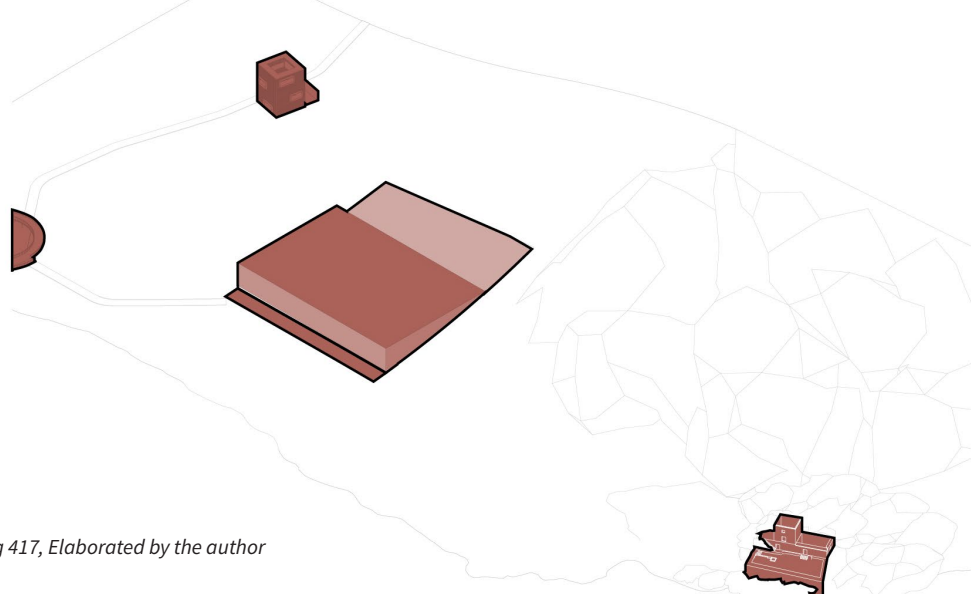


Fig 417, Elaborated by the author

4. Volume approach 2: split

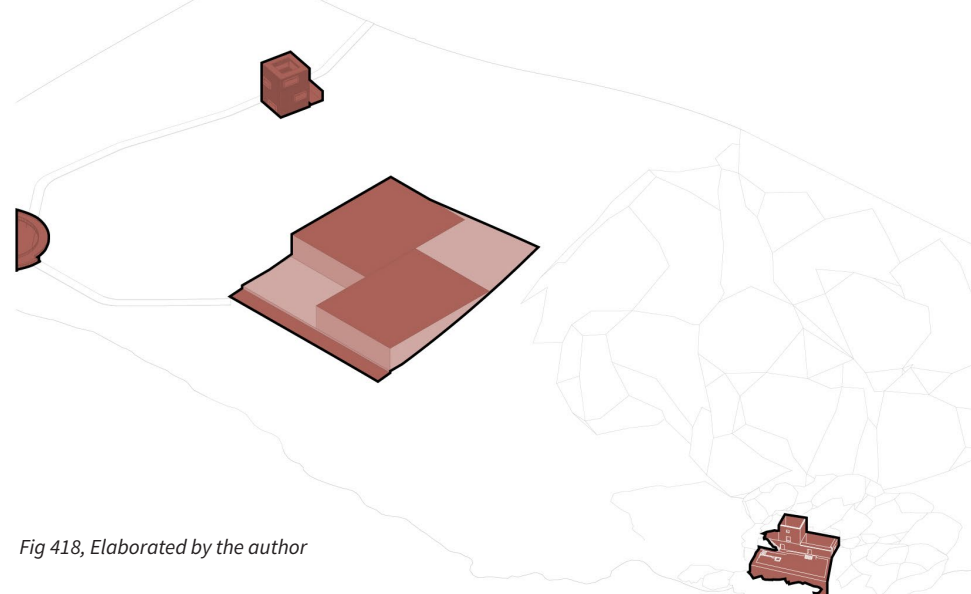


Fig 418, Elaborated by the author

5. Volume approach 3: roof modification

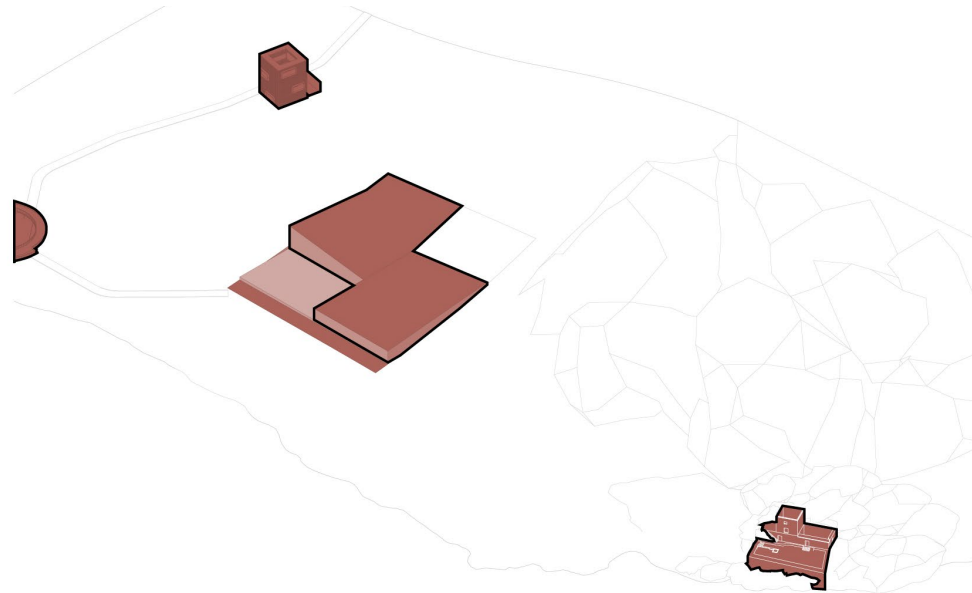


Fig 419, Elaborated by the author

6. Volume approach 4: Courtyards + Fortress link and roof

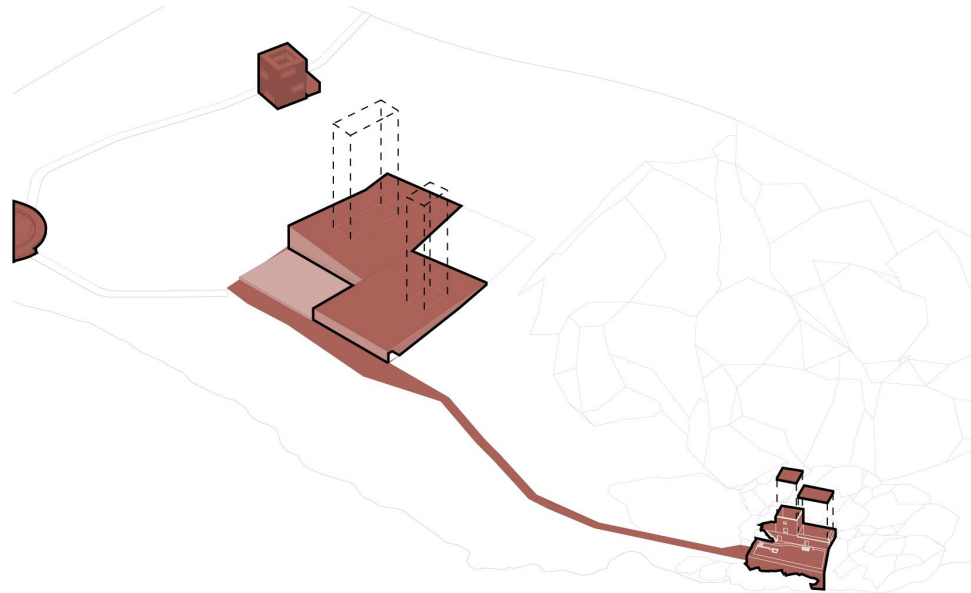


Fig 420, Elaborated by the author

7. Link activities

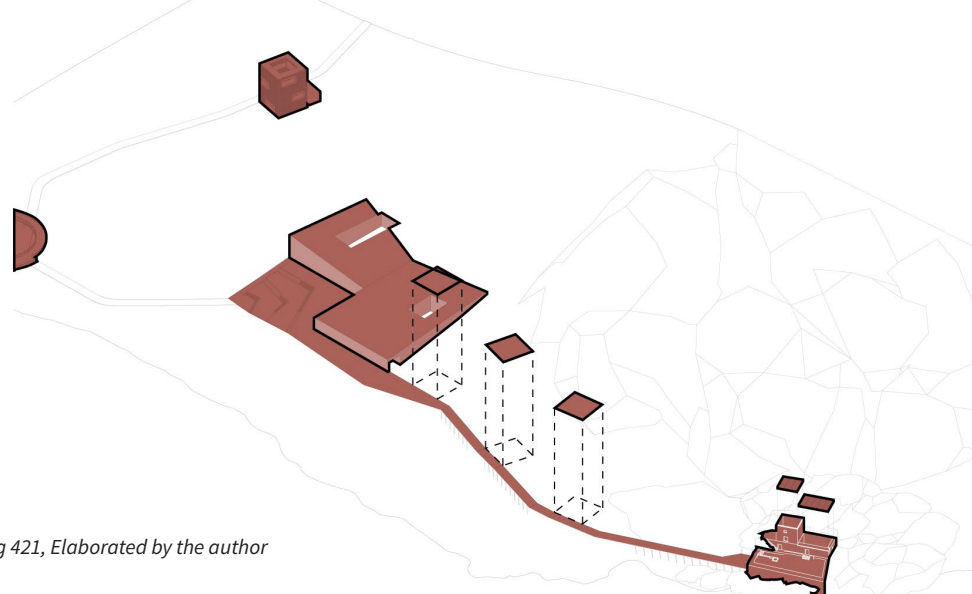


Fig 421, Elaborated by the author

8. Final volume

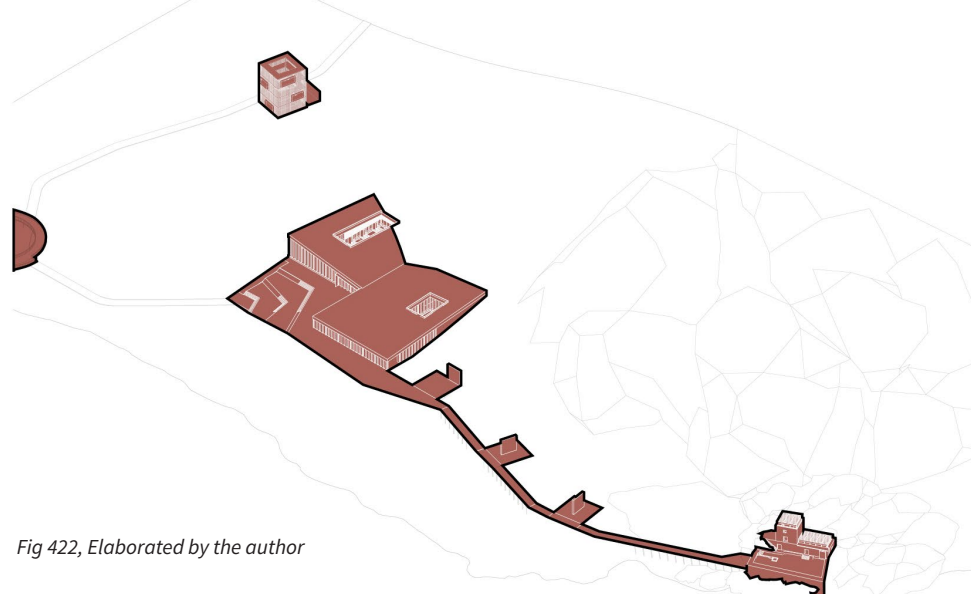


Fig 422, Elaborated by the author

1. View enhancement

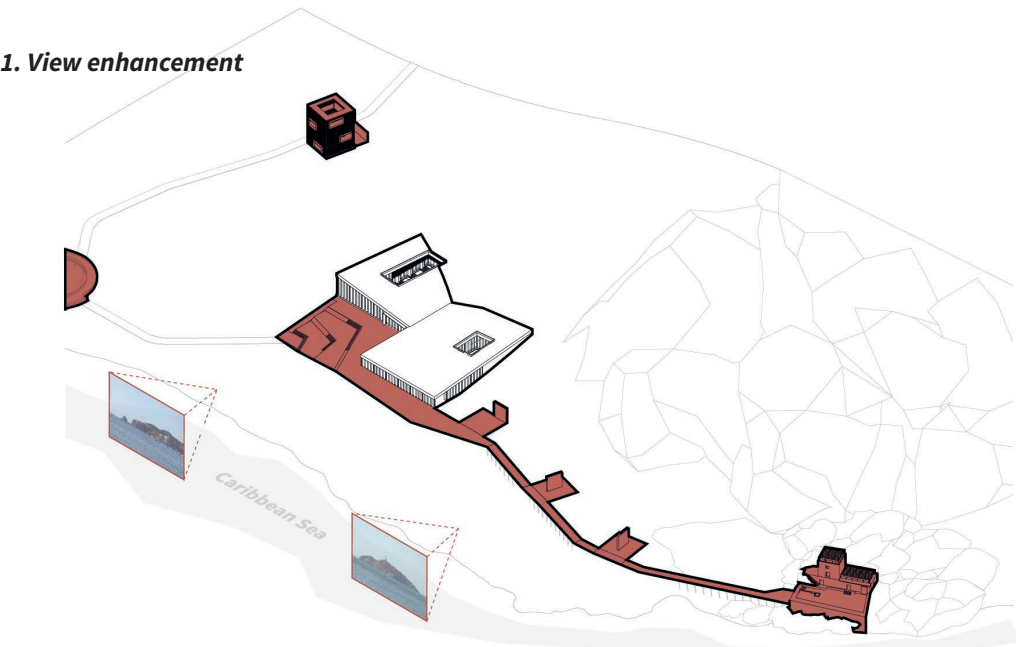


Fig 423, Elaborated by the author

2. Heritage relation path

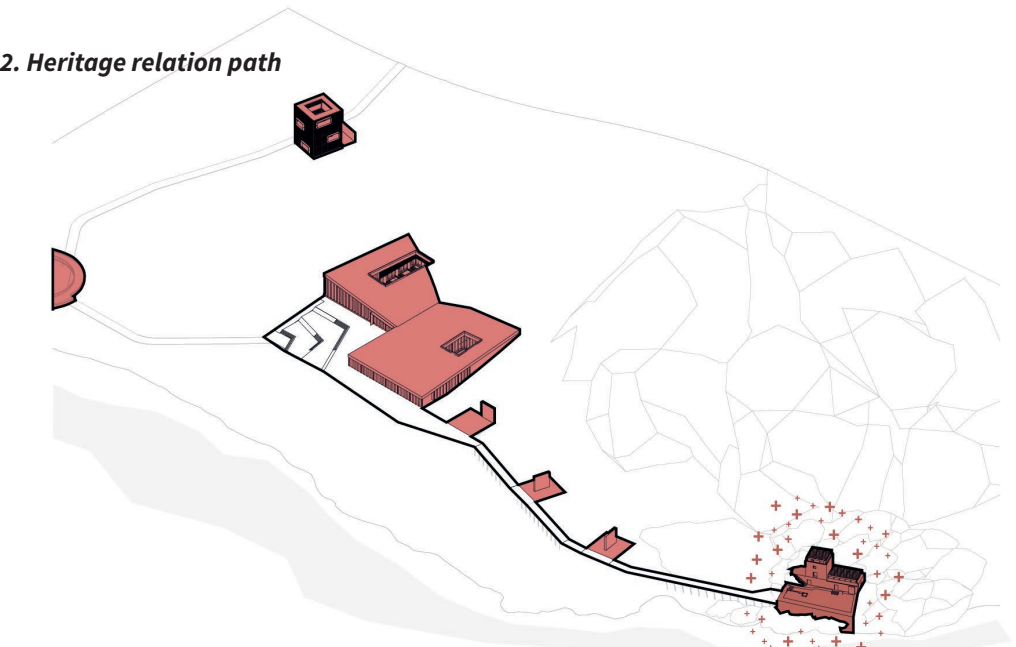


Fig 424, Elaborated by the author

3. Users

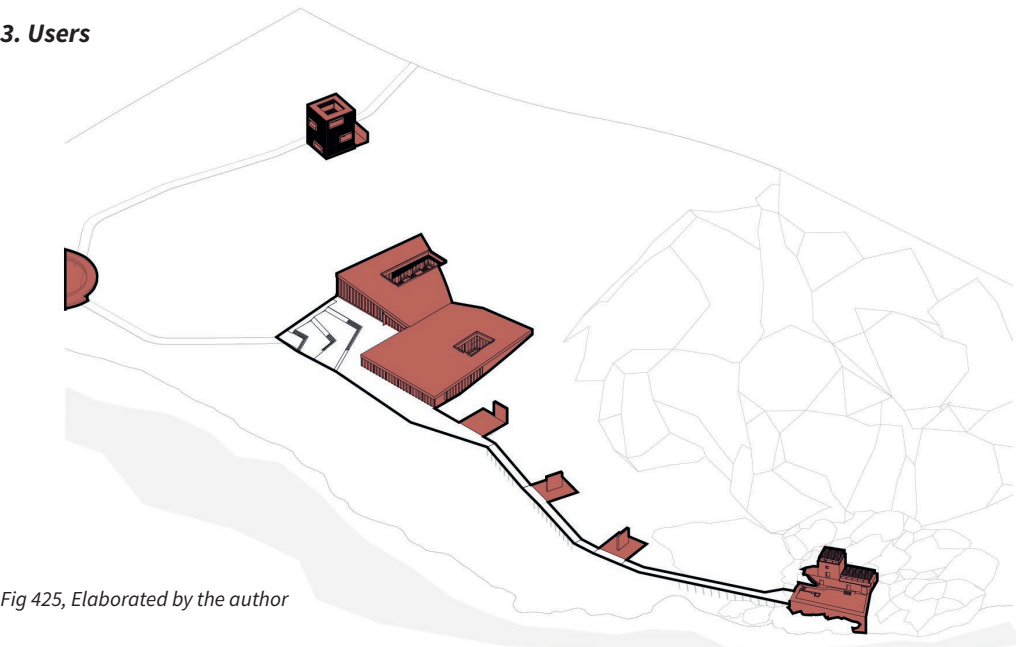


Fig 425, Elaborated by the author

4. Path-square-nodes

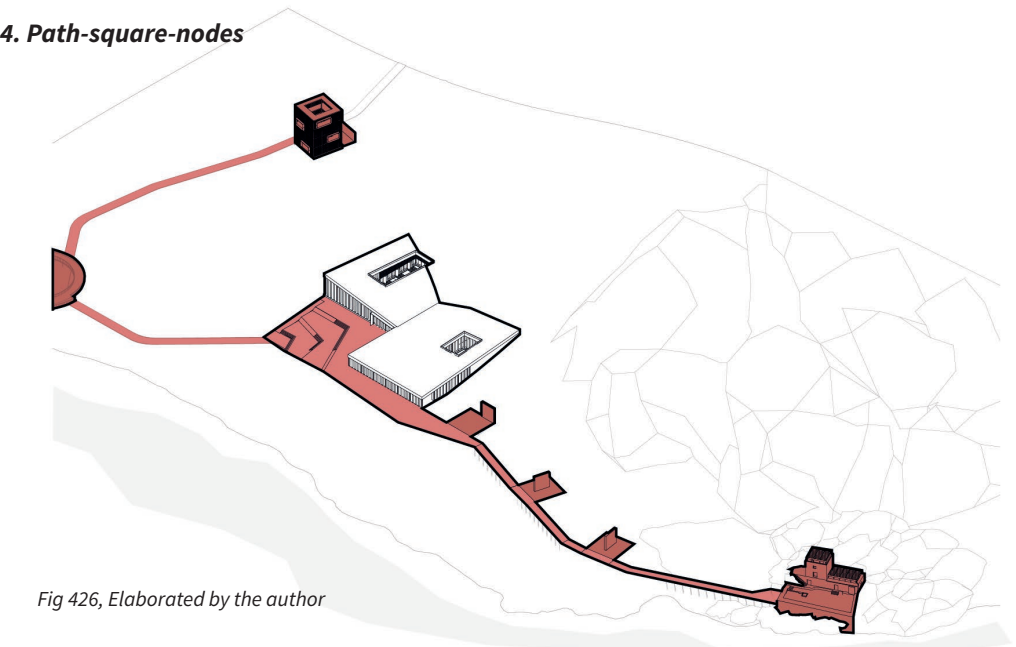


Fig 426, Elaborated by the author

5. Beach relation

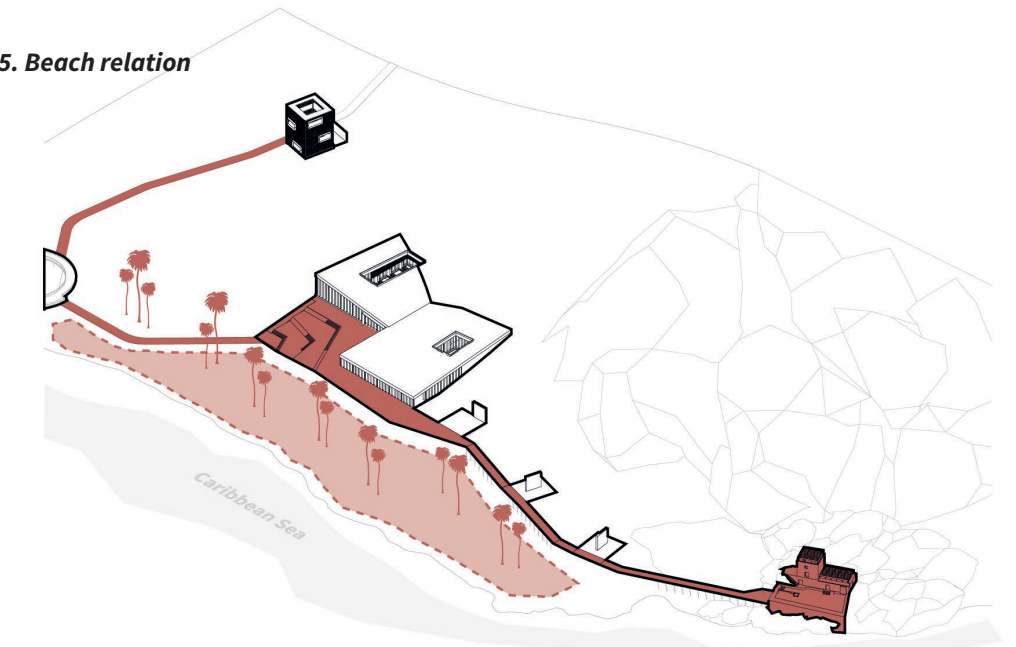


Fig 427, Elaborated by the author

6. Public space activation



Fig 428, Elaborated by the author

7. Greenery

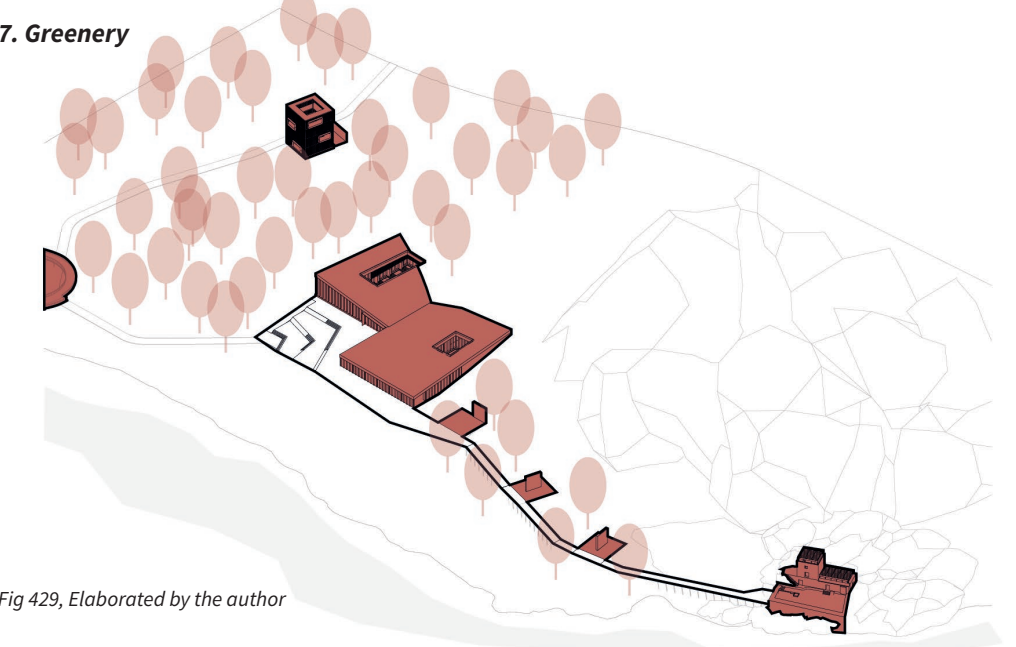


Fig 429, Elaborated by the author

8. Community making

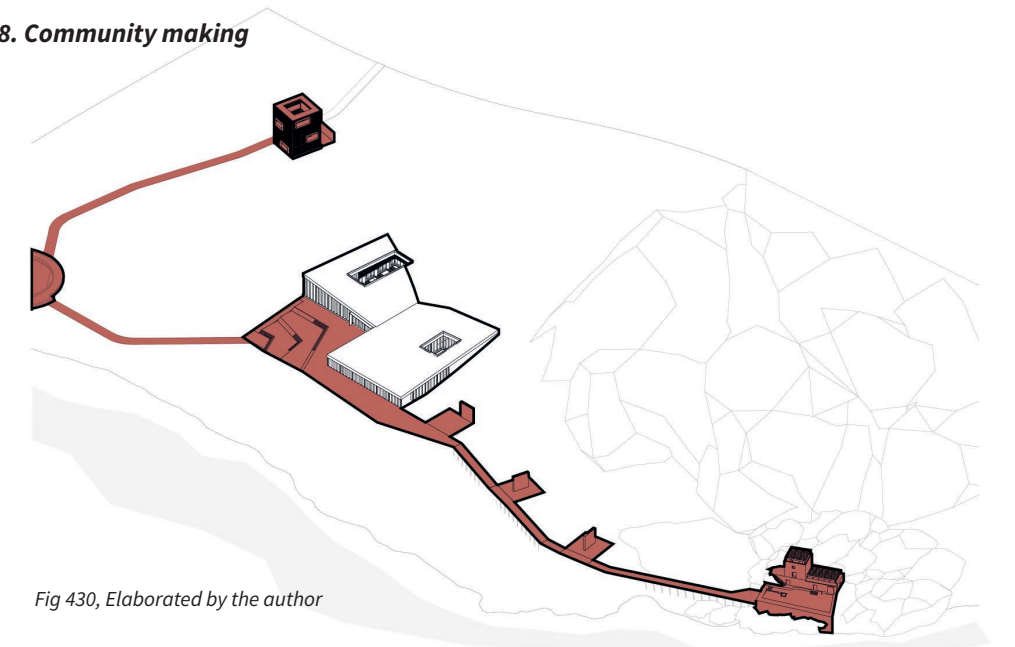
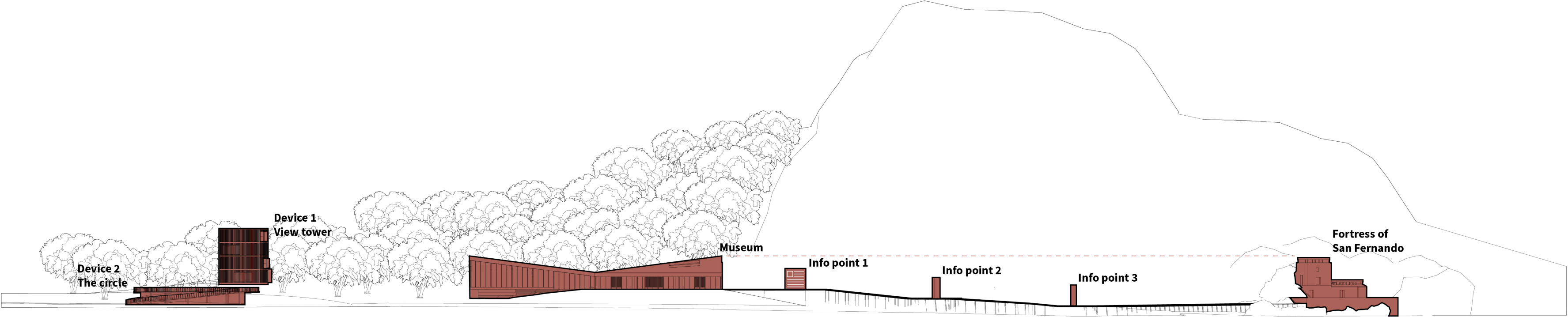


Fig 430, Elaborated by the author

San Fernando + Museum connection



0 10

Fig 431, Elaborated by the author

Museum/Institute axonometry

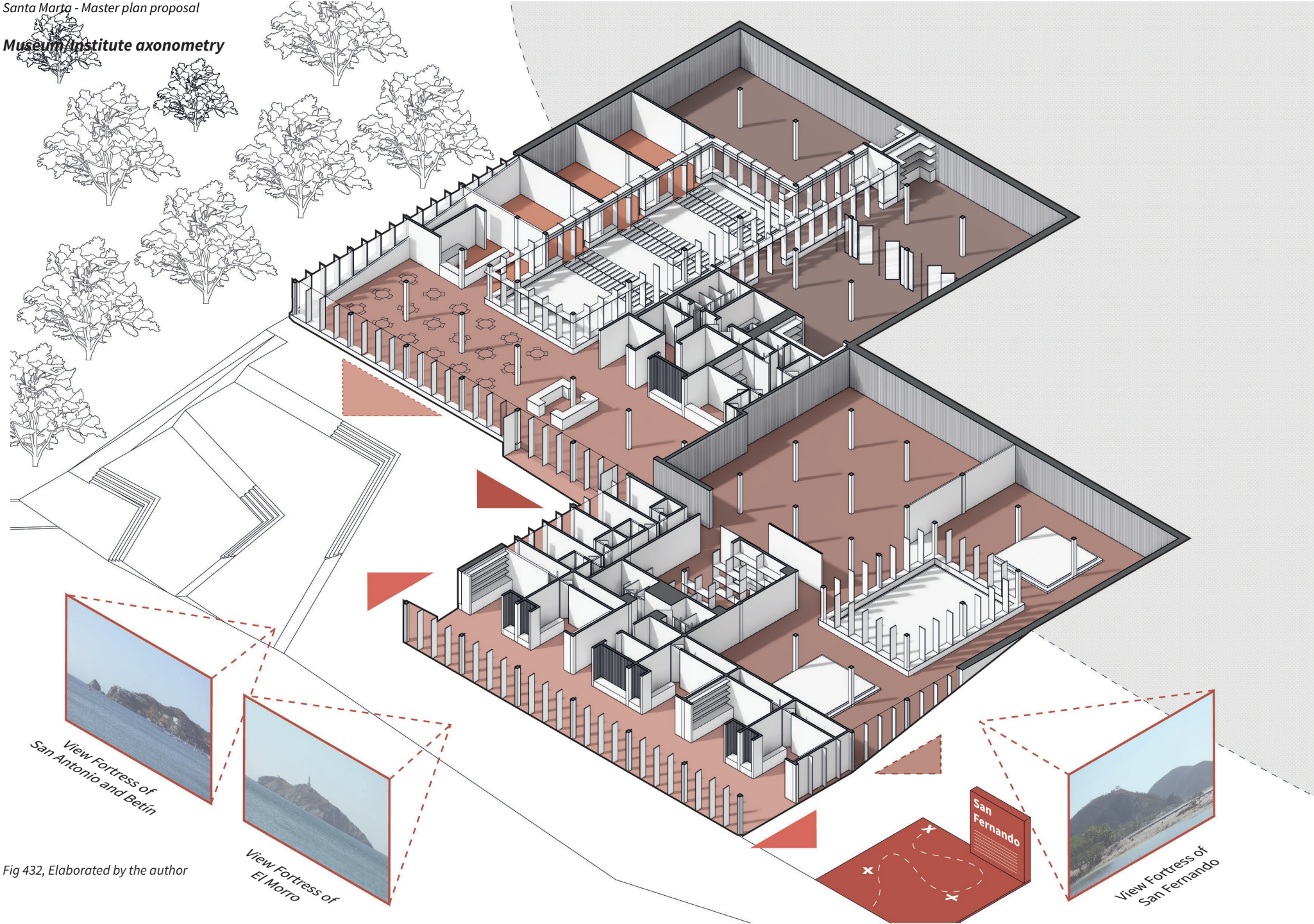


Fig 432, Elaborated by the author

Museum/Institute plan

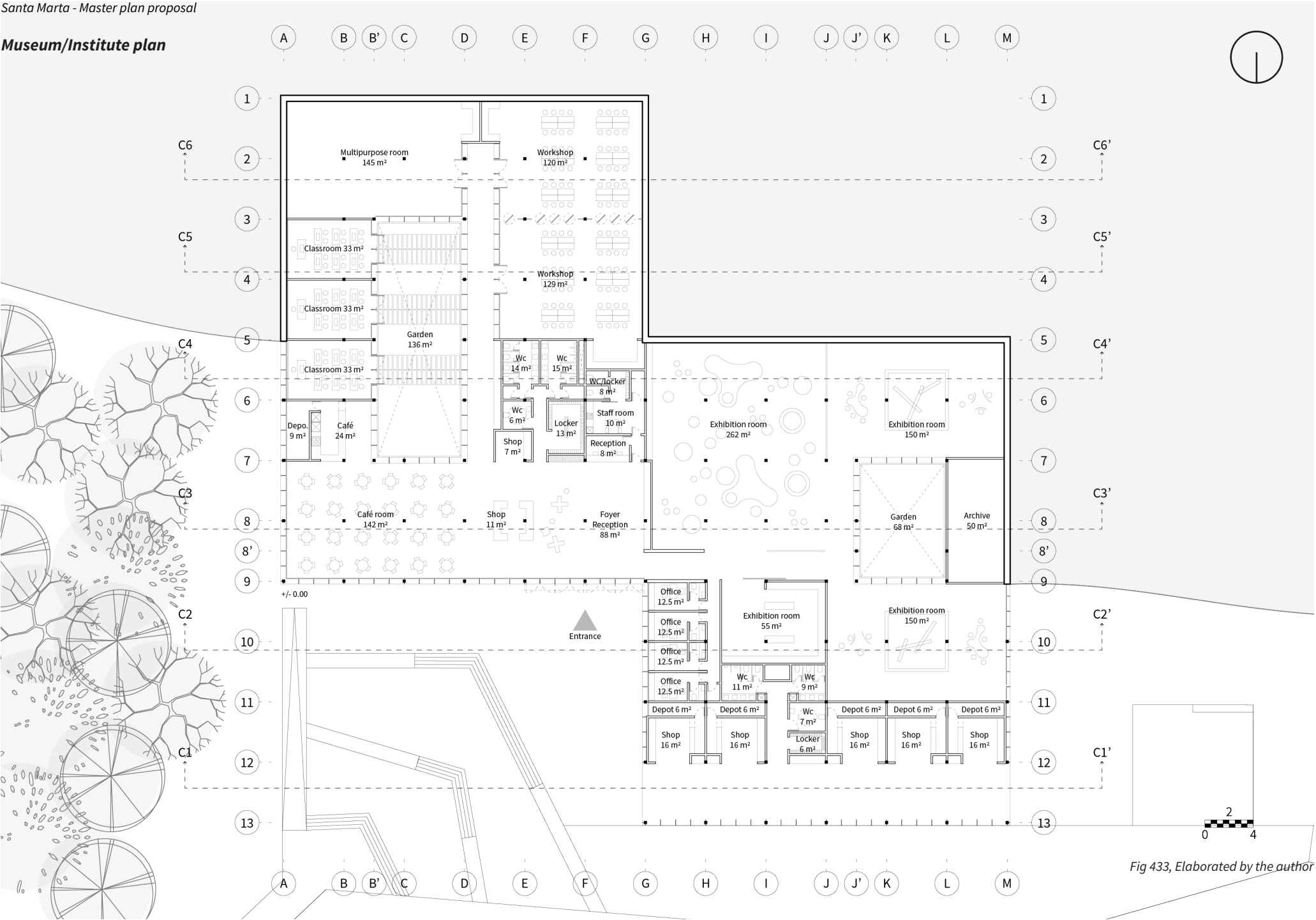


Fig 433, Elaborated by the author

Museum/Institute section 1

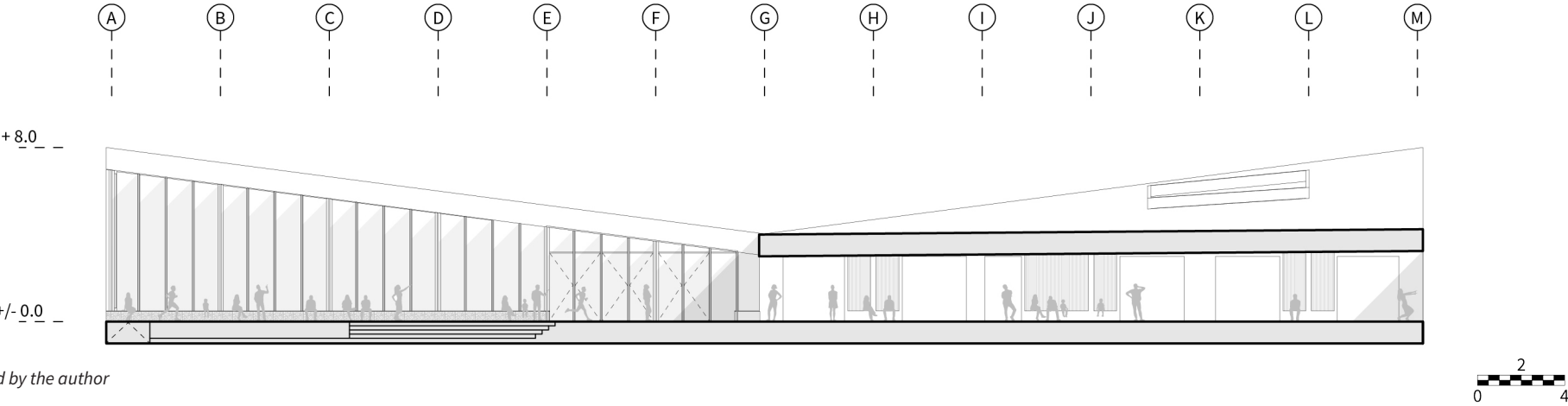


Fig 434, Elaborated by the author

Museum/Institute section 2

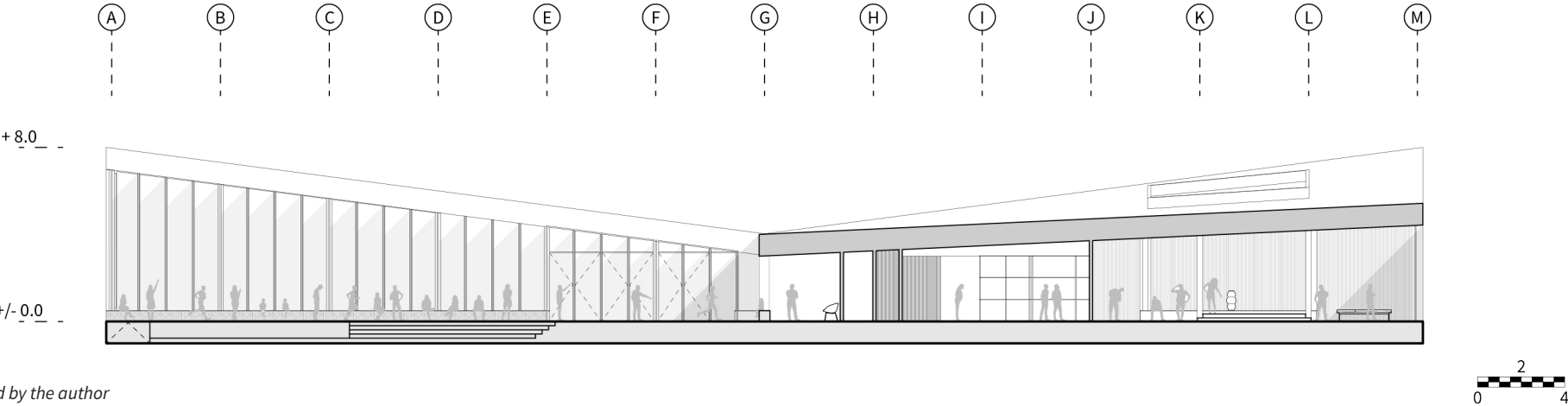


Fig 435, Elaborated by the author

Museum/Institute section 3

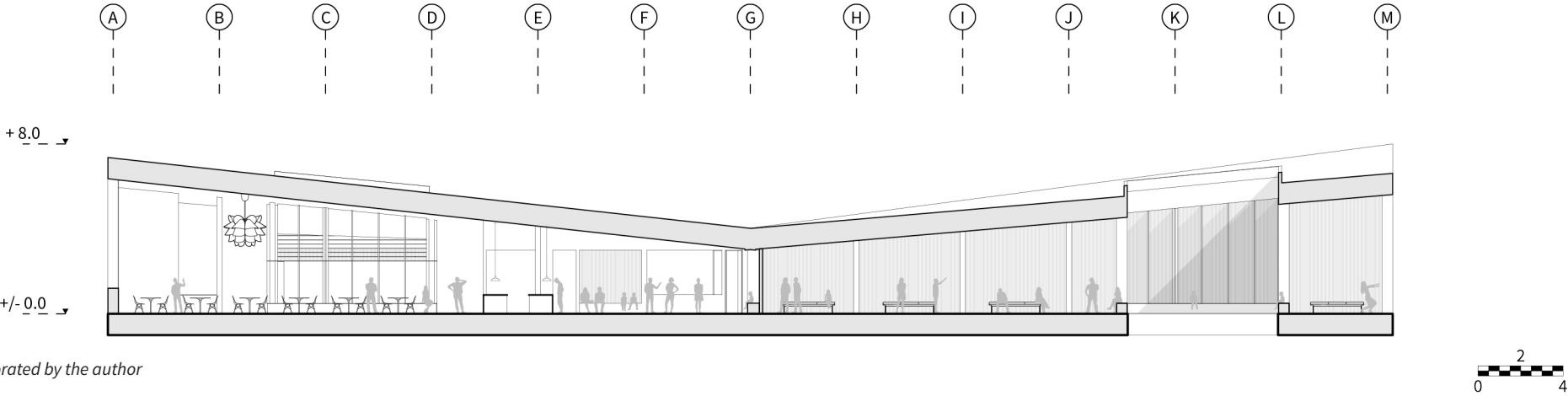


Fig 436, Elaborated by the author

Museum/Institute section 4

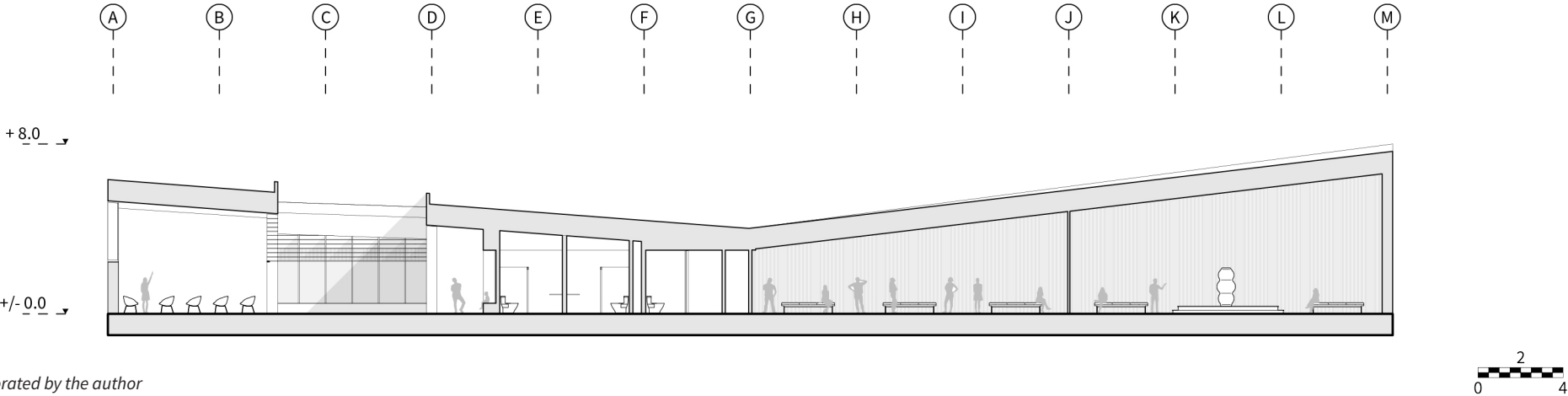


Fig 437, Elaborated by the author

Fortress of San Fernando, *proposal*

The proposal for the Fortress of San Fernando, seeks to enhance the fortress in its current state, as an architectural ruin of the city. The history of the site has been taken into consideration, in order to take the approach of enhancing the site’s values as a ruin, that has been part of the city’s identity and history. Over the years the prohibited access to the fortress and its use by the citizens and tourists, has been regulated due to its vicinity to the military base José maría Cordova, leading to the slow but continuous decay and abandonment of the fortification, although previous restoration interventions, carried out on the building in order to allow its protection.

As part of the master plan proposal, and the enhancement project for the fortress of San Fernando, it is proposed a series of communication devices, along the path to the fortress, in order to enhance the information that visitors can have about the site and its historical significance for the city.

Despite being one of the national heritage architectural assets of Colombia, the site has been neglected from its protection, in spite of the fact, that it is regulated by the law.

Therefore the proposal for the fortress consists on the placing of a wood pergola structure, that covers the areas where the roof has collapsed over the years, in order to create a covered but not closed space, where outdoor exhibitions can take place, the project aims to

enhance the relation with the ruin, therefore its authenticity as a ruin is preserved and no original form or volume is seek to be recovered or reinterpreted.

In order to enhance the values of the site, the fortress is proposed to work as a cultural public node, where exhibitions can take place and where the history of the fortresses of the city is told. its location makes the site an outstanding place of the city and its history enriches it with value and identity.

Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.

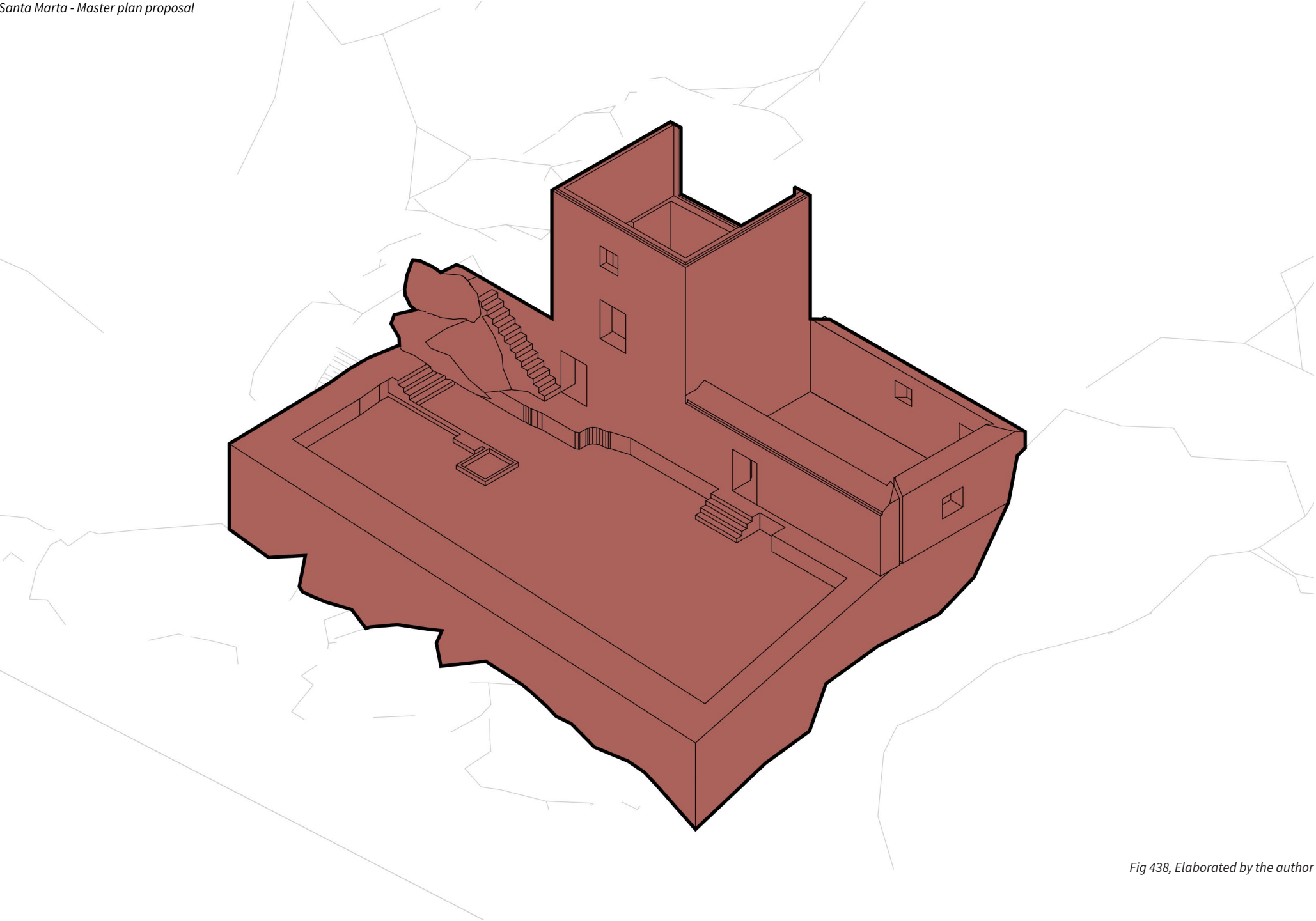


Fig 438, Elaborated by the author

Ground floor plan, Fortress of San Fernando

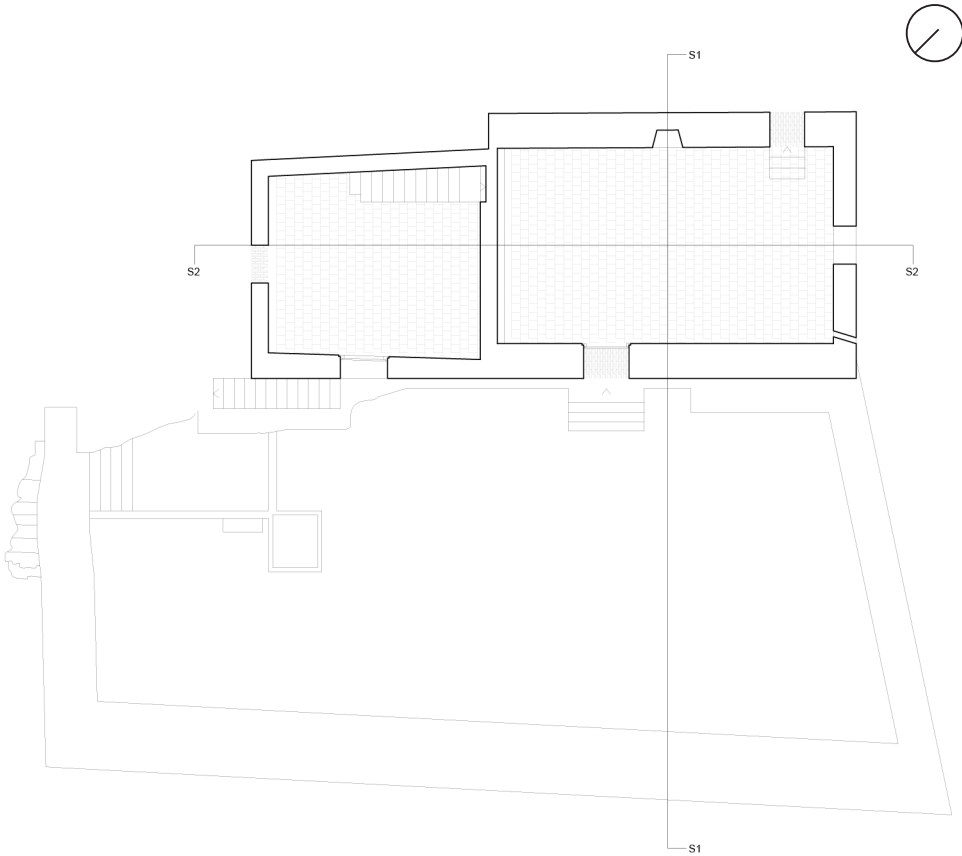


Fig 439, Elaborated by the author

Fortress of San Fernando previous state (2006 photos)



Fig 440



Fig 441



Fig 442



Fig 443

Glossary: Platform, Varas, Guerra del Caribe, Llave de acceso.



Fig 445

1. Current state of the fortress of San Fernando

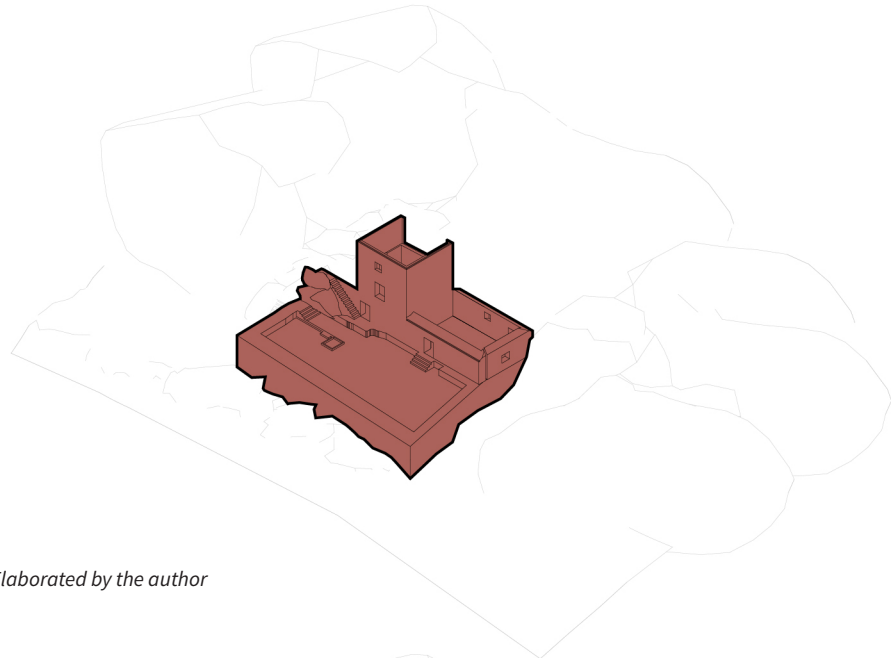


Fig 446, Elaborated by the author

2. Volume approach 1: addition

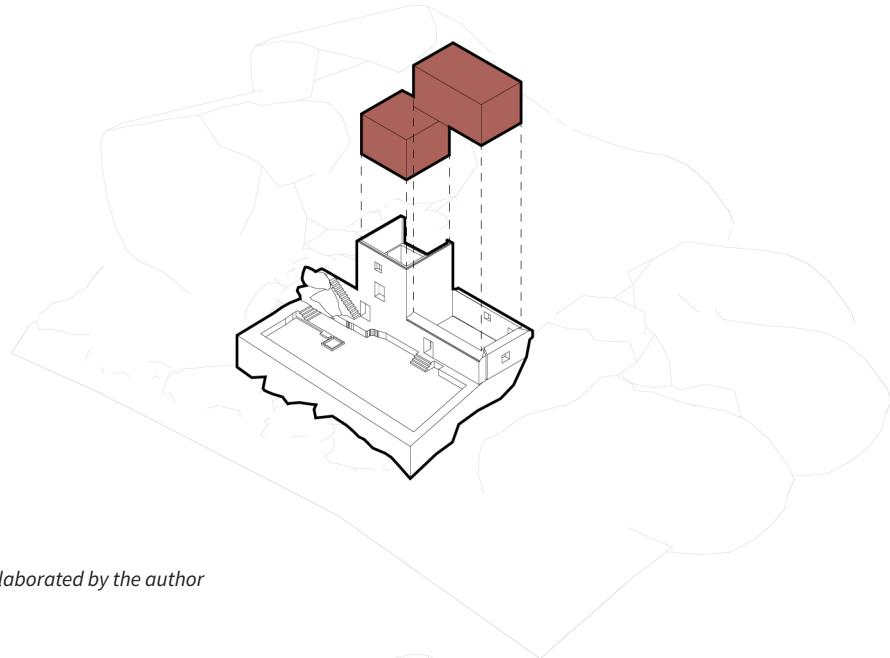


Fig 447, Elaborated by the author

3. Volume approach 2: roof

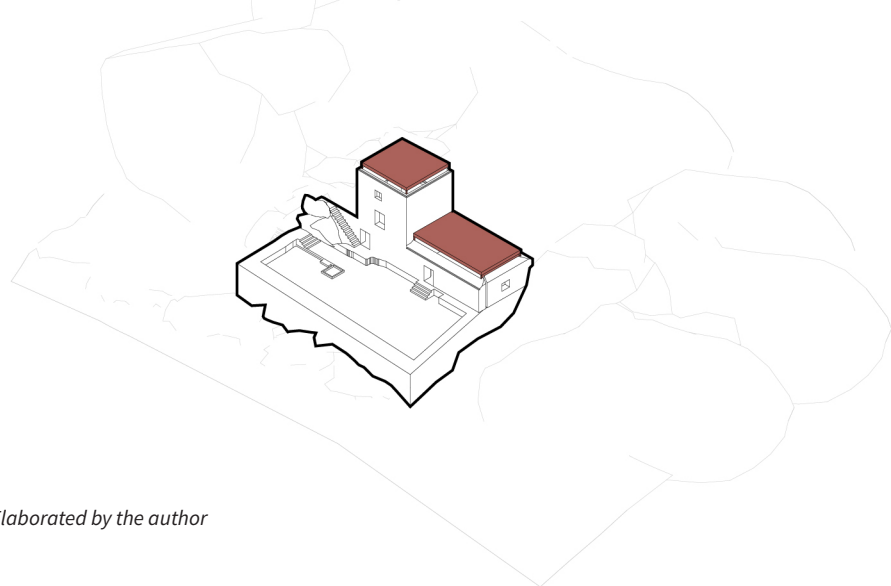


Fig 448, Elaborated by the author

4. Volume approach 3: roof pergola

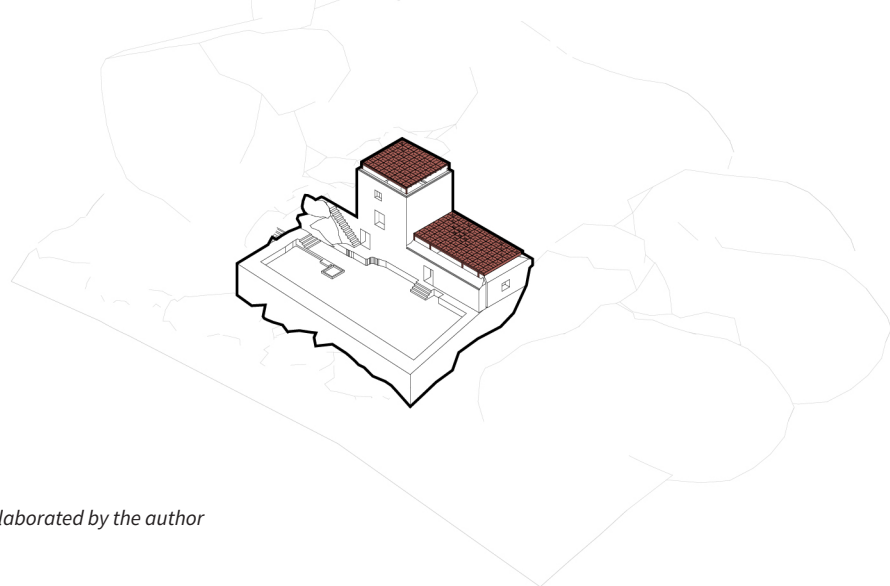


Fig 449, Elaborated by the author

5. Accessibility enhancement

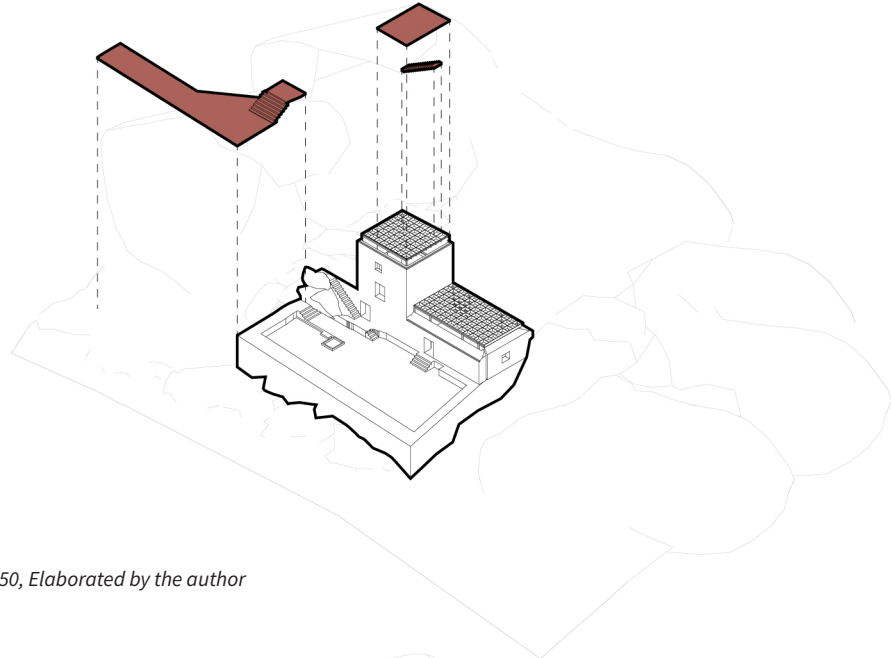


Fig 450, Elaborated by the author

7. Sitting area

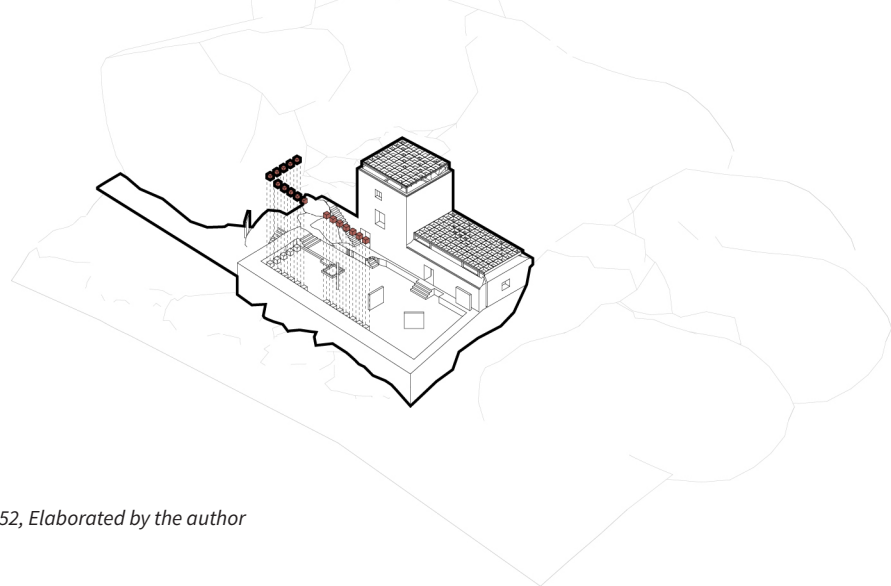


Fig 452, Elaborated by the author

6. Communication devices

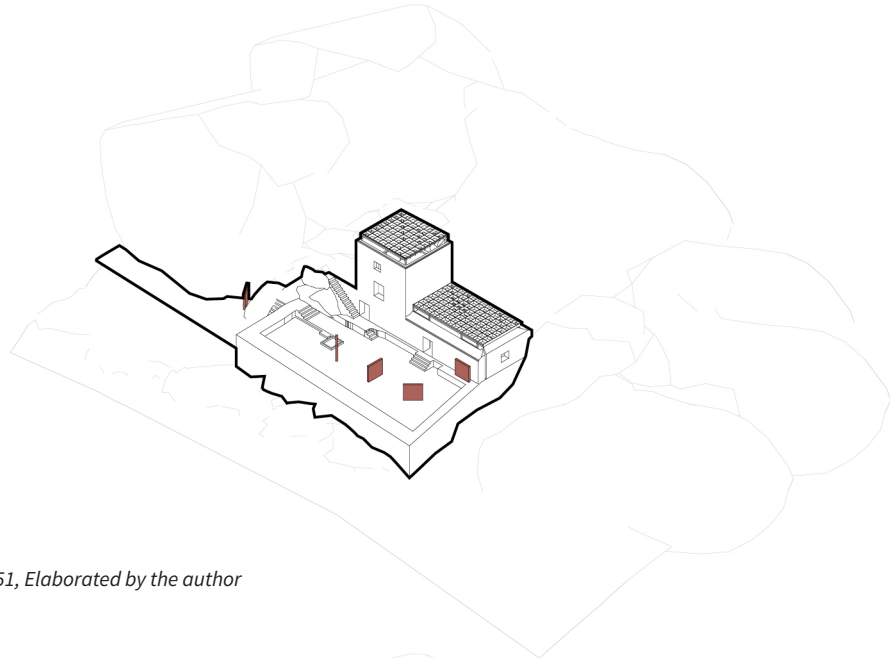


Fig 451, Elaborated by the author

8. Final state

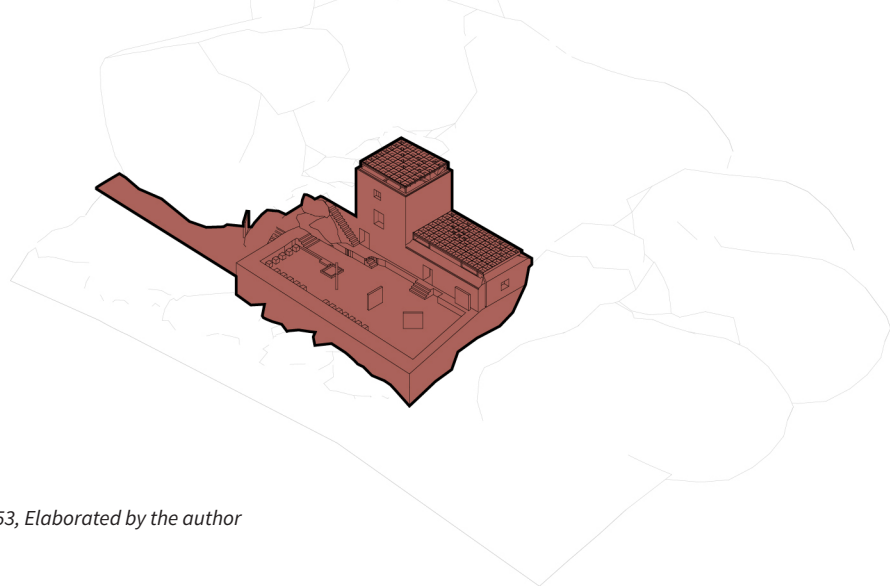


Fig 453, Elaborated by the author

Ground floor plan, Fortress of San Fernando + enhancement strategy

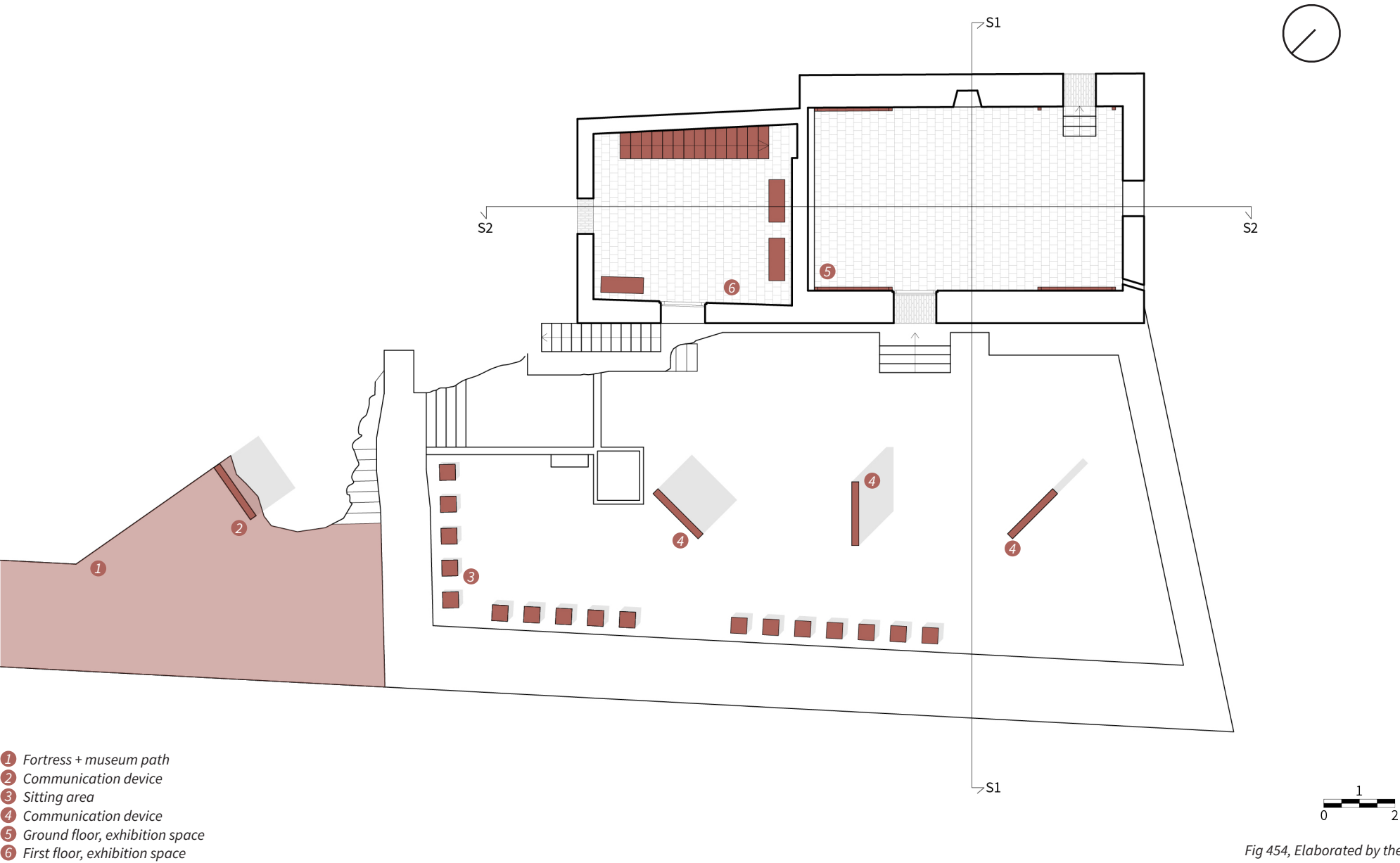


Fig 454, Elaborated by the author

General axonometry, Fortress of San Fernando + enhancement strategy

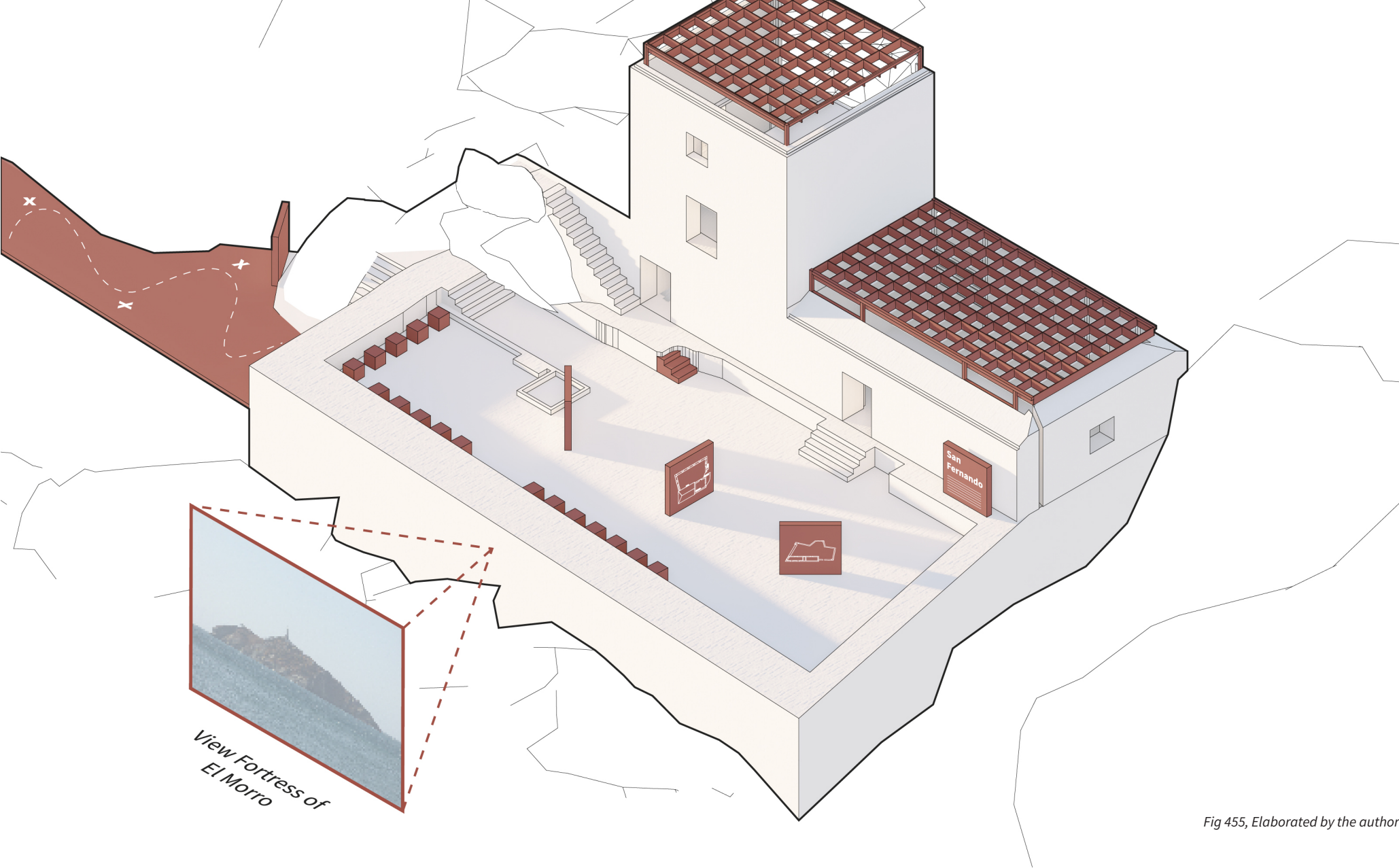


Fig 455, Elaborated by the author

Ground floor axonometry, Fortress of San Fernando + enhancement strategy

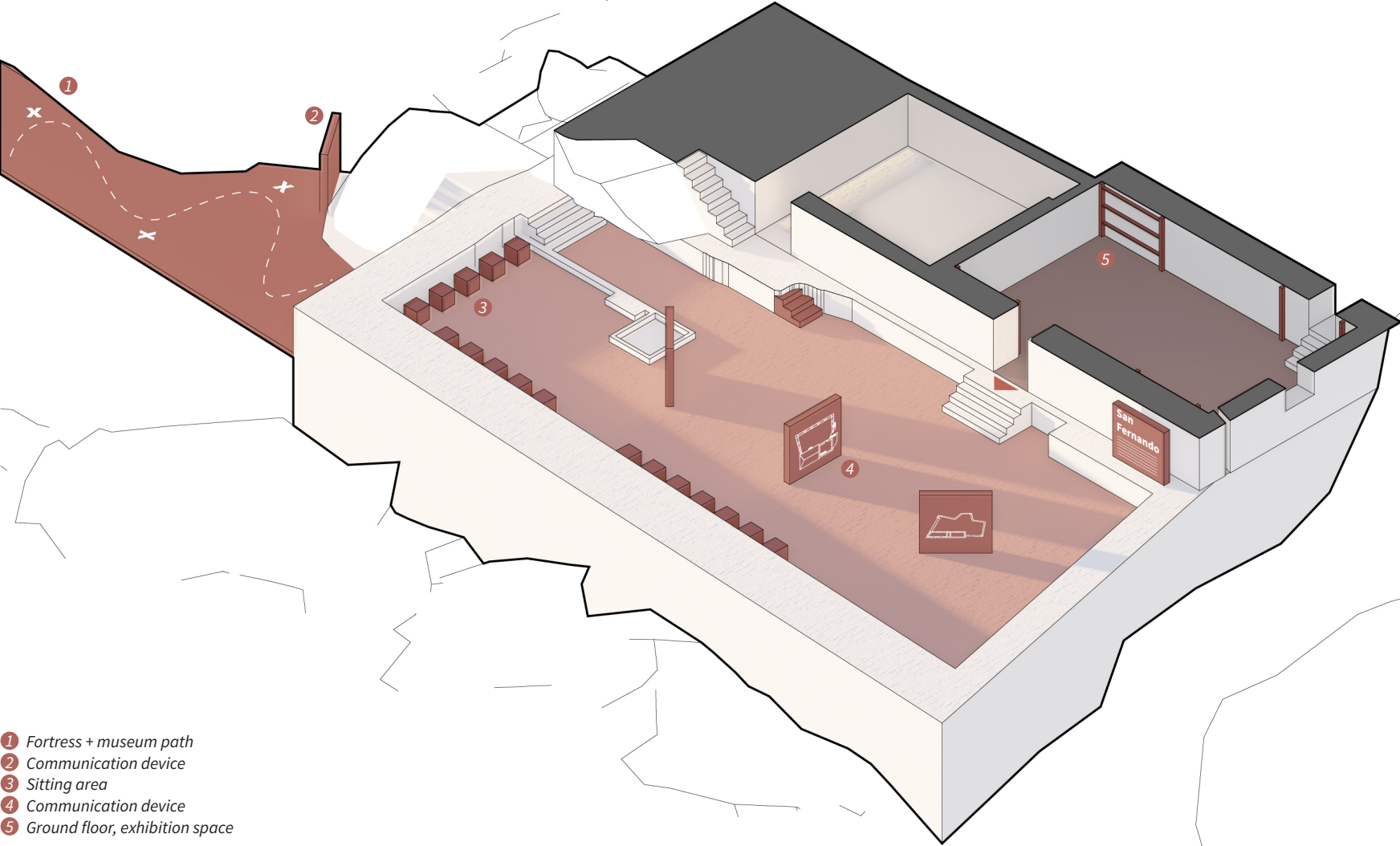


Fig 456, Elaborated by the author

First floor axonometry, Fortress of San Fernando + enhancement strategy

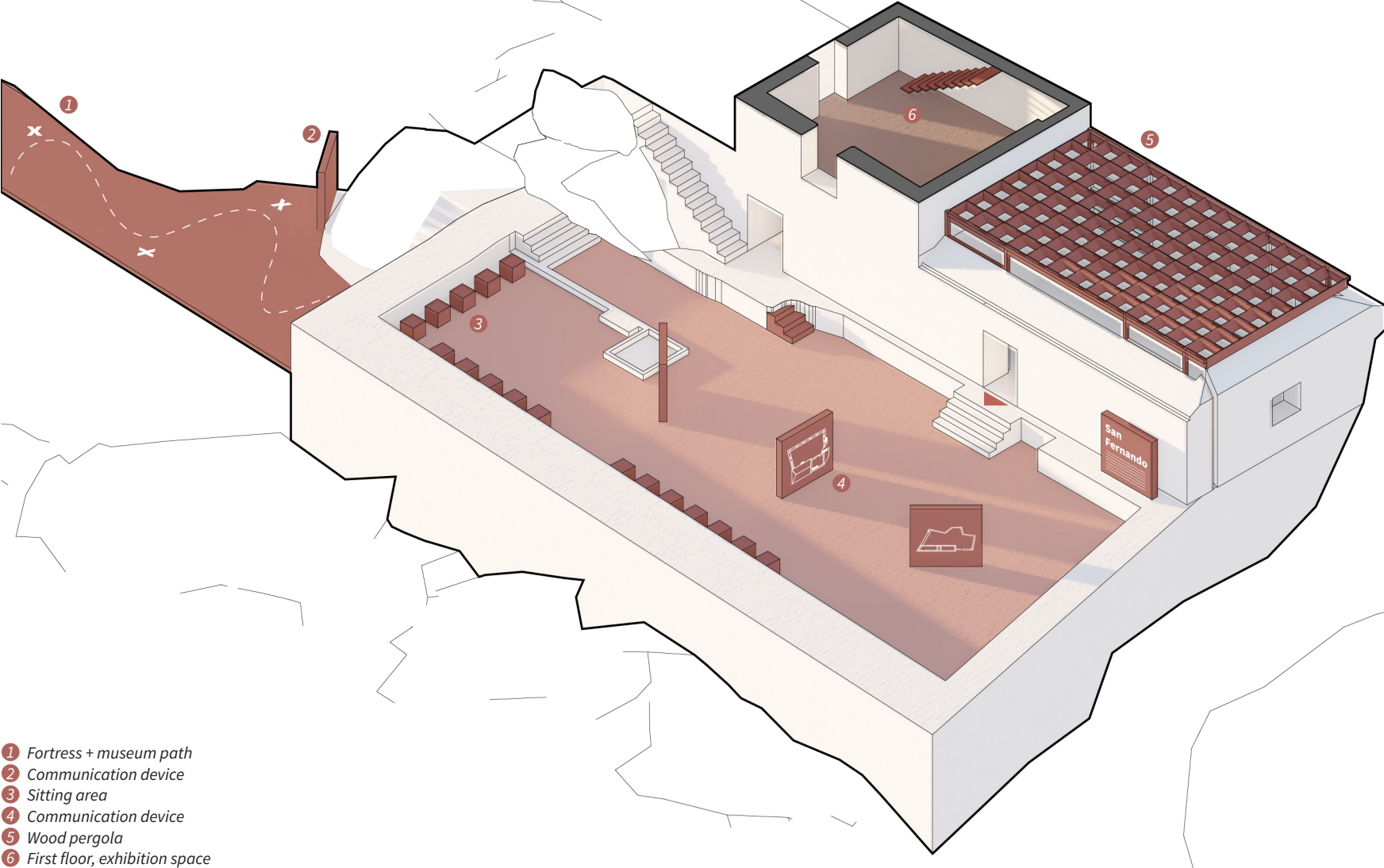
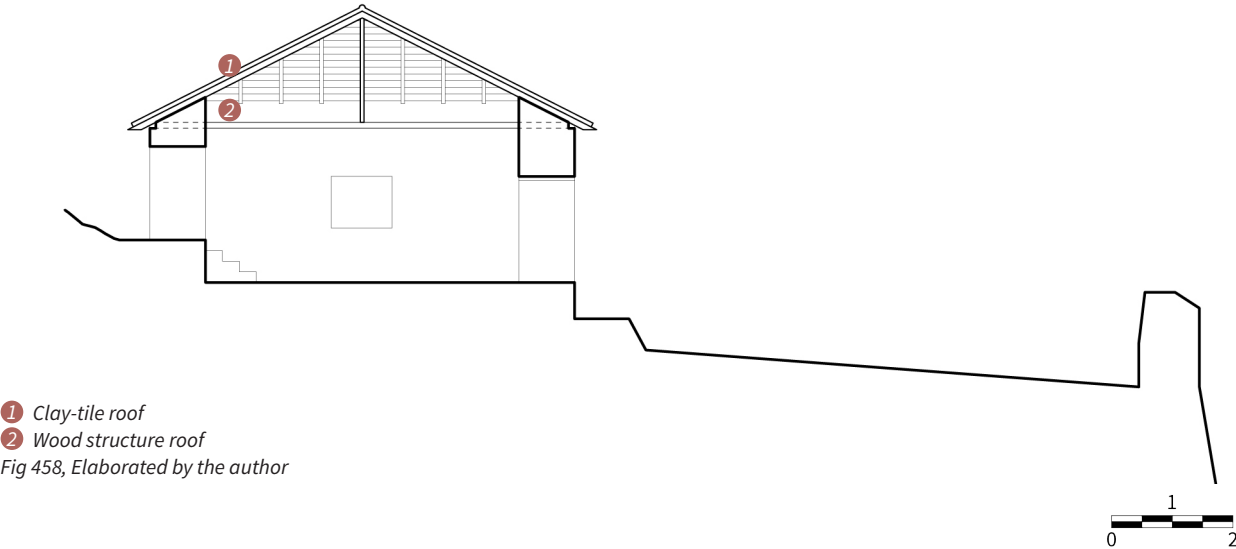


Fig 457, Elaborated by the author

Section 1, original state of the fortress of San Fernando



Section 1, current state of the fortress of San Fernando

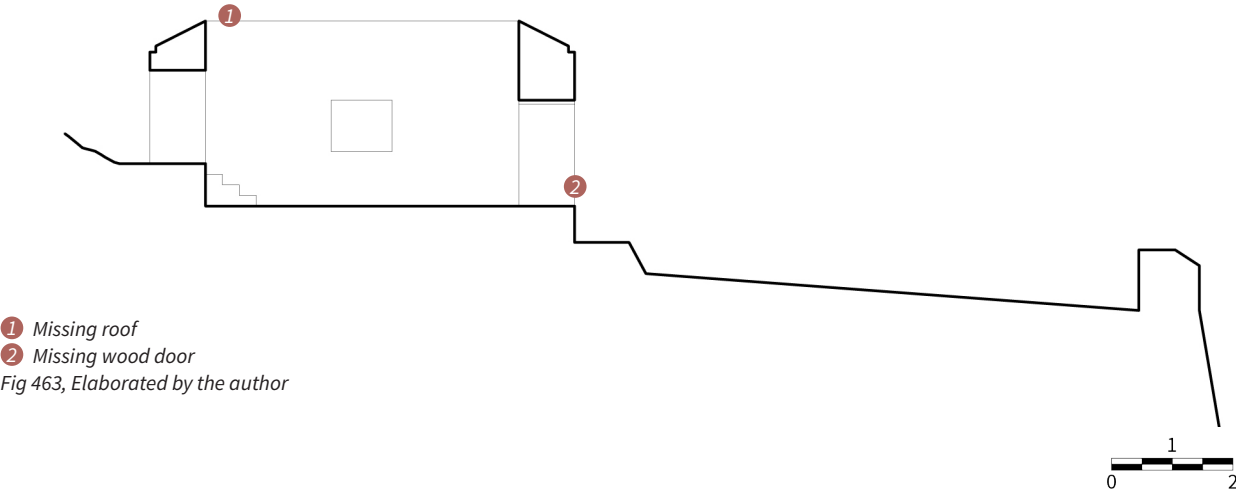


Fig 459



Fig 461



Fig 460



Fig 462



Fig 464



Fig 466



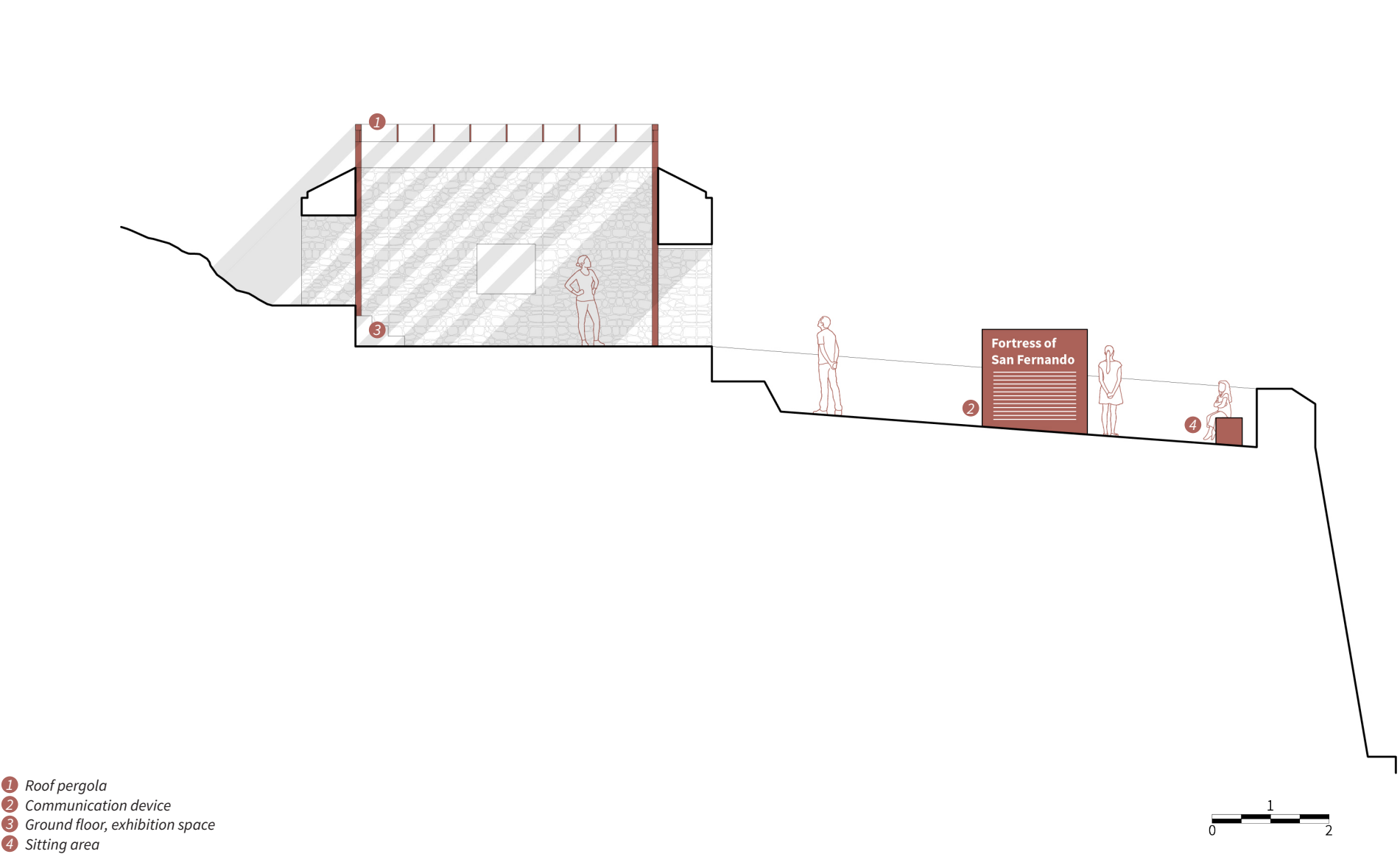
Fig 465



Fig 467



Section 1, Fortress of San Fernando + enhancement strategy



- 1 Roof pergola
- 2 Communication device
- 3 Ground floor, exhibition space
- 4 Sitting area

Section 2, original state of the fortress of San Fernando

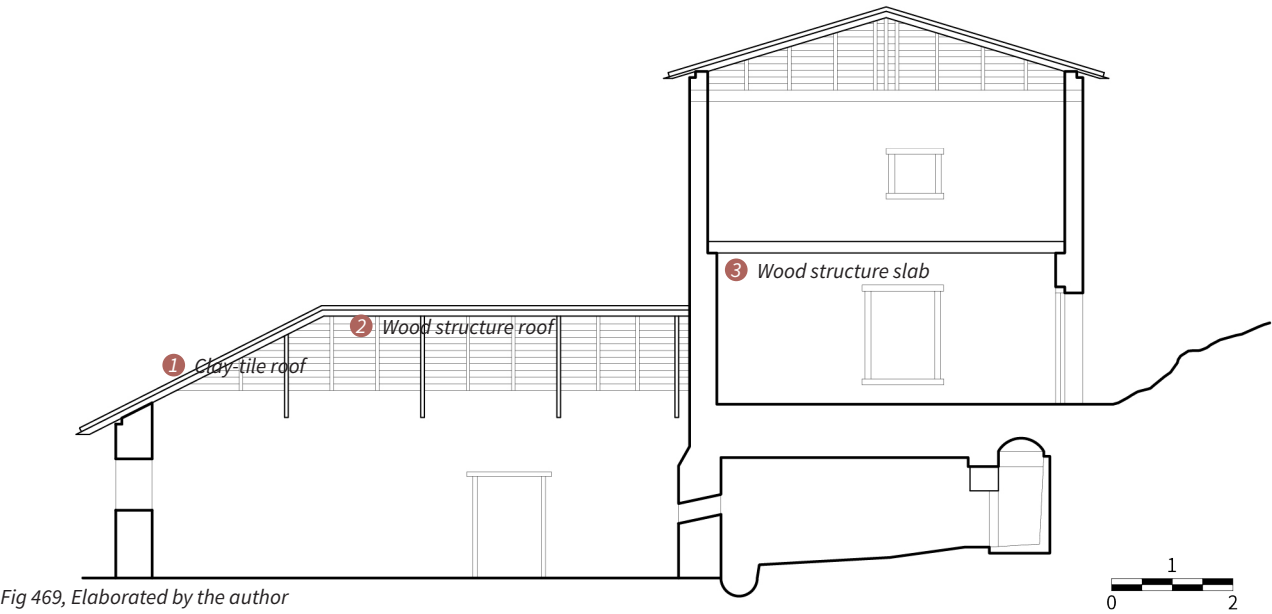


Fig 469, Elaborated by the author

Section 2, current state of the fortress of San Fernando

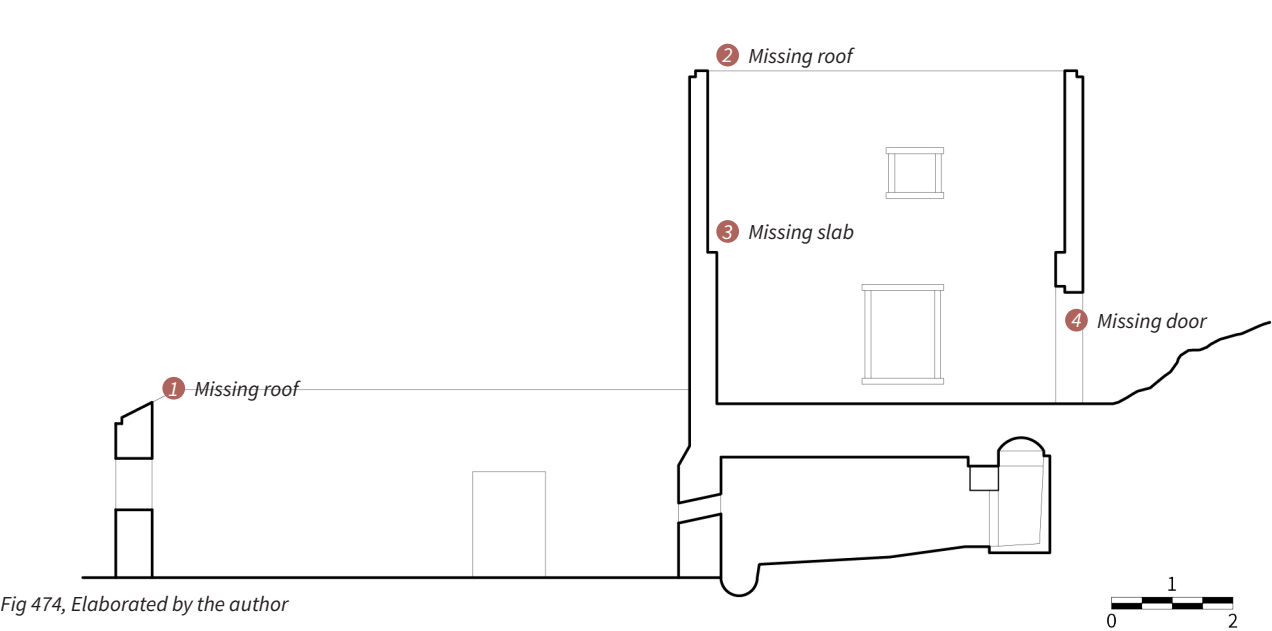


Fig 474, Elaborated by the author

Fig 470



Fig 472



Fig 471



Fig 473



Fig 475



Fig 477



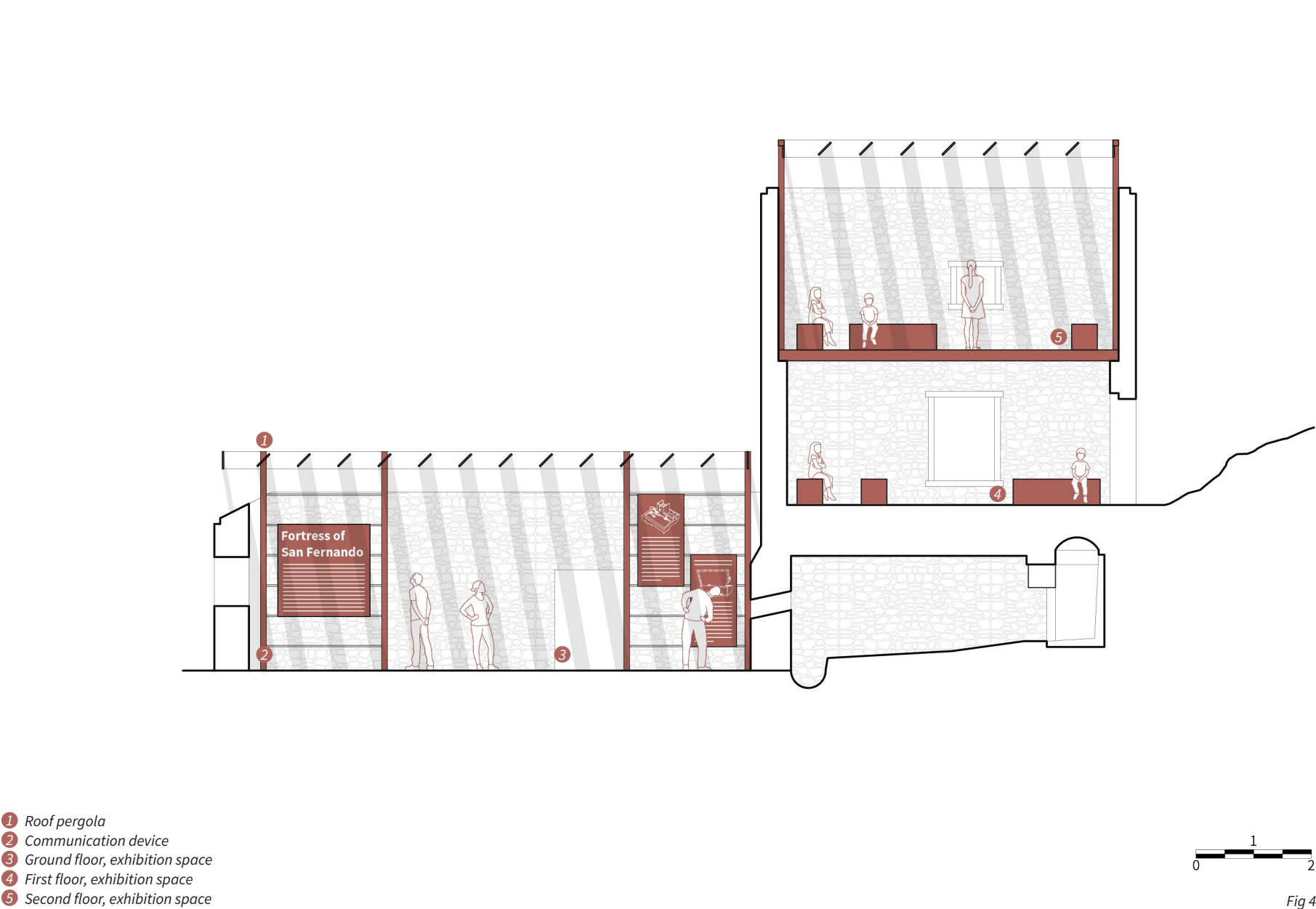
Fig 476



Fig 478



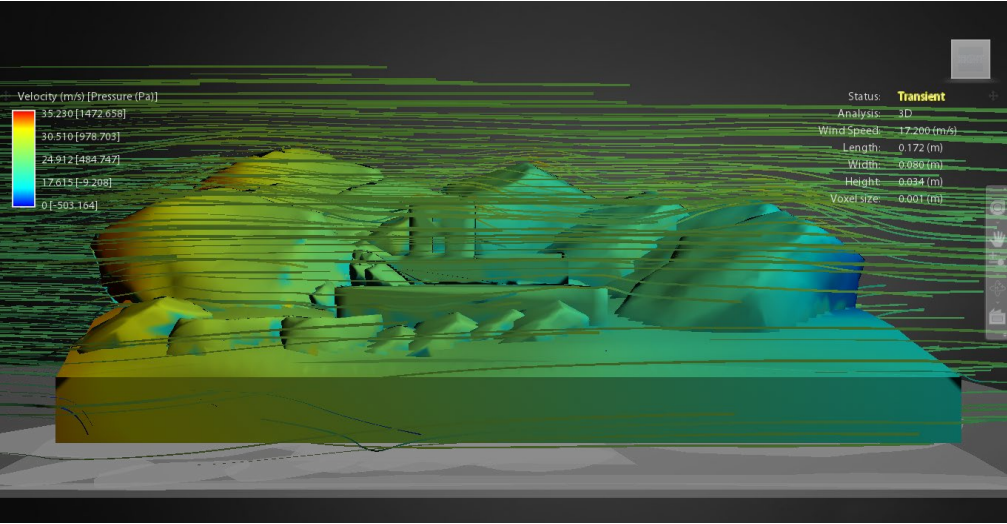
Section 2, Fortress of San Fernando + enhancement strategy



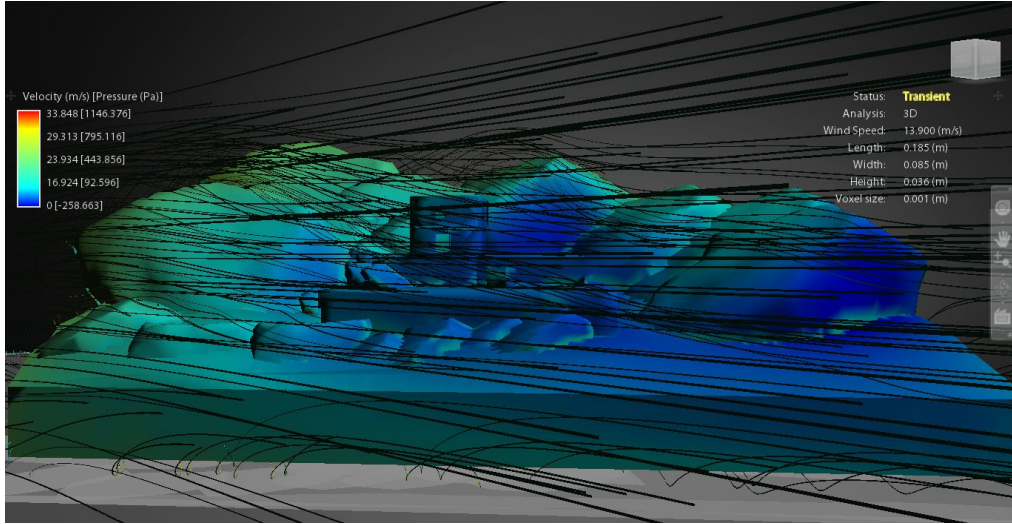
- 1 Roof pergola
- 2 Communication device
- 3 Ground floor, exhibition space
- 4 First floor, exhibition space
- 5 Second floor, exhibition space

Fig 479, Elaborated by the author

Wind studies on the Fortress of San Fernando

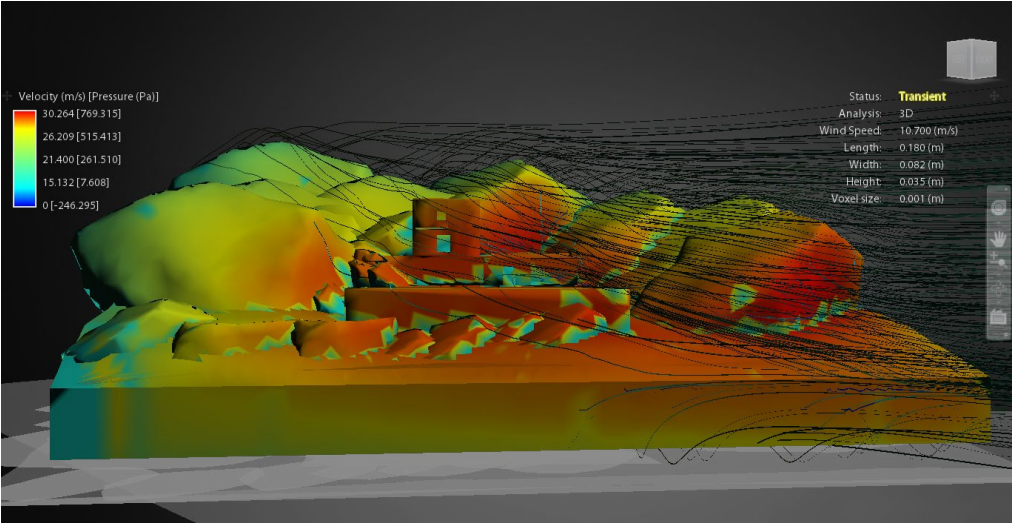


17.2 m/s, from north direction

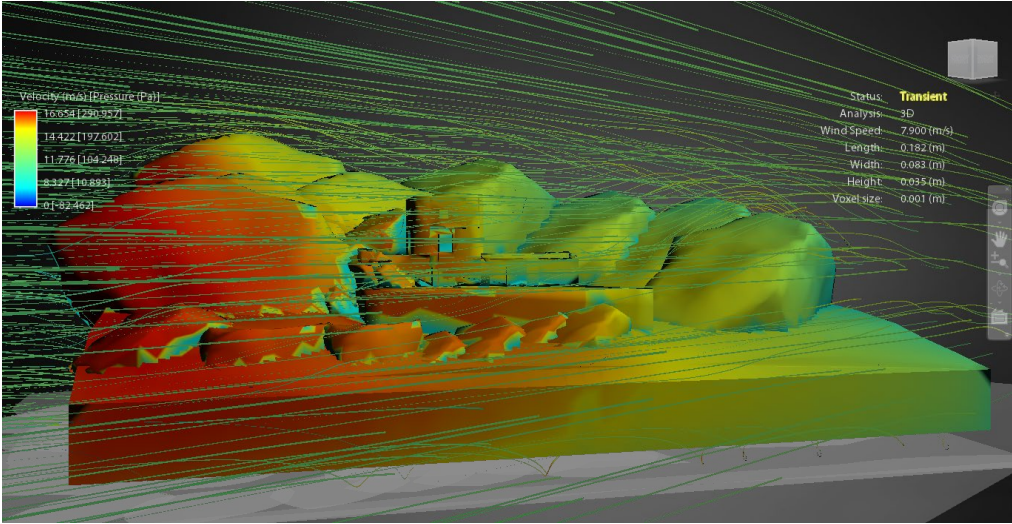


13.9 m/s, from north-east direction

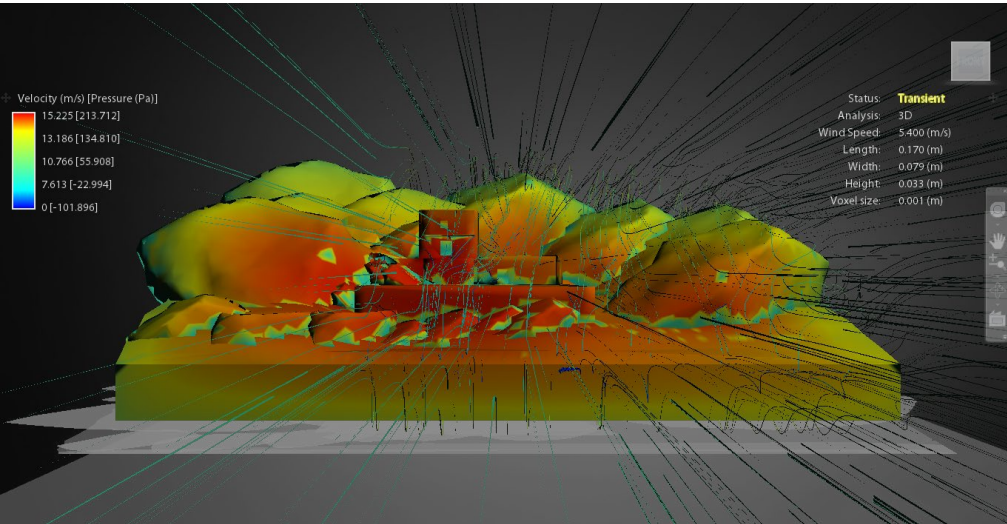
Wind studies on the Fortress of San Fernando



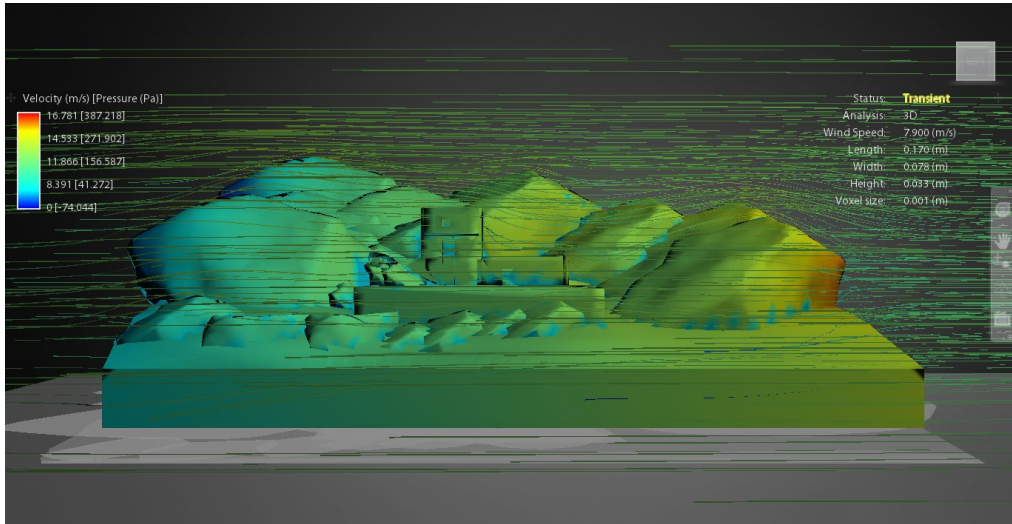
10.7 m/s, from south-west direction



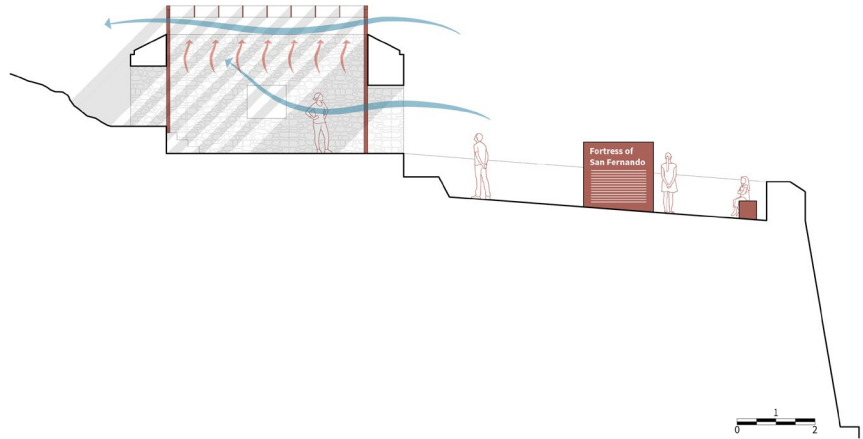
7.9 m/s, from north-west direction



5.4 m/s, from west direction



7.9 m/s, from south direction



Pergola proposal, in order to allow a wind flow in the fortress, aiming to mitigate the temperature sensation , and the high humidity within the indoor spaces of the fortress.

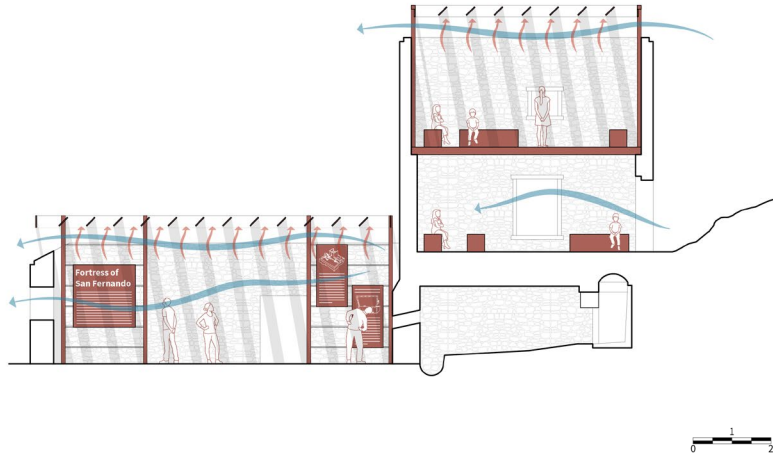


Fig 487, Elaborated by the author

General axonometry, Fortress of San Fernando + enhancement strategy

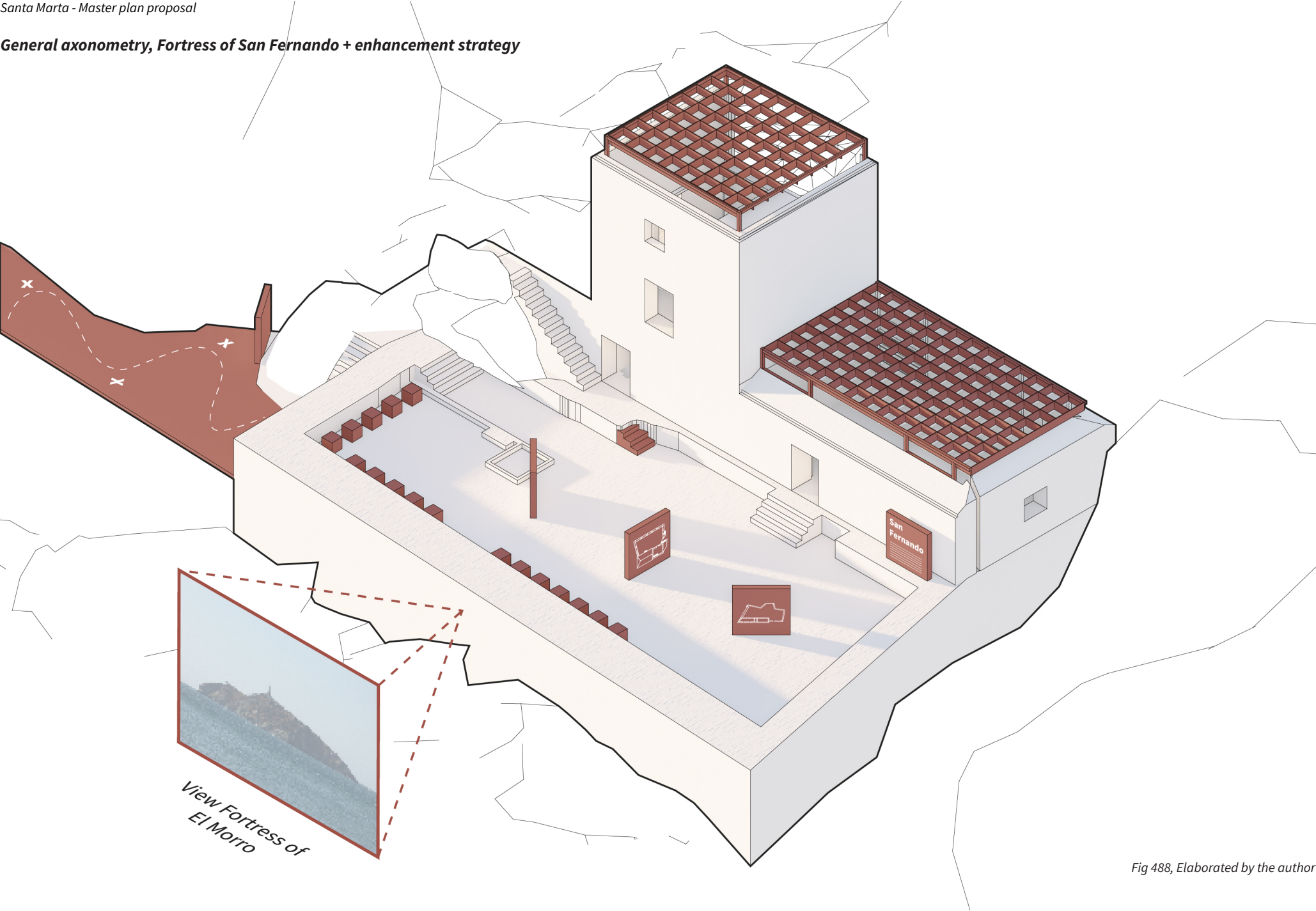


Fig 488, Elaborated by the author



Fig 489, Elaborated by the author

Conclusion

Through the study of the historical significance of the fortresses of the city of Santa Marta and the values evoked by them, as representative elements of the past and history of the city, and through the study of comparable projects in the urban and architectural field worldwide. It is possible to identify five replicable urban strategies around the colonial military ruin as integrating elements in the development and gradual growth of cities, in order to allow a balanced urban growth of cities and the protection of heritage sites at risk, due to said unplanned growth.

The strategies identified in order to allow a correct transition, and integration of the heritage sites and the city are; the inclusivity and accessibility to heritage sites, the enhancement of community values and identity around the ruin, the multifunctionality of uses around the sites, the identification of the urban context of the ruins as a protection zone, and the relationship between architectural and natural values. From the identification of these strategies, it is possible to understand the value and transformative potential of these buildings or architectural remnants, which manage to create spaces for recreation, culture, knowledge and enjoyment of citizens in cities, managing to improve the quality of life of citizens and the protection of heritage sites.

Through the understanding of the five strategies learned from the urban and architectural references, a Master plan is proposed for the city of Santa Marta, in which the urban reno-

vation around the fortress of San Fernando, a colonial military ruin of the city, is proposed, achieving to demonstrate the urban potential of the area and the fortification, as integrating elements in the city, through a transition project that responds to urban needs and the needs of protection of the heritage asset.

Finally it is concluded, the need to plan balanced urban development projects able to understand the protection needs to be carried out around heritage sites, as the military colonial fortresses of Santa Marta, in order to enhance the values of these sites, and in order to enhance their potentials, as transformative elements in the city, where culture, community, knowledge, and values are created, while the urban needs of the cities are developed.

Lessons from the urban references:

From the urban references studied in the previous chapter (The Suomenlinna Sea Fortress, The Citadel of Spandau, and the Castillo de San Felipe de Barajas), there are highlighted five lessons to take into consideration.

1. Inclusive and accessible for all:

Promote and provide the social integration of people, in order to create a sharing environment, where communities are created, social and cultural values strength, and accessibility to cultural sites are enhanced.

2. Community values and identity:

Enhance the community values around the heritage cultural sites, by means of cultural activities, in order to create an identity and relation between the heritage site and the community.

3. Multi-functional:

Promote the multifunction development around the sites, in order to allow a diverse access of users, in order to increase, the values and relations with the heritage site.

4. Protected:

Provide a balanced buffer zone around the site, in order to allow a control urban growth and a protection for the sites values and characteristics.

5. Natural and Architectural values:

Strengthen the relation between the surrounding natural landscape and the sites, in order to enhance the landscape heritage system as a unique element.

Thesis, Glossary

Audiencia Real de Santo Domingo: It was the first “Audiencia” created in the “New world” by the Spanish Monarchy, in charge of the “Nuevo Reino de Granada”, of which the Governance of Santa Marta was part. (Banco de la República, Banrepcultural), The “Audiencia” worked as a justice tribunal and as a Government body, for which had assigned a long territory (PARES, Ministerio de Cultura y Deporte, Gobierno de España, ES.41091.AGI/24) .

Beach of Santa Ana: It is the beach of the city of Santa Marta (Historical city center), where the first trench of the city and Fortresses of San Juan, San Vicente and Battery La Concepción, were located.

Punta la Caldera:

Acequia: It is a small Canal, built for the purpose of redirecting water, usually used for cultivation.

Alameda: It is a promenade with poplars or other types of trees.

Anconcito or Ancón: It was originally the area on the bay of the city, where , the first Fortress of Santa Marta was built, before its foundation.

Ancon of Gaira: Small cove of Gaira where it can be anchor.

Antioquia: It is one of the Departments (Regions) of Colombia.

Arsario: It is one of the indigenous communities that inhabit the Sierra Nevada de Santa Marta (Corte Interamericana de Derechos Humanos, 2004).

Atracadero: It is the place where ships can dock (Berth).

Audiencia de Santa Fe: It was the “Audiencia” created in 1550 by the Spanish Monarchy, “It was governed by the New Laws of 1542, as they constituted the most recent ordinance issued in this regard” (Banco de la República, Banrepcultural).

“The district of the Audiencia, understood as the territory within which the agency exercised jurisdiction, underwent variations. Initially, the provinces of Santa Marta, Nuevo Reino de Granada, Popayán and Río de San Juan were subject to the Audiencia. Before the installation, the residents of Cartagena requested the separation of their province from the Audiencia of Santo Domingo and its annexation to that of Santa Fe, which they achieved in 1554” (Banco de la República, Banrepcultural).

Banana activity: It was the main economical activity of exportation during the XX Century in the Region, “The history of the banana industry began with the name of a company that has marked the Caribbean region throughout the 20th century: United Fruit Company” (Banco de la República, Banrepcultural).

Bastioned defense: “It is the main defensive element within a fortification, its shape is similar to an arrowhead. The bastion is composed of three elements: flank, face and ridge”. ”Es el principal elemento defensivo dentro de una fortificación, su forma es similar a una punta de flecha. El baluarte se compone de tres elementos: flanco, cara y gola. Existen varias tipologías de baluarte, éste puede ser: lleno, vacío, unido, doble y cortado”. Sara Elizabeth Sanz Molina, Tres fortificaciones en Nueva España: un estudio arquitectónico constructivo, tesis doctoral, Barcelona, Escuela Técnica Superior de Arquitectura de Barcelona-Universidad Politécnica de Cataluña, 2002, s. p.

Battery: It is a small fortress, that protects the areas near to the castles, the sites that are planned to be reinforced with artillery can be cataloged as “Battery”.

Battery La Intermedia: Battery in the defensive system of Santa Marta, placed between the Fortresses of San Juan de Las Matas and San Vicente, on the Beach of Santa Ana.

Battery of San Carlos: Battery located at the Morro, together with the Battery of Santa Ana are known as the Fortress of El Morro.

Bonda: It is a village of indigenous origin, located in the vicinity of the River Manzanares.

Cabildo: It was the representative institution of the city during the colony, which had a jurisdiction on the city and its function.

Cacique of Bonda: Governor or leader of the indigenous people of Bonda.

Caciques: A Cacique is the leader of an indigenous community.

Capitulations: The capitulations were public-private agreements, signed by Castile, observing that America is too big and there is no way to manage it with its own resources, through these, the crown signs a capitulation with a private individual, who pays what is necessary to reach the new lands and to be able to found cities (Mahecha, A y Mazuera, P. (julio-diciembre, 2017). Las Leyes de los Reinos de las Indias. Revista Diálogos de Saberes, (47)35-53. Universidad Libre (Bogotá). <https://doi.org/10.18041/0124-0021/dialogos.47.2017.1695>)

Cartagena de indias: City founded by Pedro de Heredia in 1533, it was part of a military, economic and historical system of the New Kingdom of Granada, the city played an important role in the geopolitical approach of the Spanish Monarchy in America (Gutiérrez Ramón, 2005, 237).

Casas-fuerte: Small type of fortification built during the colony, with the objective of defending the towns founded by the crown, during the Spanish conquest, they also functioned as watchtowers and protection posts during attacks on the city.

Castellano: Person from the kingdom of Castile.

Cédulas reales: ”It is an eminently dispositive document, which became the normal vehicle for relations between the king and the Indian authorities; it generally contains a precept of governance”. “Es un documento eminentemente dispositivo, que se convirtió en el vehículo normal de relación entre el rey y las autoridades indianas; encierra, generalmente, un precepto de gobernación”. Archivo General de la Nación de Mexico, https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=0CAIQw7AJah-cKEwjI6_X31uX_AhUAAAAHQAAAAQAw&url=https%3A%2F%2Farchivos.gob.mx%2F-GuiaGeneral%2Fpdf%2F001%2F100-Reales-Cedulas.pdf&psig=AOvVaw36iSHnd5bLs7xgbCG-3fv8p&ust=1688031883089684&opi=89978449

Cerrito:

Cerro Zimura: One of the mountain elevations located in Santa Marta, that conforms its bay and that stands out for its vegetation.

Chibchas: Ancient Muisca civilization that was located in the central Andina region of Colom-

bia.

Chimilas: It is an indigenous Colombian ethnic group that can be located in the department of Magdalena.

Cocinas: It is an indigenous Colombian ethnic group.

Colonial forts: It refers to the fortifications built during the colonial period.

Consejo general de las Indias: It was the judicial and legislative institution of the Spanish empire in America.

Consejo real de las indias: It was the judicial and legislative institution of the Spanish empire in America.

El Cabo de la Vela: It is a coastal feature on the northern region of Colombia, with the native name Jepirra.

El Dorado: It is a legend originated during the first years of the Spanish conquest, that relates the story of a city built of gold.

Fortification: Military building built for the protection of a city during attacks.

Fortes Nuestra Señora de la Caridad: Fortification on the bay of Santa Marta, located in Punta Betín.

Fortress: Military building built for the protection of a city during attacks.

Fortress la Concepción: Military battery located on the beach of Santa Ana.

Fortress of San Fernando: One of the Fortresses of the Bay of Santa Marta, located in the southern part of the bay, on the cliff La Pedrera, nowadays within the jurisdiction of the Military Base José María Cordova.

Fortress of San Vicente: Fortress of Santa Marta located on the beach of Santa Ana, its remnants can be found underwater.

Fortress San Juan de Las Matas: Fortress of Santa Marta located on the beach of Santa Ana.

Gaira: Township part of the municipality of Santa Marta.

Goajiros: Indigenous ethnic group mainly settled in the Guajira peninsula.

Guerra del Caribe: It refers to the conflicts held in the caribbean sea between pirates, corsairs and Spanish ships.

Historic center: Historical city center of Santa Marta.

Iglesia Mayor: Main church.

Caribe: Indigenous group.

Infanta: Legitimate son of the king, not direct heir to the throne.

José Maria Cordova Military Battalion: Military base of Santa Marta that borders with the fortress of San Fernando.

Junta de fortificación de la defensa de las Indias de Madrid: La Junta de Guerra se crea en el seno del Consejo de Indias por Real Cédula dada en Valladolid a 25 de agosto de 1600, para ocuparse de las competencias de éste en materia militar. (ES.41091.AGI/24)

Kankuamo: It is one of the indigenous communities that inhabit the Sierra Nevada de Santa Marta (Corte Interamericana de Derechos Humanos, 2004).

Kogui: It is one of the indigenous communities that inhabit the Sierra Nevada de Santa Marta (Corte Interamericana de Derechos Humanos, 2004).

La pedrera: Urban cliff located on the Cerro Zimura, and location of the fortress of San Fernando.

La Vigia: Small military building that works as a watch tower or site.

Laws of the Indies: Refers to the collection of laws emitted by the Spanish crown for the regulation of its possessions in America.

Leguas: Length measurement.

Llave de acceso: Refers to Santa Marta, as the site of access for the River Magdalena.

Macuiras: Indigenous people community.

Manzanares: River that crosses the city of santa marta and originates in the sierra nevada.

Masingas: Indigenous people community.

Master plan 500 years: Refers to a Master plan for the 500 years of the city, which is conformed of 25 projects, proposed to be developed in a short, medium and large periods of time.

Metropolis: Refers to Spain during the colony period.

Military Engineers: Military engineers in charged of the construction, consolidation and / or reinforcement of the fortifications.

Morrito: Small islet located in Santa Marta bay, between El Morro and Punta Betín.

Morro: Islet located in Santa Marta bay.

New Kingdom of Granada: It refers to the name given to a territorial entity, of the Spanish Empire, during the colony in America, which corresponds to the nowadays called Colombia.

Nueva Granada: Refers to the New Kingdom of Granada.

Ordinances: Laws emitted by the Spanish Empire for its possessions in America.

Palenque: villages protected by fortifications in the form of palisades and moats.

Parapeto atronado: The parapet is an element that defends the soldiers chest from enemy attacks.

Perú: Country located in south America.

Platform: “Es una batería, ordinariamente de figura rectangular o de trapecio, que en las

grandes cortinas ó en ángulos entrantes de los recintos irregulares, suple por el baluarte plano, cuando para éste no hay capacidad ó se puede minorar el gasto por la situación. Cuando el recinto irregular, tiene un ángulo entrante menos obtuso de lo que conviene a la formación de un baluarte plano, es muy útil la plataforma” “It is a battery, ordinarily of rectangular or trapezoidal shape, that in the great curtains or in the incoming angles of the irregular enclosures, is supplemented by the flat bastion, when for this one there is no capacity or the expense can be reduced by the situation. When the irregular enclosure has a less obtuse incoming angle than is convenient for the formation of a flat bastion, the platform is very useful” (Zapatero, 1980).

Platform of Santa Ana: Platform located in the Islet El Morro.

Plaza: Refers to a city.

Plaza armada: Refers to a protected city with fortifications.

Plaza de armas: Refers to a protected city with fortifications.

Plaza Fuerte: Refers to a protected city with fortifications.

Plaza Mayor: Main square of the city.

Plazas Fortificadas: Refers to the Colonial cities that had been fortified or where fortifications were built up for its protection.

Popayán: It refers to the province of Popayán, during the colony, it was an administrative and territorial entity of New Granada, and part of the Virreinato of Perú.

Portillo:

POT: Territorial Plan of Ordinance.

Pozos Colorados: It is a sector of white sand beaches in Santa Marta, of touristic importance.

Punta Betín: Rocky cliff located at the northern end of Santa Marta, offers a broad panorama of the city and four bays.

Rancherías: Small rural settlement

Real Academia de matematicas de Barcelona: Academy that during the XVIII Century that trained military engineers for the Real Cuerpo de Ingenieros.

Reductos: “Pequeno fuerte, de figura cuadrada o rectangular, de 30 ó 60 varas de lado, sin otra defensa que la de frente” “Small fort, of square or rectangular shape, 30 or 60 yards on a side, with no other defense than the front” (Zapatero, 1980).

Region of Magdalena: Refers to one of the 32 “Departamentos” that conform Colombia.

Republican Style Buildings: Refers to the architectural style developed during the XIX and XX Century.

Rica promesa: Refers to the riches promised during the Spanish conquest.

Riohacha: Municipality located in the region of La Guajira.

River Magdalena: A river that flows into the Caribbean Sea and that originates in the Region of Huila.

Santa Cruz de Mompox: It is a special touristic, historical, and cultural district of Colombia.

Santa Fé: City founded during the Colony, nowadays known as Bogotá.

Santiago de Cali: It is a Colombian city located in the Valle del Cauca Region.

Sierras: Set of mountains in which the tops give a serrated appearance.

Slave ship: Vessel used during colonial times by slavers to transport slaves.

Spanish Plazas: Cities that belonged to the Spanish Crown.

Special District: Refers to the cities in Colombia, that due to their special characteristics are cataloged under this category, the characteristics taken into consideration for this category are the geography, economy, resources, and cultural importance.

Special District of Santa Marta: Refers to Santa Marta as a special district of Colombia.

Surgidero: Place where a vessel can anchor.

Taganga: Township of Santa Marta.

Thirty years war: War held in Europe between 1618 and 1648.

Toise: It is a unit of measurement originated in France.

Trench: Long narrow ditch.

United Fruit Company: American multinational corporation, that traded with tropical fruits to sell in the United states of America or Europe.

Varas: It was a unit of measurement commonly used in Spain and Portugal, during the Colony.

Varas Castellanas: It was a unit of measurement commonly used in Spain and Portugal, during the Colony.

VIP housing: It is a social housing whose maximum value is ninety legal monthly minimum wages.

Virreinato: It is a relatively autonomous territorial division of a kingdom.

Virrey: Person who governed a territory in place of the king, with the same authority and powers as the king.

VIS housing: Housing with a maximum value of one hundred and thirty-five legal monthly minimum wage.

War for the Third Family Compact: Third family compact between the Spanish and French monarchies, which involved Spain in the French conflict with the English.

War of Jenkin’s Ear: War between Spain and England, held between 1739 and 1748.

War of Spanish Succession: War held between 1701 and 1715.

War of the Quadruple Alliance: It was a war caused by the attempts of Spain to recover territories in Italy.

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487. Wind flow in the fortress of San Fernando proposal, elaborated by the author.
488. Axonometry intervention fortress of San Fernando, elaborated by the author
489. Master plan proposal, elaborated by the author

Thesis, Annexes



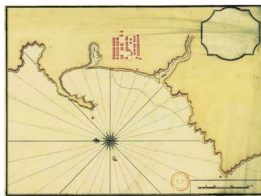
Plano de la ciudad de Santa Marta. ES.41091.AGI//MP-PANAMA,273



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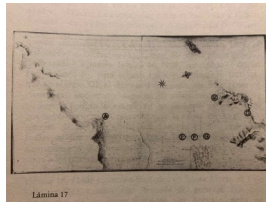


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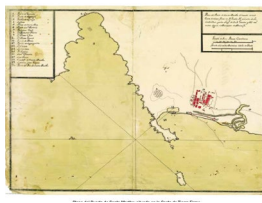


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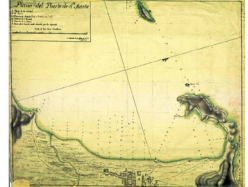
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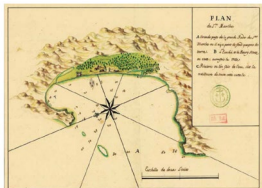
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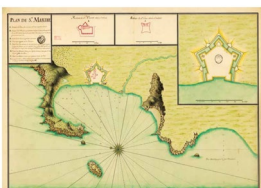
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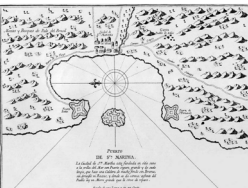
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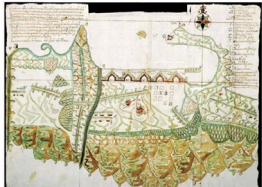
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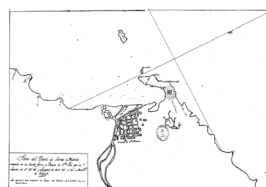
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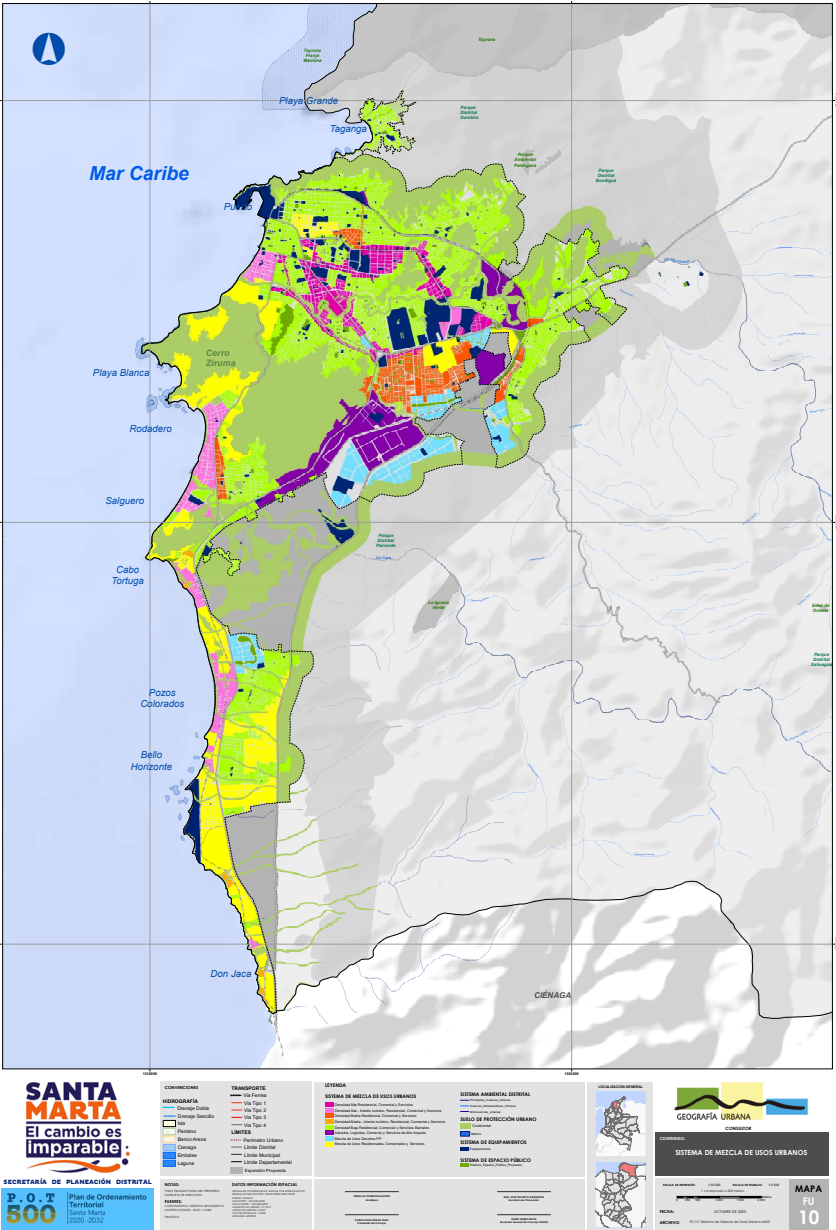
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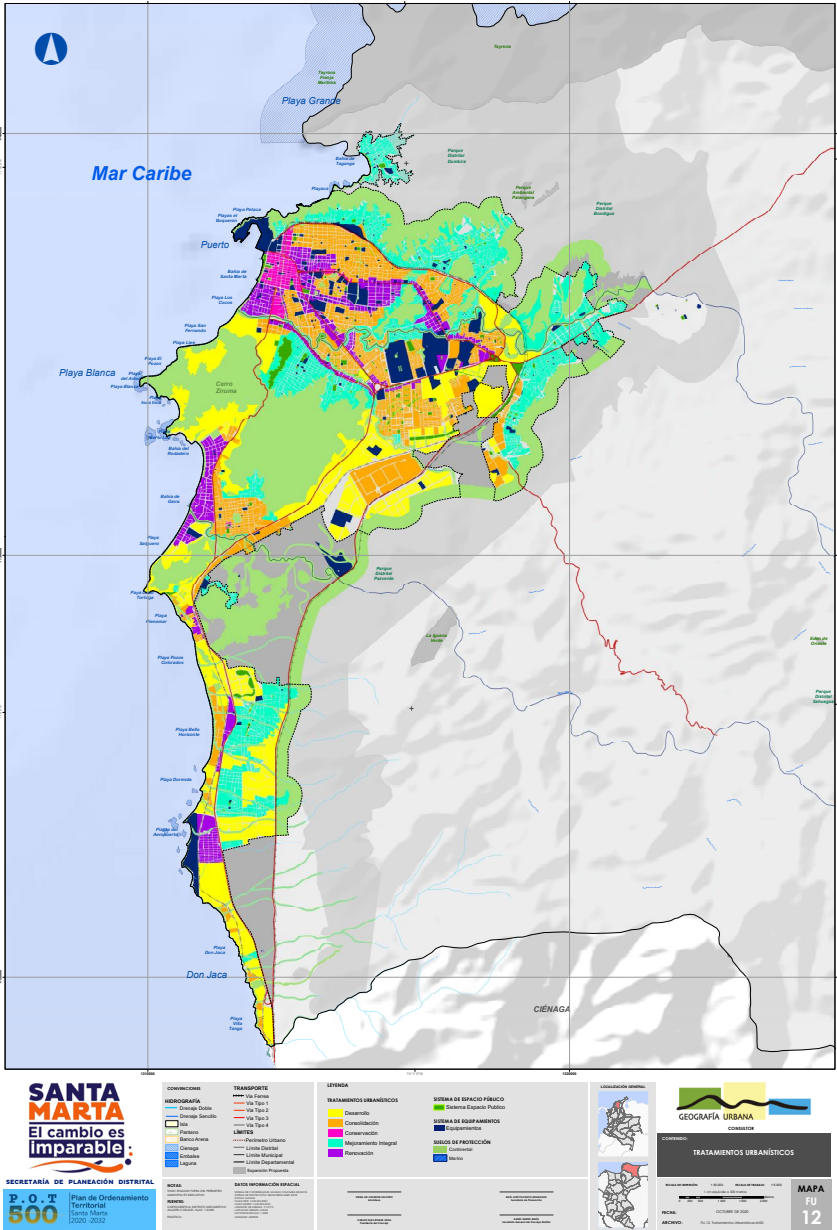
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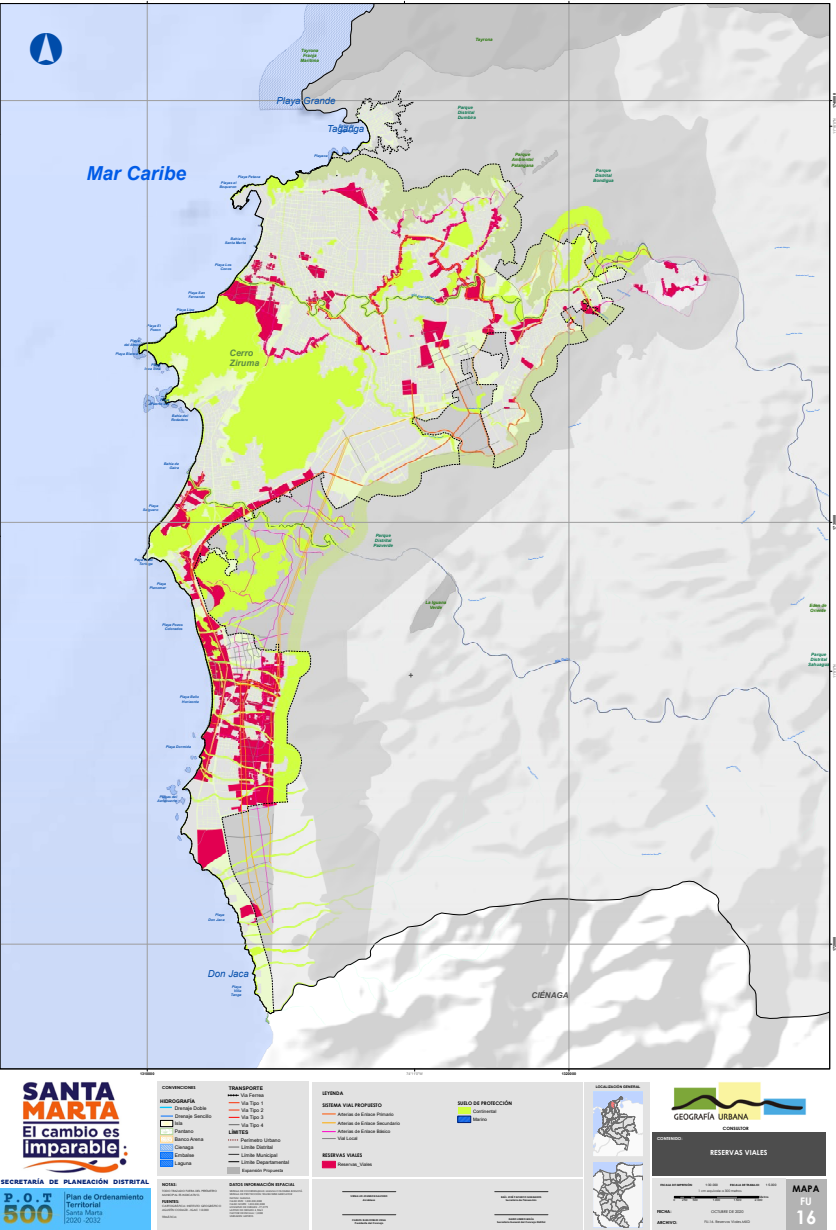
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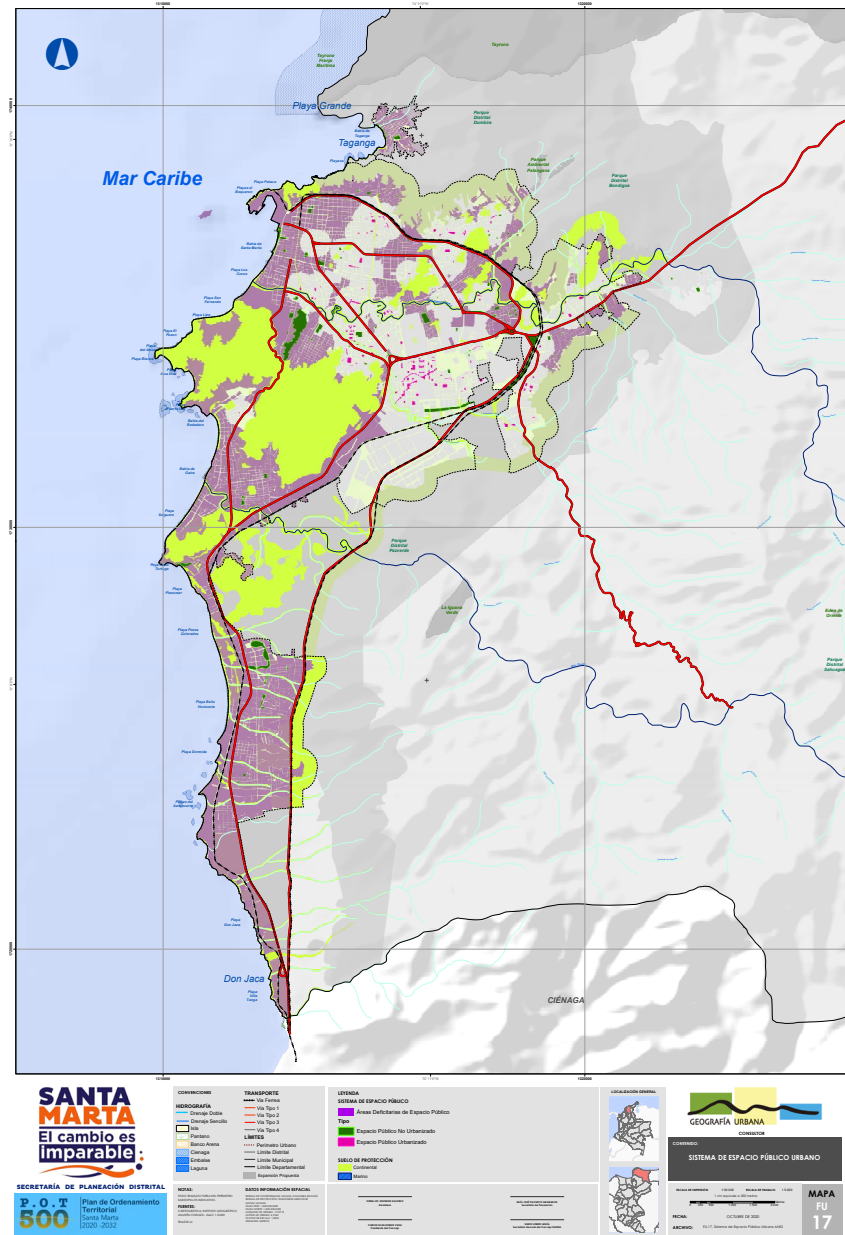
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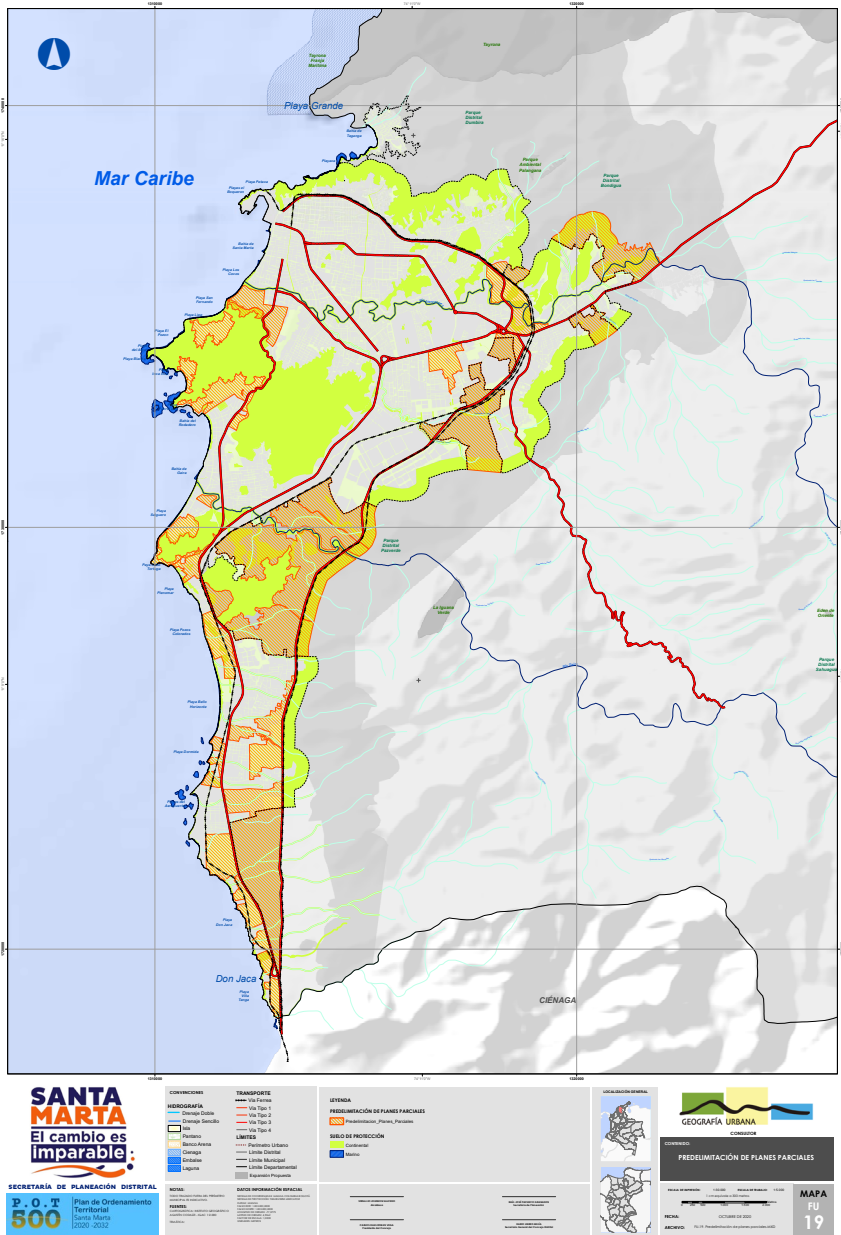
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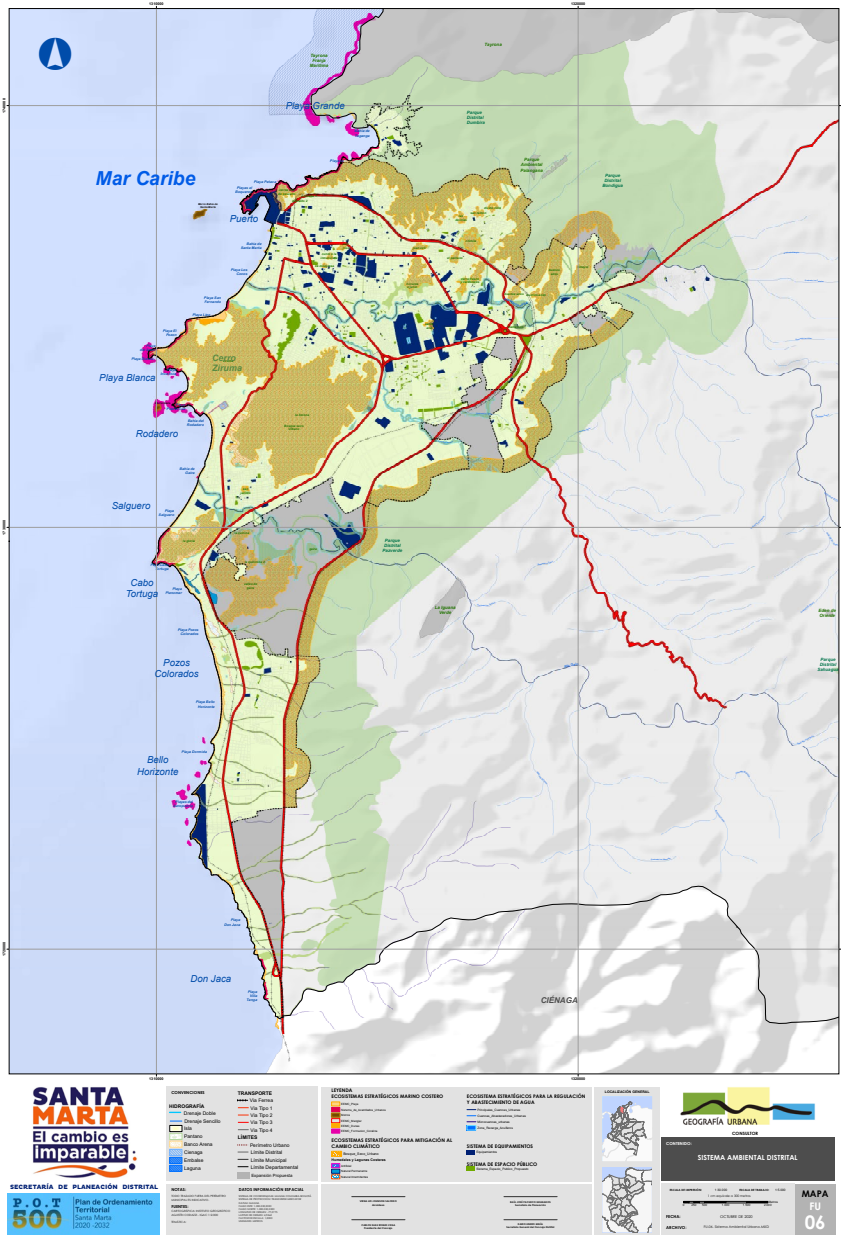
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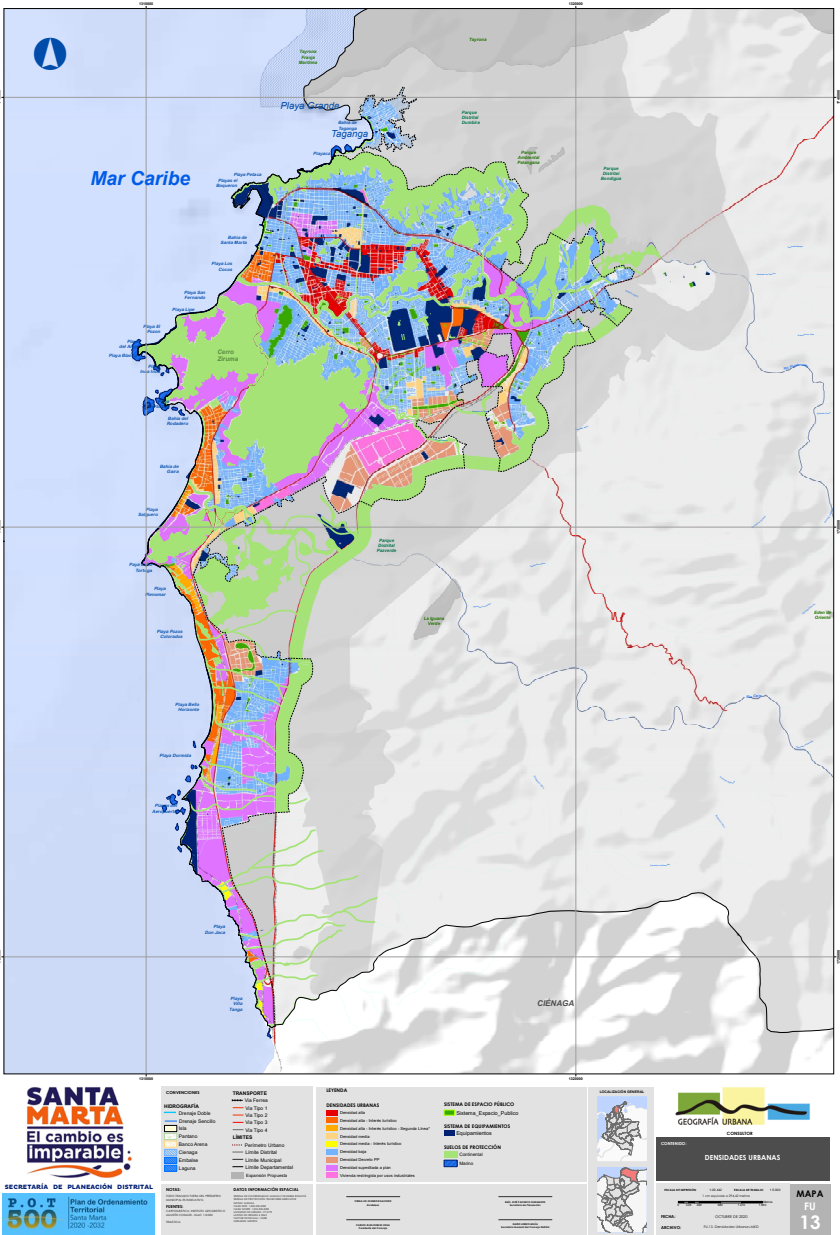
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6_-fu-06_sistema_ambiental_urbano_1



13_-fu-13_densidades_urbanas_1

