

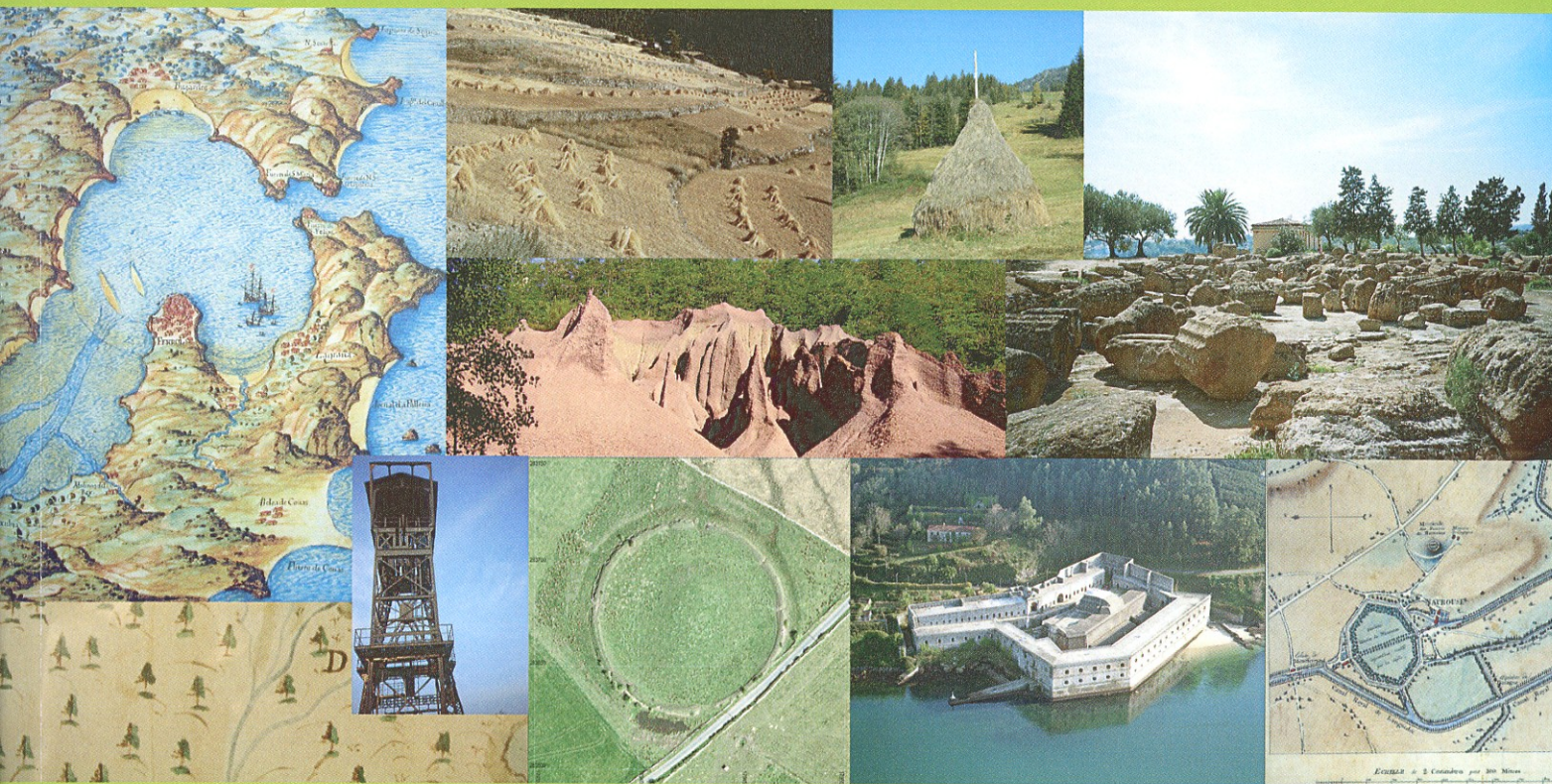
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Patrimoine, Images, Mémoire des paysages européens

Heritage, Images, Memory of European Landscapes



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Patrimoine, Images, Mémoire des paysages européens

Heritage, Images, Memory of European Landscapes

Paysages d'aujourd'hui / paysages d'autrefois, c'est à démêler leurs imbrications mouvantes que ce livre veut entraîner le lecteur, au cœur de grands enjeux de société dont témoigne ce patrimoine culturel que sont les paysages européens.

À travers le large panel sélectionné par les chercheurs, c'est la longue mémoire enfouie de l'histoire de l'Europe qui émerge dans les variations de la gamme profuse d'images et de représentations qui surgissent.

Les quelque 30 cas présentés illustrent aussi la pluralité des approches mises en œuvre dans des démarches de recherche et d'analyse devenues désormais inséparables des politiques de protection et de sauvegarde du patrimoine environnemental et paysager comme des pratiques de valorisation de ce bien culturel commun et non renouvelable.

How can we tell apart the shifting, interlocking patterns of the landscapes past or present – this is the challenge of this book taking the reader to the heart of the various societies of this cultural heritage that we call the European landscapes.

Across the broad panel selected by the researchers it is the long-trailing memory of European history itself that emerges in the profuse scope of images and representations.

By presenting some thirty cases the book displays the plurality of approaches undertaken in the research and analysis that has come to be part and parcel of the protection and safeguarding policies for the environmental and landscape heritage as well as the valorization practices of this common cultural non-renewable asset.

Laure LÉVÊQUE, maître de conférences à l'Université de Franche-Comté (France), **María RUIZ DEL ÁRBOL**, chercheur à l'institut d'Histoire du CSIC (Madrid, Espagne), **Liliana POP**, maître de conférences de littérature anglaise à l'Université de Cluj (Roumanie) travaillent au sein du collectif européen COST A 27-LANDMARKS.

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dirigée par Monique Clavel-Lévêque et Laure Lévêque



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47 €

Collection *Histoire, Textes, Sociétés*

Pour questionner l'inscription du sujet social dans l'histoire, cette collection accueille des recherches très largement ouvertes tant dans la diachronie que dans les champs du savoir.

L'objet affiché est d'explorer comment un ensemble de référents a pu structurer dans sa dynamique un rapport au monde. Dans la variété des sources – écrites ou orales –, elle se veut le lieu d'une enquête sur la mémoire, ses fondements, ses opérations de construction, ses refoulements aussi, ses modalités concrètes d'expression dans l'imaginaire, singulier ou collectif.

**Patrimoine, Images, Mémoire
des paysages européens**

*Heritage, Images, Memory
of European Landscapes*

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COST– the acronym for European **CO**operation in the field of **Scientific and Technical Research** – is the oldest and widest European intergovernmental network for cooperation in research. Established by the Ministerial Conference in November 1971, COST is presently used by the scientific communities of 35 European countries to cooperate in common research projects supported by national funds.

The funds provided by COST – less than 1% of the total value of the projects – support the COST cooperation networks (COST Actions) through which, with only around €20 million per year, more than 30,000 European scientists are involved in research having a total value which exceeds €2 billion per year. This is the financial worth of the European added value which COST achieves.

A “bottom up approach” (the initiative of launching a COST Action comes from the European scientists themselves), “à la carte participation” (only countries interested in the Action participate), “equality of access” (participation is open also to the scientific communities of countries not belonging to the European Union) and “flexible structure” (easy implementation and light management of the research initiatives) are the main characteristics of COST.

As precursor of advanced multidisciplinary research COST has a very important role for the realisation of the European Research Area (ERA) anticipating and complementing the activities of the Framework Programmes, constituting a “bridge” towards the scientific communities of emerging countries, increasing the mobility of researchers across Europe and fostering the establishment of “Networks of Excellence” in many key scientific domains such as: Physics, Chemistry, Telecommunications and Information Science, Nanotechnologies, Meteorology, Environment, Medicine and Health, Forests, Agriculture and Social Sciences. It covers basic and more applied research and also addresses issues of pre-normative nature or of societal importance.

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Interrelations between the Castle of La Palma and the Estuary of Ferrol (Galicia, Spain).

The construction of a defensive landscape

The background to the study

As part of the process of creating an architectural project for the rehabilitation of the Castle of La Palma as a hotel and spa¹, having been acquired by a private company², a series of preliminary studies were requested, aimed at carrying out a survey of the building prior to the commencement of work and making it possible to create an architectural project that respected the castle's history.

These studies, carried out by a team including members from the Landscape Archaeology Laboratory (LAR) of the "Padre Sarmiento" Institute of Galician Studies (Spanish Higher Council for Research-Xunta de Galicia) and the Laboratory of Heritage, Paleoenvironment and Landscape (LPPP), part of the Technological Research Institute of the University of Santiago de Compostela and an Associated Unit of the Spanish Higher Council for Research, represented the ideal opportunity to uncover the his-

torical evolution of the castle and the fortified system of the Estuary, as well as the social processes underlying the constructive history of both.

The three sections that follow are aimed at offering a summary of the results of the work carried out at micro, semi-micro and macro level in the Castle of La Palma and its surrounding area. The complexity of the structure and the landscape in which it is set calls for a more detailed description than that offered in this article, in which we focus on the most relevant features, placing special emphasis on its historical evolution.

The Castle of La Palma as a building

The site we refer to as the Castle of La Palma currently comprises a main structure and a series of neighbouring buildings that depend on it, which form a part of the complex defensive system of the

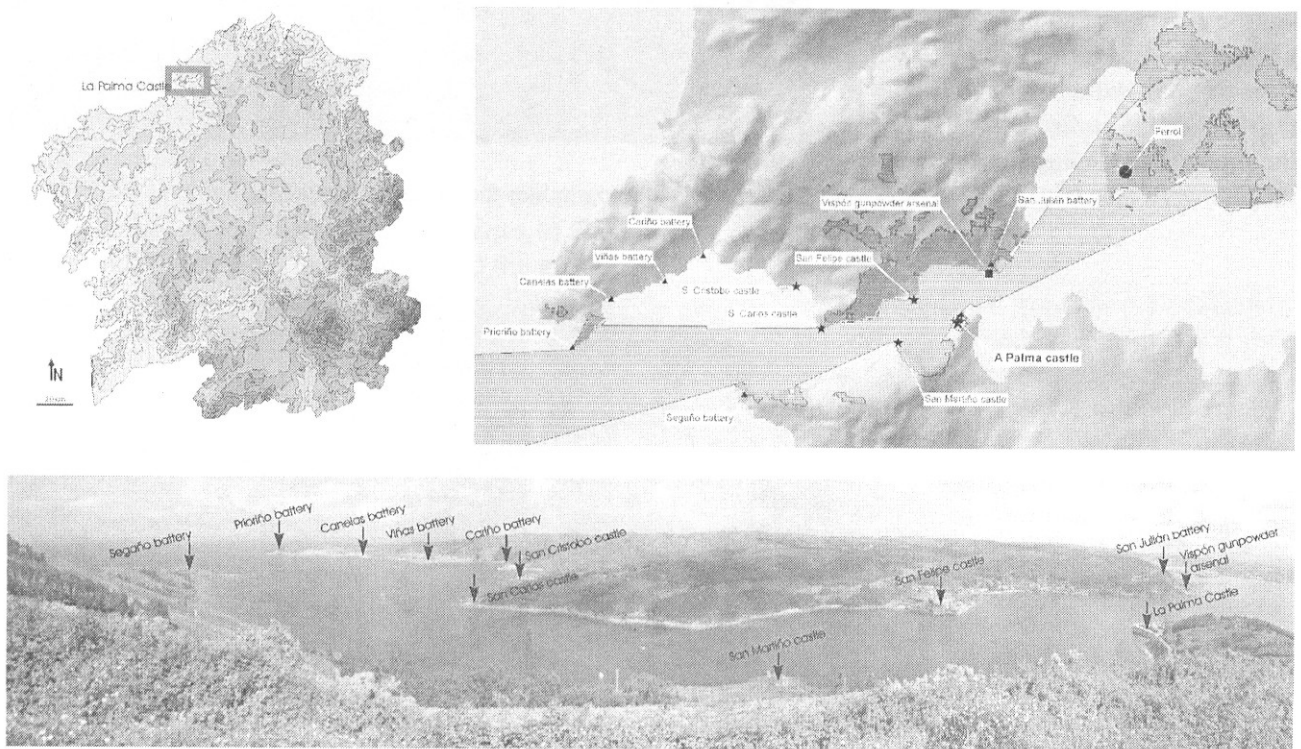


Fig. 1: Map showing the situation of the Castle of La Palma, visibility calculation and location of the fortifications in the Estuary of Ferrol.

Estuary of Ferrol, situated at the narrowest point of the Estuary together with the castles of San Felipe and San Martín (fig. 1).

The building that stands on the site today is polygonal and irregular, designed to concentrate cannon fire on different parts of the Estuary and also towards the land. It is made entirely of granite, although some parts were rebuilt in the twentieth century using concrete as an external covering.

From the outside it has all the appearance of an impenetrable fortress, with a dense, solid architecture in line with its defensive function and giving priority to practicality rather than aesthetic values. This appearance, combined with the fact that the whole of this area is strongly fortified, contributed towards dissuading the intentions of enemy marauders before they decided to attack (fig. 2).

Today the building is comprised of four clearly differentiated parts in functional, defensive and constructive terms: the *Primera Línea* and *Segunda Línea* (First and Second Lines), the *Línea de Gola* (the rear section of the bulwark or “gorge line”) and the *Galería Aspillera*, a parapet equipped with slits through which cannons and muskets could be fired, and finally the *moat*, surrounding the castle on the landward side (fig. 3).

The constructive stages of the Castle

Stage I: the late sixteenth century

Our knowledge of the castle at this stage has been made possible by the documents and maps of the Estuary preserved from this period and the seventeenth century. Its detailed layout has been deduced from the different plans and projects dating from the eighteenth century, representing the “old compound”, as it was decided to maintain this original structure and add an outer section facing landwards³.

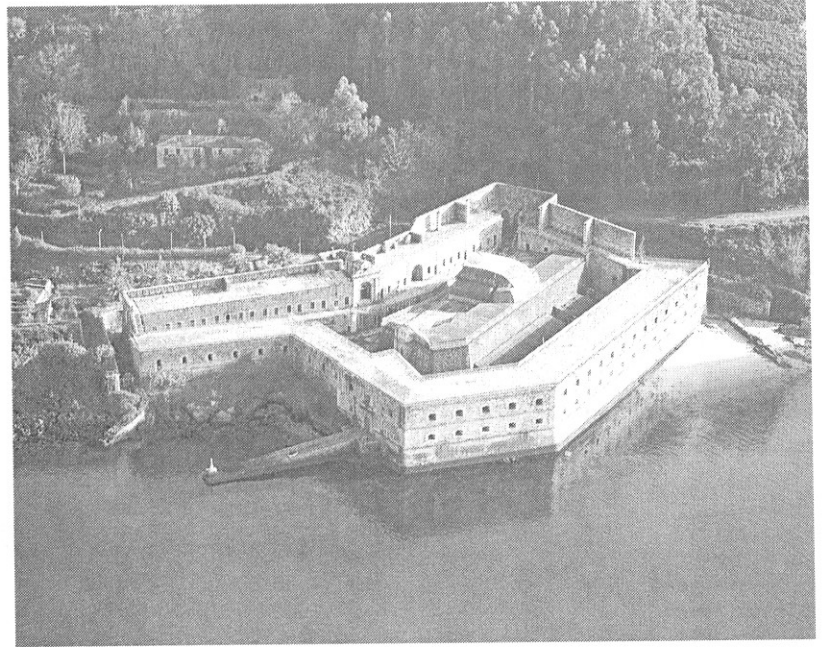


Fig. 2: Aerial photograph of the Castle of La Palma.

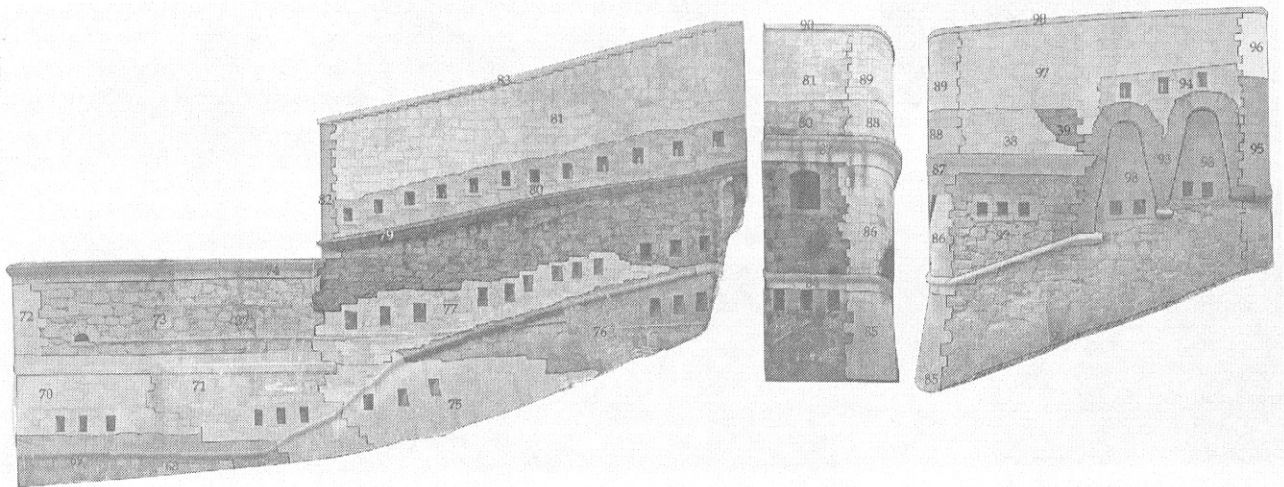


Fig. 3: Stratigraphic reading of the façade of the Castle of La Palma.

The castle from this period corresponds to the theoretical design of the so-called *Fuertes de Marina* or “Sea Fortresses”, proposed in 1598 by the engineer Cristóbal de Rojas⁴. The layout comprised of an irregular quadrilateral structure, with two frontal sections with bulwarks facing towards the land, and three artillery emplacements facing towards the sea.

The interior is arranged in three levels of different height, communicated by ramps. The first level, entered through the sea gate, is separated from the second by a small, curving wall; a sloping terrace connects the first and third levels. On the upper level there are three structures adjacent to the wall facing landwards, although we do not know if these formed a part of the first castle, or if they were added in the eighteenth century.

The old layout was maintained until the nineteenth century, when it was extended towards the sea and land, responding to changes in types of artillery and fortifications that occurred at this time.

Stage II: the first third of the eighteenth century

During this period, a series of projects were carried out between 1729 and 1732 by the architects Montaigú and La Ferrière, which affected both the interior and exterior of the old structure. This led to the construction of two external batteries adjacent to the landward façade of the castle from stage I, built in the highly angular style typical of the eighteenth century, aimed at improving the fortification systems of the “Marine Fortresses”⁵.

This external addition contained the Battery of San Fernando to the north, the Batteries of San Felipe and Santa Isabel to the south and the guardhouse, a new building with archways built against the main wall between the bulwarks of the old compound. The perimeter was enclosed by a wall with openings for gunners at the top, and in the centre a small bulwark was built, with a door at ground level in its northeast corner that opened out onto three pathways. Communication with the old compound was through a door beneath the northern part of this bulwark, leading to the battery of San Fernando.

The changes that were made inside the old compound led to the appearance of a number of new structures, particularly the construction of a powder magazine; changes in the communications systems between the three levels; the opening or blocking-off of new cannon openings; the opening of firing positions for riflemen; reform work on the wall sep-

arating the first and second levels; reform work on the gateway leading to the sea, and the construction of lookout towers and walls facing landwards.

Stage III: the last third of the eighteenth century

During this period, the layout of the castle did not change with respect to state II, although a number of modifications were made to the interior and exterior of the angular structure and the interior of the old compound.

Apart from the internal modifications affecting the different structures, communications systems and gun emplacements, a moat was designed to surround the whole of the outside walls of the castle. Reforms were also carried out on the gateway leading to the sea and the wall separating the first and second levels of the old compound.

Throughout the nineteenth century, changes and improvements in artillery had an immediate effect on the architecture used for fortresses. The Montalambert system thoroughly reformed the concept of the fortress, whose main effect was to have the guns installed in fortified emplacements or casements.

These changes were applied to the castle of La Palma in the second half of the nineteenth century, with plans for remodelling the structure beginning in 1858⁶. Work was carried out constantly in the second half of the century, characterised by a constant succession of starts and stops in the progress of work as a result of the unstable economic situation.

Stage IV: 1861-1863

The project and plan from this period, both by Enrique Montenegro and dating from 1861 and 1863 respectively are still preserved, revealing the progress of work at that time. The castle was extended towards the land and sea, with land reclaimed for the building project. The polygonal layout was now configured with a seaward-facing section with a first and second line. The first had four batteries, two in casemates and two in open emplacements. The second line faced seawards and had the same profile as in previous stages of the castle, with a large, open gun emplacement with a polygonal design. The gunpowder magazine was situated at its northern end. It was protected by three large embankments, with ditch between both lines.

The landward wall had two bulwarks at each

end. The wall was angled, divided by a small chapel, with two further angled sections on either side. The gateway leading in to the castle from the landward side was to the south. The rooms in this section were of different sizes, becoming smaller towards the stepped bulwark. The whole of this section was crowned by battlements, and surrounded by a moat.

To the south of the castle was another gallery with firing positions, with five areas laid out in a terraced design, adapted to the gradient of the land. From the east, the first of these areas is small and rectangular, while the rest are square.

Stage V: 1867-1883

Only the plans from the work carried out in 1883 have been found, although thanks to the stratigraphic evidence seen in the structure, we are able to deduce the setbacks that occurred during this work as a result of economic problems.

Work was carried out in different levels and areas of the castle. The layout of the second line was altered; the western elevation was rebuilt in a straight line, and the area between it and the internal ditch was filled in and flattened and laid out as a garden. The artillery parapet was divided into two sections by installing square casemates. A Krupp cannon was installed in each emplacement, which required the powder magazine to be reinforced with pillars, a new arch to be built, and a special structure to support the cannons within each casemate.

The inner ditch was reduced in size. The inward-facing guns were enclosed in casemates, and the gallery with firing positions was changed to an irregular polygon, adapted to the new dimensions of the second line, and causing the rooms to be of different sizes.

The least advanced zone in this stage is the rear section of the bulwarks. The new project considerably altered its shape: the two bulwarks at either end were removed, and a cannon emplacement was built in its centre. The rooms in the pavilions were now all the same size, and the patio between the wall and the gallery with firing positions was made smaller.

The battlements on top of the landward facing wall were built with seven parapets to protect the castle's defenders. The moat was adapted to the new profile of the wall to the rear of the bulwark, with work beginning in the final part of this stage. Rails were laid at this stage for transporting materials within the castle's walls.

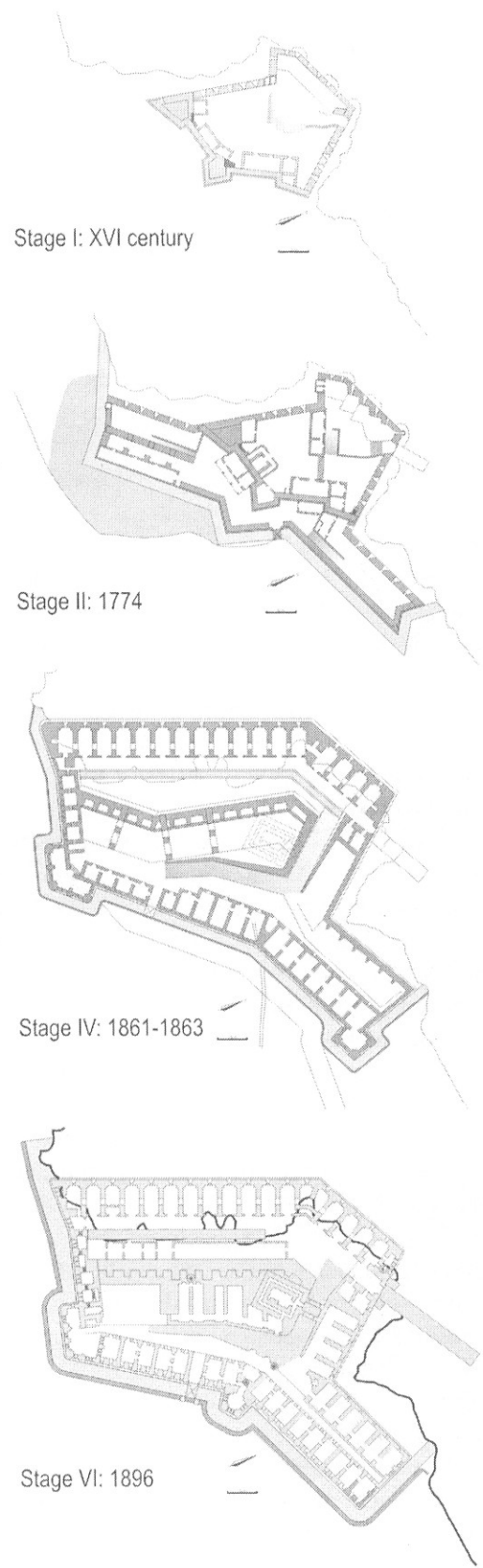


Fig. 4: Constructive evolution of the Castle of La Palma between the fifteenth and nineteenth centuries.

Stage VI: 1883-1896

The plans from the end of construction work in 1896 still exist, signed by Antonio Vidal, and correspond to the present-day appearance of the castle.

During this stage modifications were made to the wall with firing positions on the landward side, partially destroying the previous structure and raising the new wall higher; the installation of latrines and washrooms in the inner ditch in 1894, together with the construction of two new rectangular buildings over what had been planned as the garden; modifications to the firing positions in the second line, which were now used as storerooms, and to the rooms in the ground floor; modifications to the western side of the gorge line at the entrance to the ground floor of the casemate, and finally, modifications to the railway line (fig. 4).

Stage VII: 1914

The structure built in 1883 to support the Krupp cannons was demolished and covered over, after the cannons were taken to the Segaña battery in 1914, after the war between Spain and the USA.

At this time the section with firing positions was covered over with concrete, together with the parapets of the gun platforms on both sides.

Stage VIII: the second half of the twentieth century

During this period, minor building work was carried out in the rooms of the castle, which were adapted as dormitories, living rooms, bathrooms, kitchens and living areas. This work affected the batteries on the side, flank, back and seaward wall of the castle, as well as the building in the rear wall of the bulwark.

The Castle of La Palma and its architectural ensemble

A second analysis was carried out at semi-micro level to study the constructions immediately surrounding the castle, comprising a series of structures connected with its function, its construction in different stages, and its relationship with other buildings belonging to the general system throughout the estuary.

Here a number of roads have been documented, together with external batteries, four buildings, a lighthouse, quarries and rubble pits.

Roads and pathways

Some of the most important elements in building structures of this kind were the roads and pathways that led to the different buildings and communicated them with each other. Also, these were essential during construction work for transporting materials.

These roads are seen in the plan by La Ferrière from 1732, showing a main road running from NE to SW, with two smaller paths leading to the entrance to the castle, and a third leading towards the coast. This same layout is also seen in the plan by Hermosilla from 1774, although by then the coastal road had disappeared. The main road was further to the east than today, and crossed the area where buildings 2, 3 and 4 stand today, which required a series of terraces to be built. As a result of the new project of 1861 and the expansion of the castle, the side roads had to be modified. In the project from 1883, a series of layouts were proposed for the construction of a new road running around the castle and along the coast as far as the Segaña Battery.

Exterior batteries

Built during stage VI, these are included in the plans from 1896. They were installed to the northeast of the castle, facing towards Ferrol and covering the most open section of the Estuary, having passed the triangle formed by the castles of La Palma, San Felipe and San Martín. Their position indicates that apart from being used to defend against invaders entering from the sea, they were also used to control the revolts that took place during that period in the city of Ferrol.

The batteries are trapezoidal in shape, with the widest opening facing towards Ferrol, and the artillery positioned against the narrowest section.

The lighthouse

The lighthouse was added in the second half of the nineteenth century, as it was included in the project from 1861, with the same structure and dimensions as seen today.

The lighthouse is square, and surrounded by a walkway with a staircase at its southern end that leads to the road, and another to the west that leads towards the sea. The structure is conical with a lantern that rises out of its four-sided, tiled roof. It is surrounded by the walls of a single-storey building.

Buildings

Building 1

Located to the left of the path leading to the main building, according to Sánchez⁷ it was built around 1896 “when the Artillery Command ordered a garage to be built to store the locomotive under cover”, used for carrying artillery pieces around the castle.

The building is rectangular and built out of irregularly shaped granite blocks, with regular sections used for the lower section, corners, window and door surrounds and cornice. It is divided into two sections, reached through two large arched doorways. It was built in a single stage.

Building 2

Rectangular structure, with two floors and a gabled roof. It is built over a terrace with other architectural elements, and faces towards the Estuary.

It is built out of large stone blocks, which have now been rendered with plaster and painted. It was built in three stages, the first prior to 1883, the second at the end of the nineteenth century, and the third, when the upper floor of the building was completed, was in the twentieth century.

Building 3

Rectangular structure divided into two large rooms separated by a thick wall that served to support the gabled roof. All of the walls are rendered in plaster. There are signs of dividing walls in the southern end, which indicates that it once contained individual rooms. Nothing remains of the roof.

The building was used as a barracks for the workers involved in stage IV of construction work in 1863, and also as a storeroom. The perimeter of the building was completed in a single stage, and it underwent a series of minor reforms at a later date (fig. 5).

Building 4

A rectangular building in granite, smaller than the previous structure. The southern corner of the façade is built using large, regularly shaped stone blocks, while the other elevations are made using smaller blocks.

The interior is divided by stone walls rendered with plaster on the ground floor. The upper floor still contains a series of brick pillars, while the other dividing walls are in ruin.

Nothing remains of the roof, and all of the structure corresponds to a single stage of construction, with a series of later minor reforms.

No documentation has been found that refers to this building, although we believe it would also have been connected with the use of Building 3, and was built after it.

Quarries

A series of granite quarries have been documented along the coastline, roads and hills close to the castle. We believe that these were used for the main castle and the adjoining buildings, despite the fact that the specifications for the works stipulated that the granite blocks should only be taken from the hillside immediately alongside the castle. In fact, various types of granite have been documented in different parts of the main building.

Waste dumps

Stone fragments from the quarrying work have been dumped on the platform facing the sea next to the castle. Granite blocks of different sizes have been found, some of which have cut-marks. As was later discovered in the specifications sheets⁸, the materials had to be selected prior to being used in construction work. Those that did not pass this selection or the remains of previous structures were used as foundation materials, inside walls, or were dumped next to the coastline.



Fig. 5: Constructive elements documented within the architectural ensemble of the Castle of La Palma.

The Castle of La Palma and the defensive system of the Estuary of Ferrol

Today, the fortified landscape of the Estuary of Ferrol is being subjected a more in-depth study than we were able to carry out during the process of creating the Basic Project. Even so, a series of excavations were carried out in the area which have allowed us to advance some of the results we obtained. In this section we have also taken into account the work carried out by Rodríguez-Villasante⁹, who carried out a study of the defensive architecture of Galicia between the sixteenth and nineteenth centuries from a functional and formal point of view, exploring the implementation of the projects according to the strategic, tactical and logistical aspects of this type of architecture, as well as exploring the social, economic and technological panorama of this period, as well as the paper recently published by Cardesín¹⁰, analysing the founding and evolution of the city of Ferrol from a sociological point of view.

In this paper we will not embark on a detailed description of the constructive evolution of the city of Ferrol; in this case, we are interested in how the fortified landscape developed that protected the whole of the Estuary. We will refer to the city in the areas that affect us in this article.

The Estuary of Ferrol, situated in the north of Galicia in what is known as the “Artabrian Gulf” is a wide, deep stretch of water, surrounded by high mountains, making it an easy location to defend¹¹. These features have also meant it is the ideal location for docks, quays, arsenals and factories, situated at the end of the estuary. The distribution of fortresses throughout the estuary in modern and contemporary times is directly related to the city of Ferrol, particularly from the first third of the eighteenth century, when “[...] the monarch decided to found a new city, which would also bear the name of Ferrol, and in 1726 was named the Capital of the Northern Maritime Division”. This was motivated by the absence of any urban centres in the area “[...] apart from the small town of Ferrol [...], with scarcely more than one thousand inhabitants”¹².

Rodríguez-Villasante¹³ considers that a series of conditioning factors and criteria existed that influenced the positioning and function of this type of Galician architecture during the sixteenth and seventeenth century, basically the need to establish a system that protected the deep-sea fishing fleet, the whaling industry, and the important sea trade that ex-

isted at that time. Another important factor was the need to defend the frontier with Portugal during the Portuguese War of Restoration, or from attacks by Moors, Normans and pirates in earlier periods. The author also refers to the technical, economic and financial limitations of the defensive plans, and the need to create harbours capable of sheltering ever-larger vessels. Furthermore, there was the “[...] conditioning factor of lacking construction techniques in line with new needs and demands, and a lack of [...] personnel suitably qualified to build these structures, or with the ability to design in order to solve the problems related to fortifications”¹⁴.

The defence of Galicia in the sixteenth century was based on ancient mediaeval towers and walled towns and cities, both of which were incapable of resisting the newly-evolved types of artillery; while the mediaeval towns and cities with the deepest ports attempted to adapt to modern times by renewing their defensive systems, as was the case of Ferrol¹⁵, which was unable to construct adequate defences until the modifications and new projects that took place in the eighteenth century.

In the late sixteenth and early seventeenth century, there were a number of fortifications in the Estuary that revealed the need to create a more general network, which would not occur until the eighteenth century. At the foot of the estuary was the old town of San Julián de Ferrol, which Rodríguez-Villasante refers to as a “typical [...] example of a Galician coastal town from the sixteenth century”¹⁶. However, what interests us is the construction during this period of three castles at the narrowest point of the estuary: San Felipe, which began to be built in 1585, and San Martín and La Palma, both of which date from 1597. These three coastal batteries were able to provide crossfire at the narrowest point of the channel leading in to the estuary.

In the case of La Palma, its function during this period was to cover the whole width of the estuary. Rodríguez-Villasante considers that out of the three, La Palma “[...] had the most carefully-planned situation, closest to the typology of the seventeenth century [...]”¹⁷. Part of the walls of San Felipe still stand. It is perhaps the most interesting of the three castles that defended the entrance to the estuary in historical and constructive terms, as the different stages of construction may still be seen today. Rodríguez-Villasante considers that it has the most primitive layout of the three. It is a coastal battery combining a semi-circular structure with gun em-

placements along its parapets, with another with a star-shaped layout, both of which face towards the sea: the first towards La Palma, and the second towards San Martín. The castle is entered from the east, through a circular patio that leads to the battery (fig. 6).

Little remains of the castle of San Martín, which according to Rodríguez-Villasante was demolished in 1850. The area is covered in undergrowth, although signs a number of structures may still be seen. The author considers that its function was to defend the mouth of the estuary from the south. It had a low battery with emplacements facing out to sea, and on the landward side a wall with firing positions, three bulwarks and curtain walls. It was surrounded by a moat.

In the seventeenth century a series of official visits were made to the castles, and reports were written on their condition, revealing that San Martín and La Palma were in a highly ruinous state. There was great debate during this period as to whether both castles should be demolished and a new one built in Punta Leyra, something that never occurred¹⁸. Although it seems that no reform work was carried out on the castles, not even the maintenance work described in the official reports, Sánchez refers to reform work carried out in La Palma between 1656 and 1690.

The configuration of the defensive network protecting the whole of the estuary took place throughout the eighteenth century¹⁹. During this period, Galicia became a strategic centre in the geopolitical situation and struggle to take control of the seas, with the transfer of political and military operations to the Atlantic Ocean²⁰. This led to a change in Spain's strategy, which at that moment was attempting to centralise its administration: in 1726, Ferrol became the Capital of the Northern Maritime Division.

This led to “[...] a truly important event in the history and development of Spanish military architecture and [...] for Galicia: the creation of a major naval base in the estuary of Ferrol. [...], a project that was based on the most advanced criteria of that time”²¹. A naval base was built first in A Graña and then in the town of San Julián de Ferrol, “seeking deeper waters and an area next to the coast that would be suitable for the construction of a new city”²².

This plan also included the construction

of a series of batteries along the whole of the shoreline of the estuary, which would complement the defensive triangle of San Felipe-La Palma-San Martín from previous periods, at the same time as modernising these structures. A further series of batteries were built to protect the nearby estuary of Ares and the beach of Doniños, areas where a land-based incursion could have entered the estuary of Ferrol. “The defensive structure of the estuary of Ferrol became truly complex, covering all of the points of access to the estuaries of Ferrol and Ares, as well as the surrounding areas”²³.

As a result the batteries, castles and arsenals of Prioriño, Canela, Viñas and Cariño were built on the northern shore of the estuary. Rodríguez-Villasante dated the last three from 1739; however, all four recently disappeared as a result of the controversial project to extend the outer harbour of the port of Ferrol, although in a study from 1984, Rodríguez-Villasante indicates that the first two had already disappeared: San Cristóbal is in ruins but still preserved, although completely covered by vegetation, while San Carlos is in a good state of preservation;



Fig. 6: The Estuary of Ferrol, according to P. Teixeira in the *Atlas del Rey Planeta* from 1634.

the others are the Castle of San Felipe and the batteries of Vispón and San Julián. On the southern shore of the estuary are the Battery of Segaña (which is still standing), the castles of San Martín and La Palma, and the *Batería del Promontorio*. This system was completed by the battery of Outeiro on the beach of Doniños to the north of the estuary, and three batteries in a bay in the Estuary of Ares: Ares, Seselle and Redes. Between the first and the Battery of Segaña were the batteries along the Atlantic coast of Camouco and Santamaría. All are currently being studied.

La Palma and San Felipe were extended at this time; we have already commented on the work carried out in La Palma, while in San Felipe two new batteries were added, together with two bulwarks joined by a curtain wall on one side, and on the other side a wall running as far as the shoreline, as the castle was some distance away. In the case of the remaining batteries, which Rodríguez-Villasante refers to as “*minor, collateral batteries*”²⁴, “*efforts were made to adjust them to a series of quite specific typologies, with few variations, and which, throughout the eighteenth century, would be perfected and even ‘standardized’ for similar functions. The basic idea was to adapt emplacements to the landscape, using a simple bulwark on the landward side, which on some occasions included one or two bulwarks with curtain walls, or with a more or less regular upper section*”²⁵. This was a type that had already been in use since the late sixteenth century in San Martín and San Felipe, although now with some improvements.

Rodríguez-Villasante refers to a series of factors that would have affected the situation in the nineteenth century and the conditioning factors for this type of architecture: the liberty of trade with Spain’s colonies in the Americas, wars with other powers, internal conflict, and the needs created as a result of the technological revolution²⁶.

The successive economic crises of the last third of the nineteenth century meant it was impossible to invest in general improvements for military installations. With some exceptions, in this century the military architecture programme was reduced to a series of minor renovations and adaptations of existing architecture to the new tactics of coastal artillery and warships²⁷.

The work planned at this time, corresponding to the new plans for artillery and defence of the nation from the period of Isabel II, was focused on building highly advanced installations and external structures, based on the fortifications from the previous period, which in the particular case of cities, were hindering urban development. However, in the end these projects did not modify the eighteenth-century layout.

The need to adapt these structures to change, as is the case of La Palma, was a result of having to modify artillery positions to include breech-loading cannons with a higher calibre, leading to the construction of fortified emplacements or casements.

This change occurred to some extent in the Castle of San Felipe, in a number of the old batteries, but above all in the Castle of La Palma, in which all of the previously existing architecture was gradually transformed throughout the second half of the nineteenth century, as new materials appeared and others were perfected. The other batteries became obsolete, “*falling into disuse and then into ruin, even hindering the functioning of the new sections*”²⁸.

As we have seen, the fortified landscape of the Estuary of Ferrol corresponds to three very specific moments. Due to the geographic and strategic potential of the Estuary, work began on an initial defensive structure in the late sixteenth century, with three castles with artillery emplacements and a small walled town at the end of the Estuary. The new politics of the eighteenth century and the importance of the Atlantic Ocean as the scene of constant struggles to achieve naval supremacy, together with advances in artillery and architecture, meant it was necessary to build larger fortifications in the area, fortifying the whole of the Estuary and its access points, marking the stage at which most of this architecture became “fossilised”. Further political changes in the nineteenth century, combined with the advances achieved during the Industrial Revolution, affecting both naval and civilian architecture, meant it was necessary to adapt the old structures to these new times, something which did not occur at an equal rate amongst the fortifications around Ferrol, the most representative example of which is the Castle of La Palma.

Notes

- ¹ Carried out by the architects' studio R. Garrigues y Asociados.
- ² Castillo de La Palma Mugaridos, S. A.
- ³ This written and graphic documentation was recovered by the historian Margarita Sánchez Yañez, responsible for producing the Historical and Artistic Report on the Castle of La Palma. We would like to take this opportunity to thank her for giving us access to this information.
- ⁴ Juan Antonio Rodríguez-Villasante, *Guía do Castelo de San Felipe na Ría de Ferrol*, Ferrol, Concello de Ferreol, 2003.
- ⁵ *Id. ibid.*
- ⁶ Margarita Sánchez, *Memoria Histórico-Artística del Castillo de La Palma*, (Unpublished report presented to the DXPC in January 2005), p. 32
- ⁷ Margarita Sánchez, *Memoria Histórico-Artística del Castillo de La Palma*, *op. cit.*
- ⁸ *Id. ibid.*
- ⁹ Juan Antonio Rodríguez-Villasante, *Historia y tipología arquitectónica de las Defensas de Galicia. Funcionalidad, forma y ejecución del diseño clasicista*, A Coruña, 1984.
- ¹⁰ José María Cardesín (coord.), *Historia de dos ciudades. La Memoria de Ferrol, entre la Marina de Guerra y la Clase Trabajadora*. http://journals.cambridge.org/fulltext_content/supplementary/UHY/supp1/esp/Articulos/articulo1.5.html, 2005.
- ¹¹ *Ibid.*, p. 2.
- ¹² *Id. ibid.*
- ¹³ Juan Antonio Rodríguez-Villasante, *Historia y tipología arquitectónica de las Defensas de Galicia. Funcionalidad, forma y ejecución del diseño clasicista*, *op. cit.*, p. 75.
- ¹⁴ *Ibid.*, p. 76.
- ¹⁵ *Id. ibid.*
- ¹⁶ *Ibid.*, p. 77.
- ¹⁷ *Ibid.*, p. 79.
- ¹⁸ Juan Antonio Rodríguez-Villasante, *Historia y tipología arquitectónica de las Defensas de Galicia. Funcionalidad, forma y ejecución del diseño clasicista*, *op. cit.*; José Ramon Soraluze, *Castillos y fortificaciones de Galicia. La arquitectura militar de los siglos XVI-XVIII*, A Coruña, 1985; Margarita Sánchez, *Memoria Histórico-Artística del Castillo de La Palma*, *op. cit.*
- ¹⁹ “[...] we cannot refer to a truly strategic plan for the defence of Galicia’s coastline, nor of maritime commerce, until the mid-eighteenth century. In fact, the basic reports were drafted during the reign of Felipe II, without varying the different schemes throughout the whole of the seventeenth century, and which suffered from technical and financial difficulties of every imaginable kind during their completion”, Juan Antonio Rodríguez-Villasante, *Historia y tipología arquitectónica de las Defensas de Galicia. Funcionalidad, forma y ejecución del diseño clasicista*, *op. cit.*, p. 28.
- ²⁰ “[...] the arrival of the Bourbon dynasty to the Spanish throne, the geo-political concept of Patiño and particularly of the Marquis de la Ensenada would once again awaken, albeit late in the day, the outdated Mediterranean dream”, *ibid.*, p. 26).
- ²¹ *Ibid.*, p. 102.
- ²² José María Cardesín. *Historia de dos ciudades. La Memoria de Ferrol*, *op. cit.*, p. 2.
- ²³ Juan Antonio Rodríguez-Villasante, *Historia y tipología arquitectónica de las Defensas de Galicia. Funcionalidad, forma y ejecución del diseño clasicista*, *op. cit.*, p. 103.
- ²⁴ *Ibid.*, p. 106.
- ²⁵ *Id. ibid.*
- ²⁶ *Ibid.*, p. 138.
- ²⁷ *Id. ibid.*
- ²⁸ *Ibid.*, p. 140.
- ²⁹ Rúa San Roque, 2. 15704 Santiago de Compostela-Spain. rebeca.blanco-rotea@iegps.csic.es.
- ³⁰ Rúa San Roque, 2. 15704 Santiago de Compostela-Spain. sonia.garcia-rodriguez@iegps.csic.es.

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