



# The Historical Development and Heritage Features of a Portside Cultural Landscape: The Bay of Pasaia (Basque Country, Spain)

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## Abstract

The Bay of Pasaia is one of the highest heritage value portside cultural landscapes in the Basque Country, Spain. In order to understand the factors that have led to the current complex configuration, this study traces the historical development of this landscape. It analyzes economic and social dynamics that led to transformations of the historic areas, port, and natural environment, and documents the remaining historical traces and heritage elements that have resulted from this interaction in a GIS database. Following the recommendations of the *HUL Approach* and the *Valletta Principles*, three historical periods have been identified, which bear similarity with other port areas around the world. The results of this study are expected to serve as a basis for future urban regeneration plans and heritage enhancement strategies.

**Keywords** Portside cultural landscape · Historical urban development · Heritage · Basque Country · Spain

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## Introduction

Portside cultural landscape environments are characterized by their complexity (Akhavan 2017; Bird 1963; Hoyle 1989). As with other cultural landscapes, portside environments emerge from the constant interaction between human activity and their surroundings. However, in portside cultural landscapes this dynamic is molded by a constant tension between harbor-commercial activity and everyday human life, which results in a continuous evolution of the environment and its cultural heritage (De Rosa and Di Palma 2013). Many of the world's major ports are engaged in or have already carried out extensive urban regeneration projects, with the objective of creating more efficient and sustainable cities (Fusco 2013). Correspondingly, cultural heritage is acquiring an ever-increasing relevance as a structural element and driving force in these proposals. Examples of relevant urban renewal projects include Toronto, Bordeaux, Zanzibar, Barcelona, Valencia, Marseilles, Liverpool, and Naples (De Rosa and Di Palma 2013; Loures 2015).

In this regard, historical and archaeological studies are proving to be necessary to know not only the historical development of these complex landscapes (Baumanova 2020; Galili et al. 2010; Goff 2021), but also to understand the causes of current urban issues (Pereira and Bandarin 2019), such as the uncontrolled growth of cities, damage to the natural environment, connectivity problems between urban neighborhoods, lack of public spaces and facilities, loss of the port-city relationship, and saturation of traffic infrastructures.

Several of these problems are present today in the Bay of Pasaia, which is one of the most important cultural landscapes in the Basque Country, Spain. It is located in the northeast of the Basque Country, near the border between Spain and France (Fig. 1). Nowadays, the bay has a complex urban morphology. The commercial port is surrounded by seemingly unbroken urban development, which is the result of the constant interaction for centuries between human action, structured around the port activity, and a unique natural environment, which has enabled and conditioned the occupation of the place.

Since the Middle Ages, the bay has contained the most important port in the province of Gipuzkoa. The port activity attracted, from its origin, settlers from other regions of Spain and France, who built their houses around the water sheet and the port activity (Fig. 2). In the eighteenth century, the bay became key to trade with the Americas (Goienetxe 2013; Irijoa 2009; Miguel 1991; Zapirain 2005; Zurbano 1999). During this period, important shipyards and trading companies were established in the bay, such as *Royal Guipuzcoan Company of Caracas*, a company that monopolized the cocoa trade with Venezuela—it was renamed *Royal Philippine Company* in 1785. The bay was also the birthplace of famous navigators, such as Admiral Blas de Lezo, one of the best strategists in the history of the Spanish Navy. Writer Victor Hugo also stayed some weeks in San Juan after having learned about the death of his daughter. His drawings and writings show that he was impressed with the place. In addition, due to its geostrategic value and orography, the bay was the setting for important historical events, such as



**Fig. 1** Map of the Basque Country (in red) and Bay of Pasaia in their wider context. Source: Adapted by the authors from National Geographic Institute (IGN)



**Fig. 2** “Description of the Port of Pasaia,” plan elaborated by the Royal Cosmographer Pedro Texeira in 1636. The arrows indicate the main berths during this period. Source: Adapted by the authors from Regional Library of Bizkaia, VMSS-249

the French occupation of 1808, which led to the construction of several defensive structures and forts in the surrounding mountains. All these historical events are still present in the memories of the local inhabitants, as fragments of the intangible heritage elements of this cultural landscape.

Other aspect that makes the port distinctive is its natural environment. The harbor mouth (Fig. 3, left) is flanked by the cliff of the Mt. Jaizkibel to the east, and by the cliff of the Mt. Ulia to the west (Fig. 3, right). The Oiartzun River and other minor tributaries empty into the bay. These cliffs on either side of the bay narrow to a mouth less than 200 m wide, thus forming an enclave naturally protected from the harsh prevailing weather of the northwest Cantabric. Unlike other European ports, the harbor area at Pasaia does not face the sea, but is clustered further inland, a characteristic unique to this particular portside cultural landscape.

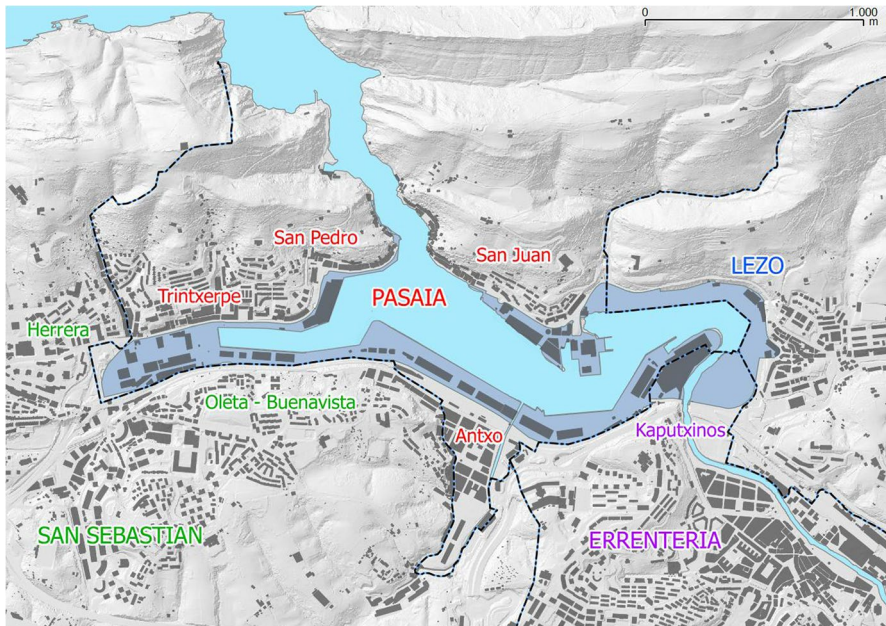
From a biodiversity perspective, the port is placed in a richly diverse environment of significant ecological value. The cliffs of Mt. Jaizkibel and Mt. Ulia are *Sites of Community Interest*, according to the criteria of the *Habitats Directive* of the European Commission (Council Directive 92/43/EEC). Both cliffs are protected as *Special Conservation Zones* within the *Natura 2000 Network*. Additionally, the *Northern Way of Way of St. James* crosses the bay from east to west. This cultural itinerary has received UNESCO World Heritage recognition.

Another aspect that makes this port special is its administrative division into several municipalities. Unlike most European ports, which are subject to a single local government administration, the Bay of Pasaia is divided administratively between four different municipalities (Fig. 4). This division has complicated the management of the bay and the development of a unified urban planning. The city council of Pasaia and its four local centers —San Pedro, San Juan, Antxo, and Trintxerpe—cover the majority of the port area, from the coastal strip to the southernmost zone. The Herrera zone in the southwest is part of the suburb of Altza, and it is under the jurisdiction of the San Sebastian local council. The small municipality of Lezo administers the westernmost point. The southwestern zone, including the suburb of Kaputxinós, falls within the municipality of Errenteria. Finally, the port area is administered by the Port Authority of Pasaia, which depends on the Ministry of Development of the Government of Spain.



**Fig. 3** Left: The harbor mouth. Right: Alabortza cove and Mt Ulia in the background





**Fig. 4** Administrative division of Bay of Pasaia into four municipalities: Pasaia, Lezo, Errenteria, and San Sebastian. The port area is shown in blue. Source: Adapted by the authors from Eusko Jaurlaritz / Gobierno Vasco, geoEuskadi

Nowadays, the port area occupies almost the entire perimeter of the water sheet (Fig. 4, in dark blue), separating the water from the different urban areas and their inhabitants.

## The Bay of Pasaia as a Cultural Landscape

The concept of heritage evolved over the last decades (Petzet 2004; Pickard 2001; Veldpau and Pereira 2014), from a first approach focused only on the protection of the monument, to a more comprehensive approach that also considers its surroundings and environment, both built and natural.

The 1964 *Venice Charter* (ICOMOS 1964) is known as one of the most influential documents in the field of heritage preservation. This charter defines heritage as a “historic monument,” which “embraces not only the single architectural work but also the urban or rural setting.” Several years later, the 1972 World Heritage Convention proposed three types of cultural heritage: monuments, groups of buildings, and sites (UNESCO 1972). This last category was defined as “works of man or the combined works of nature and man,” linking cultural and natural heritage.

In the field of urban heritage, the next relevant documents were the 1976 *Nairobi Recommendation concerning the Safeguarding and Contemporary Role of Historic Areas* (UNESCO 1976) and the 1987 *Washington Charter for the Conservation of Historic Towns and Urban Areas* (ICOMOS 1987), which addressed the protection

of heritage on a larger urban scale. The *Washington Charter* also established a list of qualities to be preserved in town or urban areas: urban patterns—lots and streets; relationships between buildings and spaces; the formal appearance of buildings; the historical functions of the town or urban area; and “the relationship between the town or urban area and its surrounding setting.”

The 1992 World Heritage Convention (UNESCO 1992) accepted the category of cultural landscapes, which was defined in the *Operational Guidelines* as “combined works of nature and of man” (UNESCO 2021). Similarly, the Council of Europe, through the 2000 European Landscape Convention, defined cultural landscapes as “the result of the action and the interaction of natural and/or human factors” (Council of Europe 2000). Thus, these two charters established a new category of heritage that can cover a large territory.

In 2011, UNESCO adopted the historic urban landscape (HUL) recommendation, which extends an interdisciplinary “landscape approach for identifying, conserving and managing historic areas within their broader urban contexts” (UNESCO 2011). The document defines the historic urban landscape as “the result of a historic layering of cultural and natural values and attributes, extending beyond the notion of historic center or ensemble to include the broader urban context and its geographical setting.” It also states that the “conservation of the urban heritage should be integrated into general policy planning and practices.” Although the *HUL Approach* is a relatively recent tool, pilot initiatives have already been developed all over the world (Pereira and Bandarin 2019; Rey-Pérez and Pereira 2020; Sonkoly 2017; Taylor et al. 2014).

Also in 2011, ICOMOS adopted the *Valletta Principles for the Safeguarding and Management of Historic Cities, Towns, and Urban Areas* (ICOMOS 2011), which was developed to update the considerations and approaches of the *Washington Charter* and the *Nairobi Recommendation*. In particular, the document reflects a greater awareness of intangible heritage, traditional land use, the role of public spaces, socioeconomic and environmental factors, and the issue of heritage on a “regional scale rather than just confined to urban areas.” According to the document, historic towns and urban areas are “spatial structures that express the evolution of a society and of its cultural identity” and they are made up of tangible elements—urban structure, architectural elements, landscapes, archaeological remains, panoramas, skylines, view-lines, and landmark sites—and intangible elements—cultural practices, traditions, memories, cultural references, and activities, symbolic and historic functions. In addition, the document highlights some of the current issues, such as the transformation of historic areas into a consumer product for mass tourism.

Therefore, *HUL Approach* and *Valletta Principles* have led to new ways of studying, interpreting, and protecting cultural heritage (Bandarin 2019; Bandarin and Van Oers 2015; Labadi and Logan 2016). Both documents underline the active role that built and urban heritage must play in urban planning, in order to achieve a sustainable development and regeneration of the cities.

Considering the above mentioned documents, the Bay of Pasaia can be defined as a complex cultural landscape. The bay is formed by a singular natural environment and several historic towns and urban areas, which were settled around the water sheet and port activity. According to the current *Operational Guidelines* (UNESCO

2021), the bay can be classified as an “organically evolving landscape-continuous.” That is, it is a type of cultural landscape that has developed “organically,” mostly due to economic forces, that still maintains “an active social role in contemporary society.” Likewise, according to the *Valletta Principles* (ICOMOS 2011), the Bay of Pasaia is a “living evidence of the past that formed it” and therefore its “protection and integration into contemporary society” should be a basis for urban planning.

## Governance Issues and Objectives of the Research

In spite of its geostrategic and heritage value, the Bay of Pasaia has serious urban problems: connectivity problems between historic urban centers, barriers between districts (viaducts, train lines, and warehousing areas), lack of public transport stations in some areas, traffic congestion due to an inadequate road network, scarce land suitable for development, shortage of green areas, lack of proper public spaces and facilities (cultural, sporting, health, and educational facilities), and poor pedestrian and bicycle mobility. In this regard, the current administrative division has complicated efforts of any type of comprehensive urban and regeneration plan; a reality evident in the number of failed attempts at urban regeneration initiated over recent decades (Alberdi 2013).

The different municipalities have focused more on implementing their own local initiatives than on developing a unified urban planning for the bay during the last decades. In fact, some of the urban developments had very negative consequences for the cultural heritage, such as the unplanned urban sprawl of the middle of the twentieth century. During this period, a large number of vernacular houses were transformed or destroyed in densely populated areas; disused factories, urban facilities, and infrastructures were systematically demolished; and historical streets and transportation networks were altered or eliminated.

Moreover, in all these recent local urban plans, the built and urban heritage elements have always played a passive and secondary role. Although they have been included in the heritage catalogs, they have not been taken into consideration as active and structuring elements in decision-making processes. The preservation of built and urban heritage has been seen as something contrary to urban growth, rather than as an integral part of the development strategy for the bay. Likewise, local governments and planners have never analyzed the bay as a cultural landscape and there is not a comprehensive heritage catalogue. Local heritage inventories usually only include buildings from the oldest phases of the site (palaces, churches, castles, etc.) and do not consider constructions of the last centuries (for example, industrial and modern heritage). Similarly, these inventories do not usually include other types of tangible heritage such as historical infrastructures, streets, or urban environment and public open spaces, which are often associated with intangible heritage (traditional port activities in the water sheet, celebrations in squares, processions in the streets, etc.).

In order to address some of these shortcomings, a comprehensive study of the historical development of the bay has been conducted. On the one hand, this type of study allows the detection of historic layering of a cultural landscape, which can

be understood as “an accumulation of cultural and natural—tangible and intangible—attributes and values” (Veldpauw and Pereira 2014). For this reason, and in line with the *Valletta Principles* (ICOMOS 2011), appropriate urban planning requires analyzing the context of the site, inventorying the component parts, and studying “history of the town and its phases of evolution.”

On the other hand, the analysis of the historical development is essential to find the causes of some current urban problems. As previously mentioned, the Bay of Pasaia is now a continuous built-up area where the boundaries between the different municipalities—Errenteria, Lezo, Pasaia, and San Sebastian—are not physically distinguishable. The comprehensive study and documentation of the historical layering provides insight into the origin and context of some of these issues, as well as to identify other undetected deficiencies and shortcomings (for example, destruction of modern heritage, alteration of historic streets and public spaces, and replacement of traditional activities).

In addition, the historical study is useful to characterize the heritage elements of each phase, both cultural and natural. It also helps to determine the location of missing buildings, which remain in the collective memory of the people: some because of their symbolic value, such as the defensive Tower of San Pedro; and others because of their impact on the economic prosperity of the bay and its inhabitants (for example, shipyards, mills, and factories). This type of study serves to “identify values, understand their meaning for the communities, and present them to visitors in a comprehensive manner” (UNESCO 2011).

Therefore, the research aims to analyze and characterize the historical development of the Bay of Pasaia so that the results can be used as a basis for future regenerations plans and enhancement strategies. To achieve this objective, the main historical phases and their built and urban heritage elements have been identified and analyzed, which have been related to the natural environment and intangible heritage of the bay. This work is part of a wider project supported by the Gipuzkoa Regional Government, which is currently working toward the sustainable urban regeneration and development of the Bay of Pasaia.

## Methodology

The research had three phases: field work and documentary research, identification of the main historical development periods, and mapping and comparative study of heritage elements.

The field work and documentary research were conducted following the recommendations of the *Spanish National Plan for Cultural Landscapes* (Ministerio de Educación, Cultura y Deporte 2015). Based on this document, different types of resources were analyzed: bibliographical sources, historical cartography, photographs, drawings, toponymy, aerial orthophotos, documentary sources, and topographic and geological maps. As far as possible, digital resources were consulted, to speed up the process of searching for information. Historical cartography, aerial orthophotos, and topographic and geological maps were obtained from the geoportals GeoEuskadi—Spatial Data Infrastructure



of Euskadi. Statistical and demographic data were obtained from the National Statistics Institute and the Basque Statistics Institute.

Most of the historical documents were found in the following archives and digital repositories: PARES (Spanish Archives Portal), Dokuklik (Basque Archives Portal), Portal of Archives of Gipuzkoa, Album SIGLO XIX, Gure Gipuzkoa, Gallica, and IPCE Photo Library. Other archives were also consulted, including the Archive of the Port Authority of Pasaia (AAPP), the Municipal Archive of Pasaia (AMP), the Municipal Archive of Hondarribia (AMH), the Archive of the Royal Chancellery of Valladolid (ARCV), and the General Archive of Simancas (AGS).

Transcribed documentation was also important. In particular, the collection of Medieval Documentary Sources of Eusko Ikaskuntza were of special value (Ayerbe et al. 2012, 2013; Crespo et al. 1991, 1997; Elorza and Herrero 2015; Irijoa 2013; Larrañaga and Tapia 1993; Larrañaga et al. 1996; Lema and Larrañaga 1995). Works by Goienetxe (2013), Gomez and Orella (1994), Herreras (1999), Irijoa (2009), Tena (1991) and Zapiain (2005, 2007, 2011) were also key in the investigation. Likewise, it is worth mentioning the archaeological excavations of Benito (2009), Buces (2010), Moraza (2006), and Pérez (2006, 2007), which were essential to obtaining historical and constructive information on several demolished constructions.

In the second phase of the research, the main historical phases were established and mapped using a GIS software (QGIS, version 3.16 Hannover). Initial vector and raster data were obtained from the geoportal GeoEuskadi (Spatial Data Infrastructure of Euskadi). Subsequently, based on the historical study, a database of georeferenced information of the different historical phases was developed.

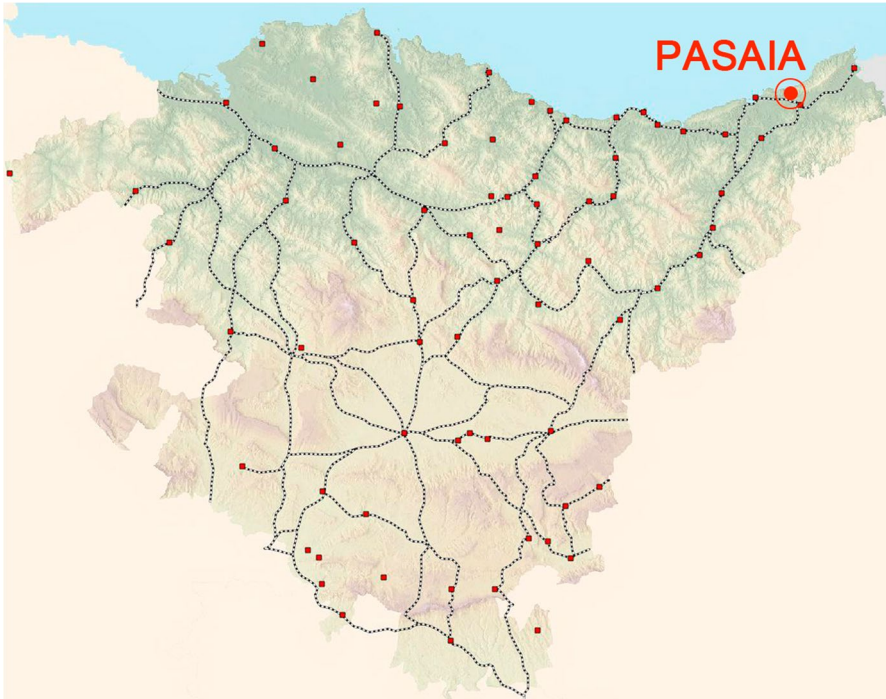
In the third phase of the work, the cultural and natural heritage elements of each historical phase were analyzed. In order to get a comprehensive view of this cultural landscape, the recommendations of the *HUL Approach* and the *Valletta Principles* were followed. On the one hand, the tangible cultural heritage elements were analyzed: built environment, infrastructures, open spaces and gardens, land use patterns, spatial organization (understood as urban structure), and perceptions and visual relationships related to these elements. On the other hand, the natural heritage and its transformation was also studied. Similarly, some fragments of the intangible heritage of the bay were also identified (activities, symbolic and historic functions, cultural practices and traditions), which are sometimes linked to the tangible heritage elements (traditional stores and trades, old port and activities, squares and festivities, etc.). Finally, georeferenced information and characteristics of the cultural and natural heritage elements were also incorporated into the GIS database, and a comparative analysis between different periods was carried out.

According to the study, three historical periods were defined: the first covering medieval settlements in the bay, the second the boom and subsequent stagnation of the port and its surrounding urban centers, and the last covering the development of the new industrial port and its expansion. Additionally, the current state of the bay and the urban renewal initiatives undertaken over the last decades were addressed.

## Bay of Pasaia in the Middle Ages (Thirteenth-Fifteenth Centuries): First Settlements and Communication Routes

At the beginning of the thirteenth century, the expansion of the Castilian textile industry led to a change in the flow of commerce in the Iberian Peninsula. Until this time, the main commercial route had been the *Way of St. James*, which connected the peninsula along an east-west axis. However, the need to export Castilian wool to the main European industrial centers precipitated the appearance of a new axis of trade orientated south-north. For this reason, Castilian monarchs changed their policy with respect to the territorial organization of the north, by means of the creation of *royal villas* along the Cantabrian coast (Fig. 5).

The Port of Pasaia's origin was part of this historical process, developed as a new commercial hub, from which raw materials produced in the peninsula were exported. There is evidence of the existence of a port in Pasaia from at least as far back as the end of the thirteenth century in available historical documentation, in which the "Channel of Oiartzun" is mentioned (Larrañaga and Tapia 1993, doc. 12). The port provided maritime access to one of the most important commercial axes of the late Middle Ages: the trade route that originated in Pamplona, the capital of the Kingdom of Navarre. According to the ledgers of Sancho IV of



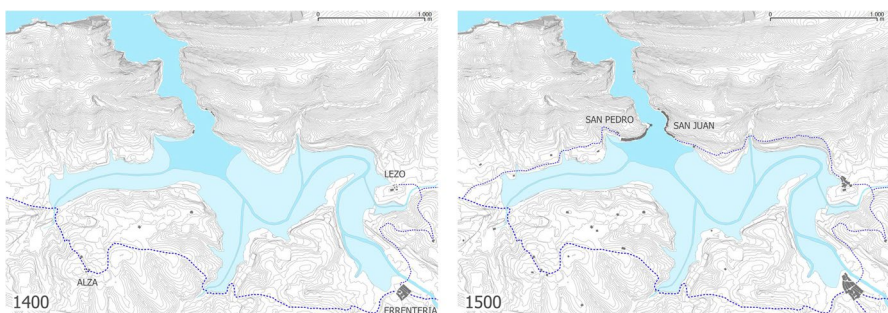
**Fig. 5** Late-medieval trade routes in the Basque Country, with the *royal villas* marked in red. Source: Adapted by the authors from Eusko Jaurlaritza/Gobierno Vasco, geoEuskadi

Castile, the bay soon specialized in the exportation of iron produced in foundries in nearby valleys. Other commercial activities related to the production and export of this mineral also emerged, including saw milling and shipyards, which were established at different points around the bay. The port area was a geographic crossroads from very early in recorded history—at least as far back as the twelfth century—acting as a territorial axis between San Sebastian, France, and the valley of Oiartzun.

The first reference to a possible settlement on the bay dates from 1203, when a small community in Lezo is mentioned (Larrañaga and Tapia 1993, doc. 3). This hub led to the establishment of a new communication axis (Fig. 6, left), which connected the previously mentioned routes with Hondarribia, jurisdiction to which Lezo was subordinate. No architectural remains dated prior to this period have been conserved. The oldest constructions that have been located in Lezo date from the late fifteenth and early sixteenth centuries, such as Maripoxaenea (Fig. 7, left), Saguenea or Felipenea which are still standing. Due to the region's irregular hilly terrain and a shortage of space, the buildings constructed in this period were terraced. The church was built on the highest point and stands out as an iconic landmark representative of this town.

The *royal villa* of Errenteria, was founded almost a century later in 1320, under the mandate of Alfonso XI (AMH, Sec. B, Ng. 1, Lib. 1, Exp. 3). As well as being navigable for the boats of that time, three trade routes converged on the site: one that came from San Sebastian, another headed toward France, and one led to Lezo. This led to the emergence of the *villa* as the commercial hub of the bay and a subsequent rapid increase in population.

The original center of Errenteria was organized around just four parallel streets. The urban layout was divided into a series of extended rectangular lots. The church was located in the western corner and oriented east-west. In the middle of the fifteenth century, due to an increase in the population, the *villa* was extended toward the northwest, along three new streets (Fig. 6, right). These three streets converged on a point in the new northern corner of the town, where the sea gate was located. In addition, a new longitudinal space—Herriko Plaza—in the



**Fig. 6** Left: The bay in 1400, the San Sebastian-France axis and the settlements of Altza, Lezo, and Errenteria. Right: The bay in 1500, growth of the settlements at the mouth (San Pedro and San Juan)



**Fig. 7** Left: Maripoxaenea house in Lezo. Right: Morrontxo tower palace in Errenteria

central part of the *villa* dedicated to commercial activities emerged between the different urban layouts of the older and newer sections.

Many late medieval houses have been conserved in Errenteria. Some of the best conserved examples are Andra Mari n1, Beheko n9, Eliz n1 (Fig. 8, left), Erdiko n11 and Orereta n8. Two medieval tower palaces have also been conserved, Morrontxo and Torrekua (Fig. 7, right), which were located next to the gate opening onto the route to Navarre.



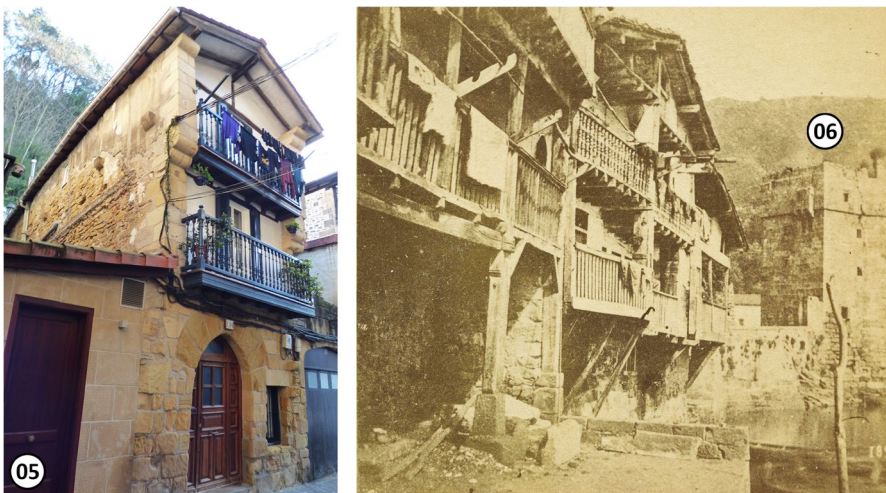
**Fig. 8** Left: Eliz n1, one of the oldest houses on Errenteria. Right: A street running underneath houses in San Juan (Pasaia)



The passage of time, together with construction of progressively larger ships, led to serious water depth problems in Lezo and Errenteria. For this reason, two new settlements emerged on either side of the mouth of the bay: San Pedro to the west, subject to the *villa* of San Sebastian, and San Juan to the east, subject to the *villa* of Hondarribia. The first historical references to these centers are late: San Juan is mentioned for the first time in 1397 (AMH, Sec. C, Neg. 5, Ser. V, Lib. 1, Exp.1), and San Pedro in 1429 (ARCV, Pl civiles, Fernando Alonso (F), Caja 1330, 1/1332.1). Both San Juan and San Pedro were aligned along single urban axes, which granted access to different urban lots. In San Juan, this axis was characterized by its winding layout, which was adapted to the topography of the place, shaped by three landmarks: the church of San Juan Bautista, the hermitage of Santa Ana, and the church of Santo Cristo Bonanza. Due to the narrowness of the street at some points, settlers had to resort to ingenious urban solutions such as flyovers between houses, sections of the street that ran underneath buildings (Fig. 8, right), and steep access stairways.

According to several documents from the fifteenth century, the earliest houses in San Juan were built against the slopes of the Mt. Jaizkibel, and that they measured  $11 \times 40$  late-medieval cubits in 1455. The lots across the street, facing the port, as well as the wharf and the plaza were built in a second phase of expansion, on land gained from the sea. One of the oldest conserved buildings in San Juan is the house located at Donibane n134 (Fig. 9, left), which was built in the final years of the fifteenth or first years of the sixteenth centuries (Luengas-Carreño et al. 2018).

In the case of San Pedro, the original center was structured along a street that ran from the Church of San Pedro to Torreatze. As in San Juan, the lots were arranged on either side of the urban axis, although in some zones the steep topography prevented construction on the inland side. Thanks to the historical documentation, it is



**Fig. 9** Left: Donibane n134, one of the oldest houses of San Juan (Pasaia). Source: the authors. Right: Photograph of the Tower of San Pedro and nearby houses, published in 1868. Source: GureGipuzkoa, J. Andrieu catalog



known that some houses were built with private wharves, five late medieval cubits wide. The houses of San Pedro had a shape and constructive system similar to those of San Juan, although in the case of San Pedro few examples of late medieval architecture have been preserved. One important building from this period, now lost, was the Tower of San Pedro (Fig. 9, right), property of the *villa* of San Sebastian, which was located alongside the narrowest point in the harbor mouth and controlled the entrance to the port.

According to the methodology described above to characterize the historical stratification, it can be concluded that during this phase there was a low level of transformation of the natural environment of the Bay. The natural environment was characterized by a closed and irregular topography, where numerous watercourses and streams converged. Within the natural heritage, the Mt. Jaizkibel and Mt. Ulia stand out. Their northern slopes have remained relatively unaltered.

The land use pattern was characterized by four small urban centers—San Juan, San Pedro, Lezo, and Errenteria—which had a mainly residential and port character. These urban centers were supplied by the agricultural activity of a less-developed rural surroundings.

These urban centers were positioned near the water sheet; first Lezo and Errenteria at the mouth of the Oiartzun River, and later also San Pedro and San Juan strategically at the mouth of the bay. These settlements had a similar plot structure, with narrow frontage and great depth. Urban structure had differences between them: Lezo was structured in three converging streets; Errenteria had an original structure formed by four parallel street; and San Juan and San Pedro were located against the slope of the mountains and, due to the scarcity of land, they were structured along a single street. The southern area of the bay remained sparsely occupied during this phase.

In the built environment, two types of houses can be distinguished. Urban centers usually had a more concentrated residential model, formed by two- or three-story housing between party walls. In the rural environment, the most common type of housing was the *baserri* or farmhouse. These constructions were built dispersed throughout the territory and usually had both residential and agricultural functions. Both types of constructions used to be erected with perimeter stone walls and an interior timber structure.

In this phase, the most important open spaces were the mooring coves, which served as a transition between the water sheet and the urban centers. In these places, most of the economic and social activities were carried out. In the urban fabric of Lezo, San Juan, and San Pedro there were small and irregular open spaces next to churches. In Errenteria, the elongated open space formed between the original center and the later extension stands out.

One of the most important infrastructures of this phase were the berths. In Lezo they were next to the town, and in San Pedro and San Juan they were located in front of the houses. In addition to being a key infrastructure for the access control, the Tower of San Pedro functioned as a landmark and reference point of the landscape. The carriage road infrastructure consisted of a network of paths. The main

road connected San Sebastian and France. Errenteria was founded on this road. The rest of the paths emerged from this main axis, connecting Lezo, San Juan, and San Pedro.

Only a few constructions of this phase have been preserved. Most of them are located in the historical centers of San Pedro, San Juan, Lezo, and, primarily, Errenteria. Some characteristic houses of this phase are Donibane n134 in San Juan; Maripoxaenea, Saguenea, and Filipenea in Lezo; and Andra Mari n1, Beheko n9, Eliz n1, Erdiko n11 and Orereta n8 in Errenteria. Two medieval tower palaces have also been conserved in Errenteria: Morrontxo and Torrekua. Tower of San Pedro was a unique building located at the mouth of the bay. Today it no longer exists, but a square at the point where it once stood keeps its memory alive as part of the intangible heritage. Mentioned small open spaces of this phase remain as urban historic fabric. However, the berths and coves of this phase disappeared due to the growth of the port and urban centers in the following centuries.

### **Bay of Pasaia in the Modern Age (Sixteenth-Eighteenth Centuries): Boom and Subsequent Stagnation of the Port and Urban Centers**

During the sixteenth century, a boom in marine commerce led to a further increase in the population of the urban settlements established at the mouth of the bay (Irijoa 2009). This expansion was key with respect to two changes in building types erected in the towns at this time. One set of changes was related to a diversification of usage and the distribution of usage types. The other was related to the emergence of new building types associated with the social diversity that emerged along with the population expansion. Many of houses were subdivided in several properties or “rooms,” which were rented or sold to the arriving residents (ARCV, Registry of Executory, 263 (57), 1666 9). Most commonly, the ground floor was rented or sold, so that the renter could establish a new business often directly related to the activity of the port. The historical documentation shows that a majority of these businesses carried out activities related to the service sector, including bars, apple cider breweries, warehouses, fish shops, and butchers, which met the needs of the large number of sailors docking in Pasaia.

With respect to the building types that were new at the time, emerging merchant families built sumptuous palaces that showcased their newfound socioeconomic status (Fig. 10). The Villaviciosa Palace, the Platain House, and the Miranda House, all of them in San Juan, are among the most distinguished constructions of the sixteenth century. In all three, sandstone ashlar masonry predominates as does detail work of renaissance taste including forged moldings, ornamental shields and classic motifs.

In both harbor mouth settlements, there are abundant examples of palaces from the seventeenth century, which display the austere shapes of the Basque baroque period. Some buildings from this period deserve special mention. These include the Galatras House —the base of the *Royal Company of Caracas*—, the Munoa-Camera House, and the house that was the birthplace of Blas de Lezo.



**Fig. 10** Front of houses of San Juan. A small transport boat called “gasolino” connects San Juan and San Pedro

Two town maps drawn up by the Portuguese cartographer Pedro Texeira correspond with this period at the beginning of the seventeenth century (see Fig. 2). Through these maps, other constructions of interest in terms of the operation of the port can be identified, even in cases where they no longer exist. These include several mills, farmhouses, shipyards, and moorings in San Pedro, Herrera, Errenteria, Lezo, and San Juan.

The defensive infrastructure of the bay was reinforced over these centuries. One of the maps of Texeira shows two proposed military improvements at the mouth of the port: the creation of a moat around the Tower of San Pedro and the construction of fortifications in Arrokaundieta (Texeira 2003). Neither proposal was carried out. At this time, around 1625, another defensive building, the Fort of Santa Isabel was constructed at the harbor, on the site which had held the Txurrutalla mills. Although the building was abandoned in 1867, part of the walls is still visible.

Lezo also grew over the sixteenth century. However, unlike the centers at the harbor mouth, this expansion gradually wound down from the seventeenth century, possibly due to the lack of competitiveness with other nearby towns. Consequently, the economy of Lezo switched toward a more rural productive model, in which inshore fishing gradually became practically the only important marine activity. As in San Juan and San Pedro, some of the local elite purchased multiple lots in order to build large stately houses.

During this period, the municipality expanded mainly along the existing axes, through the construction of new terrace houses. As in San Juan and San Pedro, some of the local elite purchased multiple lots in order to build large stately houses. These include the Jamot-enea house, built of sandstone ashlar masonry with a reticular composition of windows and doors, the more austere Pikandia-enea house from the seventeenth century, and the Town Hall, also erected during the seventeenth century.

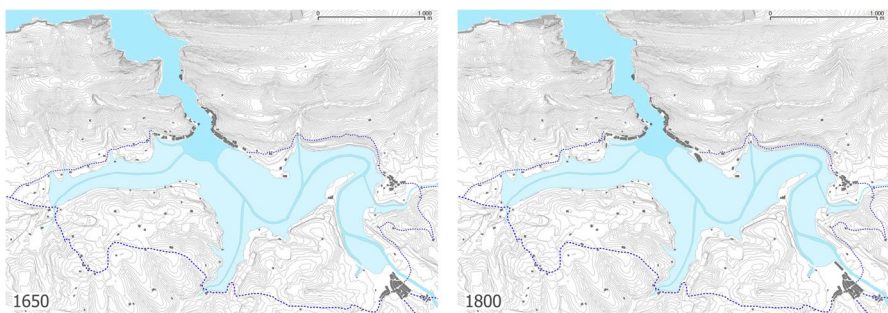
Outside the town limits, the oldest preserved building is the farmhouse of Darieta-Zar, built in the first half of the sixteenth century. As to religious architecture, the church of San Juan Bautista, located in the highest part of the center, deserves special mention. The first mention of this building dates from 1399, although its contemporary appearance is due to renovations made around 1560.

Errenteria did not keep pace with other settlements, although it grew slightly in this time. The *villa* expanded through the creation of a new suburb located outside its walls on the route to San Sebastian (Fig. 11, left). There is also evidence of a small settlement near Santa Clara, where a bridge provided access to the main route toward France. Among the notable construction works of the time is the renovation of the church of Nuestra Señora de la Asunción, which was completed around 1570 (Urteaga 1992). Along similar lines, many houses that were part of the original center were transformed into constructions with *espolones* or machicolated firewalls. The Town Hall, completed at the beginning of the seventeenth century, is a distinguished example from this period, as are the Uranzu manor house and the Zubiaurre palace.

Although on a much smaller scale than other areas around the bay, the sixteenth century saw some development along the southern strip of the bay, which had been practically unpopulated before this time. Productive buildings linked to the operation of the port were constructed, as well as new transport infrastructure including roads and bridges. As to residential constructions, the increase of the number of farmsteads in this period, mainly in the area of Oleta and Buenavista, is worth mentioning. One relevant building from this period was the convent erected at Cape Kaputxinos, which was destroyed circa 1837.

The first half of the eighteenth century was not a period of prosperity for the port (Fig. 11, right). The lack of effective dredging and a lack of control over port infrastructure caused a reduction in the size and quality of navigable areas of the bay. Because of this, by the middle of the eighteenth century several anchorages had to be abandoned, which meant that large ships only could berth in the mouth of the bay (Fig. 12).

At this point new projects emerged to relaunch the commercial port, leading to the evolution of infrastructure. A battery of large wharves were built in Errenteria.



**Fig. 11** Left: The bay in 1650, the boom of settlements at the mouth of the bay. Right: The bay in 1800, stagnation of the commercial port



**Fig. 12** Left: One of the oldest engraved views of the bay, from the eighteenth century. Source: Koldo Mitxelena Kulturunea, S19\_003793. Right: Plan of the bay at low tide made by French and Spanish engineers in 1788. Source: Bibliothèque Nationale de France, Département Cartes et plans, GE SH 18 PF 58 DIV 7 P 10 D

Around the Zamatete district of San Pedro and the Bizkaia district of San Juan, new shipyards were constructed. There is also evidence of further auxiliary buildings, including several warehouses, as well as a building that served as a rope factory and the anchor factory. Many of these buildings belonged to the large businesses headquartered around the bay, including the *Royal Company of Caracas*, which was one of the parties making serious efforts to revitalize the port's commerce.

In the early Modern Age, there was a “soft” boundary between urban areas and the water. The different urban centers lacked artificial structures such as wharves or seawalls. This began to change from the last quarter of the eighteenth century, when engineering works were proposed to improve the navigability of the zones of shallower waters and to control the forces of nature. One notable project is the Joseph de Odriozola proposal of 1777 to erect a new network of seawalls and floodgates, which would have permitted an expansion of the navigable area (AGS, MPD, 01, 024). Also proposed at this time were various seawalls and retaining walls with the objective of retaining sediment that several streams carried into the bay. Complementary on the waterway, port infrastructure was modernized through the construction of new bridges and roads, and some small wooden dams in other streams to facilitate the construction of mills and ironworks. From this time on, these types of improvements became progressively more common and ongoing, which was to increase their effectiveness. However, this infrastructure also began to act as a barrier, pushing residents further back from the water's edge.

The comparative analysis shows that during this phase the natural environment underwent a low level of alteration. That is, the level of territorial transformation of the first phase was maintained, and land use pattern was also similar. Due to the increase in economic activity related to the port, urban centers expanded around the main roads and became more complex. The rural area maintained its character despite the increase in population.

Similarly, urban structures of the first phase were maintained, and the urban fabrics were densified in height and occupation. Traditional architectures evolved to include mixed uses; tertiary uses on the first floor and housing on the higher floors.



In the rural surroundings, the farmhouse typology evolved into larger forms with more elaborate stylistic details, to symbolize the social status of the owners.

Thanks to technological advances, the port infrastructure was developed. In San Pedro and San Juan, berths and quays were built on land reclaimed from the sea. In addition to these, other infrastructures were added to control the nature of the bay, such as sedimentation retaining walls in the coves of Ondartxo, La Bursa, and Conde Maste. The construction of some roads and bridges, as well as small wooden dams in the small streams for the erection of new mills, also modernized the port.

Compared to the previous phase, a larger number of heritage elements have been conserved, even if nowadays most have an important level of alteration. These are also concentrated around the original centers of San Pedro (Munoa-Cámara house, and Blas de Lezo house), San Juan (Villaviciosa palace, Platatin house, and Miranda house), Lezo (Jamot-Enea house, Pikandia-Enea house, and Town Hall building), and Errenteria (Uranzu house, and Zubiaurre house). Because of their perception and visual impact, the houses of San Juan, whose main facades faced the water and not the street, deserve special mention (see Fig. 10). Other important building types have also been conserved, including churches (San Pedro church in San Pedro, Santo Cristo de Bonanza, and San Juan Bautista churches in San Juan, Nuestra Señora de la Asunción in Errenteria, and Santo Cristo and San Juan Bautista churches in Lezo), defensive constructions (Fort of Santa Isabel in San Juan), and farmhouses (Darieta-Zar farmhouse in Lezo, and Moneda farmhouse in Herrera). Some of the retaining walls that served to maintain the navigability of the first commercial port have also been preserved. It is worth mentioning the Santiago Plaza in San Juan, an open space built in this phase where traditional activities and festivals are still carried out.

Therefore, during the Modern Age, the focal point of the bay shifted progressively towards the harbor mouth and the settlements of San Juan and San Pedro. This changed from the mid nineteenth century, with the creation of a new industrial port.

## **The New Industrial Port and Its Expansion (Nineteenth—Twentieth Centuries)**

At the beginning of the nineteenth century, San Juan and San Pedro obtained their independence from the *villas* of Hondarribia and San Sebastian and united in a new self-sufficient municipality, Pasaia, which combined complementary characteristics. The dominion exercised by San Sebastian over the port declined and a new phase of development began.

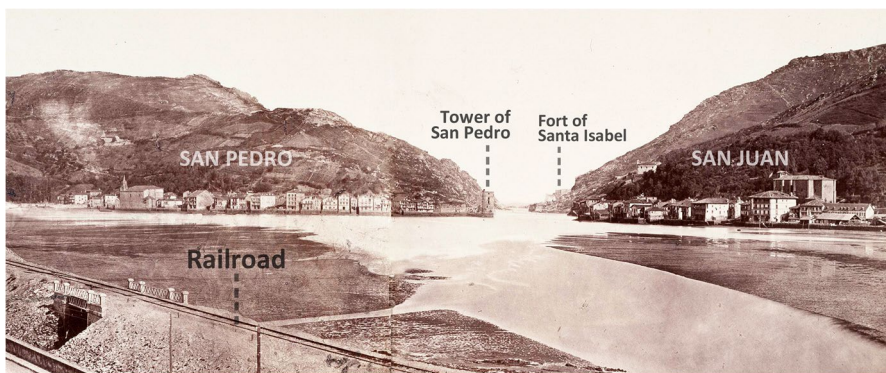
Against this background, public works were begun to adapt berths for use by larger ships and expand the harbor mouth. This allowed Pasaia to become the premier port in Gipuzkoa, which in turn caused a shift in the urban environment. The rural environment was transformed to become part of the service sector, a shift accompanied by a dramatic population increase.

However, there were also setbacks in the development of the consolidation of the port. As a result of the War of Spanish Independence (1808–14), the bay faced the

economic ruin. Over the years of the war, not only were the funds for dredging the port diverted to military spending, but English troops also sacked the works carried out on the Alabortza stream (see Fig. 3, right) and stole the ashlar blocks from the retaining walls that prevented sediment from the surrounding hillsides flowing into the bay (Zapirain and Irijoa 2011). This once again reduced the extent of navigable waters.

In 1822, in the context of this ongoing struggle to improve the operation of the port and establish its regional importance, the possibility of constructing a major road into the port was evaluated. The divergent interests of the different municipalities around the bay led them to promote alternative plans. San Juan was the leading supporter of the road project because it saw it as an opportunity to redress its geographical isolation. Years passed before a decision was taken to execute the proposal. Finally, in 1833, the salt marshes of Lezo and Kaputxinós were reclaimed, to open land for the construction of the *Albayalde y Minio* factory (no longer standing). Advantage was taken of this reclaimed land to construct a major road in the southern zone of the bay, which despite several halts in construction, was finished in 1845. From this moment on, the areas serviced by this highway became the focal point of the bay. This infrastructure was decisive for urban development in the area, since it led to the emergence of a new urban fabric, above all in Errenteria and Molinao, leaving San Pedro, San Juan, and Lezo playing secondary roles. From this point on, a new urban phase began.

During the nineteenth century, a majority of the urban fabric of the bay witnessed small changes (see Fig. 13). The urban system improved, principally in terms of infrastructure. In Errenteria and Pasaia the changes were more profound and of a structural character, to facilitate the evolution of the configuration of the port. Errenteria expanded rapidly into areas around the medieval center, by means of successive extensions. The most important changes for the port were those generated along the waterfront. The marshes were drained, thus losing their ship-building vocation. In the case of Pasaia, the construction of *La Plata* lighthouse in 1855 had important consequences for the operation of the port. In addition,



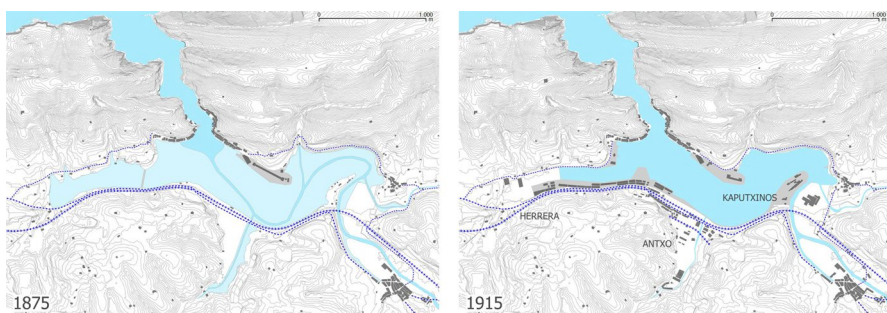
**Fig. 13** Photograph of the bay of 1864. It shows the Tower of San Pedro in the background, before its demolition. Source: Adapted by the authors from National Library of Spain, Sede de Recoletos, 17/59 (3)

between 1846 and 1853 Molinao cove, now known as Antxo, was also reclaimed, with the initial idea that the land be used for agriculture. Several years later, the Delegation of Gipuzkoa also constructed the Salinas breakwater to connect San Pedro with the new highway, a first step in the reclamation of Herrera cove (Martin Ramos 2004: 209).

In 1863, the railroad arrived at the bay as part of the Irun-San Sebastian line, which connected to the Madrid-Hendaye line. This fact granted a new value to the reclaimed lands in Molinao, which they began to interest port related industries due to their strategic position next to the train lines (Fig. 14, left). Thus, the focal point of the bay shifted from the harbor mouth toward the area known today as Antxo.

In the 1870s, with a change in jurisdiction over the port whereby responsibility shifted from the San Sebastian council to the regional government of Gipuzkoa, a new industrial stage started in Pasaia. Numerous industrial facilities such as warehouses and refineries for fuel and petroleum were constructed in Antxo, an area that had previously been used for agriculture. One of the few industrial buildings from this period that has been conserved is the Luzuriaga building, an eclectic building which is currently abandoned and has not been heritage listed.

Early in this period, housing was built around the new industrial areas. In later years, industry proliferated. Antxo was characterized by its mixture of industrial, residential, and tertiary uses, which met the needs of dockworkers. This coexistence between different uses led to problems, including a lack of open spaces and pedestrian space, and the presence of stagnant pools of water, focal points of disease outbreaks, in the middle of residential zones. In the face of this problem, land planning for Antxo was carried out in 1883 with the intention of achieving a viable coexistence between harbor industrial, commercial, and residential uses. The first planning instrument was written up to bring order to this section of Pasaia and opted for a totally rational and orthogonal arrangement. However, this design did not avoid mixing residential and industrial uses. Construction was carried out according to municipal construction ordinances: 76 detailed articles that regulated building heights, facades, the ventilation systems, usage, and the dimensions of the *patios*, light wells, stairs, and sidewalks.



**Fig. 14** Left: The bay in 1875, with the new roads and railroads. Right: The bay in 1915, with the bays of Antxo, Herrera, Kaputxinos and Lezo

The last structural change in the configuration of the bay took place in the cove of Herrera. Until well into the nineteenth century, a harbor wharf had existed in Herrera marking the end of the road from San Sebastian. This road had contributed to the commerce of the port of Pasaia. Due to the modernization of the Port and construction of the Madrid-Irun highway, the wharves of this area were demolished, and the level area was gridded for uses tied to the port.

From this time the modifications around the perimeter of the port were sporadic, and never on the same scale as the reclamation of these coves. The construction of the first industrial wharf of the bay in Antxo in 1879, which measured 310 m in length, deserves special mention (see Fig. 14, right). The boom in industrial development brought new improvements to the municipalities of the bay, including the renovation of pavements, the improvement of supply infrastructure, and new facilities including laundries and the extension of cemeteries.

In the first decades of the twentieth century, the strength of the port attracted numerous immigrants. Up until this time, the neighboring municipalities had expanded at similar rates, but in this period urban zones surrounding near the port—Herrera and Antxo—grew much faster than other areas. In response to this immigration and lack of housing in the area, industrialists of the port began to construct apartment blocks for their workers. The composition of the facades differentiated the ground and mezzanine floors, generally dedicated to urban services, from higher floors. The composition of openings organized along horizontal and vertical axes, generally containing balconies or large rectangular windows is a distinguishing feature. Some of the existing examples in Antxo are distinguished by the architectural solutions deployed on corners, with balcony galleries embellishing the change of plane. The decoration used exhibits different styles. Some of these constructions are more classicist while others display a certain regionalist touch, and others are of a more rationalist cut, with occasional elements derived from modernist architecture (Fig. 15). Some of these buildings



**Fig. 15** Housing blocks from the beginning of the twentieth century, in Antxo (Pasaia). Left: Nafarroa Hiribidea n16. Centre: Hamarretxeta n19. Right: Gure Zumardia n3

were built using reinforced concrete, the use of which became common around this time.

Despite the attempt to provide urban areas with adequate infrastructure, Trintxerpe has suffered from serious deficiencies in terms of open spaces and schools since its establishment in the 1930s. During the first half of the twentieth century, it lacked open spaces sheltered from progressively heavier traffic. As with Antxo, during this period there was a mixture of residential and industrial uses, which made the area uncomfortable and dangerous for urban living. This center is an example of accelerated urban expansion that even though planned did not result in a balanced urban environment, as the regulation about uses did not attend to the proper limit of the mix between residence and industry.

Jurisdiction over the port changed again in 1926, with the State taking direct control. From this time, several changes took place: there was support for the improvement of the entrance channel and several port administration buildings were constructed. The site became a laboratory for regionalist and rationalist architecture. Some of these buildings still mark the character of the landscape of the port, including the Private Offices, Public Health buildings, and the Customs House, all of which are in Antxo (Fig. 16). Also at this time, each section of the port was directed to specific uses.

Over these years the number of warehouses expanded, occupying land reclaimed from marshes and previously dedicated to agriculture. The *Senekozuloa* lighthouse was built along with other harbor infrastructure, including the ten cranes towers that were raised around the port. These elements modified the industrial landscape of the bay, inscribing a more specific character identifiable from surrounding areas. In 1946, the lighting infrastructure of the port was completed, with the construction of the Aranda Handia and Txikia towers, as well as illuminated navigational buoys. Lighting towers at Punta Cruces and Arco de Santa Ana were also made operational.

As seen in aerial photographs from 1954, until the middle of the twentieth century, harbor activity was centered in the southern, western, and northern areas of the bay. This demanded the construction of different artificial structures along a significant length of the harbor foreshore. This in turn opened new sites from which more port-related activities could be carried out. In this decade, the Bortalaborda platform was constructed, to adapt the port facilities to the needs of the *MEIPI*



Fig. 16 Early twentieth century administrative buildings, in Antxo (Pasaia)



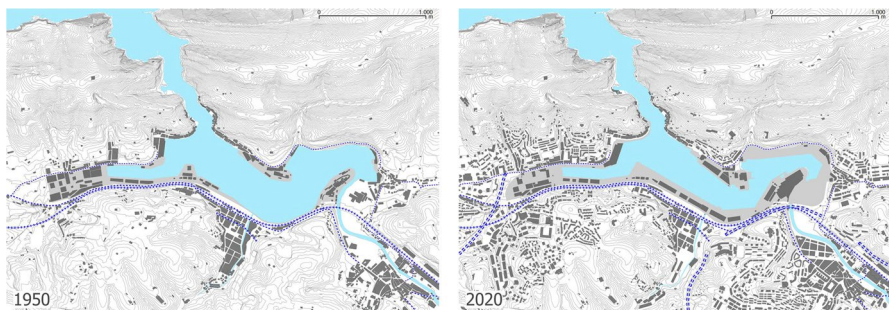
*Corporation*. Additionally, in front of Zamatete, a large building was constructed along the water's edge and the waterline of Bizkaia district was also altered.

As to the urban development around the bay, there is evidence that only sparse construction had been carried out on the Trintxerpe and Herrera hillsides until this point. Their rural character was undisturbed, a green mantle sprinkled with farmhouses (Fig. 17, left). On the other hand, sustained growth was maintained around Errenteria and Lezo, which expanded out from their medieval centers. Lezo was still a dispersed, low density, and organic urban center, very much connected to its natural environment.

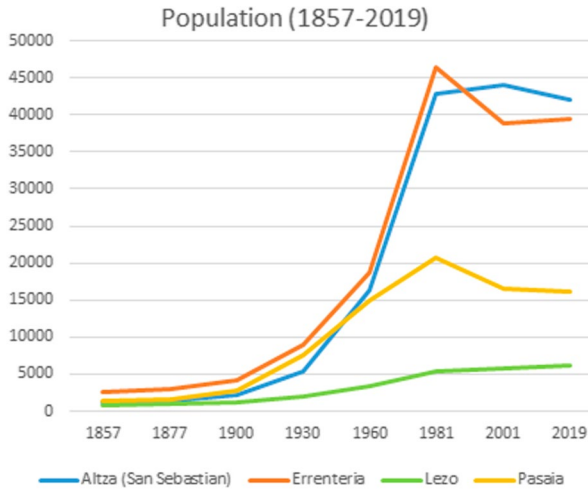
In the following decades, there were great changes in the rural surroundings. The availability of work around the port attracted a high number of immigrants, as can be witnessed in the population increase of the zone (Fig. 18). The slopes of Trintxerpe and especially of Altza underwent significant residential growth. In a first stage growth of small estate developments in marginal locations, made up of rows of apartment blocks three to five stories tall, equipped just to cover the basic necessities of sanitation, light and rubbish collection, were constructed (Cañamero 1988). In a second stage, residential developments multiplied and densified, especially from 1970, with taller apartment block of between six and eleven stories.

In 1962, the City Council of San Sebastian wrote up a General Plan, which, for the zone of Herrera, included the provision of services and urban infrastructure that was lacking in the area. However, the lack of technical quality of the city-planning document allowed for all sorts of interpretations and abuses of the regulations. This new urban fabric responded to an exponential demographic increase of the zone and bore no relationship to the existing structure. As can be seen now, the new growth was supplied with a road system not prepared for the housing density that emerged. Additionally, sufficient municipal infrastructure and open spaces for the large number of people who were to inhabit those districts was not included in any plans.

There were also further alterations at the water's edge during this stage, primarily in front of Antxo. The existing platform was extended further into the sea, creating the foreshore present today (Fig. 17, right). The use of areas in front of Errenteria, Lezo, and the zones of Kaputxinos for harbor activities is also evident. The zone between Bordialaborda and Lezo hosted the Pasaia thermal power station from the



**Fig. 17** Left: The bay in 1950. Right: The bay at the present time



**Fig. 18** Bay of Pasaia population growth and decline in the nineteenth and twentieth centuries. Source: data from National Statistics Institute (INE) and Basque Statistics Institute (Eustat)

1960s. At this time, the entire length of the waterfront around the port was dedicated to port usage, which disrupted the historical connection that had existed between the water and the urban centers.

The bay also became an important fishing port during these decades, specializing in deep and ultra-deep-sea fishing. Despite the pioneer nature of its cod fleet, changes in the fishing sector at the beginning of 1980s, as well as crisis in the industrial sector, brought hard times to the bay. Some years later, as the fishing sector was in a crisis, there was an attempt to diversify away from this sector. During the end of the twentieth century, definitive foreshore limits were established in front of Boralaborda, around Kaputxinos, and along the entire length of the foreshore in Lezo. The interventions created storage spaces, which were important for the profitability of the port. The transformation of the landscape continued to evolve. However, these modifications definitively eliminated the little natural character that had remained to the bay and its surroundings.

In the 1990s, problems arising from inadequate urban planning became evident. Poor transport networks, lack of open space and urban infrastructure, together with tall buildings clumped randomly across a complex topography, crippled the urban fabric and created problems with respect to sunlight and accessibility.

According to the comparative study of the land use, the real transformation of the natural character of the bay occurred during this phase. From the middle of the twentieth century, most of the sectors of the bay become urban areas for port use, or residential mixed with support uses for port activity. The most important infrastructures of this period are the new road of 1845 and the railway of 1863. From this time onward, reclaimed lands in Molinao became an important economic activity point. There, the new industry that supported the port was built. The La Plata lighthouse, built in 1855, improved the port infrastructure, and it also became a landmark in the northern part of the bay.

In 1926, the port area passed into the hands of the state and the water sheet was no longer accessible. During this period, several improvements were made to the port, which had an impact on its effectiveness (the entrance channel was improved, and new administrative buildings were built). In addition, each part of the port specializes in a specific use and the port consolidates its activity.

These major changes in infrastructures had direct consequences on urban structure. Especially from the second half of the twentieth century onward, there was frenetic urban growth, first occupying the small amount of flat land available, and then occupying areas of complex topography—Trintxerpe, Herrera, and Alza. This process took place without any previous urban planning. Residential developments were built mainly in response to the need to house workers but without considering the need for open spaces and facilities. Thus, the urban structure in this period was characterized by a lack of urban planning.

Therefore, most of the cultural heritage elements of this phase are in Herrera, Trintxerpe, and Antxo. A characteristic example is the well-known Andonaegui group of buildings in Trintxerpe, formed by the palace of an important shipowner, the blocks of houses for workers, and the factory. Other residential complexes promoted by business owners for their immigrant workers are Ziganda, Lertxundi, and Arratibel in San Pedro; Irisarri and Lasa y Yeregui in San Juan; Roldán, Leizeaga, and Romero-Tasada-Beltrán in Antxo; and Agirregabiria in Trintxerpe.

In both the workers' housing blocks, and the sumptuous palaces of local elites, a struggle between regionalist architecture and the later modernist architecture is played out. This same struggle can be identified in the equipment buildings and industrial architecture of this period, where brutalist buildings are also present. Unfortunately, most of these buildings have no heritage protection and some have already been completely or partially demolished. A representative example of this issue is the Nautical School Blas de Lezo (one of the most important brutalist buildings in the Basque Country), which east wing was demolished in 2012 (Uranga et al. 2019).

## The Regeneration of the Industrial Port: Present and Future

It is against this background that a discussion of how to approach the renewal of the bay begins. On the part of municipal, provincial, and regional authorities, there is longstanding consensus on the need for urban renewal, but no agreement on how this is to be carried out.

From the 1990s, different authorities represented in the bay began to promote several renewal initiatives, in line with the urban renewal formula set up in 1992 in the Olympic Games in Barcelona and applied in large obsolete harbor areas of Valencia, Marseilles, Liverpool, and Naples (De Rosa and Di Palma 2013). In 2003, Paco Rabanne launched a project that backed the construction of important infrastructure related to culture, art, and the economy based on ecological design, new technologies, and ongoing learning applied to fashion as a source of wellbeing and quality of life (Alberdi 2013: 142). In 2005, the agency for the renovation of the Bay of Pasaia commissioned *Taller de Ideas Madrid* to carry out a study with respect to the renewal of the area. This was formalized as a White Paper,

titled *Bahía Pasaia 21*, a study “that projects a total departure from present harbor commercial activities” (Alberdi 2013: 143). In the same year, Cuban architect Julian Argilagos launched the Fashion Art City proposal for Herrera district. Several years later, in 2006, the Provincial Council of Gipuzkoa commissioned the company International Tourism Consultants (THR) of Barcelona to carry out a process of reflection, which led to the Atlantis Proposal, that suggested an open air theme park oriented toward leisure, culture, and tourism. In 2009, the government launched an international competition for design proposals. The winning proposal advocated for profound changes along a large part of the waterfront, minimizing its usage as a port.

All these ideas and proposals supported the rezoning of port areas for open and leisure spaces, housing, and urban infrastructure, and for a profound restructuring of the port area. Additionally, each of these projects proposed the relocation of industry either to new industrial estates, or alternatively through relocating the commercial port to open waters (as an external port). This project would require tunnels underneath the protected natural ecosystem of Jaizkibel.

The initiatives that have actually been executed to date have been much more local in scale and in keeping with existing surroundings. In 1995, the Port Authority of Pasaia launched a proposal in which the port and social uses would be made compatible. In 2001, the winning candidate of the URBAN project promoted “the idea of the transformation of uses in zone adjacent to the urban frontage of Trintxerpe” (Alberdi 2013: 140). In 2007, seeing that other initiatives were not set to go ahead, the Port Authority presented a Special Plan for the use planning of the port, in which two regulatory regimes were proposed for Herrera. In one area, maritime port uses would continue, while in another, urban frontage would be created parallel to Euskadi Etorbidea street. A 20-m-wide greenway would improve accessibility and add public space, as well as cushion the interface between the port and the residential areas. The Port Authority of Pasaia argued that all interventions proposed for the area would comply with the municipal regulations of the City Council of Pasaia for that zone. However, different administrative and political vicissitudes caused a delay in the approval of the Special Plan until December of 2010. In addition, this Special Plan was subject to a recent review, which delayed its approval until mid-2018.

As of now, interventions anticipated in the Special Plan are being carried out. The projects already underway are concentrated around Herrera. They include the widening of arterial roads, improved transport links with neighboring suburbs, rezoning of land for municipal infrastructure, construction of underground parking, and the creation of a large new open public space, which is to meet the needs of the wider urban conglomerate. In addition, the Special Plan also tries to address the interface between the port and urban areas. It includes the creation and improvement of pedestrian infrastructure to promote healthy mobility along routes from the new center of Herrera toward San Pedro and Antxo, and between San Juan and Lezo. A transformation of buildings bordering Antxo is also planned, which will consolidate San Juan frontage and include an overpass over a section of the port in Lezo, so that the bicycle lane will be unbroken.

These interventions will improve the citizens’ relationship with the port. In some areas, they will include welcome access to the water’s edge. However, these improvements will be achieved solely through the rezoning of port-held lands. That



is to say, the reforms, both proposed and already executed, remain local and unintegrated. A project that approaches urban renewal through a global and integrated strategy addressing the entire urban system surrounding the bay is still awaited. Such a project should also highlight, and not abandon, the history of place embodied in its architectural and urban heritage to ensure protection of place identity.

## Conclusion

According to the *Valletta Principles* (ICOMOS 2011), architects and urban planners “must be encouraged to acquire a deep understanding of the historic urban context.” When undertaking a study of a portside cultural landscape, understanding and analyzing the historic interaction between the natural surroundings and human interaction with these is indispensable. These interactions evolve according to the events and characteristics of each historical moment.

In the last decades, different urban plans of regeneration have been promoted in the Bay of Pasaia. However, due to specific local difficulties—problems with coordination between diverse administrations, contraposed political interests, deficiencies in transport infrastructure, and the particular issues caused by the mountainous geography—these projects have not really taken off. The solutions being executed are partial and uncoordinated, and ignore the natural and cultural heritage elements, which ensure identity of the place.

Nowadays, the bay is immersed in a new phase of urban renewal. Gipuzkoa Provincial Council, together with other administrations and entities—Basque Government, city councils and the Port Authority of Pasaia—are promoting a new Integral Regeneration Program for the Bay of Pasaia. The main priorities of this program are employment, equipment, sustainability, sustainable mobility, and urban regeneration. In this context, efforts are being made to ensure that heritage can play an active and structuring role in decision-making processes. In order to achieve this objective, a comprehensive study of the historical development of this portside cultural landscape has been carried out.

The study has described three historical phases in the Bay of Pasaia. The first included medieval establishments in the thirteenth to fifteenth centuries, when the bay began to emerge as commercially strategic in its geographic surroundings. The second encompassed the boom and subsequent stagnation in the sixteenth to eighteenth centuries, a period in which there was an ongoing reflection on the occupation of this space and its effective adaptation to its commercial use. Finally, the third phase covered the definitive consolidation and expansion of the industrial port in the nineteenth and twentieth centuries. These phases bear similarity with the historical evolution of other great ports around the world (Akhavan 2017; Bird 1963).

The study of the historical layering served to determine the characteristics and tangible cultural heritage elements of each phase. Thus, a transversal comparative analysis of the land use, urban structure, infrastructure, built environment, open spaces, and natural heritage was also carried out (Table 1).

In relation to land use, it can be concluded that the bay maintained its environmental character until the middle of the twentieth century. Up to this moment, the

**Table 1** Comparative analysis of the characteristics and elements of each phase

	Phase 1	Phase 2	Phase 3
Land use	Urban areas: residential, commercial, and port activity. Rural areas: agriculture and forestry.	Urban areas: Increase of urban area. More economic activities related to the port. Rural areas: Multiplication of the farmhouses to provide the port with food and other supplies.	Urban areas: Continuum built up. Port uses, and residential mixed with uses supporting the port activity. Rural areas: Concentrated in the higher parts of the surrounding mountains.
Urban structure	San Juan and San Pedro: Single street with narrow plots. Lezo: Three converging streets with narrow plots. Errenteria: Four walled streets with narrow plots	Urban fabrics expanded around the main roads, respecting the initial urban structure.	The urban structure grows and becomes more complex and irregular. High-density and disorderly occupation of the southern slope. Dewatered of marshes in Herrera (unplanned) and Molinao (“Ensanche” morphology).
Infrastructure	Berths, shipyards, carriage roads, and mills.	Berths and quays, new shipyards, trading company buildings, roads, mills, retaining walls, and dams.	Quays, new shipyards, highway, railway, dams, big platforms, and cranes and other structures of the new port.
Built environment	Urban areas: 2 or 3-story houses between party walls. Rural areas: Farmhouses. Landmarks: Churches, defensive architecture. Construction system: Masonry walls and timber structure.	Urban areas: 2 or 4-story houses between party walls. Rural areas: Farmhouses, detached houses. Landmarks: Churches, defensive architecture, palaces. Construction system: Masonry walls and timber structure.	Urban areas: 4 or 11-story houses, block of flats, perimeter blocks. Rural areas: terraced houses, block of flats. Landmarks: regionalist and rationalist architecture, towers houses, port structures.
Open spaces	Spaces next to churches, streets, coves. The edge of the water is a space for leisure, socializing, and commercial activity. Elements: Medieval streets and lots of the four historical centers, and Herriko Plaza square in Errenteria.	Elements: Fronts of houses in San Juan. Lots of them also in San Pedro, Lezo, and Errenteria. Spaces next to churches, streets, coves. Larger squares also appear. The edge of the water loses space for leisure and social activity. Elements: Santiago Plaza square in San Juan.	Construction system: Progressive use of reinforced concrete. Steel in port structures. Elements: Groups of buildings in Trintxerpe and Antxo (factories, palaces of owners, and houses of workers). Spontaneous urban growth without open spaces. No place for leisure and social activity in the edge of the water. Elements: Rectangular street grid and Zumardi Plaza square in Antxo.
Natural heritage	Topography: Closed and irregular. Low degree of alteration. Landmarks: Mt Jaizkibel and Mt Ulia. Hydrology: Bay with several rivers and streams. Low degree of alteration.	Topography: Urban development without great impact on the environment. Low degree of alteration. Hydrology: Modification of some streams. Medium degree of alteration.	Topography: Great impact of the urban growth. High degree of alteration. Hydrology: Dewatering of marshes, channelization of streams and sediment dredging. High degree of alteration.

bay was characterized by small urban centers and a natural environment that preserved its natural heritage elements. In the second half of the twentieth century, the urban area was extended as far as the topographical limits allowed and an urban continuum was formed. In this way, the bay lost its balanced natural-urban duality.

During the first phase, the historical towns had an urban structure formed by one (San Juan and San Pedro), three (Lezo) or four (Errenteria) streets with narrow lots. This urban structure was maintained and expanded in the second phase. From the nineteenth century, the urban structure of Antxo stands out, which was planned following a totally rational and orthogonal arrangement of the area. On the contrary, the development of the twentieth century—especially in the second half—was unplanned and spontaneous.

Communication, defensive and port infrastructure evolved with the development of the technology. Similarly, the presence of infrastructure grew during the three phases, transforming the character of the site: drainage of marshes for urban developments (Herrera and Antxo); channelization of streams; and transformation of the edge of the water by the enlargement of the docks (see Figs. 6, 11, 14 and 17).

The transversal analysis of tangible elements shows that built environment evolved, especially since the nineteenth century. Traditional residential typologies—two-, three-, or four-story houses in urban areas, and farmhouses in rural areas—are the most common heritage elements in the first two phases. The third phase gave rise to new building typologies—blocks of flats, perimeter blocks—due to exponential demographic growth and the evolution of the construction system. At this time, the construction of buildings with masonry walls and timber interior structure was replaced by reinforced concrete buildings. It is also worth mentioning some types of buildings, which serve as landmarks in the landscape: churches, defensive architecture, and palaces in the first and second phases; and regionalist and rationalist architecture, residential towers, and port structures in the third phase.

In the first phase, the most important open spaces were the coves, but no original elements have been preserved. In the second phase the water edge was artificialized to serve as quays for trading companies. The public spaces of the first phase that have been preserved are small irregular squares located next to the churches—for example, Herriko Plaza square in Errenteria. The Santiago Plaza in San Juan is the most relevant public space preserved from the second phase, mainly due to its active role as a place for traditional activities and festivities. In the last phase, most of the growth of the bay occurred in an unplanned manner and without any provision for public open space and facilities. However, the case of Antxo is exceptional, since its growth took place through a planned urbanization, in which a large square with equipment buildings—some of them with aesthetic value—was created. During this last period, the edge of the water was lost as a public and recreational space, becoming private and artificialized.

The natural heritage of the bay has always been in danger. In the first the phases, an attempt was made to control the hydrology of the natural ecosystem so that the bay would function as an efficient commercial port—for example, dams in streams, and sediment retaining walls in Ondartxo and La Bursa. However, the greatest alteration of the hydrology took place at the early twentieth century when the Herrera and Molinao were drained. The other major alteration of the natural environment occurred in the

second half of the twentieth century, when the topography of the slopes of the mountains was greatly transformed to build urban developments. In the same period, the waterfront was also saturated with platforms for industrial port uses.

A GIS database was developed with georeferenced information of the three historical periods and their heritage elements. This database has allowed comparative studies between different historical layers, such as the architectural and urban heritage (see Figs. 19, 20, 21, 22, 23, 24 and 25). A relationship is observed between the concentration of elements of a historical phase and the main period of development of each area: most of the architectural and urban elements of the first phase are in

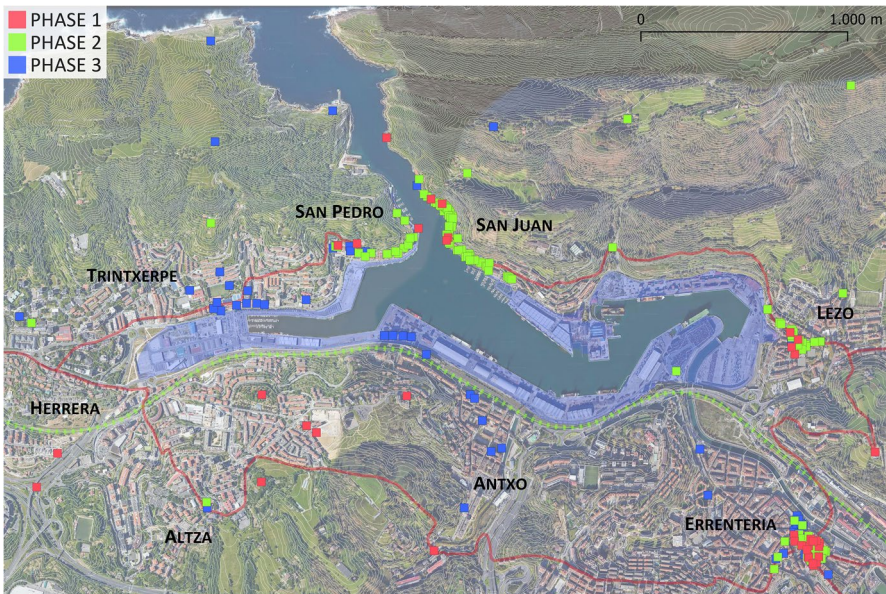


Fig. 19 GIS database with the most characteristic heritage elements of each phase: Phase 1 in red, Phase 2 in green and Phase 3 in blue

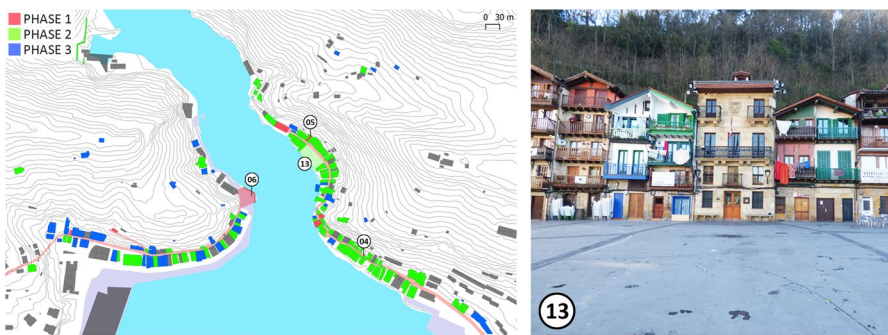
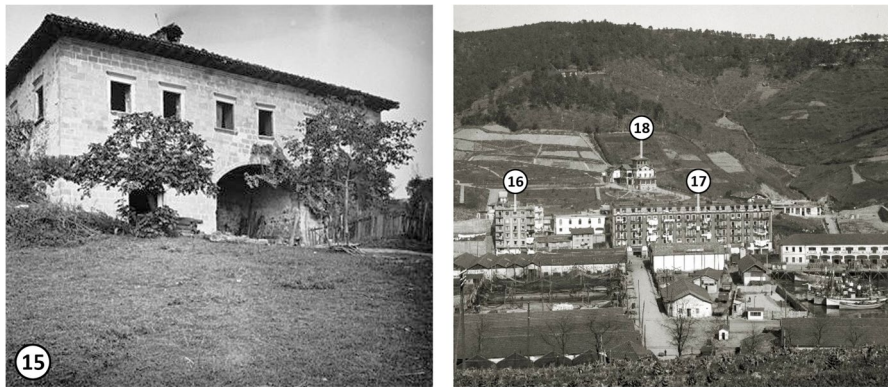


Fig. 20 Left: San Pedro (Pasaia) and San Juan (Pasaia). Right: Santiago Plaza square, in San Juan





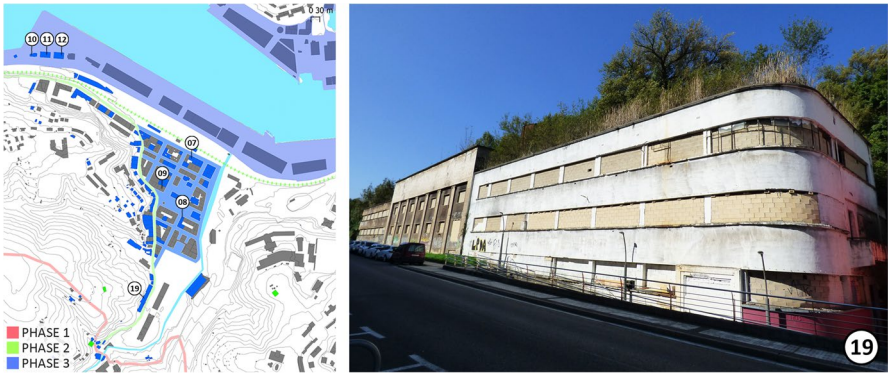
**Fig. 21** Left: Trintxerpe (Pasaia) and Herrera (San Sebastian). Right: The Nautical School Blas de Lezo—the inhabitants use the tower as a visual reference for the boundary between Trintxerpe and San Pedro



**Fig. 22** Left: Moneda farmhouse in a photograph of the nineteenth century. Source: IPCE, Donación Conde de Polentinos, DCP-A-3215. Right: Trintxerpe in 1927, showing the palace of the ship-owner Francisco Andonaegui (18) and houses of the workers (16 and 17). Source: KUTXATEKA, Fotocar collection, Martín Ricardo, 85196339

Errenteria and Lezo, the buildings and spaces in the mouth of the port were erected mainly in the second phase, and Trintxerpe, Antxo, and Herrera grew during the boom of the industrial port in the last phase. It can be concluded that an observer located in the urban space can perceive each area as a succession of different micro-landscapes, which highlight the unique historical memory of each town and its relation with the waterfront. Thus, the geographic configuration of the bay facilitates the perception of different micro-landscapes from diverse points of view, especially within the streets (Fig. 26).

As mentioned above, public administrations are currently developing a new urban regeneration program. One of the initiatives of the program is the comprehensive enhancement of this portside cultural landscape through the creation of an open-air museum, a strategy that has been implemented in different parts of the world



**Fig. 23** Left: Antxo area (Pasaia). Right: Luzuriaga building, an example of the poor state of preservation of some heritage elements



**Fig. 24** Left: Lezo. Right: Darieta-Zar farmhouse, one of the oldest constructions in Lezo



**Fig. 25** Left: Errenteria. Right: Andra Mari n1, an example of the transformations that some buildings have undergone



**Fig. 26** Photographs of the streets of Errenteria (Phase 1), San Juan (Phase 2) and Antxo (Phase 3)

(Paardekooper 2013; Richards and Munsters 2010). In this context, the proposal is being structured through an axis or cultural itinerary, which will show the interaction between the water sheet and the different micro-landscapes and their heritage elements. The main objectives of this proposal are to bring the heritage closer to the local community, disseminate the history of the bay, and reintegrate disused elements into contemporary life. In addition, this cultural axis will seek to promote sustainable mobility, as it is intended to adapt some traffic roads and streets to include a pedestrian-bicycle path—according to the *Valletta Principles*, “most historic towns and urban areas were designed for pedestrians and slow forms of transport” and “gradually these places were invaded by the car, causing their degradation.” Finally, the proposal is also expected to attract tourism and other new economic activities, although this should be done in a controlled and diversified manner throughout the different areas of the bay.

In fact, the incorrect or poorly executed approaches have led to the uncontrolled “touristification” of several important historic cities in recent decades. Some of the most frequent issues originated by this type of non-respectful musealization strategies are gentrification problems, replacement of the local shops with tourist services, loss of traditional activities, and “loss of a place’s liveability and, ultimately, its character” (ICOMOS 2011). Consequently, the open-air museum proposal should give priority to the local community and the safeguarding of the heritage, both tangible and intangible.

In other cases, musealization strategies have also been used to glorify certain historical periods or even to construct politically motivated narratives (Aykaç 2019). That is why the process of identification, characterization and cataloguing of heritage should be done through objective studies, to enhance the history of a place and its heritage elements. In this research, a comprehensive study of the bay has been carried out, analyzing also elements that have been excluded until now from the heritage catalogs—buildings of the nineteenth and twentieth centuries, open spaces, urban structure and streets, historical infrastructures, and natural elements.

Another important aspect of this type of strategy is the integration of the cultural and natural elements into contemporary life (Macdonald 2013). That is, the proposal should avoid “fossilizing” heritage elements (Steinberg 1996), and not to turn the



different micro-landscapes into theme park-type attractions or “Disney experiences” (Orbasli 2002). Priority should be given to maintaining traditional uses and activities, and promoting the adaptive reuse of elements that are no longer in use.

Therefore, this research has served to analyze and characterize the historical development and heritage elements of the Bay of Pasaia, one of the most significant cultural landscapes in the Basque Country. The results of this study are expected to serve as a basis for future urban regeneration plans and heritage enhancement strategies. Natural and cultural heritage elements can play an active and dynamic role in the regeneration of the bay, as well as facilitating the maintenance of historical memory.

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## References

- Akhavan, M. (2017). Development dynamics of port-cities interface in the Arab Middle Eastern world—the case of Dubai global hub port-city. *Cities* **60**: 343–352.
- Alberdi Collantes, J. C. (2013). Reurbanización de la Bahía de Pasaia: Aproximación a los proyectos y desencuentros acaecidos en las dos últimas décadas. *Lurralde: Investigación y Espacio* **36**: 135–158.
- Ayerbe Iribar, M. R., Irijoa Cortés, I., Lema Pueyo, J. Á., San Miguel Osaba, A., and Moya, J. (2013). *Colección Documental del Archivo Municipal de Hondarribia, tomo III (1374–1520)*. Eusko Ikaskuntza, San Sebastian.
- Ayerbe Iribar, M. R., Irijoa Cortés, I., and San Miguel Osaba, A. (2012). *Documentación Medieval del Archivo Municipal de Oiartzun, tomo II (1328–1514)*. Eusko Ikaskuntza, San Sebastian.
- Aykaç, P. (2019). Musealisation as a strategy for the reconstruction of an idealised Ottoman past: Istanbul’s Sultanahmet district as a “museum-quarter.” *International Journal of Heritage Studies* **25**: 160–177.
- Bird, J. H. (1963). *The Major Seaports of the United Kingdom*. Hutchinson, London.
- Bandarin, F. and Van Oers, R. (eds.) (2015). *Reconnecting the City: The Historic Urban Landscape Approach and the Future of Urban Heritage*. John Wiley and Sons, Oxford. <https://doi.org/10.1002/9781118383940>
- Bandarin, F. (2019). Reshaping urban conservation. *Reshaping Urban Conservation: The Historic Urban Landscape Approach in Action*. Springer, Paris.
- Baumanova, M. (2020). Urban kinaesthetic heritage and production of social sustainability. *Journal of Archaeological Science: Reports* **32**. <https://doi.org/10.1016/j.jasrep.2020.102445>
- Benito Domínguez, A. M. (2009). Ensenada de Alabortza (Cala Bursa). *Arkeoikuska* **2009**: 400–401.
- Buces Cabello, J. (2010). Plaza Lezoaundi. *Arkeoikuska* **2010**: 375–376.
- Cañamero Redondo, A. (1988). Alza: crecimiento urbano y demográfico de la periferia de San Sebastián. *Lurralde: Investigación y Espacio* **11**: 329–385.
- Council of Europe. (2000). *European Landscape Convention*. <https://rm.coe.int/1680080621>



- Crespo Rico, M. A., Cruz Mundet, J. R., and Gómez Lago, J. M. (1991). *Colección Documental del Archivo Municipal de Rentería, Tomo I (1237–1470)*. Eusko Ikaskuntza, San Sebastian.
- Crespo Rico, M. A., Cruz Mundet, J. R., and Gómez Lago, J. M. (1997). *Colección Documental del Archivo Municipal de Rentería, Tomo II (1470–1500)*. Eusko Ikaskuntza, San Sebastian.
- De Rosa, F. and Di Palma, M. (2013). Historic urban landscape approach and port cities regeneration: Naples between identity and outlook. *Sustainability* **5**: 4268–4287.
- Elorza Maiztegui, J. and Herrero Llorente, V. J. (2015). *Colección Documental del Archivo Municipal de Hondarribia. Tomo IV (1499–1537)*. Eusko Ikaskuntza, San Sebastian.
- Fusco Girard, L. (2013). Toward a smart sustainable development of port cities/areas: The role of the “Historic urban landscape” approach. *Sustainability* **5**: 4329–4348.
- Galili, E., Rosen, B., Zviely, D., Silberstein, N., and Finkielstejn, G. (2010). The evolution of akko harbor and its mediterranean maritime trade links. *Journal of Island and Coastal Archaeology* **5**: 191–211.
- Goff, L. A. (2021). *Archaeological Analysis of Built Environments at Coastal Ancient Maya Port Sites*. Master’s thesis, Georgia State University, Atlanta.
- Goienetxe Patrón, E. (2013). *Pasaia Atlántico: Patrimonio Marítimo*. Ayuntamiento de Pasaia, Pasaia.
- Gómez Piñeiro, J. and Orella Unzué, J. L. (1994). *Documentos Cartográficos Históricos de Gipuzkoa*. Diputación de Gipuzkoa, San Sebastián.
- Hoyle, B. S. (1989). The port-city interface: trends, problems and examples. *Geoforum* **20**: 429–435.
- Herrerías Moratinos, B. (1999). Pasaia a través de su patrimonio. *Pasaia: Memoria Histórica y Perspectivas de Futuro*. Museo Naval, San Sebastián.
- ICOMOS. (1964). *International Charter for the Conservation and Restoration of Monuments and Sites*. [https://www.icomos.org/charters/venice\\_e.pdf](https://www.icomos.org/charters/venice_e.pdf)
- ICOMOS. (1987). *Washington Charter for the Conservation of Historic Towns and Urban Areas*. [https://www.icomos.org/charters/towns\\_e.pdf](https://www.icomos.org/charters/towns_e.pdf)
- ICOMOS. (2011). *The Valletta Principles for the Safeguarding and Management of Historic Cities, Towns and Urban Areas: Principles, as Adopted by the 17th ICOMOS General Assembly*. [https://www.icomos.org/Paris2011/GA2011\\_CIVVIH\\_text\\_EN\\_FR\\_final\\_20120110.pdf](https://www.icomos.org/Paris2011/GA2011_CIVVIH_text_EN_FR_final_20120110.pdf)
- Irijoa Cortés, I. (2009). *Pasaia: Orígenes (siglos XIV-XVI)*. Ayuntamiento de Pasaia, Pasaia.
- Irijoa Cortés, I. (2013). *Documentación Medieval de los Archivos Municipales de Pasaia y Lezo (1361–1520)*. Eusko Ikaskuntza, San Sebastian.
- Labadi, S. and Logan, W. (eds.) (2016). *Urban Heritage, Development, and Sustainability: International Frameworks, National and Local Governance: International Frameworks, National and Local Governance*. Taylor Francis, Abingdon.
- Larrañaga Zulueta, M. and Tapia Rubio, I. (1993). *Colección Documental del Archivo Municipal de Hondarribia, Tomo I (1186–1479)*. Eusko Ikaskuntza, San Sebastian.
- Larrañaga Zulueta, M., Tapia Rubio, I., and Roldán Gual, J. M. (1996). *Colección Documental del Archivo Municipal de Hondarribia, Tomo II (1480–1498)*. Eusko Ikaskuntza, San Sebastian.
- Lema Pueyo, J. A. and Larrañaga Zulueta, M. (1995). *Colección de Documentos Medievales del Convento de San Bartolomé (San Sebastián) (1250–1515)*. Eusko Ikaskuntza, San Sebastian.
- Loures, L. C. (2015). Post-industrial landscapes as drivers for urban redevelopment: public versus expert perspectives towards the benefits and barriers of the reuse of post-industrial sites in urban areas. *Habitat International* **45**: 72–81.
- Luengas-Carreño, D., Crespo de Antonio, M., and Sánchez-Beitia, S. (2018). Donibane n134: análisis histórico-constructivo de una casa señorial de villa bajomedieval en Pasaia (Gipuzkoa). *REHABEND* **2018**: 47–54.
- Macdonald, S. (2013). *Memorylands: Heritage and Identity in Europe Today*. Routledge, London. <https://doi.org/10.4324/9780203553336>
- Martín Ramos, A. (2004). *Los Orígenes del Ensanche Cortázar de San Sebastián*. Fundación Caja de Arquitectos, Barcelona.
- Miguel, I. (1991). *El Comercio Hispanoamericano a Través de pasajes - San Sebastian, 1778–1795*. Grupo Doctor Camino, San Sebastián.
- Ministerio de Educación, Cultura y Deporte. (2015). *Plan Nacional de Paisaje Cultural*. [https://sede.educacion.gob.es/publiventa/d/20707\\_C/191](https://sede.educacion.gob.es/publiventa/d/20707_C/191)
- Moraza Barea, A. (2006). Plaza Torrekoatze (Pasaia). *Arkeoikuska* **2006**: 497–498.
- Orbasli, A. (2002). *Tourists in Historic Towns: Urban Conservation and Heritage Management*. Taylor and Francis, New York.
- Paardekooper, R. (2013). *The Value of an Archaeological Open-Air Museum Is in Its Use: Understanding Archaeological Open-Air Museums and Their Visitors*. Sidestone, Leiden.

- Pereira Roders, A. and Bandarin, F. (2019). *Reshaping Urban Conservation: The Historic Urban Landscape Approach in Action*. Springer, Paris. <https://doi.org/10.1007/978-981-10-8887-2>
- Pérez Centeno, J. M. (2006). Palacio Galatras. Entorno (Pasaia). *Arkeoikuska* **2006**: 524–525.
- Pérez Centeno, J. M. (2007). Edificio nuevo equipamiento sociocultural en Pasai Donibane. *Arkeoikuska* **2007**: 380–381.
- Petzet, M. (2004). Principles of preservation: an introduction to the International Charters for Conservation and Restoration 40 years after the Venice Charter. *International Charters for Conservation and Restoration. Monuments & Sites, I*. ICOMOS, München.
- Pickard, R. (2001). *Policy and Law in Heritage Conservation*. Spon, London.
- Rey-Pérez, J. and Pereira Roders, A. (2020). Historic urban landscape: a systematic review, eight years after the adoption of the HUL approach. *Journal of Cultural Heritage Management and Sustainable Development* **10**: 233–258.
- Richards, G. and Munsters, W (eds.) (2010). *Cultural Tourism Research Methods*. Cabi, Wallingford.
- Sonkoly, G. (2017). *Historical Urban Landscape*. Palgrave Macmillan, New York. <https://doi.org/10.1007/978-3-319-49166-0>
- Steinberg, F. (1996). Conservation and rehabilitation of urban heritage in developing countries. *Habitat International* **20**: 463–475.
- Taylor, K., St Clair, A., and Mitchell, N. J. (2014). *Conserving Cultural Landscapes: Challenges and New Directions*. Routledge, New York. doi:<https://doi.org/10.4324/9781315813226>
- Texeira, P. (2003). *El Atlas del Rey Planeta: la Descripción de España y de las Costas y Puertos de sus Reinos*. Editorial Nerea, San Sebastian.
- Tena García, M. S. (1991). Guía de fuentes para el estudio del Puerto de Pasajes en la Baja Edad Media (siglos XIII-XV). *Bilduma* **5**: 101–115.
- UNESCO. (1972). *Convention Concerning the Protection of the World Cultural and Natural Heritage*. <https://whc.unesco.org/archive/convention-en.pdf>
- UNESCO. (1976). *Recommendation Concerning the Safeguarding and Contemporary Role of Historic Areas*. <http://www.unesco.org/en/legal-affairs/recommendation-concerning-safeguarding-and-contemporary-role-historic-areas?TSPD-101>
- UNESCO. (1992). *Convention Concerning the Protection of the World Cultural and Natural Heritage*. <https://whc.unesco.org/archive/1992/whc-92-conf002-12e.pdf>
- UNESCO. (2011). *Recommendation on the Historic Urban Landscape*. <https://whc.unesco.org/en/hul/>
- UNESCO. (2021). *Operational Guidelines for the Implementation of the World Heritage Convention*. <https://whc.unesco.org/en/guidelines/>
- Uranga, E. J., Etxepare, L., Lizundia, I., and Sagarna, M. (2019). Escuela oficial de náutica «Blas de Lezo» de Laorga y Zanón: ejemplo de arquitectura brutalista en la bahía de Pasaia. *Actas del Undécimo Congreso Nacional de Historia de la Construcción*. Instituto Juan de Herrera, Soria.
- Urteaga Artigas, M. M. (1992). *Guía Histórico-Monumental de Gipuzkoa*. Diputación Foral de Gipuzkoa, San Sebastián.
- Veldpaus, L. and Pereira Roders, A. (2014). Learning from a legacy: Venice to Valletta. *Change over Time* **4**: 244–263.
- Zapirain, D. (2005). *Pasaia 1805–2005: 200 Años de Unidad*. Udala, Kultura eta Hezkuntza Saila, Pasaia.
- Zapirain, D. (2007). *Patrimonio Industrial en Pasaia: Defensa y Difusión*. Sorginarrri, Pasaia.
- Zapirain, D. and Irijoa Cortés, I. (2011). *Pasaia: Desarrollo Urbano*. Pasaiaiko Udala, Pasaia.
- Zurbano, J. (1999). Comercio y desarrollo portuario. *Pasaia: Memoria Histórica y Perspectivas de Futuro*. Museo Naval, San Sebastián, pp. 16–73.