

9

Maritime and coastal heritage

Authors

Marnix Pieters ¹
Benoit Strubbe ²
Maarten Van Dijck ¹
Hans Pirlet ³

Reviewers

Thary Derudder ⁴
Tine Missiaen ⁴

¹ Flanders Heritage Agency

² Province of West Flanders

³ Flanders Marine Institute (VLIZ)

⁴ Ghent University (UGent)

Citation:

Pieters, M., Strubbe, B., Van Dijck, M., Pirlet, H., 2015. Maritime and coastal heritage. In: Pirlet, H., Verleye, T., Lescrauwaet, A.K., Mees, J. (Eds.), Compendium for Coast and Sea 2015: An integrated knowledge document about the socio-economic, environmental and institutional aspects of the coast and sea in Flanders and Belgium. Ostend, Belgium, p. 175-186.



Maritime and coastal heritage covers a very wide range of aspects. It includes maritime archaeological heritage in the sea as well as on land, historical fleet, architectural heritage which is typical of the coastal zone, coastal landscapes with heritage value, maritime movable heritage and intangible maritime heritage. Comprehensive works that cover these maritime heritage themes for the Belgian part of the North Sea (BNS) and the adjacent coastal area do not exist. Moreover, overview works that deal with a particular aspect of maritime heritage in an integrated way, beyond artificial and variable limits (legal, physical or disciplinary), are not available either.

Addressing maritime and coastal heritage in an integrated way offers benefits with regard to the understanding of relationships and elucidating the wider context. Furthermore, the various types of borders have also changed significantly over time. In the Roman period, for example, the coastline was located further seaward compared to the present situation, even though there were several tidal channels which penetrated into the hinterland. This is why archaeological heritage that was originally formed on land, may nowadays be situated below sea level. It goes without saying that this heritage, if still available, should be seen in conjunction with the archaeological heritage situated in the current coastal plain.

9.1 Current situation

9.1.1 Maritime archaeology

The concept of maritime archaeological heritage covers a wide range of aspects. The most important elements are:

- Shipwrecks and other wrecks (e.g. airplanes) as well as parts thereof, regardless of where they are found (in the sea, in rivers or former rivers or recycled anywhere on land). The expansion to sites on land only applies to shipwrecks and parts thereof;
- Settlements or other traces or remains of human activity in seas, rivers or other bodies of water and their paleo-environmental context (e.g. [Missiaen 2012](#)). An important category in this regard can be linked to the theme of sea level rise after the cold phases of the ice ages;
- Archaeological sites and traces situated on land and their paleo-environmental context, which were entirely focused on the sea for their former operations such as lighthouses, fishing villages, shipyards, embankments, peat extraction, salt extraction, quays, drainage canals, etc.;
- Archaeological remains of sea fish that are also found far inland in archaeological research (e.g. [Van Neer & Ervynck 2006](#));
- Paleontological bones of terrestrial fauna found at sea (for the Belgian part of the North Sea and adjacent beaches, see [Vermeersch et al. 2015](#)).

There is no restriction with regard to the age of the investigated archaeological heritage. A shipwreck from WWII deserves an appropriate archaeological treatment, which will obviously differ from the treatment of a shipwreck from the Bronze Age.

Since 2003, systematic research has been performed on maritime archaeological heritage by [Flanders Heritage Agency](#) and its precursors (Institute for the Archaeological Heritage (IAP), Flemish Institute for Immovable Heritage (VIOE)).

For certain aspects of the maritime archaeological heritage (as mentioned above), there are (partial) overviews which cover Flanders and the BNS:

- The database of Flanders Heritage Agency, www.maritieme-archeologie.be, aims at structurally documenting and disclosing relevant information concerning maritime archaeological heritage in Flanders and in the BNS. On this website, more information can be found about shipwrecks (and their contents) which are present in the North Sea and in Flanders, artefacts from the sea, and maritime sites such as fishing villages and lighthouses.

In addition, there are two more databases that provide valuable information in a structured way about part of the heritage treated here, namely shipwrecks, without having an archaeological perspective:

- The wreck database of the Flemish Hydrography, www.vlaamsehydrografie.be/wrakkendatabank.htm has been developed from a perspective of safe shipping. The information in this database formed the basis for a book about shipwrecks in the North Sea which inventoried 277 wreck sites ([Termote & Termote 2009](#));

- The online database www.wrecksite.eu (private initiative), which has become an internationally respected and consulted database on shipwrecks.

Besides the three databases mentioned above, a number of reviews are available that cover part of the maritime archaeological spectrum. For example, in the so-called *onderzoeksbalans* of Flanders Heritage Agency (<https://onderzoeksbalans.onroerendergoed.be>), two summary documents are available on maritime archaeology:

- An overview of the archaeological research in the BNS below the high water line (including the beach) (published in adapted format in [Pieters et al. 2010](#));
- An overview of shipwrecks and components found in rivers and on land in Flanders. The medieval shipwrecks from Flanders have also been included in a recent overview article on medieval ships ([Van de Moortel 2011](#)).

For the study of shipwrecks found on land, the research on the medieval shipwrecks in Doel is important in an international context (see also <http://www.kogge.be/en>, [Haneca & Daly 2014](#), [Vermeersch & Haneca 2015](#)). In recent decades, extensive research has been conducted in Flanders on the archaeological heritage of late medieval and early modern fishermen, focusing on the medieval fishing community of Walraversijde. A large part of the study of the archaeological research in Raversijde has been published in [Pieters et al. \(2013\)](#). With regard to the maritime landscapes of the Belgian coastal plains, there are a number of studies conducted by the *Vrije Universiteit Brussel* (e.g. [Tys 2004](#), [Tys 2013](#)).

Until now, little attention has been paid in the archaeological research field in Flanders to the other categories of maritime archaeological heritage on land such as embankments, harbour structures, lighthouses, salt extraction, etc.

In 2013, the IWT project ‘Archaeological research in the North Sea: development of an efficient evaluation methodology and proposals for sustainable management in Belgium’ (*SEARCH*) (2013-2016) was launched. This project aims to provide guidelines for a methodology with regard to buried shipwrecks and prehistoric relics in the North Sea. An efficient and low-cost methodology will be developed that will allow to detect the paleolandscapes, linked with prehistoric presence and buried archaeological remains, and manage them according to internationally accepted standards and protect them from uncontrolled destruction.

9.1.2 Historical fleet (including historical shipbuilding)

The historical fleet policy is relatively recent. In the early 1990s, increased attention was paid to the historical fleet by the industrial heritage cell within the former department of Monuments and Landscapes (the current Flanders Heritage Agency). The link between the historical fleet and the industrial heritage is obvious. Ships were built with materials used in other economic sectors. Initially, wood was the preferred material for ships. Depending on the type of vessel, the switchover to steel, the key product of the industrial revolution, was made sooner or later. Synthetic materials were increasingly used for recreational boating. The propulsion of the ships evolved from sails to steam engines, and subsequently to diesel engines. The historical fleet is inventoried in a database by Flanders Heritage Agency (<https://inventaris.onroerendergoed.be/ivm/varend/zoeken>).

Two types of vessels are of great importance for the coast: fishing boats and sail yachts. In table 1, some of the most important historical fishing boats and their characteristics are presented. An overview of the fishing vessels from 1929 onwards is given in the *database of the Belgian fishing fleet* of the Flanders Marine Institute (VLIZ) (see also theme Fisheries).

The Panesi project took a closer look at the construction of fishing vessels on the coast based on the archives of the Panesi shipyard ([Van Dijck & Daems 2015](#)). The study outlines the history of shipbuilding on the coast and describes the development of the fishing boats between 1870 and 1970.

The Mercator ship is a special case which was protected as a monument in 1996. This steel barquentine of 78 m was built in 1932 according to the plans of Adrien de Gerlache ([VLIZ Wetenschappen 2012 – Adrien de Gerlache](#), [VLIZ Wetenschappen 2015a](#)). The Mercator was used to train merchant marine officers. Since 1961, the ship has been open to the public as a museum ([Vanden Bosch 2001](#)). Finally, the West-Hinder Light Ships (1950, Belliard yard, Ostend, [Janssens 1997](#), [De Graaf 2012](#), [VLIZ Wetenschappen 2015b](#)) must be mentioned. These floating lighthouses warned ships for shallow sandbanks and were replaced by unmanned light platforms in 1993.

Table 1. A selection of important historical fishing boats with their characteristics.

NAME OF THE SHIP	CHARACTERISTICS
Lorette de Gravelines	Year of construction: 1907, 17 m, oldest existing fishing sailboat of the Belgian coast, in restoration in France
Jacqueline-Denise	Shrimp fishing boat from Blankenberge, 17 m, based on the hull of a ship that was built in 1942 by Borrey in Ostend
OD.1 Martha	Year of construction: 1942, motor trawler, showpiece of the National Fisheries Museum (NAVIGO)
N.788 Moed en Vertrouwen	Year of construction: 1942, wooden motor trawler, 15 m, in very poor condition, along an access road to Oostduinkerke
O.305 François Musin	Year of construction: 1948, deep-sea trawler for Iceland fishing, shipyard: Belliard - Crighton in Ostend. Built for the NV Motorvisscherij. Restored in Antwerp by Werkvormm vzw. Protected as historical fleet
O.129 Amandine	Motor trawler, museum ship in Ostend about the history of the Iceland Fisheries (<i>Van Dijck 2012</i>)
O.148 Snipe	Year of construction: 1958, motor trawler, built by Loy, lies on dry land in Zandvoorde
O.116 Caroline	Year of construction: 1961, motor trawler, shipyard: De Graeve in Zeebrugge, still fishing
Crangon	Year of construction: 1965, motor trawler, shipyard: De Graeve in Zeebrugge, the first ship protected as historical fleet in 2007, tourist trips from Ostend

9.1.3 Architectural heritage along the coast

The interest in the preservation of architectural heritage in Belgium goes back to the 19th century. The architectural heritage along the coast includes many components which are specifically maritime-related: hotels and other residential accommodation, tourist and recreational facilities and infrastructure (see also theme **Tourism and recreation**), coastal defence (civil and military) (see also theme **Safety against flooding** and theme **Military use**), lighthouses, sluices, all kinds of maritime business infrastructure, etc. The first two groups of architectural heritage mentioned above are closely linked to the rise of tourism in Flanders during the last 200 years. This coastal tourism especially took off in the last quarter of the 19th century (*Constandt 1986*).

The architectural heritage of the coastal zone has been gradually inventoried since 1977 (*Maelfait et al. 2012*). It was not until then that the vulnerable coastal heritage received more attention (*Cornilly 2005*). The results of the inventory are available online for the public: <https://inventaris.onroendergoed.be>. Specifically for the province of West Flanders, there is *Monumentaal West-Vlaanderen*, an illustrated overview in 3 parts of all protected monuments and sites in the province on 1 January 2001. The coastal area is mainly covered in Volume III, published in 2005 (*Cornilly 2005*). The update for the province of West Flanders after 1 January 2001 is discussed in the heritage magazine *In de Steigers*. An overview of the spatial distribution of the protected architectural heritage along the coast and additional information can be consulted on the geoportal of Flanders Heritage Agency (<https://geo.onroendergoed.be/>).

For certain groups of architectural heritage such as lighthouses (*Warzée 1999*), military heritage on the coast from WWI (*Deseyne 2007*, *Vernier 2012*), the Atlantic Wall (*Philippart et al. 2004*, *Philippart 2014*), tourism-related heritage (*Cornilly 2006*) and modern architecture (*Cornilly 2007*), thematic overview publications exist as well, although they are not exhaustive.

The industrial archaeological heritage is increasingly addressed in the context of heritage conservation. This industrial heritage includes typical maritime components such as shipyards, port infrastructure and fish processing companies (*Onderzoeksbalans – Bouwkundig erfgoed*). Because of its maritime location, Flanders hosted a fairly large number of shipyards that built both wooden and metal vessels for inland, coastal and maritime navigation until the 20th century. The study of the industrial heritage of shipbuilding in Flanders remains limited to a few case studies, such as the Van Praet and Van Damme shipyards in Baasrode (*Segers 1994*) and a first major overview of fisheries-related shipyards by *Desnerck & Desnerck (1974)* and *Desnerck & Desnerck (1976)*. Pioneering work on the port of Antwerp was conducted by Albert Himler (see for instance *Himler 1993*, *Asaert et al. 1993* and *Himler & Moorhamers 1982*). The other Flemish ports have been far less studied. Also the industrial heritage linked to sea fisheries (fish smoking and processing plants) has been little explored up till now. An overview of the history of Belgian oyster farming is given by *Polk (2000)*, *Halewyck & Hostyn (1978)* and *Pirlet (2012)*, as well as on the following website: http://www.vliz.be/wiki/Historiek_van_de_Belgische_oesterkweek (see also theme **Aquaculture**).

9.1.4 Landscapes with heritage value¹

The coastal landscape, bordered by the Pleistocene sand region, has been largely shaped by humans. Without embankments and drainage, this area would look completely different. There has been a significant human impact, although some areas such as De Grote Keigwaard in Zandvoorde have a quite natural appearance (Cornilly 2005). The protected landscapes in the coastal zone include very diverse areas ranging from creek areas (Lapscheure, De Grote Keigwaard in Zandvoorde), backlands (Lampernisse), dune regions (Westhoekduinen, Houtsaegerduinen in De Panne, Cabour in Adinkerke), tidal areas (Zwin and Yser estuary), heathlands (Westende), transitional areas (Zwinbosjes, Duinenweg/Duinenstraat in Raversijde) to specific and completely human-made areas such as the Moeren region.

An overview of the spatial distribution of the known landscape heritage can be found in the [inventory of landscapes with heritage value](#) or on the geoportal of Flanders Heritage Agency (<https://geo.onroerenderfgoed.be/>). An overview of the protected landscapes in West Flanders on 1 January 2001 can be found in *Monumentaal West-Vlaanderen* (Cornilly 2005). The situation after 1 January 2001 is recorded in the heritage magazine *In de Steigers*, in the [inventory of landscapes with heritage value](#) and in the geoportal of Flanders Heritage Agency.

9.1.5 Movable and intangible heritage²

The term 'movable heritage' covers historically valuable material objects which are usually to be found in museum collections, archives or heritage libraries. Museums focus their collection policy on a particular theme. Certain museums focus on the historical story of a city, region or country, whereas others focus on collecting art, technology or everyday objects. An overview of the museums on the coast can be found on the provincial [museum map](#). There are about twenty museums located in the coastal zone³, some of them specifically focused on the coast (www.erfgoedinzicht.be for the digital disclosure of the collection of these museums). Furthermore, several libraries are located along the coast. Some of them have publications with historical value in their collection. An overview of these collections is given on the following website ([collectiewijzer](#)) of the Flemish heritage library. The [VLIZ Library](#) of Flanders Marine Institute exclusively collects publications about the sea and coast. [The library and documentation centre of the National Fisheries Museum Oostduinkerke \(NAVIGO\)](#) focuses on the history of fisheries.

Furthermore, the archives of the various governments are often important sources for movable heritage and in the database, [Archiefbank](#), private archives are inventoried, some of which are important for maritime heritage (e.g. the archives of fishing schools). The State Archives of Belgium preserve many documents related to coastal municipalities. An overview of the latter archives can be found in the online [database](#). The provincial archive has its own database, [Probat](#), where in addition to the archives of the Province of West Flanders, various municipal archives can be searched as well (De Haan, Koksijde, Middelkerke, Blankenberge). The archive of Ostend has its own [website](#). In addition, the various image databases should also be mentioned for their role in the disclosure of historical imagery. The [provincial image bank](#) contains photographs of many coastal communities. The municipalities of De Panne, Koksijde and Nieuwpoort are included in the image bank [Westhoek verbeeldt](#) of the *Erfgoedcel CO7* and Ostend has its own [image bank](#). The initiative 'a century of sea fisheries in Belgium' of Flanders Marine Institute collects historical data about the landing, gross revenues and legislation of the Belgian fisheries (see also theme **Fisheries**). Finally, the local historical societies also preserve a lot of interesting materials. An overview of all societies is available on the following website: [Heemkunde Vlaanderen](#).

Comparable to the protection of buildings, valuable (sub-)collections or documents can also be protected by decree (*Topstukendecreet*). The list of valuable objects and collections ([topstukkenlijst](#)) provides an overview of the protected movable heritage. Some objects from the collections of the NAVIGO museum and *Museum aan de Stroom (MAS)* are also included in the Dutch initiative [Maritiem Digitaal](#), a searchable collection system of the maritime world.

Intangible heritage represents traditions, customs, knowledge and practices inherited or historically developed by a group of people. Dialects, processions or crafts are just some examples of intangible heritage. Recently, the Flemish government has launched the [Platform for intangible heritage in Flanders](#). An overview of the intangible heritage is included in [the inventory of immaterial heritage](#). Individuals or organisations must submit an application themselves to be included in the inventory. This inclusion is a prerequisite to apply for UNESCO recognition. Some examples of intangible heritage on the coast are the horseback shrimp fishermen in Oostduinkerke and the carnival of Blankenberge.

¹ Research on the genesis and context of the maritime landscape (drowned paleo-landscapes) is included in maritime archaeology.

² Research on prehistoric heritage is included in maritime archaeology.

³ It should be mentioned that certain actors (museums, libraries, archives, etc.) which are not located in the coastal zone do have interesting collections about maritime and coastal heritage.

The typical coastal intangible heritage is currently threatened by several factors. The fisheries heritage as well as the fisheries sector are under pressure. Rising fuel prices, increasing regulation and decreasing catches cause the professional reorientation of many fishermen. Because of this, the movable and intangible heritage related to fisheries has an increasingly smaller source of supply. A museum such as *NAVIGO* collects everything related to fisheries and its history, but there are also other initiatives such as oral history projects (*Rappé 2008*, *Strubbe 2011*), which are committed to the preservation of this heritage.

9.2 Policy Context

On an international level, the policies related to cultural heritage are primarily defined by the United Nations Educational, Scientific and Cultural Organization (*UNESCO*). Important legal instruments are the *Convention concerning the Protection of the World Cultural and Natural Heritage* (1972), and specifically for maritime and coastal heritage, the *Convention on the Protection of the Underwater Cultural Heritage* (2001) and the *Convention for the Safeguarding of the Intangible Cultural Heritage* (2003) (see website for *full list* of UNESCO legal instruments). A *database* updated by UNESCO also contains many national laws of the member states related to cultural and natural heritage. The International Council on Monuments and Sites (*ICOMOS*) is an international non-governmental organisation dedicated to the preservation of monuments and sites throughout the world, working closely with UNESCO and also acting as an advisory body for it. ICOMOS consists of an international committee, national committees and scientific committees. For underwater heritage, there is an active international scientific committee, namely the International Committee on the Underwater Cultural Heritage (*ICUCH*) that *inter alia* promotes the Convention of 2001.

The main legal framework for activities at sea is the UN Convention on the Law of the Sea (UNCLOS, 1982). In this almost globally ratified treaty, two clauses concerning heritage have been added. The UNESCO Convention on the protection of underwater heritage has the intention to further complement and specify UNCLOS regarding the underwater cultural heritage.

At the European level, the policy on cultural heritage is developed by the Directorate-General for Education and Culture (*DG EAC*) of the European Commission, which has only recently recognised immovable heritage (landscapes, architectural heritage and archaeological heritage) as part of the cultural heritage. In addition, the *Council of Europe (culture, heritage and diversity)* plays a very important part in heritage conventions, such as the *Convention for the Protection of the Architectural Heritage of Europe (Granada, 1985)*, *Convention for the Protection of the Archaeological Heritage of Europe (revised) (Valletta, 1992)*, *European Landscape Convention (Firenze, 2000)* and the *Convention on the Value of Cultural Heritage for Society (Faro, 2005)* (see *website* for an overview of the European cultural heritage legislation). The European Heritage Network (*HEREIN*) is a permanent information system that assembles public authorities of the member states responsible for cultural heritage (focusing on the architectural and archaeological heritage) under the umbrella of the Council of Europe. The HEREIN network also provides an overview of the heritage policies in the member states.

In Belgium, immovable cultural heritage is a competence of the regions whereas the movable and intangible heritage is covered by the communities. Archaeological heritage in the North Sea is a federal competence. In this context, the law of 4 April 2014 on the protection of underwater cultural heritage in the BNS and the associated royal decree are of importance (see <http://www.vondsteninzee.be/> for more information). This law implements the Belgian ratification of the UNESCO Convention for the protection of the underwater cultural heritage (2013) to a considerable extent.

The international and European regulations on underwater cultural heritage and the current legal situation in Belgium regarding this subject have been examined in the context of the *SEARCH* project on the archaeological heritage in the North Sea (*Maes & Derudder 2014*, *Derudder & Maes 2014*).

In Flanders, the competences with regard to immovable, movable and intangible heritage are covered by different bodies:

Within the policy domain Spatial Planning, Housing Policy and Immoveable Heritage (*RWO*), *Flanders Heritage Agency* is responsible for the policy preparation and evaluation as well as for the policy implementation (policy-oriented scientific research, realisation of inventories, protection, management support and communication) with regard to immovable heritage. The agency has carried out these tasks in an integrated way since 1 January 2013. The *RWO Inspection Agency* is responsible for the supervision and enforcement.

The department of Culture, Youth, Sports and Media (*CJSM*) is responsible for the policy concerning movable and intangible heritage. The policy regarding this heritage has its own website within the department: <http://www.kunstenenerfgoed.be/>. The Flemish Interface Centre for Cultural Heritage (*FARO*) plays an intermediary role between the cultural heritage field (movable and intangible heritage) and the government, supports cultural heritage organisations, local and provincial governments and managers of cultural heritage, and promotes the development of the cultural heritage field. In addition, the organisation *Herita vzw* supports and unites everyone involved in heritage. Herita also manages several heritage sites and organises activities related to heritage (e.g. *Open Monumentendag*).

The policy note on immovable heritage (*beleidsnota onroerend erfgoed (2014 – 2019)*) and the policy note on culture (*beleidsnota cultuur (2014 – 2019)*) contain the strategic lines of the heritage and cultural policy in Flanders.

Since 1 January 2015, a new decree on immovable heritage has been in place (*Brochure Onroerend Erfgoed – De Regelgeving 2014, Brochure Onroerend Erfgoed – Een toelichting 2014*) that replaces three preceding decrees (Monument Decree of 1976, Archaeology Decree of 1993 and Landscape Decree of 1996) and a law on the preservation of monuments and landscapes (1931). All the maritime immovable heritage present in the coastal zone, including the beach up to the average low water mark at springtide, is included in this new decree. Other important legal documents at the Flemish level are the decree of 6 July 2012 with regard to cultural heritage, the decree of 24 January 2003 concerning the protection of movable heritage of exceptional value and the decree of 29 March 2002 with regard to the protection of the historical fleet (*Province of West Flanders, 2008*). On 9 May 2014, the Flemish government revised the Historical Fleet Decree. However, the revised decree will only enter into force once there is an execution decision.

The *Province of West Flanders* is responsible for the 'depot policy' and invests in maritime heritage by developing projects in which coastal actors can participate (see: *De Provincie aan de Kust. Beleidsbrief Kust 2011*).

In the context of coastal heritage, the foundation of the heritage cell *KUSTERFGOED* in 2015 is important. Within this cell, 4 coastal municipalities (Middelkerke, Ostend, De Haan and Blankenberge) will collaborate on movable and intangible heritage at the coast.

9.3 Spatial use

9.3.1 Maritime archaeology

The geographical position of the maritime heritage in marine areas is included in a number of databases. These also play an important role in the policy and management decision-making. Flemish partners have been involved in two European projects: the *Archaeological Atlas of the 2 Seas project* (in which the maritime archaeological heritage in France, England and Belgium has been mapped) and the *MACHU project* (Managing Cultural Heritage Underwater) in which a Geographical Information System (GIS) with the position of underwater cultural heritage in European seas has been developed.

Concerning the BNS, there are three databases that provide structured information: www.maritieme-archeologie.be, *the wreck database of the Flemish Hydrography* and www.wrecksite.eu.

Within the *SEARCH* project, work has been done on an interactive geoportal concerning the underwater heritage (including prehistoric finds) in the BNS (www.sea-arch.be).

As far as maritime heritage in the BNS is concerned, it is not evident to claim specific marine space for this purpose as heritage may potentially be present anywhere. It seems more appropriate to take advantage of the existing protective measures for *inter alia* nature to also conserve and protect a representative sample of the underwater heritage *in situ*. The aim of this policy is that, when underwater heritage has to disappear for compelling reasons, it gets the appropriate care and does not disappear without control. The locations of underwater heritage sites in the BNS which are recognized as cultural heritage underwater by the law of 4 April 2014 are listed in a register on the following website: <http://www.vondsteninzee.be/>. Since 2014, underwater cultural heritage has indeed received a spatial translation by the recent recognition of several ship wreck sites (e.g. HMS Wakeful, the lightship West-Hinder and an unknown 19th-century wreck site near Ostend (e.g. *Demerre et al. 2014*)).

In the marine spatial plan, the cultural and ecological importance of the more than 215 (ship)wrecks in the BNS is acknowledged in the annex of the royal decree of 20 March 2014 (*Maes & Seys 2014*).

9.3.2 Architectural heritage along the coast

The new geoportal of Flanders Heritage Agency (<https://geo.onroerendergoed.be>) provides an overview of the geographical location of the architectural heritage in the coastal area. Additional information can be obtained about the heritage elements.

9.3.3 Landscapes with heritage value

The new geoportal of Flanders Heritage Agency (<https://geo.onroerendergoed.be>) provides an overview of the geographical location of the landscapes with heritage value (see also the inventory of [landscapes with heritage value](#)).

9.4 Societal interest

Despite the fact that the importance of heritage is generally recognised, the economic significance, benefits and societal return on investment are often unknown. The study by [De Baerdemaeker et al. \(2011\)](#) deals with the socio-economic impact of the immovable heritage (policy) in Flanders. Furthermore, the report of the project [Cultural Heritage Counts for Europe](#) discusses the value of cultural heritage and its impact on Europe's economy, culture, society and the environment.

With regard to the coastal zone, primarily the economic benefits related to coastal tourism are known (see the theme **Tourism and recreation**). According to [De Baerdemaeker et al. \(2011\)](#), 189,229 (or 10% of) overnight stays in hotels on the coast were related to the presence of immovable heritage in 2009. Along with day trippers and recreationists, heritage tourism on the coast accounts for more than 2 million visitors per year, whereas the total heritage-related tourism expenditure amounts to almost 60 million euro. In the publication [trendrapport Kust \(2012-2013\)](#) numbers on the cultural attractions are available (see also theme **Tourism and recreation**). According to [Maes et al. \(2005\)](#) ([GAUFRE project BELSPO](#)), many shipwrecks in the BNS create a tourism revenue. However, this kind of revenue is rather diffuse and difficult to quantify.

The other aspects of the societal importance of cultural heritage in the coastal zone are less known and only some fragmented figures and information exist:

- According to [Maelfait et al. \(2012\)](#), more than 4 million euro of grants were allocated between 2008 and 2010 by the Flemish government for the restoration and maintenance of cultural heritage in the coastal zone;
- The proximity of immovable heritage creates a better living environment which affects the value of housing (see also theme **Social and economic environment**). In De Panne, where 44% of the municipal area is protected (especially the landscape heritage is important in this regard), a property gets an added value of approximately 21,000 euro. In Knokke-Heist, the protected area amounts to 17% leading to an added value of property of approximately 8,300 euro ([De Baerdemaeker et al. 2011](#));
- In a number of historic shipyards, social employment projects are developed;
- Museums are also involved in education. However, there are no data available regarding their impact;
- The development of Maasvlakte 2 in the Netherlands is an example of how economically driven projects like the expansion of the port of Rotterdam can take place in synergy with research about underwater heritage (see *inter alia* [Van Ginkel et al. 2014](#), [Moree & Sier 2015](#)).

9.5 Sustainable use

9.5.1 Maritime archaeology

Until recently, the underwater heritage was barely taken into account, mainly because of the ignorance about it. In 2014, however, a new law on the protection of underwater cultural heritage in the BNS entered into force (law of 4 April 2014). This law introduces an obligation to report finds in the BNS of which the finder may suspect that they are cultural heritage. Finds in the territorial sea, the exclusive economic zone or on the continental shelf have to be reported to the governor of West Flanders on the website, <http://www.vondsteninzee.be/>, where they are subsequently entered in a register. Archaeological finds on the beach should be reported to [Flanders Heritage Agency](#). The law falls

within the scope of the Belgian ratification (2013) of the UNESCO Convention (Paris, 2001) on the protection of the underwater cultural heritage. Furthermore, the amendment of the law on the marine environment in view of marine spatial planning (law of 20 January 1999) is important as well. Underwater heritage is also mentioned in the annex to this maritime spatial plan (royal decree of 20 March 2014) (*Maes & Seys 2014*).

There is no intention to claim specific areas for heritage purposes in the North Sea (as is the case for the other user functions). Instead, it is examined how existing protective measures can be used to achieve a multiple use of certain marine areas.

9.5.2 Historical fleet (including historical shipbuilding)

Since 29 March 2002, there has been a decree that regulates the protection of the historical fleet. This decree on the historical fleet (decree of 29 March 2002) and the associated decision of 4 June 2004 provide support for owners of this kind of heritage to keep their vessel into service. A management plan can be drafted by the owner which covers the maintenance, restoration, budgeting and disclosure of the vessel over a period of several years. Based on this plan, a grant can be claimed. The historical fleet policy is implemented by Flanders Heritage Agency. A separate section of the Royal Commission for Monuments and Sites has been created to advise the minister on the historical fleet. On 1 January 2015, this commission was changed to the Flemish Commission for Historical Fleet (VCVE). In order to achieve a responsible conservation policy, an inventory of the historical fleet has been developed (<https://inventaris.onroendergoed.be/ivm/varend/zoeken>).

In the beginning of 2015, 28 vessels were already protected under the historical fleet policy (see *inventory*). Not all of the protected and inventoried vessels are linked to the coast. Other sectors, such as inland shipping, are included in these numbers as well.

9.5.3 Architectural heritage along the coast

Due to the growing scarcity of open space at the coast, the remaining heritage comes increasingly under pressure both in the coastal and hinterland municipalities (*Maelfait et al. 2012*).

The protection of immovable heritage is regulated by the decree on immovable heritage (*Brochure Onroerend Erfgoed – De Reggeving 2014*, *Brochure Onroerend Erfgoed – Een toelichting 2014*) which entered into force in 2015 and replaces three preceding decrees (Monument Decree of 1976, Archaeology Decree of 1993 and the Landscape Decree of 1996) and the law of 1931 on the conservation of monuments and landscapes. Since 2009, the architectural heritage has been ‘established’ in the inventory (<https://inventaris.onroendergoed.be>), which has certain legal consequences: demolition becomes less evident (with a few exceptions), whereas a change of function is made easier as long as it benefits the preservation of the cultural heritage value (*Maelfait et al. 2012*). The protection decisions regarding immovable heritage can be consulted on the following website: <https://beschermingen.onroendergoed.be/>.

9.5.4 Landscapes with heritage value

The scarcity of open space on the coast also applies to landscapes with heritage value. In addition to the protected landscapes with heritage value, which usually have an important ecological value as well, the immovable heritage sector is currently mainly working with the instrument of the so-called anchorage areas. These areas are designated by the Flemish minister for heritage, and constitute the contribution from the sector to the AGNAS consultation (defining the natural and agricultural structure in the Flemish Spatial Plan - *Ruimtelijk Structuurplan Vlaanderen*). An anchorage area is a valuable landscape with a series of heritage elements (landscape, architectural, archaeological, maritime). An anchorage area is described in the landscape atlas (see <https://geo.onroendergoed.be/>), but only receives a legal status after the ‘designation’. From then on, the local government is obliged to take it into account when drawing up a Spatial Implementation Plan (RUP). As soon as an anchorage area is included in a RUP, it is called a heritage landscape (Article 27 to 30). This means that the landscape values and characteristics of the anchorage area are converted into planning regulations. This way it is possible to ensure that the landscape heritage is dealt with in a sustainable way. More information about protected landscapes can be found in the following publication: *Landschappen: een kennismaking (2013)*.

9.5.5 Movable and intangible heritage

The list of objects and collections with an exceptional value (*topstukkenlijst*) contains several hundred pieces or (sub-)collections. Some of these are linked to the coast. It mainly concerns paintings from Ensor, Permeke and Spilliaert from the collection of Mu.Zee. To be incorporated in this list, an object has to meet strict selection criteria. It should be both rare and essential. Grants can be requested for the restoration of these valuable pieces (decree of 24 January 2003).

A great deal of movable heritage has not been included in the list of pieces with an exceptional value. Therefore, the Province of West Flanders has developed a so-called *depot policy* with the support of the Flemish government (more information: *Steen & Van den Nieuwenhof 2008*). This policy focuses on two lines, the registration of movable heritage held by museums, local heritage societies and other heritage managers as well as the conservation and management of these pieces. To assist museums and heritage organisations in the registration of their collection, the heritage database www.erfgoedinzicht.be has been developed. In the longer term, regional depots should host documents or (sub-)collections of museums and local heritage associations.

The *inventory* of intangible heritage currently contains 40 elements, 2 of them are specific to the coast: the carnival of Blankenberge and horseback shrimp fishing in Koksijde. The inventory is established according to the bottom-up principle. Organisations or individuals must submit an application to have an element of intangible cultural heritage included in the inventory. Included elements must submit an annual progress report with information about the activities concerning the protection of the element. For now, the inclusion in the inventory only increases the visibility of the element. Being in the inventory is a prerequisite to be included in the *UNESCO list of intangible heritage*. In 2013, shrimp fishing on horseback in Koksijde was recognized by UNESCO as intangible heritage.

Legislation reference list

Table with international agreements, conventions, etc.

INTERNATIONAL AGREEMENTS, CONVENTIONS, ...			
Abbreviations (if available)	Title	Year of conclusion	Year of entering into force
	<i>Convention Concerning the Protection of the World Cultural and Natural Heritage</i>	1972	1996 (ratification by Belgium)
<i>UNCLOS</i>	United Nations Convention on the law of the sea	1982	1994
	<i>Convention on the Protection of the Underwater Cultural Heritage</i>	2001	2013 (ratification by Belgium)
	<i>Convention for the Safeguarding of Intangible Cultural Heritage</i>	2003	2006 (acceptance by Belgium)

Table with legislation of the European Council.

EUROPEAN LEGISLATION			
Abbreviations (if available)	Title	Year of conclusion	Year of entering into force
<i>Granada Convention</i>	Convention for the Protection of the Architectural Heritage of Europe	1985	1987
<i>La Valetta Convention</i>	Convention for the Protection of the Archaeological Heritage of Europe	1992	1995
<i>Florence Convention</i>	European landscape convention	2000	2004
<i>Faro Convention</i>	Convention on the Value of Cultural Heritage for Society	2005	2011

Table with Belgian and Flemish legislation. The consolidated version of this legislation is available on [Belgisch staatsblad](#) and the [Justel-databases](#).

BELGIAN AND FLEMISH LEGISLATION		
Date	Title	File number
Laws		
Wet van 7 augustus 1931	Wet op het behoud van monumenten en landschappen	1931-08-07/30
Wet van 20 januari 1999	Wet ter bescherming van het mariene milieu [en ter organisatie van de mariene ruimtelijke planning] in de zeegebieden onder de rechtsbevoegdheid van België.	1999-01-20/33
Wet van 4 april 2014	Wet betreffende bescherming van het cultureel erfgoed onder water	2014-04-04/07
Royal Decree		
KB van 20 maart 2014	Koninklijk besluit tot vaststelling van het marien ruimtelijk plan	2014-03-20/03
Decrees		
Decreet van 3 maart 1976	Decreet tot bescherming van monumenten en stads- en dorpsgezichten	1976-03-03/30
Decreet van 30 juni 1993	Decreet houdende bescherming van het archeologisch patrimonium	1993-06-30/33
Decreet van 16 april 1996	Decreet betreffende de landschapszorg	1996-04-16/34
Decreet van 29 maart 2002	Decreet tot bescherming van varend erfgoed	2002-03-29/37

BELGIAN AND FLEMISH LEGISLATION (continuation)		
Date	Title	File number
Decreet van 24 januari 2003	Decreet houdende bescherming van het roerend cultureel erfgoed van uitzonderlijk belang (topstukkendecreet)	2003-01-24/40
Decreet van 16 juli 2010	Decreet houdende instemming met het verdrag ter bescherming van het cultureel erfgoed onder water, aangenomen in Parijs op 2 november 2001	2010-07-16/10
Decreet van 6 juli 2012	Decreet houdende het Vlaams cultureel-erfgoedbeleid (erfgoeddecreet)	2012-07-06/31
Decreet van 12 juli 2013	Decreet betreffende het onroerend erfgoed (Onroerenderfgoeddecreet)	2013-07-12/44