

Roman lighthouses in the Mediterranean

Lighthouse of Ostia (Italy)

The lighthouse of Ostia signalled the entrance to the main port of the Empire, the great centre of maritime traffic that supplied the city of Rome itself. It was very close to the capital in the vicinity of the estuary of the Tiber, in the area of Ostia. There it was the Fiumicino, the channel the place is named after, and which in the past was used to connect Portus Traiani to the Tiber and along which barges pulled by oxen took goods – wheat from Sicily, oil from Betica or huge columns of marble from Egypt – all the way to the capital of the Empire. Paradoxically, the main runway of Leonardo da Vinci Airport ends where the lighthouse built by Claudius rose, following the model of the lighthouse of Alexandria.

In the Renaissance, the remains of its structure are identified as the «Tower of Pius V» on the wall map of the Vatican commissioned by Gregory XIII in 1582, the year Astronomer Pope corrected the imbalance of the calendar of Julius Caesar, the former «Julian» calendar and replaced it by the “Gregorian” calendar, that has survived to this day.

Suetonius tells how:

«[Emperor Claudius] had the Port of Ostia built by erecting two great arms on the left and the right and opposite the mouth of the harbour he erected a pier on the deep sea. For increased safety, he built on it a high tower similar to the lighthouse of Alexandria so that its nocturnal fire guided ships in their voyage.»

This port could harbour up to three hundred ships but the protection of the breakwaters was not enough and according to the account by Tacitus in 62, «as a consequence of a great storm, almost two hundred ships were lost within the port of Ostia».

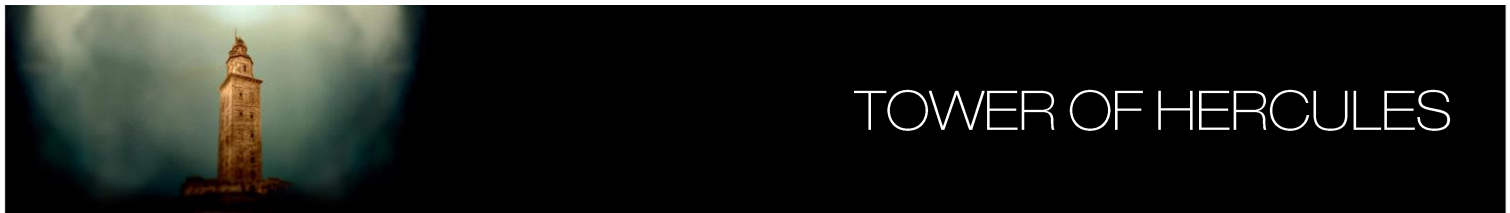
At the time it was considered one of the best works of Roman engineering. Plinius, Juvenal and Dion Casio praised the complex and described its different parts. The first representations have survived in the coins of the times of Neron, in relieves and mosaics of the first and the second century A.D. According to these representations it would have been a building of three or four sections of decreasing size and quadrangular plan on which there was a rotunda where the lantern was. Access to the lighthouse was gained through an arched door in the inner section and featured several windows at the upper sections. This pattern may be seen in the mosaics of Corporazioni square and in a variety of funerary relieves found at the necropolis of Isola Sacra (Ostia Antica).

At the time of Trajan, when the security and the prestige of the Empire were at stake, a revolutionary solution was taken: to excavate inland and create a second port protected by magnificent warehouses and offices whose grandiosity would marvel any visitor. The buildings were made around a perfect regular hexagon, each side measuring 358 metres. As piers measured two long kilometres, it was possible to dock perpendicularly - the stern facing the solid stone moorings – two hundred goods ships according to the calculations of the journal *Roma Arqueológica*, which has compiled most of the documentation available.

The *Portus Traiani* was soon enriched by palaces, monumental thermal baths and luxury hotels for rich seafarers as well as a circular temple to Portunus, the god of the port, of work and of navigation. Two of its very high arches still stick out from above the jungle-like vegetation covering the wide field of ruins. The success of the port of Trajan, at the doors of Rome, mean the decline of that of Pozzuoli, too far off in the gulf of Naples and the lighthouse of Ostia took the baton of the lighthouse of Alexandria. The importance and relevance that this building took on was used by the Church as a symbol of divine Christianity, and it was for this reason that it was represented on a marble slab at the bell tower of Pisa.

After the fall of the Roman Empire, barbarians took the marble from the lighthouse as well as the statues and the architectural decoration to reuse the material in other works.

In 830 Pope Gregory V recovered part of the materials to build the basilica of St Aurea. During the papacies of Innocent VII and Martin V several improvements were made to the tower, as it was one of the elements of the defence of the city of Rome. In 1483, Pope Sixtus IV travelled to Ostia and he could still see some remains standing. Cardinal Giuliano della Rovere, who would become Julius II (1503-1513), commissioned military architect florentino Baccio Pontelli the castelo di Ostia Antiga (1483-86) which would encompass the tower. From the 16th century onwards, the tower no longer served its purpose as a result of a change in the coastline. It sunk into oblivion as it lost its strategic relevance, and its stone was reused for other buildings.



TOWER OF HERCULES

When the runways of Leonardo da Vinci “Fiumicino” airport were expanded, some remains emerged. They seemed to have belonged to the lighthouse. Therefore, nothing has survived of what could have been the lighthouse of Ostia.

The port complex built by Claudius and extended and updated by Trajan was completed by the fluvial port of Ostia, from which mid-size ship sailed the channels leading to the Tiber to transport the product from the sea port to the city of Rome. This second port had a system of aids to navigation consisting of several lighthouse-towers guiding fluvial traffic. Of them all, the one known as Torre Bocciana has survived.

Lighthouse of Messina (Italy)

The lighthouse of Messina was located at the northeast of Sicily on Cape Pelorus and guided maritime traffic between the island and the Italian peninsula. In two coins from the time of Sexto Pompeyo of 35 A.D. it is represented as a cylindrical tower topped by a dome on which the statue of Neptune with a trident rose. Strabo mentions it in connection to the columns of Hercules and says of it:

“... it was an ancient custom to mark boundaries using monuments such as these: a case in point is the small tower that the inhabitants of Regium erected by way of column at the strait of Sicily, similar to that of Pelorus, which is across the sea”.

However, in contrast to the description given by Strabo, a 8th century drawing has survived which shows what appears to be the remains of a square plan tower. In 1546 Emperor Charles V commissioned, as part of the fortification project of the southern coast of Italy, the construction of a new lighthouse that was erected on the foundations of Roman lighthouse thus doing away with any trace that might have survived.

Nowadays, the place where the lighthouse used to be is occupied by Fort San Rainieri.

Lighthouse of Centumcellae (Civitavecchia, Italy)

The expansion of the Empire in the first century A.D. meant that the port of Ostia was no longer able to absorb the intense maritime traffic between Rome and the provinces, thus making apparent the need to build new ports towards which maritime traffic could be sent to clear Ostia. That was the origin of the port of Centumcellae as well as of the lighthouse that was erected on an artificial island that was built to shelter the piers from the waves.

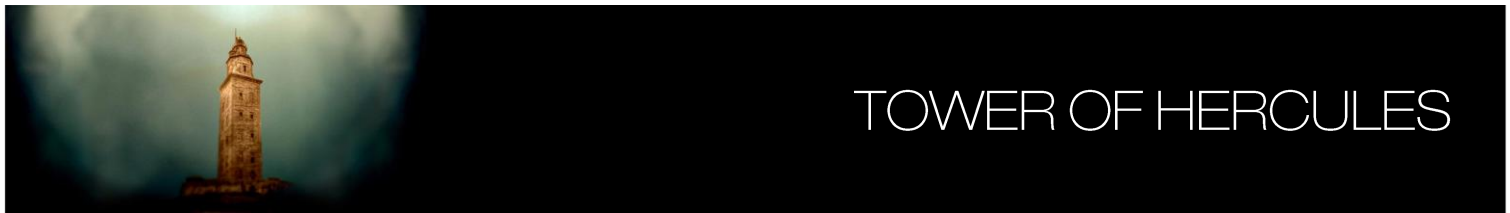
This construction project was an initiative of Emperor Trajan who, between 103 and 113 A.D. gave impetus to the works in this port complex which is described in detail by his good friend Pliny the Younger:

“...beloved Cornelianus, when our emperor convened the counsel at Centumcellae, I was overcome by joy ... a port is being built in an inlet. On the left work is almost complete, while on the right it is still very much in progress. At the mouth of the port an islet is being built that opposes the waves brought by the wind, breaks them and leaves around it a safe space for ships to sail ... this port has already been named after his creator and shall in time prove most useful as this coast had been in dire need of them and now this refuge shall be available”.

In this interesting excerpt mention is made of the construction of the two piers as well of the island on which the lighthouse would rise. The project was very ambitious because it created a suitable place for anchoring the ships in an area where the features of the coast made this very difficult. But, thanks to this impressive work of engineering, Roman commercial ships could avail themselves of the piers of Centumcellae and supply the city of Rome.

In the illustrations and drawings of the 16th century the organisation of the port around the two piers creating an arch which encompassed some 200,000 m² is still visible. At each of the ends there was a tower-lighthouse which was used as a marker, the eastern one was known as “pier of the Glass” while the western was known as “Pier of Lazareto”. During the Second World War, allied bombing destroyed the “Pier of the Glass” and now only the “Pier of Lazareto” survives after it was made into a fort in the 16th century.

Opposite the piers there was an artificial island with a breakwater, the purpose of which was to protect the pier from storms. At the centre of the dam rose the lighthouse. Nothing has survived of it. No even the slightest trace.



TOWER OF HERCULES

Lighthouse of Forum Julii (France)

Forum Julii is the current city of Frejus (France). In Roman times it was an important enclave located in the Provenza because its port was the base of the navy fleet assigned to Galia Citerior and the routes that went inland towards the Rhone and the Alps converged there.

Like in the case of the ports of Ravenna and Ostia, silting up has caused that nowadays Frejus is some distance away from the sea.

The port was fortified and polygonal in shape. It also had an arsenal and a lighthouse, which was located on the south-western connecting the citadel and the pier.

According to Texier, the lighthouse had on the first floor an hexagonal plan and then two other were circular and had a diameter of 7.3 m and a height of 24 m. Access to the top was gained through an outer staircase. The 18th century engraving shows it topped by a cone-shaped roof which was probably added in the Middle Ages, when the lighthouse was no longer used. No significant remains have survived.

Some writers hold that the so-called “Lantern of Augustus”, a square tower topped by a hip roof could be part of the fortification buildings of the port and suggest that it could be used as a daytime aid to navigation, as a tower-lighthouse at one of the piers which, along another one, which has not survived, would mark the mouth of the port.

Lighthouse of Laodicea (Turkey)

Laodicea was the port from which the routes to Apameia, Calcis and Antioquia originated. In other words, it was an essential enclave for trade with the eastern provinces. It boasted a lighthouse, built in times of Emperor Domicianus, which was located on the north pier, practically on the same spot as the current one.

We know of its existence thanks to three coins from the Roman times where it is represented. One of them is from the time of Domicianus and represents the lighthouse as a two-storey circular or polygonal tower erected on a two-step base and on the upper part of it there is a statue which probably represented Atenea or Dyonisus, their left hand resting on a spear while the left hand is stretched out.

In the representations of Tyche, the guardian goddess of the city, the lighthouse is represented as a tiny tower crowning the head of the goddess. It was similarly immortalised in two coins from the times of Hadrian and Septimus Severus.

Nothing has survived of this building, which makes it impossible to compare it to the Tower of Hercules.

Lighthouse of de Leptis Magna (Tripoli-Libya)

The lighthouse of Leptis Magna was one of the most important in southern Mediterranean, although only a section of its plinth has survived. These remains are part of the archaeological site of Leptis Magna which is listed as a World Heritage site. Leptis Magna was the capital of the province of Tripolitania but also the city where Emperor Septimo Severus was born. During his ruling it saw an extraordinary development. It was then when the artificial port was extended and a lighthouse was built at the farthest end to mark the mouth of the port.

According to the surveys made by Bartocchini its plan was 21.20 m, in other words, some 3 m wider than the Tower of Hercules and its base rested on two arches with a radius of 2.43 m supported by great pilasters. They, in turn, supported the outer walls which shaped the core of the building, made of stone and lime mortar. On top of it, some 9 metres high was the main entrance. This is an interesting feature, particularly if we bear in mind that the Tower of Hercules had a raised access at 3.5 metres.

A transverse corridor of 1.85 m led into the staircase from which a ramp went up to the top.

Bartocchini believed that the lighthouse consisted of three sections of rectangular plan, probably topped by a rotunda. The first and second section would be some 12 -10 metres high, respectively while of the third and fourth nothing has survived.

In one of the blocks at the base an inscription has been found. This inscription has been associated to the victory of proconsul Dolabella in 21 A.D.