

Medieval Lighthouses

15D - Site Survey

by Dr Ken Trethewey

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Spain

Malaga (10c)

Alternative Names: Cerro del Villar

Location: Malaga, Entrance to River Guadalhorce

Lat/Lon: 36.70726, -4.425838

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Islamic Harbour light

Light Form: Fortified structure

Medieval Structure Exists: No

Notes: Málaga offers one of the clearest pre-1700 examples on the Iberian Mediterranean coast of a port habitually associated with visible night lighting, though not with a purpose-built lighthouse. From the Islamic period onward, lamps or braziers were almost certainly maintained on the towers of the Alcazaba (citadel) immediately above the harbour, providing a reliable point of nocturnal reference for vessels entering the bay. Higher fires on Mount Gibralfaro functioned as long-range warning beacons rather than harbour lights. This

dual system using harbour-level illumination combined with elevated strategic signalling distinguishes Málaga from neighbouring ports such as Almería and anticipates later early modern lighthouse practice.

References: Hague & Christie p11; Malpica Cuello, Antonio. Las ciudades islámicas de Andalucía. Granada: Universidad de Granada, 2002; Alcazabas, ports, and visibility. Acién Almansa, Manuel. "La ciudad islámica y el control del territorio." Anuario de Estudios Medievales 23 (1993): 143–168; Ramallo Asensio, Sebastián. Cartagena antigua: puerto y ciudad. Murcia: Universidad de Murcia, 2003.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: Yes; Activity Index: 3

Almeria (10c, 1863, 1925)

Alternative Names: Mesa Roldan

Location: Almeria

Lat/Lon: 36.8414, -2.4738

Modern Lighthouse On Site: yes (1925)

Ecclesiastical: No

Light Function: Military

Light Form: Fortified structure

Medieval Structure Exists: Yes

Notes: Any pre-1700 light associated with Almería would have been shown from the Alcazaba itself, not from Cabo de Gata or any detached headland. The citadel's elevation, permanent garrison, and direct visual alignment with the harbour make it the only credible locus for habitual night fires or lamps visible to shipping. Secondary signals may have been displayed from the northern wall towers on the Cerro de San Cristóbal, but these functioned primarily within a defensive and warning system rather than as navigational aids. Almería before 1700 thus exemplifies an urban, fortress-based lighting practice rather than a promontory lighthouse tradition. The first harbour light was built in 1863. The Mesa Roldan military structure was built in the 18th century.

References: Malpica Cuello, Antonio. *Las ciudades islámicas de Andalucía*. Granada: Universidad de Granada, 2002; Alcazabas, ports, and visibility. Acién Almansa, Manuel. "La ciudad islámica y el control del territorio." *Anuario de Estudios Medievales* 23 (1993): 143–168; Ramallo Asensio, Sebastián. *Cartagena antigua: puerto y ciudad*. Murcia: Universidad de Murcia, 2003. Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: Yes; Activity Index: 2

Cartagena (10c)

Location: Cartagena

Lat/Lon: 37.608, -1.006

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Built structure with brazier

Medieval Structure Exists: No

Notes: There are records of lights in the harbour possibly using the remains of Roman structures. Despite its exceptional natural harbour, Cartagena did not develop a purpose-built lighthouse in antiquity or the Middle Ages. Roman and later authorities relied on the enclosed character of the bay and on controlled harbour access, with fires or lamps displayed from fortified structures only when required. From the medieval period onward, the summit of the Monte de la Concepción—later crowned by the Castillo de la Concepción—served as the most plausible site for habitual night lighting visible to vessels within the harbour, but this remained a fortress-based practice rather than a navigational service.

References: Malpica Cuello, Antonio. *Las ciudades islámicas de Andalucía*. Granada: Universidad de Granada, 2002; Alcazabas, ports, and visibility. Acién

Almansa, Manuel. "La ciudad islámica y el control del territorio." *Anuario de Estudios Medievales* 23 (1993): 143–168; Ramallo Asensio, Sebastián. *Cartagena antigua: puerto y ciudad*. Murcia: Universidad de Murcia, 2003. Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: Yes; Activity Index: 2

Alicante (13c)

Alternative Names: Castle of Santa Barbara

Location: Alicante

Lat/Lon: 38.349, -0.478

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Fortified structure

Medieval Structure Exists: No

Notes: Alicante before 1700 relied almost entirely on the commanding natural height of Mount Benacantil for coastal visibility and night-time reference. From the Islamic period onward, fires or lamps were maintained on the summit fortress, later the Castillo de Santa Bárbara, serving primarily defensive and signalling purposes but inevitably visible to shipping. No evidence supports the existence of a purpose-built lighthouse or regulated harbour light in the medieval or early modern periods. Alicante thus fits a broader Valencian pattern in which elevated fortresses functioned as habitual light points without developing into autonomous navigational institutions.

References: Malpica Cuello, Antonio. *Las ciudades islámicas de Andalucía*. Granada: Universidad de Granada, 2002; Alcazabas, ports, and visibility. Acién Almansa, Manuel. "La ciudad islámica y el control del territorio." *Anuario de Estudios Medievales* 23 (1993): 143–168; Ramallo Asensio, Sebastián. *Cartagena antigua: puerto y ciudad*. Murcia: Universidad de Murcia, 2003. Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: Yes; Activity Index: 2

Valencia (14c)

Location: Valencia

Lat/Lon: 39.424, -0.333

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: Valencia before 1700 illustrates the structural limits of medieval maritime lighting where city and sea were physically separated. Despite its economic importance, the city lacked a natural harbour and was

forced to operate through the exposed Grau, where unstable shore conditions discouraged permanent construction. As a result, any night lighting remained temporary and situational, consisting of fires or lanterns displayed during specific maritime operations rather than a maintained service for navigation. Urban towers within Valencia itself played no role in coastal lighting. Only with the creation of a stable artificial harbour in the modern period did Valencia finally acquire fixed navigational lights, marking a decisive departure from its medieval reliance on daylight access and coastal familiarity. Documents in the 14th c. refer to fanaux (lights) in the harbour and into the Turia estuary. Valencia had organized pilotage by this time and lights would have supported that.

References: Guinot Rodríguez, Enric. *La costa valenciana en la Edad Media*. Valencia: Universitat de València, 1999; Crumley, Carole. "Ports without Harbours: Valencia and the Problem of Medieval Coastal Infrastructure." *Journal of Mediterranean Archaeology* 14, no. 2 (2001): 189-210.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: Yes; Activity Index: 2

Porto Pi (13c, 1617)

Alternative Names: Puerto Pi

Location: Mallorca, Islas Baleares

Lat/Lon: 39.553, 2.623

Modern Lighthouse On Site: Yes (1617)

Ecclesiastical: No

Light Function: Harbour lights

Light Form: Beacon fires

Medieval Structure Exists: Yes

Notes: Before 1700, the Balearic Islands formed a crucial navigational region without developing a lighthouse tradition in the strict sense. Their high relief made the islands conspicuous by day, while night navigation relied on familiarity, selective harbour entry, and the incidental visibility of fires and lamps maintained on fortified urban sites such as Palma and Ibiza. From the later Middle Ages onward, coastal watchtowers equipped with beacon fires multiplied, but these served warning and defence rather than navigation. The absence of purpose-built lighthouses in such a central Mediterranean zone underscores the extent to which medieval maritime practice depended on landmarks and controlled access rather than on continuous night-time guidance. Porto Pi is frequently cited as a historic lighthouse site, but this interpretation rests on our retrospective view from the modern period. Before 1700, Porto Pi functioned as a secondary anchorage west of Palma, where temporary fires or lanterns may occasionally have been displayed during naval or administrative activity. The Torre de Porto

Pi, constructed in the late 16th century, formed part of a coastal warning network equipped with beacon fires, not a navigational light. No medieval or early modern source confirms a maintained lightstructure at Porto Pi, and its association with maritime lighting only becomes explicit with the construction of a modern lighthouse in the 19th century.

References: Zemke, p26; Rosselló Bordoy, Guillem. *La Mallorca islàmica*. Palma: Moll, 1973; Barceló Crespí, Maria. "Ports i defensa costanera a la Mallorca medieval." *Mayurqa* 22 (1989): 55-78; Seguí Aznar, Miquel. *Torres, talaios i defensa del litoral mallorquí*. Palma: Consell de Mallorca, 1998. Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 3

Terraco (1100)

Alternative Names: Tarracco, Tarragona, Tarchon

Location: Tarragona

Lat/Lon: 41.11196, 1.26

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour lights

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: Thought to be an ancient port called Tarchon established by the Phoenicians. There may have been some continuity of structure, but lights were unlikely until c1100. Tarragona illustrates the limits of even major Roman and medieval cities in developing lighthouse infrastructure when local geography was unfavourable. Despite its status as the capital of Roman Hispania Citerior, no textual or archaeological evidence supports the existence of a lighthouse at Tarraco. Throughout antiquity and the Middle Ages, maritime lighting remained informal and situational, consisting of temporary fires or lamps displayed near the shore rather than from a fixed, purpose-built structure. Later coastal beacon networks served defensive needs but did not evolve into navigational aids. Only with modern harbour engineering did Tarragona finally acquire permanent maritime lights. Zemke suggests a lighthouse here, but his proposal may be based upon an ancient tradition of an elevated light from a Phoenician temple.

References: Strabo: 3.4; Zemke pp 16, 22;

AL References: 268

Antiquity: No; Phoenician: Yes; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: Yes; Activity Index: 4

Barcelona (13c)

Location: Barcelona

Lat/Lon: 41.362, 2.167

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour lights

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: Documents here report the presence of fanaux (lights) in the harbour from the time of the development of the port in the 15th c. Barcelona represents a decisive transition in medieval maritime lighting on the Iberian Mediterranean coast. While lacking a natural harbour or ancient lighthouse tradition, the city developed an organised system of harbour lighting from the later thirteenth century onward, integrated into its expanding port infrastructure and regulated by civic authority. These lights, displayed from moles and harbour towers, provided close-range guidance for vessels entering an artificial harbour rather than long-distance navigation. Strategic beacon fires on Montjuïc continued independently as part of a defensive warning network. Barcelona thus stands apart from neighbouring ports by demonstrating a sustained, institutional commitment to harbour lighting before 1700, even in the absence of a purpose-built lightstructure.

References: Sobrequés i Callicó, Jaume. *El port de Barcelona a l'edat mitjana*. Barcelona: Ajuntament de Barcelona, 1972 (Core reference for medieval harbour lighting); Vela i Aulesa, Carles. "L'organització del port de Barcelona a la baixa edat mitjana." *Anuario de Estudios Medievales* 38, no. 1 (2008): 135–168 Mentions lanterns, harbour maintenance, and civic responsibility.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: Yes; Activity Index: 2

Sant Feliu de Guíxols (11c)

Alternative Names: Sant Feliu de Guíxols

Location: Girona, Catalonia

Lat/Lon: 41.7801, 3.0267

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Ecclesiastical

Light Form: Local lanterns

Medieval Structure Exists: No

Notes: Sant Feliu de Guíxols exemplifies the small medieval Catalan port where maritime lighting remained local, informal, and closely tied to monastic and defensive structures. From the early Middle Ages onward, lamps associated with the Benedictine monastery and its waterfront buildings would have been visible to vessels lying offshore, providing incidental nocturnal reference rather than intentional navigational guidance. Elevated

beacon fires on nearby heights formed part of a broader coastal warning system but were not designed to mark harbour approach. At no point before 1700 did Sant Feliu develop a regulated harbour light or lighthouse; its maritime practice depended instead on daylight access, local knowledge, and short-range visual cues.

References: Mallorquí i Ruscalleda, Elvis. *Ports, comerç i navegació a la Costa Brava medieval*. Girona: Diputació de Girona, 2004; Soldevila i Temporini, Ferran. *Història del port de Palamós*. Palamós: Ajuntament de Palamós, 1990; Castanyer i Masoliver, Pere. *Roses: de Rhode a la Ciutadella*. Girona: Museu d'Arqueologia de Catalunya, 1997.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: No; Activity Index: 1

Palamos (13c, 20c)

Alternative Names: Punta del Molino

Location: Palamos

Lat/Lon: 41.8416, 3.129

Modern Lighthouse On Site: Yes Punta del Molino (20c)

Ecclesiastical: No

Light Function: Waypoint and Harbour light

Light Form: Beacon fires and local lanterns

Medieval Structure Exists: No

Notes: Palamós differs from many Costa Brava ports in that it was founded as a royal harbour with explicit maritime ambitions. From the late thirteenth century onward, lamps or fires were likely maintained at the harbour and on the adjacent Castell de Sant Esteve de Mar, providing local nocturnal reference for vessels lying at anchor. These lights, however, remained subordinate to defensive and administrative priorities and never developed into a regulated navigational service. As elsewhere on the Catalan coast, beacon fires formed part of wider warning systems in the sixteenth and seventeenth centuries. Palamós before 1700 thus represents a transitional case: more organised than monastic ports such as Sant Feliu de Guíxols, yet still short of a true lighthouse tradition. The possibility of there being fires on a promontory here is on the basis of reports in pilot manuals. Navigation was tricky. The town was commonly used for trading and fishing with local traffic.

References: Mallorquí i Ruscalleda, Elvis. *Ports, comerç i navegació a la Costa Brava medieval*. Girona: Diputació de Girona, 2004; Soldevila i Temporini, Ferran. *Història del port de Palamós*. Palamós: Ajuntament de Palamós, 1990; Castanyer i Masoliver, Pere. *Roses: de Rhode a la Ciutadella*. Girona: Museu d'Arqueologia de Catalunya, 1997.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No;

Genoese: No; Ottoman: No; Islamic: Yes; Local: Yes;
Activity Index: 2

Roses (16c, 20c)

Lat/Lon: 42.2459, 3.1831

Modern Lighthouse On Site: Yes Far de Roses (20c)

Ecclesiastical: No

Light Function: Harbour light

Light Form: Fortified Structure

Medieval Structure Exists: No

Notes: Roses occupies one of the largest and most historically resonant bays on the north-eastern Iberian coast, yet it never developed a lighthouse tradition before 1700. Neither Greek Rhodes nor nearby Roman Empúries provides evidence for a pharos, and medieval use of the gulf relied on daylight anchoring and local knowledge rather than nocturnal guidance. Any lights displayed at Roses before the modern period were situational fires or lamps associated with urban activity or, later, with the Citadel of Roses as a major military fortress. These served defence and control rather than navigation. The site's transformation into a fortified stronghold in the sixteenth century reinforced this pattern, delaying the emergence of navigational lighting until the modern era.

References: Mallorquí i Ruscalleda, Elvis. Ports, comerç i navegació a la Costa Brava medieval. Girona: Diputació de Girona, 2004; Soldevila i Temporini, Ferran. Història del port de Palamós. Palamós: Ajuntament de Palamós, 1990; Castanyer i Masoliver, Pere. Roses: de Rhode a la Ciutadella. Girona: Museu d'Arqueologia de Catalunya, 1997.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: Yes; Activity Index: 4

France

Port Vendres (14c) (1305, 1839)

Alternative Names: Portus Veneris, Venus

Lat/Lon: 43.17952, 3.108357

Modern Lighthouse On Site: Yes (1839)

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local lanterns and fires

Medieval Structure Exists: Yes

Notes: A few kilometres south-east of Collioure, Port-Vendres offers one of the richest written medieval testimonies. A page from the local tourist board summarises the key source: in 1305, King James II of Majorca instructs in his will that Port-Vendres should be kept in good condition and that "a fire be maintained at night on a high tower from 8 September

to Pentecost" for this purpose. The same text notes that in the 18th century Vauban built Fort Fanal to protect this existing tower, as part of a new defensive system at the harbour entrance. Modern French lighthouse-heritage inventories treat the "feu du Fort Fanal" as one of the historic lights of Languedoc-Roussillon, though the detailed technical records they cite are 19th-century. We conclude that Port-Vendres represents a long-used Mediterranean harbour whose navigational safety before the 19th century depended on natural geography, pilot knowledge, and ad hoc lighting rather than a permanent lightstructure. Despite its strategic and commercial importance from antiquity through the early modern period, there is no evidence for a medieval or early modern pharos or lantern tower. The construction of a permanent lighthouse only in the 19th century underscores the discontinuity between classical harbour use and modern state-sponsored lighthouse systems, making Port-Vendres a valuable comparative case in assessing where medieval lighting traditions did not persist.

References: Hague & Christie p11; Fichou, p53; Mann, Jane: *L'histoire de Port-Vendres*. Canet-en-Roussillon: Les Presses Littéraires. Cited in the Préfecture's historical dossier as a main secondary reference on Port-Vendres. (pyrenees-orientales.gouv.fr). Institutional / heritage documentation; Préfecture des Pyrénées-Orientales. Historique de Port-Vendres. Internal report, 2019. Government historical summary that mentions Fort Fanal and the evolution of the harbour; the excerpt cites Mann's book in its bibliography. (pyrenees-orientales.gouv.fr); Office de Tourisme Pyrénées Méditerranée. "La redoute du Fort Fanal." Tourist information sheet, summarises the 1305 will of James II of Majorca ordering a night fire on a high tower from 8 September to Pentecost, and Vauban's later Fort Fanal.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 1

Collioure (15c)

Alternative Names: Caucholiber, Caucholiberi

Location: Perpignan

Lat/Lon: 42.44448, 3.173549

Modern Lighthouse On Site: No

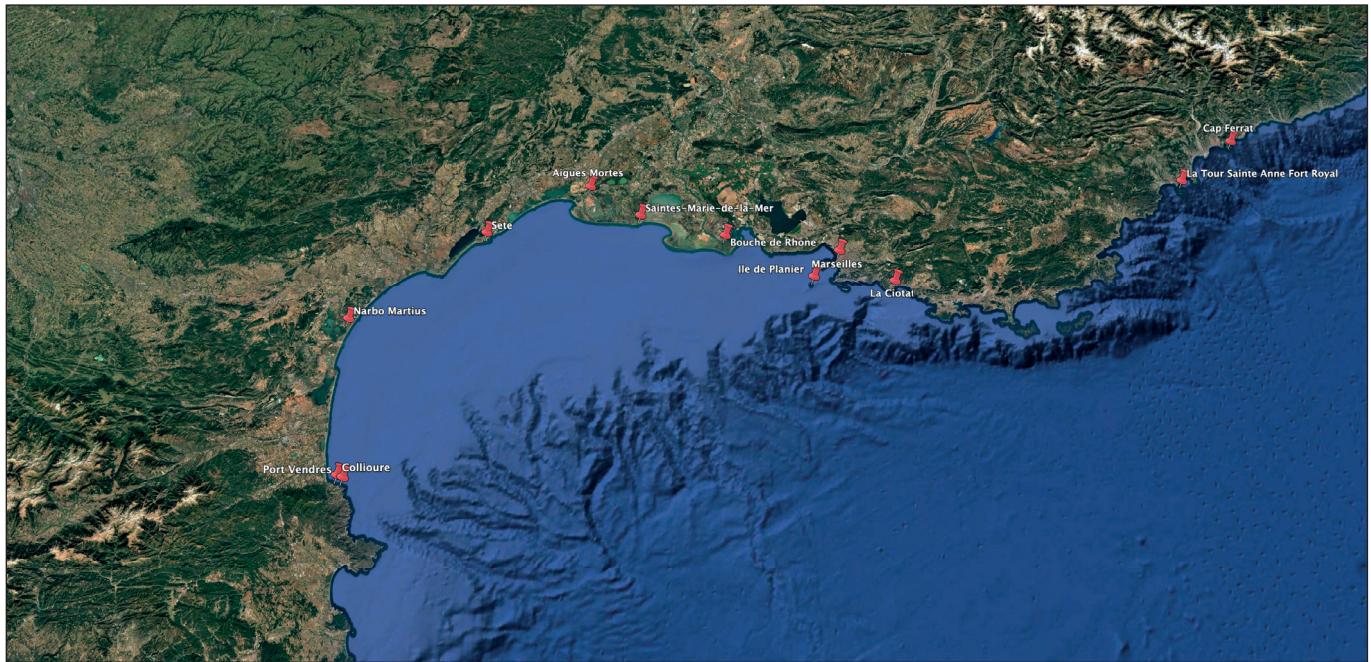
Ecclesiastical: Yes

Light Function: Harbour light

Light Form: Local lanterns

Medieval Structure Exists: Yes

Notes: Collioure is a particularly interesting hybrid – a true medieval port light that survives inside an early-modern parish church. The tower attached to the Église Notre-Dame-des-Anges was originally a medieval lighthouse / tour-fanal guarding the entrance to the royal



and then Franco-Spanish harbour. Modern summaries agree that this medieval fanal tower (already present by the later Middle Ages and apparently used as a prison in the 17th c.) was re-used as the church's bell-tower when Vauban's remodelling of the town required a new parish site on the shore. The parish church was rebuilt 1684–91 on the seafront. The "ancien phare est transformé en clocher", with work on the clocher finished in June 1693. Local heritage and tourism materials consistently describe the tower as "ancien phare médiéval" or "tour-fanal qui guidait la navigation maritime" before its re-use. Collioure is thus a medieval lighthouse tower with continuity into the late 17th century, now visually disguised as a baroque church belfry.

References: Hague & Christie p11; Durliat, Marcel: "L'église de Collioure." In Congrès archéologique de France: 112e session, 1954. Le Roussillon, 125–144. Paris: Société française d'archéologie, 1955. Standard art-historical study; the Wikipedia entry on the church cites this as key bibliography. (Wikipedia); Caloni, Jean: "Collioure." Société agricole, scientifique et littéraire des Pyrénées-Orientales (1938).

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: Yes; Islamic: No; Local: No; Activity Index: 1

Tour Barberousse, Narbo, La Tour de Vauban, (-46, 12c, 13-16c, 1869)

Alternative Names: Narbo Martius

Location: Gruissan, Narbonne

Lat/Lon: 43.107, 3.085

Modern Lighthouse On Site: Yes Gruissan (1869)

Ecclesiastical: No

Light Function: Harbour light

Light Form: Fortified structure showing occasional light
Medieval Structure Exists: Yes

Notes: It seems clear that at least one lighthouse existed here in ancient times. This site is complex having been rebuilt in several places over centuries. After its founding in 118 BCE, Julius Caesar remodelled it in 46 BCE. Then, after the Classical period, the Roman presence at Narbo Martius was lost and, being not on the actual shore, there was no significant light. However, with the development of Narbonne as a trading centre from 1100 a light may have been shown from a medieval tower called Tour Barberousse - Gruissan's Tower. The Tour Barberousse at Gruissan represents the strongest candidate for a pre-modern visual aid to navigation in the Narbonne maritime system. Constructed in the late thirteenth century as a fortified watchtower controlling lagoon access, it lacks both documentary and architectural indicators of a permanent navigational light. While occasional watch-fires cannot be excluded, such practices fall within the normal scope of medieval military signalling rather than institutionalised maritime lighting. We conclude therefore that Narbonne lacks a continuous lighting tradition prior to the nineteenth century. It has been a ruin since the 16c.

References: Zemke pp 16, 22; Brogan, Olwen: Roman Gaul, G Bell & Sons Ltd, London (1953), 250pp.; Bedon, R.; R. Chevallier, P. Pinon: Architecture et Urbanisme en Gaule Romain, Paris (1988a); Strabo: Geographica 4, 1; Ausonius: Ordo Urbium Nobilium 13; Apollinaris: Poem 23; Giardina (2010), p111-112.

AL References: 269

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 2

 **Sète (1684, 1690, 1720, 1831, 1948)**
Alternative Names: Setius, Cette, Phare Saint Louis
Location: Sète
Lat/Lon: 43.3977, 3.701904
Modern Lighthouse On Site: Yes (1948)
Ecclesiastical: No
Light Function: Harbour light
Light Form: Local fires and lanterns
Medieval Structure Exists: No

Notes: A genuine pre-1700 lightstructure existed here but no image has been found. Louis XIV's ministers chose the rocky isthmus of Sète (Cette) in 1666 as the seaward outlet of the Canal du Midi. It presents a rare case of a Mediterranean port without medieval or classical antecedents. The Môle Saint-Louis, a substantial stone breakwater, was laid out from 1666 and completed about 1680. A local interpretive panel for the mole notes that it was "équipé d'un simple fanal qui signale l'entrée du port aux navires". The first proper phare Saint-Louis is recorded in 1684 as a square tower on the head of the mole, lit by a tallow lamp; this structure was repeatedly rebuilt (1690, 1720, 1831 etc.) and ultimately replaced by the current 1948 tower.

References: Fichou, p39, p53; Société d'Études Historiques et Scientifiques de Sète et sa Région. Le phare Saint-Louis et son évolution du XVIIe au XXIe siècle. Sète: Société d'Études Historiques et Scientifiques de Sète et sa Région, 2020. Monographic study on the Saint-Louis light, beginning with the first square tallow-lamp tower of 1684 and its later rebuilds. (Wikipedia); Office de Tourisme de Sète. "Panneau 4 – Môle Saint-Louis." Interpretation panel text. Explains that the mole, completed around 1680, was equipped with a simple fanal to signal the harbour entrance. (tourisme-sete.com)

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 1

 **Aigues Mortes (790, 1100, 1242, 1254)**
Alternative Names: Tower of Constance; Tour de Constance
Location: Aigues Mortes, Gard
Lat/Lon: 43.56908, 4.18955
Modern Lighthouse On Site: No
Ecclesiastical: No
Light Function: Harbour light
Light Form: Castellated structure
Medieval Structure Exists: Yes
Notes: Aigues Mortes is thought to have been founded by Gaius Marius around 102 BCE. The Tower of Constance was built in 1242 by Saint-Louis on the former site of the Matafère Tower which was built by Charlemagne around 790 CE. The construction was completed in

1254. Stevenson says that lights were reported during the crusades about 1100 and 1246. By the later 16th c. the port and its channel were silting up; the light on the Tour de Constance became obsolete and the navigation focus shifted progressively down-channel toward the future Grau-du-Roi. The 19th-c "vieux phare du Grau-d'Aigues-Mortes" (1829–69) often gets the publicity, but it was essentially a successor to a medieval light tradition already present on the tour. Tour de Constance is probably the clearest case of a true medieval harbour lighthouse on the French Mediterranean mainland.
References: Stevenson p20; Hague & Christie p11, 13, 89, 150; Zemke p26; Fichou p19; Centre des monuments nationaux. Aux confins du royaume capétien du XIIIe siècle: Aigues-Mortes. Paris: Centre des monuments nationaux. Educational brochure (PDF). (Explains the farot on the Tour de Constance and describes it explicitly as "le plus ancien phare du royaume de France" with technical detail about the fire and wood-hoist; Centre des monuments nationaux. Tours et remparts d'Aigues-Mortes. Paris: Centre des monuments nationaux. Teacher's guide / site brochure. General historic and architectural overview of the port and fortifications; aigues-mortes-monument.fr.

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: Yes; Ottoman: Yes; Islamic: No; Local: No; Activity Index: 6

 **Saintes-Marie-de-la-Mer (5c, 9c, 11-12c)**
Alternative Names: Bouches du Rhone
Lat/Lon: 43.45, 4.428
Modern Lighthouse On Site: No
Ecclesiastical: Yes
Light Function: Ecclesiastical/Harbour light
Light Form: Ecclesiastical - Local lanterns
Medieval Structure Exists: Yes
Notes: Saintes-Maries-de-la-Mer constitutes one of the most plausible candidates for an ecclesiastical navigational light on the western Mediterranean coast prior to the modern period. Although no documentary evidence confirms the existence of a permanent lantern, the fortified church's architecture, continuous religious occupation, and exposed coastal setting are fully compatible with the intermittent use of guidance fires or lanterns. Such a practice would align with known medieval ecclesiastical lighting traditions elsewhere in the Mediterranean, particularly at pilgrimage landing sites. While the evidence does not permit identification of a formal lightstructure, Saintes-Maries-de-la-Mer stands apart from nearby lagoon and river ports as a site where religiously maintained maritime lighting remains a credible, if unproven, possibility.
Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes;

Genoese: Yes; Ottoman: No; Islamic: No; Local: No;
Activity Index: 3

Bouches du Rhone

Alternative Names: Arelas, Arelate, Theline, Fossa Marianae

Location: Arles; Bouches du Rhone

Lat/Lon: 43.67768, 4.619494

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Estuarine lights

Light Form: Local fires and beacons

Medieval Structure Exists: No

Notes: An active site with very little evidence. There is much evidence of lighthouses used for the many waterways and harbours at the Bouches du Rhone, but archaeological and documentary records tell a complex story because of geographical changes. River ports such as Arles required no lightstructures, while the unstable mouths of the Rhône actively discouraged fixed navigational lights. Ecclesiastical sites such as Saintes-Maries-de-la-Mer were commonly lit for access to sites of pilgrimage. An otherwise featureless coast may have supported intermittent guidance fires there. However, no regional lighting system emerged within the delta itself. Some locations bear derivations of the word pharos/faro that indicates early sites of navigational aids. This site is located only as an approximation. Fichou shows a sketch of the mouth of the Rhone in 1664 with a lantern on a castellated tower.

References: Fichou, p58; Giardina (2010), p110-111; Antonine Itinerary; Caesar: Guerre Civile 2, 5; Ausonius: Ordo Urbium Nobilium 8.

AL References: 269

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: Yes; Ottoman: No; Islamic: No; Local: No; Activity Index: 5

Marseille (15c, 1644)

Alternative Names: Tour du Fanal, Marsalia, Massilia, Massalia Graecorum, Lacydon

Location: Marseille Vieux Port

Lat/Lon: 43.294, 5.358

Modern Lighthouse On Site: No Tour du Fanal (1644)

Ecclesiastical: No

Light Function: Harbour light

Light Form: Round stone tower

Medieval Structure Exists: Yes

Notes: Within the harbour itself, the Fort Saint-Jean was built 1668-71 at the entrance to the Vieux-Port, but includes an older Tour du Fanal, a tower already present in the 15th c. and reconstructed in 1644. The tower served as a harbour beacon. A 1664 port plan conserved in Marseille shows a fire burning at the summit, and later

engravings confirm its function as a light marking the port entrance. By the mid-17th c. Marseille thus had a two-stage system: the offshore Planier light for landfall, and the Tour du Fanal as a harbour entrance light. Marseille marks a decisive transition from the lagoon and river-mouth environments of western Languedoc and the Camargue to an offshore lighting model capable of sustaining long-term continuity. The key pre- 1700 evidence is the medieval lighthouse site on the île de Planier, established by the early fourteenth century and repeatedly rebuilt thereafter, implying durable institutional commitment to an offshore landfall light. Within the harbour itself, early modern fortification created a separate guidance feature in the Tour du Fanal at Fort Saint- Jean, oriented to controlled entry rather than open-sea landfall. Claims for a monastic navigational light at Saint-Victor remain plausible but unproven on the basis of general landmark descriptions alone.

References: Zemke p16, 22; Hague & Christie p11; Ville de Marseille. "Le Fort Saint- Jean." City heritage page. Overview of the fort chronology; (marseille.fr); Musée des civilisations de l'Europe et de la Méditerranée (MuCEM). "L'histoire du fort Saint-Jean." Exhibition / site text. Gives an accessible narrative history and highlights the role of the Tour du Fanal within the ensemble. (mucem.org). Amargier, Paul: Marseille au Moyen Âge. Marseille: Éditions La Thune, 1996. Useful for broader discussion of the old port, its defenses, and the development of harbour entrance works. (librairie-gallimard.com).

AL References: 269

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: Yes; Ottoman: Yes; Islamic: No; Local: Yes; Activity Index: 7

Planier, îlot de (1326, 1774, 1824, 1876, 1959)

Location: Marseille

Lat/Lon: 43.2, 5.231

Modern Lighthouse On Site: Yes (1959)

Ecclesiastical: No

Light Function: Island waypoint

Light Form: Built lightstructure

Medieval Structure Exists: Yes

Notes: Le Planier constitutes the earliest and most secure example of medieval lighthouse continuity on the French Mediterranean coast. Attested from the early fourteenth century as a navigational fire marking the approaches to Marseille, the current lighthouse occupies an offshore rocky island ideally suited to long-term maintenance and visibility. Unlike the lagoon and river-mouth ports further west, Planier's geology and position allowed the establishment of a permanent landfall light, repeatedly rebuilt and modernised

without interruption of function. The island of Planier lies c. 15 km SW of Marseille, on the offing of the main approach. A first stone lighthouse was built here in 1326 on orders of the Angevin king Robert of Naples (count of Provence), to mark dangerous shoals and the route into Marseille. The tower was repeatedly rebuilt after collapses and war damage (notably in 1774 and again after destruction in 1944), but all later accounts consider the medieval light of 1320 as the origin point. A modern academic overview of Mediterranean lighthouse history actually notes that, before the 19th-c national programme, Planier was in practice the only major French Mediterranean sea-light for a long period, and is one of the earliest purpose-built offshore lighthouse in the western Mediterranean. Although early views of the îlot de Planier show a secondary tower near the lighthouse, there is no evidence that this structure ever functioned as an independent navigational light. The first documented light at Planier belongs to the eighteenth-century lighthouse, while the smaller structure served ancillary or signalling purposes.

References: Fichou, p39; International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA). "Phare de Planier." World Lighthouse Heritage entry. Technical and historical summary; confirms the sequence of towers and mentions the early medieval light.) (heritage.iala-aism.org); Ville de Marseille. "Le phare de Planier." Municipal heritage article mentions the 1319/1320 ordinance of Robert d'Anjou to build a antiquity. tower-light on Planier, with the anecdote about each boat bringing stones for the tower. (marseillecapitaledelamer.fr); Amargier, Paul: Marseille au Moyen Âge. Marseille: Éditions La Thune, 1996. Valuable background on Marseille's medieval port and seaborne trade; Caillemer, Auguste. "Le phare du Planier et les feux de Marseille au Moyen Âge." Annales du Midi 22 (1910): 289–312; Baratier, Édouard. Marseille médiévale. Paris: Aubanel, 1969; Chazottes, Philippe. Les phares de Provence. Marseille: Jeanne Laffitte, 2005. Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 2

La Ciotat (17c)

Lat/Lon: 43.174, 5.605

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires

Medieval Structure Exists: No

Notes: This was a minor civilian port that developed from around the 16th c. The strong local maritime tradition makes it likely there was a light here, but there is no clear evidence until the late 17th c. La Ciotat illustrates the

selective logic governing pre-modern maritime lighting along the Provençal coast. Despite possessing a naturally sheltered harbour and prominent coastal relief, the town developed no permanent navigational light before the modern period. Its maritime needs were met by daylight navigation, pilotage, and—at a regional scale—by the offshore lighthouse at Le Planier, maintained by Marseille. The absence of a medieval or early modern light at La Ciotat underscores the hierarchical and strategic nature of lightstructure placement, which set dominant commercial and political centres over secondary harbours.

References: Zemke, p27; Fichou, p20

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 1

Cap Ferrat (16c, 1732, 1952)

Alternative Names: Saint-Jean-Cap-Ferrat

Location: Alpes Maritimes

Lat/Lon: 43.6825, 7.328

Modern Lighthouse On Site: Yes (1952)

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Once you move east of Marseille toward Toulon, Antibes and Nice the documentation before 1700 thins out, but one pre-1700 "tour à feu" is fairly well documented. At Saint-Jean-Cap-Ferrat, guarding the deep roadstead of Villefranche, sources agree that before the modern lighthouse there existed a "tour à feu" dating from the 16th century on the same site. A later stone lighthouse was built there in 1732 by Sardinian engineers to replace this earlier tower, and 19th-c inventories and modern summaries still refer back to the medieval/early-modern "tour à feu" as part of the site history. Cap Ferrat is a good candidate for an early-modern coastal light.

References: Giraud, MarieOdile: *Synthèse historique et architecturale: Phare de Saint-Jean-Cap-Ferrat*. Internal report for the Commission régionale du patrimoine et des sites (CRPS). (Cited in heritage inventories; provides a detailed historical and architectural analysis of the site and its predecessors.) ([Wikipedia](https://en.wikipedia.org)); "Phare du cap Ferrat." Encyclopedic entry, (Notes that a sixteenth-century tour à feu preceded the 1732 lighthouse built by the engineers of the Kingdom of Piedmont-Sardinia.) ([Wikipedia](https://en.wikipedia.org)); Office de Tourisme Métropolitain Nice Côte d'Azur. "Tour du Cap-Ferrat / Phare du Cap-Ferrat." Heritage note, Short but clear summary that the 1732 lighthouse was specifically built to replace the older sixteenth-century tour à feu, Nice, Côte d'Azur. Antiquity: No; Phoenician: No; Greek Colony: No; Greek

Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 1

Italy

Genoa Lanterna (1128) (1128-1514, 1544)

Alternative Names: Capo del Faro, Genua

Location: Genoa on the hill of San Benigno before the building of the port and

Lat/Lon: 44.41122, 8.926382

Modern Lighthouse On Site: Yes (1544)

Ecclesiastical: No

Light Function: Harbour light

Light Form: Brown square stone tower, on dwelling

Medieval Structure Exists: Yes

Notes: Lit by olive oil from 1326. It seems that this was the illuminant used continually until 1898 in the second structure. Stevenson says dates from before 1161. See p225ff.

References: Stevenson p17, img16;18; Zemke p26; Hague & Christie p11-12,

AL References: 169

Antiquity: No; Phoenician: No; Greek Colony: No; Greek

Classical: No; Roman: No; Byzantine: No; Venetian: Yes;

Genoese: Yes; Ottoman: Yes; Islamic: No; Local: Yes;

Activity Index: 4

Genoa Torre dei Greci (1250)

Alternative Names: Genoa

Location: Genoa

Lat/Lon: 44.41111, 8.932778

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Brown square stone tower

Medieval Structure Exists: No

Notes: See text p222.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek

Classical: No; Roman: No; Byzantine: No; Venetian: Yes;

Genoese: Yes; Ottoman: No; Islamic: No; Local: Yes;

Activity Index: 3

Tino (600, 14c, 1800)

Alternative Names: Isola del Tino, San Venerio

Location: La Spezia, On the island of Tino at the west side of the entry to the port.

Lat/Lon: 44.02653, 9.849525

Modern Lighthouse On Site: Yes San Venerio (1800)

Ecclesiastical: Yes

Light Function: Island - Waypoint; Ecclesiastical

Light Form: Local lanterns

Medieval Structure Exists: Yes

Notes: References to a lighthouse on the Isola Tino at

the entrance to the ancient port of Portovenere actually refer to lights exhibited by Venerius the Hermit who lived on the island around 600 CE and where a monastery was built in the 11th c.

References: Stevenson p18; Hague & Christie p11, Wikipedia: Venerius the Hermit, 20170417; Zemke, p26; Manfredini and Pescara, 1985

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 1

Portovenere (5-6c, 1198, 13c)

Alternative Names: San Pietro Church

Lat/Lon: 44.0483, 9.8325

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Ecclesiastical

Light Form: Local lanterns

Medieval Structure Exists: Yes

Notes: The promontory church of San Pietro at Porto Venere occupies a commanding maritime position at the entrance to the Gulf of La Spezia and stands on a site of continuous cultic significance from antiquity. While no documentary or archaeological evidence confirms the existence of a permanent navigational light there before 1700, its location, ecclesiastical character, and proximity to the beacon traditions of nearby Tino make it a plausible site for episodic or informal signal fires in the medieval period. Such use would align with broader Mediterranean practices of ecclesiastical lights without constituting a formal lighthouse installation. Statutes describe night fires to mark the dangerous approach to the channel between Palmaria and the mainland.

References: Mannucci, Ettore: Portovenere nel Medioevo. La Spezia: Agorà, 1989; ASG, Capitoli di Portovenere (14th–16th c.).

Antiquity: No; Phoenician: No; Greek Colony: No; Greek

Classical: No; Roman: No; Byzantine: No; Venetian: No;

Genoese: No; Ottoman: No; Islamic: No; Local: No;

Activity Index: 0

Meloria (1157, 1304, 1598, 1709)

Alternative Names: Secche della Meloria

Location: On Meloria island off Livorno

Lat/Lon: 43.5704, 10.3321

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Waypoint/Landfall; Ecclesiastical

Light Form: Tower with beacon fire

Medieval Structure Exists: Yes

Notes: A site of rocks on the approaches to Livorno (Leghorn). Meloria's shoal in the Ligurian Sea hosted one of the earliest recorded navigational lights in Italy, a tower on a square base; the tower 20 m tall with a



brazier. First established as a lit aid around 1157 by the Republic of Pisa and maintained by Augustinian monks of San Jacopo in Acquaviva, with the explicit aim of marking the dangerous shoals for approaching vessels. This light was destroyed by the Genoese in 1286 after the Battle of Meloria. Subsequent medieval and early modern towers (1598; 1709) marked the hazard as a day beacon, but did not sustain a continuous formal light before the 19th-century installation of modern lighthouses.

References: Manfredini, C.: *Il Libro Dei Fari Italiani*. Mursia editore, Via Tadino 29, Milano, Italy, (1985), p18; Zemke p26; Stevenson, p18; Stevenson p18; Hague & Christie p11, 12,

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: Yes; Ottoman: No; Islamic: No; Local: No; Activity Index: 2

Portus Pisano (12-13c)

Alternative Names: Pisa, Porto Pisanus, Liburnus Portus, Portus Herculis Liberni, Leghorn

Location: Pisa

Lat/Lon: 43.5704, 10.3321

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: River navigation

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: In ancient times the site where Pisa is located today was much closer to the coast. The land was marshy and there were many lagoons. Portus Pisanus was the maritime outlet of Pisa from Late Antiquity through the Middle Ages, located south of the Arno mouth, roughly between modern Livorno and the Serchio delta. It consisted not of a single basin but of a lagoonal harbour system connected to Pisa by canals and riverine routes.

Its approaches were notoriously hazardous due to shoals, shifting sands, and river outwash, especially the nearby Meloria reefs. Porto Pisano had a documented lighthouse ("faro") from the 12th–13th century on the northern mole. It is extensively described in Pisan statutes and Genoese chronicles.

References: Hague & Christie p11, 12; Berti, Graziella: Porto Pisano: archeologia e storia. Pisa: Pacini, 1996; Fanucci Lovitch, A.: Statuti marittimi di Pisa (ed.). Pisa: ETS, 1991; Villani, Giovani: Cronica, book VI notes the lighthouse fires.

AL References: 271

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: Yes; Venetian: No; Genoese: Yes; Ottoman: No; Islamic: No; Local: No; Activity Index: 3

Mastio di Matilde (1163)

Alternative Names: Leghorn

Location: Livorno

Lat/Lon: 43.552, 10.3024

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Fortified structure for signalling

Light Form: Periodic lanterns

Medieval Structure Exists: Yes

Notes: The Mastio di Matilde is generally dated to the late 11th or early 12th century, when Livorno functioned as a fortified Pisan outport. Contemporary and near-contemporary sources identify the structure as a military keep and administrative tower controlling access to the anchorage and coastal road. No medieval or early modern source refers to the Mastio as a fanale, pharus, or designated navigational light. It is probable, by analogy with comparable coastal keeps, that temporary fires or lanterns were occasionally displayed from the tower for signalling or watch purposes. However, there is no evidence for permanent lighting infrastructure, institutional maintenance, fuel provisioning, or assigned personnel. Following Florence's conquest of Pisa in 1406 and the Medici redevelopment of Livorno in the later 16th century, the Mastio was incorporated into an expanded defensive complex. No evidence suggests any reassignment to a lighting role; institutional maritime lighting was instead concentrated at the harbour lighthouse. The Mastio survives as part of the Fortezza Vecchia, retaining its medieval core but heavily modified. It should be classified as a fortified harbour tower with possible occasional signalling; not a lighthouse; no continuous navigational light.

References: Hague & Christie p11, 12, 13; Zemke, p26; Citter, Carlo: Castelli e fortificazioni della Toscana medievale. Florence: All'Insegna del Giglio, 1996; Fanucci Lovitch, Margherita: Livorno - Storia di una città nuova.

Pisa: Pacini, 1997; Pispisa, Enrico: "Torri costiere e segnalazioni marittime nel Tirreno medievale." Rivista Marittima 132, no. 4 (1999): 45–63.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: Yes; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Torre del Marzocco (15c)

Alternative Names: Leghorn

Location: Livorno

Lat/Lon: 43.5663, 10.304

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Daymark and watchtower

Light Form: Octagonal stone tower

Medieval Structure Exists: Yes

Notes: Constructed in the mid-15th century during the Florentine consolidation of the Livorno coast, the Torre del Marzocco functioned as a monumental seemark, watchtower, and symbol of authority. Early modern descriptions and later technical histories consistently distinguish between the harbour lighthouse and the Marzocco, assigning nocturnal navigation to the former and daytime visual orientation to the latter. No evidence exists before 1700 for a permanent lantern, brazier platform, or lighthouse staff at the Marzocco. Any light displayed would have been exceptional or ceremonial rather than institutional. During the 16th and 17th centuries the tower remained a dominant daymark within the expanding Medici port, while navigational lighting continued to be monopolised by the Fanale. The tower survives substantially intact and has never functioned as a lighthouse. It should be classified as a daymark and harbour watchtower; not a lighthouse; no sustained navigational light.

References: Stevenson p18, 31; Zemke p26; Hague & Christie p11, 12, 13; Fontana, Giovanni: Il porto mediceo di Livorno, Florence, Olschki, 1984; Archivio Mediceo, Capitoli del porto di Livorno (16th c.); Citter, Carlo: Castelli e fortificazioni della Toscana medievale. Florence: All'Insegna del Giglio, 1996; Fanucci Lovitch, Margherita: Livorno - Storia di una città nuova. Pisa: Pacini, 1997; Pispisa, Enrico: "Torri costiere e segnalazioni marittime nel Tirreno medievale." Rivista Marittima 132, no. 4 (1999): 45–63. Vaccari, Pietro: Il Fanale di Livorno e la storia dei fari italiani. Rome: Istituto Poligrafico dello Stato, 1967. Pispisa, Enrico: "Torri costiere e segnalazioni marittime nel Tirreno medievale." Rivista Marittima 132, no. 4 (1999): 45–63. Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0



Livorno - Fanale dei Pisani (1303, 1956)

Alternative Names: Faro di Livorno

Location: Livorno

Lat/Lon: 43.5438, 10.2948

Modern Lighthouse On Site: Yes (1956)

Ecclesiastical: No

Light Function: Harbour light

Light Form: Cylindrical stone tower in two sections

Medieval Structure Exists: No

Notes: The Livorno lighthouse is situated at the northern edge of the harbour entrance, originally projecting toward the roadstead and later incorporated into port works. The Fanale dei Pisani is firmly identified as a purpose-built harbour lighthouse, erected under Pisan authority in the early 14th century, most commonly dated to 1303–1305. Its construction is traditionally linked to the loss or destruction of earlier Pisan light structures at Meloria following the naval defeat of 1284. Early descriptions indicate the use of open fires or braziers, later supplemented by oil lamps. Unlike signalling fires, the Fanale was fixed, maintained, and institutionally supported, with continuity of operation after the Florentine conquest of Pisa in 1406. During the Medici transformation of Livorno into a major port in the late 16th and 17th centuries, the Fanale became increasingly part of a regulated harbour system serving international trade. It remained the sole institutional night light of the port, while other towers retained defensive or daytime roles. The medieval tower was largely destroyed in 1944. The present lighthouse is a post-war reconstruction (1954–56), preserving the historic form and location but not the original fabric. We can classify this structure as an institutional harbour lighthouse of pre- 1700 origin. It was a fixed navigational light with continuous functional identity despite loss of original structure.

References: Citter, Carlo: *Castelli e fortificazioni della Toscana medievale*. Florence: All’Insegna del Giglio, 1996; Fanucci Lovitch, Margherita: *Livorno - Storia di una città nuova*. Pisa: Pacini, 1997; Pispisa, Enrico: “Torri costiere e segnalazioni marittime nel Tirreno medievale.” *Rivista Marittima* 132, no. 4 (1999): 45–63. Vaccari, Pietro: *Il Fanale di Livorno e la storia dei fari italiani*. Rome: Istituto Poligrafico dello Stato, 1967. Pispisa, Enrico. “Torri costiere e segnalazioni marittime nel Tirreno medievale.” *Rivista Marittima* 132, no. 4 (1999): 45–63.

AL References: 213

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 1

Forte Stella (1550)

Alternative Names: Portoferraio

Location: Isola d’Elba

Lat/Lon: 42.8163, 10.3341

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Military structure

Medieval Structure Exists: Yes

Notes: Fortifications built by Cosimo I (1548–1550) included a purpose-built beacon tower on Forte Stella at Portoferraio, constructed as part of the Medici fortification of Cosmopoli, occupies a position well suited to visual control of the Elba Channel. While no documentary or architectural evidence indicates the presence of a permanent navigational light before 1700, the fort almost certainly functioned as a site for temporary signal fires and watch lights within the early modern coastal defense system. Such use aligns with military beacon practice rather than with the tradition of continuous lighthouse illumination.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Piombino (11-14c, 1530, 1928)

Lat/Lon: 42.9199, 10.5253

Modern Lighthouse On Site: Yes La Rochetta (1928)

Ecclesiastical: No

Light Function: Military

Light Form: Fire beacons

Medieval Structure Exists: Yes

Notes: Piombino’s promontory commands the northern entrance to the Elba Channel and has functioned since antiquity as a strategic maritime landmark. Nevertheless, no documentary, archaeological, or institutional evidence supports the existence of a permanent navigational light or lighthouse at Piombino before 1700. While signal fires and watch beacons were almost certainly employed from the medieval period onward—especially within early modern coastal defense systems—later beacons served military communication rather than civilian navigation and do not constitute a lighthouse tradition. However, documents from 1530–1600 describe a lantern kept atop the citadel for coastal navigation.

References: D’Angiolini, Paolo: *Piombino e il suo territorio nel Rinascimento*. Pisa: ETS, 1997; Archivio di Stato di Firenze, Magistrato del Mare, vol. 112.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Torre dell'Argentiera (1557)

Location: Porto Santo Stefano, Monte Argentario

Lat/Lon: 42.4184, 11.1274

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Military and Landfall

Light Form: Local fires and lanterns

Medieval Structure Exists: Yes

Notes: The Torre dell'Argentiera on Monte Argentario was constructed in the mid–late sixteenth century as part of the Spanish coastal defense system of the Stato dei Presidi. Although its elevated position made it suitable for night fires and visual signals, no documentary or architectural evidence indicates that it functioned as a permanent navigational light before 1700. Its use aligns with early modern military beacon networks rather than with the tradition of continuous lighthouse illumination. From 1557 onwards, Spaniards established coastal watchtowers with fire signalling; one at Argentiera explicitly mentioned as giving night warnings, which has an interpretation that is not aligned with navigation.

References: Toaff, Ariel: *Torri costiere dello Stato dei Presidi*. Florence: Sansoni, 1972; Archivio di Stato di Siena, Stato dei Presidi, vol. 3.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Civitavecchia (1616)

Alternative Names: Centumcellae

Lat/Lon: 42.093, 11.786

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Fortified structure

Medieval Structure Exists: Yes

Notes: Civitavecchia (ancient Centumcellae) was founded as a major imperial harbour under Trajan in the early second century CE, a scale of investment that makes the former presence of a Roman harbour light plausible, though no ancient source explicitly attests one. After Late Antiquity, no documentary or archaeological evidence indicates the survival or re-establishment of a permanent navigational light. Medieval and early modern developments at Civitavecchia focused on fortification and military signalling rather than harbour illumination. However, some medieval documents refer to a “fanale del porto” on or near the Roman tower.

References: Hague & Christie p11; Zemke p49; Carandini, Andrea: *Civitavecchia romana e medievale*. Rome: Quasar, 1989; ASR, *Statuti di Civitavecchia*, 14th–16th c. AL References: 208, 210-12, 262, 271

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian:

No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 2

Centumcellae (106, 1608, 1951)

Alternative Names: Civitavecchia

Location: Civitavecchia

Lat/Lon: 42.09316, 11.78577

Modern Lighthouse On Site: Yes (1951)

Ecclesiastical: No

Light Function: Harbour light

Light Form: Built structure with brazier

Medieval Structure Exists: Yes

Notes: The port was modelled on Portus Romanus and almost certainly used a similar format for lighthouses. It may have had four lighthouses on the mole ends. However, there remains doubt about the precise site or sites that were used in Roman times. There is no firm evidence of a light maintained during 400-1000, but reuse may have occurred after 1100. A lighthouse was built in 1608 under Pope Paul V, but destroyed by bombing in 1943. It was rebuilt in 1951 and renovated on 28 April 1992. It is now a tribute to St. Fermina, the patron saint of navigation.

References: Zemke (1992), p14, 22, 23; Hague (1974), p2; Giardina (2010), p105-106; Antonine Itinerary; Pliny the Younger: Letters 6, 31, Rutilius: *De Reditu Suo* 1, 238.

AL References: 271

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 3

Tor Boacciana (-280, 13c)

Alternative Names: Ostia-Antica

Location: Ostia

Lat/Lon: 41.75343, 12.27985

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Tower with beacon fire

Medieval Structure Exists: Yes

Notes: There is a strong possibility that this structure functioned as a lighthouse, as well as having other purposes. Its early construction suggests that it was the first Roman lighthouse, built between 280 and 42 BCE. The present Torre Boacciana, erected at the mouth of the Tiber in the late thirteenth century under papal authority, functioned primarily as a customs, surveillance, and defensive tower rather than as a navigational aid. Although its position made it suitable for temporary signal fires or night illumination, no documentary or architectural evidence supports its identification as a permanent lightstructure. The tower thus represents a medieval administrative and signalling structure, distinct from both the Roman lighthouse tradition of Portus and

the later modern navigational lights of the Tiber mouth. References: Stevenson pp 2, 7, 9, 10, 11, 12; Zemke pp 6, 22; Keay, S. J. (ed): *Rome, Portus and the Mediterranean. Archaeological Monographs of the British School at Rome*, The British School at Rome, London (2012), 38pp. ISBN 9780904152654; Giardina (2010), p102-104. Strabo: *Geographica* 5, 3; Dionysius of Halicarnassus: *Roman Antiquities* Volume 3, 14; Suetonius: *Nero*, 16; Ptolemy: *Geography* 3, 1; Procopius: *The Gothic War* 1, 26; Rutilius: *De Reditu Suo* 1, 179; Titus Livius (Livy): *The History of Rome* 22, 11. AL References: 272 Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 2

Terracina (-550)

Alternative Names: Tarracina, Anxur, Anxuras
Location: Terracina, Lazio
Lat/Lon: 41.2825, 13.2605
Modern Lighthouse On Site: No
Ecclesiastical: No
Light Function: Harbour light
Light Form: Local fires and lanterns
Medieval Structure Exists: No
Notes: A 6c BCE light may have been shown from high up in the Temple of Jupiter, but records are clear about the presence of a harbour lighthouse in Roman times. Some attribute the building to Trajan and it may have been modelled on the Ostia tower. Volsci was a region immediately south of and adjoining Rome's Latium district. Otherwise, after antiquity, Terracina, despite its strategic position on the Via Appia and its long continuity of settlement from Roman times through the Middle Ages, shows no documentary or archaeological evidence for a permanent navigational light before 1700. Roman maritime activity at Terracina relied on coastal pilotage and conspicuous natural landmarks rather than lighthouse infrastructure, and later medieval and early modern use of fire or light at the site appears limited to military signalling rather than civilian navigation.
References: Antonine Itinerary; Plutarch: *Caesar* 58; Titus Livius (Livy): *The History of Rome* 40, 51; De La Blanchere (1884); Zemke (1992), p15, 22, 23; Hague (1974), p2; Giardina (2010), p101; De La Blanchere, R.: *Terracina, Saggio di Storia Locale*, Terracina (1983); Reprinted from *Terracine, Essai D'Histoire Locale*, Paris (1884); Coarelli, Filippo: *Il Lazio: dai Colli Albani ai Monti Ausoni*. Rome: Laterza, 1982. Authoritative archaeological geography; no lighthouse claims for Terracina or Circeo; Quilici, Lorenzo, and Stefania Quilici Gigli, eds. *Atlante dei porti romani*. Rome: L'Erma di Bretschneider, 2011. Definitive reference; confirms absence of pharos structures at Terracina and Circeo.

AL References: 272

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 2

Gaeta (11c)

Lat/Lon: 41.215, 13.571
Modern Lighthouse On Site: No
Ecclesiastical: No
Light Function: Harbour light
Light Form: Built structure with brazier
Medieval Structure Exists: No
Notes: Gaeta's excellent natural harbour and long maritime continuity from antiquity through the Middle Ages make it a plausible candidate for early navigational lighting without confirmation of the existence of a permanent light before 1700. Roman and medieval navigation relied on harbour familiarity, daylight pilotage, and later on military signal fires associated with extensive fortifications. Formal navigational lighting at Gaeta emerges only in the modern period, reflecting broader state control of maritime safety rather than medieval practice. Some documents from the 11-12th c do refer to beacons and lights in the harbour.

References: Arthur, Paul: "Early Medieval Harbours in Southern Italy." *Journal of Roman Archaeology* 11 (1998): 387-404. Gaeta treated as a harbour without lighthouse infrastructure; Lepore, Ettore: *Gaeta medievale e il suo porto*. Naples: Liguori, 1968. Standard monograph; no evidence for navigational lights.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: harbour. No
Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Misenum (-27, 1856, 1954)

Alternative Names: Faro, Misenum, Miseno, Portus Misenum
Location: Bay of Naples
Lat/Lon: 40.79825, 14.0841
Modern Lighthouse On Site: Yes Capo Miseno (1954)
Ecclesiastical: No
Light Function: Harbour light
Light Form: Local fires
Medieval Structure Exists: Yes
Notes: The harbour took advantage of lakes behind the port by construction of connecting canals. Though secret at first, lighthouses may have been later built on the ends of moles at the entrance to the port. A large lighthouse was built ashore in the port. Misenum was developed as a naval port by Marcus Agrippa in 37 BCE. Extra capacity, in addition to that available at Portus Iulius, was needed for ships to combat other forces disloyal to the Emperor. Capo Miseno, despite its role

as the principal naval base of the Roman western fleet, shows no documentary or archaeological evidence for a lighthouse or permanent navigational light before 1700. Ancient sources are silent on any pharos at Misenum, and later medieval and early modern use of the headland appears confined to surveillance and signal-fire communication. Frequent modern attributions of a lighthouse to Capo Miseno stem from confusion with the well-attested Roman lighthouse of nearby Puteoli rather than from independent evidence.

References: Strabo: 5.4; Vegetius: *Art Militaire* 5, 1-15; Denys: *Antiquites* 1, 53; Flaccus: *Argonauticas* (1) 375-386; Tacite, *Annales* IV, 5, 1; Suétone, *Aug.* XLIX, 1; Végèce, IV, 31-32;

AL References: 273

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 2

Puteoli (-750)

Alternative Names: Potuoli, Pozzuoli, Pouzzoles, Dicaearchia

Location: Pozzuoli, Bay of Naples

Lat/Lon: 40.8216, 14.1154

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: The Bay of Naples presents the strongest Roman lighthouse context in central-southern Italy, owing to the securely attested harbour lighthouse at Puteoli, Rome's principal commercial port in the early Empire. By contrast, no ancient, medieval, or early modern evidence confirms the existence of a permanent navigational light at Naples itself before 1700. Despite Naples' later political and commercial prominence, maritime navigation in the bay relied on inherited Roman harbour infrastructure, conspicuous landmarks, and pilotage until the modern period, when state-funded lighthouses were finally established.

References: Statius, *Silves*, 3, 2; Seneca: *Lukeilius*, 77; Luke: *Acts*, 28.13; Josephus Flavius: *Vie*, 3; Antonine Itinerary; Dubois, Charles: *Pouzzoles Antique (Histoire et Topographie)*. Paris, A. Fontemoing (1907); Camodeca, Giuseppe: *Puteoli romana*. Naples: Electa Napoli, 1994. Key work on Puteoli, including the Roman lighthouse tradition.

AL References: 274

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Naples - San Vincenzo (1487, 1626)

Lat/Lon: 40.833, 14.272

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Ecclesiastical/Harbour light

Light Form: Ecclesiastical - Local lanterns

Medieval Structure Exists: Yes

Notes: In Naples, molo Beverello had beacons reported in 16th-century port orders and Castel dell'Ovo had a traditional signal fire. Medieval sources and later antiquarian traditions associate the monastic complex of San Vincenzo a Mare in Naples with the maintenance of a light visible from the harbour. While the location and ecclesiastical context make the existence of episodic or customary illumination plausible, no contemporary documentation confirms the operation of a permanent or institutionalized navigational light. Any such light at San Vincenzo should therefore be understood as an informal ecclesiastical or devotional practice, secondarily useful to mariners, rather than as a true lighthouse in the medieval sense. Damaged in battle in 1495 and rebuilt under Frederick of Naples; Destroyed by Fire in 1624. An image is found on the *Tavola Strozzi* painting of Naples by Francesco Roselli in 1472-3.

References: Camodeca, Giuseppe: *Puteoli romana*. Naples: Electa Napoli, 1994. Key work on Puteoli, including the Roman lighthouse tradition. Statius *Silvae*: Translated by D. R. Shackleton Bailey. Loeb Classical Library. Cambridge, MA: Harvard University Press, 2003. Primary literary reference to the Puteoli pharos; Keay, Simon: *Portus: An Archaeological Survey of the Port of Imperial Rome*. London: British School at Rome, 2005. Contextual comparison for Roman port lighting and its institutional fragility; De Caro, Stefano: "Il porto antico di Napoli." In *Napoli antica*, edited by S. De Caro, 215-236. Naples: Electa, 1999. Confirms absence of Roman or medieval lighthouse at Naples proper; Capasso, Bartolomeo: *Monumenti della città di Napoli*. Naples, 1886. Antiquarian but still cited for San Vincenzo a Mare; must be used critically.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Salerno (16-17c)

Location: Salerno

Lat/Lon: 40.6767, 14.7467

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: Despite its prominence as a maritime republic and its exceptionally rich documentary record, Amalfi

shows no evidence for the existence of a permanent navigational light or lighthouse before 1700. Neither the *Tabula Amalphitana* nor surviving statutes, charters, or portolani refer to harbour lighting, and no ecclesiastical institution at Amalfi is associated with beacon maintenance. Navigation to the port relied instead on local pilotage, daylight arrival, and seamanship, underscoring the fact that medieval commercial success did not necessarily entail the development of lighthouse infrastructure. Similarly, Salerno, despite its political prominence as a Lombard and later Norman capital and its sustained maritime activity, shows no documentary or archaeological evidence for a permanent navigational light before 1700. Roman *Salernum* lacked lighthouse infrastructure, and neither medieval civic nor ecclesiastical authorities established a harbour light. Any illumination associated with the coast served military signalling rather than navigation, underscoring the continued reliance on pilotage and daylight approach in the medieval and early modern Gulf of Salerno.

References: Vitolo, Giovanni: *Salerno medievale*, Naples, Liguori, 1994; ASN, *Capitoli del Porto di Salerno*; Citarella, Armand O: *The Maritime City of Amalfi*. Amsterdam: Adolf M. Hakkert, 1982. Definitive work; notably silent on harbour lights; Cassandro, Michele: *Il porto di Salerno nel Medioevo*. Salerno: Laveglia, 1978. Confirms reliance on pilotage and daylight navigation. Pryor, John H: *Geography, Technology, and War: Studies in the Maritime History of the Mediterranean*. Cambridge: Cambridge University Press, 1988. Useful for understanding why lights were not installed at places like Amalfi.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Capo Palinuro (1870)

Lat/Lon: 40.02466, 15.2742

Modern Lighthouse On Site: Yes (1870)

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Capo Palinuro is one of the oldest beacon sites having a continuous tradition from an ancient pharos; medieval pilots refer to fires on the cape, one of the most dangerous Tyrrhenian headlands. Capo Palinuro, despite its prominence in classical literature and its conspicuous position on the southern Campanian coast, shows no documentary or archaeological evidence for a navigational light or lighthouse before 1700. Ancient sources associate the cape with maritime danger rather than safe landfall, and neither Roman nor medieval records report harbour infrastructure or light-keeping

at the site. Palinuro might thus represent a recurrent case of mythological and toponymic prominence being mistaken for lighthouse tradition.

References: De Simone, Carlo: *I fari dell'Italia antica*. Rome: Bretschneider, 1998; Medieval portolani (e.g., *Lo Compasso da Navigare*, 1296); Strabo: *Geography*. Translated by H. L. Jones. Loeb Classical Library. Cambridge, MA: Harvard University Press, 1917–1932. Classical references to Palinuro as danger, not navigation aid; Braudel, Fernand: *The Mediterranean and the Mediterranean World in the Age of Philip II*. Vol. 1. Berkeley: University of California Press, 1995. Foundational for understanding why dangerous capes were avoided rather than lit; Azzara, Claudio: *Torri costiere e difesa del litorale nel Mezzogiorno medievale*. Rome: Viella, 2001. Shows late and military-only beacon systems in Calabria.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Capo Vaticano (1885)

Lat/Lon: 38.6195, 15.8285

Modern Lighthouse On Site: Yes (1885)

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: The site has a tradition of a watchtower with a beacon; sources describe night fires to warn shipping. Capo Vaticano, despite its prominence and the navigational hazards of the surrounding coast, shows no documentary or archaeological evidence for a lighthouse or navigational light before 1700. Neither ancient sources nor medieval or early modern records record beaconing or light-keeping at the site, and maritime practice appears to have relied instead on offshore routing and daylight pilotage. The establishment of a lighthouse at Capo Vaticano belongs entirely to the modern period and should not be projected backward into earlier navigational practice.

References: Arcudi, Luciano: *Torri costiere di Calabria*; Reggio, Laruffa: 1985; Spanish Viceroyal coastal-tower registers (ASN).

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Scilla (5c BCE, 16c, 1913)

Alternative Names: Ruffo Castle

Lat/Lon: 38.2565, 15.7142

Modern Lighthouse On Site: Yes (1913)

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Fortified structure with non-regulated lights

Medieval Structure Exists: No

Notes: Chroniclers (15th–17th c.) mention fires kept on the rock to warn of the dangers of Charybdis.

References: Marturano, A.: *Castelli e torri della Calabria tirrenica*, Cosenza, Pellegrini, 1991; Early modern derroteros of the Straits of Messina.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 1

Lipari

Alternative Names: Lipara, Liparos insula, Porto Pignaturo, Isola Lipari

Location: Lipari

Lat/Lon: 38.467, 14.9539

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local lanterns and fires

Medieval Structure Exists: No

Notes: Lipari, the principal island of the Aeolian archipelago, possessed a well-used harbour and sustained maritime importance from antiquity through the early modern period, yet no documentary or archaeological evidence confirms the existence of a navigational light before 1700. Despite frequent ancient and medieval references to nocturnal fires in the Aeolian region—primarily associated with volcanic activity—these natural phenomena cannot be equated with institutional lighthouse practices. Any artificial lights at Lipari prior to the modern period are best understood as episodic military or urban illumination rather than as aids to navigation.

References: Hague (1974), p11

Antiquity: No; Phoenician: No; Greek Colony: No; Greek

Classical: No; Roman: No; Byzantine: No; Venetian: No;

Genoese: No; Ottoman: No; Islamic: No; Local: No;

Activity Index: 0

Capo Peloro (12c, 1190, 1853, 1884)

Alternative Names: Forte degli Inglese, Torre Faro, Punta del Faro, Torre Faro, Cape Pelorus,

Lat/Lon: 38.26592, 15.65095

Modern Lighthouse On Site: Yes (1884)

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Built structure

Medieval Structure Exists: No

Notes: Cape Peloro is on the northeast tip of the island of Sicily at the northern entrance to the Straits of Messina. An ancient lighthouse has been on this site since at least Roman times. It may have originated as

an elevated fire. The agreed site is within the grounds of an old fortification known as the Forte degli Inglese where archaeological remains exist. This town has been known as Faro for centuries, indicating the importance of a lighthouse here.

References: Hague & Christie p13; Buceti, Giuseppe: *Gialo. I MISTERI DEL PELORO*, Messina, EDAS (2012), 176pp. ISBN: 9788878203747; Zemke p26; Manfredini and Pescara, 1985; Giardina (2010), p93-94; Homer: *Odyssey* 12.304; Caesar: *Guerre Civile* 2, 3; Appian: *Guerres civiles* 5, 6, 13; Diodorus: *Hist* 4, 36 & 14, 15 & 14, 25; Pausanias: *Grece* 4, 23; Livy: *Hist* 21, 49; Thucydides: *Peloponnes* 6, 50; Antonine Itinerary; Polyaenus: *Stratagemes* 6, 16.

AL References: 275

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 2

Messina - San Ranieri, Punta (1555)

Lat/Lon: 38.193, 15.574

Modern Lighthouse On Site: Yes (1555)

Ecclesiastical: No

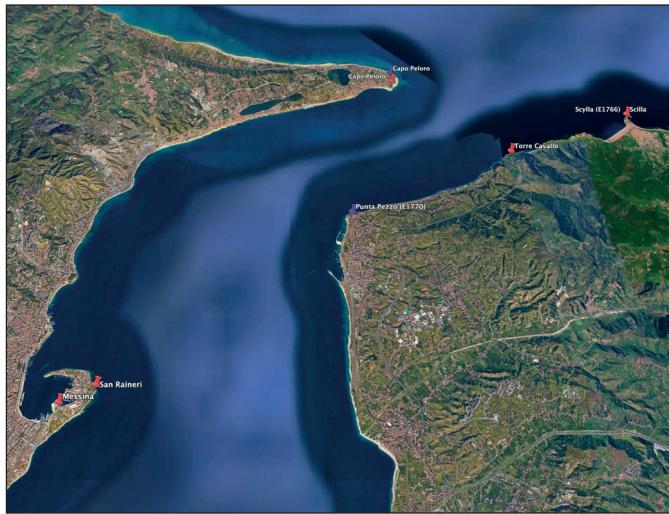
Light Function: Waypoint/Landfall

Light Form: Local lanterns and fires

Medieval Structure Exists: Yes

Notes: Medieval beacons at Messina are confirmed in statutes as watch-tower signals, but a purpose-built lighthouse appears only after the Spanish fortifications (1530s–1540s). Messina is Sicily's first true, continuously maintained lighthouse after antiquity, post-1500. The Strait of Messina's exceptional tidal dynamics created a navigational environment in which fixed lights would have been highly valuable, yet secure evidence for institutional lighting between Late Antiquity and the later Middle Ages remains limited. The strongest ancient indication of a strait/harbour light is numismatic: late Republican coin types of Sextus Pompeius depict and effectively advertise a "Pharos of Messana," pairing it with Scylla imagery to signify the hazardous passage and the controlled harbour approach. A firmly documentable pre-1700 fixed light reappears in the sixteenth century with the Lanterna (Punta San Raineri) at Messina, built in 1555–1557 within a fortified port landscape. Treated as a two-shore system, the Strait of Messina shows a split between (i) strong evidence for a harbour "pharos" at Messana in the late Republic and (ii) the re-emergence of a securely dated fixed light in the mid-sixteenth century with the Lanterna at Punta San Raineri, integrated into the fortified harbour of Messina. On the Calabrian side, the best-attested pre-1700 lighting practices belong to coastal-defense watchtowers such as Torre Cavallo (c. 1559), where night fires functioned primarily as military signals rather than as continuous navigational aids.

References: Hague & Christie p13, Zemke, p27;



Manfredini and Pescara, 1985. o Charles V's engineers (Ferramolino, later Spannocchi) included a lantern-tower on the mole; designs in: A. Giuffrida, *La Cittadella di Messina* (Rome: De Luca, 1973). o Messina statutes mandate fires on the mole on certain nights for harbour safety: *Statuta et capitula civitatis Messanae* (Venice, 1596), cap. 42: "che sia acceso il fogo alla lanterna del molo...".

AL References: 45, 123, 125, 226, 227

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 3

Messina (-750, 1194)

Alternative Names: Zancle, Messene, Messana

Location: Messina

Lat/Lon: 38.1947, 15.557

Modern Lighthouse On Site: No Punta San Raineri

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Tower with beacon fire

Medieval Structure Exists: No

Notes: Founded by Greek colonists in the 8th. c. BCE it was called Zancle, changed to Messene in the 5th. c. BCE. Roman control came in the 3rd. c. BCE. A natural harbour is formed by the curved San Raineri Spit. Roman/late antique mole maintained; medieval Arab and Norman sources mention a light at Messina. This has always been an extremely busy strait with strategic control by Byzantines, Arabs and Normans, all maritime powers. The harbour remained active without major silting. Ancient evidence supports a probable Roman lighthouse associated with "Messina", commonly located by modern summaries at Capo Peloro and reinforced by numismatic depictions (c. 35 CE) showing a tower crowned by a statue. For a pre-1700 navigational-light corpus, however, the critical point is that this ancient tradition cannot be assumed to continue uninterrupted into medieval practice; the documented institutional

harbour light for the strait reappears in early modern form at Punta San Raineri (1555) rather than as a demonstrably continuous "pharos" at the ancient site. Confusion of this site with the one at Faro (Capo Peloro) is common.

References: Homer: *Odyssey* 12, 304; Caesar: *Guerre Civile* 2, 3; Appian: *The Civil Wars* 5, 6 & 13; Diodorus Siculus: *Bibliotheca Historica* 4, 36 & 14, 15 & 14, 25; Pausanias: *Guide to Greece* 4, 23; Stevenson pp 2, 18, 31, img32; Zemke pp 15, 22, 23; Hague & Christie pp 2, 11, 13, 73, Moscati, Sabatino (ed): *Phoenicians*. Bompiani, Palazzo Grassi, Venezia (1988a), p186; Stevenson, p18; Giardina (2010), p93-94; Livy: *Hist* 21.49; Thucydides: *Peloponnese*, 6.50; Scylax: *Periplus*; Polyaenus: *Stratagemes* 6.16; • *Statuta et capitula civitatis Messanae*. Venice, 1596; Bresc, E: *La Méditerranée médiévale* (Paris, 2000), 228.

AL References: 194-5

Antiquity: Yes; Phoenician: Yes; Greek Colony: Yes; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: Yes; Local: Yes; Activity Index: 9

Syracuse

Alternative Names: Ortygia

Lat/Lon: 37.065, 15.288

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour Light

Light Form: Local lanterns

Medieval Structure Exists: No

Notes: Syracuse, despite being one of the largest and most intensively used harbours of the ancient and medieval Mediterranean, provides no explicit documentary, archaeological, or iconographic evidence for a permanent navigational light before 1700. Classical, Byzantine, Islamic, and Norman sources alike are silent on lighthouse infrastructure, and no structure can be confirmed as a pharos. Thapsos, often cited in modern literature, represents a prehistoric maritime landmark rather than a continuous harbour or lighting site. Syracuse thus stands as a critical case demonstrating that even the most important ports did not necessarily generate institutional navigational lighting in the pre-modern Mediterranean.

References: Moscati, Sabatino (ed): *Phoenicians*. Bompiani, Palazzo Grassi, Venezia (1988a), p186

AL References: 72, 125, 217

Antiquity: No; Phoenician: Yes; Greek Colony: Yes; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: No; Activity Index: 3



Mazara del Vallo

Location: Sicily

Lat/Lon: 37.6517, 12.5866

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local lanterns and fires

Medieval Structure Exists: No

Notes: Mazara del Vallo, despite its importance as an Islamic and later medieval port linking Sicily with North Africa, shows no documentary or archaeological evidence for a permanent navigational light before 1700. Classical, Islamic, and Norman sources are silent on lighthouse infrastructure, and any nocturnal illumination associated with the harbour appears to have been episodic and defensive rather than navigational. Formal lighthouse provision at Mazara belongs to the modern period and should not be projected backward into medieval maritime practice. Medieval port records specify fires lit for incoming fishing fleets.

References: G. De Santis, *Mazara nel Medioevo* (Trapani, 1986), 144–146.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: No; Activity Index: 0

Torre di Ligny (1672)

Alternative Names: Trapani

Location: Sicily

Lat/Lon: 38.01966, 12.4969

Modern Lighthouse On Site: No (1672)

Ecclesiastical: No

Light Function: Harbour light, watchtower and signalling

Light Form: Local lanterns and fires

Medieval Structure Exists: Yes

Notes: Trapani, despite its strategic position at the north-western corner of Sicily and its prominence as a naval and commercial harbour from antiquity through the early modern period, shows no documentary or archaeological evidence for a permanent navigational light before 1700. Classical, Islamic, Norman, and Spanish sources alike are silent on lighthouse infrastructure, while the defensive architecture of the town points instead to extensive use of signal fires for military communication. As at many major Mediterranean ports, navigation at Trapani relied on pilotage, seamarks, and daylight approach rather than institutional lighting until the modern era. The current tower dates from 1672, but earlier medieval signalling existed on the same extremity. Trapani statutes refer to “fari della marina” (marine lights) kept by civic guards, probably the lights shown from the four turrets of the tower.

References: Gli Statuti di Trapani, ed. V. Scuderi (Palermo, 2003), cap. 51; Tusa, Sebastiano: *La Sicilia nella preistoria*. Palermo: Sellerio, 1992. Long-term coastal occupation without lighthouse claims; Tusa, Sebastiano, ed: *Archeologia del mare: porti, rotte e commerci*, Palermo: Regione Siciliana, 2004. Confirms military and commercial focus, not lighting.
Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 1

Palermo (10c, 17c)

Alternative Names: Panormus, Panormos, Panorme, Khalisa, Kalsa
Location: Palermo
Lat/Lon: 38.13265, 13.37012
Modern Lighthouse On Site: No
Ecclesiastical: No
Light Function: Harbour, Military and signalling
Light Form: Local lanterns and fires
Medieval Structure Exists: No
Notes: The site of the port remains unclear, and evidence for a lighthouse here is slight, based upon coins only. However, the port was extensively used by Phoenicians, Greeks and Romans and probably had a lighthouse. Descriptions of Arab and Norman Palermo both report night-fires in the harbour district (Khalisa). Ibn Hawqal (10th c.) describes Palermo's harbour operations at night. Later, the Spanish mole reconstruction (16th–17th c.) included a lanterna, mentioned in civic accounts. The lantern is early-modern, but continuous use of harbour fires is medieval. The Torre di San Nicolo probably also showed lights periodically but for signalling, not navigation.

References: Livy: *Hist* 24, 36; Diodorus: *Hist* 22, 23, 24; Procopius: *Guerre Goths* 1, 5; Polybius: *Hist* 1, 39; Moscati, Sabatino (ed): *Phoenicians*. Bompiani, Palazzo Grassi, Venezia (1988a), p186; Archivio di Stato di Palermo, *Ragionaria*, vol. 157 (payments for oil and maintenance of "la lanterna del molo", 1643–1651); *Kitāb Ṣūrat al-Ard*, ed. Kramers & Wiet (1964), 111–12; De Stefano, Giuseppe: *Panormos: topografia storica e urbana di Palermo antica*. Palermo: Sellerio, 1995. No evidence for ancient or medieval lighthouse infrastructure; Johns, Jeremy: *Arabic Administration in Norman Sicily*. Cambridge: Cambridge University Press, 2002. Demonstrates administrative silence on harbour lights; Arthur, Paul: "Harbours and River Ports in Byzantine Sicily." *Journal of Roman Archaeology* 18 (2005): 215–232. Byzantine harbour use without lighting.
AL References: 276

Antiquity: Yes; Phoenician: Yes; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: Yes; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: Yes;

Activity Index: 6

Termini Imerese

Alternative Names: Thermae Himeraeae, Himerenses

Location: Sicily

Lat/Lon: 37.9894, 13.6925

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Fortified structure for signalling

Light Form: Local lanterns

Medieval Structure Exists: No

Notes: Termini Imerese possessed a functioning harbour zone in antiquity, including mole infrastructure documented in topographic scholarship, but neither ancient testimony nor confidently identified remains confirm a lighthouse or maintained navigational light before 1700. In the early modern period, the best-attested "light" practices belong instead to the coastal defense network—e.g., the *Torre di Buonfornello* (1557)—where night fires served signalling and surveillance rather than continuous navigational illumination.

References: Enciclopedia Treccani: "Termini Imerese." In Enciclopedia dell'Arte Antica. Rome: Istituto dell'Enciclopedia Italiana, various editions. Notes harbour remains but no lighthouse; Greco, Emanuele: *Elea–Velia e i porti minori del Tirreno*. Naples: Arte Tipografica, 2008. Comparative treatment of secondary harbours.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Cefalu (16c)

Alternative Names: Cephaloedium

Location: Cefalu

Lat/Lon: 38.0399, 14.0192

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: No medieval lighthouse as such existed here but there are well-documented port beacons (late 16th–17th c.). Municipal regulations require torch-fires at the harbour mole during winter nights. Cefalù, despite the dramatic prominence of its Norman cathedral from the sea, shows no documentary or archaeological evidence for a navigational light before 1700. Classical and medieval sources treat the site as a visually conspicuous coastal town rather than a lit harbour, and neither ecclesiastical documentation nor nautical sources attest the maintenance of beacon fires or lanterns for mariners. Any lights associated with the Rocca or the

cathedral must therefore be understood as defensive or devotional rather than navigational in function.

References: Spinosa, G.: "L'approdo medievale di Cefalù," in *Porti e approdi della Sicilia medievale*, ed. Trasselli (Palermo, 1980), 89–103; Fasolo, Mirko: *Cefalù antica e medievale*. Palermo: Sellerio, 2003. Emphasises fortification and cathedral; no navigational lights; Houben, Hubert.: *Roger II of Sicily*. Cambridge: Cambridge University Press, 2002. Norman Sicily without harbour-light references.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Capo d'Orlando (11c, 1904)

Lat/Lon: 38.1648, 14.7471

Modern Lighthouse On Site: Yes (1904)

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: An 11c fort was built here by the Normans. While primarily a military signal point, it is said that the tower was required to maintain night fires, which also served navigation. Capo d'Orlando, a conspicuous promontory on the north coast of Sicily associated in antiquity with Agathyrnum, shows no documentary or archaeological evidence for a navigational light before 1700. Although frequently cited in ancient and medieval geographical descriptions as a coastal reference point, the cape never functioned as a harbour and was not equipped with lighthouse infrastructure. Any fires lit there before the modern period are best interpreted as episodic signal or watch fires rather than as aids to navigation.

References: Norman/Swabian watch-tower included in royal surveillance networks around the *Via Francigena marittima*: References to coastal towers keeping "fugghe e fari" (fires and lights) in night hours for piracy defence; Maurici, F.: *Castelli e fortificazioni di Sicilia* (Palermo: Flaccovio, 1992), 211–214; Diodorus Siculus: *Library of History*. Trans. C. H. Oldfather. Loeb Classical Library. Cambridge, MA: Harvard University Press, 1933–1967. Primary reference to Agathyrnum without navigational lighting; Wilson, R. J. A.: "Coastal Settlement in Roman Sicily." *Papers of the British School at Rome* 47 (1979): 1–25. Day seamarks, not lighthouses.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Capo Milazzo (1853)

Alternative Names: Mylae

Location: Sicily

Lat/Lon: 38.2707, 15.23088

Modern Lighthouse On Site: Yes (1853)

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Local fires

Medieval Structure Exists: No

Notes: Milazzo, a strategically vital harbour controlling access to the Aeolian routes and the Strait of Messina, shows no documentary or archaeological evidence for a permanent navigational light before 1700. Despite its long naval history and intensive fortification under Norman and Spanish rule, sources suggest only episodic signal fires associated with military communication rather than continuous harbour illumination. The absence of an institutional lighthouse at such a key maritime node underscores the limited diffusion of navigational lighting in pre-modern Sicily.

References: Torelli, Mario: *Studi su Mylae*. Rome: Quasar, 1980; Naval base without lighthouse evidence; Di Stefano, Giuseppe: *Il castello di Milazzo*. Messina: Armando Siciliano, 1998. Fortification and signalling, not navigation lights.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Malta

Valetta (1551)

Alternative Names: Fort St Elmo

Lat/Lon: 35.90227, 14.51703

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Military

Light Form: Local fires and signals

Medieval Structure Exists: No

Notes: Malta shows no evidence for a lighthouse or permanent navigational light in antiquity or the Middle Ages, despite continuous harbour use. Institutional lighting emerges only in the later sixteenth century with the fortification of Fort St Elmo and the foundation of Valletta by the Order of St John. These early lights, integrated into a fortified harbour-control system, represent a clear early modern re-emergence of navigational illumination driven by centralized naval and military authority rather than by medieval commercial practice.

References: Zemke, p27; Bonanno, Anthony: *Roman Malta*. Malta: Midsea Books, 2002. Harbour use; no Roman lighthouse; Blouet, Brian: *The Story of Malta*. Malta: Progress Press, 2004. Careful distinction between medieval practice and early modern change; Spiteri, Stephen C: *Fortresses of the Knights*. Malta:

Book Distributors Ltd., 2001. Fort St Elmo and harbour control lighting; Hughes, Quentin: Malta: A Guide to the Fortifications. Malta: Said International, 1993. Demonstrates early modern lighting embedded in forts; Vella, Nicholas: "Harbours and Anchorages in the Maltese Islands." *Journal of Maritime Archaeology* 4 (2009): 77–96. Confirms absence of medieval navigational lights. AL References: 39, 45, 51, 108, 130
Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: No; Activity Index: 1

Italy

Pantellaria (16c)

Location: Pantellaria
Lat/Lon: 36.83144, 11.94353
Modern Lighthouse On Site: No
Ecclesiastical: No
Light Function: Harbour light
Light Form: Local lanterns and fires
Medieval Structure Exists: No
Notes: Arab geographers note use of fire beacons here for corsair alerts. During the Spanish fortification period (16th c.) obligatory lantern-fires were lit on the harbour mole.
References: al-Idrīsī, *Nuzhat al-Mushtāq*, ed. Jaubert (Paris, 1836), II: 293.
Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Torre del Serpe (15c)

Location: Otranto
Lat/Lon: 40.1419, 18.5052
Modern Lighthouse On Site: No
Ecclesiastical: No
Light Function: Waypoint/watchtower
Light Form: Beacon fires
Medieval Structure Exists: Yes
Notes: Torre del Serpe, just south of the town of Otranto, is described in local and scholarly sources as an ancient faro / oil-lit beacon on the Canale d'Otranto, probably with Roman origins and restored under Frederick II as part of a strategic strengthening. By the later 16th century it functions as a sentinel tower within the Terra d'Otranto coastal-tower system, communicating with neighbouring towers by fire and smoke. However, the Torre del Serpe cannot be securely identified as a medieval lighthouse. While its position and form are compatible with the use of temporary fires, any such illumination would have served signalling or defensive purposes rather than

regulated navigation. The association of the tower with a lighthouse function derives largely from post-medieval legend and antiquarian reinterpretation, not from contemporary evidence. As such, the Torre del Serpe exemplifies the methodological need to distinguish between ad hoc fires, warning beacons, and institutional lighthouses when reconstructing the history of coastal lighting before 1700.

References: Laggetto, Giovanni Michele. *Historia della città d'Otranto*. Naples: Egidio Longo, 1640; Pacichelli, Giovanni Battista. *Il Regno di Napoli in prospettiva*. Vol. 2. Naples: Michele Luigi Muzio, 1703. Modern Scholarly Studies Coluccia, Rosario. "Otranto e il suo porto nel Medioevo." In *Otranto: il porto, la città, il territorio*, edited by Cosimo De Giorgi, 77–102. Lecce: Edizioni del Grifo, 2001. D'Urso, Giacinto. "La Torre del Serpe di Otranto: storia e leggenda." *Archivio Storico Pugliese* 40 (1987): 33–52; Fonseca, Cosimo Damiano, ed. Castelli, torri e opere fortificate di Puglia. Bari: Adda Editore, 1994. Archaeological / Heritage Catalogue Ministero per i Beni Culturali e Ambientali. *Carta dei Beni Culturali della Puglia: Provincia di Lecce*. Rome: Istituto Centrale per il Catalogo e la Documentazione (ICCD), 1992; Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: Yes; Islamic: No; Local: No; Activity Index: 1

Otranto (15c)

Alternative Names: Hydros, Hydruntum, Otrante
Location: Otranto
Lat/Lon: 40.14734, 18.4982
Modern Lighthouse On Site: No Punta Palascia (1867)
Ecclesiastical: No
Light Function: Harbour light and signals
Light Form: Beacon fires
Medieval Structure Exists: No
Notes: An 8c BCE Greek colony, it probably showed lights from temeni, but the site was certainly the location of a medieval lighthouse. Torre del Serpe, just south of the town, is described in local and scholarly sources as an ancient faro / oil-lit beacon on the Canale d'Otranto, probably with Roman origins and restored under Frederick II as part of a strategic strengthening. By the later 16th century it functions as a sentinel tower within the Terra d'Otranto coastal-tower system, communicating with neighbouring towers by fire and smoke. Otranto's importance as a crossing point between Italy and the Balkans did not translate into the early institutionalisation of a lighthouse. Prior to 1700, the port relied on informal practices, topographic familiarity, seasonal pilotage, and occasional fires, rather than a maintained navigational light. Even during the early modern period, illumination along the coast served primarily defensive purposes. The establishment

of a permanent lighthouse at Punta Palascìa in 1867 represents a clear break with earlier practice, reflecting the modern state's systematic approach to maritime navigation rather than continuity from medieval or early modern traditions.

References: Hague & Christie p11; Manfredini and Pescara, 1985; Pausanias: Grece, 6, 19; Livy: Hist 36, 21; Procopius: Guerre Goths 3, 10; Antonine Itinerary; Pseudo-Scylax: Periplus; Titus Livius (Livy): The History of Rome 36, 21; De Giorgi, Cosimo, ed. Otranto: il porto, la città, il territorio. Lecce: Edizioni del Grifo, 2001; Guaitoli, Maria. Archeologia dei porti romani dell'Adriatico. Rome: De Luca, 1999.

AL References: 276

Antiquity: Yes; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 6

Brindisi (17c)

Alternative Names: Brindisium, Brindes, Brentesium, Brundisium, Bronduse

Location: Brindisi

Lat/Lon: 40.64144, 17.94895

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires and beacons

Medieval Structure Exists: No

Notes: Hard evidence is scarce, but there were possibly two ancient lighthouses - one on Barra Island and one at the entrance to the inner port. Significant accounts exist in ancient texts to give confidence to the presence of a Pharos-type lighthouse here. Brindisi's port is one of the most important in the Adriatic since antiquity. Studies of the "fari e porti di Terra d'Otranto" describe the 19th-c modernization of its lights (fanali on Forte a Mare and Punta Riso, etc.), but note this as an evolution of an older signalling tradition.(salogentis.it) Given its continuous use and the coastal-tower network, it is very likely that Brindisi maintained harbour fires or lanterns well before 1700, even if surviving documentation is late. Brindisi stands out on the Adriatic as a port where harbour lighting was not merely occasional but recurrent from antiquity through the early modern period. Although no purpose-built Roman lighthouse can be securely identified, the port's continuous strategic role makes the regular use of harbour fires highly probable. From the High Middle Ages onward, documentary references indicate institutionalised lighting, distinguishing Brindisi sharply from nearby Otranto. The nineteenth- century lighthouse installations thus represent a formalisation and technological upgrade of an existing practice.

References: Zemke (1992), p15, 22, 23; Hague (1974), pp2, 11; Stevenson (1959), p2; Giardina (2010), p92-93;

Tacitus: Annals 3, 1; Caesar: Guerre Civile 3, 24; Plutarch: Pompey 62; Dio Cassius: Roman History 41, 48; Pliny the Elder: The Natural History 3, 16; Titus Livius (Livy): The History of Rome 44, 1; Antonine Itinerary; Polyaenus: Stratagems 8, 24; Lucan II 610-20; Strabo: 6.3; Cassano, Raffaele: Brindisi romana e medievale. Bari, 2001.

AL References: 276

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: Yes; Activity Index: 4

Bari (16c, 1869)

Alternative Names: Barium

Location: Bari

Lat/Lon: 41.13914, 16.84507

Modern Lighthouse On Site: Yes Punta San Cataldo (1869)

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: Bari was probably founded by the Peucetii, a lapygian tribe which first inhabited Apulia. It had strategic importance under Roman rule in the 3rd c BCE. Its important harbour dates from 181 BC. There is no evidence for an ancient lighthouse at Bari, but the site's little-known Roman history suggests it as a possibility. Hague's designation as a 'principal' Roman lighthouse is unsubstantiated. There is no firm evidence of a light maintained before c1100. However, by the modern period, there are statutory fanali at the ends of the moles. Given Bari's role as a major medieval port and the general practice in the Kingdom of Naples, it is very likely that some form of night fire/lantern on the harbour mole or castle was in use by the later Middle Ages/early modern period, though explicit medieval text is elusive. Although Bari was among the most important ports of the southern Adriatic in the central Middle Ages, the case for a pre-1700 institutional navigational light remains unproven. The most economical interpretation is that Bari relied primarily on landmark navigation and pilotage, with any night illumination limited to intermittent watch or harbour-side lanterning rather than a maintained lighthouse regime. The construction of the Faro di Punta San Cataldo in 1869 marks Bari's clear entry into the modern, state-organised lighthouse system.

References: Hague & Christie p11; Bruni, Gianfranco: Torri costiere di Terra di Bari. Bari: Adda Editore, 1991; Faglia, Vito: Architetture costiere della Terra di Bari. Bari: Adda Editore, 1983.

AL References: 276

Antiquity: Yes

Phoenician: No; Greek Colony: No; Greek Classical: No;

Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: No; Activity Index: 3

San Cataldo, Punta (1869)

Alternative Names: Portus Lupiae

Location: Bari

Lat/Lon: 41.139, 16.845

Modern Lighthouse On Site: Yes (1869)

Ecclesiastical: No

Light Function: Waypoint/Harbour

Light Form: Local fires and beacons

Medieval Structure Exists: No

Notes: The current lighthouse dates to 1869 on or near the site of the Roman/medieval seaport of San Cataldo (Portus Lupiae). While the lighthouse itself is post-medieval, the continuity of the landfall function suggests earlier signalling (fires on the point), but documentation is indirect.

References: Esposito, Sandro. *Difesa costiera e torri d'avvistamento in Puglia*. Bari: Mario Adda, 1997.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Molfetta (17c)

Location: Molfetta

Lat/Lon: 41.208, 16.5942

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local lanterns and fires

Medieval Structure Exists: No

Notes: Molfetta's old harbour is framed by medieval/early-modern structures; modern signalling includes a mole light and a separate harbour lighthouse. It appears in studies of terra di Bari coastal towers (Faglia, Esposito), which emphasise their use for inter-tower fire signalling against corsairs. Evidence for a dedicated harbour "fanale" before 1700 is indirect but plausible. Molfetta exemplifies a common Adriatic pattern: an economically and socially active medieval port that nonetheless did not sustain a permanent navigational light before 1700. The scale of the harbour, reliance on pilotage and landmarks, and proximity to larger centres such as Bari reduced the incentive for institutional illumination. Any night-time fires were likely temporary and communicative rather than navigational.

References: m.riunet.upv.es; Fonseca, Cosimo Damiano, ed. *Castelli, torri e opere fortificate di Puglia*. Bari: Adda Editore, 1994;

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Trani Molo Sant'Antonio (16c)

Location: Trani

Lat/Lon: 41.2815, 16.4221

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: Trani is one of the classic medieval Apulian ports, frequently mentioned in portolans. Modern port descriptions show faro and fanali on the Sant'Antonio and San Nicola moles. Combined with its role in the Naples coastal-tower network, it's a strong candidate for having regulated night lights on the mole or tower by the 16th century at least.

References: traniperladriatico.blogspot.com; Errico, Raffaele. *Torri e castelli della Capitanata*. Foggia: Bastogi, 1999.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: Yes; Islamic: No; Local: No; Activity Index: 1

Barletta Molo di Tramontana (16-17c)

Location: Barletta

Lat/Lon: 41.3287, 16.2863

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: Given its status in the Kingdom of Naples coastal-tower system, it is very likely that at Barletta a simple fire beacon on the mole or the castle was kept for approaches in the 16th–17th c., though again the surviving descriptions are later. Barletta presents evidence for a recurring harbour light associated with the Molo di Tramontana, the principal protective mole of the port. Archaeological and administrative sources indicate that this light functioned as a harbour-edge or signalling installation, aiding access to the anchorage and marking the harbour limit rather than serving as a purpose-built lighthouse. While the light appears to have been recurrent and institutionally recognised, there is no evidence for a dedicated lighthouse structure, permanent keepers, or uninterrupted nightly operation before 1700. Barletta thus occupies an intermediate position between episodic signalling and fully institutionalised harbour lighting, comparable in function but not in scale or organisation to Brindisi.

References: marina.difesa.it; Ministero dei Beni e delle Attività Culturali. *Atlante delle Torri Costiere del Regno di Napoli*. Rome: ICCD, 2003; Soprintendenza Archeologica della Puglia. *Archeologia della costa adriatica pugliese*. Bari: Edipuglia, 1996.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Manfredonia (16c)

Lat/Lon: 41.625, 15.925

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: Late medieval and especially 16th-century Spanish/Viceroyal coastal-defence reforms created a chain of coastal towers in Capitanata and along the Gargano, intended to signal by fire and smoke. Manfredonia, as a key gulf port, almost certainly had a night fire on the mole or tower by the early modern period, though explicit medieval “fanale” entries are scarce. Founded as a planned port in a lagoonal and shoal-prone environment, Manfredonia almost certainly employed recurrent harbour-edge illumination from an early date, even though it never developed a purpose-built lighthouse before the modern period. These lights served pragmatic functions, marking harbour limits, guiding entry through shallow waters, and coordinating port operations, rather than long-range navigation. Excluding such sites would distort the historical reality of pre-1700 maritime lighting, which was often functional, modest, and embedded within harbour infrastructure rather than monumental

References: Errico, Raffaele. *Torri e castelli della Capitanata*. Foggia: Bastogi, 1999.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No

Byzantine: No; Venetian: No; Genoese: No; Ottoman: Yes; Islamic: No; Local: No; Activity Index: 1

Pianosa (1908)

Alternative Names: Tremiti

Location: Isle of Pianosa

Lat/Lon: 42.58017, 10.06358

Modern Lighthouse On Site: Yes (1908)

Ecclesiastical: No

Light Function: Island - Waypoint

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Pianosa illustrates the lower limit of evidence for including harbour or control lights in a pre-1700 catalogue. While Roman occupation and harbour infrastructure make the occasional use of landing fires or lamps highly plausible, there is no documentary or archaeological evidence for a recurring or institutionalised light before the modern period. Unlike ports such as Manfredonia or Barletta, Pianosa lacked the sustained administrative

presence necessary to maintain even modest harbour illumination. The construction of the lighthouse in 1908 represents a clear functional and chronological break rather than the continuation of an earlier lighting tradition.

References: Hague (1974), p11; Manfredini and Pescara, 1985

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Ortona (16c)

Location: Ortona, Castello Aragonese

Lat/Lon: 42.35888, 14.4061

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local beacons

Medieval Structure Exists: No

Notes: Ortona illustrates a recurring Adriatic pattern in which a functioning medieval port—serving regional trade and pilgrimage—made pragmatic use of harbour-edge illumination without developing a lighthouse institution. The town’s cliff-top setting and fortified profile allowed for temporary or recurrent lights marking the landing area, especially during periods of heightened traffic, yet no evidence supports the existence of a purpose-built or continuously maintained navigational light before 1700. Ortona therefore belongs with sites such as Trani and Barletta in demonstrating how effective harbour use could be sustained through local, modest lighting practices rather than formal lighthouse architecture. Port records describe a “fuoco del molo” maintained during the sailing season.

References: Archivio Storico Ortona, Portolani (16th–17th c.); Ver lengia, A.: *Storia di Ortona* (1952).

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Pescara (16c)

Lat/Lon: 42.4682, 14.2261

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour/River

Light Form: Local beacons

Medieval Structure Exists: No

Notes: Pescara exemplifies the close relationship between river-mouth navigation and early harbour lighting. While no evidence supports the existence of a lighthouse before 1700, the port’s unstable entrance, repeated harbour works, and later military significance make the use of recurrent harbour or channel lights

probable. Such illumination would have served to mark the navigable river mouth rather than to guide open-sea navigation. Pescara therefore belongs firmly within the category of functional harbour lighting that predates, but does not anticipate, the emergence of modern lighthouse institutions.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Giulianova (16c)

Alternative Names: Abruzzo

Location: Giulianova

Lat/Lon: 42.7545, 13.9763

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local lanterns

Medieval Structure Exists: No

Notes: During the sixteenth-century rebuilding of Giulianova's harbour, a light is explicitly reported as being shown within the port. This illumination should be understood as a recurrent harbour light associated with new moles and regulated access rather than as a purpose-built lighthouse. Its appearance reflects early modern harbour management practices, in which modest, structure-mounted lights were employed to mark entrances and working areas without creating a permanent lightstructure. Giulianova thus provides a rare documentary example of functional harbour lighting in the central Adriatic during the Spanish period.

References: Chiodi, G.: *Il porto di Giulianova* (Teramo, 1980).

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Ancona (9-11c, 13c, 16c, 1860)

Alternative Names: Ancone, Torre dell'Ancona

Location: Ancona

Lat/Lon: 43.6233, 13.51445

Modern Lighthouse On Site: Yes Faro di Colle Cappuccini (1860)

Ecclesiastical: No

Light Function: Harbour light

Light Form: Built structure with beacon fire

Medieval Structure Exists: No

Notes: With only poor evidence for a formal lighthouse here in classical times, there could have been a light from the Greek Temple of Aphrodite in very early times. Evidence for a Roman structure used as a lighthouse remains circumstantial, but is good. However, this is one of the best-attested pre-modern lights on Italy's Adriatic

side. A tower existed by at least the 13th century; in the 16th century it was fully rebuilt under papal authority as the "Torre dell'Ancona" with a regulated oil flame. Ancona represents the clearest case on the central Adriatic for the early institutionalisation of harbour lighting. From at least the High Middle Ages, documentary sources confirm a maintained light associated with the harbour entrance and administered by civic authorities. Although the physical form of this light evolved over time, its continuity and explicit navigational function distinguish Ancona from ports where illumination remained episodic or purely functional.

References: Zemke (1992), p16, 22, 23; Hague (1974), p2, 11; Giardina (2010), p90-91; Titus Livius (Livy): *The History of Rome* 41, 1; Paci, G.: *Il porto di Ancona nel Medioevo* (Ancona, 1999); Bonasera, F.: *Il fanale di Ancona* (Ancona, 1985).

AL References: 277

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: Yes; Islamic: No; Local: Yes; Activity Index: 5

Fano (16-17c, 1950)

Lat/Lon: 43.8553, 13.0154

Modern Lighthouse On Site: Yes (1950)

Ecclesiastical: No

Light Function: Seasonal light

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: Fano provides clear evidence for the use of a seasonal harbour light, specifically operated during the winter months when river-mouth navigation was most hazardous. This "winter light" reflects a regulated and anticipatory approach to maritime risk management rather than ad hoc illumination. Although it falls short of a permanent lighthouse institution, it nonetheless represents a significant form of pre-modern navigational lighting. Fano thus occupies an important intermediate position between episodic harbour fires and fully institutionalised, year-round lighthouse operation. Municipal statutes explicitly mandate the use of a winter light, reflecting a civic response to increased navigational risk during the storm season and reduced daylight at the river-mouth harbour. This illumination was scheduled and institutionally sanctioned as a harbour light, even though it did not operate year-round and was not housed in a purpose-built lighthouse tower. Fano thus exemplifies a form of pre-modern navigational lighting that was functional, seasonal, and embedded in municipal regulation rather than monumental architecture. A tower at the mole's end is repeatedly mentioned as site of the fuoco.

References: *Statuti di Fano* (ed. Amiani, 1751); Povolo, C.: *Segnalazioni costiere nell'Adriatico medievale*, Rivista

Marittima 1998.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 1

Ariminum (-268, 1733, 1947)

Alternative Names: Rimini

Location: Rimini

Lat/Lon: 44.06345, 12.57047

Modern Lighthouse On Site: Yes Rimini (1947)

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local lanterns and fires

Medieval Structure Exists: Yes

Notes: The area was part of the Etruscan civilization until the arrival of the Celts, who held it from the 6th century BC until their defeat by the Umbri in 283 BC. In 268 BCE the Roman Republic founded the *colonia* of Ariminum. Despite a lack of archaeological remains due to modern developments, there is high confidence of an ancient and a medieval lighthouse at this location, probably built over in later centuries. Rimini exemplifies a long-lived Adriatic port in which harbour lighting never progressed beyond episodic or *ad hoc* illumination before the modern period. Despite its Roman heritage, continuous urban life, and repeated investment in harbour works, no evidence supports the existence of a regulated harbour light—seasonal or permanent—before 1700. Navigation relied instead on daylight access, pilotage, and landmark recognition. Rimini therefore serves as an important negative control, emphasizing the fact that pre-modern harbour lighting was not an inevitable corollary of port activity, but a selective response to local risk, administration, and institutional capacity.

References: Zemke p16, 22, 23; Hague & Christie p2; Giorgetti, G.: *Geografia Storica Ariminese*. In: *Analisi Di Rimini Antic*, Storia Ed Archeologica per un Museo, Rimini (1980); Giardina (2010), p89-90; Manfredini and Pescara, 1985; Giardina (2010), p89-90; Strabo: *Geographica* 5, 1. AL References: 277

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: Yes; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 3

Classe (-227, 14c)

Alternative Names: Classis, Ravenna

Location: Classis, home port of Ravenna

Lat/Lon: 44.39537, 12.21917

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Built structure, later a church tower

Medieval Structure Exists: No

Notes: Pliny describes a lighthouse here as similar to the Pharos. Hutton states that part of the bell tower of the Church of Santa Maria in Porto Fiori was the original Pharos. It was totally destroyed in WWII. Originally selected as a port by the Etruscans, Classe became the military port of the Roman fleet in the Adriatic around 35 BCE, and was an important site for five hundred years. It is now a comparatively small, landlocked archaeological site. The site silted up in the early middle ages. Civic statutes state that Medieval Ravenna maintained regulated signals at canal mouths leading to Classe. A 14th-century statute refers to a *luminarie* to guide ships into Porto Corsini. Ravenna and Classe exemplify a port landscape where navigational practice was shaped by lagoonal access, shifting shorelines, and administrative control rather than by a single monumental lighthouse. Early medieval testimony preserves the toponymic memory “ad Farum,” and ecclesiastical documentation maintains the designation “in Faro,” indicating a persistent association between this coastal-access zone and the idea of a “faro.” Yet these strands do not, on present evidence, establish a continuously maintained pre-1700 lighthouse institution. The documented early modern installations emphasise surveillance and quarantine control (notably the *Torraccia*), while the first clearly dated modern light in the contemporary port system belongs to the nineteenth century

References: Hutton (1913); Zemke (1992), p15, 22, 23; Hague (1974), p2; Stevenson (1959), p2; Giardina (2010), p86-88; Strabo: 5.1; Vigitius: *Art Militaire* 5, 1-15; Pliny: *Nat. Hist. Book XXXVI*. The Natural History Of Stones, Chapter 18: The Pharos; Vasina, A.: *Ravenna nel Medioevo*, Bologna, 1985; (Marina di Ravenna/Porto Corsini). *Statuti Ravenna*, 14th. c.

AL References: 225, 277

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 2

Torre Sant'Andrea (1550, 1936)

Alternative Names: Chioggia

Lat/Lon: 40.25527, 18.44507

Modern Lighthouse On Site: Yes Torre Sant'Andrea (1936)

Ecclesiastical: No

Light Function: Harbour light

Light Form: local fires and lanterns

Medieval Structure Exists: Yes

Notes: Records from the 13th–16th centuries indicate night beacons (*fanali*) at the entrance to Chioggia’s port, often supervised by civic officials and sometimes by cathedral clergy in earlier centuries.

References: Hague & Christie p11; Fasoli, G.: *Chioggia medievale*, Bologna, 1958. Archivio di Stato di Venezia,

Senato Mar registers.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: Yes; Islamic: No; Local: No; Activity Index: 1

Adria (-750)

Alternative Names: Atria, Hatria

Lat/Lon: 45.04853, 12.06712

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: The sea was much closer in antiquity than it is today. An ancient Hellenic port, Adria was important to Romans too. Submerged archaeological remains suggest a lighthouse here from Greek times.

References: Strabo: 5.1, 5.7; Pliny: *Hist Nat* 3, 20; Giardina (2010), p85

AL References: 278

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Venice St Nicholas Tower (1312)

Alternative Names: San Nicolo al Lido

Location: Venice

Lat/Lon: 45.428, 12.381

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Ecclesiastical

Light Form: Local lanterns

Medieval Structure Exists:

Notes: One of the lights assisting the Venetian merchants. The same report as for San Nicolo describes a smaller light near Sant'Erasmo by c. 1350, said to have remained active until the end of the Republic. (Comuni Virtuosi). This fits very well as an auxiliary lagoon-entrance/inner-approach light, supporting traffic once inside the lagoon system (or providing redundancy in difficult conditions), rather than replacing the primary inlet light at San Nicolò. See p238.

References: Stevenson p18; Di Domenicantonio, Rosa: *Linee guida per il riuso dei fari costieri*. PDF (2018). (For the reported 1321 San Nicolò light and c.1350 Sant'Erasmo light.) (Comuni Virtuosi); Marina Militare: *Servizio Fari e Segnalamento Marittimo* (official pages and individual aid listings, incl. Canale di San Nicolò). (marina.difesa.it); Predelli, Riccardo, and Adolfo Sacerdoti, eds: *Gli statuti marittimi veneziani fino al 1255*. Venice, 1903 (digitized listing); "Sailing in the Venice lagoon" (overview noting briccole as a core navigation-signage medium). (meetingvenice.it).

AL References: 50, 152, 169, 225, 278

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Venice St Mark Campanile (9c)

Alternative Names: Campanile di San Marco, Sant'Erasmo

Location: Venice

Lat/Lon: 45.434, 12.339

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Ecclesiastical

Light Form: Local lanterns

Medieval Structure Exists:

Notes: Zemke places one light on the tower of the church of St. Nicholas in 1312 and another on the church of St. Erasmus in 1350. Venice maintained several regulated night-signals for the lagoon entrances. The Capitularies of the Doge (14th–16th c.) refer to fanali kept burning at the Bocca di Lido, often tied to monastic guardianship at S. Nicolò. Explicit statutes for night lights relate to this site. A widely cited modern synthesis of Italian coastal lights reports that by 1321 a "faro" stood on the bell-tower of San Nicolò del Lido, described as "magnum e pulcherrimum." [Comuni Virtuosi]. It forms evidence of institutional harbour/approach light at the principal inlet, mounted on an existing vertical structure (campanile), rather than a standalone "pharos." See p238.

References: Zemke, p26; Stevenson, p18; Manfredini and Pescara, 1985; *Statuti veneziani*, esp. the *Capitolare dei Signori di Notte al Porto* (ed. Luzzatto, 1931); Concina, G.: *L'Arsenale di Venezia*, Milan 1984; Di Domenicantonio, Rosa: *Linee guida per il riuso dei fari costieri*. PDF (2018). (For the reported 1321 San Nicolò light and c.1350 Sant'Erasmo light.) (Comuni Virtuosi); Marina Militare: *Servizio Fari e Segnalamento Marittimo* (official pages and individual aid listings, incl. Canale di San Nicolò). (marina.difesa.it); Predelli, Riccardo, and Adolfo Sacerdoti, eds: *Gli statuti marittimi veneziani fino al 1255*. Venice, 1903 (digitized listing); "Sailing in the Venice lagoon" (overview noting briccole as a core navigation-signage medium). (meetingvenice.it)

AL References: 50, 152, 169, 225, 278

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Venice St Mark Campanile (9c)

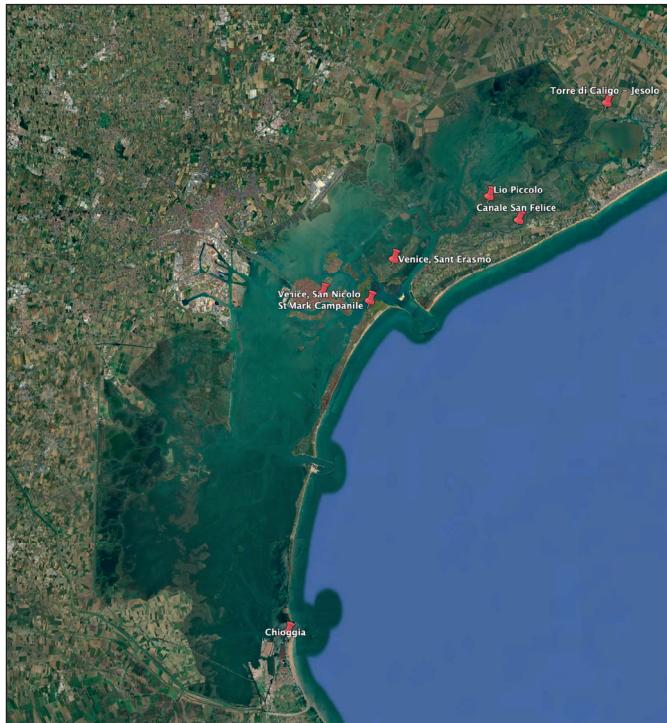
Alternative Names: Campanile di San Marco, Sant'Erasmo

Location: Venice

Lat/Lon: 45.434, 12.339

Modern Lighthouse On Site: No

Ecclesiastical: Yes



Light Function: Ecclesiastical

Light Form: Local lanterns

Medieval Structure Exists:

Notes: Venice's pre-1700 maritime lighting should be approached as a system: any fixed "lighthouse" claims sit within a wider lagoon regime of approach management via multiple signals and channel markers. A commonly repeated modern statement places a "magnum et pulcherrimum" light at the top of the campanile of San Nicolò del Lido by 1321 and a smaller light near Sant'Erasmo by 1350, but these dates require primary-source verification, because the widely circulated summaries that preserve the wording do not themselves furnish a precise medieval archival reference. The institutional setting of San Nicolò—immediately beside the principal northern inlet—remains crucial, and modern archival scholarship on the monastery indicates relevant ASVe holdings for pursuing documentary confirmation of any light, custody, or maintenance arrangements.

AL References: 50, 152, 169, 225, 278

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Canale San Felice

Alternative Names: Lio Piccolo

Location: Roman Tower of Canal de San Felice, near Lio Piccolo, Venice

Lat/Lon: 45.47473, 12.45977

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: Venice was certainly the location for a number of medieval lighthouses, but a Roman lighthouse built specifically for this canal is considered a possibility. There is no firm evidence of a light maintained before c1100. See text p238ff.

References: Hague (1974), p11; Giardina (2010), p84-85.

AL References: 278

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 2

Torre di Caligo (-30)

Alternative Names: Jesolo, Turris di Piave, Equilum, Turris Caligo, Turris Caliginis

Location: Jesolo

Lat/Lon: 45.544, 12.599

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Built structure with brazier

Medieval Structure Exists: Yes

Notes: Remains of an old Roman tower exist near Jessolo, inland on a section of river-canal. Giardina believes there was a network of these towers along these inland waterways. See text p238ff.

References: Dorigo, W.:Venezie Sepolte Nella Terra Del Piave, Duemila Anni Fra Il Dolce E Il Salso, Rome (1994); Giardina (2010), p84; Pliny the Elder: The Natural History 3, 22.

AL References: 278

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Grado (14-15c)

Lat/Lon: 45.6822, 13.3774

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Lagoon entry

Light Form: Local lanterns

Medieval Structure Exists: No

Notes: The light marking the entrance to the lagoon was almost certainly shown by clerics from the monastic complex. The campanile of the Basilica of Sant'Eufemia (6th c., with medieval modifications) is the strongest candidate for this early light. Its height and coastal visibility match the pattern of ecclesiastical towers doubling as navigational marks in the Middle Ages (similar to San Marco in Venice and the Lanterna's early religious phase in Genoa).

References: Caniato, Aldo: *Fari e segnalazioni marittime nella Laguna di Venezia*. Venice: IRE, 1985. Discusses lagoon approaches including Grado/Marano beacon traditions; Dorigo, Wladimiro: *Venezia Romanica*. Venice: Electa, 1990. Notes ecclesiastical towers used as navigation marks; Pavoni C: *Il litorale gradese nel Medioevo* (Venice, 1968); Tenenti, A.: *Venezia e il senso del mare* (Venice, 1996), 45–47.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: Yes; Genoese: Yes; Ottoman: No; Islamic: No; Local: No; Activity Index: 2

Tergeste (-330)

Alternative Names: Tergesteo

Location: Trieste, near the Roman theatre.

Lat/Lon: 45.64914, 13.75596

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: A strong candidate for the site of a lighthouse, but the archaeological proof is missing because of later building over the location. Nevertheless, it is considered that a Roman lighthouse stood on the site of the present Lanterna.

References: Paglia, Alessandro: *La Lanterna - Trieste Sono Io*, Trieste, Assicurazioni Generali, (1997) p116.;

AL References: 278

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No;

Activity Index: 0

Slovenia

Cape Madona (14c, 1871)

Alternative Names: Punta di Pirano, Piran

Lat/Lon: 45.5302, 13.5633

Modern Lighthouse On Site: Yes (1871)

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: A promontory beacon is listed in 14th–16th-c. Ragusan and Venetian sailing directions which mention the “punta di Pirano” as a night reference; a fire-beacon is inferred from municipal statutes that assign duties to fishermen’s guilds to maintain guide fires.

References: *Statuto di Pirano* (14th c.). In *Statuti dell’Istria medievale*, edited by Sergio Tavano. Trieste: Deputazione di storia patria, 1980. Contains references to obligations for maintaining coastal fires; Campbell,

Tony: “Portolan Charts from the Late Thirteenth Century...” in *Imago Mundi* 38 (1986).

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: No; Local: No; Activity Index: 2

Croatia

Cape Savudrija

Alternative Names: Bassanija, Bassania

Lat/Lon: 45.49, 13.491

Modern Lighthouse On Site: Yes (1818)

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Beacon fires

Medieval Structure Exists: No

Although the present Savudrija lighthouse dates to 1818, multiple strands of evidence suggest that Savudrija Cape (Punta Salvore) functioned as a light-bearing site well before 1700. Venetian pilot books (*portolani*) from the fifteenth and sixteenth centuries repeatedly emphasise the cape as a critical turning point for vessels entering the northern Adriatic, particularly at night or in reduced visibility. While the sources speak cautiously—often describing “fires” (*fuochi*) rather than towers—this is consistent with maintained beacon lighting, likely seasonal but recurrent, possibly associated with a watchtower or monastic presence. The strategic importance of the cape for traffic bound to Venice makes the sustained use of a navigational fire not only plausible but operationally likely.

References: Lane, Frederic C. *Venice: A Maritime Republic*. Baltimore: Johns Hopkins University Press, 1973. For Venetian maritime administration and coastal infrastructure; Krekić, Bariša. *Dubrovnik in the 14th and 15th Centuries: A City between East and West*. Norman: University of Oklahoma Press, 1972. For Ragusan port governance, statutes, and maritime practice; Kozličić, Mithad. *Istočni Jadran u djelu Beaupréa*. Split: Književni krug, 1995. For continuity of navigational sites and earlier practices along the eastern Adriatic. Tenenti, Alberto. “Piracy and the Decline of Venice, 1580–1615.” *Journal of Economic History* 21, no. 2 (1961): 199–216. For night navigation, convoy systems, and coastal security assumptions; Šundrica, Zdravko. “Pomorsko pravo Dubrovačke Republike.” *Analji Zavoda za povijesne znanosti HAZU u Dubrovniku* 25 (1987): 7–56. Explicitly addresses Ragusan legal treatment of harbour safety and navigation.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 3



桅杆 Parentium (1403)

Alternative Names: Julia Parentium, St Nicholas Tower

Location: Porec

Lat/Lon: 45.22493, 13.58297

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Cylindrical stone tower with lanterns

Medieval Structure Exists: Yes

Notes: The stone tower on the islet of St Nicholas (Torre di San Nicolò) at the entrance to the harbour of Poreč should be understood as a Venetian harbour navigation tower rather than a purely defensive structure. Constructed after Poreč entered stable Venetian control in 1267 and generally dated on architectural grounds to the late fourteenth or early fifteenth century, the tower occupies a deliberately isolated offshore position aligned with the navigable channel into the port. Its location, masonry construction, and visual prominence correspond closely to a well-established Venetian typology of harbour seamarks in the Adriatic, in which towers served simultaneously as daymarks,

signalling points, and—on an episodic basis—beacon platforms. While no evidence survives for a permanent lantern or optical apparatus before the modern period, comparative Venetian practice strongly suggests the use of open fire beacons or temporary lights during night arrivals, convoys, or adverse weather. The dedication to St Nicholas, patron saint of sailors, further reinforces the tower's maritime function. Within the pre-1700 navigational landscape, the St Nicholas Tower thus represents an intermediate form between medieval beacon towers and later purpose-built lighthouses, forming part of Venice's integrated system of harbour control, maritime signalling, and navigational safety in the northern Adriatic.

References: Giardina (2010), p80-81. Cosmacini, Giorgio. Fari, torri e segnalamenti marittimi dell'Adriatico. Venice: Marsilio, 1997. On Adriatic maritime signalling. Especially useful for classifying harbour towers as navigational seamarks even where permanent lanterns are absent; Concina, Ennio: Pietre, parole, storia: glossario della costruzione nelle fonti veneziane (secoli XI-XVIII). Venice: Marsilio, 1988. Essential for Venetian

terminology (torre, segno, fanale, faro), clarifying that navigation and defence were not rigidly separated in administrative language. Lane, Frederic C: *Venice: A Maritime Republic*. Baltimore: Johns Hopkins University Press, 1973. Contextual reference for Venetian harbour administration and maritime infrastructure; supports the institutional framework within which towers like Poreč operated.

AL References: 279

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 2

Rovinj (14c)

Alternative Names: Rovigno

Location: St Euphemia Church on the headland

Lat/Lon: 45.0832, 13.63108

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Ecclesiastical

Light Form: Local lanterns

Medieval Structure Exists: No

Notes: This appears to have been a Church-mounted lantern or open brazier. Rovinj's hilltop basilica is noted in early modern pilot books as visible "by day and night." Though explicit lighthouse documents are lacking, Venetian harbour orders (16th c.) refer to "fuochi di Rovigno." Rovinj's elevated peninsula and reef-fringed approaches make intermittent beacon or watch fires highly plausible in the medieval period, and its dominant ecclesiastical sites would have been well suited to occasional devotional illumination. Nevertheless, no medieval civic or ecclesiastical source attests to a maintained navigational or ecclesiastical light, and any fires must be understood as local, episodic signals rather than institutional harbour lighting. Rovinj is stronger than Parentium in terms of plausibility, but it still belongs to the category of: tradition and topography without documentation.

References: Archivio di Stato di Venezia (ASVe), Senato Mar, reg. 16 (1560s); Coronelli, Vincenzo: *Portolano del Mare* (Venice, 1690s).

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Pula (14c)

Alternative Names: Nesactium, Pola

Location: Fort Punta Cristo

Lat/Lon: 44.8921, 13.7976

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: Defensive beacons were at the harbour entrance. Roman and Byzantine navigation into Pula's deep harbour is well attested; by Venetian rule (from 1331), fanali at the entrance appear in port regulations. The fortification line (later Forte Punta Cristo) almost certainly housed a night-fire. However, Pula (ancient Pola), despite its major Roman harbour and continued medieval occupation, is not documented as hosting a maintained medieval navigational or ecclesiastical light. While temporary harbour or watch fires are plausible both in Roman and medieval contexts, no evidence attests to institutionalised illumination or continuity of a lighthouse tradition.

References: Ivetic, Egidio: *L'Istria nel Medioevo*. Venice: Viella, 2019. ASVe, Provveditori da Mar, b. 54 (14th–16th c. references to "fanali" at Pola harbour mouth).

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 3

Osor (15c)

Alternative Names: Lošinj, Apsorus

Location: Osor (Cherso/Lošinj channel

Lat/Lon: 44.6986, 14.3929

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Ecclesiastical

Light Form: Local lanterns

Medieval Structure Exists: No

Notes: The narrow strait required signals for night passage; 16th-c. maps mark "fuoco" symbols. Osor statutes also mention lights for ship-passage fees. The light was probable maintained with ecclesiastical management. Osor (Apsorus), commanding the narrow channel between Cres and Lošinj, occupied a decisional choke point in Adriatic navigation and is therefore a strong candidate for intermittent beacon or channel lights in the medieval period. Its episcopal status makes occasional ecclesiastical illumination plausible; however, no surviving medieval civic or church source attests to a maintained navigational light, institutional provisioning, or permanent duty, and any lighting must be understood as episodic and locally regulated rather than formally institutionalised.

References: Statuti di Osor (15th c.), in *Statuti delle città dalmate e istriane*, ed. L. Mascitti. Padua: Antenore, 1983. Includes references to night regulations for navigational passage; Homem, Diogo. *Atlas* (1559–62). Flame symbols at Osor channel.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Punta Silo (16c, 20c)

Alternative Names: Krk, Veglia
Location: Svjetionik
Lat/Lon: 45.157, 14.669
Modern Lighthouse On Site: Yes (20c)
Ecclesiastical: No
Light Function: Waypoint/Landfall
Light Form: Beacon fires
Medieval Structure Exists: No

Notes: Venetian convoy regulations of the mid-sixteenth century specify Silo as a nighttime approach point, referring explicitly to "il fuoco di Silo" in sailing instructions. This evidence confirms a regulated early modern approach light associated with state-organised convoy navigation, but does not in itself demonstrate medieval continuity or ecclesiastical lighting at the site.
References: ASVe: *Mariegole dei Patroni delle Navi*, reg. 7 (mid-16th c.). Convoy instructions citing "il fuoco di Silo".

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Cape Sorinj (1500)

Alternative Names: Sorinj Rt
Location: Rab
Lat/Lon: 44.8442, 14.6872
Modern Lighthouse On Site: No
Ecclesiastical: Yes
Light Function: Waypoint/Landfall
Light Form: Beacon fires
Medieval Structure Exists: No

Notes: A night-fire marking passage past Cape Sorinj is repeatedly indicated by a flame symbol on sixteenth-century nautical charts, including those of Diogo Homem and Battista Agnese (e.g. Agnese, Portolan Atlas, c. 1540–1560), suggesting a recognised coastal light by the early modern period. While this cartographic evidence asserts established use in the sixteenth century, it does not in itself demonstrate medieval origin or institutional continuity, and the light is best understood as a coastal passage or warning fire rather than a monumental lighthouse. A night- fire for coastal sailing past the Sorinj peninsula is repeatedly shown with a flame-symbol on 16th-c. nautical charts from at least 1500s and the presence of a chapel of St Nicholas further suggests early assistance to mariners.

References: Agnese, Battista: *Portolan Atlas* (c. 1540–1560); Gelcich, Josip: *La Dalmazia*: Zara: Tip. Battara, 1888. Compiles numerous archival references

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Cape Grujica (14-16c, 1873)

Alternative Names: Grujica Rt, Mljet
Location: Islet of Grujica
Lat/Lon: 44.4096, 14.5691
Modern Lighthouse On Site: Yes (1873)
Ecclesiastical: Yes
Light Function: Ecclesiastical
Light Form: Local lanterns
Medieval Structure Exists: No

Notes: Cape Grujica is associated with the use of fire beacons functioning as navigational aids, rather than with a purpose-built tower. The site's exposure and coastal position make it well suited to night coasting, and reports of ecclesiastical involvement suggest that illumination was maintained as a charitable or protective practice for mariners. Although precise documentation is lacking, the evidence strongly supports a late medieval (fourteenth–fifteenth-century) presence for one of the clearest eastern Adriatic examples of medieval ecclesiastical beacon lighting used in coastal navigation.
References: Ragusan Archival letters

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Zadar (11c, 13-15c, 1869)

Alternative Names: Diadora, Zara, Roman: Iadera; Ostri Rat, Cape Puntamica
Location: Zadar
Lat/Lon: 44.13, 15.2044
Modern Lighthouse On Site: Yes Ostri Rat (1869)
Ecclesiastical: No
Light Function: Harbour light
Light Form: Local fires and lanterns
Medieval Structure Exists: No

Notes: An ancient settlement from 3000 BCE, it was inhabited first by people called Liburnians. Zadar was laid out around 850 BCE and the people became known as Illyrians, a great seafaring people. A fortified Byzantine/ Venetian port, there is a well documented story of a lighthouse here. A harbour light was maintained municipally from the late 13th c and it probably existed well before in the Byzantine period. With many islands to negotiate into the port, some navigational assistance would have been vital. Zadar represents a pivotal centre for medieval Adriatic navigational lighting, where fire beacons and lamps functioned as practical aids to night coasting rather than as monumental structures. The city's dense island approaches, sustained maritime traffic, and exceptional ecclesiastical capacity support the use of navigational fires by the high to late Middle Ages (thirteenth–fifteenth centuries). Illumination at Zadar is best understood as a distributed system of harbour, route, and ecclesiastical lights, later formalised

under early modern Venetian administration. Zadar is the conceptual centre of eastern Adriatic lighting where fire becomes infrastructure, and the ecclesiastical hub that makes medieval navigational lighting normal rather than exceptional.

References: Stevenson p2; Zemke p16, 22, 23; Hague & Christie p2; Procopius, De Aedificiis IV.6; Statuta Iadrensis Civitatis (1305); Venetian ASV Senato Mar 1294; Šeparović, "Zadarska luka i fanal," Vjesnik za arheologiju i historiju dalmatinsku 61 (1968); Farioli Campanati, I fari veneziani dell'Adriatico (1990); ASVe, Capitoli del Porto di Zara (16th c.), esp. fol. 23r: "il fanale di Puntamicha." Coronelli, Vincenzo. Isolario (1697).

AL References: 279

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 4

Sukošan (14-15c, 20c)

Alternative Names: Podvare

Location: Sukošan

Lat/Lon: 44.0457, 15.3009

Modern Lighthouse On Site: Yes (20c)

Ecclesiastical: Yes

Light Function: Harbour light

Light Form: Local lanterns

Medieval Structure Exists: No

Notes: Sukošan, facing the island-dense approaches south of Zadar, is well suited to the use of fire beacons as navigational aids for night coasting. The site's sheltered bay and visibility within the Zadar archipelago make such lighting functionally credible from the late medieval period (fourteenth–fifteenth century). Given the strong ecclesiastical framework of the Zadar hinterland, illumination at Sukošan may reasonably be associated with ecclesiastical practice, maintained as a protective or charitable aid to mariners rather than as a structural lighthouse. Appears in several Derroteros and Portolani of the 16th–17th c. as a flame symbol, implying a local fire-beacon maintained by the community.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Šibenik (11-15c)

Location: Šibenik

Lat/Lon: 43.735, 15.895

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Harbour light

Light Form: Built structure with brazier

Medieval Structure Exists: No

Notes: The harbour grew in importance with Venetian

influence from the 11th c to the early 15th. Nearby monastic sites may have provided ecclesiastical support. Šibenik, commanding the narrow and complex entrance to the Krka estuary, is a strong candidate for the use of fire beacons as navigational aids rather than structural lighthouses. The channelised approach makes night-time fire signals functionally necessary, and the town's ecclesiastical and communal institutions support the maintenance of such lighting by the late medieval period (fourteenth–fifteenth centuries). Illumination here is best understood as channel-focused, situational fire use, likely framed in part by ecclesiastical responsibility for the protection of mariners. Šibenik confirms that fire beacons scale with navigational constraint, not just traffic volume. Here, ecclesiastical lighting is embedded within urban–channel control. Šibenik is where fire becomes channel infrastructure.

References: Bačić, Vjekoslav: Povijest Šibenika, vol. 1. Šibenik: Muzej Grada Šibenika, 2004. Discusses Venetian harbour regulations on lights; ASVe, Provveditori da Terra e da Mar, files from 15th–16th c.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: No; Local: No; Activity Index: 3

St Nicholas Fortress (1412, 1547, 20c)

Location: Šibenik

Lat/Lon: 43.722, 15.854

Modern Lighthouse On Site: Yes (20c)

Ecclesiastical: Yes

Light Function: Island - Waypoint

Light Form: Fortified structure

Medieval Structure Exists: No

Notes: A light structure was probably built as part of a fortress on St Nicholas Island at the entrance to the channel leading to Šibenik during the prominence of the Venetian era from around 1412. The site of St Nicholas at the entrance to the Šibenik channel represents one of the strongest eastern Adriatic cases for navigational fire use framed by ecclesiastical meaning. A fire shown here would have functioned directly as a channel-alignment aid for night sailing, independent of later fortification. The maritime dedication to St Nicholas supports an ecclesiastical association with protective illumination, and such fire use is plausibly assignable to the late medieval period (fourteenth–fifteenth centuries), later formalised within early modern defensive structures. This is one of the clearest medieval Adriatic examples of saint-centred navigational fire practice. St Nicholas can confidently be assigned to fire beacons used as intentional navigational instruments, where ecclesiastical meaning was operational, not symbolic, and where medieval mariners navigated by flame, not by towers.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Trogir (12c, 13-15c)

Alternative Names: Trau, Čiovo

Location: Trogir

Lat/Lon: 43.516, 16.25

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Harbour light

Light Form: Local lanterns

Medieval Structure Exists: No

Notes: A significant port, though less so than Split and Zadar, it became increasingly important in later centuries under the Venetians and probably used harbour lights.

Early modern pilot books give a headland light with "the fire on Čiovo" as the reference for entering the Trogir channel. Earliest lights were probably ecclesiastical. Trogir, occupying a narrow island channel between the mainland and Čiovo, is a strong candidate for the use of fire beacons and lamps as navigational aids in medieval night coasting. The confined approaches make flame-based alignment functionally necessary, and the town's dense ecclesiastical presence supports ecclesiastical involvement in protective illumination. Such lighting is plausibly assignable to the high to late Middle Ages (thirteenth–fifteenth centuries) and should be understood as a channel-oriented practice rather than as a structural lighthouse. Trogir is a positive, mature case because fire was used as navigational technology with ecclesiastical agency and shows that flame-based navigation was embedded in urban–channel systems, not confined to isolated beacons. The monastic foundations on adjacent Čiovo, situated along active coastal sailing routes south of Trogir, provide a strong context for ecclesiastical navigational lighting by means of lamps or fire beacons. Their shoreline locations, regular nocturnal routines, and charitable obligations toward travellers make such illumination functionally and institutionally credible by the late medieval period (fourteenth–fifteenth centuries). These lights are best understood as route-confirmation aids integrated into the Trogir–Čiovo channel system rather than as independent harbour lighthouses. Čiovo shows that in this region ecclesiastical lighting was distributed, not centralised, and that fire and lamp use scaled with monastic geography, not urban grandeur. Medieval navigation relied on networks of flame, not isolated towers.

References: Faričić, Josip: "Historical Geography of Navigation in Dalmatia." *Geoadria* 17 (2012); Anonymous Venetian pilot book: *Portolano Veneto*, ms. Biblioteca Nazionale Marciana, Venice, It. Cl. VII, 2776.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek

Classical: No; Roman: No; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Salona (-330, 4-7c)

Alternative Names: Salonai, Salona

Location: Solin, near Split

Lat/Lon: 43.5395, 16.4833

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires and lanterns

Medieval Structure Exists: No

Notes: An important Roman port, Giardina considers that it must have had a lighthouse but the precise site is unknown. A large important port in the 4th and 5th c. it was sacked in the 7th c. and largely abandoned so its importance was greatly diminished.

References: Zemke p16, 22, 23; Hague & Christie p2; Giardina (2010), p79-80. Strabo: 7.5; Caesar: Guerre Civile 3, 8; Antonine Itinerary.

AL References: 279

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 1

Split (1000)

Alternative Names: Spalatum, Spalato, Sustipan, Marjan

Location: Split

Lat/Lon: 43.501, 16.4264

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Harbour light

Light Form: Built structure with brazier

Medieval Structure Exists: No

Notes: Split was both a commercial and an ecclesiastical hub and there is a good chance it showed harbour lights at some point from 1000 onwards. It was a major Dalmatian port by the 13th c. The Benedictine presence on Sustipan, plus repeated textual hints in Venetian orders to "the light at Spalato," point to an ecclesiastical lantern. Late Roman fortified palace with seaward towers used as seamarks but there seems to be no evidence they were lit at night. Split represents a major centre of medieval navigational fire use, where shoreline fires and ecclesiastically maintained lamps functioned as practical aids to night coasting rather than as structural lighthouses. The city's nodal position among island routes, reuse of Roman waterfront visibility, and strong archiepiscopal institutions support the use of such lighting by at least the high Middle Ages (twelfth–thirteenth centuries), continuing into the later medieval period as part of a distributed system of urban and ecclesiastical illumination.

References: Novak, Grga: Split u Srednjem Vijeku. Split: Čakavski sabor, 1962. On Benedictine establishments and their maritime functions; ASVe, Senato Mar, 15th–16th c. orders referencing lights at Spalato.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 2

Makarska (14-15c, 16c)

Alternative Names: Cape Osejava

Location: Makarska

Lat/Lon: 43.2887, 17.0185

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Waypoint/harbour

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Makarska, situated along an exposed coastal reach beneath the Biokovo massif and facing island-lined sailing routes, is a strong candidate for the use of fire beacons as navigational aids in medieval night coasting. Shore-based fires would have functioned to confirm position and anchorage along a visually austere coastline. The town's ecclesiastical presence supports ecclesiastically framed illumination, plausibly established by the late Middle Ages (fourteenth–fifteenth centuries) and later incorporated into early modern coastal lighting regimes. An open brazier indication appears on pilot charts of the 1500s with flame symbol. The Makarska littoral was exposed and community-maintained beacons are typical in this kind of setting.

References: Dalmatian charts

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Cape Pelegrin (14c, 20c)

Alternative Names: Hvar, Sv. Nikola

Location: Hvar

Lat/Lon: 43.1954, 16.3675

Modern Lighthouse On Site: Yes (20c)

Ecclesiastical: Yes

Light Function: Waypoint/Landfall

Light Form: Fire beacons

Medieval Structure Exists: No

Notes: One of the earliest reliably attested open-sea beacons in Dalmatia. Confirmed by Ragusan and Venetian portolani (14th–16th c.) repeatedly mention the fire on Hvar for channel navigation. Some sources even imply a maintained structure. Cape Pelegrin, marking the western extremity of Hvar and overlooking dense island sailing routes, is a strong candidate for the use of fire beacons as navigational aids in medieval night

coasting. A flame shown here would have provided long-range orientation and confirmed approach to the Hvar island system. Given Hvar's ecclesiastical density and maritime importance, such illumination may reasonably be associated with ecclesiastically framed practice, plausibly established by the late medieval period (fourteenth–fifteenth centuries) and later formalised in early modern navigation. Cape Pelegrin demonstrates that navigational fire use scaled with island complexity. Ecclesiastical lighting extended to outer headlands, not just towns, and medieval sailors relied on anticipatory fires, not just harbour lights. It is one of the clearest island-cape examples.

References: Milesi, Frano: Povijest otoka Hvara. Hvar: Matica Hrvatska, 1975; Ragusans: Liber Viridis (14th c.), Dubrovnik State Archives. Lists night- signals related to Hvar approaches.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: No; Local: No; Activity Index: 2

Hvar (14-15c)

Location: Hvar

Lat/Lon: 43.1723, 16.4408

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Local fires

Medieval Structure Exists: No

Notes: Hvar town functioned as a major archipelagic navigational hub, where shoreline fires and ecclesiastically maintained lamps served as practical aids to night coasting through the Pakleni island approaches. The density of maritime traffic, the complexity of island passages, and the town's strong ecclesiastical institutions support the use of such lighting by the high to late Middle Ages (thirteenth–fifteenth centuries). Illumination at Hvar is best understood as a distributed system of urban and ecclesiastical lights, rather than as a single structural lighthouse. Hvar shows how island navigation relied on fields of flame, not isolated towers

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Jelsa Tor (-384, 14-15c)

Alternative Names: Pharos, Hvar, Stari Grad

Location: Jelsa

Lat/Lon: 43.15139, 16.69134

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Waypoint/Landfall

Light Form: Fire beacons

Medieval Structure Exists: No

Notes: The precise location of a lighthouse is uncertain but Giardina points to the site at Jelsa Tor where there are remains of a tower. The area around Stari Grad was settled by the neolithic tribes of the Hvar culture between 3500 and 2500 BCE. In 384 BCE, the town was formally founded by ancient Greeks from the island of Paros in the Aegean Sea who called their settlement Pharos. The tower known as Tor above Jelsa forms part of a Hellenistic-period system of elevated watchtowers associated with the Greek colony of Pharos (Stari Grad), strategically positioned for long-distance visibility across the Stari Grad Plain and the surrounding channels. Archaeological and topographic studies consistently interpret Tor, together with the nearby tower at Maslinovik, as an integrated warning and communication installation, rather than a navigational seamark intended for mariners at sea. While no excavated combustion features—such as a fixed hearth, brazier base, or stratified ash deposits—have been securely documented at Tor itself, scholars infer the use of fire and smoke signals on functional grounds. Visibility-network analysis demonstrates that the tower's placement is optimal for rapid visual transmission of alerts between inland agricultural zones and the coastal settlement, and excavation reports for the paired Maslinovik tower explicitly suggest warning signals “by fire, smoke, or sound.” The evidence therefore supports the conclusion that Tor functioned as a land-based signal station employing episodic fire or smoke beacons, most likely for defensive or administrative communication, rather than as a harbour beacon or lighthouse in the maritime sense. Its inclusion in lighthouse histories is thus only justified within a broader discussion of pre-optical signalling systems, not as part of navigational infrastructure.

References: Polybius: Hist 2, 19; Gaffney, Vincent, and Hrvoje Stančić: GIS Approaches to Regional Analysis: A Case Study of Hvar. Oxford: Archaeopress, 2016, esp. discussion of Tor–Maslinovik intervisibility and probable warning by fire or smoke; Kirigin, Branko: “The Greek Towers of the Stari Grad Plain.” In Pharos and the Chora of the Adriatic, edited by Branko Kirigin et al., Split: Archaeological Museum Split, 2006; Ewald, Heinrich: “Leuchtfeuer und Seezeichen im Mittelalter.” Deutsches Archiv für Erforschung des Mittelalters 42 (1986): 1–38 (for comparative signalling practices and the absence of permanent lighting installations).

AL References: 279

Antiquity: Yes; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 3

■ + *Cape Stupišće (13-15c, 16c)*

Alternative Names: Lissa, Vis

Location: Lis

Lat/Lon: 43.0068, 16.0718

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Waypoint/Landfall

Light Form: Fire beacons

Medieval Structure Exists: No

Notes: Cape Stupišće on Vis (Lissa), marking a decisive landfall after open-sea crossings, is a particularly strong candidate for the use of fire beacons as navigational aids. A flame shown here would have provided long-range orientation and confirmation of arrival, independent of any built structure. Given Vis's offshore position and ecclesiastical continuity, such lighting may reasonably be associated with ecclesiastically framed practice, plausibly established by the high to late Middle Ages (thirteenth–fifteenth centuries) and later stabilised in early modern navigation. Cape Stupišće demonstrates with unusual clarity that medieval navigation relied on fire at liminal points, ecclesiastical lighting extended beyond coasts to offshore islands and the most important lights were often those furthest from ports. In many ways, Stupišće is the eastern Adriatic analogue of Pantelleria, but with much stronger ecclesiastical and medieval grounding.

References: Homem, Diogo: *Atlas Nautico* (1559) — symbols for lights; Faričić, Josip: “Navigational Marks of the Dalmatian Coast,” in *Acta Geographica Croatica* 45 (2010).

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

■ + *Korčula (15c)*

Alternative Names: Curzola, Proizd, Raznjic

Location: Otocic

Lat/Lon: 42.9833, 16.6072

Modern Lighthouse On Site:

Ecclesiastical: Yes

Light Function: Waypoint/Landfall

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Beacons were shown from both ends of this hazardous channel. Venetian naval itineraries (15th–16th c.) list “fuochi di Curzola.” Early charts show flame symbols at both ends of the island. Korčula town, projecting into the Pelješac Channel and embedded in dense island sailing routes, represents a strong case for medieval navigational lighting by means of fires and ecclesiastically maintained lamps. Shoreline and elevated lights would have functioned as recognition and alignment aids for night coasting, integrated with offshore beacons such as Proizd. Given the town's

maritime importance and ecclesiastical capacity, such illumination is plausibly assignable to the high to late Middle Ages (thirteenth–fifteenth centuries) and later formalised in early modern navigation. Korčula town is a core example showing fire as navigation and ecclesiastical support.

References: Canepari, Luciano: "Cartografia marina veneziana." *Bollettino dell'Atlante Marittimo Italiano* 12 (1994); Venetian naval itinerary: ASVe, Capitani del Golfo, reg. 4 (15th c.), references to "fuochi di Curzola."

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: No; Local: No; Activity Index: 2

Raznjic (14-15c 16c, 20c)

Location: Korčula, Corzola

Lat/Lon: 42.91734, 17.20171

Modern Lighthouse On Site: Yes (20c)

Ecclesiastical: Yes

Light Function: Waypoint/Landfall

Light Form: Fire beacons

Medieval Structure Exists: No

Notes: Beacons were shown from both ends of this hazardous channel. Venetian naval itineraries (15th–16th c.) list "fuochi di Curzola." Early charts show flame symbols at both ends. Ražnjić (Rt Ražnjić), marking the eastern approaches toward Dubrovnik, is a strong candidate for the use of fire beacons as navigational aids in medieval night sailing. A flame shown here would have functioned as a threshold and alignment marker for vessels arriving from offshore island routes. Given the dense ecclesiastical landscape of the Ragusan hinterland, such illumination may reasonably be associated with ecclesiastically framed practice, plausibly established by the late medieval period (fourteenth–fifteenth centuries) and later formalised in early modern navigation.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: No; Local: No; Activity Index: 2

Cape Struga (1310, 14-15c, 1851)

Alternative Names: Lastovo, Struga Rt

Location: Lastovo

Lat/Lon: 42.7242, 16.8846

Modern Lighthouse On Site: Yes (1851)

Ecclesiastical: Yes

Light Function: Waypoint/Landfall

Light Form: Fire beacons

Medieval Structure Exists: Yes

Notes: A medieval beacon is almost certain here where Lastovo's long maritime autonomy included lighthouse/ beacon duties in local statutes. The cape is consistently marked with a fire symbol on early charts.

The island possessed monastic sites that supported watchkeeping duties. Cape Struga on Lastovo, marking a decisive offshore landfall on central Adriatic sailing routes, is a particularly strong candidate for the use of fire beacons as navigational aids. A flame shown here would have provided long-range orientation and confirmation of arrival after open-sea crossings. Given Lastovo's ecclesiastical continuity and maritime role, such illumination may reasonably be associated with ecclesiastically framed practice, plausibly established by the late medieval period (fourteenth–fifteenth centuries) and later stabilised in early modern navigation. Cape Struga is a clear indication that the most critical medieval lights were often offshore and non-urban, and that ecclesiastical lighting extended to the edges of the navigable world. Medieval mariners relied on trusted landfall fires, not monumental towers. Together with Stupišće (Vis) and Mljet, Struga completes a coherent offshore Adriatic fire network.

References: Statuti di Lastovo (1310), Dubrovnik State Archives. Local obligations for fire-watch and navigation signals; Coronelli, Isolario: map of Lagosta (late 17th c.)

Antiquity: No; Phoenician: No; Greek Colony: No; Greek

Classical: No; Roman: No; Byzantine: No; Venetian: No;

Genoese: No; Ottoman: No; Islamic: No; Local: No;

Activity Index: 0

Grebni (1272, 14-16c, 1872)

Alternative Names: Oštra

Location: Dubrovnik

Lat/Lon: 42.6516, 18.0479

Modern Lighthouse On Site: Yes (1872)

Ecclesiastical: Yes

Light Function: Island waypoint

Light Form: Beacon fires

Medieval Structure Exists: Yes

Notes: The Grebeni reefs west of Dubrovnik, lying directly in the approaches from open sea, are a strong candidate for the use of fire beacons as navigational aids marking immediate hazard and alignment. A flame shown here would have functioned as a reef-warning and positional light for vessels approaching the city at night. Given Dubrovnik's institutional and ecclesiastical capacity, such lighting is plausible for the late medieval period (fourteenth–fifteenth centuries) and may be understood as part of an ecclesiastically sanctioned approach-lighting system. Here was a structured light or managed brazier. Evidence comes from the Statutes of Dubrovnik (1272) that include requirements for night signals at the approaches; Ragusan archival letters (14th–16th c.) refer to "the lights of Oštra" and "Grebeni fires."

References: Statuta Ragusina (1272), ed. V. P. Štefanić. Zagreb: JAZU, 1952. Explicit requirements for night signals at the approaches; Gelcich, Giuseppe: La

Repubblica di Ragusa. Trieste: Seitz, 1880.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 0

Daksa (14-15c, 1876)

Lat/Lon: 42.67027, 18.05579

Modern Lighthouse On Site: Yes (1876)

Ecclesiastical: Yes

Light Function: Waypoint/Landfall

Light Form: Fire beacons

Medieval Structure Exists: No

Notes: The island of Daksa, positioned on the western approaches to Dubrovnik, should be understood as part of the Ragusan Republic's outer maritime signalling system rather than as a harbour lighthouse in the technical sense. From the Middle Ages, the island hosted an ecclesiastical community whose permanent presence made it well suited to coastal observation and the maintenance of episodic signal fires or lights. Although no medieval lantern structure or fixed beacon installation has been archaeologically identified, comparative Ragusan practice and documentary emphasis on offshore warning strongly support the interpretation of Daksa as a monastically managed signal station. Like other ecclesiastical light sites in the Dubrovnik area, Daksa illustrates the close integration of religious communities into maritime safety and defence, operating through situational illumination and visual signalling rather than continuous navigational lighting.

References: Harris, Jonathan: *Dubrovnik: A History*. London: Saqi, 2003; Lane, Frederic C: *Venice, A Maritime Republic*. Baltimore, Johns Hopkins University Press, 1973. (for comparative Adriatic practice); Ewald, Heinrich: "Leuchtfeuer und Seezeichen im Mittelalter." *Deutsches Archiv für Erforschung des Mittelalters* 42 (1986): 1–38; Čoralić, Lovorka. "Pomorski obrambeni sustav Dubrovačke Republike." *Analji Zavoda za povijesne znanosti HAZU u Dubrovniku* 38 (2000): 57–92.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: No; Activity Index: 2

Dubrovnik (13-17c)

Alternative Names: Ragusa

Location: Dubrovnik

Lat/Lon: 42.649, 18.11

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Built structure with brazier

Medieval Structure Exists: No

Notes: Dubrovnik became a wealthy maritime republic

from the 13th c. and has a well documented history of providing harbour lights along with Zadar and Kotor. Dubrovnik represents the most fully developed medieval Adriatic example of navigational lighting by means of fires and ecclesiastically maintained lamps, operating as a coordinated system rather than a single structure. Harbour-facing fires, elevated approach lights, and monastic illumination from such exposed locations as St John's Fort together provided recognition and alignment for vessels arriving after open-sea sailing. Given the city's maritime scale and institutional capacity, such lighting is applicable to the late Middle Ages (fourteenth–fifteenth centuries) and reflects the consolidation of earlier practice. Dubrovnik is where medieval fire navigation becomes strategic.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 2

Montenegro

Kotor (535, 9-13c, 14-17c, 20c)

Alternative Names: Cattaro, Acruvium

Location: Chios

Lat/Lon: 42.42617, 18.7665

Modern Lighthouse On Site: Yes (20c)

Ecclesiastical: Yes

Light Function: Harbour and Military; Ecclesiastical assistance

Light Form: Local lanterns and fires

Medieval Structure Exists: No

Notes: Main harbour town with medieval fortifications and port activity. Kotor, Zadar and Dubrovnik are probably the three best documented examples of medieval lights in the Adriatic Sea. Foundations of early lightstructures were used to build modern lightstructures. From Late Antiquity through the Venetian period, Kotor almost certainly employed elevated fires visible to shipping. In the early medieval centuries, these lights were probably maintained under ecclesiastical or mixed civic-clerical authority, serving both harbour safety and vigilance. Under Venetian rule, the practice continued in a more explicitly administrative and military framework. Kotor thus forms a logical northern Adriatic gateway to the Greek and Ionian worlds, illustrating the continuity of multifunctional maritime fires before the emergence of modern lighthouse systems.

References: Kovačević, "Arheološka istraživanja luke Kotor," *Glasnik Zavoda za zaštitu spomenika kulture Crne Gore* 3 (1965); Farioli Campanati, *I fari veneziani dell'Adriatico* (1990); *Statuta Civitatis Cathari* (1326–1336); ASV Senato Mar 1442; Benincasa Portolan

(1474); Horden, Peregrine, and Nicholas Purcell: *The Corrupting Sea*. Oxford: Blackwell, 2000; McCormick, Michael: *Origins of the European Economy*. Cambridge: Cambridge University Press, 2001; Nicol, Donald M: *The Byzantine Tradition after the Fall of Constantinople*. Cambridge: CUP, 1993; Whitewright, Julian. "The Mediterranean Sea and the Medieval Mariner." *Journal of Maritime Archaeology* 6 (2011): 1–24.

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: No; Local: Yes; Activity Index: 5

Antivari (9-13c, 15-16c intermittent)

Alternative Names: Bar

Location: Bar

Lat/Lon: 42.08229, 19.0831

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Ecclesiastical then Military

Light Form: Local lanterns and fires

Medieval Structure Exists: No

Notes: Shown from the old town headland, this was a watch-fire with maritime utility. Venetian sources during their brief occupations reference "the fire above Antivari." At Antivari (Bar), the use of fire as a coastal marker almost certainly predates the modern period, though it never crystallised into a purpose-built lighthouse. From the early Middle Ages, the site's prominent ecclesiastical status makes it likely that church-supervised fires were maintained on elevated points for watchfulness and maritime orientation. In later centuries, these practices were absorbed into Venetian and Ottoman signalling systems, without a sharp functional break. Bar thus represents a transitional Adriatic node, where ecclesiastical, civic, and military uses of light overlapped before the Greek world proper is reached.

References: ASVe, *Provveditori d'Albania*, 1479–1500 segments; Spahić, N: *Pomorska karta istočnog Jadrana* (Maritime Cartography of Eastern Adriatic); Sarajevo: Veselin Masleša, 1986; Fine, John V. A: *The Early Medieval Balkans*. Ann Arbor: University of Michigan Press, 1983; Horden, Peregrine, and Nicholas Purcell. *The Corrupting Sea*. Oxford, Blackwell, 2000; McCormick, Michael: *Origins of the European Economy*. Cambridge: CUP, 2001; Nicol, Donald M. *Byzantium and Venice*. Cambridge: CUP, 1988; Whitewright, Julian: "Maritime Landscapes of the Medieval Adriatic." *Journal of Maritime Archaeology* 9 (2014): 1–23.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 6

Cape Mendra (16c, 1886)

Alternative Names: Dulcigno, Ulcinj

Location: Ulcinj

Lat/Lon: 41.9215, 19.2054

Modern Lighthouse On Site: Yes (1886)

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: This Coastal beacon appears in Derroteros and Venetian pilot books as a night reference.

References: *Derrotero del Mediterráneo*, ed. Hydrographic Directorate, Madrid, 16th–17th c. MSS. Frequent references to "fuego en Mendra".

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: No; Islamic: Yes; Local: No; Activity Index: 2

Albania

Dyrrachium (-750, 9c)

Alternative Names: Durrës, Dyrrachio, Epidamnos, Durazzo, Cape Pali

Location: Durres

Lat/Lon: 41.3097, 19.4469

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour light

Light Form: Built structure with brazier

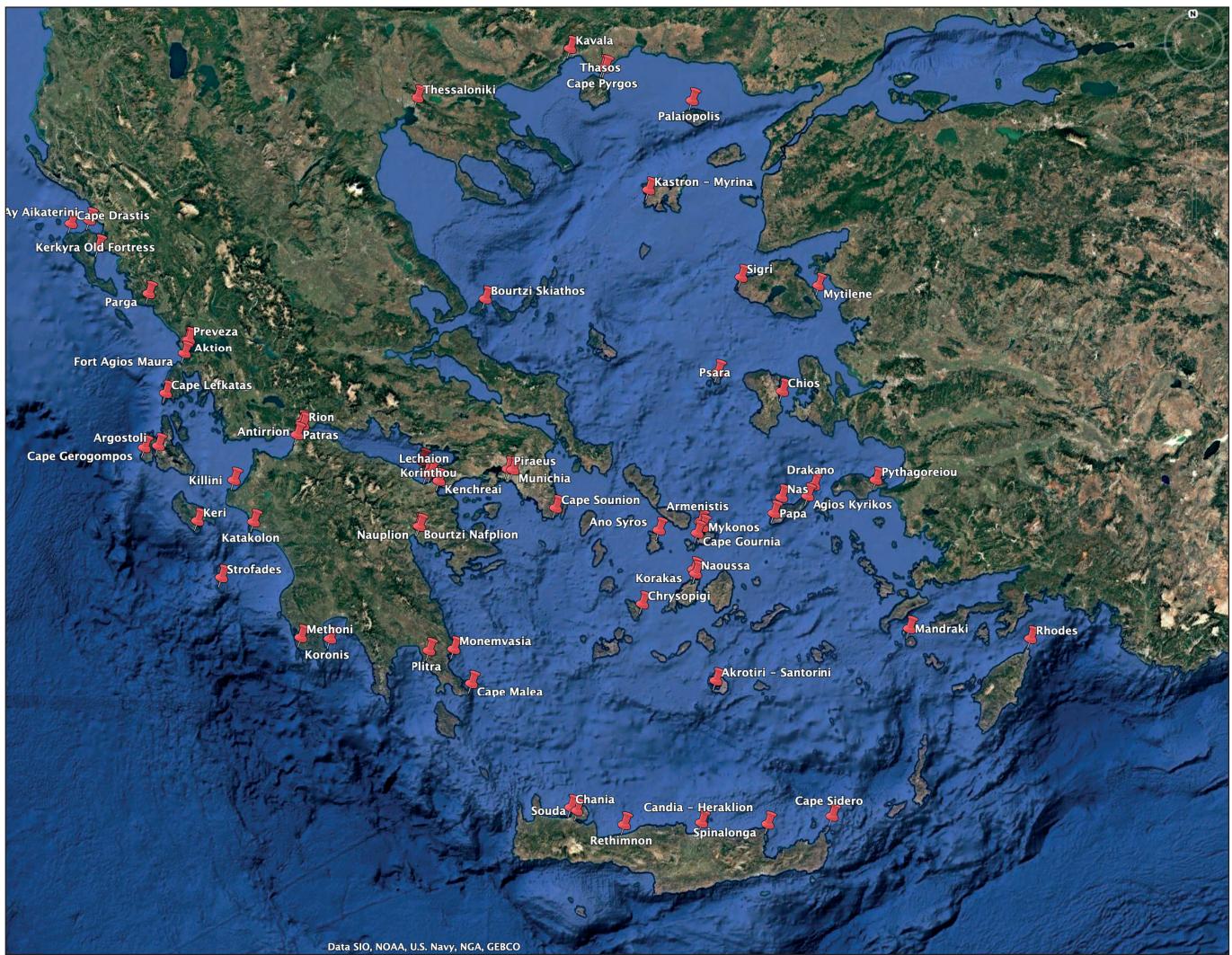
Medieval Structure Exists: No

Notes: The city of Durrës in present day Albania was once called Dyrrachium. Durrës was founded by Ancient Greek colonists from Corinth and Corcyra under the name of Epidamnos around the 7th century BC. It was inhabited by the Illyrians. It became a Byzantine city from around 810. It was at one time under Venetian control and then Ottoman from 1501 until the 20th c. Some excavations show a structure thought to be a lighthouse approximately contemporary with the Pharos. For at least part of its existence it may have been an ecclesiastical light.

References: Zemke p16, 22, 23; Hague & Christie p2; Giardina (2010), p77-78; Antonine Itinerary; Pliny the Elder: *The Natural History* 3, 16; Caesar: *Guerre Civile* 3, 26; Polybius: *Histories* 2, 9; Nicol, Donald M. *Byzantium and Venice*. Cambridge: Cambridge University Press, 1988. Mentions medieval navigation practices around Durazzo; Venetian pilot manuscripts in the Marciana: Portolano Corfiota (17th c.).

AL References: 279

Antiquity: Yes; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 8



Greece

■ **Cape Drastis (5c continuing, 12-14c continuing)**

Location: Corfu

Lat/Lon: 39.7969, 19.6747

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Pure landfall/headland with no settlement or institutional presence. Cape Drastis, marking Corfu's north-western extremity, was probably a site of recurrent coastal fires from the Roman period onward. Although never equipped with a purpose-built lighthouse before the modern era, its strategic position at the Adriatic-Ionian transition made it an ideal rounding and recognition point for shipping. In the Byzantine centuries, fires here likely formed part of broader watch and signalling systems, with probable ecclesiastical involvement in their maintenance. Under Venetian rule, these practices were absorbed into a formalised defensive network, without diminishing

their navigational value. Drastis thus exemplifies the persistent multifunctionality of maritime light in the Greek Ionian world before 1700.

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 7

■ + **Cape Agia Aikaterini (11c (Ecc) continuing)**

Alternative Names: Kérkyra

Location: Corfu

Lat/Lon: 31.8189, 19.8473

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Waypoint/Landfall; Ecclesiastical managed

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Chapel-associated coastal marker; no harbour function. Cape Agia Aikaterini (Kérkyra, Corfu) occupies a projecting headland on the north-eastern coast of the island and is marked by the remains of a monastic complex dedicated to St Catherine, active from at least the late Venetian period. While no formal lighthouse or

officially regulated beacon is documented at this site, the combination of exposed coastal position, monastic residence, and known ecclesiastical lamp practices makes the intermittent display of an informal light for local navigation plausible. In the absence of explicit references in Venetian administrative or nautical sources, however, such activity must remain hypothetical. Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Kerkyra Old Fortress (8-12c Ecc, 1450, 1822)

Alternative Names: Cape Sidero, Sideros

Location: Corfu

Lat/Lon: 39.6234, 19.9294

Modern Lighthouse On Site: Yes (1822)

Ecclesiastical: Yes

Light Function: Military and Harbour; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Military-controlled harbour entrance rather than mercantile port. Cape Sideros on Corfu was almost certainly a site of recurrent coastal fires from Roman times onward, reflecting its strategic position at the entrance to the Ionian Sea and along the Corfu Channel. The Old Fortress of Corfu represents one of the most continuous sites of maritime lighting in the Ionian Sea before 1700. From Late Antiquity, fires were almost certainly shown from its heights for surveillance and reassurance. During the Middle Byzantine centuries, ecclesiastical institutions probably played a decisive role in maintaining a harbour fire. Under Venetian rule, this practice was transformed into a regulated, state-controlled system, effectively creating a proto-lighthouse long before the modern tower. The Old Fortress thus links ancient beacon fires and early modern navigational lighting in the Greek Mediterranean. Venetian sources in the 15c mention a lantern on the fort mole. Major Venetian fortress guarding the main harbour; British-built lighthouse (1822) crowns the 16th-c. Venetian "Old Fortress". Given the very exposed approaches and continuous military use, watch-fires or lanterns from the fortress towers in the Venetian/Ottoman period are extremely likely, even if not explicitly documented as a formal fanale.

References: Faroi.com: Detailed history of the Sideros lighthouse (date 1822, on the Venetian fortress) and Greek/German lighthouse entries; Horden, Peregrine, and Nicholas Purcell: *The Corrupting Sea*. Oxford: Blackwell, 2000; McCormick, Michael: *Origins of the European Economy*. Cambridge: Cambridge University Press, 2001; Nicol, Donald M. *Byzantium and Venice*. Cambridge: Cambridge University Press, 1988; Fine, John V. A. *The Late Medieval Balkans*. Ann Arbor: University of Michigan Press, 1987; Whitewright, Julian. "Harbours and Coastal Infrastructure in the Byzantine Ionian." *Journal of Maritime Archaeology* 9 (2014): 25–48.

Fernand: *The Mediterranean and the Mediterranean World in the Age of Philip II*. Vol. 1. Berkeley: University of California Press, 1995; Whitewright, Julian: "Harbours and Maritime Infrastructure in the Byzantine Mediterranean." *Journal of Maritime Archaeology* 9 (2014): 25–48.

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 7

Parga (4-8c (Byz), 8-12 (Ecc), continuing)

Alternative Names: Epirus

Location: Epirus

Lat/Lon: 39.2829, 20.3974

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Military and Harbour; Ecclesiastical assistance

Light Form: Local lanterns

Medieval Structure Exists: No

Notes: Small fortified harbour rather than landfall. Strong Venetian hill-top fortress overlooking a small but sheltered harbour, controlling coastal traffic between Corfu and the Ambracian Gulf. Venetian fortification history from late medieval into early modern period makes some form of night-time signalling from the castle very likely, even if not a formal masonry lighthouse. Parga was almost certainly a site of recurrent harbour lighting from Roman times onward, reflecting its status as one of the few safe anchorages on the Epirote coast. Fires shown from the fortress hill or harbour edge functioned as intentional navigational aids, particularly valuable for night landfall. During the Middle Byzantine centuries, ecclesiastical institutions likely played a key role in maintaining such lights, a function later absorbed into Venetian state practice. Parga thus represents a mainland counterpart to Corfu's fortress lights, reinforcing the continuity of multifunctional maritime fires along the Ionian coast before 1700.

References: Horden, Peregrine, and Nicholas Purcell: *The Corrupting Sea*. Oxford: Blackwell, 2000; McCormick, Michael: *Origins of the European Economy*. Cambridge: Cambridge University Press, 2001; Nicol, Donald M. *Byzantium and Venice*. Cambridge: Cambridge University Press, 1988; Fine, John V. A. *The Late Medieval Balkans*. Ann Arbor: University of Michigan Press, 1987; Whitewright, Julian. "Harbours and Coastal Infrastructure in the Byzantine Ionian." *Journal of Maritime Archaeology* 9 (2014): 25–48.

Antiquity: Yes; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 6

Preveza (5c continuing)

Location: Epirus
Lat/Lon: 38.9486, 20.7498

Modern Lighthouse On Site: No
Ecclesiastical: Yes

Light Function: Harbour and Military; Ecclesiastical assistance

Light Form: Local lanterns and fires

Medieval Structure Exists: No

Notes: Harbour town controlling Ambracian Gulf. Preveza functioned as the harbour-side anchor of the Actium-Ambracian Gulf entrance system from Roman times onward. The site almost certainly maintained harbour and channel-entry fires, working in tandem with Aktion to guide vessels safely into the gulf. During the Byzantine centuries, ecclesiastical institutions centred on Nicopolis probably played a decisive role in sustaining these lights, framing them as protection of life and commerce. Under Ottoman and Venetian control, the same practices were absorbed into fortified coastal systems, preserving Preveza's long-standing role as a true navigational-light site in the pre-modern Greek world.

References: Whitewright, Julian. "Harbours and Maritime Infrastructure in the Byzantine Ionian." *Journal of Maritime Archaeology* 10 (2015): 1–22.

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: Yes; Byzantine: No; Venetian: No; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 6

Aktium (6-12c (Ecc), continuing (Mil))

Alternative Names: Aktion

Location: Epirus
Lat/Lon: 38.9455, 20.761

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Waypoint and Military; Ecclesiastical assistance

Light Form: Fortified Structure; Local lanterns and fires

Medieval Structure Exists: No

Notes: Strategic straits landfall with military control. From Classical antiquity onward, Actium's commanding position at the entrance to the Ambracian Gulf made it a natural site for the use of fire as a maritime marker. While no monumental lighthouse is documented before the modern era, maintained promontory fires almost certainly operated here from the Roman period, serving both navigation and signalling. During the Byzantine centuries, ecclesiastical institutions centred on Nicopolis likely played a role in sustaining these lights, a function later absorbed into Venetian and Ottoman coastal systems. Actium thus represents one of the clearest Greek examples of long-term continuity in multifunctional maritime lighting before 1700. Narrow, shoal-fringed entrance to a large, important gulf with

ports (e.g. Preveza, Vonitsa). Modern pilotage stresses the narrow dredged channel and the conspicuous fort on the Aktion side; that fort's early-modern origin and the importance of the gulf for Venetian/Ottoman navies make medieval/early-modern beacon fires on the fortifications a strong probability.

References: Whitewright, Julian: "Harbours and Maritime Infrastructure in the Byzantine Ionian." *Journal of Maritime Archaeology* 10 (2015): 1–22.

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 8

Fort Agios Maura (12c continuing, 1861)

Location: Lefkada
Lat/Lon: 38.8454, 20.7196

Modern Lighthouse On Site: Yes (1861)

Ecclesiastical: No

Light Function: Military and Harbour; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Military-controlled harbour mouth. A major medieval and early-modern fortress guarding the narrow causeway/bridge into Lefkada; capital of the Tocco domains and then an important Ottoman and later Venetian stronghold. It controls the only practicable northern entrance into the island lagoon and harbour. A harbour light on or near the castle is not directly documented, but by analogy with similar Venetian harbour-fortresses, it is a very likely site for a medieval/early-modern fanale or beacon.

References: Detailed medieval and early-modern history of the fortress (Orsini, Tocco, Ottoman, Venetian phases) in the Castle of Santa Maura article and recent structural studies.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 3

Cape Lefkatas (5c continuing (Ecc and Mil), 1890)

Alternative Names: Cape Doukato

Location: Lefkada

Lat/Lon: 38.5638, 20.5424

Modern Lighthouse On Site: Yes (1890)

Ecclesiastical: Yes

Light Function: Waypoint/Landfall; Ecclesiastical managed

Light Form: Beacon fires

Medieval Structure Exists: Yes

Notes: Major landfall cape with long cultic continuity. The lighthouse is situated on Cape Lefkatas, on the

southern tip of the island of Lefkada, in the Ionian Sea. Cape Doukato (ancient Leukatas) is an conspicuous Ionian headland, associated in antiquity with the Sanctuary of Apollo Leukatas and therefore with ritual and practical fires whose offshore visibility would have been considerable, though explicit evidence for a maintained navigational light in antiquity is lacking. In the Byzantine and later medieval periods, the cape's commanding position makes it a strong candidate for recurrent watch and signalling fires of the kind widely attested in Greek history, even where their primary purpose was warning rather than pilotage. In ancient times a temple dedicated to Apollo existed. According to tradition, the Greek poetess Sapfo fell into the sea from these cape rocks to free herself from the passion for her lover Phaon. The current light was lit in 1890, using oil as power source. Its characteristic was a white non-flashing visible from 15 n. miles, with a white flashing every minute visible from 21 n. miles. During World War II, it remained off and became operational again in 1945. In 1950, the lighthouse was destroyed from an earthquake and the light was extinguished until 1956 when a new structure was built - as automatic gas flame by acetylene. In 1986, it was converted to electricity and today its characteristic is a white flashing every 10 seconds, providing a range of 24 n. miles.

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 6

Cape Gerogompos (5c continuing; 1907, 1947)

Alternative Names: Yerogompos
Location: Kefalonia
Lat/Lon: 38.1802, 20.3416
Modern Lighthouse On Site: Yes (1947)

Ecclesiastical: Yes
Light Function: Waypoint/Landfall
Light Form: Beacon fires
Medieval Structure Exists: No
Notes: Promontory landfall only. Cape Gerogómbos on Kefalonia was almost certainly a site of recurrent coastal fires from the Roman period onward, reflecting its role as a hazardous and highly exposed turning point on Ionian sea routes. Although no monumental lighthouse existed before the modern era, fires shown from the cape functioned as rounding and warning lights for mariners navigating the open Ionian. During the Byzantine centuries, such fires likely formed part of broader watch and signalling systems, with probable ecclesiastical involvement in their upkeep. Under Venetian control, these practices were absorbed into a more systematic coastal framework, without diminishing their navigational value. Gerogómbos thus exemplifies the persistent, multifunctional use of fire at Ionian capes

before 1700. The current lighthouse was rebuilt after destruction of the original in WWII.

References: Braudel, Fernand: *The Mediterranean and the Mediterranean World in the Age of Philip II.* Vol. 1. Berkeley: University of California Press, 1995; Whitewright, Julian: "Coastal Visibility and Navigation in the Ionian Sea." *Journal of Maritime Archaeology* 11 (2016): 45–68.

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek Classical: No; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 7

Argostoliou (5c continuing, 1828)

Alternative Names: Agioi Theodoroi
Location: Kefalonia
Lat/Lon: 38.1914, 20.4679
Modern Lighthouse On Site: No (1828)
Ecclesiastical: No
Light Function: Harbour lights; Ecclesiastical assistance
Light Form: Local lantern fires
Medieval Structure Exists: No
Notes: Enclosed bay with documented anchorage. The modern circular "temple" lighthouse (first built 1828 under British rule) sits on a man-made peninsula at the entrance to Argostoli Bay. The bay itself is a good, deep natural harbour that would have been in use well before 1700; the British lighthouse is explicitly described as "deemed necessary for navigation". That normally implies earlier informal measures (fires or lanterns) from the same or nearby point.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Heraion (4-8c)

Alternative Names: Corinth, Corinthe, Heraea, Hera, Limenia, Peraion, Peraia, Perachora
Location: Peloponnese
Lat/Lon: 38.02787, 22.85268
Modern Lighthouse On Site: Yes Melagavi (1897)
Ecclesiastical: Yes
Light Function: Waypoint/Landfall; Ecclesiastical custodians
Light Form: Beacon fires
Medieval Structure Exists: No
Notes: Sanctuary-based coastal reference with ritual lighting. Mention of a lighthouse at Corinth may refer to this site at Heraion on the northern entrance to Corinth at the far eastern end of the Gulf of Corinth. Two other lighthouses have been suggested as pos Heraion, a coastal sanctuary of Hera set within a small cove at the end of the Perachora peninsula, is explicitly harbour-associated in cult nomenclature (Hera Limenia) and has

been argued to possess ancient harbour infrastructure, notably a now-submerged mole analysed by Blackman. While such a setting makes occasional night-visible illumination (ritual or domestic lamps) entirely plausible for pre-modern seafarers using the anchorage, the present evidence supports a harbour-cult and landing place; the first unequivocal institutional light in the immediate area is the Melagavi (Heraion) Lighthouse. References: Blackman, D. J: "The Harbour at Perachora." Annual of the British School at Athens 61 (1966): 1–8; Tomlinson, R. A: Perachora: The Sanctuaries of Hera Akraia and Limenia. 2 vols. Oxford: Clarendon Press, 1969.

AL References: 280

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: No; Islamic: Yes; Local: No; Activity Index: 1

Korinthou (4c continuing)

Alternative Names: Corinth, Corinthe, Cenchreae, Lechaion, Heraion, Heraea, Hera, Limenia, Location: Peloponnese Lat/Lon: 37.943, 22.9253 Modern Lighthouse On Site: No Ecclesiastical: Yes Light Function: Harbour and Military; Ecclesiastical assistance Light Form: Local lantern fires Medieval Structure Exists: No

Notes: Isthmian harbour complex. The Gulf of Corinth presents one of the strongest Greek cases for the recurrent use of maritime fires before 1700, owing to its confined waters, strategic importance, and concentration of fortified and ecclesiastical ports. While purpose-built lighthouses are unattested, promontory, tower, and harbour fires are highly likely at key sites, particularly at the Rio–Antirrio narrows, Naupaktos, and the Corinthian harbours. In several cases—notably Patras and Corinth—ecclesiastical institutions plausibly played a role in maintaining or legitimising such lights during the Byzantine centuries. The gulf thus offers an ideal laboratory for examining the overlap of navigation, signalling, and religious practice in the medieval Greek maritime world. Mention of a lighthouse at Corinth may refer to the site at Heraion. Two lighthouses have been suggested as possible in different sites close to Corinth. This was always an important trading centre with two harbours at Lechaion and Cenchreae. The former grew less useful due to silting, but Cenchreae continued successfully after the fall of Rome.

AL References: 280

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No;

Activity Index: 5

Lechaion (5c continuing)

Alternative Names: Lecheum Location: Peloponnese Lat/Lon: 37.934, 22.884 Modern Lighthouse On Site: No y Ecclesiastical: Yes Light Function: Harbour lights; Ecclesiastical assistance Light Form: Local lanterns Medieval Structure Exists: No Notes: Western harbour of Corinth. With two functional ports at Lechaion (west) and Cenchreae (east) it is likely there was a lighthouse at both sites, each referred to as Corinth. Lechaion, Corinth's western harbour on the Gulf of Corinth, presents one of the clearest Greek cases for the sustained use of harbour fires before 1700. From the Roman period onward, its role as an imperial and commercial port makes the presence of maintained harbour lighting highly likely. In Late Antiquity and the Middle Byzantine centuries, the construction and prominence of the Lechaion Basilica strongly suggest ecclesiastical involvement in harbour lighting, ensuring continuity at a time when secular administration fluctuated. Lechaion functioned as a true harbour-light site, where fires shown from quays, towers, or ecclesiastical buildings intentionally aided navigation while remaining embedded in military and ritual landscapes.

References: Pliny: Hist Nat 4.6; Pausanias: Grece 2, 2; Diodorus: Hist 14, 21 & 15, 68; Polybius: Hist 5, 5; Livy: Hist 32, 23; Philo, in Flaccum, 155; Plutarch: Aratus, 27 & Cleomene 46; Xenophon: Helleniques, 4, 4; Ptolemy: Geography 3, 16; Engels, Donald W.: Roman Corinth: An Alternative Model for the Classical City. University of Chicago Press (1990), 264p; Giardina (2010), p76-77; Sanders, Guy D. R: "The Urban Evolution of Corinth in Late Antiquity." Hesperia 75 (2006): 137–191.

AL References: 280

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 7

Kenchreai (5c continuing)

Alternative Names: Cenchries Location: Peloponnese Lat/Lon: 37.88286, 22.9929 Modern Lighthouse On Site: No Ecclesiastical: Yes Light Function: Harbour lights; Ecclesiastical assistance Light Form: Local lanterns Medieval Structure Exists: No Notes: Eastern harbour of Corinth. Kenchreai, Corinth's eastern harbour, presents one of the most compelling

Greek cases for the sustained use of harbour fires before 1700. From the Roman period onward, its scale and complexity make maintained harbour lighting highly likely. In Late Antiquity and the Middle Byzantine centuries, the strength of the local Christian community and the presence of multiple harbour-adjacent basilicas strongly suggest ecclesiastical supervision of navigational lighting, paralleling practice at Lechaion. Together, the two Corinthian harbours form a rare paired system demonstrating how harbour fires underpinned maritime navigation in medieval Greece.

References: Sanders, Guy D. R: "The Urban Evolution of Corinth in Late Antiquity." *Hesperia* 75 (2006): 137–191; Mango, Cyril: *Byzantine Architecture*. Milan: Electa, 1985; Whitewright, Julian: "Harbours and Maritime Infrastructure in the Byzantine Mediterranean." *Journal of Maritime Archaeology* 9 (2014): 25–48.

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 8

■ Nauplion (4c continuing)

Alternative Names: Nafplion

Location: Peloponnese

Lat/Lon: 37.567, 22.8015

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour and Military; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Fortified harbour town. Nafplion's harbour is best understood as a heavily managed military port in which pre-1700 "lights" are most plausibly interpreted as watch and signal illumination rather than institutional lighthouse service. Akronafplia provided the long-duration commanding height over the bay, while the Venetians added the islet fortress of Bourtzi (begun 1471) at the harbour mouth and operated a physical harbour-control system using a chain toward the shore defences (the "Five Brothers" sector). In such a setting, routine nocturnal watch lights or signal fires on Bourtzi (and secondarily Akronafplia) are a defensible inference and would have been visible to approaching vessels, yet the evidence supports a fortified signalling landscape, not a documented pre-1700 lighthouse.

References: Andrews, Kevin: *Castles of the Morea*. Princeton, NJ: Princeton University Press, 1953. Standard scholarly study of Peloponnesian fortifications; treats Akronafplia and Bourtzi in their defensive and harbour-control roles; Lock, Peter: *The Franks in the Aegean, 1204–1500*. London: Longman, 1995. Establishes the function of Frankish and Venetian harbour forts (bourtzia) as permanently manned installations involving

night watch and signalling; Kazhdan, Alexander, ed: *The Oxford Dictionary of Byzantium*. 3 vols. New York: Oxford University Press, 1991. Entries s.v. "Beacons," "Signal Fires," and "Harbour"; provides the normative Byzantine background for fixed coastal fires used for signalling and

AL References: defence, applicable to Nafplion.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek

Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes;

Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No;

Activity Index: 4

■ Bourtzi - Nafplion (15c)

Location: Peloponnese

Lat/Lon: 37.5697, 22.7904

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Military and Harbour; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Fortified islet controlling harbour. The small fortified islet and twin-bay harbour form one of the classic Aegean anchorages; Venetian and later Ottoman phases are documented. A beacon or lantern on the Bourtzi or on the harbour mole is highly likely by the late medieval period.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

■ Antirrion (16c continuing, 1880)

Alternative Names: Antirrhio Castle

Location: Western Greece

Lat/Lon: 38.3271, 21.7658

Modern Lighthouse On Site: Yes (1880)

Ecclesiastical: No

Light Function: Military and Landfall

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Military-controlled narrows. Rion–Antirrion Narrows — lights are securely attested only within the fortress context. While coordinated illumination on both shores is highly plausible during military or chain-control operations, there is no evidence for paired, continuously maintained navigational lights prior to the modern period. Antirrion, guarding the northern side of the narrow strait between the Corinthian Gulf and the Gulf of Patras, was fortified by the Ottomans in 1499–1500 as part of a paired strait-control system with Rio. As a permanently garrisoned fortress positioned directly at the water's edge, Antirrion necessarily employed habitual night illumination for watch, signalling, and coordination across the channel. Lights shown from the fortress would have been visible to shipping and

functioned as institutional strait-control lights, making Antirrion one of the clearest surviving pre- 1700 stone structures associated with regular maritime illumination in Greek waters.

References: Andrews, Kevin: *Castles of the Morea*. Princeton, NJ: Princeton University Press, 1953. Standard reference for Greek fortifications; treats Antirrion and Rio as a paired strait-control system, implying permanent garrisons and night watch; Kazhdan, Alexander, ed: *The Oxford Dictionary of Byzantium*. 3 vols. New York: Oxford University Press, 1991. Entries s.v. "Beacons," "Signal Fires," and "Harbours"; establishes routine use of lights and fires at fortified narrows and ports as normal Byzantine and post-Byzantine practice; McCormick, Michael: *Origins of the European Economy: Communications and Commerce, A.D. 300–900*. Cambridge: Cambridge University Press, 2001. Greek waters.

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 7

Rion (16c continuing)

Location: Western Greece

Lat/Lon: 38.33114, 21.7815

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Military and Landfall

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Military-controlled narrows. A fortress was built by Bayezid II in 1499 on the Peloponnesian side of the strait, opposite Antirrio; explicitly intended, together with its twin, to control the "Little Dardanelles" at the gulf entrance. Venetian rebuild in 1687 strengthened its bastions. Given its function as a choke-point fort in a narrow strait, some kind of light or lantern for friendly shipping is very likely from the Ottoman/Venetian period onward, even if the formal lighthouse is modern. The Rio–Antirrio narrows represent one of the most compelling Greek cases for sustained maritime lighting before 1700. From Classical antiquity onward, the strategic and navigational demands of the strait virtually required the recurrent use of fires on one or both shores. While originally embedded in military and signalling practices, these fires functioned as essential navigational aids for vessels entering and exiting the Gulf of Corinth. During the Byzantine centuries, ecclesiastical institutions centred on Patras likely contributed to their continuity, before Ottoman and Venetian fortification transformed the narrows into a fully articulated, state-controlled system of paired maritime lights. Rio–Antirrio thus offers a near-ideal case study of how navigation, signalling, and religious responsibility converged in pre-

modern Greek maritime lighting.

References: Andrews, Kevin: *Castles of the Morea*. Princeton, NJ: Princeton University Press, 1953. Standard reference for Greek fortifications; treats Antirrion and Rio as a paired strait-control system, implying permanent garrisons and night watch; Kazhdan, Alexander, ed: *The Oxford Dictionary of Byzantium*. 3 vols. New York: Oxford University Press, 1991. Entries s.v. "Beacons," "Signal Fires," and "Harbours"; establishes routine use of lights and fires at fortified narrows and ports as normal Byzantine and post-Byzantine practice; McCormick, Michael: *Origins of the European Economy: Communications and Commerce, A.D. 300–900*. Cambridge: Cambridge University Press, 2001. Foundational work on communication, signalling, and maritime movement; provides the methodological basis for interpreting fortress lights as functional aids to navigation in controlled corridors.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 6

Patras (6c continuing, 1859)

Location: Western Greece

Lat/Lon: 38.2451, 21.7256

Modern Lighthouse On Site: Yes (1859)

Ecclesiastical: No

Light Function: Harbour and Military; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Major Gulf harbour. Patras is best treated, before 1700, as a fortified coastal city within a choke-point signalling environment. The mid-6th- century castle above the city—maintained through successive regimes—provides the most credible fixed locus for habitual night illumination in the form of watch or alarm lights, which would have been visible seaward and could incidentally assist navigation. By contrast, Patras' first clearly documented lighthouse installations belong to the nineteenth-century modernization of the port (beginning 1858), with a later replica erected in 1999; these modern lights should not be projected back into the medieval record.

References: Andrews, Kevin: *Castles of the Morea*. Princeton, NJ: Princeton University Press, 1953; Kazhdan, Alexander, ed. *The Oxford Dictionary of Byzantium*. 3 vols. New York: Oxford University Press, 1991; McCormick, Michael: *Origins of the European Economy: Communications and Commerce, A.D. 300–900*. Cambridge: Cambridge University Press, 2001.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Killini (13c continuing)

Alternative Names: Kylini, Glarentza, Clarentia
Location: Western Greece
Lat/Lon: 37.93646, 21.14609
Modern Lighthouse On Site: No
Ecclesiastical: No
Light Function: Harbour lights; Ecclesiastical assistance
Light Form: Local lantern fires
Medieval Structure Exists: No
Notes: Harbour serving Elis region. Medieval port of Glarentza (Clarentia), principal harbour and mint of the Frankish Principality of Achaea, stood just NW of modern Kyllini. It was the main western gateway for the Peloponnese and for traffic to/from Italy. Venetian and Angevin commercial activity here makes it one of the strongest candidates on this coast for a true harbour fanale, even if documentation is missing. Killíni is important because it represents a new functional category in this survey. It is not an ancient imperial harbour (like Corinth) and not a purely defensive strait (like Rio–Antirrio) but a planned medieval commercial port, whose success depended on reliable night access. In such ports, harbour fires are not optional—they are infrastructural necessities. Killíni, medieval Glarentza, almost certainly employed maintained harbour and shoreline fires from the 13th century onward, reflecting its role as the principal port of the Principality of Achaea on the exposed Ionian coast. While no purpose-built lighthouse is documented before the modern era, the combination of a shallow anchorage, heavy commercial traffic, and the commanding presence of Chlémoutsi Castle makes the use of multifunctional fires—serving navigation, signalling, and control—highly likely. Ecclesiastical involvement in sustaining these practices is plausible during the Frankish period but cannot be securely demonstrated. Killíni thus exemplifies the medieval commercial-port model of maritime lighting, distinct from both ancient harbour complexes and purely military beacon sites.

References: Bon, Antoine. *La Morée franque*. Paris: De Boccard, 1969; Horden, Peregrine, and Nicholas Purcell: *The Corrupting Sea*. Oxford: Blackwell, 2000; Lock, Peter: *The Franks in the Aegean, 1204–1500*. London: Longman, 1995; McCormick, Michael: *Origins of the European Economy*. Cambridge: Cambridge University Press, 2001; Whitewright, Julian: “Harbours and Maritime Infrastructure in the Medieval Greek Seas.” *Journal of Maritime Archaeology* 11 (2016): 45–68.

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 8

Keri (8-12 (Ecc); Continuing Military, 1925)

Location: Zakynthos
Lat/Lon: 37.6545, 20.8104
Modern Lighthouse On Site: Yes (1925)
Ecclesiastical: Yes
Light Function: Waypoint/Landfall
Light Form: Beacon fires
Medieval Structure Exists: Yes
Notes: Minor coastal marker. Dramatic southern cliffs above the Myzithres rocks; modern Akra Kerion lighthouse built 1925. The cape commands the southern approaches to Zakynthos and the open Ionian Sea. Given its prominence and the later lighthouse, this is a strong candidate for earlier watch-fires or a simple lantern on the cape or in the nearby village of Keri. Cape Keri on Zakynthos was almost certainly a site of recurrent coastal fires from the Roman period onward, reflecting its role as a hazardous turning point on Ionian sea routes. Fires shown from the cape functioned as rounding and warning lights, aiding mariners navigating the open Ionian Sea. During the Byzantine centuries, such fires likely formed part of broader watch and signalling systems, with probable ecclesiastical involvement in their maintenance. Under Venetian rule, these practices were absorbed into a more systematic coastal framework, preserving Cape Keri’s long-standing navigational significance before 1700.

References: Whitewright, Julian: “Coastal Visibility and Navigation in the Ionian Sea.” *Journal of Maritime Archaeology* 11 (2016): 45–68.

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek Classical: No; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 7

Katakolon (5c continuing, 1865)

Location: Western Greece
Lat/Lon: 37.6379, 21.3141
Modern Lighthouse On Site: Yes (1865)
Ecclesiastical: No
Light Function: Harbour lights; Ecclesiastical assistance
Light Form: Local lantern fires
Medieval Structure Exists: Yes
Notes: Harbour and anchorage. Headland forming the natural harbour of Katakolon, which served as the port for Olympia in antiquity and retained local significance. The modern Katakolon lighthouse on the cape dates from 1865. The medieval fortress of Pontikon/Beauvoir (on or near the same promontory) suggests a centuries-long concern with guarding this point; beacon fires on the headland or castle walls are a reasonable inference. Katákolon, the maritime outlet of Elis, almost certainly employed intermittent or maintained coastal fires from Roman times onward, reflecting its role as a gateway

port on the exposed Ionian coast. Fires shown from the shore or promontory would have aided night landings and coastal navigation, especially during periods of heightened pilgrimage and trade. In Late Antiquity and the Byzantine centuries, ecclesiastical institutions associated with Elis and Olympia plausibly contributed to the maintenance of such lights, a function later absorbed into Frankish, Venetian, and Ottoman signalling systems. Katákolon thus fits well within the Ionian pattern of small ports using multifunctional fires rather than monumental lighthouses before 1700.

References: Whitewright, Julian: "Coastal Visibility and Navigation in the Medieval Greek Seas." *Journal of Maritime Archaeology* 11 (2016): 45–68.

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 8

Strofades (1241, 15c, 1829)

Alternative Names: Stamfani

Location: Zakynthos

Lat/Lon: 37.25009, 21.01353

Modern Lighthouse On Site: Yes (1829)

Ecclesiastical: Yes

Light Function: Waypoint/Landfall; Ecclesiastical custodians

Light Form: Beacon fires

Medieval Structure Exists: Yes

Notes: Monastic islands serving as navigational reference. The Strofades islands occupy a rare mid-sea position in the Ionian and are dominated by a fortified monastic tower complex founded in the thirteenth century and largely rebuilt in the fifteenth. As a permanently inhabited, conspicuous stone structure rising from an otherwise featureless maritime zone, the monastery necessarily employed night illumination for defence and daily use, and any such light would have been visible to passing vessels. Although no evidence supports a regulated lighthouse service before the modern period, the Strofades tower-monastery represents one of the clearest surviving examples of a pre-1700 stone structure whose habitual illumination functioned as a recognisable maritime light without being a lighthouse in the formal sense.

References: Hague (1974), p11; Gerola, Giuseppe: *Monumenti Veneti nell' isola di Creta e nel Peloponneso*. Vol. 3. Venice: Istituto Veneto di Arti Grafiche, 1912. Classic architectural study; includes the fortified monastery of the Strofades, its tower form, and Venetian-period rebuilding context; Bintliff, John, and Anthony Snodgrass, eds: *Mediterranean Survey and the City*. Oxford: British School at Athens, 1988. Provides the wider Ionian maritime landscape context, treating isolated monastic sites like the Strofades as

fixed landmarks in sea routes; Kazhdan, Alexander, ed. *The Oxford Dictionary of Byzantium*. 3 vols. New York: Oxford University Press, 1991. Entries s.v. "Monasteries," "Beacons," and "Signal Fires"; establishes routine light use at fortified and monastic sites as normal Byzantine practice, supporting functional illumination without a lighthouse institution.

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek Classical: No; Roman: No; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 5

Methoni (8-14c, 14c continuing)

Alternative Names: Modon

Location: Peloponnese

Lat/Lon: 36.8118, 21.7047

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Military and Harbour; Ecclesiastical assistance

Light Form: Local fires

Medieval Structure Exists: Yes

Notes: Military harbour and fortress. Classic Venetian "station" port on the route to the Levant; the castle occupies the whole cape with an octagonal tower on a small islet protecting the harbour entrance. Archaeological work has mapped a 14th–15th-c. Venetian stone mole built over earlier Greek/Roman jetties, now partly submerged. It is hard to imagine this harbour, so crucial to Venetian convoys, functioning without some form of fanale on the mole or tower in the later Middle Ages. Methóni (Venetian Modon) stands among the most secure examples of pre-1700 harbour lighting in the Greek world. From the thirteenth century onward, its role as a principal Venetian convoy port on the Ionian–Levant route required the continuous use of maintained harbour-mouth fires or lanterns, mounted on the fortress works and the Bourtsi tower. Although no freestanding lightstructure existed, Methóni functioned in practice as a fully articulated harbour-light system, combining navigation, control, and defence. Ecclesiastical institutions supported this infrastructure logically but did not control it. Methóni differs from most Greek sites because lighting is documentarily and functionally unavoidable. Harbour geometry requires night marking and responsibility is explicitly state-level, not inferred. It represents a Mediterranean link between medieval fire practice and early modern lighthouse logic. Together with Koróni, Methóni is arguably the strongest pre-1700 harbour-light case in Greece and the monument here is an extremely rare instance of a preserved Medieval Lightstructure.

References: Whitewright, Julian: "Harbours and Maritime Infrastructure in the Medieval Mediterranean." *Journal of Maritime Archaeology* 11 (2016): 45–68; Lock, Peter:

The Franks in the Aegean, 1204–1500. London: Longman, 1995. Establishes the function of Frankish/Venetian harbour forts (bourtzia) as permanently manned coastal control points, where night watch and signalling by fire were routine; McCormick, Michael: Origins of the European Economy: Communications and Commerce, A.D. 300–900. Cambridge: Cambridge University Press, 2001. Foundational study of communication and signalling (including fires and lights) in maritime corridors. Provides methodological justification for interpreting watch fires as functional aids to navigation; Kazhdan, Alexander, ed: The Oxford Dictionary of Byzantium. 3 vols. New York: Oxford University Press, 1991. Entries s.v. "Beacons," "Signal Fires," "Harbour"; establishes fixed coastal fires as normal components of Byzantine and post-Byzantine maritime defence and communication systems.

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 7

Koronis (8-12c, 13c continuing)

Alternative Names: Koroni

Location: Peloponnese

Lat/Lon: 36.7956, 21.9624

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour lights; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Minor coastal settlement. Often paired with Modon in Venetian sources ("Modon and Coron"); together they guarded the Messenian Gulf and routes around the Peloponnese. The fortress occupies the site of ancient Asine; Venetian reconstruction in the 13th c. created a large sea-facing enclosure. As with Methoni, the scale of late-medieval trade and naval use makes a harbour light on the walls or mole highly probable. UNESCO tentative listing and regional heritage site description stress Koroni's role as one of Venice's main harbours 13th–17th c.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 5

Plitra (8c continuing)

Alternative Names: Plytra, Asopos

Location: Peloponnese

Lat/Lon: 36.68504, 22.83325

Modern Lighthouse On Site: Yes 19-20c

Ecclesiastical: No

Light Function: Harbour lights; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Minor harbour serving hinterland. Roman remains are now underwater so if a lightstructure ever existed here, new subsea archaeological work is needed. Asopos is a village in Laconia, Peloponnese, Greece. In antiquity it was a town of the Eleuthero-Lacones in Laconia, on the eastern side of the Laconian gulf, and 60 stadia south of Acriae. Plitra, occupying the site of the ancient harbour of Asopos on the eastern Laconian coast, presents a strong case for the habitual use of lights before 1700. Its sheltered bay, continuous maritime use from antiquity, proximity to the fortified and well-documented signalling centre of Monemvasia, and the presence of coastal ecclesiastical sites together support the likelihood of fixed oil lamps or watch fires visible from the anchorage and approaches. Such lights would have functioned as customary and locally maintained aids rather than institutional navigational beacons, fitting a broader pattern of pre-modern Greek coastal illumination outside major headland lighthouse sites.

References: Strabo: 8.364; Pausanias iii. 21.7, 22.9;

AL References: 280

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 6

Cape Malea (6c continuing, 1883)

Alternative Names: Akra Maleas

Location: Peloponnese

Lat/Lon: 36.441, 23.201

Modern Lighthouse On Site: Yes (1883)

Ecclesiastical: Yes

Light Function: Waypoint/Landfall; Ecclesiastical custodians

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Primary landfall cape of southern Greece. Classical and Byzantine writers note its dangers. Itineraries mention pharos Maleas - possibly a beacon or temple fire that continued through Byzantine times. Cape Malea's exceptional maritime danger is already explicit in the earliest Greek sailing tradition: Homer depicts Odysseus being driven off course while rounding Malea, and Strabo preserves a proverb warning that "after doubling Malea" one may as well "forget home." Although no pre-modern lighthouse structure is certain here, the cape's geography makes it a highly plausible locus for recurrent watch and warning fires whose navigational value would have been immediate. In later medieval phases, the monastic landscape on the Malea peninsula (including a St George foundation described as fifteenth-century) strengthens the plausibility of ecclesiastical participation in sustaining lights in a hazardous seascape, consistent with wider evidence

for monastery- associated “lighthouse” functions in the Byzantine world.

References: Wace, A. J. B., and F. W. Hasluck: “II.-Topography: South-Eastern Laconia.” Annual of the British School at Athens 14 (1907–1908): 161–182. Primary scholarly authority for Cape Malea; discusses chapels, coastal posts, and beacon-fire telegraphing in the region; Kazhdan, Alexander, ed: The Oxford Dictionary of Byzantium. 3 vols. New York: Oxford University Press, 1991. Entries on “Beacons” and “Signal Fires”; establishes beacon systems as normal Byzantine practice applicable to the Malea context; Sathas, Konstantinos N: Μνημεῖα Ἑλληνικῆς Ἰστορίας (Monumenta Historiae Hellenicae). Athens and Venice, 1867–1894. Documentary foundation for post-Byzantine and early modern coastal signalling referenced by later scholars.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 5

Monemvasia (6c continuing, 1450, 1896)

Location: Peloponnese

Lat/Lon: 36.689, 23.0587

Modern Lighthouse On Site: Yes (1896)

Ecclesiastical: No

Light Function: Military and Harbour; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Fortress-port controlling sea routes. Monemvasía, founded in the later sixth century as a fortified maritime refuge, functioned from its inception as a harbour that required reliable night marking. Fires or lanterns shown from the lower town and fortress walls almost certainly guided vessels to the sole point of access beneath the rock. During the Middle Byzantine period, when Monemvasía emerged as a major ecclesiastical centre, church institutions likely played a significant role in sustaining such harbour lighting, ensuring continuity through periods of political change. Under Venetian and Ottoman rule these practices were absorbed into formalised fortress routines. Monemvasía operated for centuries as a fully functional harbour-light system, exemplifying the convergence of navigation, defence, and ecclesiastical responsibility in the medieval Greek maritime world.

References: Nicol, Donald M: Byzantium and Venice. Cambridge: Cambridge University Press, 1988; Mango, Cyril: Byzantine Architecture. Milan: Electa, 1985; Whitewright, Julian: “Harbours and Maritime Infrastructure in the Byzantine Mediterranean.” Journal of Maritime Archaeology 9 (2014): 25–48.

Antiquity: No; Phoenician: No; Greek Colony: Yes; Greek

Classical: Yes; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 7

Piraeus (Antiquity continuing)

Alternative Names: Piraeus, Le Piree, Kantharos, Gantharos, Kranaoi

Location: Attica

Lat/Lon: 37.94165, 23.61728

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour and Military; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Major artificial harbour with continuous ancient and medieval documentation. The most likely site for a lightstructure in Piraeus was at the Tomb of Themistocles. The precise location is still disputed, but is most likely in the grounds of the old fertilizer factory. As Rome declined so also did the trade using Athens which continued to function but at a lesser scale than in antiquity until a revival under Frankish and Venetian rule. Fire lights would have been used for port entry.

References: Zemke p9, 22, 23; Pliny the Elder: The Natural History 2, 87

AL References: 280

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes;

Activity Index: 5

Munichia (Antiquity continuing)

Alternative Names: Mounichia, Munychie, Munychia

Location: Attica

Lat/Lon: 37.93718, 23.66039

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour and Military; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Secondary harbour of Athens, fortified and described in classical and later sources. Perhaps one lighthouse on each breakwater is possible, but there is no hard evidence. Munichia represents a critical early stage in Greek maritime lighting: a fortified harbour hill combining cultic fire, military watch-beacons, and practical night-time orientation for shipping. While lacking a purpose-built lighthouse tower, its elevation, ritual fire-use, and integration within the Piraeus harbour system allowed it to function effectively as an early harbour light, anticipating later monumental lighthouse forms without yet formalizing them architecturally.

References: Thucydides, History of the Peloponnesian

War 8.92–93; Xenophon, *Hellenica* 2.4.30–34; Parker, Robert: Polytheism and Society at Athens, OUP, 2005, 433–36; Donaldson, William: Ancient Lighthouses, Hakkert, Toronto 1973, 18–23; Conwell David H: Connecting a City to the Sea, Leiden, Brill, 2008, 112–120.

AL References: 280

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 6

Cape Sounion (Antiquity continuing)

Location: Attica

Lat/Lon: 37.6502, 240247

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Waypoint/Landfall; Ecclesiastical managed

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Primary landfall/headland marker with sanctuary and ritual lighting. Cape Sounion is best understood as a site for a promontory light. From at least the Archaic–Classical period it hosted high-visibility ritual activity at the sanctuary of Poseidon, and Homer already treats “holy Sounion” as a landmark for a cremation rite, implying conspicuous fire events at the cape. In 413–412 BC Athens fortified and strengthened Sounion to command critical sea approaches, a context in which routine night watch fires are highly likely and would have provided powerful navigational recognition to mariners rounding Attica. The pre-modern evidence supports long continuity of multifunctional fires - ritual, defensive, and practically navigational in effect at one of the Aegean’s most prominent headlands.

References: Paga, Jessica, and Margaret M. Miles: “The Archaic Temple of Poseidon at Sounion.” *Hesperia: The Journal of the American School of Classical Studies at Athens* 85, no. 4 (2016): 657–710; Tataki, Argyro B: Sounion: The Temple of Poseidon. Athens: Ekdotike Athenon, 1985; Kanelopoulos, Chrysanthos, and David Scahill: “The Archaic Temple of Poseidon at Cape Sounion: A Note on the Architecture.” *Pelargos* 2 (2021): 51–60; Burkert, Walter. *Greek Religion*. Cambridge, MA: Harvard University Press, 1987. Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 7

Chrysopigi (6-12c (Ecc))

Location: Sifnos

Lat/Lon: 36.9364, 24.7462

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Waypoint/Landfall; Ecclesiastical custodians

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Monastic promontory with continuous vigil lighting.

Sifnos is particularly strong for ecclesiastical lighting because it has numerous coastal and elevated churches, it lacks a strong military/fortress alternative and so continuity depended on local religious institutions. The Monastery of Chrysopigi, dramatically sited on a rock projecting into the sea (traditionally dated in its present form later, but with earlier cultic use), exemplifies how lamp and vigil light at sacred coastal sites could double as maritime reference points, even when not intended for navigation. Between roughly the 6th and 12th centuries, ecclesiastical custodianship of harbour or coastal fires on Sifnos is highly plausible. Sifnos represents a Cycladic model of pre-modern maritime lighting based on small harbour fires sustained by ecclesiastical continuity rather than state infrastructure. From Late Antiquity onward, the island’s minor anchorages—especially Kamáres—almost certainly relied on harbour-edge fires to assist night landings and coastal cabotage. In the Middle Byzantine centuries, Sifnos’s dense network of churches and monasteries plausibly ensured the continuity of such lighting, framed as hospitality and protection of life at sea. Although no purpose-built lighthouse existed before the modern era, Sifnos functioned effectively as a lighted island, illustrating how religious institutions underpinned maritime safety in the Cyclades before 1700.

References: Lock, Peter: *The Franks in the Aegean, 1204–1500*. London: Longman, 1995.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: No; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 2

Naxos (6c ongoing)

Alternative Names: Chora

Location: Naxos

Lat/Lon: 37.108, 25.3758

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Harbour lights; Ecclesiastical assistance

Light Form: Local lanterns

Medieval Structure Exists: No

Notes: Main island harbour. The island capital of Naxos retained a Byzantine and later Venetian fortress-harbour. Venetian Capitano Marco Sanudo (13th c.) established a towered mole (Castro di Nasso). There is a book that mentions “porto de Nasio, donde está una torre con

“ *fuego*” — “a port where there is a tower with a fire.” Portolans show Naxos with a light- tower symbol. So Naxos had a documented medieval beacon or harbour light under Venetian rule (13th–15th c). Naxos (Chóra) presents a layered maritime-lighting landscape rather than a single “lighthouse.” The Portára, a remnant of an Archaic Temple of Apollo begun in the sixth century BC, stands at the harbour entrance on Palatiá, making ritual fire at a highly visible maritime landmark plausible and navigationally meaningful by effect. From Late Antiquity onward, Naxos’s dense ecclesiastical infrastructure provides a plausible mechanism for continuity of practical harbour lighting, while the construction of the Venetian Kastro soon after 1207 institutionalised fortress-based watch and harbour-control fires

References: Portolans (Pizigani 1367; Benincasa 1474); Libro del Conoscimiento (14th c.)

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: Yes; Activity Index: 6

Naoussa (12c continuing)

Location: Paros

Lat/Lon: 37.1258, 25.2375

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour lights; Ecclesiastical assistance

Light Form: Fortified structure; Local lanterns and fires

Medieval Structure Exists: No

Notes: Venetian harbour Naoussa was founded and fortified by the Venetians with a harbour castle whose remains still guard the port.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Korakas (12c continuing, 1887)

Location: Paros

Lat/Lon: 37.1544, 25.2248

Modern Lighthouse On Site: Yes (1887)

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Modern lighthouse on Cape Korakas at the bay entrance continues this navigational function. A Venetian naval base and later Ottoman anchorage with enclosed bay and fort is the classic context for a harbour mole-light backed up by a beacon on the cape.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Paroikia (1207)

Location: Paros

Lat/Lon: 37.08476, 25.14765

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour lights; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Main harbour of Paros. Venetian remains here suggest that the port may have shown lights at some point, though there is no clear report in literature. Paroikía, the principal harbour of Paros, presents one of the clearest Cycladic cases for the sustained use of harbour fires before 1700. The harbour’s continuous maritime importance and the immediate presence of the monumental basilica of Panagia Ekatontapyliani strongly support the existence of maintained harbour lighting from Late Antiquity onward, likely under ecclesiastical supervision during the Byzantine centuries. Under Venetian and later Ottoman rule, these practices were absorbed into fortified harbour control, preserving Paroikía’s role as a true harbour-light site without a lighthouse.

References: Whitewright, Julian: “Harbours and Maritime Infrastructure in the Byzantine Aegean.” *Journal of Maritime Archaeology* 9 (2014): 25–48.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Cape Gournia (Antiquity)

Alternative Names: Delos, Dilos, Delessa

Location: Delos

Lat/Lon: 37.4109, 25.27725

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Natural landfall/ waypoint with no solid evidence of a sustained light. Likely to be a ritually illuminated location with only occasional beacon fires subsequently.

References: Strabo: 10.5; Herodotus: Hist 6.99-118; Ovid: Metamorphoses, 3: 597-636 & 13:623-642; Diadorus: Hist 11, 9; Livy: Hist 36: 42-43 & 45:10; Polybius: Hist 31, 7; Polyaenus: Strategemes, 3, 9; Antonine Itinerary; Stadiasmus Maris Magni: 280 & 282-284;

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Mykonos (5-12c (Ecc), continuing Ven + Ott)

Location: Mykonos

Lat/Lon: 37.45118, 25.32839

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Harbour lights; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Significant harbour city. From the Roman period onward, and especially in the Byzantine centuries, harbour fires at Mykonos almost certainly provided essential guidance for vessels transiting the Delos channel. Ecclesiastical institutions on the island likely ensured continuity of this practice between the fifth and twelfth centuries, before Venetian and Ottoman authorities absorbed harbour lighting into more formalised port control. Mykonos emerged as a sustained harbour-lighting site largely because of its proximity to Delos. While ritual fires at the Delian sanctuary functioned as the principal maritime reference point in antiquity, the island's decline in Late Antiquity shifted the burden of night navigation to Mykonos. Although no purpose-built lighthouse existed before the modern era, Mykonos functioned for centuries as a de facto harbour light, sustaining the navigational role once fulfilled by Delos.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 5

Armenistis (8c ongoing, 1891)

Location: Mykonos

Lat/Lon: 37.45118, 25.3284

Modern Lighthouse On Site: Yes (1891)

Ecclesiastical: Yes

Light Function: Waypoint/Landfall; Ecclesiastical assistance

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Pure landfall/headland with no settlement or institutional presence. Armenistis lighthouse was built by a French Lighthouse Company overlooking the Mykonos - Tinos - Ikaria route, with direct line of sight towards Kavos Papas. The headland commands one of the principal crossings of the central Aegean. Even if there was no permanent tower in earlier centuries, it is an obvious site for signal fires in bad weather or during war.

References: Bruneau, Philippe, and Jean Ducat: Guide de Délos. Paris: École française d'Athènes, 2005.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Ano Siros (12c, 14c continuing)

Alternative Names: Syros

Location: Syros

Lat/Lon: 37.45097, 24.93549

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Military and Harbour; Ecclesiastical refuge

Light Form: Local lanterns

Medieval Structure Exists: No

Notes: Elevated fortified settlement with religious community. Before 1700, Syros is best approached not as an Ermoupoli harbour-light case (Ermoupoli is a product of the 1820s), but as a medieval hilltop settlement (Áno Sýros) overlooking anchorages in the central Cyclades. Built in the late Byzantine/early Frankish era and shaped as a fortified citadel dominated by St George, Áno Sýros almost certainly generated routine watch and warning fires whose visibility also provided recognition lighting to shipping. The island's durable Catholic institutions make ecclesiastical continuity a plausible mechanism for sustaining such lights, though explicit documentation of a church-run navigational light at Syros remains to be demonstrated.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Bourtzi - Skiathos (12c, 15c)

Location: Skiathos

Lat/Lon: 39.162, 23.4891

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Military and Harbour; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Fortified islet controlling harbour. The small fortified islet and twin-bay harbour form one of the classic Aegean anchorages; Venetian and later Ottoman phases are documented. A beacon or lantern on the Bourtzi or on the harbour mole is highly likely by the late medieval period.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Thessaloniki (4c continuing)

Location: Central Macedonia

Lat/Lon: 40.626, 22.948

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Harbour and Military; Ecclesiastical

assistance

Light Form: Local lanterns and fires

Medieval Structure Exists: No

Notes: Major enclosed harbour with continuous administrative evidence. Thessaloníki stands as the strongest Greek example of continuous pre- modern maritime lighting without a purpose-built lighthouse tower. Founded in the late fourth century BC as a major Macedonian port and later integrated into the Roman and Byzantine imperial systems, the city necessarily employed harbour-edge fires, wall-mounted lanterns, and tower lights to regulate night entry and provide reassurance within the Thermaic Gulf. From Late Antiquity onward, Thessaloníki's exceptionally powerful ecclesiastical institutions reinforced this system, ensuring continuity of lighting through periods of political change. Venetian and Ottoman administrations subsequently absorbed these practices into regulated harbour and fortress routines. Thessaloníki thus demonstrates that scale, institutional permanence, and geography, rather than lighthouse monuments, determined the highest levels of maritime lighting before 1700.

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 7

Kavala (15c)

Alternative Names: Neapolis

Location: Eastern Macedonia & Thrace

Lat/Lon: 40.931, 24.412

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour and Military; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Fortified harbour city with medieval continuity. Ancient Neapolis, later Byzantine/Kavala, was the key port on the route between the Dardanelles and Thessaloniki, with a fortified headland and harbour front. Venetian and Ottoman fortifications guarded the entrance; a harbour-light or beacon on the castle or mole is highly probable by the late medieval period, by analogy with other fortified Levantine ports.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Thasos (5-12 (Ecc), 12c continuing)

Location: Thasos

Lat/Lon: 40.7807, 24.7132

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Harbour lights; Ecclesiastical assistance

Light Form: Local lanterns

Medieval Structure Exists: No

Notes: Harbour settlement. Thásos exemplifies a northern Aegean island where continuous harbour lighting emerged from economic necessity and ecclesiastical continuity rather than from cult or monumental state investment. From the Classical period onward, episodic harbour fires at Liménas and Alikí likely assisted night arrivals for a resource-rich polis engaged in dense short-crossing traffic with the Thracian coast. Under Roman rule these practices became routine, and in Late Antiquity ecclesiastical institutions plausibly ensured their continuity as civic authority weakened. In the Middle Byzantine and later periods, harbour walls and towers formalised night watch lighting, which also functioned as navigational recognition. Without ever developing a lighthouse tower, Thásos operated for centuries as a consistently lighted harbour island, illustrating how modest but durable institutional frameworks sustained maritime safety before 1700.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 6

Cape Pyrgos (5c continuing)

Alternative Names: Thase, Chryse, Thasos

Location: Thasos

Lat/Lon: 40.77691, 24.73055

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Beacon fires

Medieval Structure Exists: Yes

Notes: Orientation cape only. The situation on Thasos remains confused. The existence of this tower may constitute the oldest existing lighthouse in the world, dating from the late to mid 7th c. BCE. Cape Pyrgos on Thasos is one of the strongest Greek candidates for a pre-1700 light-site because it preserves (or is closely associated with) the so-called Akeratos tower bearing an inscription (IG XII.8.683) that explicitly frames the monument as a protective maritime sign at the harbour-mouth for ships and sailors. While the text does not state that a fire was maintained, modern scholarship treats such coastal towers, especially this Thasos example, as plausible supports for beacon-fires within wider practices of ancient night navigation, and the tower's placement within the small-harbour landscape of Ainyra/ Panagia–Potamia strengthens a navigational purpose.

References: Homer: Iliad 1.430; Empereur, Jean-Yves: *Le Phare d'Alexandrie, La Merveille Retrouvée*, Découvertes Gallimard (1998) p15. (In French). ISBN: 9782070303793;

Jonatan Christiansen: "La signalisation maritime dans l'Antiquité," [PDF] (2014), esp. discussion of the tour du cap Pyrgos and IG XII.8.683. ancientportsantiques.com; C. M. Mauro and F. Durastante: "On the Use of Lights as Night Navigation Aids During Antiquity," [PDF] (2025), esp. "Coastal Lights" and the Cape Pyrgos (Thasos) example. ancientportsantiques.com; Dimitra Malamidou: "The Harbours of Thasos and Neapolis on the Ancient Northern Aegean Sea Routes," Mare Thracium (2023), section "The other harbours of the island" noting Ainyra and the tower of Akeratos.

AL References: 281

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 5

Palaiopolis (5-12 (Ecc), continuing)

Location: Samothraki

Lat/Lon: 40.50267, 25.52723

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Waypoint/Landfall; Ecclesiastical managed

Light Form: Beacon fires

Medieval Structure Exists: Yes

Notes: Sanctuary-associated anchorage. Samothráki represents the strongest Greek case where ritual fire functioned as maritime lighting by effect rather than by design. From the Archaic period onward, nocturnal rites at the Sanctuary of the Great Gods generated conspicuous fire on a steep, highly visible island, offering open-sea recognition to mariners approaching the northern Aegean. This cultic visibility almost certainly shaped navigational expectations, especially given the sanctuary's explicit association with safety at sea. In Late Antiquity, Christian institutions plausibly inherited the island's night-lighting role through vigil lamps and church illumination, while small harbour fires at Kamariotíssa and local watch beacons sustained practical access. Without ever developing a lighthouse tower, Samothráki functioned for centuries as a sacred recognition light, illustrating how religion and topography together produced durable maritime lighting before 1700.

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 6

Kastron (5-12c (Ecc), 15c)

Alternative Names: Castle of Myrina

Location: Limnos

Lat/Lon: 39.8776, 25.0554

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Military and Harbour; Ecclesiastical assistance

Light Form: Local lanterns

Medieval Structure Exists: No

Notes: Fortified town overlooking harbour. The castle dominates the twin bays that form the main anchorage. Byzantine and Venetian phases of the fortifications are well documented, with the port functioning as a staging point into the northern Aegean; later sailing directions treat Myrina as a standard stop. It would be surprising if a harbour beacon or castle-light was not maintained here by the 15th–17th c. Límnos stands as the clearest Greek island example in the northern Aegean of continuous maritime lighting without a lighthouse tower. From the Archaic period, cultic fire associated with Hephaistos at Hephaistía provided a highly visible coastal landmark with navigational effect. As harbour activity intensified in the Hellenistic and Roman periods, routine harbour-edge fires and lanterns at Hephaistía and Myrína became practically unavoidable. In Late Antiquity and the Middle Byzantine centuries, ecclesiastical institutions likely ensured continuity of such lighting as civic authority weakened, before Latin and Ottoman regimes absorbed these practices into regulated fortress watch-lighting at the Kastro of Myrína. Límnos thus exemplifies how cult, church, and fortress together sustained a durable maritime lighting landscape before 1700.

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 7

Sigri (15c continuing (Ott))

Location: Lesbos

Lat/Lon: 39.2018, 25.8503

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour lights; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: Yes

Notes: Small harbour used intermittently. The Ottoman castle (mid-18th c.) occupies a promontory sheltering the bay used as a roadstead on the exposed west side of Lesbos. The bay commands traffic rounding the north Aegean. The fortress itself post-dates 1700, but given the exposed coast, the site is a good candidate for earlier warning and signal fires, then formalised as a harbour and castle-light complex under the Ottomans. Sigri represents a secondary but essential component of the Lesbos maritime lighting system before 1700. As a refuge harbour on the exposed western coast of the island, its function required only modest and situational lighting: shore fires, lanterns, or small watch lights sufficient for recognition and reassurance rather than pilotage. While no purpose-built lighthouse or monumental installation

is documented, intermittent lighting is highly plausible from the Roman period onward, with greater continuity emerging in Late Antiquity and the Middle Byzantine centuries through parish-level ecclesiastical support. In the later medieval period, increasing concerns over piracy likely reinforced the use of watch fires at this western landfall. Sigri thus illustrates how small harbours complemented major fortified ports, forming part of a distributed lighting system shaped by geography and need rather than by scale or monumentality.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 5

Mytilene (11c (Ecc), continuing (Gen, Ott))

Alternative Names: Lesvos, Mytilini, Euripus Canal
Location: Lesbos
Lat/Lon: 39.10571, 26.55778
Modern Lighthouse On Site: No
Ecclesiastical: Yes
Light Function: Harbour and Military; Ecclesiastical assistance
Light Form: Local lanterns and fires
Medieval Structure Exists: No
Notes: Principal harbour city. Lésvos stands as the most fully articulated example among Greek islands of continuous harbour lighting without a lighthouse tower. From the Classical period onward, the scale and enclosure of Mytilene's harbour necessitated the use of harbour-edge fires, wall-mounted lanterns, and watch lights for night entry, defence, and recognition. Under Roman and Byzantine rule these practices became routine, supported by exceptionally strong ecclesiastical institutions that ensured continuity through Late Antiquity and the Middle Byzantine centuries. Genoese and later Ottoman administrations formalised such lighting within fortress doctrine, including it in regulated harbour management. Lésvos thus demonstrates that metropolitan scale, institutional permanence, and harbour geometry, rather than lighthouse monuments, produced the most sustained maritime lighting regimes in the Aegean before 1700. Byzantine documents refer to "pharos Mytilenes". Mytilene was a major Byzantine base commanding the northern Aegean approaches. The Genoese seized Lesbos in 1355 and maintained a fanal on the harbour mole. A notarial record of 1360 authorises payments "pro oleo fanalis Mytilenae" and Buondelmonti's map both mark a lighted tower. Both Roman and Byzantine moles are still visible. The light was continued into the Ottoman period.
References: Chrysobull 1085 (ed. Miklosich–Müller II, 1862); Buondelmonti 1420; Genovese notarial acts 1360; Farioli Campanati 1990; Portolans (Pizigani 1367; Dulcert 1339)

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: Yes; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 7

Psara (5c continuing)

Location: Psara
Lat/Lon: 38.5384, 25.5647
Modern Lighthouse On Site: No
Ecclesiastical: No
Light Function: Harbour lights; Ecclesiastical assistance
Light Form: Local lantern fires
Medieval Structure Exists: No
Notes: Harbour island settlement. Psará exemplifies a small north Aegean island whose maritime lighting before 1700 was dominated by watch and warning fires rather than harbour navigation. Lacking the scale or resources of nearby Chíos or Lesvos, Psará nevertheless occupied a strategically valuable position on exposed routes prone to piracy and sudden weather. From Late Antiquity onward, recurrent coastal watch fires likely provided surveillance and communication, incidentally offering recognition to passing vessels. Modest harbour-edge lamps at the island's single anchorage supplemented this system, while ecclesiastical institutions at parish level plausibly ensured continuity during the Byzantine centuries. Psará thus illustrates how vigilance and signalling, rather than commerce or hospitality, could shape maritime lighting practices in the Aegean before 1700.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Chios (5c continuing)

Alternative Names: Khios, Scio, Hios
Location: Chios
Lat/Lon: 38.3715, 26.1416
Modern Lighthouse On Site: No
Ecclesiastical: No
Light Function: Harbour and Military; Ecclesiastical assistance
Light Form: Local lantern fires
Medieval Structure Exists: No
Notes: Chíos represents one of the most fully institutionalised harbour-lighting systems in the eastern Aegean before 1700. From the Classical period onward, the scale and enclosure of the harbour at Chios town required harbour-edge fires, wall-mounted lanterns, and watch lights for night entry, defence, and recognition. Under Roman and Byzantine administration these practices became routine, supported by dense ecclesiastical institutions that ensured continuity through Late Antiquity and the Middle Byzantine centuries. Genoese rule in the fourteenth to sixteenth

centuries formalised harbour lighting as part of regulated port management, a practice subsequently absorbed into Ottoman administration. Without ever developing a monumental lighthouse, Chios functioned as a continuously lighted commercial harbour, demonstrating how institutional permanence and economic value sustained maritime lighting before 1700. This site began with a Roman beacon and continued as a harbour light with reported use as the Pharos of Chios in 12-14th c and as a Genoese fanal in 1391. The lightstructure remained in use after the Ottoman conquest (1566). Evliya Çelebi (17th c.) mentions "a light burning upon the tower at the port's mouth."

References: Strabo XIV.1.35; Procopius, De Aedificiis V.3; Saewulf, Itinerarium (1102); Archivio di Stato di Genova, Notai Giustiniani, 1391; Buondelmonti, Liber Insularum Archipelagi (c.1420); Foss & Winfield, Byzantine Fortifications(1986); Farioli Campanati, I fari veneziani dell'Adriatico e dell'Egeo (1990).

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: Yes; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 6

Nas (5c continuing (Ecc))

Location: Ikaria

Lat/Lon: 37.6214, 26.0592

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Waypoint/Landfall; Ecclesiastical managed

Light Form: Beacon fires

Medieval Structure Exists: No

Notes: Anchorage and sanctuary site with ritual lighting. Nas on Ikaria represents one of the clearest Aegean cases where ritual fire functioned as maritime lighting by effect rather than design. From the Archaic period, nocturnal cult activity at the sanctuary - traditionally associated with Artemis - generated conspicuous fire at a river-mouth site visible from the open north Aegean, providing recognition to passing mariners. Although not a harbour, Nas offered an identifiable coastal marker whose visibility shaped navigational awareness. In Late Antiquity, Christianisation likely preserved this role through vigil lighting and local ecclesiastical custodianship, while in the medieval period recurrent watch fires reinforced the site's function amid insecurity and piracy. Nas thus complements Cape Papa by illustrating the positive pole of Ikaria's lighting landscape, where fire marked presence and recognition rather than hazard and avoidance.

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 6

Papa (9-11c, continuing, 1890)

Alternative Names: Kavos, Cape Pope

Location: Ikaria

Lat/Lon: 37.5114, 25.9791

Modern Lighthouse On Site: Yes (1890)

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Beacon fires

Medieval Structure Exists: Yes

Notes: Coastal orientation point only. Cape Papa on Ikaria represents a pure example of headland-based watch lighting in the eastern Aegean before 1700. Situated on a steep and harbourless stretch of the island's north coast, Papa functioned not as a navigational aid for entry but as a hazard-recognition and warning point, where fires were lit episodically to signal danger, piracy, or local alert. From Late Antiquity onward, when insecurity increased and central authority weakened, such watch fires probably became recurrent, supported by small communities and, in the Byzantine period, by ecclesiastical custodianship focused on vigilance rather than hospitality. Papa thus illustrates a place where fire marked danger and avoidance rather than welcome or refuge. The modern lighthouse is constructed on the western tip of Ikaria island, on Cape Papas, an area where high winds blow all year round. It was given that name because, according to tradition, of a shipwreck near by this Cape. The Roman Catholic Pope ("Papas" in Greek) was travelling to Istanbul by sea and his ship was wrecked near by the Cape. The light was first lit in 1890 using oil as source of power and its characteristic was one white flashing light every minute, visible from 23 n. miles. During World War II the light remained off because of bombing by German aircraft that caused serious damage to the tower and the whole building. It became operational again in 1945, temporarily as a beacon, until 1949 when all repair works were completed. In 1980 the light was converted to electricity. Its round tower is 11 m high and its characteristic is one white flashing light every twenty seconds, visible from 25 n. miles. It was the only Greek lighthouse using the traditional rotating catadioptric system until October 2000. Today this system is replaced by a modern fully automatic light system.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 6

Agios Kyrikos (5c continuing)

Location: Ikaria

Lat/Lon: 37.615, 26.2965

Modern Lighthouse On Site: No

Ecclesiastical: Yes

Light Function: Harbour lights; Ecclesiastical assistance

Light Form: Local lanterns

Medieval Structure Exists: No

Notes: Sheltered anchorage evolving into harbour. Agios Kýrykos represents the modest but essential harbour-lighting component of Ikaria's maritime landscape before 1700. Unlike the exposed headland at Cape Papa or the cultic recognition site at Nas, Agios Kýrykos functioned as a practical anchorage whose night usability depended on simple harbour-edge lamps or fires. While such lighting was likely intermittent in antiquity, continuity from Late Antiquity through the Middle Byzantine period is best explained through ecclesiastical custodianship, with church lamps and vigil lighting doubling as harbour recognition. In the later medieval and Ottoman periods, increased insecurity reinforced the maintenance of watch lights as part of routine harbour management. Agios Kýrykos thus illustrates how small parish harbours sustained navigational lighting through continuity rather than scale or monumentality.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Drakano (4c continuing)

Location: Ikaria

Lat/Lon: 37.6874, 26.3615

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Waypoint and Military; Ecclesiastical assistance

Light Form: Fortified Structure; Local lanterns and fires

Medieval Structure Exists: Yes

Notes: Fortress-headland controlling sea lanes. Drakano (Ikaria) occupies a prominent coastal headland overlooking key Aegean sea routes and is generally dated to the late fourth century BC. Although the tower was constructed primarily as a military watchtower, its position and height would have allowed the display of fire or torch signals visible from the sea. No direct ancient testimony confirms its use as a navigational aid, and any illumination was likely intermittent and multifunctional rather than continuous. Nevertheless, by analogy with other Hellenistic coastal towers, the possibility of occasional light signals perceived by mariners cannot be excluded. Drakano may therefore be included among pre- modern coastal towers of probable but unverified maritime signalling value.

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 5

Pythagoreiou (5c continuing)

Alternative Names: Samos

Location: Samos

Lat/Lon: 37.6885, 26.9396

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour lights; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Enclosed harbour with classical continuity. Sámos exemplifies an eastern Aegean island where cultic, ecclesiastical, and harbour lighting formed a continuous maritime landscape before 1700. From the Archaic period, ritual fire at the Heraion—closely associated with seafaring—created a conspicuous coastal light with clear navigational effect. As harbour activity concentrated at Pythagóreion, episodic quay fires evolved into routine harbour-edge lighting under Hellenistic and Roman administration. In Late Antiquity and the Byzantine centuries, ecclesiastical institutions plausibly inherited and sustained this lighting regime through vigil lamps and church illumination, while fortress watch lights ensured continuity of night control. Genoese and Ottoman authorities later absorbed these practices into regulated harbour management. Without a monumental lighthouse, Sámos functioned for centuries as a consistently lighted strait-adjacent island, demonstrating how geography and institutional continuity shaped maritime lighting in the Aegean before 1700.

Antiquity: Yes; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: Yes; Byzantine: Yes; Venetian: Yes; Genoese: Yes; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 7

Akrotiri (13c, 1892)

Alternative Names: Santorini, Thera

Location: Santorini

Lat/Lon: 36.3578, 25.357

Modern Lighthouse On Site: Yes (1892 - French)

Ecclesiastical: No

Light Function: Harbour lights; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Anchorage and settlement, not open landfall. Mentioned in Venetian Pilot books. Medieval remains can be found under the modern lighthouse at this strategic position in the Aegean. This would make it a waypoint and not a harbour light.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Mandraki (8c continuing)

Location: Nisyros

Lat/Lon: 36.61094, 27.13029

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Harbour lights; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Harbour settlement. Mandraki, the principal harbour of Naxos, functioned continuously from antiquity through the medieval and early modern periods without evidence for a maintained navigational light. Although monumental landmarks such as the Portara and the Venetian Kastro provided powerful visual reference points by day, no primary or archaeological sources support the existence of a beacon or lighthouse before 1700. Claims of a "St Nicholas fortress" at Mandraki appear to derive from secondary-source confusion, most likely with the Hospitaller Fort of St Nicholas at Rhodes or with common portside dedications to St Nicholas, rather than from any identifiable structure on Naxos. Any illumination associated with Mandraki before the modern period should therefore be understood as incidental devotional or domestic lighting rather than organized maritime infrastructure.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Rhodes (5c continuing, 1863)

Location: Rhodes

Lat/Lon: 36.45122, 28.22802

Modern Lighthouse On Site: Yes (1863 - French)

Ecclesiastical: No

Light Function: Harbour and Military; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: Yes

Notes: Major Hospitaller harbour city. At Rhodes, unlike most Greek ports, harbour-based lights before 1700 can be identified with some confidence. The Hospitaller Fort of St Nicholas, rebuilt in the mid-fifteenth century at the mouth of Mandraki harbour, was permanently garrisoned and necessarily displayed watch fires or lanterns visible to approaching vessels, while the operation of the harbour chain and inner port installations presupposed fixed nocturnal illumination. Although these lights lacked the formal characteristics of a modern lighthouse, they constitute institutional harbour lighting, making

Rhodes one of the rare surviving Greek sites where pre-1700 maritime lights can be demonstrated rather than merely inferred. Although it is extremely unlikely that the Colossus showed a light in the way that is commonly described, there is a high confidence level of at least one light shown either at the harbour entrance or in the port. Harbour structures with beacon fires continued into the Byzantine period.

References: Stevenson p2, 7, 8; Zemke p13, 14, 22, 23; Hague & Christie p2, Cartulaire général des Hospitaliers (1897) no. 3827; Buondelmonti 1420; Pizigani 1367; Benincasa 1474; Luttrell – Rhodes under the Knights (1978).

AL References: 22-30

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: Yes; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Ainyra (-550)

Alternative Names: Helleniko, Potamia, Ainyra

Location: Thasos

Lat/Lon: 40.7106, 24.761

Modern Lighthouse On Site:

Ecclesiastical: No

Light Function: Harbour lights; Ecclesiastical custodians

Light Form: Local lantern fires

Medieval Structure Exists: Yes - archaeological remains

Notes: Anchorage near quarry site with shrine. Remains of a cylindrical tower thought to be a lighthouse built before the Pharos have been found here. Ainyra is a little known location at Cape Pyrgos on Thasos.

AL References: 281

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Chania (13c, 1595, 1839)

Alternative Names: Canea

Location: Crete

Lat/Lon: 35.5175, 24.0109

Modern Lighthouse On Site: Yes (1839)

Ecclesiastical: No

Light Function: Harbour and Military; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: Yes

Notes: Venetian harbour with continuous occupation. Chania was the successor to ancient Kydonia. It was under Venetian occupation from 1252 and the harbour was entirely rebuilt by Venetians c. 1320–1350 with moles and a light tower. Commune accounts of 1329 list maintenance costs "per fanulum portus Canea." The Harbour Light Tower, was restored under Ottoman rule

in 1839 and sits on Venetian foundations dated c. 1595 – 1600, with an earlier phase evident in the masonry (14th–15th c.) Portolans and Buondelmonti (1420s) both show Chania with a beacon symbol.

References: Archivio di Stato di Venezia, Canea (1329). Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Souda (13c, 1595-1601, 1824-32)

Alternative Names: Suda

Location: Crete

Lat/Lon: 35.4919, 24.06768

Modern Lighthouse On Site: Yes (1832)

Ecclesiastical: No

Light Function: Harbour and Military; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Souda is a strategic natural harbour on Crete east of Chania, fortified from 13th c. when it was a Venetian naval station. A Venetian Senate decree of 1429 allocates oil for the light: “de custodia fanalis de Suda et expensis olei.” The Islet of Nisos Souda carried a watch and light tower guarding the narrow entrance and an Ottoman traveller Evliya Çelebi (17th c.) later mentions “the tower where the Franks burned a light.” The current lighthouse has genuine medieval roots but has been rebuilt enough to make it doubtful today.

References: Evliya Çelebi. *Seyahatname*, Book 8. Istanbul: Topkapı Library MS Bağdat 307, 17th century. Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Rethimno (13c, 1838)

Location: Crete

Lat/Lon: 35.3703, 24.4776

Modern Lighthouse On Site: Yes (1838)

Ecclesiastical: No

Light Function: Harbour and Military; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: Yes

Notes: Fortified harbour town serving regional navigation. A secondary Venetian harbour between Chania and Candia, a harbour mole and tower was constructed c. 1300–1320; Venetian rettori managed a communal fanal that was mentioned in municipal rolls of 1325 (Senato Mar): “per refectio fanalis Retimi.” Buondelmonti (1420) and later portolans mark a tower with a fire symbol. Venetian and Ottoman tower foundations survive beneath modern lighthouse (restored 1830s).

References: Archivio di Stato di Venezia, Senato Mar, Deliberazioni miste, ff. 42–44 (1302–1349); Buondelmonti, Cristoforo. *Liber insularum Archipelagi*. Ed. L. de Santis. Florence, 1420 [facsimile 1981].

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Candia (10c, 1302, 1317, 1349, 1830, 1864)

Alternative Names: Heraklion, Chandax

Location: Crete

Lat/Lon: 35.346, 25.1558

Modern Lighthouse On Site: Yes (1864)

Ecclesiastical: No

Light Function: Harbour and Military; Ecclesiastical assistance

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Major Venetian harbour with documented light usage. Under Byzantines (10th–12th c.) the site was known as Chandax, Crete’s main fortress and port. It was captured by the Venetians in 1211, renamed Candia, and became the capital of the Regno di Candia. A Venetian Senate record shows “pro oleo fanalis Candiae” — funds allocated for oil for the port light. This is repeated in fiscal lists of 1317 and 1349. Portolan charts depict Candia with a mole-tower bearing a flame. Harbour mole foundations excavated in the 1950s show a square medieval tower beneath the Ottoman lighthouse site, built 1864.

References: Orlando, Anastasios K. *Anaskaphai en Kandiā*. Athens: Archaeological Society of Athens, 1953; Archivio di Stato di Venezia, Senato Mar, 1302; Senato Mar, Litterae, ff. 42–44; Pizigani, 1367; Benincasa, 1474. Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

Spinalonga (11c, 1548)

Location: Crete

Lat/Lon: 35.299, 25.7384

Modern Lighthouse On Site: No

Ecclesiastical: No

Light Function: Military and Harbour; Ecclesiastical refuge

Light Form: Local lantern fires

Medieval Structure Exists: No

Notes: Military island with monastic/refuge phases controlling harbour access. Spinalonga is a small fortified islet off Elounda in Crete; Venetian fortress was completed in 1579, but occupation and signalling took place earlier. In Venetian Capitani di Candia correspondence, 1548, there is reference to “torre del

fanal di Spinalonga.” It is likely that it was built atop a Byzantine watchtower where a beacon guided ships through the Mirabello approaches.

References: Luttrell, Anthony. “Venetian Crete and the Regno di Candia.” In The Hospitallers of Rhodes and their Mediterranean World, 119–142. Aldershot: Variorum, 1992.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: No; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 3

Cape Sidero (14c, 1864)

Alternative Names: Akrotiri Sidero

Location: Crete

Lat/Lon: 35.3158, 26.3108

Modern Lighthouse On Site: Yes (1864)

Ecclesiastical: No

Light Function: Waypoint/Landfall

Light Form: Beacon fires

Medieval Structure Exists: Yes

Notes: Extreme landfall cape used for orientation only. This is a major headland controlling the entrance from the Aegean to the Levant. It was cited in Byzantine periplooi as Akrōtērion Sideron. A Pizigani Chart (1367) and Catalan Atlas (1375) depict “Capo Sidero” with a flame-tower symbol indicating a beacon or fire-tower but with no urban harbour nearby. A 19th-century Ottoman lighthouse (built 1864) occupies the same point and a substructure of rubble blocks is possibly medieval.

References: Pizigani, Domenico and Francesco: *Carta nautica dell’Adriatico e dell’Egeo*. Venice, 1367.

Antiquity: No; Phoenician: No; Greek Colony: No; Greek Classical: No; Roman: No; Byzantine: Yes; Venetian: Yes; Genoese: No; Ottoman: Yes; Islamic: Yes; Local: No; Activity Index: 4

