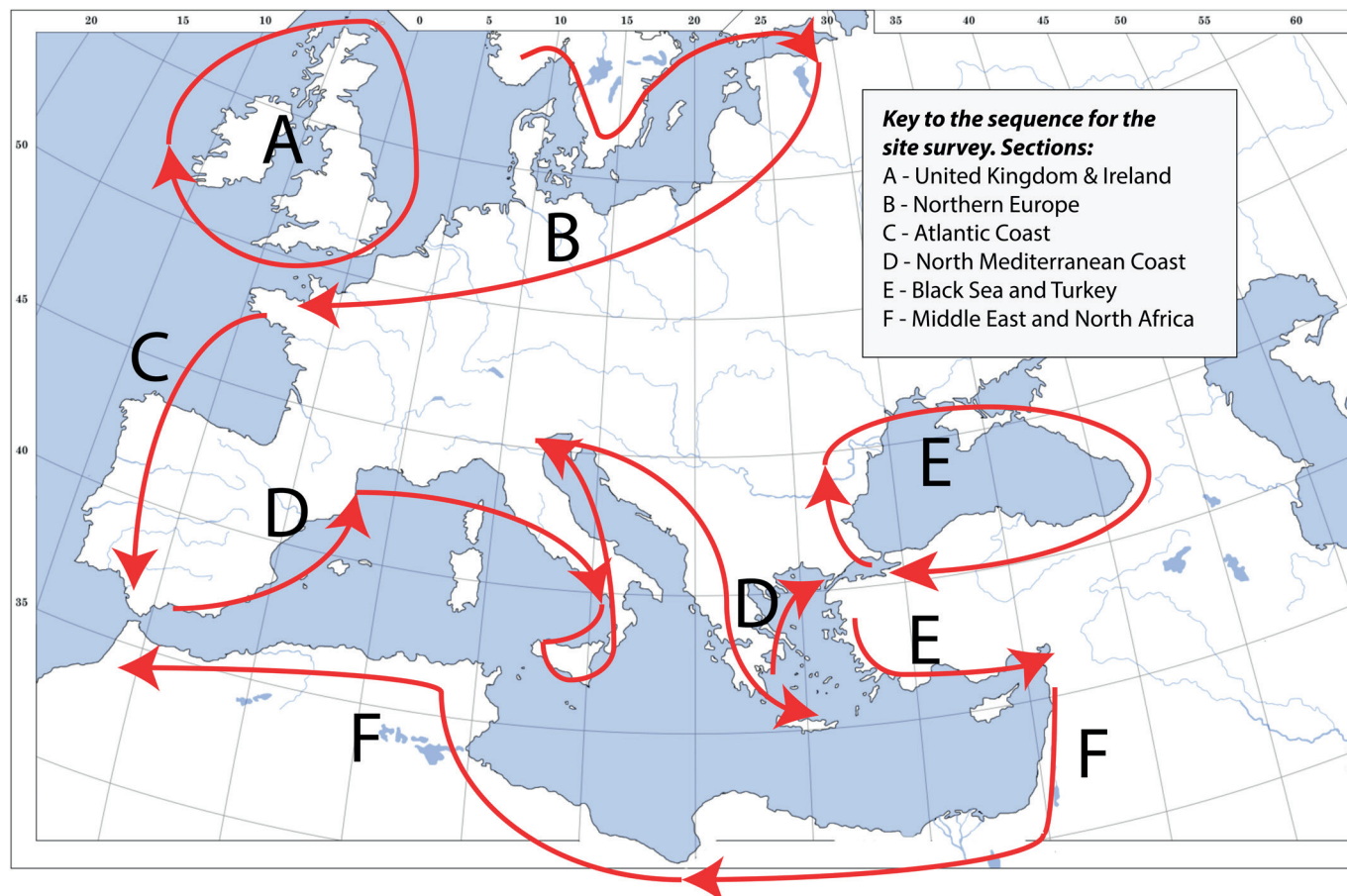


# Medieval Lighthouses

## 15 - Site Survey

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As we arrive at the final stages of this study, it is appropriate to review the entire situation, as far as I have been able to determine. Thus the final pages of this book will consist of a survey of sites across the world - the most comprehensive of its kind so far undertaken.

One of the main conclusions of the study has been that, during the period selected, there was very little data relevant to lands beyond Europe and north Africa. As a result, the detailed survey that follows covers the lands shown in the map above. This has been separated into six sections labelled A to F. This delineation should help readers follow what would otherwise be a rather complicated sequence. So, after presenting the data for the British Isles and Ireland as section A, the sequence followed will be from the far northeast of Europe to the western tip of north Africa in a kind of 'S' shape, with deviations where appropriate. Lights shown beyond these regions were almost entirely

associated with the Imperial period of history previously discussed in Chapter 10 and that far smaller data set will be given separately under the heading of Lights of Empire.

The point has now been well made that an accurate list of sites where lights were shown to aid mariners in these middle-period centuries is not possible at this time. After an extensive study of the literature, at best, I am able to produce a collection of sites that were most likely to have hosted such aids. Some sites are well recognized as having been important in the past; others are presented because they are obvious strategic locations or they mark busy harbours and ports.

I want to stress that this survey can never be a definitive account with black and white conclusions. The time period is so great and the forensic evidence so slight in many cases that we can only ever write in broad terms. The lists that follow contains sites where logic and those few records



*LEFT: Torre Aragonese in northern Sardinia.*

do exist that suggest that lights were shown. I have already pointed out that we can never be certain of the intention of showing the lights. In general terms, local and national institutions did not begin to formalize navigational lighting systems until the start of the 18th century - that is why my cut-off was drawn here. Prior to this time, lights were mostly ad-hoc for all of the reasons discussed earlier. So this list contains entries where much doubt exists and has associated comments to reflect the local situation at each site. Specific dates quoted may reflect when a particular record was made about a light. More generally, we can only suggest certain centuries when lights may have been shown.

We can expect very few material remains at many of these sites, for they were either the simplest of fires close to the shore, or else they were fires on elevated platforms of wood. Even if they had been placed on stone platforms, the earliest installations would almost certainly have left no evidence of their presence after so long, with structures becoming dilapidated through age or stones being removed for other purposes. Wooden structures stood little chance of surviving so many centuries, especially those in exposed positions on sea coasts. We have

seen also (p301) how wooden structures were used as the low partners in pairs of leading lights and how they were often relocated to compensate for the movement of navigation channels. This, in turn makes it unlikely that many have survived.

Finally, it is obvious that during the time encompassed by this study there have been many wars. Indeed, where there were significant old structures that had survived, many were destroyed in wartime.

The site survey that fills this chapter attempts to identify as many sites as possible, based upon literature records. To improve readability and for the pleasure of those who enjoy seeing lighthouses, I have included photographs of some sites as they are today. It may be that when the light was shown in medieval times it was done from a nearby location rather than the actual site. My best efforts have been used to provide as accurate data as possible and any errors are entirely mine. Sometimes the literature placements have been ambiguous. Again, I have tried to overcome these issues with careful reasoning. The maps naturally carry



locations of sites referred to.

## Lists Of Lights

One of my main objectives in commencing this work has been to provide a comprehensive list of sites where it is thought lights were shown to assist seamen in what I have loosely called Medieval times. As I previously explained on p1, I took the liberty of expanding my definition of 'medieval' for my own convenience to restrict my lifetime dissertation of pharology into three volumes, this being the second. Over the past three decades I have used my professional expertise with databases to compile a list of the world's lighthouses, and within that project I have collected as many references to ancient and medieval lights as possible. I have - with my best efforts - used all sources sensibly available to me, including my own large library of books, documents, maps and other literature - much of it in languages other than English and with good local knowledge.

Throughout this book, I have pointed out that, in this rather 'Cinderella' topic that many regard as a minority interest, there is so much uncertainty that we can rarely be certain of some presented histories. I make no apology for leaning heavily upon the works of the giants of our subject - David A. Stevenson, Friederich-Karl Zemke and Douglas Hague, each of whom must be considered to be a reliable source. Stevenson, in particular, was especially critical in his selection of locations and should rarely be doubted. However, I have broadened my search for locations by unashamedly using the formidable resources of the Internet, coupled with the astonishingly powerful tool of Google Earth. Scholars who continue to decry the value of these sources need not attempt to convince me otherwise.

As is so often the case, it is far too simplistic to think that a simple list of lights, though perhaps requiring a certain effort to build, is a straightforward enterprise. I have already discussed the difficulties on a number of pages, the most important being the lack of proof provided by written documentation and the problem of distinguishing lights provided for navigational assistance from those for military signalling. It is too easy to believe that lights must have been written about somewhere; I have discussed this problem with relevance to the busy port of Dover (p79). It is therefore inevitable that errors and inconsistencies will occur.

## A Survey Of Sites

In an attempt to build a catalogue of sites in the Mediterranean and Black Seas where navigational lights may have been shown up to 1700 there are, inevitably, many uncertainties. The biggest problem is in knowing the intentions of those showing the lights. We have already discussed at length these motivations, that is, whether the light was for purely navigational purposes or whether it was for signalling. The transmission of messages was obviously a vital part of life in medieval times. When a message needed to be sent speedily, it could not await the transit of a physical letter or document. On land, urgency could be achieved with dedicated horse riders, but at sea - and especially in the complex island density found in the Mediterranean, it was a much more time-delayed process. Real urgency could be achieved only by visual signalling across networks set up for the purpose generally by those with military objectives.

But any showing of a light on a regular (if intermittent) basis could be included in a professional mariner's lexicon of lights that he might use for assistance with navigation. Having at least an approximate idea of his position, he could deduce from a light shown in a particular way that it was from a site he knew and therefore would confirm his intended course. Whether from a group of lights high up on a fortification or from torches at sea level where there was a suspected port or harbour, he could gain confidence that his course was correct. His analysis of lights seen along the way was just one part of the overall package of data points he would use to decide upon his direction of sail.

It turns out that the number of sites dedicated to the building of a structure specifically for the showing of navigational lights, and not just part of a larger structure like a castle or other fortification, is small. A good example of this is to be found on the island of Sardinia, a large island that seems to have possessed no medieval navigational lights in the strictest sense. What it did possess was one of the most elaborate fire-signal networks in the western Mediterranean: a chain of coastal towers, many originating in the Giudicati period (11th-14th c.) and fully organised under the Spanish Crown from the later 16th century. These towers communicated by smoke signals by day and beacon-fires by night,





*ABOVE: Torre di Ligny at Trapani in Sicily and BELOW: Torre del Serpe near Otranto in southern Italy*





repeated from point to point to alert inland garrisons of corsair activity. The lights were thus intermittent military alarms, not regulated port-lights, though their visibility at sea inevitably made them minor seamarks.

## A Study Of Signalling Systems

To clarify the difficulties in deciding which sites to include it is worthwhile considering Sardinia in more depth because of the detail it provides. A summary of a number of known signalling systems used through the ages on Sardinia is as follows.

In the 8th–10th c. a Byzantine proto-network of lookout posts has been proven by archaeological and textual evidence that showed how the earliest coastal strong points arose after the Arab conquest of Sicily (827–902) and the intensification of raids throughout the Tyrrhenian region. Early Byzantine administrative sources indicate initial lookout posts or proto-towers that used fire-beacons for signalling, but direct texts for Sardinia are lacking. Architectural continuity and later medieval records refer back to *antiche torri* (ancient towers) of which there are many on Sardinia. Their purpose was for defence and raising the alarm; any advantage gained for navigation was through incidental visibility only.

From the 11th–14th centuries, the *Giudicati*<sup>1</sup> - the four autonomous realms of Cagliari, Arborea, Torres, and Gallura - systematically strengthened their coastlines from which attacks might occur. Several 12th–13th-century *condaghi* (monastic charters) refer to watchtowers described as *turris de guardia* and *torres positas in litoribus ad custodiendum mare*. While these texts do not describe signalling protocols, their distribution matches later Spanish tower sites, implying continuity through history. These installations were instigated by local *giudici* (judges) and *curatores* (district officers). They were often built or staffed jointly by communal militias and monastic landholders. Their purpose was the detection of raiders and the raising of alarms inland. Lights were almost certainly made with torches or beacons, but no documentary proof survives.

During the period from 1323–1400 the Aragonese administration consolidated its towers, especially after taking the island from Pisa. This is a period with precise, unambiguous documentation for smoke and fire signalling. The network was set up by Aragonese governors and Spanish Viceroys of Sardinia (from 1479). The *Reale Amministrazione*

*delle Torri* was formally established in 1583. These authorities standardized the tower network, setting down clear rules for:

- How many men each tower should have;
- How to light beacon-fires;
- When to use smoke vs. night-fire;
- How to repeat signals from tower to tower.

## How Did The Signalling System Work?

The 1764 “*pregone*” was a public ordinance describing a signal code that was built upon a system already in place in the 16th–17th centuries.<sup>2</sup> The rules for signalling were set out in this document so that by day,

- One smoke column indicated a suspicious vessel;
- Two smoke columns meant that a hostile vessel was approaching;
- Smoke and a cannon-shot represented an enemy landing being imminent.

whilst by night,

- One fire was a suspicious sighting;
- Two fires indicated hostile ships;
- Three fires meant imminent attack.

Each tower had to repeat the signal immediately to the next and the rear towers inland were also to repeat it in order to mobilize local militia. Thus, the ordinance explicitly described a chain of night lights with no purpose to guide navigation.

Sardinia is especially well populated with ancient stone towers and investigation shows which networks they were part of.

## Examples Of Signalling Networks

Thus, in 1577 we find<sup>3</sup> the Torre di Marceddì, built to protect fishing and lagoon traffic, communicating with Torregrande and Capo Frasca. It is explicitly described as part of a system that communicated via *fumi di giorno e fuochi di notte* (smoke by day and fires by night) The tower was in visual contact with Torregrande (the huge *torre de armas*), and Capo Frasca towers.

Porto Torres was a similar focus of military

signals (14th c. in origin and later used 16th–18th c. for signalling). Originally built in 1325, the Torre Aragonesa in Porto Torres later appears in Spanish tower rolls as a member of a signalling chain, exchanging day signals (smoke) and night beacon-fires with neighbouring towers on the Golfo dell'Asinara. The Montaldo tradition preserves a detailed local code identical in structure to the 1764 *pregone*, again showing that these medieval and post-medieval harbour towers were part of a general fire-signal system and not intended for navigation.

There were also tower chains covering the Gulf of Cagliari (late 16th c.) Documents from the viceroys of Sardinia in the 16th–17th c. defined a continuous belt of towers around the Gulf of Cagliari. Four of these towers, for example, were Torre del Poetto (1597), Torre di Calamosca, Torre di Cala Regina and Torre della Scafa. Military personnel at these towers were ordered to maintain continuous night readiness to light beacons, to watch sea lanes and to send messages up to Torre di Sant'Elia and inland to Castello di Cagliari.

In north-west Sardinia at Alghero, Porto Conte and Porto Ferro, Spanish military reports of 1572 (*Relaciones de las cosas de Cerdeña*) mention that Torre del Buru (built 1572) and Torre del Porticciolo formed part of the Alghero defence circuit, and were instructed to “*avisar con fuegos por la noche y señales de humo por el día a las torres de Porto Conte y Porto Ferro*”.

## In Summary:

The networks of lights outlined above were not lighthouses in the sense we now understand them. Their purpose was to give a defensive warning of adversarial activity and to transmit a fast message relay across the island. There was no intention to provide navigators with safe entry at night. Fires were temporary, lit only upon sighting. Towers were normally dark at night unless on alert. The lights were controlled by military command (viceroys, captain of the towers), not by harbour masters or trading statutes.

We can be clear about these sites and their purposes only because there is supporting documentary evidence. We are assisted by the Spanish terminology because documents speak of *torres de guardia*, *torres de armas*, *fuegos* and *humo*, but never *fanale*, *faro* or *lanterna* in the

lighthouse sense. The same is true for the Venetian presence in the Mediterranean where not only is there good documentation but also the terminology makes it clear what is being ordered.

However, it will become clear later that there are many sites across the Mediterranean where this is not the case and the ability to differentiate between a light for navigation or a light for signalling is lost. Obviously, mariners would sometimes see these fires, but they were unpredictable, not always maintained nightly, and sometimes intended to scare off enemies, not assist navigation. Therefore lights such as these are not medieval lighthouses, but signal beacons. In selecting the sites included here I have tended to choose the more significant sites where the level of marine activity was such as to suggest that lights would have been of some use to navigators, even if they were used for signalling purposes from castles or other fortifications.

In the case of the Imperial lights it is clear that sites would have received a small number of visits per year, making it unlikely that lights would be provided every night. In that sense, a light shown intermittently would have acted both as a signal to approaching ships, whilst also informing others ashore that visitors were due.

In building this survey I accepted the risk that sites may be misleading. Some sites may be for signalling only, others may not have been included. However, I believe that this survey - which extends the work of other pharologists - should act as a starting point for academics wishing to pursue the subject even further and in that sense I believe it has been worthwhile.

## Notes

1 The Judicate of Cagliari (Sardinian: Judicadu de Càralis / Càlaris, Italian: Giudicato di Cagliari) was one of the four kingdoms or judicates (*iudicati*, literally “judgeship”) into which Sardinia was divided during the Middle Ages. The Judicate of Cagliari occupied the entire southern portion of the island and was composed of thirteen subdivisions called *curatoriae*. It bordered the judicates of Arborea to the northwest and Logudoro and Gallura to the northeast.

2 The document comes from the Torres–Asinara district and is cited in modern historical studies - Montaldo; the “*Torri costiere della Sardegna*” corpus).

3 Primary evidence derived from 16th-century Spanish tower registers.



## Notes To Explain The Database Structure

### Major Region

Entries are grouped according to the nation in which they exist today. They appear in a sequence defined approximately by the order in which they appear along a coastline. The diagram on p322 defines the overall sequence. National boundaries may have greatly changed over the time period under consideration. The nation only appears when the site is in a different country.

### Name

The name of the site.

### Alternative Name

All other names that have been identified from research as being associated with the site over all time.

### Location

The modern name most easily associated with the site; sometimes with extra clarification.

### Lat and Lon

The standard co-ordinates of the site obtained from Google Earth Pro, expressed in decimal degrees. Values are easily converted into the units of choice. It has not always been possible to identify the exact location of some sites. Because this project is fundamentally about lighthouses, I have taken a nearby modern lighthouse site as the location, accepting that the medieval location may be nearby. When sites are probably located inside fortifications, I have identified a single tower or other site, sometimes without proof that it is the exact location. Some locations remain sadly vague.

### Confidence

This is an arbitrary index to make a judgement of the likelihood that a light or lights were shown at the site for the purposes of navigation. I have allocated 100% certainty to some sites where I feel that the evidence warrants it to be considered as the site of a medieval lightstructure, even if it was perhaps dual-purpose. It is important to note that descriptions or reports of contemporary medieval

lights being shown do not necessarily mean that the light was for navigation. It has generally been extremely difficult to distinguish when a light was used for signalling and not navigation. A traveller making a report in his diary would not necessarily know if his observation of a light was specifically associated with navigation or if it was serving some other kind of military function. It should also be taken into account that navigators might be used to associating a military signal with a specific location and thereby getting navigational assistance from it, even if it was not intended to meet that purpose. It is also relevant to point out that the period of consideration for this research is from 400 to 1700 and my confidence level applies to this period only.

### Established

A time period relevant to the showing of the light. If a precise year is known for a structure then it is given. Otherwise, an approximate century of relevance is given. Over so many centuries sites have a complicated history. To offer more support to the year entries in the Established field, I have included the following headings with assessment Yes and No to indicate when significant activity affected the site. They are only given where appropriate; they are most relevant in the Mediterranean sections.

### Antiquity

Activity at any time BCE.

### Phoenician

Activity specifically associated with the Phoenician culture.

### Greek Colony

Activity when the site was a Greek colony.

### Greek Classical

Activity during the Classical Greek period.

### Roman

Activity during the period of the Roman Empire up to 400 CE.

### Byzantine

Activity during the time of the Byzantine peak of 400-1200 CE.



## Venetian

Activity during the peak period of Venetian activity, typically 1200-1400, when Venetians took control of many sites.

## Genoese

Activity during the peak period of Genoese activity, typically 1200-1400, when Venetians took control of some sites.

## Ottoman

Activity post 1400 during the period when the Ottoman Empire took control of many sites.

## Islamic

This indicates that a site was at some time under Islamic control or influence.

## Local

Activity post 1400 when local systems began to be put in place to set up formal systems of navigational lights.

## Activity Index

Factors taken into account when deciding the probability of medieval light provision; an indicator of the amount of activity taking place at a site over all time. The higher the index, the more likely it was to support lights for navigational assistance. However, care is needed because even an index of 1 CAN refer to a medieval lightstructure built at a specific time.

## Modern Lighthouse On Site

Self evident - Yes or No. I have only considered lighthouses according to my own definition (page ix) and not considered minor modern lightstructures on harbour moles. Quite often we find that when a site is important a 'modern' lighthouse was built on the foundations of an old lightstructure. The land had already been acquired and accepted for use as such so the acquisition of new land was unnecessary. Where found, I have included the year of construction of the 'modern' lighthouse.

## Ecclesiastical

Yes or No indicates whether a light was shown by men and women from religious orders at a

specifically religious site. Often clerics and others assisted in the provision of lights, but from structures built for other purposes - castles and fortifications for example. In these cases it should be entered as No.

## Light Function

This is a general entry that is a simple indication of the purpose of the light. Sometimes this is necessarily vague for reasons already discussed.

## Light Form

An indication of the most likely form of the light.

## Older Structure Exists

This is an indication of the present existence of a structure that could have been used to show the light in times before 1700. It is not always possible to be precise about its former use. This entry can read Yes even though the site is not a confirmed medieval site because the function of the structure is in doubt.

## Confirmed

Yes or No. Here I have tried to be as accurate as possible and indicated the sites with the greatest certainty of being a Medieval Lightstructure. It should be used only where there is 100% confidence. A site can be confirmed even though there is no existing structure present.

## Comments

The comments are a potted description of the activities at the site, as far as can be judged at present.

## References

Comments are supported by references, where it has been possible to give them. The Ancient Reference field gives the page numbers of text in Volume 1 that refer to the site.

## Final Comment

Some readers may wonder why sites have been included where no lights were known. This is simply to provide context to the arguments provided throughout the book.



# Site Survey Statistics

## Disclaimer

This survey is my own. I have used several AI systems in the research to assist me in gathering data across the widest possible spectrum, and in multiple foreign languages. The access to data so enabled is far greater than I could have done alone. Despite obvious criticisms from ‘academics,’ all the assessments are my own, based upon my sixty years of study applied to the data provided by AI.

## Explanation of the statistics

This survey is, to the best of my knowledge, the most comprehensive ever carried out, and to some degree, has been achieved standing on the shoulders of great pharologists before me. Inevitably, the statistics will be error-ridden and should be treated with caution, although they would have been far more approximate without the use of AI. The reasons have been well described in earlier chapters. In the first place, we have no broad agreement about what constitutes a lighthouse. (See page ix.) Using my definition there are extremely few structures that would classify as lighthouses for this study (and the book would have been very thin!) so I have broadened my analysis to include lightstructures in the broadest sense. Secondly, it is not possible to be certain about the intended use of a light, something I have gone to great lengths to discuss. This has been the most difficult assessment to make because structures built for military signalling alone should not be included in these statistics and I have not done so.

Furthermore, it is difficult to identify a specific part of a larger military fort as a lighthouse or signal tower. In cases where it has been possible to do this, and if appropriate to do so, then I have counted it as a lightstructure. Otherwise, the general showing of lights from military installations must be considered as a casual navigation aid but not a lightstructure and it has not been counted. The survey may list a site as having an existing medieval structure without a lightstructure symbol, which simply implies that there is a larger existing medieval structure such as a fort but no obvious sub-structure that could be identified as a bearing a light. In some cases, lighthouses from the industrial period were built on top of the foundations of a medieval structure.

The following icons have been used:



**The gold symbol** indicates a structure that exists and can be identified today (even as a partial ruin) that at one time between 400 and 1700 showed a light that assisted navigation, at least in part or accidentally or temporarily.



**The silver symbol** indicates the same as the gold symbol, although the structure no longer exists. Where there is good evidence for the use of a ‘beacon fire’ I have generally assigned this site as having a lightstructure since it would be hard to imagine a useful fire without some sort of structure.



**The Christian cross** indicates a location where lights were shown from a building constructed for religious purposes and managed by members of religious orders so as to assist mariners. Sometimes, where significant management of a light was by members of religious orders, even from a different purpose-built structure, this symbol has been used and counted as an ecclesiastical light.

## Totals

The total number of sites in the survey is 473. This total represents sites that were selected from 652 possible locations as being worthy of further investigation. From the sites selected, each has been assessed with a confidence level (see p328) and given a colour code for ease of inspection. Only those sites with the square purple icon are treated as ‘Confirmed’ indicating a 91-100% confidence level. Purple sites can be confirmed as assisting navigation with lights, but with no evidence of an actual structure being used and therefore no icon alongside.

There are some sites that have had multiple structures erected in the same (or very nearly) the same location. Multiple, consecutive structures on the same site are treated as a single structure. Although I have considered sites beyond Europe and north Africa, I have concentrated on sites where they were probably set up by the European imperial nations to assist mariners searching for colonies on distant shores. I have not surveyed coastlines beyond the regions specified simply because, after my lifetime of study, I have not become aware of any relevant sites set up by local inhabitants in the absence of imperial presence prior to 1700 CE. The justification for this approach will perhaps be more apparent in Volume 3 of this series.

## Section A

58 sites; 48 confirmed, 15 ecclesiastical, 9 gold, 34 silver

### England (35)

44 sites; 38 confirmed; 10 ecclesiastical 7 gold, 28 silver

### Scotland (4)

7 sites; 5 confirmed; 2 ecclesiastical, 1 gold, 3 silver

### Wales

2 sites; 1 ecclesiastical

### Ireland (4)

5 sites; 5 confirmed, 2 ecclesiastical, 1 gold, 3 silver

## Section B

67 sites; 42 confirmed, 9 ecclesiastical, 9 gold, 22 silver

### Norway (2)

2 sites; 2 confirmed, 2 silver

### Sweden (5)

7 sites; 6 confirmed, 1 ecclesiastical, 1 gold, 4 silver

### Estonia (2)

3 sites; 2 confirmed, 1 ecclesiastical, 1 gold, 1 silver

### Latvia

1 site

### Kaliningrad

1 site

### Poland (2)

6 sites; 3 confirmed, 2 silver

### Germany (31)

9 sites; 42 confirmed, 9 ecclesiastical, 9 gold, 22 silver

### Denmark (1)

5 sites, 3 ecclesiastical, 1 silver

### Netherlands (10)

19 sites; 13 confirmed, 3 gold, 7 silver

### Belgium (3)

4 sites; 3 confirmed, 3 silver

### France (North) (18)

9 sites; 3 confirmed, 1 ecclesiastical, 2 silver

### England (Channel Islands)

1 site; 1 confirmed, 1 ecclesiastical

## Section C

28 sites; 14 confirmed, 3 ecclesiastical, 8 gold, 6 silver

### France (Atlantic) (18)

11 sites; 8 confirmed, 1 ecclesiastical, 6 gold, 2 silver

### Spain (Atlantic) (4)

8 sites; 2 confirmed, 1 gold, 2 silver

### Portugal (2)

9 sites; 4 confirmed, 2 ecclesiastical, 1 gold, 1 silver

## Section D

183 sites; 79 confirmed, 58 ecclesiastical, 18 gold, 14 silver

### Spain (Mediterranean) (4)

9 sites; 3 confirmed, 1 ecclesiastical, 1 silver

### France (Mediterranean) (18)

11 sites; 6 confirmed, 2 ecclesiastical, 6 gold, 1 silver

### Italy (12)

63 sites; 22 confirmed, 8 ecclesiastical, 6 gold, 6 silver

### Malta

1 site

### Slovenia

1 site

### Croatia (1)

26 sites; 17 confirmed, 17 ecclesiastical, 1 gold

### Montenegro

3 sites; 3 confirmed, 2 ecclesiastical

### Albania

1 site

### Greece (11)

66 sites; 28 confirmed, 28 ecclesiastical, 5 gold, 6 silver

## Section E

71 sites; 28 confirmed, 1 ecclesiastical, 8 gold, 2 silver

### Turkey (7)

52 sites; 18 confirmed; 1 ecclesiastical, 5 gold, 2 silver

### Bulgaria (1)

6 sites, 4 confirmed, 1 gold

### Ukraine (1)

6 sites; 4 confirmed; 1 gold

### Georgia

4 sites

### Romania (1)

2 sites, 2 confirmed, one gold

### Russia

1 site

## Section F

30 sites; 14 confirmed, 2 gold, 9 silver

### Cyprus (4)

6 sites, 4 confirmed, 2 gold, 2 silver

### Syria

3 sites, 1 confirmed

### Lebanon

5 sites

### Israel (3)

5 sites, 3 confirmed, 3 silver

### Egypt (1)

3 sites, 1 confirmed, 1 silver

### Libya (3)

6 sites, 5 confirmed, 3 silver

### Tunisia

2 sites

## Totals (141)

54 Gold

87 Silver

### Colonial Sites (36)

Spain 7; Portugal 10

France 4; Denmark 3

Britain 12