Central Mediterranean islands and satellite ports for ancient Rome

Timothy Gambin

The main aim of this paper is to provide an overview that will help better understand how small islands in the central Mediterranean were perceived by mariners sailing in their vicinity, especially those sailing to and from Portus. It is also my intention to explore the role or roles played by some of the small central Mediterranean islands in Roman maritime traffic. In order to do so, I have divided this brief work into four analytical categories that will shed light on both their maritime functionality and the influence of maritime traffic on certain practices of islanders.

ISLANDS AS WAY-POINTS

As has been illustrated by Arnaud (2005: 7–13), one cannot simply draw straight lines of navigation between areas of production and those of consumption.[1] Although ancient texts clearly list distances from one specific place to another, these are to be considered as indications for way-point finding rather than rigid sailing instructions. Mariners would navigate towards their destination via a series of known landmarks. In the context of this type of navigation, offshore islands played an important role especially as indicators of milestones or turning-points. Offshore islands therefore could be used to establish a vessel's current position as well as to set a new course.

Often, the first glimpses mariners have of islands are banks of orographic cloud that form due to changes in air currents induced by an islands' topography (Plate 7.1). If approaching by night, the use of the sounding lead was indispensable for gauging changes in depth, a clear indication of making landfall: 'the sailors began to suspect that land was near. They took a sounding and found a depth of 20 fathoms; after sailing on a short distance they again took a sounding and found it to be fifteen' (Acts 27.28). When sailing within lines of sight, mariners would utilize natural features and landmarks such as cliffs, hills and headlands as navigational aids. Owing to the curvature of the earth's surface, the higher the natural feature the more visible it is from a distance. If such landmarks were high enough, this could be done without sailing precariously close to the island. It is interesting to note that the recognition and pictorial rendition of natural features played an important role in the training of midshipmen well into the twentieth century and that modern pilot books still include depictions of important landfalls (Hydrographic Office 1978).

If one considers Monte Grande on the island of Pantelleria, which rises to over 830 m, this must have been a significant way-point on the crossing between north Africa and Sicily. Likewise, Stromboli, which attains a height of 925 m, in the south Tyrrhenian sea provided a reference-point for mariners in the area both during the day and very importantly, owing to its eruptions, also at night (Fig. 7.1). Such a landmark would have been indispensable for vessels sailing north from the Messina Straits. Likewise, the high cliffs on the southern coast of Malta would have provided an essential way-point for vessels sailing north from Lepcis Magna, thus minimizing the risk of veering too far to the northeast into a wilderness of open sea with no landfalls.

Besides natural features, mariners also used distinctive manmade structures. Such edifices included temples and tombs, as well as purpose-built maritime structures such as lighthouses. For example, three of the main approaches to the Maltese islands were marked by sanctuaries in prominent areas (Fig. 7.2). The northwest approach to Gozo is marked by an extra-urban sanctuary, situated on a headland over 160 m above sea level. Excavations carried out by the Italian Archaeological Mission in the 1960s revealed a number of rock features but no evidence as to which deity the site was dedicated to (Buhagiar 1988). However, its cliff-edge location and its proximity to an important

FIG. 7.1. **The volcano of Stromboli seen from the sea.** *(Photo: T. Gambin.)*

port of call point to a maritime link. A temple dedicated to Hercules has been identified on another headland, this time dominating the approach from the south (Vella 2002). Finally, any vessels approaching from the east and making their way into the bay of Marsaxlokk could anchor under the harbour-temple of Juno, described by Cicero in the first century BC as being rich and well known throughout the Mediterranean. Besides acting as reference markers for mariners, such sanctuaries also would have formed part of a maritime cultic landscape known to seafarers and travellers, and was a very important element in ancient seafaring (Horden and Purcell 2000: 438–45).

ISLANDS AS SHELTER

When approaching the subject of shelter offered by harbours and bays on islands, it is essential to have a good understanding of the ancient topography of the site. Various factors may influence the topography of ancient harbours, including sediment deposition, sea-level changes and tectonic activity. None of these factors are mutually exclusive (Marriner and Morhange 2007). A harbour with a different shape and size (from what is visible today) may determine what degree of shelter was offered, as well as the quantity of vessels that could be accommodated. Bays that are today

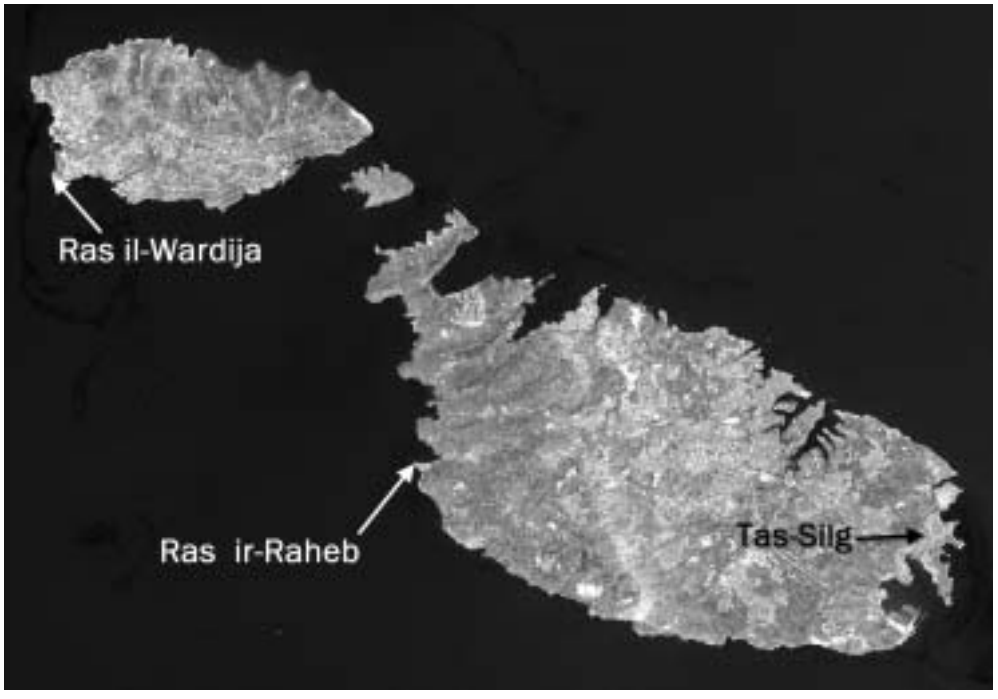

FIG. 7.2. **The sanctuaries of Ras il-Wardija, Ras ir-Raheb and Tas Silg on the islands of Gozo and Malta.** *(Photo: image courtesy of NASA/GSFC/MITI/ERSDAC/JAROS and U.S./Japan ASTER Science Team.)*

open, once may have snaked further inland, providing protected anchoring areas out of high-energy zones.

One must be aware also of the topographic changes that have occurred underwater, changes that may be brought about by sedimentation and/or the growth of Neptune's Seagrass (*Posidonia oceanica*). The latter grows on layers of older leaves that are shed annually. These layers, known as mattes, can change the depth within bays, sometimes rendering them unnavigable. Such transformations of the seabed influence maritime functionality in two major ways: depth and holding. A reduction in depth renders a bay unusable by large vessels with a deep draught and only practical for smaller ships. Thus the function of a bay or a harbour may evolve through time until extreme silting may render them altogether useless. On the other hand, an evolving sea-bed may bring about a change in its holding properties. Mud, sand, *Posidonia* and rocks all differ as to the security with which one may anchor. A vessel cannot winter in a bay or harbour without good holding for its anchors, with mud and sand being preferable. Only once such factors are established can an accurate reconstruction be made as to the role of a specific bay or harbour.

Should a vessel get caught in adverse weather in close proximity to an island, then the captain would have to decide whether to avoid the island altogether (so as to prevent the vessel from being blown onto the shore) or to approach the island in order to seek shelter in an anchorage. Such a decision would be based on: (a) specific weather conditions (whether an onshore or offshore wind); (b) direction of waves and swell, for example; (c) the experience of the pilot (knowledge of local topography and harbour entrances); (d) the urgency felt by the captain to protect himself, his vessel, his cargo and his crew (the physical condition of the crew also would have played its part); (e) pressure related to delivery parameters of the cargo.

Offshore islands also may offer the ideal place to wait for a favourable wind to continue a journey. Although modern pilot books are illustrated with generic wind patterns for the Mediterranean, true local patterns are harder to establish, even in the summer sailing season. For example, the local winds off Mount Etna in Sicily often differ quite dramatically to broader, more generic weather forecasts. Summer winds in the central Mediterranean are not as predictable as one might wish. Whereas it is true that the prevailing winds blow from the northwest, it is also true that for significantly long periods there may be no wind at all. It would have been preferable not to get caught out in such lulls so as to avoid being gradually pushed off course by currents. Islands en route therefore have a role as 'staging-posts' where vessels could wait for a favourable wind to continue on the next leg of a journey.

Vessels crossing the Sicily channel towards Rome could seek refuge in various anchorages situated on the island of Pantelleria, the main harbour of which is still described in modern pilot books as 'a convenient stop-over port on passage between Tunisia and Sicily' (Heikell 2002: 382). Other anchorages on Pantelleria include Scauri and Cala di Levante, both of which can offer good but only temporary shelter. Once off the eastern coast of Sicily, vessels sailed close to the Egadi islands, where one can find limited/temporary shelter off the islands of Favignana, Levanzo and Marettimo. If possible, sea captains would have opted to call into Marsala (ancient Lilybaeum) on the Sicilian coast.

The small anchorage on the island of Ustica and those located on the Aeolian islands would have provided shelter for vessels blown off course whilst making their way north towards Portus from either Capo San Vito or the straits of Messina. Shelter off Ustica is limited to Cala Santa Maria, a small bay on the western tip of the island. On the other hand, Aeolian anchorages were not limited by size but rather by the rapidity with which, due to the volcanic origin of the islands, the seabed drops away. Vessels dragging anchor could easily drift away from the narrow shelf of shallow water, which in many areas is the only place where anchoring is possible. None the less, there can be little doubt that mariners used the Aeolian islands to seek shelter from the sudden summer storms that are not uncommon in the area.

The numerous natural bays and inlets that dot the Maltese islands would have offered shelter to vessels of any size that were sailing south of Sicily. Of interest is the fact that, besides these natural bays and anchorages, there is strong evidence from Malta for the existence of a 'formal' Roman port. In the context of the smaller islands in the central Mediterranean this is as yet the only evidence for such a large-scale installation. The remains of this port-complex have been described in detail elsewhere; however, it is of interest to revisit some of this port's salient features (Gambin 2005). Over the past three centuries, a series of warehouse complexes was discovered in an area that is situated over 7 km from the main urban centre of ancient Melite. Recent civil engineering works have revealed further structures that indicate that the

warehouses were much larger than thought previously. Conservative calculations have shown that the total storage capacity of these far exceeds that needed by the population of Roman Malta (Gambin 2005). Together with a series of quays and moles they were built around a deep lagoonal bay that offered shelter to vessels of any size in all weather conditions. Their style is not unlike similar structures built elsewhere in the Mediterranean. For an indication of their function one may look to the warehouses built by Hadrian in Myra, which have been linked to the *annona* routes in southern Asia Minor (Rickman 1980: 10). Such warehouses would have offered the facility of dry storage for grain unloaded from vessels wintering in Malta. This would have been done so as to prevent it from spoiling, a process that speeds up due to humidity and/or vermin — both very much present on board ships. Upon the reopening of the sailing season, the grain could then be reloaded and the journey towards Rome continued. In AD 60, for example, Paul continued his journey to Rome on an Alexandrian vessel that had wintered in Malta.

ISLANDS AS TRADING POSTS

The presence of ships around the islands and increased connectivity with accessible overseas markets spawned new activities or gave fresh impetus to old ones. A place where a vessel could seek temporary shelter, take on victuals as well as carry out some small-scale trade would, owing to bigger profitability, prove more attractive. The response by some islanders to increased maritime traffic can be deduced from various islands. Pantellerian ware, for example, can be found throughout the central Mediterranean, including both Carthage and Ostia, suggesting that vessels travelling in both directions (from Pantelleria) took on this product, probably as a secondary cargo (Fulford and Peacock 1984: 10). Goods flowing into Pantelleria included wine and *garum*, which may have been unloaded from the primary cargoes of vessels calling at the island. From Lipari, raw materials such as alum and sulphur were exported, whereas kiln sites for the production of the indigenous Richborough 527 type amphora shed light on increased island productivity during the period under discussion (Castagnino Berlinghieri 2003). In Malta, there is ample evidence for numerous olive-oil producing farms that are datable to the early first century AD. The size and location of some of these suggest that production was not aimed at the local market but rather those overseas. It is important to note that the local production of wine and oil on various small islands and the importation of these same products are not mutually exclusive.

Islands may have been used also as centres for redistribution, although evidence for such an activity is hard to pinpoint. Small-scale centres of exchange could have existed somewhat informally on small islands, brought about by the casual meeting of vessels in various bays and anchorages. Exchange may have taken place also in less obvious places. On the basis of amphorae quantities discovered at the above-mentioned temple of Juno, it has been suggested by one of excavators that the sanctuary was at one and the same time a focus of both cult and commercial exchange (Bruno 2004: 117).

ISLANDS AS HAZARDS

So far, the aspects discussed are what may be considered as mainly positive with regard to the role of small islands in the maritime routes leading to and from Rome. However, when observing islands and their maritime functions it is essential to keep in mind the potential duality of their role. As has been described already, islands offered safe havens, victuals and a place where one could trade and obtain goods. However, islands could also be navigational hazards, places that in certain conditions one would want to avoid. This perception of an island depended on climatic conditions and essentially on whether an approach was intentional or not.

The danger posed by islands to ancient shipping can be deduced by the various shipwrecks that can be found in their vicinity. Loss of a vessel and cargo could result from treacherous conditions such as cross-winds and currents, which are associated with headlands; that is the case with the approaches to Xlendi Bay (Gozo), where at least four ships of different periods have come to rest on the seabed in the area (Parker 1992: 453). Likewise, shipwrecks datable to the Roman period are well represented off the Aeolian islands, many undoubtedly caused by the numerous low-lying rocks found off many of the islands (Bound 1992: 32). Besides wrecks, the discovery of single lead anchor stocks is also indicative of drastic actions such as the jettisoning of heavy objects whilst sailing in a storm or the cutting loose of an anchor due to sudden gusts of wind.

Another hazard for ancient shipping was that posed by piracy. Before Pompey's suppression of piracy in the Mediterranean, islands provided ideal places where pirates could prey on passing maritime traffic.

Furthermore, offshore islands, far from centres of command, could provide places where pirates could set up bases for the winter. In antiquity, both Malta and Pantelleria were known as centres of piratical activity (De Souza 1999: 195).

CONCLUSIONS

The roles of small islands in the central Mediterranean were varied, but there can be little doubt that they were important as places of temporary shelter for maritime traffic to and from Rome. Shelter afforded by the islands ensured that, when necessary, journeys could be broken up into a series of legs to ensure safe passage.

Throughout the Roman period, island communities responded to increased connectivity brought about by the massive demand for goods by Rome and other large cities throughout the Mediterranean. Islanders did this by adapting to larger markets in dispersed hinterlands as well as by taking advantage of increased and regular shipping in the central Mediterranean. Such opportunities brought about changes in agricultural practices and/or increased productivity of local wares. Secondary cargoes consisting of island produce could be loaded alongside the main cargoes being carried to Rome. Finally, the logistical and practical exigencies of a major route to Rome (Alexandria–Portus) also spurred the construction of a major port complex on Malta, which was was, until the first century AD, a relatively unimportant island off Sicily. Whether offering temporary shelter in a small anchorage or dry storage for grain over winter in a large port, the small islands of the Mediterranean may be considered, to varying degrees, as having formed part of Rome's *façade maritime* (Purcell 1996: 267–79).

Note

1. Issues discussed in this volume from a range of perspectives by Arnaud (Chapter 6), Boetto (Chapter 8), Bonifay and Tchernia (Chapter 16) and Wilson, Schörle and Rice (Chapter 20).

References

Arnaud, P. (2005) *Les routes de la navigation antique. Itineraires en Méditerranée*. Paris, Éditions Errance.

Bound, M. (1992) *Archeologia sottomarina alle isole Eolie*. Marina di Patti, Pungitopo Editrice.

Bruno, B. (2004) *L'archipelago maltese in età romana e bizantina: attività economiche e scambi al centro del Mediterraneo*. Bari, Edipuglia.

Buhagiar, M. (1988) Two archaeological sites: Ras il-Raheb, Malta and Ras il-Wardija, Gozo. *Melita Historica* 10 (1): 69–87.

Castagnino Berlinghieri, E.F. (2003) *The Aeolian Islands: Crossroads of Mediterranean Maritime Routes. A Survey on their Maritime Archaeology and Topography from the Prehistoric to the Roman Periods* (*British Archaeological Reports, International Series* 1,181). Oxford, Archaeopress.

De Souza, P. (1999) *Piracy in the Graeco-Roman World.* Cambridge, Cambridge University Press.

Fulford, M.G. and Peacock, D.P.S. (1984) (eds) *Excavations at Carthage: the British Mission* VI.2. *The Avenue Habib Borguiba, Salammbo: the Pottery and Other Ceramic Objects from the Site* I, 2. Sheffield, University of Sheffield Press for the British Academy.

Gambin, T. (2005) Ports and port structures for ancient Malta. In A. Gallina Zevi and R. Turchetti (eds), *Le strutture dei porti e degli approdi antichi*. *II seminario ANSER. Roma–Ostia, aprile di 2004*: 159–74. Rome, Rubbettino Editore.

Heikell, R. (2002) *Italian Waters Pilot — a Yachtsman's Guide to the West and South Coasts of Italy, with the Islands of Sardinia, Sicily and Malta*. St Ives, Imray Laurie Norie & Wilson.

Horden, P. and Purcell, N. (2000) *The Corrupting Sea: a Study of Mediterranean History.* Oxford, Blackwell.

Hydrographic Office, Admiralty (1978) *The Mediterranean Pilot* 1. Taunton, Hydrographic Office.

Marriner, N. and Morhange, C. (2007) Geoscience of ancient Mediterranean harbours. *Earth-Science Reviews* 80: 137–94.

Parker, A.J. (1992) *Ancient Shipwrecks of the Mediterranean and the Roman Provinces* (*British Archaeological Reports, International Series* 580). Oxford, Tempus Reparatum.

Purcell, N. (1996) The ports of Rome: evolution of a *façade maritime*. In A. Gallina Zevi and A. Claridge (eds), *'Roman Ostia' Revisited. Archaeological and Historical Papers in Memory of Russell Meiggs*: 267–79. London, British School at Rome in collaboration with the Soprintendenza Archeologica di Ostia.

Rickman, G. (1980) *The Corn Supply of Ancient Rome.* Oxford, Oxford University Press.

Vella, N.C. (2002) The lie of the land: Ptolemy's temple of Hercules in Malta. *Ancient Near Eastern Studies* 39: 83–112.

View publication stats