The Harbours of Ancient Gozo[1]

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> 'For off the South of Sicily three islands lie out to sea, and each of them possesses a city and harbours, which can offer safety to ships in stress of the weather.
>
> After this island [Malta} there is a second, which bears the name of Gaulos, lying out in the open sea and adorned with well-situated harbours, a Phoenician colony'.[2]

The above quotation is taken from a passage written by Diodorus Siculus who wrote in the first century BC, and this description is a good point of departure for the study of the maritime activity of Gozo in antiquity. The ancient name for the island, *Gaulos*, is thought to refer to a 'beamy and rounded' vessel used by Phoenician merchants, a name used between the 5th and 3rd centuries BC.[3] This could be an indication of how early seafarers perceived the shape of the island.[4] Of Malta, Diodorus Siculus also wrote that 'as they [the Phoenicians] extended their trade to the western ocean they found it [Malta] a place of safe retreat.'[5]

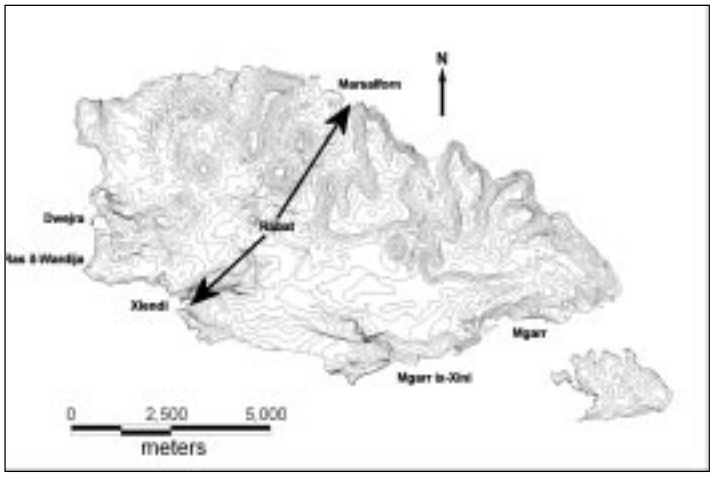
It is not unreasonable to assume that Gozo, too, was seen as a similar haven. However, on the basis that present day Gozo is devoid of any good natural harbours, some have, not unreasonably, dismissed the possibility that the island could have had any significant maritime role in antiquity.[6] Through this paper I intend to show that the island did indeed have its fair share of maritime activity, an activity that would have needed more than small open bays to be sustained.

The starting point for understanding Gozo's maritime role in antiquity is the North African coast. Any ships crossing the north-south trade axis existing between North Africa and the east coast of Sicily would have had to pass by the islands in the central Mediterranean, namely Lampedusa, Pantelleria, Gozo and Malta in order to reach. The first landfall for vessels approaching Gozo from the direction of Pantelleria, for example, would be Ras il-Wardija. Described as 'bold and perpendicular', the cape lies at the south-west extremity of the island and protrudes at a point where the steep cliffs turn west and east-south-east.[7]

It would be opportune to highlight some navigational practices of ancient mariners. One of the main navigational tools used, at least since the 6th century BC, was the sounding lead.[8] The maximum depth at which a sounding weight was reliable was approximately 180 meters thus making it virtually impossible to use this tool in the deep sea around Gozo until one was too close to the land. Therefore, a high landfall such as that at Ras il-Wardija, visible as it is from far out at sea, provided an indispensable reference to mariners. It is important to note that the use of a landfall from a nautical point of view is conditioned by factors such as visibility. Mariners were also known to use the sighting of birds as an indication that land was nearby.[9] Locally, the Cory Shearwater breeds on the cliffs of Gozo and Malta and are in abundance during the ancient sailing season of March through to October.[10] They are known to hover around vessels up to 40 km off the coast thus giving the mariner an early indication that land was near.

The cliffs in the area of Ras il-Wardija are marked on the Gozo Admiralty chart at 162 meters above sea level. The sheer height of Ras il-Wardija thus makes it visible from about 12 nautical miles out at

Figure 1: Map of Gozo showing various places mentioned in the text.



sea depending on visibility, making it, together with the surrounding cliff, an indispensable landfall for approaching seafarers. Upon this headland are situated the remains of 'a site which can be described as an interesting example of sacred architecture in the Punic world'[11] which, according to the archaeologists that studied the site, 'must have been an exceptionally important sanctuary.'[12] This sanctuary 'occupies a unique and somewhat mysterious position both physically, at the very edge of a sheer cliff overlooking the sea away from all known ancient settlements of the island.'[13] (Figure1).

What makes the sanctuary at Ras il-Wardija so relevant to this study is its proximity to what is in my opinion one of the island's main harbours in antiquity. Xlendi, situated just over 1 km south of the headland, would have been the first refuge available to vessels travelling to Malta and Gozo directly from Carthage or via the island of Pantelleria. Situated on such a prominent headland, this sanctuary may have been part of a 'cultic topography'[14] that would have been familiar to mariners sailing in the central Mediterranean.

Horden and Purcell state that 'particular features of the sea-voyage are marked as sacred, especially those of coastal havens, springs and landmarks.'[15] A recent study has highlighted the importance of headlands to ancient Greek navigation. Features such as headlands and offshore islands are thought to have 'far more developed terrestrial and 'socio-maritime' roles' than other parts of the coast. It therefore comes as no surprise that headlands are often marked by sanctuaries that are linked to navigation 'not only directly, through the use of such shrines as leading marks and reference points in coastal pilotage, but also indirectly, through seafarers' recourse to religion as an expression of their fears, hopes and concerns when sailing in an area of particular danger and navigational importance.'[16] Ancient ships carried altars on the poop that were used specifically for religious activities at sea.[17] Whilst those making landfall would pay tribute to the deity of the sanctuary upon successful completion of their voyage those leaving harbour, undertaking an outbound journey, would also have made offerings in 'supplication of safety'.[18] Here one must point out the difficulty of identifying loose underwater finds with such ritual. Loose finds are more often associated with accidental loss from a vessel or with the jettisoning of goods on board in case of emergency.

Considering its prominent location as well as the sanctuary's geographical position between the harbour of Xlendi and the small short-term anchorage of Dwejra there can be no doubt that the sanctuary at Ras il-Wardija can be considered as a coastal sanctuary per excellence probably linked to the harbour of Xlendi. The approach and entrance to Xlendi is narrow and very difficult in southerly winds. Loose archaeological finds from the environs of Dwejra bay, point to the area being used as an anchorage, possibly a place where vessels could wait for a favourable wind to enter the harbour. This situation is not dissimilar to navigational practices elsewhere such as Lundy Island, 'a vital sheltering-place in westerly gales and a key waypoint on the approach to Bristol.' [19]

Figure 2: Some amphorae from Xlendi on display at the Gozo Museum of Archaeology (T. Gambin)

Figure 3: Some amphorae from Xlendi on display at the Gozo Museum of Archaeology (T. Gambin)

Approaching the sheer cliffs on the north west of Gozo it is not easy to distinguish the mouth of Xlendi Bay as the only indication of the entrance to the harbour is a slight dip in the cliffs and a change of colour in the stone, signs that even by day would have been hard to discern by the untrained or inexperienced eye. It is not unreasonable to assume that fire and smoke from the sanctuary would have guided approaching vessels towards the harbour by day or night.

The number of wrecks identified in the area attests the fact that Xlendi was in use throughout a long spell in antiquity. Although not all scientifically investigated, various projects carried out on the site confirm the presence of more than one shipwreck from different periods.[20] Parker lists three wrecks that vary in date from the 2nd-1st century BC to the 5th century AD: Xlendi A c. 150-75 BC (?), Xlendi B 1st century AD (?), Xlendi C c. AD 350-450 (?) and another, Xlendi D, that is of uncertain date.[21] The dating of the various Xlendi wrecks can be deduced from the numerous amphorae now on display at the Gozo Museum of Archaeology. These amphorae represent a small sample of the cargoes that, since the late 1950s have been recovered in a series of projects that have so far remained unpublished.[22] Unfortunately, this site has also been witness to intense looting. Types of amphorae from this site include Mana 2C, Dressel 1A, Dressel 2-4, Lamboglia 2 and Keay XXV. The presence of a variety of Punic amphora types also suggests a wreck from circa the 4th-3rd century BC (Figures 2 and 3).

The presence of these wrecks is also evidence of the treacherous approach to this harbour. Wind, waves, swell and current interact and create difficult sea conditions in the area, a situation not uncommon in mid-summer. Added to this, there exists a reef at the mouth of the bay that is barely a meter under the surface. However, until a scientific survey of the objects still in situ is carried out it remains extremely difficult to ascertain whether these vessels came to grief whilst trying to enter the bay or when leaving.

In spite of the abovementioned dangers, it is apparent from the variety of wrecks, that this harbour was used over a significant stretch of time. The current topography of Xlendi Bay does not lend to the idea of it being a safe harbour mainly due to its exposure to north-westerly gales. However, after a close study of old aerial photographs and survey maps one gets a clear indication that the topography of the area must have been significantly different in the past (Figure 4). The harbour of Xlendi in ancient times must have covered the area that is covered by the public car park as well as by some private buildings. Although no scientific studies have yet been carried out in the area to discover the limits of the ancient coastline, the extent of the harbour can be deduced from other factors. Firstly, the texture of the rocks inland shows evidence of wave action and erosion, indicating that the original extended approximately two hundred metres further in land than the present coastline (Figure 5) Persons who have excavated and carried out construction works in this area have confirmed the presence of pebbles, sand and marine molluscs similar to that found on the seabed. They also confirmed that despite excavating over three meters below ground level they did not reach bedrock and that a foundation of concrete had to be laid on the marine deposits.

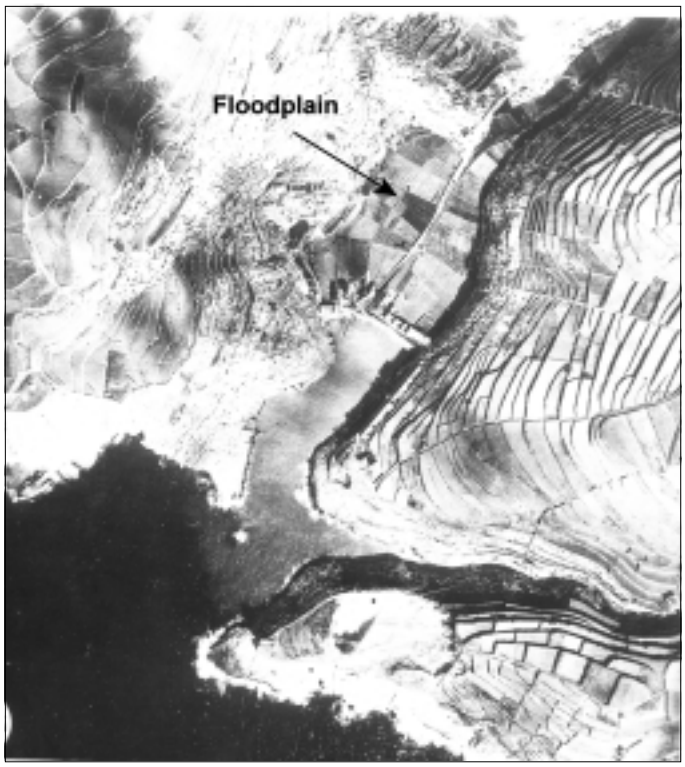


Fig. 4: Aerial photograph of Xlendi taken by the Royal Air Force taken in 1933. The clearly visible floodplain is the site of the ancient harbour of Xlendi (after Samut-Tagliaferro, A. (1993) The Coastal Fortifications of Gozo and Comino (Malta: Midsea Books): 149).

Xlendi bay is at the head of a deep valley that is still capable of carrying vast amounts of water and alluvial deposits from the surrounding hinterland. Photographs taken in 1979 and today displayed in

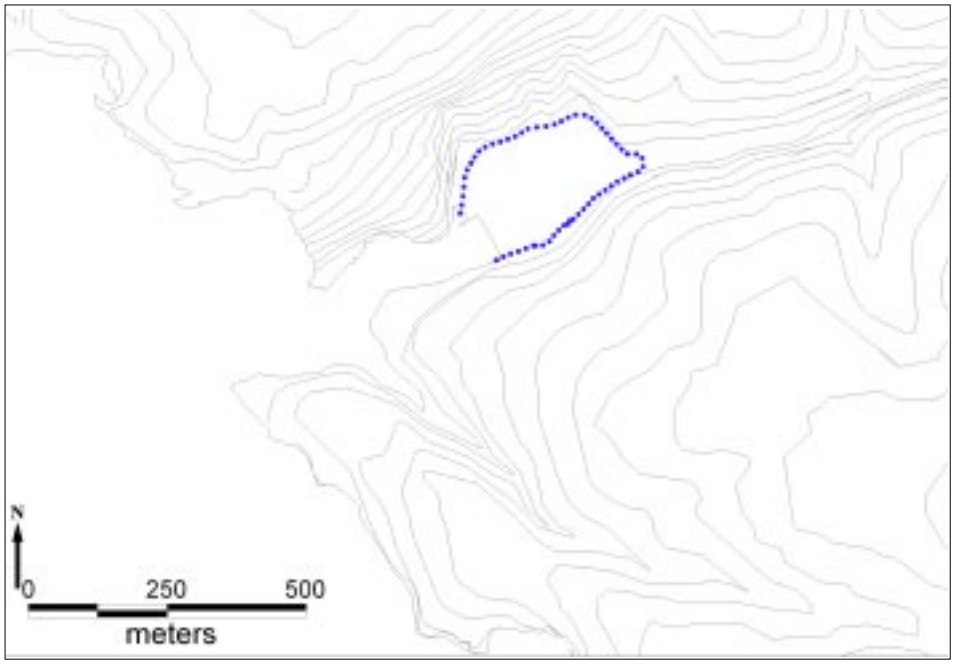
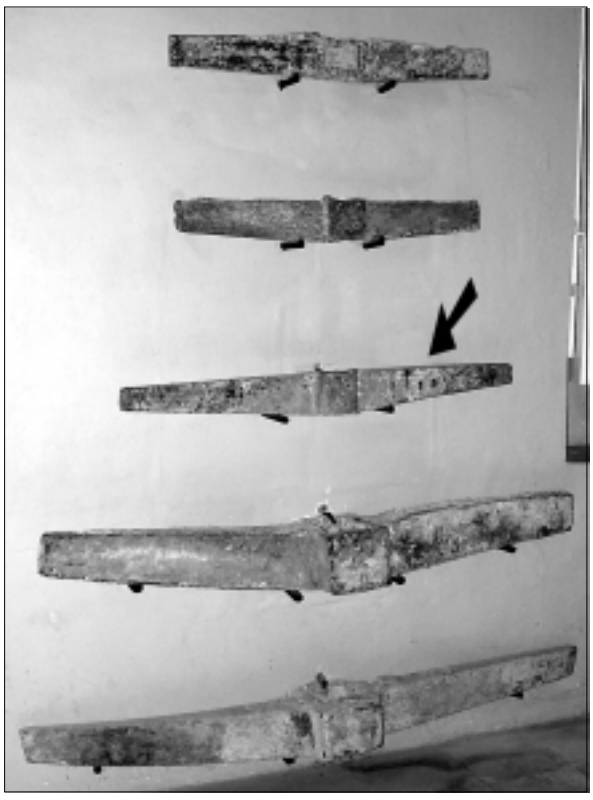


Fig. 5: Map of Xlendi. Extent of ancient harbour is marked by dotted line.

many local catering establishments confirm the substantial amount of debris that can be deposited during one big storm. The inner harbour seems to have silted up to a point in the bay where the sea is too deep for the sediments to build up. Further study could reveal some form of harbour works or structures such as wharfs that might shed further light on this hypothesis. De Lucca states that the link between Rabat and Xlendi is 'reminiscent of the Rome-Ostia relationship.'[23] However, here one must point out that the proximity of Xlendi to the main Roman settlement in what is present day Rabat implies that goods destined for the island could be off-loaded and transported directly to the town less than 1.5 km away. This would reduce the need for large warehouses on the waterfront.

Fig. 6: Lead anchor stocks found in the sea around Gozo and currently on display at the Gozo Museum of Archaeology, one of which has interesting markings (T. Gambin).



On Gozo the phenomenon described above is not exclusive to Xlendi. Mgarr ix-Xini must have also extended further inland than it does today. Yet, even with this in mind one cannot but conclude that this bay was no more than a temporary anchorage, mainly due to the lack of width available for vessels to manoeuvre. On the other hand, the Bay of Marsalforn in the north of the island, which is sheltered from southerly winds, may have been the second harbour referred to by ancient historians and geographers like Diodorus Siculus. Stray finds, including lead anchor stocks (Figure 6) and pottery papers indicate that the bay was witness to a certain degree of maritime activity. Vessels approaching from Sicily and intending to use Marsalforn probably used topographical features close to the bay such as Qolla il-Bajda and Qolla is-Safra - the latter described from a maritime perspective as 'a remarkable, isolated, steep, conical, yellow hill 206 feet high.'[24]

Aerial photographs again give a clear clue as to the nature of the environment in the area. In the valley just behind the bay evidence of heavy alluvial deposits again suggest a valley that has silted up over the years. This idea is substantiated by an eighteenth century description of the valley: 'In ancient times this place [Marsalforn] used to extend to the Srawel Valley where the boats and ships used to be moored. The places where the boats and ships were secured can still be seen.'[25] (Figure 7)

An explanation for the existence of two harbours on such a small island is difficult. One can assume that due to their geographically opposed positions, weather played an important role in the choice of which harbour to use. More specifically, the wind

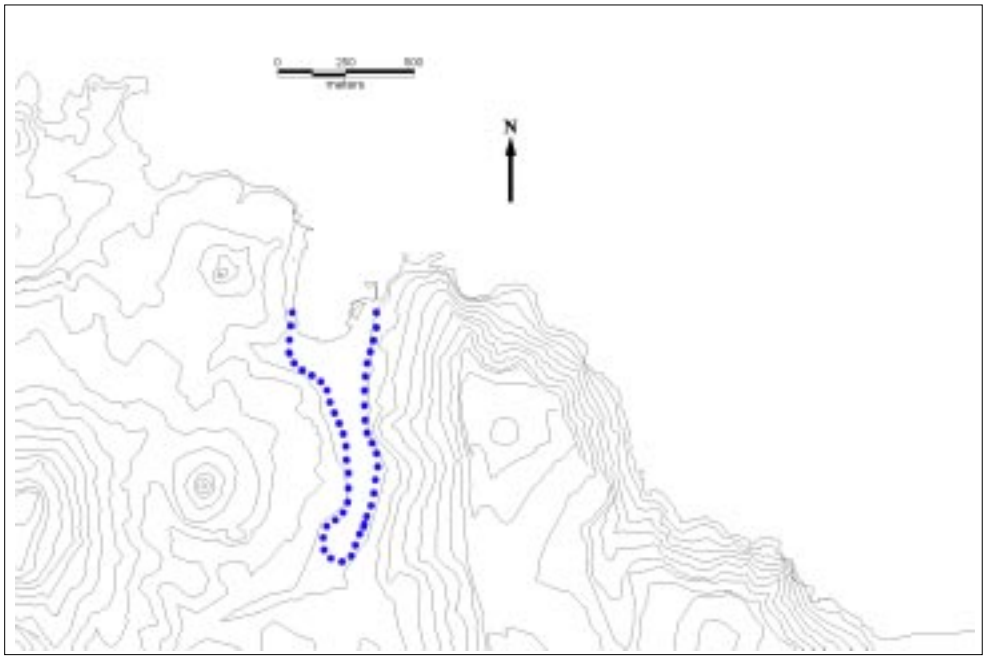


Fig. 7: Map of Marsalforn. Extent of ancient harbour is marked by dotted line.

blowing on the day may have persuaded the master of a vessel to sail round the island to seel shelter in the more protected harbour. From a terrestrial perspective, one must mention the advantage of being able to observe the approaches to both harbours. Indeed, from a specific position in the Gozo Citadel one can do this by simply turning approximately 180 degrees (Figure 1). Alternatively, a case could conceivably be made for the possibility of two distinct harbours serving different purposes, one civilian and the other military. However, this hypothesis is not yet backed by any evidence.

During the Roman period Gozo enjoyed its own municipal status and its own administrative autonomy at least since the middle of the second century AD (AD 138-161).'[26] This autonomy probably extended to commercial self-sufficiency and would partly explain why vessels called on Gozo directly. Also relevant is the increased trade between North Africa and mainland Europe in the 3rd century AD.[27] Studies of the distribution of amphora type Africana 2a show that these are found both on the Maltese islands[28] and in southern Sicily.[29] Malta and Gozo would have provided the ideal stop over for the vessels carrying North African produce travelling from modern day Tunisia and Libya.

For vessels on certain routes Xlendi would have been the first harbour of the Maltese islands available for shelter and for whatever other services that may have been needed as well as to pick up some local produce such as cloth or olive oil. However, the lack of evidence for warehouses points away from the use of Gozo as an entrepot. With regards to Mgarr, when dredging took place in the bay the early seventies, I have been informed that fragments of pottery were brought up in the silt.[30] Unfortunately, these have since disappeared and are not available for further study. However there can be no doubt that the bay was, as in later times, used as an anchorage and as a place where water could be brought aboard. Other advantages with regards to the use of Mgarr are its proximity to Malta for any inter-island trade, which surely existed, and just as importantly because it is well sheltered from north-westerly winds.

The maritime culture of Gozo in antiquity

So far this study has focused mainly on natural topography, land remains and shipwrecks within the broader context of shipping routes as well as the perception of approaching mariners. It would now be opportune to attempt an understanding of who, besides visiting seafarers, used these harbours and whether the existence of these harbours gave impetus to a maritime culture on the island.

On a micro level there is not much to shed light on such aspects as fishing or local boat building at the time. The geographical settings of the Maltese archipelago leave little room for doubt that fishing must have played some part in the economy of the islands, however there is no evidence regarding fishing communities or related industries such as the production of *garum*.[31] On Gozo, the only ancient coastal settlement is in the form of a Roman

villa placed very close to the water's edge.[32] However, despite this proximity to the sea there is, to date, no evidence linking the villa to an industrial activity related to the sea.

Upon observation of the picturesque situation of the villa one cannot help but think that the site was chosen for aesthetic reasons and was used for residential and recreational purposes.[33] The site, however, does bring to light two not unrelated observations: firstly that sea-levels were not significantly higher than those of today, and second, that the coasts of the island were safe enough (from pirates) to enable the construction of a residential villa at the water's edge. This security was to contrast sharply with the situation on Gozo in later times.

Despite the lack of evidence one may safely assume the existence of some form of 'maritime culture', although not in the sense propounded by Muckelroy.[34] Services such as those of pilots, carpenters, rope makers and sail makers may have been offered to visiting vessels, as well as to craft operating locally. However, it is difficult to identify 'a specialised community archaeologically'[35] and it could well be that these services were extensions of the similar or related services that may have already existed within the local economy. The fisherman may act as a pilot when and if required; the carpenter may be required to carry out minor repairs on a vessel, and the local weaver may work on the sails.

Another activity related to the coast and the sea may have been the harvesting of salt. Natural rock features such as those at Dwejra are still in use today[36]. A Gozitan salt harvester, when interviewed in 1992, claimed that in Roman times Sicilians crossed over to Gozo to work the salt pans and lived on the coast to the west of Marsalforn for the duration of the summer.[37] This suggestion is based on folklore and is not backed by any evidence. Parker points out that 'one has to recognise that it is not so much maritime consciousness, as the demand of economic or social factors, which induce a seafaring response.'[38] I would like to extend this to persons on land responding to an economic demand from a maritime source, and which in turn gives rise to a 'maritime awareness'. This does not dismiss the possibility of the odd individual whose livelihood depended solely on the sea.

That the island had no coastal or harbour settlements comes as no surprise. Due to the proximity of Xlendi and Marsalforn to the main settlement in present day Rabat, there would have been no need for persons offering maritime related services to be based by the sea, this because both harbours can be reached within thirty minutes on foot. Therefore, upon the observation of a ship on the horizon those wishing to meet the vessel could do so by the time she was in port.

Conclusion

This short contribution is not intended as an end in itself. On the contrary, this study is simply a reinterpretation of archaeological work carried out both on land and underwater. There are new areas that must be looked at and surveyed, such as those spaces that have not yet been built over in Xlendi and in Marsalforn. On the other hand I believe that the time is ripe for revisiting the field notes and other information available from past projects that will help in reinterpreting the wreck sites that have, over the years, been excavated but unfortunately also plundered. The plotting and interpretation of loose finds may also come to play an important part of a broader study. By doing so we will be tapping a source of information that has so far been largely peripheral but is nevertheless significant. This paper may be thus considered as a contribution towards a new understanding of Gozo's harbours and maritime role in ancient times.

Acknowledgements

I must start by thanking the Archaeological Society (Malta) for agreeing to publish this article. Secondly, this paper owes much to the inspiration of Dr. Toby Parker and to the extensive comments Dr. Nicholas Vella. Finally, I thank Toni 'il-Buzulli' for sharing his knowledge and vision of the sea with me. I dedicate this article to him.

References

[1] This article has evolved from part of my MA dissertation in maritime archaeology and history carried out under the supervision of Dr. A.J. Parker at Bristol University and was read at the first symposium 'Maritime Archaeology Malta 2002' held at the Maritime Museum of Malta.

2 Oldfather C.H. (trans.), (1952), *Diodorus of Sicily* (London): p. 129.

[3] Casson, L. (1995), *Ships and Seamanship in the Ancient World*, revised edition, (Princeton NJ: The John Hopkins University Press): p. 66

[4] Medas, S. (2000) *La Marineria Cartaginese: le navi, gli uomini, la navigazione* (Sassari: Carlo Delfino): 5

[5] Oldfather: p. 129

[6] Bonanno, A. (1990) The Archaeology of Gozo: from Prehistoric to Arab Times in Cini, C. *Gozo: Roots of an Island* (Malta: Said International): 12-45 : p.14.

[7] Hydrographic Office, Admiralty (1978) *The Mediterranean Pilot Volume 1* (London): 182.

[8] Oleson, J.P. (2000) Ancient sounding-weights: a contribution to the history of Mediterranean navigation *Journal of Roman Archaeology* 13: 293-310: 294.

[9] See Hornell, J. (1946) The Role of Birds in early Navigation *Antiquity* 20: 142-49.

[10] Sultana, J. and Falzon, V. (eds.) (1996) *Wildlife of the Maltese Islands* (Floriana: Environment Protection Department): 294.

[11] De Lucca, D. (1990) The built environment in Gozo: a historical review in Cini, C. *Gozo: Roots of an Island* (Malta: Said International): 121-159: p.130.

[12] Missione Archeologica Italiana a Malta. Rapporto preliminare della campagna 1966. VOSA 12. 1967: p.133.

[13] Bonanno (1990): p.34. In ancient times the 'urban' center of Gozo was situated in present Rabat.

[14] Horden, P. & Purcell, N. (2000) *The Corrupting Sea: A Study of Mediterranean History* (Oxford: Blackwell Publishers): p. 440

[15] Ibid.

[16] Morton, J. (2001) *The Role of the Environment in Ancient Greek Seafaring* (Leiden: Brill): 310-11.

[17] Casson: p. 182

[18] Taylor E.G.R. (1956) *The Haven-Finding Art A History of Navigation from Odysseus to Captain Cook*, (London): p. 32

[19] Parker, A.J. (2001) Maritime Landscapes *Landscapes* 2.1: 22-41: p.36.

[20] For reports on these early excavations see Museums Annual Report (1961), 6-7 and a report of fieldwork by Imperial College, London (1961). Photographs of material have been published on Cini C. (ed.), (1990) pp.16-17, and Cini C (ed.) (1992), *Roman Malta The Archaeological Heritage of the Maltese Islands*, (Rome): Plates 61-65.

[21] Parker, A.J., (1992) *Ancient Shipwrecks of the Mediterranean and the Roman Provinces* (Oxford: British Archaeological Reports International Series 580, Tempus Reparatum): 453.

[22] The present author is currently working on the identification and publication of the amphorae from Xlendi.

[23] De Lucca (1990): p.130

[24] Archives of The United Kingdom Hydrographic Office: *OD 248*.

[25] Agius de Soldanis, G.P.R. (1746), *Gozo Ancient and Modern Religious and Profane* (English translation printed in Malta 1999): p.53.

[26] Bonanno (1990): p.46

[27] Gibbins D., (2001), A Roman Shipwreck of c. AD 200 at Plemmirio, Sicily in Gibbins D. and Adams J. (2001), *World Archaeology Shipwrecks*, Volume 32 Number 3, pp.311-334, p.330. Also, Throckmorton P. and Parker A.J. (1987) The Amphora: Jerrycan of Antiquity in Throckmorton P. (ed.), (1987), *The Sea Remembers, From Homer's Greece to the rediscovery of the Titanic, Shipwrecks and Archaeology*, London, pp.64-71, p.70: 'In the meantime the exports of other provinces began to compete successfully; then, at the end of the century, many Spanish landowners lost their estates as a reprisal for opposing Septimius Severus, while Severus gave favours to Tripolitania, his home province.'

[28] Parker (1992): 375

[29] For map of Africana 2a distribution in central Mediterranean see Gibbins: 315.

[30] Pers com from Gozitan port officials.

[31] Bonanno, A. (1992) Roman Malta in Cini, C. (ed.): 13-35: p.25

[32] Ibid. 32

[33] Bonanno (1992): p.32.

[34] Muckelroy, K. (1978), *Maritime Archaeology*, (Cambridge: Cambridge University Press): see chapter 7.

[35] Parker (2001): p.27.

[36] See Dingli P. (1999), *A Resouce from the sea, A spatial study of salt pans around the Maltese Islands*, unpublished BA (Hons.) as submitted to the Department of Geography at the University of Malta: p.3.

[37] Ibid.

[38] Parker (2001): p. 38.