THE TOWER OF CADIZ

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In our ancient sources the fame of Cadiz rests on three things; its position at the end of the world¹, the Heracleum at the South of the island², and its dancing girls³. However for the later Arabic geographers Cadiz contained another wonder which is never mentioned by the classical sources.

This feature is the sanam, or «idol» of Cadiz. «Idol» being a much better translation of the Arabic than «temple» which is occasionally found⁴. The idol is referred to by many Arabic sources, but most of these were written long after its demolition in the twelfth century A. D. There are, however, three texts which can be regarded as «primary» sources. The first of these is a fragment of a twelfth century anonymous geographer preserved in the work of al-Maggari⁵. This tells us that there was in the town an «almenara» like that at Alexandria. The almenara was made of solid masonry, square in shape with a second storey, also square and one third the size of the first, and a third which was a tapering four sided pyramid capped by a marble block. two spans square. On top of this block was a statue of a man, «of extraordinary workmanship and fine manufacture». The whole structure was some 100 cubits high. The statue pointed to the straits of Gibraltar with its left hand, and held its right close to its body, holding its cloak and a stick. The geographer goes on to note that many people believe that the stick is a key (a statement born out by many of the later Arabic reports), but this is not correct. He himself had seen the statue many times and had only seen a stick. Moreover a «trustworthy person» who was present at its demolition had told him that the statue held a stick twelve spans in length at whose end

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¹ JUVENAL, Sat. 10.1, Prisciani Periegesis 73.

² STRABO 3.5.3.

³ MARTIAL 14.203.

⁴ See P. Martinez Montávez, *Perfil de Cádiz Hispano Árabe* p. 54. This usage is confirmed by a Medieval Latin source, Ps. Turpin's Life of Charlemagne, in which it is stated that Charlemagne destroyed all the idols, «idola et simulacra» he found in Spain except for the «Salam Cadis». «Salam» here is clearly a corruption of the Arabic «Sanam».

⁵ Arabic text in Dozy, Recherches... 3rd. ed. p. LXXXIX et seq. English translation, in GAYANGOS, History of the Mohammedan Dynasties in Spain, Vol 1. Spanish translation in P. MARTÍNEZ MONTÁVEZ, Perfil de Cádiz Hispano Árabe, p. 60-1.

were «the thongs of a whip»⁶, or «teeth like those of a curry comb»⁷, or a «necklace» «small cross»⁸. Unfortunately the Arabic text is clearly corrupt here, however we can deduce that the stick was long and had some form of appendage at its end.

The second of our sources is the Tuhfat al-albab of Abu Hamid al-Garnati⁹, again a work of the twelfth century. This too states that the structure was approximately 100 cubits high and that it was square at its base, but adds that its upper part was rounded. It adds emphatically that the structure was of solid masonry and had no doors. Of the statue it says that it was of a black man, a «zingi»¹⁰, clothed in a cloak of gold. The statue's right hand was pointing to the west and in its left hand it held a key.

Our final source is a fragment of the continuator of the pseudo Pacense preserved in the work of al-Masudi (fl.+ 956)¹¹. This states that the almenara of Cadiz was one of the wonders of the world and could be seen as far away as Medina Sidonia, some eighteen miles distant, and still further.

Later sources tend to repeat or garble the same information and add legendary accounts of the tower's erection. The most commonly attributed author of the work is Heracles, followed by Alexander the Great. Some further useful information is added however. Yaqut¹² insists on the statue being like a berber, having a long beard and long ruffled hair, with a lock of hair falling over its forehead. He estimates the size of the structure at 70 cubits. Ibnu Ghalib¹³ likens the structure to that of the Roman lighthouse at Corunna. Al-Himyari¹⁴ gives us our only clue to the lateral size of the structure saving it was 40 cubits square at the base, and our only clue to its location, saying that it was in the middle of the island of Cadiz, six miles from the church of San Pedro (the present day island of Sancti Petri). He states that there were three, not two stages before the tapering pyramid and gives the total height of the monument as 124 cubits, of which the statue comprised 6 or 8. All these measurements, he says are in «great cubits» which are three and a half spans in length. Himyari also adds that the statue was surpassed in height by a column of

⁶ Dozy.

⁷ GAYANGOS.

⁸ MARTÍNEZ MONTÁVEZ.

⁹ p. 68-9 of the Arabic text, Spanish translation in Martinez Montavez p. 56-7.

¹⁰ The Arabic for negro, referring especially to the inhabitants of the Sudan, an appropriate English translation would be "fuzzy wuzzy".

¹¹ Spanish translation in A. GARCÍA y BELLIDO, «Iocosae Gades», BRAH 129 1951 p.115-6.

¹² Vol. 4.261, Spanish translation MARTÍNEZ MONTÁVEZ p. 57 and Cuadernos de la historia de Islam, 6, 1974.

¹³ In Al Maggari bk. 1 ch.5, English translation Gayangos.

¹⁴ Kitab Ar Rawd Al Mi'tar section 132. French translation by Levi Provençal, Spanish translation by Garcia y Bellido op.cit., p. 119-122.

gold or copper which was fixed between its feet. All the later sources are insistent that the statue on top of the structure was made of metal, normally of guilded brass.

From this information we can deduce that the structure was a staggered building standing at least 122 feet high and with a base of at least 70 feet, with both measurements probably being greater¹⁵.

Despite its impressive dimensions remarkably little scholarship as been devoted to this structure. Thouvenot, dismissed it briefly has a lighthouse¹⁶, and García y Bellido after a slightly longer discussion came to the conclusion that it was a commemorative statue of the first quarter of the second century AD¹⁷. Both these solutions are highly problematic as will be seen. Four main questions can be raised about the tower, when was it built?, what was its purpose?, whom is the statue of?, and where was it sited?

Of these the first appears to be the easiest to answer. The building is undoubtably of Roman date. It was certainly earlier than the Arabic period and the Visigoths would not have been capable of building such a structure. The only serious alternative that can be proposed to a Roman date is a Phoenician one¹⁸. This has several draw backs. The first is that we know of no analogous Phoenician structures. The second is that all the Arabic sources refer to the realistic nature of the statue which crowned the monument. There is little Phoenician statuary in the round, and what there it is not of this realistic style. The fact that the statue was a metal rather than a stone one serves to strengthen this objection. It is unlikely that the Romans would have gone to the trouble of erecting a new statue on the monument, especially if the structure was solid as our Arabic sources report. Indeed al-Maggari notes that it was only with «great difficulty» that the statue was removed in the twelfth century. The silence of our main ancient sources on Cadiz, Strabo and Pliny, is also suggestive. The monument would have been a major feature of the town in the first century BC or the first century AD and it would be seen unlikely that these authors, or their sources, would omitt it. If, on the

¹⁵ These calculations are based on the standard Andalusian cubit of 54.04 cm. see MARTINEZ MONTÁVEZ, p.83. But Himyari's reference to great cubits, if not just embroidery, may make both measurements larger. The height has been taken from Yaqut's 70 cubits. A height of 100 cubits is 175 feet.

Essai sur la province romaine de Bétique, p. 527.

¹⁷ Op. cit., p. 114.

¹⁸ This is implicitly assumed by DE CASTRO who describes the structure in the chapter on Phoenician and Carthaginian Cadiz in his Historia de Cádiz, and explicitly stated by C. SÁNCHEZ-ALBORNOZ, El Islam de España y el occidente, p.82, RAMÓN SOLIS, Boletin de la Sociedad española de Excursiones, 58, 1954, p.151-162, and J. DE LA LASTRA Y TERRY, Cádiz Trimilenario, p. 24.

other hand, it was erected in the second century AD or beyond, our sources silence is easily explained. Both the shape of the structure and its description as being built of large well dressed blocks of stone joined together with metal cramps fit perfectly with a Roman date and tally well with the depictions of lighthouses we possess from this period¹⁹.

The second question, the purpose of the structure is far more problematic. At first, Thouvenot's solution of a lighthouse seems correct, Roman lighthouses, modelled on the Pharos of Alexandria, were normally staggered buildings and not infrequently surmounted by statues²⁰. Support is gained too from the fact that the Arabic sources compare the building to the lighthouse at Corunna and the Pharos of Alexandria. Nonetheless there is a major problem with this theory, namely that according to the same Arabic sources the structure was built of solid masonry and lacked a door. Doors and windows are common features of the iconography of Roman lighthouses²¹, and internal access would obviously be needed to service a lantern. Such access is a feature of both the lighthouse at Corunna and of Pharos of Alexandria. At Alexandria a mosque was created in the top storey of the Pharos and, given the length of Islamic occupation of Cadiz, it would seem likely that a mosque would have been installed at the top of the tower here had this been possible. This in turn tends to bear out the Arabic sources' view that the structure was solid and did not merely have a doorway that was blocked up, which could have been reopened for the purpose mentioned above, or to allow the building as an excellent watchtower. The fact that our only guide to the location of the building places it well away from the site of the Roman town (at least six miles distant) also militates against the lighthouse theory, as all the ancient lighthouses we know of were located at the entrances of harbours. It seems unlikely therefore that the structure was a lighthouse proper.

García y Bellido's solution of a commemorative statue also has some points in its favour, although his prefered date of 100-125 AD, seems more problematic. A monument of such size would seem to indicate an event of major importance was being commemorated, rather than just something of municipal significance. The best event in a Spanish context seems to be the defeat of the Moorish invasion of the province in c. 171 AD²². The monument could then be seen as analogous to the Tropaeum

¹⁹ See M. REDDÉ, «La représentation des phares à l'époque romaine», *MEFRA* 1979, p. 845-872.

²⁰ See REDDÉ, op. cit.

²¹ See REDDE, op. cit.

²² See N. SANTOS YANGUAS, «Las invasiones de Moros en la Bética del siglo II», DNE, Gades, 5, 1980, p. 51-62.

Augusti in the Alps or the Tropaeum Traiani at Adamklissi. Both these monuments are staggered and ended with a tapering stage supporting statuary. This statuary has in both cases been lost, but appears to have differed from that described as existing at Cadiz. The Tropaeum Augusti appears to have been surmounted by a statue of Augustus standing between two Gallic captives²³, whereas that at Adamklissi appears to have been crowned with a trophy of arms. Both these styles of statuary would be more suitable for a tropaeum than that described at Cadiz. It could be argued that a statue of an emperor in military dress would make an ideal finial to a tropaeum, but, notwithstanding García y Bellido's insistance to the contrary, the statue appears to be of a god and not an emperor. García y Bellido's main objection to the statue being that of a god is that gods were not depicted with cloaks running from their shoulders to their feet, as the statue is described. This however seems a very weak argument and it appears that a deity is so depicted on representations of lighthouse at Laodicea²⁴. The description of the hair of the statue as disheveled, given that this is a description from ground level. some hundred or more feet below, indicates that what is being described is something more that the stylized curls of Roman portraits and would be far more appropriate to a depiction of a god than an emperor, or indeed any actual person. This is born out by the word used by al-Garnati, to describe type of man portrayed by the statue: «zingi». This word is the Arabic for the negro inhabitants of the Sudan, notorious for their disheveled hair (the Fuzzy Wuzzies of Victorian England). These points also bear on the description of the statue's beard as long. Although beards came into fashion in the Roman Empire in the second century AD, they were always of the close clipped variety; the description here of a long beard, again bearing in mind once more that this description would have been from ground level, seems to indicate some completely different to the imperial style beard was being depicted. It is also difficult to reconcile the stick as described by our Arabic sources with Imperial iconography. A stick without appendages would present no problems, as such batons are clearly part of the imperial iconography (cf, above all, the Prima Porta statue of Augustus). The «appendages» however present considerable difficulties if the statue is to be interpreted as an imperial portrait, problems which seem insurmountable.

Although the two tropaea mentioned above were of similar size to the monument at Cadiz, there are some noticeable differences. The first is the amount of integral decoration on these structures. The Tropaeum Alpium

²³ The idol of Apollo and the two sitting demons of the medieval French poem, La Vida de Sant Honorat.

²⁴ H. SEYRIG, «Le phare de Laodicée», Syria, 52.

had as its second stage a drum with engaged pillasters, while the main body of the tropaeum at Adamklissi was a masonry drum decorated with a series of metopes. Only one late source refers to any form of decoration on the monument of Cadiz; in it the monument is described as being covered with inscriptions but may well be embroidery25. Given the references to the fine stonework of the monument at Cadiz, it is unlikely that this monument had such decoration which was removed at a later period, as then only the concrete core of the monument would have been left for our Arabic sources to describe. A further and larger structural difference is that the tropaea are mainly round in plan; the Tropaeum Alpium, having a round drum and cone preceded by a square base and the Tropaeum Traiani being entirely round in plan. A round plan in fact seems to have been the norm for tropaea. This is true of that erected by Drusus in Germany²⁶ and those described by Pausanias in Greece²⁷. There appears in fact to be a strong connection between this type of monument and the large drum tombs favoured by the Roman nobility with the former being modelled on the latter. This strongly suggests that the building at Cadiz, being entirely square in plan, was not a tropaeum.

Finally it appears unlikely that Gades was in fact affected by the Moorish invasions. The Moors appear to have entered Baetica near Malaga²⁸ and crossed into the Baetis valley via Singilia Barba²⁹. Such a large monument at Cadiz might well, therefore, seem out of place. Again the position of the structure, if it was in the centre of the island, raises the question of why, if the edifice was a form of commemorative monument, it was erected so far from the city proper. A question to which there does not seem to be an adequate answer. It appears then that the monument at Cadiz is not a tropaeum, differing as it does substantially in form and being inappropriate in location. The size of the structure would seem realistically rule out the structure being any other form of commemorative monument.

A third solution must be briefly discussed, namely that the monument is in fact a tomb. In support of this theory is that fact that Cadiz was a Punic city and so it would not be surprizing to find a tower tomb, a typically Phoenician monument, here. Moreover the fact that it may well have been a substantial distance from the town is in this case, unlike in the two preceeding ones, an argument in favour of the theory, as antique

²⁵ AL-MAS'OUDI, *Prairies d'or*, ed. and trans. BARBIER DE MEYNARD and PAVET, 1965 ed., vol. 2, ch. 12, s. 273.

²⁶ Tacitus, Ann. 11.18

²⁷ Pausanias 2.25.6, 5.27.11.

²⁸ Where possible traces of a triumphal arch dating to this period have been found, see GARCIA y BELLIDO, Esculturas romanas de España y Portugal, p. 166, pl. 136.

²⁹ See Santos Yanguas, op. cit.

burials were legally compelled to be without the city walls. The fact that the monument was a tomb need not have ruled out any naval application however. As early as the Iliad we find tombs being talked of as useful landmarks30 and several other such monuments are attested later in antiquity³¹. Nonetheless there are still major problems with this theory too. The first is that although we do not know exactly where the Roman or Punic necropoleis of Cadiz were, they appear, on our existing evidence, to have been much further to the north of the island than al-Himyari places the monument. The size of the building must be regarded as a drawback to this theory as the amount of wealth required to build such a monument would have been enormous. This however cannot be regarded as a major objection in the timocratic society of the Roman empire and given the wealth of the city of Cadiz. The structure of the monument does not however appear to coincide with the typical structure of the tower tomb. This rarely terminated in a statue, was not normally straggered to the same very marked degree as the monument at Cadiz and normally carried some external decoration which appears not to have been the case at Cadiz. The lack of a mention of an inscription, save in one late Arabic source, also tells against the theory, as does the fact that no source mentions any trace of a funerary chamber beneath the monument, which, given the Arabic obsession with hidden treasure beneath Roman monuments, an obsession which may well have lead to the monument's demolition, is extremely odd if the monument was a tomb³². The fact that the arabs, through their conquests, would have been familiar with tower tombs yet never thought the tower at Cadiz was one also tells against the theory.

None of the above theories seems to be a satisfactory explanation for the tower. Before proprosing a different solution however it would be best to consider the last two questions, namely what the statue represents and where the monument was located as these have a significant bearing on its purpose.

As discussed above, the description of the statue as of a black man with a long beard and long, disheveled hair appears, notwithstanding García y Bellido to the contrary, to reveal that the statue is that of a god. It might

³⁰ HOMER, Iliad, 7.86-9.

³¹ The tomb at Aceratos, *I.G.* xiii 8 add.683, the monument of Themistocles at Athens PLUT. Them. 32.5, The tomb of Neoptolemus at Tyras, STRABO 13, 884C, and the tomb of Locrian Ajax in the North East of Delos, TZETZES ad Lycophron 387, 402, 1141.

³² According to our sources the tower was destroyed by the rebel Emir, Abu 'l-Hasan Ali ben Maimun on hearing that it was built on a huge store of treasure or to obtain the gold he thought the statue was made of. For the Andalucian obsession with treasure hidden beneath ancient monuments see W. IRVING, Tales of the Alhambra, passim.

be thought that the most appropriate god would be Hercules given his connection in myth with Cadiz. Parts of the iconography of the statue do conform to that of Hercules. The long beard and the wild hair would certainly be appropiate. There is a major problem however with the long sitck which the statue is said to have carried. Its length, twelve spans, appears to rule out any confusion with the club of Hercules and no other weapon is known to be associated with him. The «appendages» at the end of the stick also make and identification with Hercules' club unlikely. Unfortunately our sole Arabic source appears to be corrupt at this point, however it seems clear that these appendages projected from the end of the stick and were in some way indented. The best solution to this problem is to assume that the stick in question was in fact a trident. This would fit with the various interpretations of the «appendages» and would further help to explain the continual references to a key in our later Arabic sources as the ancient key was long with extended projections at the end. From such a misunderstanding and the location of the statue it is easy to see how the myth that the statue was closing the way beyond the Straits of Gibraltar arose. If this interpretation is correct, the statue would have been a statue of the god Neptune. The description of the hair and beard would fit the iconography of this god perfectly (see, for example, the Neptune mosaic at nearby Italica). The location of the statue would also be ideal on this interpretation, the statue was at the end of the known world and at the begining of the Ocean stream, Neptune's realm par excellance. Moreover what other god would be more appropriate for showing the way over the sea than the god of the sea himself? The statue appears to have pointed the way with one hand while dramatically holding back his cloak in the other with which he also held his trident. Again there is some similarity to the depiction of Neptune on the Neptune mosaic at Italica. Al-Himyari's description of a gold pillar which was between the god's legs and was taller than his head is mysterious. The best explanation is that this is possibly a garbled misunderstanding of the small supporting element many classical statues have by the side of one

The final question to be dealt with is where the statue was located. As mentioned above, the only Arabic source which gives a firm clue to this is the late writer al-Himyari, who places the structure six miles to the North of the church of San Pablo, which would place the building in the centre of the island. However there are possibilities that the tower was nearer either the North or the South of the island. The evidence relating to the South of the island is contained in Porphyry³³. Porphyry tells a story of how a sacrifice was miraculously provided for at the Heracleum when

³³ PORPHYRY, De Abstinentia, 1.25.

it was besieged by the Berber king, Bogud, at the end of the first century BC. In the story a priest dreams that while he was standing between the pillars of Heracles (presumably here the two pillars in the temple enclosure), he saw a bird sitting opposite the altar and trying to fly. He proceeded to catch this bird and sacrifice it. The following day, standing in the same place he looked towards the πύργος and saw a bird like «in his dream» trying to fly away, which he consequently caught and sacrificed. If the πύργος here is the same as the tower we are discussing, it was clearly an integral part of the temple complex at the southern end of the island and the question of a Phoenician origin for the structure resurrects itself. However it is likely that a separate tower is involved. Towers were a frequent feature of Phoenician temples³⁴ and again, although our sources are few, it seems that these towers allowed access to their summits for the performance of religious rites³⁵, which would again clash with our Arabic sources insistance that the Tower of Cadiz was solid. Such a tower, if of ordinary size, would not attract comment from the numerous visitors to the temple and does not figure in our ancient accounts of it. On the other hand a structure as large as the tower of Cadiz probably would have attracted such attention, especially in the extensive poetic account of Silius Italicus. A major problem for the location of our tower here is the statue. On such a large monument it would seem reasonable to assume that the statue that crowned it was a statue of the god of the shrine, i.e. the Phoenician god Melgart, but all our sources suggest strongly that there was no image of the god in the temple³⁶. Moreover although al-Himyari may be confused in his account of the tower itself, his knowledge of the geography of island of Cadiz is good. He knows that a large number of antiquities have been found in the Sancti Petri area, calling it the area of idols, yet specifically places the tower away from this area. The area of the idols is a common name for the area in our Arabic sources and this in itself suggests that the idol and the area of idols were not in fact confused.

A case has also been made for the tower to have been situated at the North of the island, especially on the isle of San Sebastian, the probable site of Cadiz' other major Punic temple the Cronion³⁷. Although the location of the tower here would have made sense in nautical terms, as

³⁴ This, for example, appears to have been the case at the sanctuary at Paphos, see Hill, B.M. Cat. of Gk. coins: *Phoenicia* (1910), n. 38. Lam. XII, 13.

³⁵ See C. VIROLLEAUD, «Le Roi Kéret et son fils», *Syria*, 22, 1941. If these towers are related to the ziggurats of Near Eastern religion, as is possible, access to the top of them must have been possible.

³⁶ See Silius Italicus, 3.30-1.

³⁷ This is the view of RAMON Solis and De La Lastre y Terry op. cit. and that of Thouvenot, L'essai sur la province romaine de Bétique, p. 527.

the island lies at the entrance to the bay of Cadiz, it still suffers from major problems. The first is that there is very little evidence that the tower was situated here. The only Arabic source which offers a hint is that of al-Dimasqi³⁸, who states that the idol «stood before» the buildings of the town. He gives no indication however of the direction this is true of and so the idol could equally be located to the South as to the North of the town on this evidence. Thouvenot, who only discusses this issue very briefly, suggests that the tower ought to be located to the North of the island as it would then stand in the most useful position for navigation, namely at the harbour entrance of Cadiz. This assumption however, as will be seen, does not necessarily follow.

To be seen from Medina Sidonia, the tower, if it were situated on San Sebastian, would have been visible over the town of Cadiz proper which, given its raised site, small area, and Punic background, may well have had many tall buildings itself which would have obscured it. This theory again requires the tower to be Punic in origin, this in itself presents considerable problems, as discussed above. Moreover Strabo's description of the town, mainly taken from Artemidorus, and reasonably detailed, would have post-dated the building of the tower, but notes as the Cronion's only distinguishing feature the fact that it was situated on the most westerly promontory of the island, a notable absence of description³⁹. The theory appears to have been based on a misunderstanding of the French translation of al-Himyari, by Levi-Provençal, where the Arabic «sanam» is translated as «temple». This is clearly the case with Ramon Solis who explicitly indentifies the two, stating, «this temple i.e. the sanam of al-Himyari persisted throughout the history of the town until the Arabic period, it could not have passed unnoticed by the Romans and so ought to be none other the temple of Cronos which Strabo mentions». However the Arabic «sanam» is not, as we have seen, the equivilant of «temple» and it would seem reasonable therefore to dismiss this theory as based on a misunderstanding.

It seems therefore that there are no good grounds to doubt al-Himyari's location of the tower in the centre of the island. At this point it remains to suggest what the purpose of the monument was. Although, as has been seen it cannot be regarded as a lighthouse proper, the Arabic sources clearly regard it as a help for navigation and its location, on the edge of the sea or on a sandy island, tend to confirm this. Al-Makkari, noting the way the sun was reflected on the statue at the top of the tower, explicitly states that he believes it was built as an aid to navigation⁴⁰.

³⁸ AL-DIMASHQI, 8.6.

³⁹ STRABO, 3.5.3.

⁴⁰ AL-MAQQARI, English translation by GAYANGOS, bk.1 ch.6.

The Western, oceanic, coastline of the island of Cadiz is extremely treacherous, being swep by both a powerful current and the «Levanter» wind⁴¹. At first sight it would appear that in antiquity, as Cadiz was an island, it would have been wise for shipping to enter the bay of Cadiz at its southern end, the present-day canal de Sancti Petri, and coast up to the town of Cadiz in the bay itself. However it appears that this was not possible. The channel into the bay, between the end of the island and the mainland, was extremely narrow, so narrow that Diodorus Siculus was prepared to call Cadiz a peninsular rather than an island⁴². Acording to Strabo⁴³, the distance involved was only a stade, nor does the channel appear to have been widened in any way in antiquity as according to Saint Isidore of Seville it measured the same width in his day⁴⁴. Moreover the channel was, in addition to being narrow, extremely shallow, measuring only 2^{1/2} fathoms on charts from the seventeenth century⁴⁵ (it is useful to recall in this respect that a depth of 15 fathoms was enough on Saint Paul's journey to Rome to make the sailors think they were running aground⁴⁶), and moreover rocky. It would seem then the southern channel of the island was impassable to the large freighters which plied this route taking oil form the Baetis valley and wine and garum from the coast to Rome. This appears to be born out by the location of the potteries in the bay of Gades associated with this trade. These, by analogy with the potteries in the Baetis valley, would be located near embarkation points and they are all situated to the North or the centre of the bay.

It appears therefore that ancient shipping would have to brave the outer, Western, side of the island. This could have caused problems at times of poor visibility, as although both the Northern and Southern ends of the island stand out from the sea, providing clear landmarks, the centre of the island is extremely low lying and, as a consequence, could have been a major hazard in such conditions⁴⁷. Moreover the western coast of the island is flanked, for almost its entire length, by two reefs, the bajos de Leon and the bancos de los Martires, which have a maximum depth of 5 fathoms, but are in many parts even shallower, and, taking into account erosion which will have occurred in later periods, could well have

⁴¹ See the poem of Musa ibn Sais quoted by Himyari for an Arabic perspective on sea conditions here.

⁴² Diodorus Siculus, 5.20.

⁴³ Strabo, 3.5.3.

⁴⁴ St. ISIDORE Etym., 14.6.7.

⁴⁵ See J. A. CALDERÓN QUIIANO, et al., Cartografía militar y marítima de Cádiz.

⁴⁶ Acts, 27,28-9.

⁴⁷ POMPONIUS MELA, 3.6, «Gades... duobus promunturis evecta in alta, medium litus abducito.

shallower still in antiquity. The tower therefore would have been of great use to mariners as a landmark, warning them of the presence of these reefs and that they had not yet reached either end of the island. Such usefulness is attested to the present day by the presence of the Torregorda on the peninsula, at precisely the point where al-Himyari suggests that the tower was erected. This may be confirmed by the nineteenth century French travel writer Antoin De La Tour who noted that there were earlier foundations on the site which he attributed. I believe correctly, but without further discussion, to the remains of the Tower of Cadiz⁴⁸. Adolfo De Castro notes that the Torregorda was known for many years as the Almadraba de Heracles, a fact which may suggest a popular memory of the site of the Tower⁴⁹. Moreover a study of early naval charts of the area dating back to the sixteenth century shows that for many years two monuments called Las Torres de Hercules stood here⁵⁰. This not only suggests that a navigational aid at this point was regarded as extremely useful, but again may also hint, by their name, that some memory of the location of the previous tower, as suggested by De La Tour, had been preserved. It may also be of significance that this site marks the only safe channel through the two reefs just mentioned. No trace of the ancient structure has ever been found. This, if it is not to be found under the Torregorda, is probably a result of two factors; firstly that after its demolition much of the fine outer stonework would have been reused. and secondly that its site has probably been washed away in the consequent erosion of the coast.

The tower therefore was probably built as a navigational aid for shiping plying the Baetis-Rome/ Baetican coast-Rome route, from wich Gades, as a port, will bave derived the major part of her income and in wich a large number of her wealthy citizens would have been involved, thus making the expense of the monument concerned seem worthwhile to the ruling body of the town⁵¹. The apogee of this trade came in the Antonine period⁵² and it is likely that this period was the richest in the history or Roman Cadiz, and saw the erection of the tower we have been discussing. Such a date would explain the surprising absence of the monument in the accounts of Strabo and Pliny. This is not, of course, to rule out the possibility that a smaller monument had not been in place at

⁴⁸ A. De La Tour, La bahía de Cádiz, Spanish translation of 1986, p. 93-4.

⁴⁹ A. DE CASTRO, Historia de Cádiz, p. 416.

⁵⁰ One was destroyed in the English raid on Cadiz in 1596.

⁵¹ See V. MOLINA, El puerto Gaditano de la epoca romana.

⁵² This is the date of the majority of the Baetican amphorae which make up the Monte Testaccio in Rome. Moreover AELIUS ARISTIDES speaks of the constant traffic through the Straits of Gibraltar at this date, Or. 36, Sec. 90.

an earlier period, nor the presence of a lighthouse proper at the entrance of the harbour.

The somewhat surprising location of the tower, away from the town of Cadiz, unlike ancient lighthouses, which appear to have been sited at harbour entrances, can be explained by the requirements of the coast and the shipping trade on which Cadiz relied for its wealth. Its location being at the point of maximum utility. The style of the superstructure is obvious for such a monument, reflecting that of fully fledged lighthouses, it may also however owe a little to ancient aesthtics. The long thin shape of the island of Cadiz, may well of suggested to the ancient mind a circus. It was customary to have an obelisk in the centre of a circus' euripus, often mounted on another structure (e.g. an arch as at Vienne). From the sea therefore, the tower may well have resembled, to ancient eyes, the obelisk of a circus with the two metae of the arena provided by the other two major landmarks of the island, the town itself and the Herculaneum at its ends.

Finally the lack of a lantern may require some further explanation. One possibility may be that there was a lack of timber to be found on the island as it was nearly all cultivated. Moreover this cultivation consisted of vineyards and olive groves to which a lantern would have presented a serious fire hazard. However there are also two other possible factors; the first is that it is likely that no-one attempted such a hazardous passage except in daylight, the second that, given the location of the tower away from the city, it may have been difficult to find men willing to man the tower because of possible attack from bandits, a very real danger in the ancient world.

The tower of Cadiz therefore should be seen as a major monument of Roman maritime history, allowing us not only to see the wealth generated by the coasting trade for the town of Cadiz and the care taken to ensure the safety and continuance of this trade, but also allowing us to deduce part of the course of its route with a high degree of confidence and, by the need for its existence, making a small contribution to the ancient topography of the island of Cadiz.