

From Vine to Vat and Beyond: the Case of Ancient Malta

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In a paper published in the mid-1980s, the late scholar of Punic studies Antonia Ciasca identified a small number of what she claimed to be Maltese-manufactured pottery vessels from sites located in the central Mediterranean.¹ Based on the then available evidence, Ciasca suggested that these Maltese amphorae were remnants of the distribution of foodstuffs travelling alongside Maltese migrants.² Since then, several more of these pottery containers have been discovered across the central Mediterranean prompting a re-evaluation of Ciasca's Maltese migrant hypothesis. This is especially pertinent if we also consider the new evidence available in Malta for a product that could have been exported in antiquity. The first part of this paper will explore the new results of the University of Malta's excavation of a vineyard in Malta.³ This will then be viewed in the context of an ongoing research project currently being carried out on Maltese table amphorae,⁴ and evidence of a shipwreck that carried a similar cargo off the coast of Gozo. The intention is to highlight new evidence for viticulture on the islands, and go on to suggest, by way of hypothesis, that wine was a possible export from Malta, carried in those very container types that aroused Ciasca's interest more than thirty years ago.

The Vineyard

In 2006, the Department of Classics and Archaeology, at the University of Malta undertook the first season of what became a ten-year research and training excavation of a Roman villa in the village of Żejtun, in the south of Malta (fig. 1). The site was accidentally discovered in the early 1960s during construction works for a new village school, and was subsequently excavated over the course of the following decade. This investigation uncovered a series of connecting rooms with tiled floors, several cisterns, and most importantly, a separate room reserved for the pressing of olive oil.⁵ This specific function is clear from the presence of three oil-settling vats and a large stone counterweight block, modified to secure a screw mechanism—a familiar layout for scores of other olive pressing sites across the island.⁶

It is not the olive press that is of interest here, but a series of 'channels'—as described in the only surviving sketch plan from the 1970s—which were discovered in different areas of the site.⁷ It only became clear in 2013, that these 'channels' belonged to an extensive system of long and narrow vine trenches cut into the soft limestone bedrock (fig. 2). These vine trenches preceded the construction of the villa, as most of the trenches continue beneath the many floors and walls, as well as the Roman-period pressing equipment. At least four 'systems' of trenches have been traced. Two continuous sets run parallel to each other following a north-south axis (fig. 3); whilst a third system is made up of much shorter trenches. These shorter vine trenches cross-cut the longer

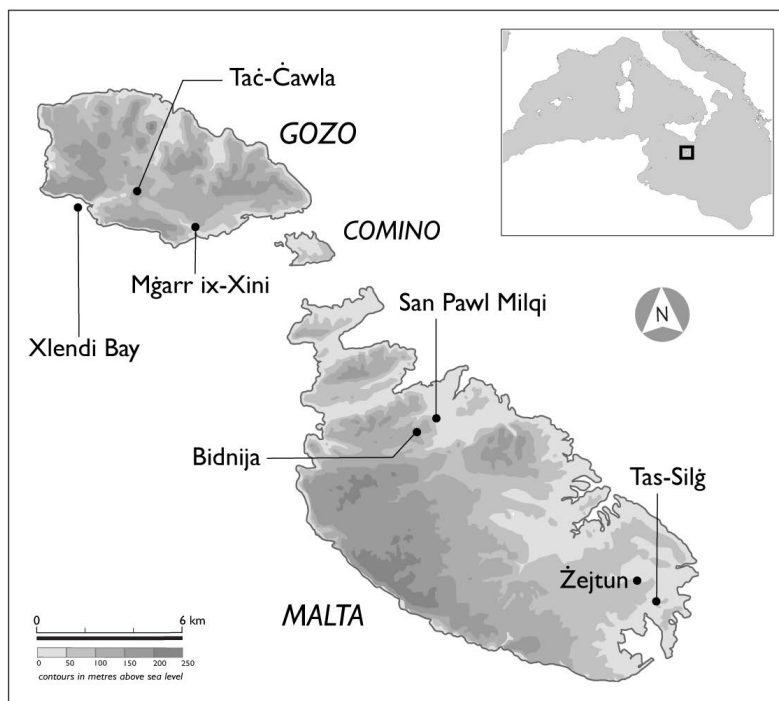


Fig. 1: Location map of the Maltese islands showing the places mentioned in the text.

ones, thus clearly post-dating them.⁸ A fourth system follows an east-west axis, where some of the southern-most trenches are thought to mark a change in direction, where the trenches stop short of a large cistern. The significance of this will be discussed below.

Several segments of these trenches escaped excavation in the 1970s, especially the parts sealed by floors and walls belonging to the Roman-period villa. Where possible, environmental samples of the deposits contained within these trenches were taken for analyses. To date, no grape seeds were recovered in the samples that were studied, nor was there any reliable pollen count as the pollen was far too degraded. Despite this, the study demonstrated the methodical manner in which the trench fills were prepared, ready for cultivating in an otherwise challenging desiccated and rocky landscape.⁹ The pottery found within the fills was used to date the final use of the trenches to the late 2nd/1st century BC, when the vineyard was abandoned, and the area taken over to make way for the building of the Roman villa soon after.¹⁰

The only part of the site where no vine trenches were uncovered is restricted to the south-eastern quarter of the existing building, directly north of a large cistern in Area D (fig. 3). It is here that a building that stood adjacent to the vineyard, and which was fitted with a wine press, is thought to have existed. A series of masonry walls and the cistern's opening were both dated by pottery to the late 5th and 4th century BC. No direct physical relationship could be traced between the vineyard and the structure, but a GPR survey, followed by excavation, successfully traced the limit of the vine trenches and

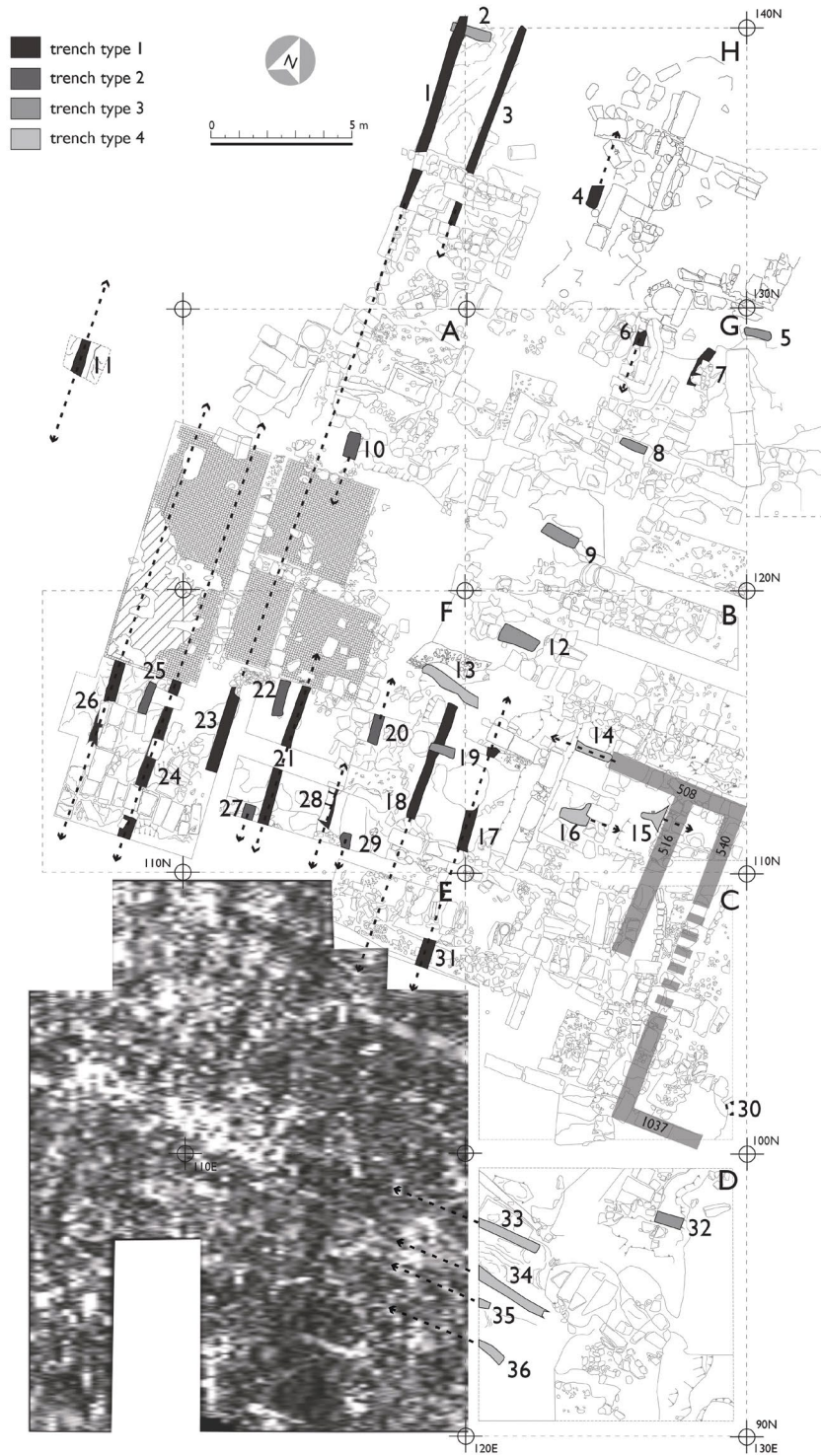


Fig. 2: Site plan of the Żejtun villa complete to the 2016 excavation campaign with the vine trenches marked out by type, and the unexcavated area surveyed by GPR.



Fig. 3: Trench in Area F at the Žejtun villa with type-1 vine trenches cut into the bedrock.

showed a return of the north-south aligned trenches, which deliberately terminated a short distance from the entrance to the cistern. This leads us to believe that the vineyard was planned to accommodate an existing feature.¹¹

The site underwent a radical period of rebuilding shortly after the 1st century BC, which as mentioned earlier, resulted in the abandonment and partial destruction of the vineyard, and the construction of the large building housing the olive press. The villa was built using a large number of reutilized stone blocks, many displaying clear traces of working, resizing and modification. The clearest example of this came with the discovery of a perfectly preserved limestone pressbed, forming part of the foundation courses of the villa's south-facing perimeter wall. Samples of the pressbed's surface were tested for traces of lipids and tartaric residues, in the hope that the type of fruit that was once pressed could be detected. Unfortunately, the results obtained were inconclusive. However, a distinctive pitted surface concentrated in the centre of the pressbed is believed to be use-wear related to its use in the past.¹²

A short distance away, lay a pair of disused stone uprights—one now broken in two and incorporated into a Roman-period wall; the other one complete, but forming part of the adjacent levelling fill. Each one displays carved notches as is often found on the *arbores*, those stone piers designed to secure a wooden press beam, common on many Roman-period wine presses across the Mediterranean. A third reutilized block,

also found incorporated into the Roman-period structure, was found to be hollow, and belonged to an upturned rectangular limestone trough with a simple lateral spout. A large fragment of mortar lining, which was discovered still stuck to the interior surface of the trough's spout, would have made the container impervious, and more suited to hold liquids. Taken altogether, this concentration of reutilized stone features may have belonged to a press that existed alongside the 5th/4th century BC building and cistern, and which was skirted by a vineyard. It would also suggest that the grapes cultivated were intended for wine rather than table grapes.

The investigation of the Żejtun vineyard and possible winery constitutes important new data that showcases the existence of organized viticulture on the islands in antiquity. It has not been possible to determine a period of use for the vineyard, but if we consider the dates attributed for the building of the winery structure just discussed, it is probable that the vineyard was in use from at least the 5th/4th century up until the late 2nd/1st century BC, before the vineyard was abandoned and destroyed. Similar configurations of Hellenistic and Roman-period vine trenches cut into rock to increase soil depth are known elsewhere in the Mediterranean.¹³ Indeed, rock-cut vine trenches, some of which have been dated to the 5th–4th century BC, are also documented in Ibiza, attesting to the establishment of similar cultivation practices in the Punic period.¹⁴ Lastly, the discovery of the Żejtun complex has now raised the possibility that several other sites across the Maltese islands, which were adapted with olive pressing facilities in the Roman period, may also yield clues to earlier occupation phases linked to grape cultivation and wine production. Until further villa sites are subjected to similar systematic archaeological investigations, we can only speculate on the extent of this trend.

As for other vine trenches, scores of similar rock-cut trench systems have been revealed by developer-funded excavations over the last ten years in other parts of Malta and Gozo. Unfortunately, all of these remain unpublished and are only known through short notes and newspaper reports.¹⁵ Many of these trench systems, however, have either been claimed to be of more recent date using unknown criteria, or have not been dated at all. More recently, the discovery of the only example of trenches cut into (prehistoric) soil deposits (rather than rock) was made at the site of Taċ-Ċawla, in Gozo. The trenches were excavated by members of the ERC-funded FRAGSUS project, as part of the targeted investigation of the prehistoric remains at the site.¹⁶ Pottery within these trenches has been dated to the 1st century BC, potentially making them contemporary with the Żejtun examples, and indicating that Żejtun is not an isolated example of ancient viticulture.

The Vats

Like many other areas in the Mediterranean, the Maltese islands are also home to a number of *palmenti*—the rock-cut treading pans and collecting vats associated with wine production (fig. 4). The largest concentration of these pans, consisting of at



Fig. 4: Google Earth images showing location of known rock-cut trading pans in Malta (top) with an inset of the recorded trading pans in Mġarr ix-Xini, Gozo.

least 17, dot the top and bottom of the ancient river valley of Mġarr ix-Xini, on Gozo. Their shape and composition ranges from simple rectangular or square shallow trading floors, connected to a deeper vat, to more complex systems consisting of multiple vats and interconnecting depressions, some of which are even sheltered beneath fallen boulders.¹⁷ One of the more elaborate sheltered ones, located on the valley floor, even bears two pairs of rock-cut notches in the vertical rock-face, most certainly meant to accommodate a press beam, a feature also found on a number of the isolated *palmenti* found in Malta.¹⁸

In 2005, the trading pans from Gozo were surveyed as part of the largescale Mġarr ix-Xini Regional Park's project, initiated by the local council of the region and the state's Superintendence of Cultural Heritage, with the aim of studying the ecological

and archaeological potential of the valley and the surrounding landscape. It was through this project that a number of areas were earmarked for excavation. The outcome of these archaeological investigations remain to be published, however, recent doctoral research by one of the project's co-directors remarked on the association of one of these treading pans with an agricultural terrace wall provisionally dated to the 6th/5th century BC by the pottery.¹⁹ This date would tie in nicely with the evidence for wine production believed to have existed at Żejtun in Malta.

The Amphorae

With increasing evidence for wine production in antiquity, it is pertinent to explore the amphorae, to determine whether at least one type of container can be identified, which could be a possible contender for the purpose of storing and transporting some of the wine being produced. Here we may consider one of the classes of amphorae identified by Ciasca as one form that could have transported Maltese wine overseas. The remainder of this short paper will briefly examine what is known about this form, and explore whether there is a link between local wine production and these forms.²⁰

The group of table amphorae Ciasca originally identified is well-recognized in the local literature because of the Greek-inspired form and characteristic cream-slipped surface with red-painted linear decoration.²¹ Their distinctiveness is primarily one of the reasons behind their identification outside of the Maltese islands.²² However, despite the class being well-known locally, many gaps remain in what we know about these containers. Their typology has remained very generic, and there is no clear-cut distinction between the many variants identified both in local and foreign excavations. This fuzziness has affected the chronology too, as all the variants are very often bundled together in the period between the 4th and mid-2nd century BC.²³ In Malta, they are best represented in funerary contexts,²⁴ but are also found, although not common, at several sites across the Maltese islands, including the sanctuary of Tas-Silġ²⁵ and rural villa sites, such as at Żejtun,²⁶ San Pawl Milqi²⁷ and Bidnija.²⁸ Unfortunately, there is still no archaeological evidence of a production site for these containers.²⁹ What is apparent, however, is that to date, more examples have been traced from non-Maltese contexts, than locally, possibly implying that their production could have been export-oriented. Alternatively, however, this could be a reflection of the under-representation of these forms within the published literature available.

These table amphorae are important for studying local Maltese production and export because they represent concrete examples of the physical exchange of Maltese-made goods in the Late Punic and early Roman periods. Contemporary Phoenician and Punic forms are also found outside of Malta, but unless subjected

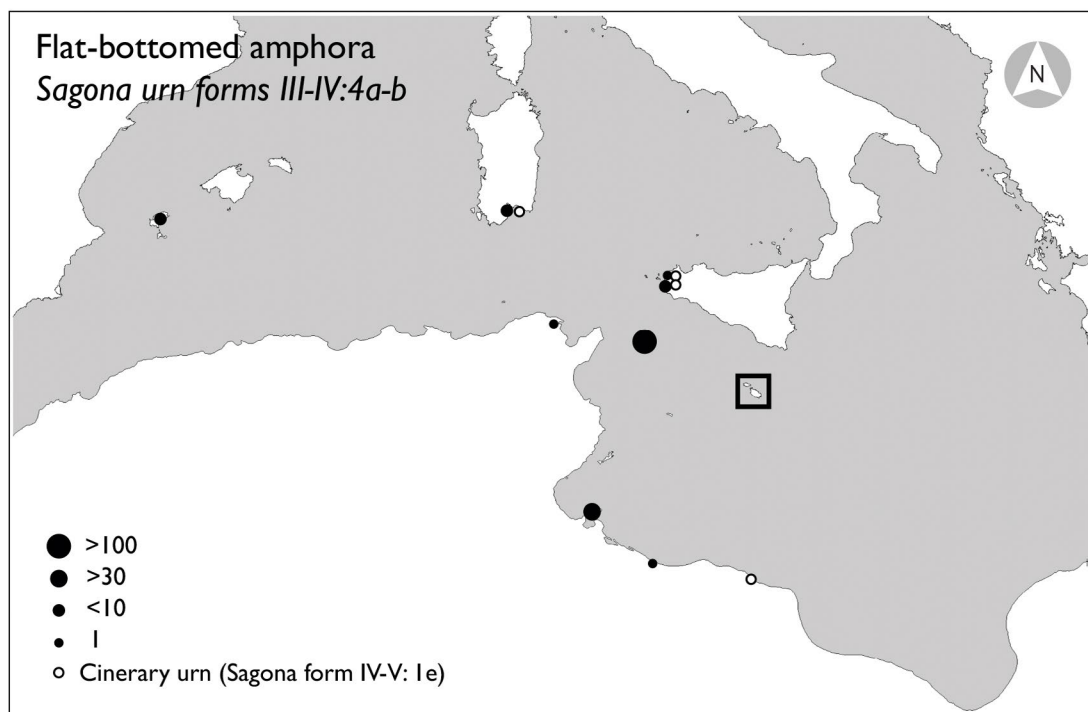


Fig. 5: Quantitative distribution of known Maltese flat-bottomed amphorae in the central Mediterranean.

to detailed fabric analyses it can be difficult to identify them, especially since far fewer examples tend to be found and several other central Mediterranean sources produced the same form.³⁰

Ciasca's original migrant hypothesis was inherently flawed if we consider that it is based on the erroneous 'pots as people' fallacy.³¹ In spite of this her ideas were shaped on the basis of the scant evidence available at the time. Fortunately, recent surveys and excavations in Pantelleria, Jerba and elsewhere, combined with searches through old excavation reports and Ciasca's research, have now made it possible to plot the distribution of all the Maltese objects known in the central Mediterranean, including these table amphorae forms (fig. 5).³² The spread is generally limited to other islands and coastal areas within the central Mediterranean, but what is much clearer now are the higher concentrations found in places like Pantelleria and Jerba. Indeed, more familiarity with the form's characteristics is certain to ensure more examples are identified when assemblages are in the process of being studied. This denser distribution of tangible evidence is also indicative of greater economic connectivity between the Maltese islands and the central Mediterranean than originally thought.

In addition, further evidence that will cause us to reconsider Ciasca's hypothesis are the results of a recent underwater survey of the seabed off the coast of Xlendi

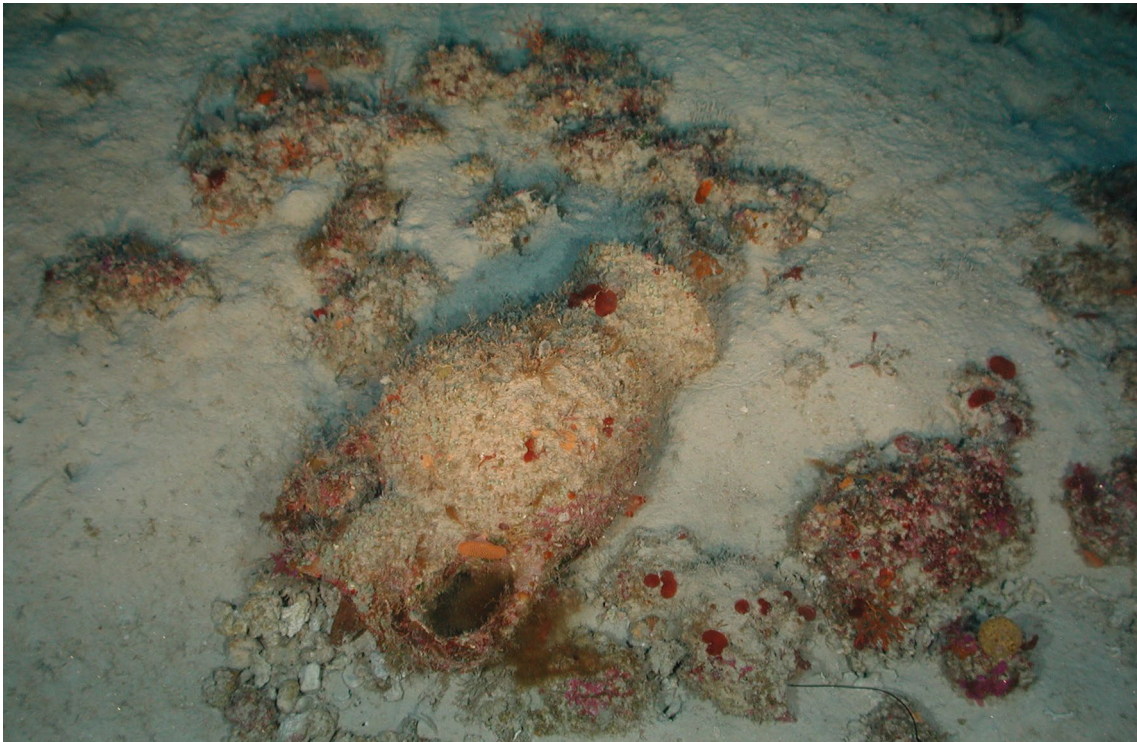


Fig. 6: Example of a possible Maltese flat-bottomed amphora from the Xlendi Bay wreck, Gozo.

Bay in south-west Gozo—incidentally not too far from the concentration of *palmenti* mentioned earlier. Ceramic vessels, presumably originating from several shipwrecks are known to litter the seabed, however, recent systematic sonar scanning of the area and high-resolution imaging has revealed the full extent of an underwater site covering an area of around 1600 m².³³ A handful of the amphorae and other objects were raised to the surface in the 1960s, and are being used to aid the identification of the thousands of amphorae visible on the sea floor (fig. 6). Those raised generally consist of 3rd/2nd century BC North African and Italian forms, but also hundreds, if not more, of these characteristic Maltese flat-bottomed and egg-shaped forms. The identification of the amphorae visible on the seabed is currently being carried out, and is already indicating that the amount of Maltese amphorae present is consistent with a far more organized system of export than was previously considered.³⁴

With regards to the possible content of these containers, there is currently little evidence to date. Traces of what appear to be a pitch lining were reported on the interior of one of the flat-bottomed forms raised in the 1960s.³⁵ But this remains to be confirmed scientifically. Morphologically, it is possible to link the form with the classic Greek amphora tradition, which is more commonly associated with carrying wine. Along with a typological study of the variants we know exist, the opportunity to accurately

survey, excavate and examine the cargo itself will be crucial to our understanding of Maltese exports, and these forms in particular. Plans are afoot to carry out a battery of petrographic, chemical and residue analyses in order to put the question of source and contents to rest.

In conclusion, more compelling archaeological evidence for viticulture and wine production on the Maltese islands is now available. When viewed alongside a clearer distribution map of Maltese pottery containers, which in themselves potentially carried wine, it is now more possible to think of a Maltese vintage that was produced on the islands and then exported, at least in part, overseas. This evidence also brings us to a point where we can begin exploring more challenging questions about ancient Maltese connectivity within a wider regional context. For decades, the concept of ancient Maltese production and exports has always been heavily circumscribed by the limited archaeological evidence at hand, where connectivity was very often cautiously inferred, rather than supported by archaeological evidence in the ground.

Notes

¹ Ciasca 1985.

² Ciasca 1985, 23 f.

³ Vella et al. 2017.

⁴ Anastasi 2015; 2018.

⁵ Bonanno – Vella 2012.

⁶ Bonanno 1977; Anastasi – Vella 2018.

⁷ Bonanno – Vella 2012, fig. 4.

⁸ Vella et al. 2017, 117–120 fig. 2.

⁹ Vella et al. 2007, 120.

¹⁰ Vella et al. 2017, 119.

¹¹ Vella et al. 2017, 119 f.

¹² Spiteri Debono et al. 2016; Vella et al. 2017, 120–122. A new series of tests are scheduled to be carried out on the sample of the pressbed using a new method that only became available after this analysis was conducted (pers. comm. Cythianne Spiteri Debono, October 2018).

¹³ See Megara in Attica (Pikoulas 2012), Antiparos in the Cyclades (Renfrew 1982, 157) and Megara Hyblea in Sicily (Boissinot 2009).

¹⁴ Marlasca Martín – López Garí 2006.

¹⁵ For instance, Times of Malta, 6th August 2016 <<https://www.timesofmalta.com/articles/view/20160806/local/no-phoenician-ruins-just-recent-vineyard-trenches-in-madliena.621172>> (accessed October 2018).

¹⁶ Pers. comm. Nicholas C. Vella, May 2018.

¹⁷ Jaccarini – Cauchi 1999; Bonanno 2008.

¹⁸ Bonanno 2008.

¹⁹ Azzopardi 2014, 234 f.

²⁰ This topic has been partly discussed in Anastasi 2018.

²¹ Sagona 2002, 103 f.

²² Anastasi 2018, 131.

²³ Bruno 2009, 101.

²⁴ Sagona 2002, 104.

²⁵ Sagona 2015, 56 fig. 1.39–42; Cagiano de Azevedo et al. 1965, fig. 7.1–4.

²⁶ Anastasi 2012, fig. 2.3–4.

²⁷ Busuttil et al. 1969, fig. 8.16, 22, 24–26.

²⁸ Docter et al. 2012, fig. 27.39.

²⁹ Little evidence of production sites is available for the Maltese islands. The evidence currently available for local production comes from fabric characterisation analyses and a repertoire of forms that are only found on the islands (Anastasi 2019).

³⁰ Anastasi 2018, table 1. The discovery of a 7th century BC shipwreck off the south-west coast of Gozo has revealed a cargo of Maltese amphorae alongside North Tunisian amphorae and Pantellerian millstones. The sources of the cargo are supported by petrographic analyses (see the latest results of the underwater survey from the Project's website <http://www.lsis.org/groplan/article/art_Xlendi.html>. The petrographic results will be published shortly).

³¹ Cruz 2011, 120.

³² Anastasi 2018, fig. 38.

³³ For an overview of the amphorae retrieved in the 1960s, see Azzopardi 2013. This project was carried out as part of a survey of Maltese territorial waters in 2007, directed by Timmy Gambin and his team from the Aurora Trust, and in collaboration with the Superintendence of Cultural Heritage, Malta.

³⁴ This identification process is part of a larger project being planned to explore and document this underwater site. This project is being directed by Timmy Gambin, from the Department of Classics and Archaeology of the University of Malta.

³⁵ Azzopardi 2006, 46.

Image Credits

Fig. 1 and 5: by the author. – Fig. 2: site plan digitised by D. Nigro; the final plan was put together by M. Anastasi; Vella et al. 2017, fig. 2. – Fig. 3 and 6: University of Malta. – Fig. 4: Google Earth.

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