ISOLATION AND INTERACTION CYCLES

Small Central Mediterranean Islands from the Neolithic to the Bronze Age

VAI ENTINA COPAT

La Sapienza University, Rome <valecopat@fastwebnet.it>

MICHELA DANESI

La Sapienza University, Rome <michelindia@hotmail.com>

and

GIUI A RECCHIA

University of Foggia < a.recchia@unifa.it>

Abstract

This article considers cycles of interaction and isolation within the small islands of the central Mediterranean. It analyses these holistically, reflecting the manner in which the cycles appear to have been influenced by processes and historical phenomena that operated beyond the island groups. Available data on interaction from the different islands is compared and fluctuations in exchange networks between the 6th and 2nd millennium BC are identified. The article highlights similarities and differences in patterns of interaction between islands and mainlands and, particularly, changing demands for raw materials, the diverse motives for interaction and the shifting directions of such interaction. It is argued that cyclic patterns of interaction occurred and that small islands played a vital role in central Mediterranean exchange networks at particular periods.

Keywords

Interaction, exchange, small islands, prehistory

Introduction

Island archaeology has tended to focus on the study of small islands or archipelagos, which are often cited as examples of different perspectives. Studies on island societies have identified insularity as both a reason for isolation and as a stimulus for cultural interaction with mainlands (Broodbank, 2000, 2006; Evans, 1977; Fitzpatrick, 2004; Rainbird 1999; 2007). Due to their defined boundaries, small islands are optimal fields to evaluate the degree of external contacts and to allow researchers to assess the potential for innovation and cultural expansiveness that these relations (or absence of

relations) produce. In recent years island archaeology has explored several interesting new approaches applying various research perspectives, ranging from biogeography to cognitive archaeology and ethnographic analogy. The phenomena of continuity/discontinuity in the occupation of small islands and in their relationship with mainlands are now being studied from a comparative perspective, attempting to correlate these relationships to broader historical processes (for the central Mediterranean see Evans, 1977; Stoddart, 1997-98; Forenbaher, 2008).

This paper compares some of the small islands of the central Mediterranean from the Neolithic to the Bronze Age in an attempt to isolate phenomena such as interaction, cultural receptivity, reworking, autonomy and creation of new cultural models. It will try to identify behaviour patterns in separate cases of local responses to general processes of historical transformation. The Maltese archipelago, the Aeolian islands, the pair formed by Lampedusa and Pantelleria, the Campania and Latium islands, including Capri and the Phlaegrean archipelago, Palmarola and Ventotene, will be taken into consideration (Figure 1). The archaeological data will be considered first, in order to provide a wider picture of the interaction process between these islands, and will be followed by a discussion that sets this picture in a theoretical framework.

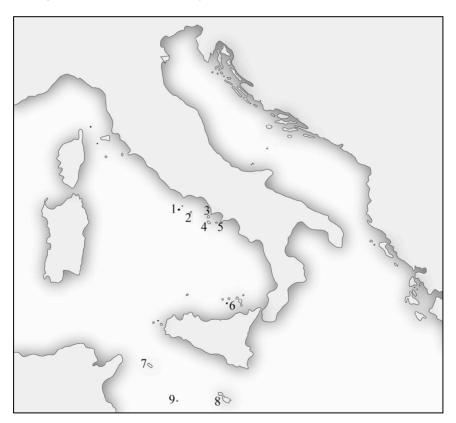


Figure 1 – The central Mediterranean small islands considered in this article.
1: Palmarola; 2: Ventotene; 3: Vivara; 4: Ischia; 5: Capri; 6: Aeolian Islands;
7: Pantelleria; 8: Maltese Islands; 9: Lampedusa.

Identifying the indicators of interaction: the small islands case studies

For this purpose some indicators need to be first outlined and defined. The raw material exchange network (both short and long distance) allows us to detect some relationships linking different island communities to each other and to the mainland, after their first occupation. In many cases the need to procure raw materials (such as flint, obsidian or metal) has driven island groups to seek beyond their boundaries. Inversely, the availability of some raw material, or a geographic location useful for its acquisition, has in some instances been the reason to settle or frequent some specific islands. Circulation of goods will also be taken into account. This includes, for instance, exotic goods exchange, which could indicate the presence of a long-distance network. The social context of these exchange activities, as is shown by the peculiar traits of the different communities and by their mutual relationships, should not be underestimated (Renfrew, 1975; Tykot, 1996). The analysis of the circulation of ideas and information could also be useful to outline the degree of interaction of island communities with the mainland or with other island groups. We will outline cases in which island communities share their own stylistic repertoire as seen in material culture with other external communities, even reworking some features, and other cases where island material culture has a high degree of stylistic autonomy. Circulation of ideas and information is not limited to stylistic features, but may also include technology (such as metal working) or cultural practices (such as funerary ritual). Even if archaeological methods are limited in their capacity to recognise it, an important component of the interaction between island communities and mainlands is the demographic replenishment of the former from the latter; i.e. the process by which small communities acquire the additional individuals necessary to maintain the sustainable demographic level necessary to avoid extinction and diversify their gene pool to avoid the problem of in-breeding (Wobst, 1974).

The islands considered in this study vary in geographic location, visibility from the mainland or from other islands (depending on size, distance and orientation - Cherry, 1990; 2004; Keegan and Diamond, 1987; Patton, 1996) and strategic location in the seascape. Most of the islands cited here are visible all year round, such as the Aeolian and the Phlaegrean archipelagos, Capri and the Pontine islands; on the other hand, Pantelleria is visible only under particular conditions; Lampedusa is not visible from the northern coasts of central Mediterranean (to which it is traditionally linked) while it is visible from southern Mediterranean coasts; the Maltese archipelago is not visible from Sicily, the closest mainland point, but vice versa Sicily, and in particular Mount Etna, is visible from Malta under particular conditions, especially during volcanic activity. Their size varies, from 20.2 km2 in the case of Lampedusa to 246 km2 in the case of Malta. In spite of differences in their carrying capacity, both in terms of size and availability of cultivable terrain, it is probable that all of them could sustain small communities (according to Renfrew, 1973, the Maltese archipelago may have sustained up to 11,000 individuals during the late Neolithic). Some of them are moreover characterised by the presence of raw materials (in particular obsidian at Lipari, Pantelleria and Palmarola), while others have no raw materials at all. Raw material procurement, particularly for the most distant islands such as Malta, requires a high effort in movement, especially when they are not frequently visited from the mainland for other purposes.

This study compares the different situations in a diachronic perspective as summarised in the following graphs, where different values of interaction have been assigned to successive periods (Figures 10 and 11). The value assignment proposed should be

considered as approximate and schematic, not least because of a dearth of radiocarbon dates in certain regions. The value 0 is assigned to islands neither visited nor settled. A value of 1 is assigned to situations of low interaction: a) sporadic visiting or limited settling – both of them affected by a low degree of demographic replenishment, b) intense settling with a high degree of cultural autonomy. A value of 2 is assigned to situations of medium interaction: a) unsuccessful settling even if started sharing cultural practices with the mainland; b) frequent visiting from the mainland to an uninhabited island. The value 3 represents a situation of high degree of interaction, including raw material, goods and information exchange sharing many cultural traits. In this study the density of occupation has also been considered: a situation of low occupation, as mentioned above, implies the need for further individuals from outside to maintain a sufficient demographic level.

Central Mediterranean small islands within the cultural processes from the 6th to the early 2nd millennium BC

From the first colonisation (6th millennium BC) to the end of the 5th millennium BC

The first colonisation of Mediterranean islands from the mainland, including large islands like Sicily, has attracted the attention of many scholars. This phenomenon can be linked to the ability to conduct offshore exploration, to human adaptation to specific environments, and to the integration of farming and stock breeding with local activities, such as fishing and the gathering of raw material. In the central Mediterranean, the absence of a wide radiocarbon dating chronology causes some difficulties in the reconstruction of the first colonisation of these islands.

The Aeolian Islands, Lampedusa (despite its distance) and Malta, were occupied at an early stage (Bernabò Brea and Cavalier, 1980; Evans, 1971; Radi, 1972; Trump, 1966), probably during the VI millennium BC (Figure 2), when they were also united by a similar pottery production (impressed ware pottery of Stentinello style in the first two, Ghar Dalam pottery in Malta). During the same period, Pantelleria was occasionally visited owing to its obsidian sources: while no permanent settlement was established at this date, obsidian was probably directly gathered by people coming from Sicily and Malta, unless southern Sicily's communities acted as intermediaries, as is more probable (Trump, 1966; Nicoletti, 1997; Tykot, 1996). Pantelleria's obsidian constitutes, moreover, the sole source of obsidian found in Lampedusa. During the same period, Palmarola was also visited in order to obtain obsidian meant for central and northern Italy (Tykot, 1996). The island of Capri was probably inhabited a little later (Buchner, 1949; Giardino, 1998): the presence in the island of trichrome painted pottery, dating back to the end of the 6th millennium BC (according to Tinè and Pessina, 2008), leads us to think that this island could have started playing an important role shortly after the ones mentioned above (Figure 3).

Apart from the Aeolian archipelago, which is close to and visible from the mainland (the closest island, Vulcano, is 21 km from the coast), and where the availability of obsidian constituted a surplus value for island occupation, and the case of Capri (5 km offshore); the picture of the first colonisation of small Mediterranean islands outlined by some scholars (Patton, 1996), derives from a bio-geographical approach (Cherry,1990; 2004;

Keegan and Diamond, 1987). A more recent critical analysis of bio-geographical models in this context has demonstrated that while they generally hold true for large islands that tend to be colonised early, smaller islands often present noticeable anomalies that are better explained in terms of different social and cultural processes (Dawson, 2004-2006). Closer and sometimes larger islands, such as Ischia (11 km from the coast) and the Phlaegrean and Pontine islands, do not show evidence of permanent occupation at this early stage. Conversely, the situation observed for Malta, Lampedusa or Pantelleria, rarely visible from the coast or not visible at all, poses the problem that more distant and often small islands were occupied before others in the central Mediterranean.

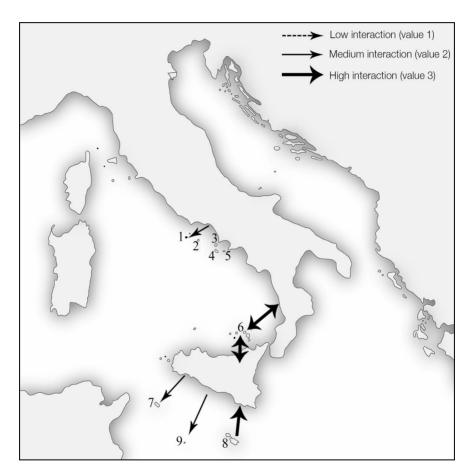


Figure 2 - A schematic representation of the interaction between central Mediterranean small islands and mainlands during the 6th millennium BC. (The arrows indicate the main direction of movements.)

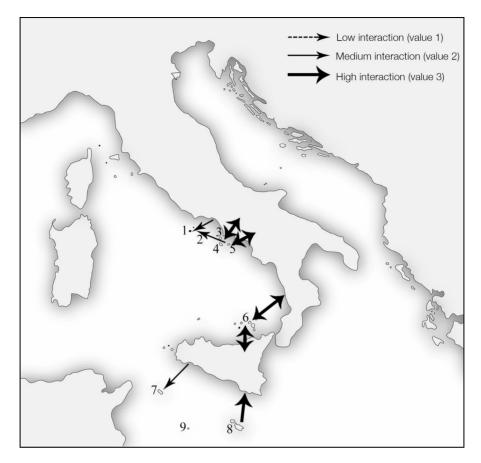


Figure 3 – A schematic representation of interaction between central Mediterranean small islands and mainlands between the late 6th and the early 5th millennium BC. (The arrows indicate the main direction of movements.)

The limited dimensions and environmental challenges presented by these islands suggest that their occupation might be the outcome of new ways of life rather than a response to overpopulation in their location of origin. However, starting from this moment, the length and intensity of the interaction between these islands and the mainland (also including Sicily) varies considerably from case to case. The occupation of Lampedusa, for example, is the briefest one: it is limited to the impressed ware phase, probably due to the difficulty of maintaining strong links with the mainland, and the lack of demographic replenishment. For this reason a value of 2 has been assigned to Lampedusa's case. On the other hand, Pantelleria and Palmarola were visited during the entire Neolithic span, as attested by the recovery of obsidian from these islands elsewhere.

The Aeolian Islands seem to have been closely linked to neighbouring regions over a prolonged period, as attested by a shared stylistic ceramic repertoire. This intense communication can probably be attributed to their geographic location and the availability of terrain highly suitable for agricultural exploitation. The widespread

availability of obsidian surely played a crucial role in these contacts, but this raw material alone does not seem enough to justify the continued occupation. Obsidian could also have been procured by expeditions organised from the mainland, as in the case of Pantelleria or Palmarola. A conscious extraction of high quality obsidian from Lipari and the organisation of an exchange network by the local groups that inhabited the island probably led to an advantageous situation. An analogous situation, with its own individual traits, can be outlined for Capri, where the local pottery production is stylistically homogeneous to that of Southern Italy, probably due to easier connections with the mainland. This island shows similar attributes to the Lipari scenario, even though no raw material is available. The discovery at Le Parate of a high amount of obsidian (mostly from Palmarola) including a large amount of cores and discards, is exceptional in light of the absence of a source of obsidian on the island, leading us to think that the prehistoric inhabitants of Capri were involved in the raw material exchange network that permitted direct acquisition of obsidian from nearby Palmarola. This role could also be testified by the presence in the island of one of the largest amounts of greenstone axes anywhere in southern Italy. Some scholars (Giardino, 1998) have proposed a preferential relationship between Capri and Lipari in the raw material exchange network, as attested by the presence of the same pottery style on both islands. The Maltese islands show instead an inverse tie to the mainland, especially to southern and western Sicily, because of their need to acquire raw materials.

At the beginning of the 5th millennium BC (Figure 3), when the Serra d'Alto style figulina painted ware first appears, all previously occupied islands are still largely inhabited. In Capri traces of the period are only sporadic, and it is difficult to evaluate if this is the result of sporadic visits or a lower intensity of archaeological research, as seems more probable: indeed, the interest of prehistoric communities in Tyrrhenian islands seems to increase, as attested by the new occupation of the island of Ischia (Gialanella 1999). At the beginning of the 5th millennium BC in Malta no painted figulina ware were made. The absence of a local Serra d'Alto style production can be attributed to other mitigating factors, rather than to a decrease in contacts between Malta and the mainland. In fact, it appears that intense contacts were still ongoing, as attested by the continuous raw material exchange flow and by the presence of Sicilian exotic pottery in Malta (one Serra d'Alto style shard at Skorba). In a later moment (the Grey and Red Skorba phase), the stylistic repertoire changes to a pottery production with strong similarities to the Diana style. Some indigenous attributes are observed in the Maltese production, and only one imported shard has been observed as imported Diana ware found at Skorba (Figure 4).

For the whole period taken into consideration, between the 6th and 5th millennium BC, therefore, not only may we observe the exploration activity characteristic of the early Neolithic, but also the establishment of contacts by sea. The exchange network seems connected with raw material acquisition under the framework of a shared stylistic repertoire and shared ideological background, as happens, at a more general level, in the whole Italian peninsula. A continued occupation of small islands is observed, probably due to different reasons in the various islands, except for Lampedusa, which was probably too far away, and for Pantelleria and Palmarola, where no settled occupation from this period has been identified to date. (V.C)

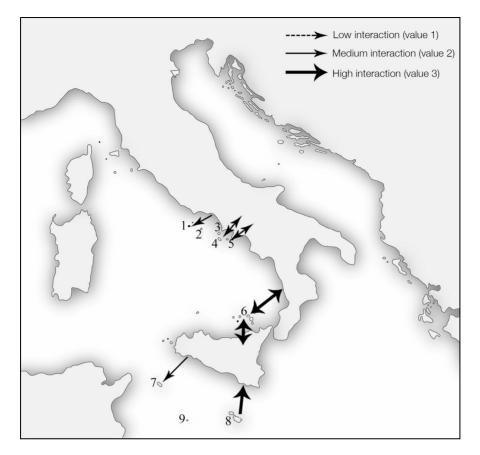


Figure 4 – A schematic representation of the interaction between central Mediterranean small islands and mainlands during the 2nd half of the 5th millennium BC. (The arrows indicate the main direction of movements.)

The 4th and 3rd millennium BC

At a later period (the 4th-3rd millennium BC) small islands show a general loosening of their ties with the mainland, albeit in different ways and at different stages. The appearance of metal production can be suggested as a catalyst of change in the demand for raw material. None of the islands considered have natural metal resources, and the circulation of metal artefacts appears unequal in the different islands. We may recall that one of the earliest traces of metal production in Italy and the adjacent islands has been found on Lipari. This evidence could indicate an early interest in metal by these island communities and an early involvement in the circulation of metal. However, no further evidence is presently available. During this phase, across the entire central Mediterranean, the differences between communities, each characterised by their own particular cultural features, in activities such as ceramic production, appear to be a mark of the affirmation of distinctive traits, coextensive with restricted territories. Other cultural features are instead still widely shared, as observed in funerary rituals, such as the use of rock-cult tombs.

In the first half of the 4th millennium BC (Figure 5), the Tyrrhenian islands appear to have experienced a decline in occupation (Bietti Sestieri, 1980-81), even if without a total gap with southern Italy and northern Sicily, as shown by the stylistic similarity in the pottery production shared by these regions, where the Piano Conte pottery style is widely diffused. In the Aeolian Islands, for the whole period (4th-3rd millennium BC), settlements and population decreased, probably owing to the reduced importance of the obsidian exchange network. Traces of occupation have recently also been found in Pantelleria (Tusa and Ursini, forthcoming). We can observe the same situation in Capri and Ischia, with a reduction in population density, with weaker cultural affinities to the mainland, and little archaeological evidence for this period. Value 1 has, therefore, been assigned to all these cases.

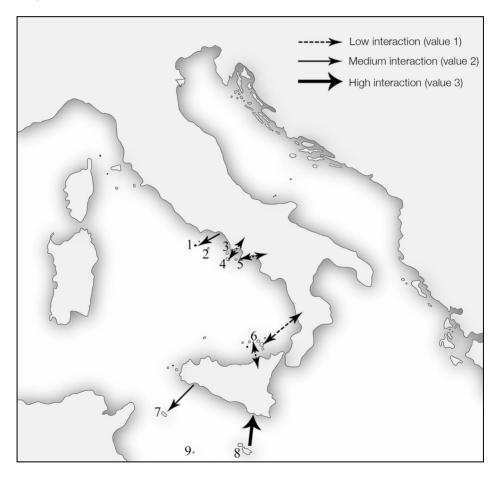


Figure 5 – A schematic representation of interaction between central Mediterranean small islands and mainlands during the 1st half of the 4th millennium BC. (The arrows indicate the main direction of movements.)

Conversely, in Malta, during the first half of the 4th millennium BC, we can observe a strong connection with southern and eastern Sicily, witnessed in particular by a similar

pottery production (the Sicilian San Cono-Piano Notaro style has strong similarities to the Zebbug pottery style, over other kinds of pottery styles that have a low diffusion – Cazzella, 2000) and by similarities in funerary rituals (Giannitrapani, 1997a; McConnell, 1997). A high level of activity is maintained in the raw material exchange network: apart from obsidian and flint, we can observe the presence of greenstone axes, probably coming from Calabria, lava from Etna used for querns, and red ochre from southern Sicily, used in large amounts in the funerary ritual. In this exchange activity, the prehistoric communities of southern Sicily very likely played an active intermediary role. Some evidence for long-distance contacts can be found in some artefacts showing foreign inspiration found both in Malta and Sicily, like the well known V-perforation buttons (at Uditore cemetery in Sicily and in the Zebbug tombs of Ta' Trapna and Xaghra in Malta, both probably inspired by Aegean models - Cassano and Manfredini, 1975; Evans, 1971; Malone et al, 1995; Cazzella, 2000), or the Cycladic idols from North-East Sicily (Bacci, 1997) and from the abovementioned Zebbug tomb in Xaghra.

Distinctive stylistic traits characterised fragmented areas in the succeeding period (second half of the 4th millennium BC – Figure 6). The small Tyrrhenian islands seem to be involved in a restricted circuit: Lipari shows limited connections with northern Sicily (Piano Quartara pottery style); Capri and Ischia have traces of funerary rituals connected with the Italian mainland Gaudo culture, which is well known in southern Italy. The interest in occupying small islands appears to drop further during this phase. The Pontine islands (with the probable exception of Ventotene – Molinaro et al, 2003), Vivara and Ischia, have not yet given any proof of occupation for this phase.

The situation of Malta shows the most conflicting differences. Around the mid-4th millennium BC, Malta shows a great reduction in its external contacts, although its population does not seem to decrease, as in the case of the Tyrrhenian islands. Value 1 has, therefore, been assigned to all these cases, but for different reasons. The impressive emergence of the Maltese megalithic temple culture, alongside an autonomous pottery style and production, characterises a period of cultural idiosyncrasy for this island. This is not an interruption of all contacts with the mainland, but is rather interpreted as an increased cultural divide. Its cultural peculiarity and the emergence of such a distinct phenomenon have led, moreover, to Malta being seen as one of the best examples of using islands as a cultural laboratory by archaeologists interested in studying the mechanisms of cultural changes in human groups (Evans, 1973, 1977; Renfrew, 2004).

The inclusion or exclusion of the Maltese archipelago within the broader Mediterranean exchange network has been heavily debated in the last few years from the perspective of a cultural and physical isolation within a broader chronological framework (Stoddart, et al, 1993; Stoddart, 1999). On the other hand, Malta has been interpreted as a player in the Mediterranean exchange network of goods and information, with its own cultural peculiarities (Skeates, 1995; Robb, 2001; Malone and Stoddart, 2004). It seems probable that limited contacts with the outside, at least with Sicily, were maintained in order to procure raw material, such as red ochre from Sicily or obsidian from Lipari and Pantelleria, which is attested to a lesser degree than in the previous periods. This appears to follow trends across the rest of the Mediterranean during this period.

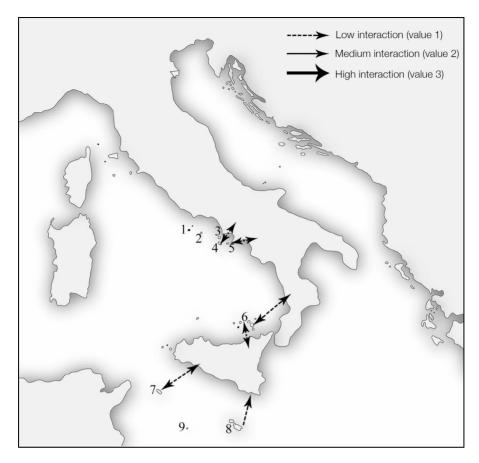


Figure 6 – A schematic representation of interaction between central Mediterranean small islands and mainlands between the 2nd half of the 4th and the first half of the 3rd millennium BC. (The arrows indicate the main direction of movements.)

The source of flint used for Maltese lithic production is still debated: recent studies on the lithic assemblage of the Tas-Silg temple detected a high variability in flint characterisation, leading to the interpretation that not the whole assemblage was constituted of exotic raw material, but that part of it could be of local provenance, which recent research is beginning to detect (Cazzella and Moscoloni, 2004-2005). A similar pattern has also been detected by recent research carried out on the lithic assemblage of Skorba, where a local silicate source has been identified in the area (Vella, 2008). Beside those sanctuaries, analysis of the Xaghra Circle's lithic assemblage was lately carried out, showing a large proportion of local chert and a modest one of obsidian (Stoddart pc 2009). During this phase, the Maltese communities do not appear to use metal, which instead is observed in limited quantities in nearby Sicily.

The involvement of Malta in the Mediterranean exchange network could instead be observed to a higher degree as geared towards the procurement of the valued greenstone axes. The amount found in Malta in the Temple Period is higher than those in the preceding periods. There also appears to have been the procurement of southern

Sicilian alabaster, which was used for some figurines. In any case, the absence of petrographic analyses makes it difficult to properly reconstruct the mechanism and network of these exchange activities, even if the role of southern Sicily seems to remain of primary importance (Vella, 2008). A small yet persistent presence of shards of Sicilian-type pottery in some Maltese sites continues during this period, one in the Borg in-Nadur temple area and one in Xaghra, raising the question of what kind of links existed between these communities.

The proposed picture appears to hint towards a network driven by different raw material demand between the 4th and 3rd millennium BC (Figure 6). The exchange networks in which the majority of small islands were involved during the previous millennia decayed. Indeed, small islands do not seem, at this stage, directly involved in metal exchange. Evidence of long distance contacts is sporadic and not attributable to an organised exchange network. This phenomenon contrasts sharply to the situation in the eastern Mediterranean, where the exchange network involving small islands intensified and appears highly organised. Communities in the central Mediterranean responded in different ways to this shifting situation: in some cases it appears to cause a reduction in settlement and population, while in other cases, such as Malta, one can observe a decrease in contacts with the mainland, an increase in population and the development of a complex social and ideological organisation, clearly distinguished from the outside world. (M.D)

The late 3rd and the early 2nd millennium BC

During the late 3rd millennium BC (Figure 7) the general framework changed drastically. The evidence of long-distance contacts is particularly evident in Malta. Contacts between Malta, Sicily and the more distant Aegean region of Peloponnesus are attested in the diffused presence of the so-called Thermi Ware stylistic repertoire. According to some authors (Cazzella, 1999; Cazzella et al, 2007; Maran, 1998), this phenomenon may have not resulted from a simple circulation of items, but from widely shared cultural practices resulting from the movement of small human groups within the Mediterranean.

At this stage, of the small islands taken into consideration here, only Malta appears to be involved in this 'international' phenomenon, while the other small islands seem to be excluded (Cazzella and Recchia, forthcoming a). It is still difficult to understand the basic reasons for these small group movements and if Maltese involvement can be related to its physical location in the central Mediterranean. The tie between Malta and south-eastern Sicily remains unbroken; we have the evidence of Thermi Ware shards at Ognina and Castelluccio (Cazzella, 2002; Palio, 2008) that can also indicate that small groups could have arrived in Malta via eastern Sicily. We can observe that the reopening of Maltese communities to external contacts is also the result of an internal process of social change that was taking place at the end of the Temple Period. Recent evidence from Tas-Silg temple (Cazzella, Recchia, 2006-2007; Recchia, 2004-2005) does not show a distinct break with the previous phases, but a continued occupation of the Late Neolithic Temples with different modalities. However, it remains difficult to know if this new circulation could have carried a new inflow of raw material and goods, such as metal, not yet attested in Malta. For the other small islands in the central Mediterranean we cannot observe substantial changes.

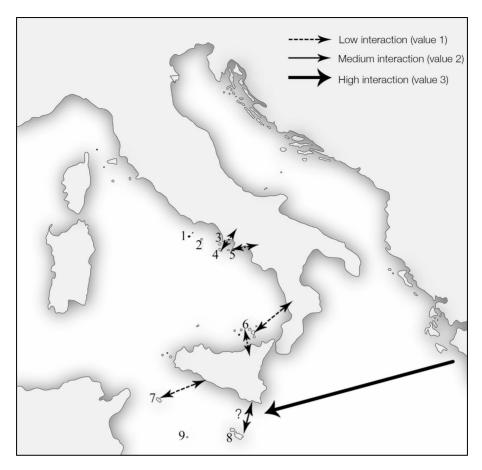


Figure 7 – A schematic representation of interaction between central Mediterranean small islands and mainlands during the end of the 3rd millennium BC. (The arrows indicate the main direction of movements.)

The passage to the 2nd millennium BC (Figure 8) seems to include a second phase of movements of small human groups that affect both Malta and the Aeolian Islands (Cazzella and Recchia, forthcoming b). This phenomenon could be better connected to the complex organisation of an active exchange activity – something not observed in the previous periods. For the first time small islands in the central Mediterranean become centres of an exchange network that do not necessarily rely on locally available raw materials. The link between the two archipelagos (Maltese and Aeolian) is much more evident if we consider the stylistic similarity between the Capo Graziano and Tarxien Cemetery pottery production, which, moreover, are clearly distinguished from other neighbouring areas, and shared cremation funerary rituals. Capo Graziano elements are sporadically attested in the northern Sicilian area (Bernabò Brea, 1958: 115-116: Figure 17; 1983: 13) and southern Italy, while traces of a proper Capo Graziano settlement have been found in Milazzo, geographically close to the Aeolian Islands (Tigano et al, 1994).

During this new cycle of contacts, the internal social development in Malta, commenced during the Thermi Ware phase, appears complete. Through this new network the first metal objects (or the raw material) arrived in Malta. The duration of this phase seems to have been quite long. However, an internal chronological sequence has proved difficult to define as yet. Certain ambiguities remain, for example, in the defining of when southern and eastern Sicily participated in this exchange phenomenon (as indicated by the presence of Tarxien Cemetery pottery in Sicily – Giannitrapani, 1997b; Palio, 2004). It remains to be seen whether this process occurred during the first centuries of the 2nd millennium or in a later phase, starting from the 17th Century BC. During the 17th Century it is possible to date (more certainly) the presence of Tarxien Cemetery pottery in Pantelleria (Ardesia et al, 2006; Marazzi and Tusa, 2005) and Capo Graziano pottery in Vivara (Cazzella et al, 1997), which can be seen as a consequence of the enlargement of the exchange network from the two archipelagos moving towards the Sicily Channel and the southern Tyrrhenian Sea.

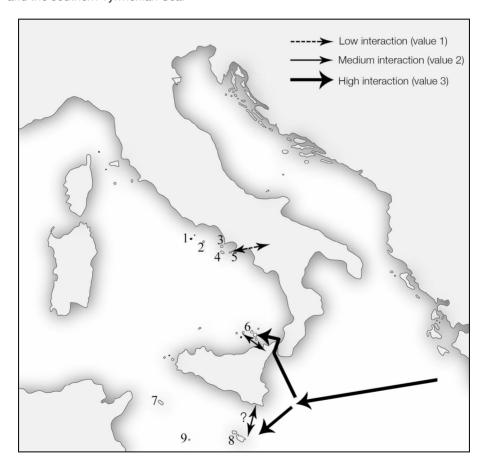


Figure 8 – A schematic representation of interaction between central Mediterranean small islands and mainlands during the early 2nd millennium BC. (The arrows indicate the main direction of movements.)

The Mycenaean connection

During the 17th Century (Figure 9), Mycenaean navigation in the Central Mediterranean Sea also began: these Eastern sailors appear to have chosen certain islands as suitable for their mercantile purposes (in particular the procurement of metal), on the basis of their geographic location. The Aeolian archipelago was the first to be reached by the Mycenaeans, followed by Vivara, owing to their capability to improve a local exchange system to acquire metal from sources in Tuscany. Accessing a pre-existent local network should have attracted the Mycenaean sailors; as a result, those islands were eventually involved in a long distance exchange network. Other islands, such as Ventotene, were instead not reached by the Eastern sailors, but were probably settled at this time in terms of the local network in which they were involved (Cazzella and Recchia, 2009).

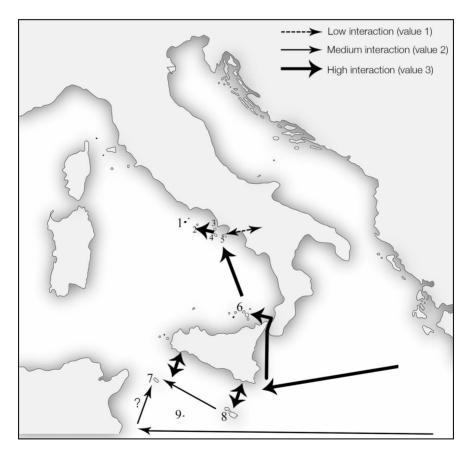


Figure 9 – A schematic representation of the interaction between central Mediterranean small islands and mainlands during the 17th Century BC. (The arrows indicate the main direction of movements.)

Other small islands underwent the same process. This is the case, for example, on Pantelleria, where a permanent settlement is first attested at Mursia. This island could also have been involved in the Levantine routes that ran along the North African coast. On the other hand, Malta does not seem linked with Mycenaean sailors, but appears to interact, at a local level, with southern Sicily and Pantelleria. Unlike the previous phases, some features indicate a higher bilateral exchange between Malta and Sicily. Finally, there is an observed Maltese side to the exchange in Sicily as attested by Tarxien Cemetery pottery in Sicily. It also appears that the façade iconography of Bronze Age Sicilian rock-cut tombs may have drawn inspiration from some architectural elements of the Neolithic Maltese temples, which were still visible and in use by succeeding communities (according to Procelli, 1981; Terranova, 2008).

The general context in which these phenomena developed between the end of the 3rd millennium and the first half of the 2nd is deeply different from those of the previous periods. The expansion of an organised exchange network, also by sea, became an important feature in the development of Bronze Age societies. The use of metal tools, whatever their function, provides archaeological evidence for the availability of these kinds of material. Other materials that leave fewer archaeological traces were probably also involved in the same process of social competition and trade. The organisation of an exchange network became a specific feature for some of the small islands of the Mediterranean, which played an active role as centres promoting interaction between human groups, rather than merely adopting cultural features coming from outside and in particular the mainland.

Discussion

The process of interaction of small islands with each other and with the mainland through time might have involved many factors ranging from geographic ones to economic and socio-ideological ones. Considering each factor separately would only allow us to analyze, even if deeply, a sole aspect of the phenomena. We would rather recognise the role the interaction of these factors played in a global theoretical framework. We may, therefore, apply 'agency theory', focusing not on individual actions, but focusing on groups of people sharing specific historical and geographical conditions and acting on intentional choices (as more widely discussed in the paper presented by Cazzella and Recchia at the 14th EAA – Marxism in Archaeology session).

From this point of view the small islands represent a suitable case of study:

- These correspond to human groups that may be readily distinguished, owing to the sea boundaries that characterise them. Nevertheless, we ought to take into account the fact that internal competition may have occurred within some of these groups.
- We may evaluate the specific cultural and socio-economical choices of each group within general historical processes.

Biogeography may be applied in a non-deterministic manner in order to recognise the specific potential of each island (carrying capacity according to specific technologies of exploitation and their transformations, availability of raw material, strategic position, etc.). Being aware of such potential we may compare the development and the

particular patterns of behaviour, both within a single island through time and between many islands at one specific historical point. In any event, it is evident that small islands and islands in general do not have a common 'predestination'. The archaeological data cited above reveals how each small island (or archipelago) of the central Mediterranean developed its own historical trajectory. A quick comparison of the different situations in a diachronic perspective is offered by the line-charts (figures 10 and 11).

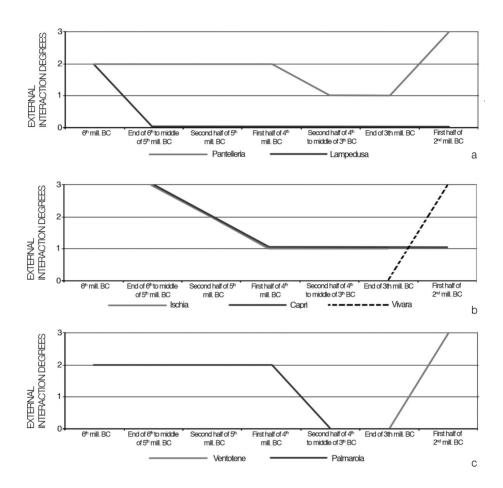


Figure 10 – Cycles of isolation and interaction between central Mediterranean small islands and the mainland from the Neolithic to the Bronze Age:
a schematic representation. a: Pantelleria and Lampedusa;
b: Phlaegraean islands; c: Pontine islands.

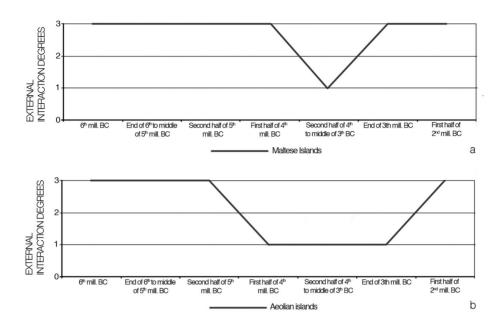


Figure 11 – Cycles of isolation and interaction between central Mediterranean small islands and mainland from the Neolithic to the Bronze Age: a schematic representation.

a: Maltese islands: b: Aeolian islands.

6th-5th millennium BC

It is very likely that the earliest Neolithic traces of human activities in the small islands were related to a wide phenomenon of exploration, as is largely accepted in the literature. Almost all the islands seem to have been visited, but with different results, not only related to the availability and exploitation of raw materials. Lampedusa seems to have been settled only briefly; Pantelleria and Palmarola were merely visited because of obsidian sources; the Aeolian archipelago witnessed long-term settlement, developing strong ties with the mainland. A heavy exploitation of obsidian and a capability to organise a large trade network characterised Lipari. Capri had no raw material, such as obsidian, but showed the capability to attract an inflow of this material and trade it. The Maltese islands were settled and never abandoned, in spite of their lack of raw materials, probably due to the subsistence base they afforded. Strong ties with the mainland and probable interaction with other small islands (such as Pantelleria) were maintained at least to satisfy the need for raw materials, though cultural needs and customs might have played some role too. It follows that, in the different phases of this interaction, the Maltese Islands should have been able to offer other goods in exchange for the needed raw material. Maltese skill could have been applied to the production of exchange-oriented goods (that do not survive in the archaeological record) and in an intensive exploitation of primary resources. The islanders are, of course, likely to have had a well-developed capability to establish the social relationships on which the exchange relationships were founded.

We may easily explain this pattern in terms of the interest in raw material and proximity of the islands nearest to the mainland. May we also detect, in certain cases, a specific capability in specific small islands communities for self-sufficient subsistence and trade organisation? During the Neolithic, a widely shared stylistic repertoire is attested in the central Mediterranean, small islands included. Should we consider this sharing of stylistic repertoires as a consolidated cultural tradition, or as an assumed identity driven by trade connections?

4th-3rd millennium BC

The 4th-3rd millennium appears to be a phase of cultural fragmentation in the mainland too (eg Stoddart, 1997-98), but not an interruption in the relationships with some small islands. In the mainland we may detect a certain cultural divide and several cultural groups coexisting in the same region. At the same time, we may also observe the same cultural traits becoming widespread across large territories. The existence of external contacts is attested by the presence of exotic materials, such as metals (silver included), and the stylistic connection in some artefacts with eastern transmarine regions. Some of the closer small islands shared cultural traits with the mainland too (i.e. Gaudo on Capri, Piano Conte in the Aeolian Islands, similarities between Zebbug and San Cono-Piano Notaro in the Maltese Islands) though these islands seem to have been experiencing a decrease in the human population.

Division and/or depopulation seem to increase around the mid-4th millennium BC. The Pontine Islands, Vivara and Ischia were probably not settled, while the Aeolian Islands increased their own pottery styles. The Maltese Islands developed an impressive and distinct 'way of life' archaeologically recorded by the megalithic remains, leading us to recognise a period of insularity for this archipelago. The inhabitants produced an original cultural response to socio-economic changes and pressures, and to resolve internal competition. During the phase of relative isolation, when the temples were built, we are inclined to concur with the suggestion that these communities could have channelled their 'productive energy' (as noted above, previously oriented towards the organisation of exchange networks) towards the building of the megalithic temples and the internal competition connected to it (Stoddart et al, 1993: 7).

The late 3rd – early 2nd millennium BC

In the framework of intense maritime movements (probably of small human groups) that affected the whole Mediterranean, small islands achieved a new significance. The Maltese archipelago, followed by the Aeolian one, displayed traces of strong external connections. The beginning of this phenomenon may be interpreted as an opening to new ideas and/or new people, and as a symptom of the ability of the small islands to establish local exchange networks and join in the international trade that characterised the Bronze Age. When Mycenaean sailors started their commercial trade in the central Mediterranean we observe that several of the small islands, even if barely habitable as in the case of Vivara and Ventotene, were settled and deeply involved in this trade, by acquiring locally unavailable raw materials from the mainland and trading them to other islands or directly to Mycenaean traders. The process of specialisation towards exchange activities may be seen as a deliberate process undertaken by these communities, exploiting the favourable geographical position, despite the environmental

obstacles to survival. The Maltese archipelago does not seem to be directly involved in international trade at this point, but appears rather to reinforce its strong ties with Sicily to obtain exotic goods needed for the internal competitions of the Bronze Age societies. (G.R)

Acknowledgments

We would like to thank Clive Vella for his suggestions and for helping us in the English translation. We also would like to thank Alberto Cazzella for his critical comments. We are indebted to the editors and to Simon Stoddart for their helpful corrections and useful suggestions.

Bibliography

Ardesia, V, Cattani, M and Marazzi, M et al (2006) 'Gli scavi nell'abitato dell'età del Bronzo di Mursia, Pantelleria (TP)', *Rivista di Scienze Preistoriche* v56: 293-367

Bacci, G.M (1997) 'Due idoletti di tipo egeo-cicladico da Camaro Sant'Anna presso Messina', in Tusa, S (ed) *Prima Sicilia. Alle origini della società siciliana*, Palermo: Ediprint: 295-297

Bernabò Brea, L (1958) La Sicilia prima dei Greci, Milano: Il Saggiatore

Bernabò Brea, L and Cavalier, M (1980) Meligunìs Lipara IV, Palermo: Flaccovio

Bietti Sestieri, A. M (1980-1981) 'La Sicilia e le Isole Eolie e i loro rapporti con le regioni tirreniche dell'Italia continentale dal neolitico alla colonizzazione greca', *Kokalos* v26-27: 8-66

Buchner, G (1949) 'Ricerche sui giacimenti e sulle industrie di ossidiana in Italia', *Rivista di Scienze Preistoriche* v4: 162-186

Broodbank, C (2000) An island archaeology of the Early Cyclades, Cambridge: Cambridge University Press

---- (2006) 'The origins and development of Mediterranean maritime activities', *Journal of Mediterranean Archaeology* v19 n2: 199-230

Cassano, S and Manfredini, A (1975) 'Recenti ricerche nelle necropoli eneolitiche della Conca d'Oro', *Origini* v9: 153-223

Cazzella, A, Levi, S.T and Williams, J.L (1997) 'The petrographic examination of impasto pottery from Vivara and the Aeolian Islands: a case for inter-island pottery exchange in the Bronze Age of southern Italy', *Origini* v21: 187-205

Cazzella, A (1999) 'L'Egeo e il Mediterraneo centrale fra III e II millennio: una riconsiderazione', in La Rosa, V, Palermo, D and Vagnetti, L (eds) *Epi Ponton Plazomenoi, Atti del Simposio Italiano di Studi Egei,* Roma: Scuola archeologica italiana di Atene: 397-404

- ---- (2000) 'Sicilia e Malta durante l'Età del Rame', Sicilia Archeologica, v33 n98: 87-96
- ---- (2002) 'Malta nel contesto del Mediterraneo centro-orientale durante la seconda metà del III millennio, in Amadasi Guzzo, M. G, Liverani, M and Matthiae, P (eds) *Da Pyrgi a Mozia. Studi sull'archeologia del Mediterraneo in memoria di Antonia Ciasca*, Roma: Università 'La Sapienza': 139-152

Cazzella, A and Moscoloni, M (2004-2005) 'Gli sviluppi culturali del III e II millennio a.C. a Tas-Silg: analisi preliminare dei materiali degli scavi 1963-70 e della loro distribuzione spaziale', *Scienze dell'Antichità* v12: 15-32

Cazzella, A, Pace, A and Recchia, G (2007), 'Cultural contacts and mobility between the south central Mediterranean and the Aegean during the second half of the 3rd millennium BC', in Antoniadou, S and Pace, A (eds) *Mediterranean Crossroads*, Athens: Pieridies Foundation: 243-260

Cazzella, A and Recchia, G (2006-07) 'L'area sacra megalitica di Tas-Silg (Malta): nuovi elementi per lo studio dei modelli architettonici e delle pratiche cultuali', *Scienze dell'Antichità* v13: 689-699

- ---- (2009) 'The 'Mycenaeans' in the central Mediterranean: a comparison between the Adriatic and the Tyrrhenian seaway', *Pasiphae* v3: 27-40
- ----- (forthcoming a) 'Sicilia, Eolie, Malta e le reti di scambio negli ultimi secoli del III e i primi del I millennio a.C.', *Atti della XLI Riunione Scientifica dell'Istituto Italiano di Preistoria e Protostoria* v41
- ---- (forthcoming b) 'Malta, Sicily, Aeolian islands and southern Italy during the Bronze Age: the meaning of a changing relationship', in Alberti, E and Vitri, S (eds) Exchange, interaction, conflicts and transformations: social and cultural changes in Europe and the Mediterranean between Bronze and Iron Age, BARS series
- ---- (2009) 'The 'Mycenaeans' in the central Mediterranean: a comparison between the Adriatic and the Tyrrhenian seaway', *Pasiphae* v3: 27-40
- Cherry, J.F (1990) 'The first colonization of Mediterranean Islands: a review of recent research', *Journal of Mediterranean Archaeology* v3 n2: 145-221
- ---- (2004) 'Mediterranean island prehistory. What's different and what's new?' in Fitzpatrick, M (ed) *Voyages of discoveries. The Archaeology of Islands*, Westport: Praeger: 233-248
- Dawson, H (2004-2006) 'Understanding colonisation: Adaptation strategies in the Central Mediterranean Islands', *Accordia Research Paper* v10: 35-59
- Evans, J.D (1971) The prehistoric antiquities of the Maltese Islands, London: Athlone
- ---- (1973) 'Islands as laboratories of cultural changes', in Renfrew, C (ed) *The explanation of cultural changes: Models in Prehistory*, London: Duckworth: 517-520

---- (1977) 'Island archaeology in the Mediterranean: problems and opportunities', World Archaeology v9 n1: 12-26

Fitzpatrick, S.M (2004) 'Synthesizing island Archaeology' in Fitzpatrick, M (ed) *Voyages of discoveries. The Archaeology of Islands*, Westport Connecticut: Praeger: 3-18

Forenbaher, S (2008) 'Archaeological record of the Adriatic offshore islands as an indicator of long-distance interaction in prehistory', *European Journal of Archaeology*, v11 n2-3: 223-244

Gialanella, C (1999) 'Appunti sulle collezioni preistoriche del Museo di Villa Arbusto' in Giardino, C (ed) *Culture marinarie del Mediterraneo centrale e occidentale tra il XVI e il XV secolo a. C.*. Roma: Bagatto libri: 237- 246

Giannitrapani, E (1997 a) 'Sicilia e Malta durante il Neolitico', in Tusa, S (ed) *Prima Sicilia. Alle origini della società siciliana*, Palermo: Ediprint: 201- 211

---- (1997 b) 'Rapporti tra la Sicilia e Malta durante l'età del Bronzo', in Tusa, S (ed) *Prima Sicilia. Alle origini della società siciliana*, Palermo: Ediprint: 429-444

Giardino, C (1998) 'L'isola di Capri dal Neolitico all'età del Ferro', in Federico, E and Miranda, E (eds) *Capri Antica. Dalla preistoria alla fine dell'età Romana*, Capri: La Conchiglia: 67- 105.

Keegan, W.F and Diamond, J.M (1987) 'Colonization of islands by humans: a biogeographical perspective', *Advances in archaeological method and theory* v10: 49-32

Malone, C, Stoddart, S and Bonanno, A (1995) 'Mortuary ritual of IVth millennium BC Malta: the Zebbug period chambered tomb from the Brochtroff circle at Xaghra (Gozo)', *Proceedings of the Prehistoric Society* v61: 303-34

Malone, C and Stoddart, S (2004) 'Towards an island of mind?', in Cherry, J Scarre, C and Shennan, S (eds.), *Explaining social change: studies in honour of Colin Renfrew*, Cambridge: McDonald Institute: 93-102

Maran, J (1998) Kulturwandel auf dem griechischen Festland und den Kykladen im spaeten 3 jt. v. Chr., Bonn: Rudolf Habelt

Marazzi, M and Tusa, S (2005) 'Egei in occidente. Le più antiche vie marittime alla luce dei nuovi scavi sull'isola di Pantelleria', Laffineur, R and Greco, E (eds.) *Emporia. Aegeans in the central and eastern Mediterranean*, Proceedings of the 10th International Aegean Conference, *Aegaeum v25*: 599-609

McConnell, B (1997) 'Lo sviluppo delle prime società agro-pastorali: l'Eneolitico', in Tusa, S (ed) *Prima Sicilia. Alle origini della società siciliana*, Palermo: Ediprint: 281-294

Molinaro, A, Silenzi, S and Zarattini A (2003) 'Nuove indagini preistoriche nelle isole Pontine', *Lazio e Sabina* v1: 135-138

Nicoletti, F (1997) 'Il commercio preistorico dell'ossidiana nel Mediterraneo ed il ruolo di Lipari e Pantelleria nel più antico sistema di scambio', in Tusa, S (ed) *Prima Sicilia. Alle origini della società siciliana*, Palermo: Ediprint: 258- 280

Palio, O (2004) 'Proiezioni esterne e dinamiche interne nell'area siracusana fra il Bronzo Antico e Medio, in La Rosa, V (ed) *Le presenze micenee nel territorio siracusano, Atti del I Simposio Siracusano di Preistoria Siciliana*, Padova: Bottega d'Erasmo: 73-98

Palio, O (2008) 'Ognina, Malta e l'Egeo', in Bonanno, A and Militello, P (eds) *Malta negli Iblei, gli Iblei a Malta*, Palermo: Officina di Studi Medievali: 71-80

Patton, M (1996) Islands in time: Island sociogeography and Mediterranean Prehistory, London: Routledge

Procelli, E (1981) 'Il complesso tombale di Contrada Paolina ed il problema dei raporti tra Sicilia e Malta nella prima età del Bronzo', *Bollettino d'Arte* 9: 83-110

Radi, G (1972) 'Tracce di un insediamento neolitico nell'isola di Lampedusa', Atti della Società Toscana di Scienze Naturali v79 serie A: 405-414

Rainbird, P (1999) 'Islands out of time: towards a critique of Island Archaeology', *Journal of Mediterranean Archaeology* v12 n2: 216-234.

---- (2007) The archaeology of islands, Cambridge: Cambridge University Press

Recchia, G (2004-05) 'Il tempio e l'area sacra megalitica di Tas-Silg: le nuove scoperte dagli scavi nei livelli del III e del II millennio a.C.', *Scienze dell'Antichità* v12: 233-262

Renfrew, C (1975) 'Trade as action at a distance: questions of integration and communication', in Sabloff, J.A and Lamberg-Karlowsky, C.C (eds) *Ancient Civilization and trade*, Albuquerque, University of New Mexico press: 3-59

Renfrew, C (1973) Before Civilizations. The radiocarbon revolution and Prehistoric Europe, London: Jonathan Cape

---- (2004) 'Islands out of time? Toward an analytical framework', in Fitzpatrick, M (ed) Voyages of discoveries: *The Archaeology of Islands*, Westport Connecticut: Praeger: 275-294

Robb, J (2001) 'Island identities: ritual, travel and the creation of difference in Neolithic Malta', *European Journal of Archaeology* v4 n2: 175-202

Skeates, R (1995) 'Animate object: a biography of prehistoric 'axe-amulets' in the central Mediterranean region', *Proceedings of the Prehistoric Society* v61: 279-301

Stoddart, S (1997-98) 'Contrasting political strategies in the islands of the southern-central Mediterranean', *Accordia Research Papers* v7: 59-73

Stoddart, S (1999) 'Long-term dynamics of an island community: Malta 5500 BC – 2000 AD', in Tykot, R. H, Morter, J and Robb J.E (eds) *Social Dynamics of the prehistoric central Mediterranean* v3: 137-147

Stoddart, S, Bonanno, A and Gouder, T et al (1993) 'Cult in a island society: prehistoric Malta in the Tarxien period' *Cambridge Archaeological Journal* v3 n1: 3-19

Terranova, G (2008) 'Le tombe a fronte pilastrata: problemi di lettura metrica', in Bonanno, A and Militello, P (eds) *Malta negli Iblei, gli Iblei a Malta*, Palermo: Officina di Studi Medievali: 55-70

Tigano, G, Levi, S. T, Moffa, C and Vanzetti, A (1994) 'Milazzo. Resti di abitato protostorico nella zona del Borgo. Relazione preliminare (campagna di scavo 1995-96)', Quaderni dell'Istituto di Archeologia della Facoltà di Lettere e Filosofia dell'Università di Messina v9: 5-15

Tinè, V and Pessina, A (2008) Archeologia del Neolitico, Roma: Carocci Editore

Trump, D (1966) Skorba, Oxford: Research Report of the Society of Antiquaries of London v22

Tusa, S and Ursini, D (forthcoming) 'Rinvenimenti eneolitici a Pantelleria', Atti XLI Riunione Scientifica Istituto Italiano Preistoria e Protostoria

Tykot, R. H (1996) 'Obsidian procurement and distribution in the Central and Western Mediterranean' *Journal of Mediterranean archaeology* v9 n1: 39-82

Vella, C (2008) 'Emerging aspects of interaction between prehistoric Sicily and Malta from the perspective of lithic tools', Bonanno, A and Militello, P.A and Militello, P (eds) *Malta negli Iblei, gli Iblei a Malta*, Palermo: Officina di Studi Medievali: 81-94

Wobst, H.M (1974) 'Boundary conditions for Paleolithic social systems: a simulation approach', *Antiquity* v39 n2: 147-178