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## **Interactions between Eastern Mediterranean and Sicilian communities: evidence from 13th-11th century BCE mirrors**

### **ABSTRACT**

The bronze mirrors discovered in Pantalica cemetery, in the hinterland of Syracuse in Sicily, dating from approximately 1250 to 1050 BCE, remain the subject of conflicting interpretations especially regarding the spatial origin of their production. These characteristically round, riveted mirrors with handles exhibit similarities with those produced in the Eastern Mediterranean, and have been considered either as potential imports or ambiguous imitations of Aegean or Cypriot prototypes. A new typological examination suggests, however, that the artifacts may be of local origin, opening up intriguing avenues for understanding the contextual factors that catalysed their production and deposition.

What is particularly intriguing is the appearance of mirrors in Sicily at the very moment their popularity waned in the eastern parts of the Mediterranean, with isolated exceptions in areas such as Crete, Perati, Rhodes, and Cyprus, with the last two locations being notable for their later appearance. This phenomenon raises questions about the resurgence of mirrors in Sicily and the potential influence of foreign cultures. Furthermore, the debate over the presence of 'Mycenaeans' in Sicily often relies on mirrors, despite lingering doubts about their Aegean origin.

This paper explores the role of cultural influences and contacts in shaping the bronze mirrors of eastern Sicily at the end of the second millennium BCE. We discuss their typological characteristics, stylistic elements, and contexts, evaluating their alignment with local artistic and cultural norms. Additionally, we investigate the role of Pantalica in reinterpreting external elements, shedding light on the motivations and circumstances behind these adaptations. Our goal is to gain a better understanding of the interplay between local and external factors that shaped the material culture of ancient Sicily.

**KEYWORDS:** bronze mirrors, Eastern Sicily, Late Bronze Age, cultural contacts

### **1. INTRODUCTION**

In the cemetery of Pantalica, in the hinterland of Syracuse (Sicily), sometime between 1250 and 1050 BCE, five bronze mirrors were deposited in as many chamber tombs cut in the limestone. Given their overall look – roughly circular mirrors, with handles and rivets – they have been thought to be clear imitations of Aegean or Cypriot prototypes, if not actual imports. Surprisingly,

they are the only reflective artifacts of their kind known to have been found in the entire Italic area throughout the Bronze Age.<sup>1</sup> Limited in number, time and space, the corpus of Pantalic mirrors exhibits a remarkable degree of homogeneity in form, dimensions, and typology, strongly indicating that they were all produced at the same time, and thereby warranting further investigation into the specific conditions and situations that served as catalysts for their deposition in this part of the island.

Discovered by Paolo Orsi between 1900 and 1910, the mirrors belong to the earliest phase of the site, the Pantalica I *facies* (c. mid-13th to mid-11th century).<sup>2</sup> The material culture of Pantalica I shows a complex merging of ideas, aesthetics, and techniques from neighbouring regions or cultures<sup>3</sup> that have been altered in a creative way to develop specific identities and traditions. For instance, along with the mirrors, there are deposits of new ceramics from the Eastern Mediterranean, metal artifacts (e.g., fibulae of Italian types, weapons of Aegean-Cypriot derivation), and jewellery (e.g., silver rings, gold ornaments), with the foreign elements at times transformed with so much liberty that they are barely recognisable in the end. This raises the intriguing question of the nature of foreign encounters in the region. Notably, the presence of 'Mycenaeans' in Sicily has been a topic of scholarly debate (e.g., Cultraro 1998; Bietti Sestieri 1988; but see Blake 2008; Russell 2017), and mirrors are frequently cited as evidence, despite lingering doubts about their Aegean affiliation (e.g., Orsi 1899, 102; Peroni 1956, 400-402; Taylour 1958, 70; Hencken 1968, 434; Leighton 1983, 44-46; Lo Schiavo et al. 1985, 28-30; Cultraro 1998, 302; Tanasi 2004, 342-343; Pantalica, 65; Alvarez 2023a, 44-46).

Taking into account new observations and the contextual analysis of these artefacts, this paper seeks to illuminate the extent to which cultural influences and contacts may have contributed to the acceptance, assimilation and accommodation of bronze mirrors discovered in eastern Sicily in the late second millennium. I explore the distinctive characteristics and stylistic elements of the mirrors, as well as potential deviations that could suggest external influences. I will also examine how these features align with established local artistic and cultural norms. Additionally, I investigate the agency demonstrated by the local culture of Pantalica in the reinterpretation and transformation of external elements, and the motivations and circumstances that drove these adaptations. Which region did the Pantalica mirrors originate from and what were the reasons and timing behind their appearance? By addressing these issues, I aim to gain a deeper understanding of the dynamic interplay between local and external factors in shaping the material culture of ancient Sicily.

<sup>1</sup> In later excavations by Giuseppe Italia, two other bronze fragments were tentatively identified as mirrors, but their uncertain classification stems from imprecise drawings depicting distorted and badly preserved bronze fragments (Italia 1975-1976, 16, 18, fig. 2m, 2l). In the Italic region, apart from a single example in Tarquinia (Delpino 2001), mirror production in metal only appeared on the Italian mainland after the sixth century. In Sardinia, some objects have been interpreted as mirrors, especially from nuraghi such as San Pietro di Torpè (Nuoro) and Santu Antine (Torralba), (Lo Schiavo et al. 1985; but see Alvarez 2023a, 48-50). However, their function remains debated; they could have been used within a signal light system for transmitting messages between towers through a series of flashes.

<sup>2</sup> See most recently, with further references: Leighton (ed.), Albanese-Procelli 2019 (henceforth *Pantalica*).

<sup>3</sup> Interactions with neighbouring islands in the Aeolian archipelago, Malta, as well as with the mainland and the wider Eastern Mediterranean were particularly intensive in the preceding Thapsos Milazzese cultural horizon.

## 2. CONTEXTS

The original publications of the mirrors (Orsi 1899; 1912) offer some indications about their contextual associations. Since fragmented artefacts and sherds were sometimes discarded, a recent re-examination of the field notes and artifacts stored in the Museo Archeologico Regionale Paolo Orsi in Syracuse (*Pantalica*) offers some help. The mirrors were recovered from the north and north-west sectors of the cemetery, with one example in the south-west area (see Table 1).

One bronze mirror was lying on the chest of the single individual buried in Tomb 3 of the north cemetery (3N), along with a finely incised arched fibula with two knots, and a shell. The fibula is reminiscent of a northern Italy funerary outfit dated ca. 1100-900 BCE, in burials customarily interpreted as female (Bietti Sestieri 1973, 403; *Pantalica*, 59). The mirror (Orsi 1899, 53; Peroni 1956, fig. 5; Lo Schiavo et al. 1985, 29; *Pantalica*, 81, fig. 8.1, pl. 4 [N3:2]) has a straight base across which three rivet holes are set in line (no rivet is preserved). The excavator noted the remains of an ivory handle,<sup>4</sup> the lower part of which is thought to have been identified recently. If correct, the end of the handle seems to have had a dovetail shape (Fig. 1; *Pantalica*, fig. 8.1 [N3:3]).

Tomb 23 in the north-west cemetery (23NW) comprised two inhumations, with the young individual accompanied by a bronze mirror disc (Orsi 1899, 46-47, pl. 8, n. 14; Lo Schiavo et al. 1985, 28, fig. 11.2; *Pantalica*, 115, fig. 8.19, pl. 7 [NO23:4]). This was found below the skull, with a bronze curved knife, a gold-riveted miniature bronze dagger and a small, red burnished jug also found nearby. The dagger seems inspired by the Peschiera-Pertosa

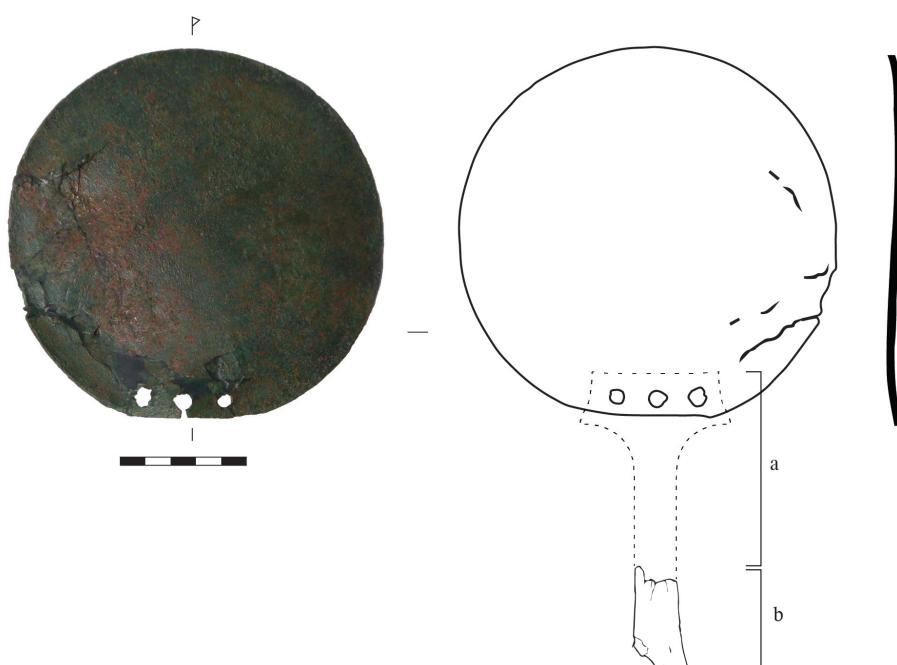


Fig. 1. The mirror from tomb 3N (inv. nr 15821). Photograph by the author, courtesy of Museo Archeologico Regionale Paolo Orsi di Siracusa. The image is accompanied by a drawing including a restitution of (a) the handle along with (b) the fragment of ivory N3:3 (modified by the author based on: *Pantalica*, fig. 8.1 [N3:3 and N3:2]).

<sup>4</sup> Orsi 1899, 53. I did not observe traces of organic remains in May 2022.

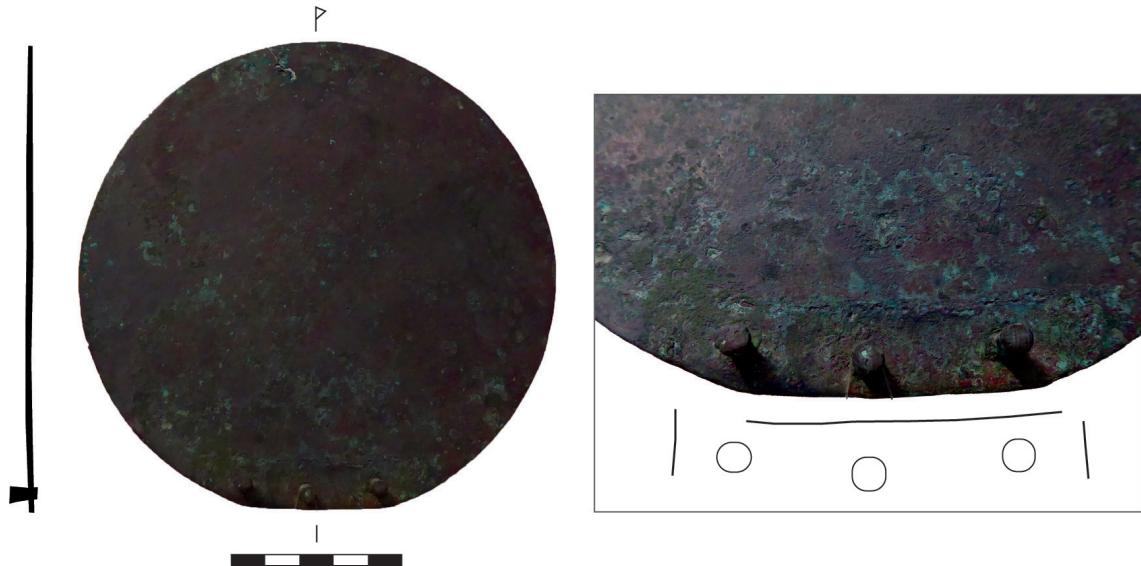


Fig. 2. The mirror from tomb 23NW (inv. nr 15785), with a zoomed-in image to the right displaying the imprint of the handle and an accompanying drawing. Photographs by the author, courtesy of Museo Archeologico Regionale Paolo Orsi di Siracusa.

prototypes of north-east Italy, a shape widely known in south-eastern Sicily, the Aegean, and the Balkans (Papadopoulos 1998, 29-30; *Pantalica*, 63). The shape and typology of the 23NW mirror are similar to that of 3N: the bottom of the disc is straight and has three rivets. All rivets are still in place, have an identical diameter (0.35 cm) and their ends are hammered flat. Corrosion traces of a rectangular plaque, the upper part of the organic handle, which was in contact with the mirror disc, are preserved (L 6.2 cm; W 1.4 cm) (Fig. 2).

In the small chamber tomb 37 in the north cemetery (37N), a juvenile person was found with a mirror disc and a violin-bow fibula near the feet<sup>5</sup> and a red burnished jug and a pedestal basin near the head. These ceramic shapes are the most common ones deposited in the cemetery's earlier use phases, attesting commensality (*Pantalica*, 51). Some pieces of jewellery were recovered from earth-sieving, including three gold beads, a fragment of a thin gold foil,<sup>6</sup> a silver ring<sup>7</sup>, and part of a silver or gold bracelet (Orsi 1899, 55-56; *Pantalica*, 89). Well-preserved, the circular mirror disc has three rivets set in a line, all measuring 0.3 cm in diameter. Two flat rivet-heads remain. The faint trace of a rectangular handle can be observed on the surface of the

<sup>5</sup> Close parallels for this specific shape of fibula (with a slightly asymmetrical straight rising of the needle) can be found in all parts of the Apennine peninsula (from where the Sicilians may have drawn inspiration), as well as in the Greek mainland, Crete, Rhodes (see lately: Pabst 2018), and now Cyprus (Fischer 2023), between the mid-13th and 12th century.

<sup>6</sup> Paolo Orsi's notebook sketch of the gold sheet shows the centre of the fragment with a diamond pattern, with chevron motifs on either side (see *Pantalica*, fig. 8.6 [N37:5]). It has been suggested that this may have belonged to a *bractea* or a diadem (Orsi 1899, 56; see also Cultraro 1998, 302-303).

<sup>7</sup> Incomplete, the oval bezel is described as undecorated (Orsi 1899, 56, pl. VIII, n. 9); even if the published photograph does not show details of style or technique, it is a common but anachronistic shape. Since Sardinia is rich in argentiferous lead ores and gold, it may have been manufactured there (Valera et al. 2005). Leighton (1983, 49, note 1) rightly remarks that there has been no analysis confirming that the ring is indeed composed of silver.

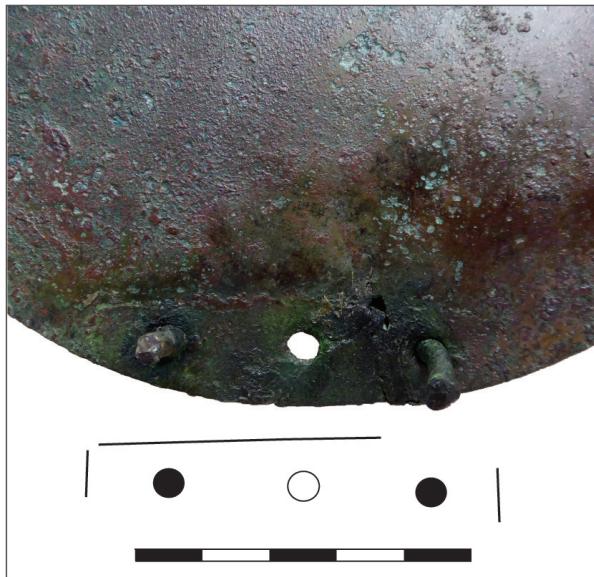


Fig. 3. Close-up view of the mirror from tomb 37N that highlights both the imprint of the handle and an associated drawing (inv. nr 15859). Photograph by the author, courtesy of Museo Archeologico Regionale Paolo Orsi di Siracusa.

mirror disc with a line differing markedly in colour and condition (L 5.9 cm; W 1.8 cm) (Fig. 3; Orsi 1899, 55-56; Peroni 1956, fig. 6; Lo Schiavo et al. 1985, 28, fig. 11.1; *Pantalica*, 89, pl. 4 [N37:3]).

In tomb 140 of the north cemetery (140N), piles of four skeletons were found together with a piriform jar attributed to BR/BF 1 and a fragmentary bronze mirror (Orsi 1912, 331; *Pantalica*). As most of its contour is missing, the precise type cannot be ascertained (Orsi 1912, 331; Peroni 1956, fig. 15; Lo Schiavo et al. 1985, 29, fig. 11.3; *Pantalica*, 108, fig. 8.15 [N140:1]). However, it is less likely to have been tanged, as suggested by Lucia Vagnetti, who compared it to a miniature bronze tanged mirror found in Grotta Pirosu-Su Benatzu in Sardinia (Vagnetti in Lo Schiavo et al. 1985, 29, fig. 11.4; Alvarez 2023a, fig. 15). It seems clear that only part of the contour is preserved (Fig. 4), and that no rivet hole has survived, nor any tang. Hence, it is rather likely that this mirror also resembled the other mirrors of Pantalica I, given that the piriform jar suggests an early date for use of the tomb (*Pantalica*, 47).

A bronze mirror was found alongside the skeleton in tomb 173 in the south-west

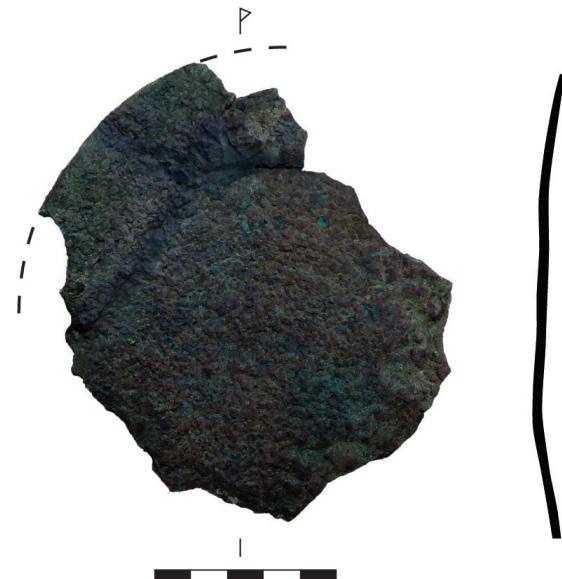


Fig. 4. The fragment of mirror from tomb 140N (inv. nr 30934). Photograph by the author, courtesy of Museo Archeologico Regionale Paolo Orsi di Siracusa.



Fig. 5. The mirror from tomb 173SW with remnants of a rivet hole at the bottom right of the disc (inv. nr 20709) – refer to the dotted restitution line in Fig. 1. Photograph by the author, courtesy of Museo Archeologico Regionale Paolo Orsi di Siracusa.

cemetery (173SW). The long bronze rod found next to it was originally interpreted as the handle, leading to comparisons with Cypriot tanged mirrors (Orsi 1912, 322; Peroni 1956, fig. 19; Lo Schiavo et al. 1985, 29, fig. 11.5; *Pantalica*, 159, fig. 8.43 [SO173:1]). However, even if the mirror is damaged where the attaching system once was, part of a rivet hole can still be observed (see Fig. 5), suggesting that this mirror was similar to the other examples from Pantalica.

Table 1: Dimensions, weights and typology and associated material of the Pantalica mirrors.  
Information on the associated individual when mentioned by the excavator.

Tomb	Diam. (cm)	Weight (g)	Variant	Context
3N	15.1	88	B	arched fibula, shell
37N	15.6	135	A	<i>young individual</i> , gold and silver jewellery, violin-bow fibula, basin, jug
140N	est. 15	99	n/d	piriform jar
23NW	15	147	B	<i>young individual</i> , knife, dagger with gold rivet, jug
173SW	14.7	197	n/d	—

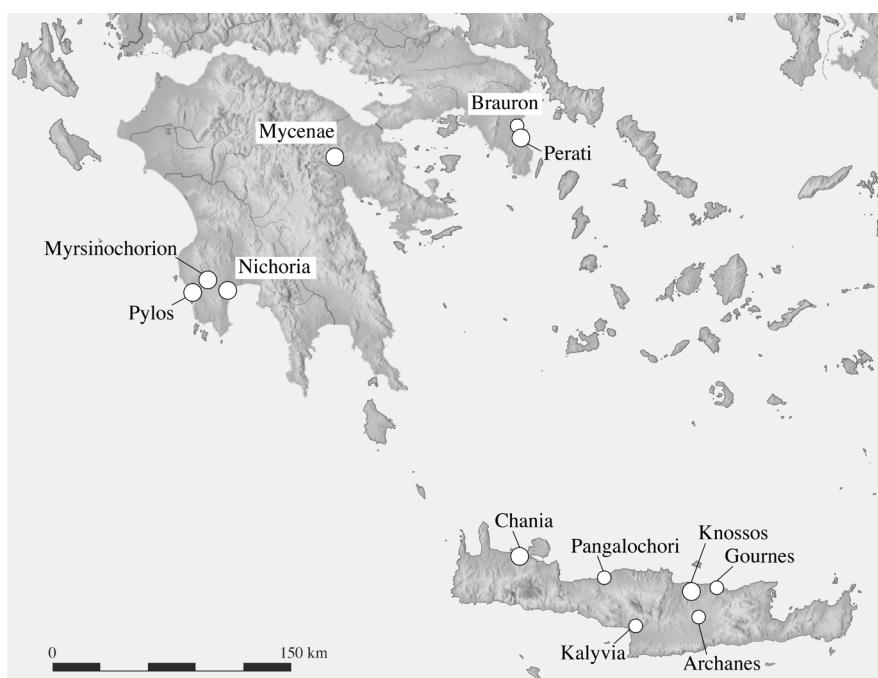
### 3. TECHNICAL ASPECTS AND COMPARISONS

Most of the Pantalica mirrors have similar diameters (15 cm) and are characterised by the arrangement of three rivets in a row along the base, with which an organic handle was secured. This was, at least in one documented case, made of ivory (3N). The upper part of the handle was rectangular, while its lower part was presumably dovetail-shaped.

The shape of the disc varies somewhat and was either plainly circular (variant A, 37N), or had a flat base (variant B, 3N and 23NW). Variant B seems to reflect a change occurring in the process of imitation of the three rivet-handled prototype and may well be specifically linked to a specific workshop or artisan. It should also be regarded as an improvement to the fastening system, since a straight edge corresponds better with that of the handle (Evely 2000, 389). This has also been observed on a few Aegean mirrors. For instance, mirror discs from Mavro Spilio (LM IIIA) and Gypsades (LM II), two Knossian cemeteries, were cut in the same way (Alvarez 2023b, n.119, n.124).

The two variant B mirrors (3N and 23NW), each 15 cm in diameter and with a straight base, were probably cast in the same mould or twin moulds with identical negative impressions. Despite a slight difference in weight, probably due to the rivets in place on the heavier mirror (147g *contra* 88g), one may also wonder whether they were produced with similar alloy proportions. In addition, the handle imprint dimensions also suggest similar sizes and design of the handle plaque. All this suggests that the two mirrors were produced simultaneously. This phenomenon of twin mirrors with common features is also documented in the Aegean, suggesting a production methodology likely involving the repeated reuse of a single mould or the simultaneous creation of multiple mirrors following a consistent pattern, occasionally employing the same alloy composition (Alvarez 2023b).

The circular mirrors with riveted rectangular handle can best be compared with type A-1 Aegean mirrors produced in the 14th century (LM/LH IIIA), which gradually lost popularity during the 13th century. They are primarily found on Crete, although examples have also been discovered in Messenia (Pylos, LH IIIA1) and Attica (Perati, LH IIIC) (see Map 1). However, small typological differences make the examples from Pantalica unique and indicative of local origin.



Map 1. Distribution of A-1 type handles in the Aegean during LM/LH III.

To date, the rivet pattern of three studs set in line, which is also found on locally produced swords and knives, does not correspond to types known elsewhere in the Mediterranean area. The only couple of exceptions found in the Aegean appear to be related to corrosion processes or repair after damage. In the case of the mirrors from Pantalica, the rivets are of the same diameter and arranged regularly, suggesting simultaneous application all at once, rather than at different times. The plaques, when preserved as negatives, also stand out for their proportions and placement on the disc, differing from examples in the Aegean. The absence of preserved mirror plates hinders further stylistic assessments.

The only artifacts associated with the mirrors that may provide more precise dating information are fibulae, such as those found with 37N (violin-bow type) and 3N (arched type). The violin-bow fibula, associated with mirror 37N, is generally thought to be earlier than the arched type, which succeeded it (Lo Schiavo 2010; Pabst 2018). Giving precise dates to fibulae is challenging, but it may be relevant that the mirror associated with the violin-bow fibula (37N), possibly the oldest one, is of variant A (plainly circular), the closest in style to Aegean productions. Hence, variant A likely predates variant B, although the incompleteness of the examples prevents a full understanding of the typo-chronology.

#### 4. DISCUSSION

The apparent consistency in design, shape, and size strongly indicates that the production of bronze mirrors found in the Pantalica cemetery took place within a relatively brief period, somewhere between the end of the 13th and the 11th century, based on the contexts. The clustering of these mirrors in particular areas of the cemetery, particularly in its north/northwest section, also suggests their association with a tightly knit social group.

While not exact replicas, these mirrors exhibit similarities to a mirror type from the Aegean repertoire; to be specific, the riveted mirror with rectangular plaque known as type A-1. The fundamental differences between Sicilian and Aegean forms lie in the shape of the handle and the attaching system with three rivets in line, which was already in use in local weapon manufacturing. Considering the standardised production of mirror discs in the Aegean during the Late Bronze Age, it is likely that the mirrors found in Pantalica were created by non-Aegean bronze workers, possibly local artisans in Pantalica or nearby regions. These craftsmen seemingly attempted to replicate the Aegean style in crafting the mirrors, though the extent of their emulation of Aegean models and the transfer of knowledge involved remains uncertain and would require archaeometallurgical analyses for better understanding. In the case of mirror culture, it is likely that what travelled were people rather than goods.

A complete review of the economic factors, social status, identity, and politics involved in the adaptation of a new element in Sicilian material culture is beyond the scope of this paper. Can we, however, determine when, by whom, and through what means the practice of bronze mirrors was introduced into eastern Sicily? What were the circumstances and social relations that drove this transmission? Did it involve the exchange of ideas, objects, people, or a combination of them? Contextualisation can provide a plausible explanation for how bronze mirrors became incorporated into the funerary rites during this specific period in Sicilian prehistory.

Because of its geographic position and available resources, Sicily did not exist in complete isolation. This interconnectedness expanded significantly during the Middle Bronze Age (the so-called Thapsos facies, c. 15th-13th centuries), when various Mediterranean groups engaged with indigenous populations, leading to the exchange of cultural elements.

Hence, it can be observed that the appearance of mirrors in Pantalica coincided with changes in the regional network paradigm, marked by a decline in Aegean merchant activity and an increase in influence from Cyprus, the Levant, and Sardinia (Giardino 1992). Connections with the Italian Peninsula also intensified, even if early Pantalica culture exhibits multiple elements borrowed from the Aegean (Tanasi 2004; Iacono 2020). People, goods, and ideas flowed in and out, and Sicilian society clearly became more diverse. Rather than attributing the adoption of cultural traits derived from the Aegean to discrete early migrations, some scholars consider that these changes took place within a broader, culturally mixed context (Russell 2017). The introduction and integration of Aegean-derived traits into the local culture, including mirrors, were not primarily the result of distinct and separate migrations, but occurred within this broader cultural mixture and socio-cultural system of interaction (Russell 2017). Therefore, pinpointing the exact nature and mobility of individuals or groups involved in trade and technological transfer poses a significant challenge. This is further complicated by the inherent difficulties in linking material culture to specific individuals, particularly during a period that coincided with troubles in the Mediterranean and the collapse of Mycenaean palace centres in the Aegean from the 13th c. onwards (e.g., Drews 1993; Bachhüber, Roberts 2009).

Study of bronze mirrors has shown that their popularity amongst Aegean elites gradually declined from the late 14th century (LM/LH IIIA) until the 12th century, when they appeared in Sicily. There were exceptions, however, as at Chania and Perati, where mirrors with rectangular plaques reminiscent of those from Pantalica have been found (see Map 1). Additionally, mirrors made a brief reappearance on Rhodes toward the late 13th or early 12th century. Here they took the form of tanged mirrors, however, influenced by Cypriot-Levantine styles. Tanged mirrors also appeared in 13th century Cyprus, likely influenced by the Levant and Egypt, along with occasional imports from the Aegean, as seen at Enkomi (see Catling 1964, 224, pl. 40a).

In summary, whether as objects or as parts of cultural practices, mirrors may have been introduced to Sicily through encounters with Aegean or Eastern Mediterranean elites or merchants, probably during the 14th c. (LH/LM IIIA), when mirror use reached its peak in the Aegean and exchanges with Sicily were at their zenith. Given the complex regional interactions evidenced by the mirror burial contexts in Pantalica, we cannot rule out the possibility that Italian Peninsula or Cypriot-Levantine groups influenced the dissemination of mirror culture, as some examples probably originating from Mycenae reached Cyprus. If Italian mercenaries were also integrated into Mycenaean factions (Jung 2013), one could envisage the possibility of the funerary rite with mirrors being introduced by a Sicilian veteran on his return from Mycenaean service, as evidenced by warrior burials in Chania (Crete) during LM IIIB (Alvarez 2023b, n. 146). Alternatively, Italian bronzeworkers who may have worked for Mycenaean palaces and returned to Sicily could have played a role (see Bietti Sestieri 1988, 28; Eder and Jung 2005).

Finally, it is interesting to compare the Sicilian mirror phenomenon with that on Rhodes, which coincides with the suspected presence of Mycenaean influence on the island, even as pottery imitations replaced imports (Georgiadis 2003; Eerbeek 2015), in a pattern resembling that observed in Sicily. Mirrors have also been found in burials of children, often accompanied by gold and silver jewellery (e.g., Alvarez 2023b, n.181), suggesting a desire to uphold social hierarchies and a strong hierarchical structure with new symbolism (Georgiadis 2020: 201-202). In both Sicily and Rhodes, the phenomenon of mirrors in burials was relatively localised and of limited occurrence, reflecting specific social and cultural contexts. Deposition took place against the backdrop of evolving burial practices, which in turn mirrored the turbulent social and political situation in the Mediterranean in the late 13th and early 12th century BCE. Marked by instability and uncertainty, this unique social atmosphere prompted individuals and groups to assert their social and economic status through the inclusion of bronze mirrors in burials. While such mirrors constituted a statistically insignificant portion of total funerary assemblages and were associated with only a select few individuals, it is noteworthy that they emerged nearly simultaneously in Rhodes, Sicily, and Cyprus in a hybrid form that combined, in different cases, Aegean, Levantine, and local elements. This phenomenon raises questions about the local ethnic landscape and the nature of social relations that led to the appearance of mirrors in these diverse locations during these tumultuous times.

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Abbreviation:

*Pantalica*

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