Where did the Mesara-type tombs travel from?

Abstract

The excavation of two new very early Mesara-type tombs, Mesorrachi and Livari, atypically located in north-east and south-east Crete respectively, has called for a revision of previous theories about the tombs’ origin. Past studies have used grave goods to measure Cycladic influence; debate continues as to whether such objects reflect interaction/trade in prestige items, or immigration. In contrast, tomb construction is a long-term labour-intensive project embodying beliefs about life and death, and as such it will reflect the strength of tradition that has taken root in situ. Easterly alignment of tomb entrances to face the dawn has long been recognised as a distinctive and significant feature of the tombs’ construction. The sun rises at a range of positions during the year from 60° at midsummer to 120° at midwinter, and a study of the orientation of the Mesara-type tomb entrances identified recurring patterns of alignment to sunrise at specific times in spring and autumn when the first light would, over a period of a few days, briefly enter through the low tomb doorway to illuminate the interior. At the same time it was possible to identify groups of exceptions with unusual alignment patterns. The same tombs also shared certain elements of geographical location, construction and contents suggesting groups of immigrants bringing off-island ideas and culture; in some cases there are specific Cycladic links. It is suggested that Cycladic input should be reconsidered as one of the many strands of influence from various sources that contributed to the development of the phenomenon that became the Mesara-type tombs.

Keywords: Mesara; tombs; Cycladic material; dawn alignments; landscape; FN; EMI; immigration

We used to think we knew where the Mesara-type tombs came from: probably North Africa (Evans 1924, vii-xiii; 1928, 36-39) or at least from the south (Branigan 1970, 141-143), starting from the earliest tombs on the Asterousia seabord and spreading northwards into the Mesara. Or perhaps it was an indigenous development (Branigan 1993, 37-40; 2012). Any Cycladic source seemed unlikely due to the lack of sufficient intermediary stages between Cycladic and Mesara-type tombs, and, crucially, the absence of any Mesara-type tombs in north and east Crete (Branigan 1970, 145). But sufficient intermediary links can arguably be identified in the very early anomalous Cycladic-type circular tomb at Nea Roumata1 and the unusual EMI

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1 Godart – Tzedakis (1992, 58-9) comment on its Cycladic character and date it to FN/EMIA.
Mesara-type tomb at Krasí A, which Branigan himself initially took for Cycladic.\(^2\) The second obstacle has been definitively removed by the discovery of two new tombs in north-east and south-east Crete: at Mesorrachi and Livari respectively.

Perhaps therefore theories about the tombs’ origins need revision. Moreover, while recent studies have called for a focus on “local trajectories” (Legarra Herrero 2009, 31), the possibility of identifying such trajectories through the tombs’ varying relationships to landscape and orientation – reflecting specific priorities, values and traditions – has not been explored. In this paper new understandings drawn from analysis of tomb entrance alignments combine with factors such as grave goods and construction to call for a re-consideration of Cycladic influence as a strand in the origin of the Mesara-type tombs.

The tombs, used EMI-MM and sometimes later, are circular, stone-built structures, some with traces of corbelling. Their internal diameter ranges from 3m-13m, with an entrance of trilithon type or with lintel(s) resting on stone-built supports. Sometimes, usually on the east, they have added annexe rooms and/or other structures such as an open air enclosure, a paved area, a platform or an altar. They are found singly or in groups, sometimes with different funerary structures within the same complex. There is a practice of multiple burial, often with evidence of secondary burial; also in some cases manipulation of bones. Their entrances never face west of a north-south line, and most face between ENE and ESE.

The users of these tombs in EMI co-existed with other Cretans spread over a wide area using different tombs with a range of funerary behaviours, suggesting a comparable diversity of beliefs, social organisation and cultural customs which has long been noted and attributed to different groups, perhaps of different origin.

Equally, there is diversity within the Mesara itself: rather than seeing a homogenous geographical unit, we should perhaps think in terms of “networks of relevance” (Relaki 2004, 170-173). There are various tomb types, and there has also been increasing recognition of diversity amongst the circular tombs themselves, both in construction and funerary practices, suggesting different groups with various histories and habits who contributed different elements to the phenomenon that became the Mesara-type tombs. If, as Tristan Carter put it, our aim is “to write history from the bottom up, from the specific to the general” (2004, 305), then such specific stories are the threads from which the history of the tombs’ origins should be woven.

One marker of diversity of long-standing interest is the presence of grave goods suggesting Cycladic impact, including metal objects using Cycladic raw materials, Cycladic-type pottery, folded-arm figurines (FAFs) and obsidian. Debate continues as to whether such items, whether imported or imitating Cycladic types, reflect immigration/settlements or simply interaction and trade in prestige items (Carter 1998; Day et al 1998; Papadatos 2007; La Rosa 2012).

In contrast, tomb construction is a time-consuming labour-intensive project embodying attitudes to loved ones, time and mortality; as such it will reflect the strength of tradition that has taken root in situ. Drawing on Christos Doumas’ (1977) review of Cycladic burial practices in the EBA, I recently summarized variously recurring elements of Cycladic tomb construction.

\(^2\) Branigan (1970, 172) on the basis of its construction and location noted, “It may be an enlarged built grave of Cycladic type.”
including: a “symbolic” doorway; digging the tomb down into the ground; access from above through the roof; a paved floor; limited examples of multiple burial; orientation of tomb doorways following patterns that are not always consistent; and small size compared with many Mesara-type tombs (Goodison 2011). Now a long-term study of tomb orientation has identified some Mesara-type tombs that show specific differences from Mesara norms, and some similarities to such elements of Cycladic construction.

UNUSUAL DOORWAY ORIENTATIONS

The most recent catalogue (Goodison – Guarita 2005) listed 78 confirmed Mesara-type tombs (Fig. 1a and 1b); the newly-excavated Mesorrachi tomb makes 79. Of these, only 41 have sufficient
surviving structure or sufficiently detailed publication to confirm the doorway orientation. Of these, the majority have doorways facing easterly, such that the first light of dawn over the visible horizon would shine into the low tomb entrance briefly on a few days of the year. The potential significance of this as an indication of religious/cosmological beliefs has long been noted (Xanthoudides 1924, 134; Branigan 1970, 185). The sun rises at a range of positions during the year between 60° at midsummer and 120° at midwinter. A long-term investigation of tomb orientation carried out by the author with the photographer Carlos Guarita involved extensive fieldwork: due to uncomputable mountain obstructions, the horizon altitude and therefore the sunrise position were unreliable to predict. Unless doorways faced an open sea-level horizon, unusual in a mountainous area, alignments could be confirmed only at the location. I have described elsewhere (Goodison 2001, 78-81; 2004, 340-342) how the orientations fell into a pattern of clusters favouring sunrise at certain points in spring and autumn, which may reflect special times for gatherings/ceremonies: perhaps not only occasions for post-funerary rituals but also seasonal indicators or markers of economic activity (for example, relating to agriculture, animals, sailing or exchange).

Here, however, my concern is with some specific exceptions: the minority that are unaligned – not facing the sunrise at any time of year – and those that unusually face dawn at the winter solstice.

Of the eight unaligned tombs, I my interest here is in four such exceptions which face between 140° and 180° and which suggestively share certain other features.

FOUR UNALIGNED SOUTH COAST TOMBS

These tombs face too far south to catch even midwinter sunrise (rising at 120°), and all lie within c. 23 km of each other along the coast of south-central Crete (see map Fig. 2). References are detailed elsewhere (Goodison-Guarita 2005, Nos. 42, 69, 73, 75); here I give some brief comments.

a) Lebena Papoura IB is one of a pair, next to tomb Lebena Papoura I (discussed below). In tomb IB, FAFs were found (at possibly disturbed levels). The excavator Stylianos Alexiou notes that these, and the large stones used in the construction, would have suggested a slightly greater age for this tomb, but there was no EMI pottery of Pyrgos or Ayios Onouphrios type. The earliest material identified is EMIIA, and tomb IB was, he notes, evidently built later than tomb I (dated EMII). Nicolas Platon stated that most of its pottery could be of EMI or Sub-Neolithic, but noted that such pottery was used until the end of the prepalatial period. (Platon 1958, 470; Alexiou 1960, 257-8; Platon – Davaras 1960, 510; Alexiou – Warren 2004, 14, 45-55.) The diameter is small at c.4.5m. Although some accounts describe tomb I as facing east, and IB as facing south-east, personal observation (1997, 2005, 2006) confirms that tomb I faces south-east and this tomb, IB, faces south, as on the plan in Alexiou 1992 (164 Fig. 21.1).

3 Of Lebena Y2A, once thought to be unaligned, it is now held that the entrance cannot be located (Alexiou – Warren 2004,18).
b) South Coast 8A (a.k.a Lasaia I/A or Chrysostomos I/A or Kaloi Limenes II) was robbed and is not fully published. It is one of a pair. Costis Davaras (1968, 405) briefly reports the discovery of two Early Minoan tombs only 7m apart; while one faced in an easterly direction, this one faced south (1968, 406). Personal investigation (1999, 2017) confirmed that the entrance faces c. 150°, not facing any sunrise nor the close sea. Its diameter is again small, 5.5 m, and it is dug into the hillside on one side. The site yielded Ayios Onouphrios I sherds (Branigan 1970, 149).

c) Stou Skaniari to Lakko A (a.k.a Kephali Odigitrias A) was robbed and is not fully published. With Ayios Onouphrios and Pyrgos-style pottery, its earliest use has been placed in EMI (Alexiou 1963, 312 and Pl. 362g; Vasilakis 1989-90a, 50-56) or Sub-Neolithic/EMI (Saltos 2000, 194). Subsequently it became part of a larger funerary complex including rectangular buildings. (Vasilakis 1994-6; personal communication 1995, 1999, 2001). Personal observation (1999, 2000, 2005) confirmed that the tomb’s trilithon doorway faces c. 180° i.e. south, not towards any sunrise nor the sea visible on the west. The diameter varies 3.7-4.15 m. The adjacent later rectangular buildings are similarly aligned, the closest one also having a trilithon doorway.

d) Trypiti/Kalokampos was looted and is not fully published. Stylianos Alexiou (1967, 484), cleaning it out after looting, suggests for some of the pottery a Sub-Neolithic date. Andonis Vasilakis (1988, 332; 1989, 55 Fig. 5, 56; 1989-90b, 287), in part of the interior that escaped robbing, excavated pottery of EMI and EMII, and beads – including some of silver. The doorway faces c. 145° (personal observation 1997, 1998, 2000, 2017), not facing any sunrise nor the close sea. The diameter averages 5.5 m. The tomb was dug at some depth into the ground.

Other early Mesara-type tombs in the area containing Cycladic-flavoured material conform to the usual alignment patterns. However, these four notable exceptions do display one, several or all of the following characteristics: (1) entrance facing 140°-180° (2) small diameter

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4 Branigan originally identified the entrance as being on the east (1970, 13-14, 150, Fig. 33) but had found a robbers’ trench, while at that time the south-facing doorway was covered by the robbers’ spoil heap, as clarified in Blackman-Branigan 1975, 26.
within the 3-13 m range (3) early date (4) construction involving digging into the ground (5) material suggesting Cycladic connections (6) location close to the sea in south-central Crete and outside the Mesara Plain. All show parallels with Cycladic construction and, despite all being severely robbed, two contained objects suggesting Cycladic contact. These factors suggest that these are not random anomalies but may share their trajectory.

Krzysztof Nowicki (2008, 217), identifying the same type of pottery at three sites in westernmost Crete settled in FNIV, suggests that it perhaps represents the same group of people; the case here could be similar. When mapped (as on Fig. 2), these tombs form a group, suggesting the possibility of people uninterested in dawn alignments arriving and making a series of stops/settlements along the south coast. Three of the tombs have been assigned particularly early dating, EMI or Sub-Neolithic; and, bar two other exceptions, these are – out of the 41 Mesara-type tombs with adequate doorway information – the only ones built unaligned to dawn until centuries later in MMII.

They raise the possibility that one strand of the people and ideas that generated the Mesara-type tombs came not from the south but perhaps – with the Cycladic links – around the coast of Crete clockwise from the north.

**Five tombs aligned to midwinter dawn**

There are a further five tombs whose entrances, unusually, align to dawn at midwinter – all, like the above, located outside the Mesara Plain itself (see map Fig. 3). Full references are detailed elsewhere (Goodison – Guarita 2005, Nos. 4, 5, 41, 46); here I give some brief comments.

a) Archanes C. Located c.11 km inland from the north coast, in the Phourni cemetery complex, this tomb has a diameter of c.3.5 m and its earliest use has been dated EMIIA (Papadatos 2005, 63-65). The tomb is aligned to midwinter sunrise, now visible through the curious “window”/“light-box” set into the tomb wall diagonally above the doorway (Fig. 4). Finds included a Cycladic-

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Fig. 3. Map showing Mesara-type tombs aligned to midwinter dawn: 3a) Archanes C 3b) Archanes E 3c) Lebena Papoura 1 3d) Livari 3e) Mesorrachi.

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5 Myrsine (EMII) and Koumasa B (EMI-II) both face too far north even for midsummer sunrise.
type marble bowl, much obsidian, a range of silver objects, copper artifacts, marble FAFs, and imitations in other fabrics (Sakellarakis–Sapouna-Sakellaraki 1997, 181-184, 339-349; Papadatos 2005, 29-35, 46-48, 51).

b) Archanes E. Located c.15 m south of tomb C, this has a diameter of 4.3 m-4.65 m with earliest use in EMIIA (Panagiotopoulos 2002,169). The entrance is aligned to midwinter sunrise (Fig. 5). Finds included items of bronze and silver and a fragment of a FAF from the lower burial layer (Sakellarakis – Sapouna-Sakellaraki 1997, 187-188; Panagiotopoulos 2002, 98, 171).

c) Lebena Papoura I. Less than 1km from the coast near Lendas in south-central Crete, this is one of a pair, adjacent to Lebena Papoura IB (see above). The diameter is 5.0-5.15m and the entrance faces the winter sunrise (Fig. 6). Earliest use is in EMII, and grave goods include a bronze or copper triangular dagger blade with central rib (Alexiou – Warren 2004,11-13).

d) Livari. Located on the shore in south-east Crete, south of Ziros, this contained much EMI material, and some FN. It is part of a funerary complex including a rock-shelter contemporary with it. Finds include objects of silver and copper; one long dagger was found. (Papadatos–Sophianou 2015, 7-11, 21-22, 77-80, 93-6). The internal diameter is 4.4 m; the doorway faces 125° towards...
Fig. 7. Map showing Mesara-type tombs aligned to midsummer dawn: 7a) Koumasa E 7b) Krasi A 7c) Porti Pi.


e) Mesorrachi. Located c.1km from the north coast, west of Siteia. Despite heavy looting, finds included a copper (?) pin, and pottery showing closest parallels in the nearby settlement Kephala Petras (Papadatos – Sophianou 2009-2010, 13-22). Its earliest use is in EMIA. Internal diameter is c.3.2 m, and the doorway faces 118° towards an open horizon, admitting midwinter sunrise. (Papadatos–Sophianou 2009-2010, 11; personal observation 2017)

These five tombs aligned to midwinter sunrise display one, several or all of the following characteristics: (1) small diameter within the 3 m-13 m range (2) early date (3) material suggesting Cycladic connections (4) location within 11 km of the coast and outside the Mesara Plain itself (a pattern visible on Fig. 3). These factors suggest that these exceptions are again not random. The very earliest tombs are unexpectedly on the north-east and south-east coast, suggesting people arriving from the north and circumnavigating East Crete, while subsequent groups travelled along valleys inland, apparently bringing Cycladic affinities/contacts and a shared interest in midwinter dawn.

Space does not allow discussion of a further exceptional group of three tombs aligned to midsummer sunrise, displaying some Cycladic affinities and similarly located outside the Mesara Plain itself (see map Fig. 7). When these three exceptional groups are mapped together (as on Fig. 8), they show an unmistakeable littoral pattern.

PROBLEMS WITH LOCATION

Challenging traditional views of south coast or indigenous origins, Mesorrachi’s start date is definitively earlier than most Mesara-type tombs; it is only 1 km from the north coast; and it is unlike other tomb types found nearby. How did it get there? The excavators Yiannis Papadatos and Chrysa Sofianou (2009-2010, 27-28) reasonably reject the possibility of population movement over the long distance from the fertile Mesara to this marginal rocky location. They
also recognise that the tomb’s dawn alignment shows that the Mesorrachi community did not simply imitate an observed architectural form, but identified with “the symbolic meanings and the ideas associated with it” (2009-2010, 27). Symbolic meanings relating to death are powerful and deeply rooted in ideas that have a history, reflecting metaphysical beliefs and unlikely to be adopted on a superficial basis. Scott Howard has described how landscapes of memorialisation enact the work of mourning and create “an imaginary world at the crossroads between nature and culture where loss may be transformed into gain; the tragic past, into the desired present and/or future” (2003, 50). Such practices of memorialisation are unlikely to be picked up from passing external contacts. Mesorrachi’s very early date suggests people using the tomb type may have initially reached the north coast first before circumnavigating to South Crete.

**PROBLEMS WITH CYCLADIC ORIGINS**

The problem with adducing Cycladic influence in this context is that although there are similar Cycladic graves, as on Syros (Tsountas 1899, 77-115, Pl. 7 Nos. 3, 4), they date to Early Cycladic II (Syros-Keros culture), later than the earliest Mesara-type tombs in Crete. Inconsistently oriented, they are architecturally similar, but too late to constitute a prototype. However, as previously pointed out (Goodison 2011), there are other possible models: at the site of Kephala on Kea there were also corbelled circular tombs. Their orientation is inconsistent – if anything, southerly. They have some multiple burials, and date from Late Neolithic/EBA1 (Caskey 1964, 314-317; Coleman 1977, 44-111), thus early enough to predate, or be contemporary with, the earliest Mesara-type tombs. The Kephala community is described by Caskey as “fishermen and traders, especially in Melian obsidian” (1964,315), and their tombs also connect with EBA tombs on Euboia and in Attica with which they share several features (Mylonas 1959, 64-120; Coleman 1974; Sampson 1988, 113-119).

Although North Cretan links to Attic-Kephala culture had been noted previously (e.g. Vagnetti 1996, 34-35), to cite the Kephala tombs in this context (Goodison 2011) seemed at first a long shot: it seemed a remote possibility that these specific distant tombs might connect to
a tradition of circular tombs in Crete. New evidence changes the picture. Analysis of pottery from Kephala-Petras, close to Mesorrachi, revealed “a link between Kephala Petras in east Crete and the Attic-Kephala cultural region during... FN IV” while EMIA Kephala-Petras “maintained an especially close familiarity with Cycladic forms and practices” (Papadatos – Tomkins 2013, 361, 365), and the Mesorrachi pottery suggests its “participation in regional exchange networks and integration in cultural traditions of the broader Siteia area” (Papadatos – Sofianou 2009-2010, 28). A link between the two areas is thus confirmed independently by ceramic evidence. Thus, with information previously unavailable, we know that one of the first Mesara-type tombs was built in north Crete, with a ceramic link to a Cycladic community that also built round corbelled tombs with multiple burials.

The amount of Cycladic-related materials at the other newly-discovered and very early Mesara-type tomb at Livari is also noteworthy, filling in a picture of possible arrivals on the north coast followed by circumnavigation to the south coast.

PROBLEMS WITH TRAVEL?

At the tombs’ inception, we are long before Colin Renfrew’s EBII “international spirit”. EMI had been seen as relatively isolationist. But now Peter Tomkins (2008, 21-48) has identified rapid expansion coupled with significant social and material transformation at the LNIV/EMI juncture. Krzysztof Nowicki has found evidence of “large-scale immigration to Crete” in that period, especially around the tip of East Crete (2006, 257-9).

Peter Warren had long since suggested “some movement of people into Crete from the west Anatolian region to join the Late Neolithic population at the end of the fourth millennium and beginning of the third” (1973, 43); and Sinclair Hood had supported the theory of some “Early Minoan IA newcomers” (1990, 155). Peter Tomkins and Peter Day (2001) showed that some of the earliest Neolithic pottery at Knossos was in non-local, indeed non-Cretan, fabrics. Norbert Schlager (2011) presented possible evidence for ethnic and social minorities in Crete from the Neolithic period onwards.

Through extensive fieldwork, Nowicki (2008; 2011; 2011-12; personal communication 2017) has identified over 200 FN sites, few with earlier occupation, which he attributes to inward migration from the Dodecanese and ultimately South Anatolian regions: one stream from the South Dodecanese using red ware and settling mainly along the east and south Cretan coasts, and another on Crete’s northern coast linked to the north and central Dodecanese and the Cyclades and evident at sites such as Kephala-Petras (Nowicki 2008, 224-226). Warren finds this suggested model convincing (2007-8, 138).

Multiple evidence has been presented for earlier sea travel in and out of Crete than previously thought (Warren 2007-8, 137 and references). Palaeolithic finds have given “a completely new perspective to Mediterranean open sea navigation” taking its history back by millennia (Warren 2007-8, 138). Meanwhile finds at Strophilas (Televantou 2008, 46-48) have moved the Cycladic longboats specifically back to FN dating. Melian obsidian appears in Crete from Aceramic Neolithic onwards, and Kampos Group material (dating ECI-ECII) at north Cretan sites, including
Poros Katsambas, where Renfrew suggests some material may belong to the earlier (ECI) Grotta-Pelos culture (2010, 289). Papadatos and Tomkins (2013) have recently pressed the case for early travel across the watery expanse between Crete and the Cyclades.

**SOME FURTHER THOUGHTS**

There are further possibilities for investigating tombs’ specific stories through closer consideration of location, orientation and landscape. Thus the tombs Apesokari A, Korakies, Koumasa A and Phylakas A, whose entrances face precisely to a mountain peak (sometimes a later peak sanctuary site as at Korakies, Fig. 9) (Goodison 2011), are in a cluster less than 10km apart, all potentially accessed by short journeys from a sea landing at Trypiti (Fig. 10). Additionally, Krasi A has its unusual midsummer sunrise appearing in “horns” created by the local mountainscape.

**Fig. 9.** Mesara-type tomb Korakies showing alignment to Kophinas, later a peak sanctuary. Photograph by Carlos Guarita.

**Fig. 10.** Map showing location of Mesara-type tombs aligned to mountain peaks: 10a) Apesokari A 10b) Korakies 10c) Koumasa A 10d) Krasi A 10e) Phylakas A.
In future, gene flow may also prove a useful marker: tentative results of a recent pilot study using biodistance and strontium isotype analyses suggest that at Livari the population using the Mesara-type tomb differed from that of the population contemporaneously using the nearby rock shelter (Triantaphyllou et al 2015, 18-19). Such studies may cast light on examples given above where funerary structures of different orientations – or completely different types – are juxtaposed in the same cemetery.

CONCLUSION

I have suggested that the discovery of two new early examples in atypical places raises questions about the origins of the Mesara-type tombs, and that analysis of tomb alignments can help in identifying local trajectories in the tombs’ development, suggesting movements from the Cyclades – as well as other areas – towards Crete at the FN/EMI juncture. Consequently, when archaeology reveals affinities – whether in ceramics, cultural behaviour, tomb architecture or genetics – between material from the Mesara Plain and from marginal littoral tombs of this type, whether to the north, east or south of central Crete, there should perhaps not be an assumption of movement/influence from the Mesara outwards, but an openness to the possibility that the movement may have been in the opposite direction.

BIBLIOGRAPHY


