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Location and Perspective in the Theran Flotilla Fresco

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Abstract

The Flotilla Fresco from Akrotiri on Thera depicts 14 sea-craft, with seven large ships seemingly en route between two landmasses. There are, however, strong arguments against the idea of a long-distance voyage, and instead this study supports the concept of a nautical ceremony. By using palaeotopographical research, it is suggested additionally that the fresco depicts a specific setting inside the Theran caldera prior to the Bronze Age eruption; the perspective is from its interior eastern rim, looking west towards the opposite-facing cliffs of the crater's spits. This interpretation overcomes iconographic difficulties such as the placement of the boats and dolphins above the landmasses and the unique depiction of horizontally bedded rocks around the Departure Town.

Keywords: *Flotilla Fresco, Thera, Akrotori, palaeotopography, perspective, depth, Aegean Bronze Age landscapes, miniature wall-paintings*

Introduction

The excavations at Akrotiri on the island of Thera have recovered the richest collection of Bronze Age wall paintings in the Aegean (Figure 1). Thera has rightly been compared to Pompeii, because a volcanic eruption preserved numerous pristine murals. Many lifesize and sub-lifesize frescoes were found, but also three miniatures in one room. One of these miniatures, frequently referred to as the 'Flotilla Fresco', has probably been the subject of more scholarly research than any other Bronze Age Aegean wall painting. Many iconographical interpretations of it assume a voyage. This essay, however, argues that the idea of an expedition was conceived before the palaeotopography of the island was correctly perceived. In the last few decades, geologists have dramatically changed our understanding of Thera's landscape prior to the Bronze Age eruption. Archaeological debate on the Flotilla Fresco, however, has not taken account of these geological advances. The idea presented here is that the Flotilla Fresco does not represent a voyage, but rather a specific location in the landscape of Thera prior to the volcanic disaster that covered, and preserved, the archaeological site of Akrotiri. This interpretation also solves certain iconographical difficulties in the fresco.

In 1971 and 1972, research in the West House revealed many Late Cycladic I frescoes (Figure 2) (Marinatos 1972: 41-44; 1974: 35-56).[1] Two rooms in this house (nos. 4 and 5) are ornate with wall paintings of nautical themes (Figure 3). Among them were four miniatures decorating the *epikranitis* course (i.e. the uppermost part of the wall) above the doors and windows of Room 5 (Figure 4), located in the west corner of the second floor. Room 5 was entered from the northeast through either Room 3 or the corridor Room 7. Upon entering, the viewer saw three frescoes in front and eventually one behind. Presented from left to right (south to

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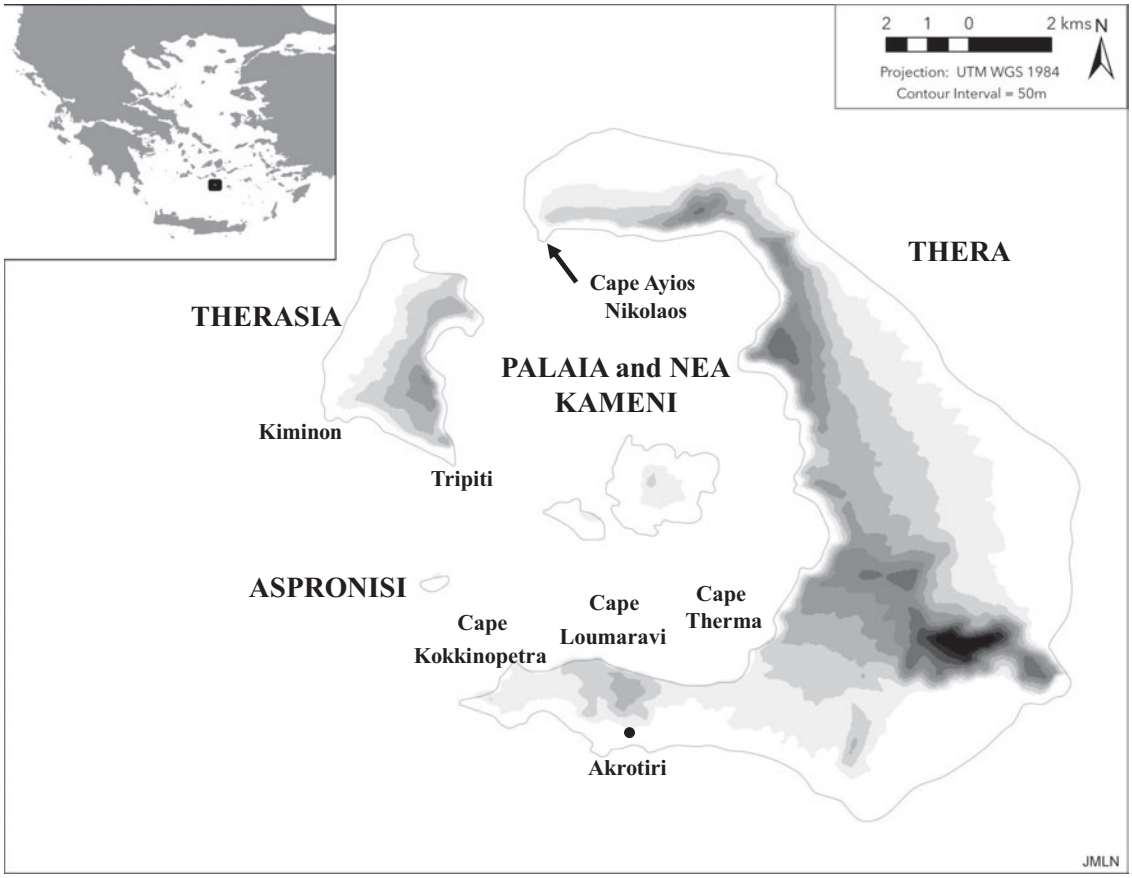

Figure 1. A map of modern Thera with locations mentioned in the text.

north), though not necessarily arranged to be understood in such a sequence, was the south wall with the Flotilla Fresco (Figure 5); the west wall ahead whose paintings are fragmentary; and the north wall to the right with the 'Assembly on the Hill' and the 'Shipwreck'. Finally, the 'Nilotic' Fresco, behind and overhead, would not be seen until the viewer turned around in the center of the room. The four miniatures are positioned above sub-lifesize renderings of fishermen, which are in turn above a dado painted to imitate polished gypsum (Figure 4).

The presentation is intimate. The room is approximately 4 × 4 m, and slightly under 3 m high. The south wall fresco is almost 4 m wide and 44 cm high and is placed a little above eye-level. It depicts seven large ships between two land-masses (Figure 5) (Marinatos 1974: 42-57; Televantou 1994: 90). The seven largest ships are highly decorated, have sails and *ikria* (i.e. boat cabins) (Televantou 1994: nos. 11-17); six with paddlers (Televantou 1994: nos. 11-14, 16-17), three with masts up (Televantou 1994: nos. 12, 13, 15), one of which has its sail unfurled and no paddlers (Televantou 1994: no. 15). Six other craft are canoes (Televantou 1994: nos. 10, 18-23), and one (no. 10) is an intermediate craft, having a canopy, but rowers rather than paddlers (Doumas 1992: 68-83; see also Wachsmann 1998: 94). The windows of Room 5 make it the most illuminated interior so far discovered at Thera.

The miniature frescoes are reported to represent a thematic maritime program, especially since the frescoes of *ikria* in Room 4 complement the nautical subject (Doumas 1992: 47).

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Figure 2. A reconstruction of the West House as seen from the north. (Computer reconstruction by A. Kassios. From Palyvou 2005a: pl. 2B. Courtesy of INSTAP Academic Press.)

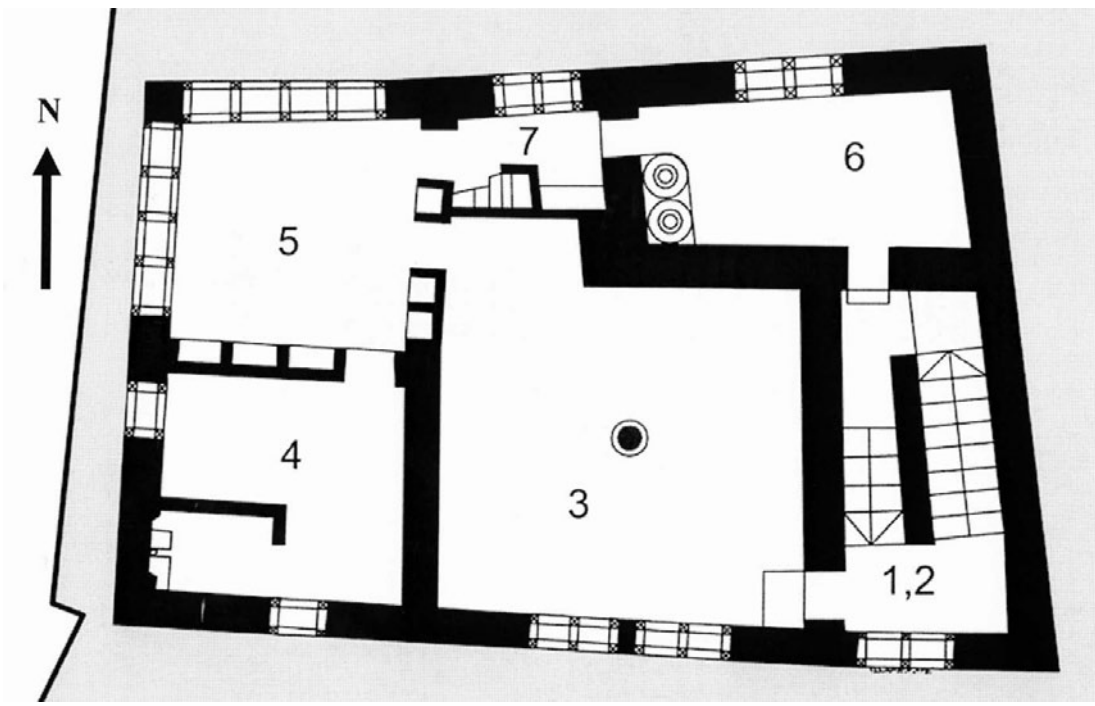

Figure 3. Plan of the second floor of the West House. (Computer reconstruction by A. Kassios. From Palyvou 2005a: fig. 46. Courtesy of INSTAP Academic Press.)

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The postulated connective narrative for the four miniatures in the *epikranitis* course emerged at a time when scholarly understanding of the palaeotopography of Thera was very different than it is now—namely, that the Bronze Age eruption caused the center of the island to collapse, and thereby created the present caldera, which did not exist when Akrotiri was occupied (Luce 1969: 58; 1976: 11; Morgan 2005: 34; see also Wayland-Barber and Barber 2005: 80, 112, where this misconception continues). The Flotilla Fresco was thus identified as a voyaging expedition when the island's pre-Bronze Age eruption configuration was presumed to be broadly circular and without a central inundated caldera. Consequently, it was reasonable for scholars to imagine that the fresco represented a journey from elsewhere to Thera. It became the central explanation for understanding the frescoes' theme as a narrative (Doumas 1992: 47). Generally overlooked, however, was the possibility that the miniature frescoes in Room 5 were not directly related, and that the Flotilla Fresco could represent a local landscape. In fact, it is quite the opposite. Frequently, scholars used motifs from the north wall fresco to explain iconography in the Flotilla Fresco (i.e. the south wall fresco), and many distant lands have been identified as the Departure Town. The interpretation posited here argues that the Flotilla Fresco depicts the caldera of the pre-Bronze Age eruption as seen from the east, with sea-craft in between the caldera's two spits (Figure 6).

Previous Interpretations

Many readings have been offered for the Flotilla Fresco. A brief synopsis will suffice, since they have been summarized in detail elsewhere (Kontorli-Papadopoulou 1996: 57-58; Morgan 1988: *passim*, esp. 88-92; 2005: 34-36; Morris 1989; Negbi 1994; Niemeier 1992: 99 n. 29; Shaw 2000; Wachsmann 1998: 105-106). The first excavator of Akrotiri, S. Marinatos, believed it represented a voyage to Libya, based primarily on motifs in the *north* wall fresco (Marinatos 1974: 44-57). From that point on, the concept of a 'voyage' became an *idée fixe* in many explanations, but points of departure and destination varied. Most see a trip within the Aegean, and often the Arrival Town is identified as Akrotiri itself (Betancourt 2007: 121; Davis 1983; Doumas 1992: 47; Gesell 1980; Shaw 1990: 433; Shaw and Luton 2000; Televantou 2000; see further below), although more distant journeys are postulated by some (Negbi 1994; but see Manning *et al.* 1994; Shaw 2000). Both Warren and Morgan, however, have convincingly argued for a local setting, because the seemingly exotic motifs (e.g. lion) are in fact appropriate in the Aegean artistic repertoire (Morgan 1988: 88-92; Warren 1979). Others opt against reading the fresco as a specific occasion, preferring to see it as a series of generic scenes visually reflecting metaphors and events in oral poetry and the Homeric epic cycle (Boulotis 2005; Cline and Yasur-Landau 2007; Hiller 1990: 231; Morris 1989; 2000; Watrous 2007)—events such as sea-raids (Iliakis 1978), or metaphors for the two towns on Achilles's shield (Hiller 1990), or the myth of Theseus and Ariadne (Sali 2000). The connections to poetry are extremely tenuous. Warren (1979: 129) expressed this perfectly when he wrote, 'we should not see these exquisite yet silent works as the visual counterparts of oral poetry'. For example, the idea that since there are boats depicted, it must be a voyage and a correlate to the *Odyssey*, seems an extraordinarily fragile syllogism, but these poetic allegories persist in the literature, despite chronological disparity between Homer and the date of the site, and weak correlations.

It is also important to address another aspect of received wisdom in discussions of the Flotilla Fresco—namely, the identification of the Arrival Town as the archaeological site of Akrotiri, which permeates most interpretations. This stems directly from the voyaging theme and is an *a priori* assumption. There is, in fact, no good reason to believe that the Arrival Town must be

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Figure 6. A reconstruction of the perspective proposed in this article. Specifically, the Flotilla Fresco is a landscape of the west side of Strongyle. (i.e. Thera prior to the Bronze Age volcanic eruption), with its inundated caldera as seen from its east lip. (Drawing by Doug Faulmann.)

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Akrotiri, rather than any other Bronze Age urban setting. There are five towns depicted in Room 5. It is a curious and dogmatic convergence of scholarly opinion that only one of them should be seen as Akrotiri. Doumas (2007) recently attempted to verify this correlation by claiming that Akrotiri has a double harbor like the one shown in the Arrival Town. These harbors to either side of the site are conjectured based on ground configuration and topographic reconstruction from shafts dug for pylons supporting the protective roof at the site. This reconstruction is problematic because it does not consider the lower sea-level at the time. In addition, and as the author admits, there are many other Bronze Age sites (17 are known) in the eastern Mediterranean that have double harbors. Is it simply because the fresco was found at Akrotiri that one must assume it represents Akrotiri? In fact, the docked and moored boats in front of the Arrival Town suggest that it is *not* Akrotiri. The caldera was only one km north of the site, and arguably it provides the best natural harbor in the Aegean, if not the entire Mediterranean. This would have been a preferable harborage for the occupants of Akrotiri, rather than mooring or docking their boats facing the open sea to the south. This far safer harborage was then closer to Akrotiri than now, because the Bronze Age tephra layer makes the modern descent into the caldera lengthier than it was at the time of occupation.

The emerging consensus follows Morgan's seminal study (Kontorli-Papadopoulou 1996: 75-76; Marinatos 1984: 52-61; Morgan 1988: 143-45; 2005: 34; 2007: 126; Morgan-Brown 1978; Polinger-Foster 1988; Sakellariou 1980; Wachsmann 1998: 86-122). She proposes that the fresco represents a public display of some sort, whether a nautical festival (i.e. Ship Procession), a religious ceremony, or some combination thereof. The points supporting the ceremonial interpretation are quite cogent and negate the idea of a distant journey. A long voyage cannot be depicted because the men are paddling the large craft, including the sailboats that have, with one exception, their sails furled. These ships were not traveling lengthy distances with this type of propulsion. M. Shaw objected, by proposing that the mode of propulsion could be for navigating tight spots at harbor (Shaw 2000: 271-72). Although this might be possible, the explanation presented here, in conjunction with previous studies, nevertheless supports the ceremonial interpretation. In addition, Wachsmann (1998: 108-113) has convincingly argued that the paddling of the large sailboats reflects an anachronistic, third millennium practice representing a cultic procession or race. Finally, the ostentatious nature of the travelers' clothes, as well as the accoutrements and decorations of the ships with stems and sterns adorned in full regalia, indicate a celebratory atmosphere (Morgan 1988: 161; Niemeier 1990: 273). Such a festive theme is appropriate to the genre of miniature frescoes more generally, since ceremonies are frequently the subject of such paintings (e.g. the Temple and Grandstand Fresco from Knossos, the Sacred Grove and Dance Festival from Knossos, and the Tylissos Miniature) (Cameron 1987; Morgan 2005: 36; Shaw 1972).

There are several variations on the ceremonial theme. Niemeier (1990) posits that the ship procession indicates 'the bellicose and the religious aspects' of the Minoan Thalassocracy. Sakellariou (1980: 150-51) suggests an *Isidis Navigium* in which 'a sacrificial ship was not sunk, but that, laden with riches, it was offered to the sea, which carried it away'. Morgan (1988: 143-45, 164-65) contends that it depicts an annual spring ritual initiating the new sailing season. The argument presented here agrees that the fresco presents some sort of ceremony, but adds to this interpretation the suggestion that it is an event set specifically in the caldera prior to the Bronze Age eruption (Figure 6) (Friedrich *et al.* 1988; 2006).

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The Bronze Age Landscape

Received wisdom tells us that the two lands on either side of the fresco represent separate places (Laffineur 1990: 248). Volcanologists have established that prior to the Bronze Age eruption a caldera from earlier cataclysms existed at Thera (Druitt and Francaviglia 1990; Friedrich *et al.* 1988; Heiken and McCoy 1984; Heiken *et al.* 1990; Manning 1999) (Figure 7). It has even briefly been suggested that the towns in the fresco are actual villages on Thera *as seen from the west* (Heiken *et al.* 1990: 375). This is untenable, because no land is depicted in the middle where the interior eastern face would be prominent and conspicuous. This article posits that the two landmasses entering the painting from the sides are the tips of the western spits of the crescent-shaped island *as seen from the east*. This setting would have been ideal for a naval auditorium. As the palaeotopographical understanding of Thera changed among geologists in the 1980s and 1990s (i.e. from a circular to a crescent-shaped island, with an inundated caldera), the concept of a voyage solidified among archaeologists interpreting the Flotilla Fresco.

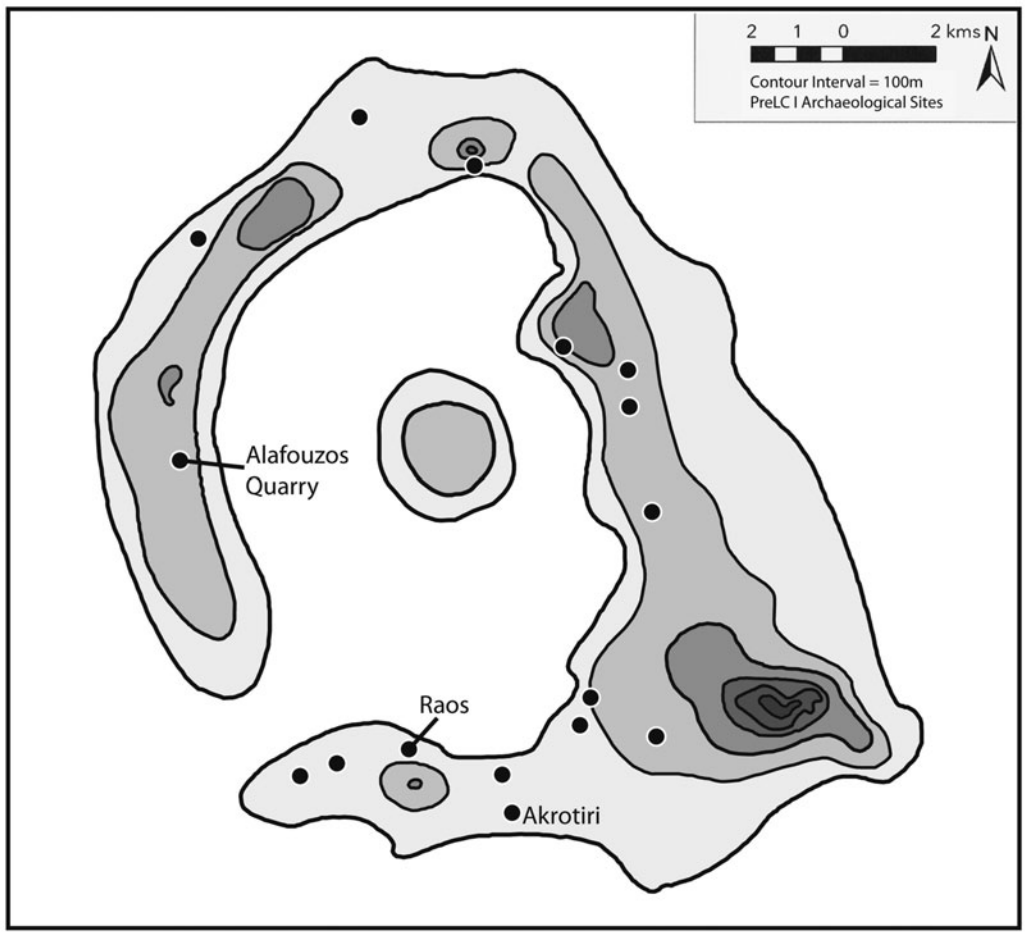

Figure 7. A reconstruction of Strongyle (i.e. Thera prior to the Bronze Age eruption) with the locations of pre-LC I archaeological sites. (Reconstruction based on Friedrich 2000: 100, fig. 8.2; Marthari 2004. Drawing by Natalie Cooper and Bradley Sekedat. Dots represent archaeological sites other than those indicated by name. Contour interval 100 m.)

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Prior to the Bronze Age eruption, Thera was a crescent-shaped island called Strongyle (Figure 7). We know that there was an earlier caldera, because the tephra from the Bronze Age eruption was found plastered to vertical walls on the interior of the caldera (Druitt and Francaviglia 1990: 363-66). In the geologists' reconstruction of the island's configuration prior to the Bronze Age eruption (Figure 7), Therasia was connected to cape Ayios Nikolaos on the northern end of Thera, and to Aspronisi to south (Figure 1) (Druitt and Francaviglia 1990: fig. 4). More recently, McCoy (2009: fig. 4) has reconstructed Strongyle with Therasia disconnected from the cape Ayios Nikolaos. Frequently, there is a central pre-Kameni island located in these reconstructions (Druitt and Francaviglia 1990: fig. 4; Friedrich 2000: fig. 10.1; Friedrich *et al.* 1988: fig. 1; McCoy 2009: 77-78, fig.4). The 'Kameni Line' cuts through the caldera (NE-SW) and divides it into two basins between which the vents are located. In addition, analyses of historic eruptions document rebuilding prior to a mega-eruption. Consequently, there was most likely an antecedent to the modern Kameni islands, and therefore it is included in the reconstructions here. More importantly for the argument posited in this article, the geological layers in the interior of the caldera were visible to the Bronze Age inhabitants.

Morgan observed the peculiar presentation of the rocks around the Departure Town, noting a volcanic quality to them, and a similarity to Thera's present caldera (Morgan 1988: 33-34). She rejects the idea, however, that the painting represents any specific part of the island. Nevertheless, there are iconographic details supporting the notion that the miniature is a landscape of the interior western side of the island. These include the arrangement of the landscape in relation to the boats and dolphins to indicate three-dimensionality, and the unusual rendering of rocks surrounding the Departure Town to reflect the local geology.

Perspective and Depth

Aegean fresco painters are not celebrated for their subtle renderings of depth, and its absence has been recognized as characteristic of Minoan painting (Immerwahr 1990: 41; Televantou 1992: 147; Walberg 1986: 116). The problem in recognizing it in Aegean wall-paintings is complicated by the various perspectives used. In addition, foreshortening is rare in the Aegean repertoire. Doumas (1992: 129), for example, discusses the rendering of the three-quarter view of the left-hand woman in the lustral basin of Xeste 3, which is a good example of the awkwardness Aegean wall-painters had when portraying distance. Immerwahr (1990: 65) has suggested that foreshortening for depth may be seen in the Grandstand Fresco, if the narrow white strip in the middle is construed as the central court. This is not entirely unlikely, since miniature paintings may have been reserved for the depiction of specific places (see the section 'Narrative or Seascape?', below), but it is also seen in the Peak Sanctuary rhyton from Zakro, as reconstructed by Palyvou (2005b) and Shaw (1978).

Betancourt's (1977; 2000) essays on this aspect of Aegean representational art illustrate the difficulties in recognizing sophisticated depictions of depth, but they note that the Flotilla Fresco represents a distant vista. Iliakis (1978: 621) and Morgan (1988: 70-71) explain its rendering with specific reference to the Flotilla Fresco, using the well-known and simple convention whereby what is behind is placed above, and what is in front is located below. This method is pervasive in Bronze Age art (Davis 1987: 157), but has found little purchase in the discussions of the Flotilla Fresco. There is also the artistic convention of portraying individual elements (such as animals or plants) in profile, while the natural settings are presented in an aerial perspective (Morgan 1988: 70). Iliakis (1978: 621) identifies this artistic rendering as the 'cartographic conception', while Walberg (1986: 116-17) applies the term 'cavalier perspective' (see also Betancourt 2000: 360; Immerwahr

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1990: 73; Laffineur 1990: 247 for bird's-eye perspective; see Palyvou 2005b for a different use of this terminology). The common use of this technique causes viewers to read over painters' attempts at depth. Morgan (1988: 70-71) noted this precise problem: ' "Objects above" and "objects behind" are, of necessity, both depicted above'. This may be the primary reason for scholars to assume a paratactic narrative (i.e. lacking in conjunctive motifs) in the Flotilla Fresco (Morris 1989). The natural setting can be seen as a generic backdrop, through which the individual elements move in sequence and the array of the ships is formulaic. For example, Morgan (1988: 70) reports that 'while the ships are artificially zoned into upper and lower lines, the buildings are woven into a complex system of overlapping forms'. This misses the significance of the craft's arrangement, namely that their positioning is the painter's attempt at depth (see Palyvou 2005b: fig. 12:1). The water, boats and dolphins above the two towns are behind them, not simply above the landmasses as a formulaic convention (Chapin 1995: 56; Walberg 1986: 120). Strangely, the boats below the Arrival Town are widely accepted to be in front of it, but the same artistic convention is denied to the other boats in the painting. Also in the fresco are subtle attempts at depth, including the slight diminution in size to indicate distant objects (Palyvou 2005b: 186-87). Contrary to the more critical assessments, there were in fact renditions of depth such as seen in the Peak Sanctuary rhyton from Zakro (Shaw 1978), but modern researchers fail to apply this convention to the Flotilla Fresco. In addition, one must appreciate that the artist and viewer were both familiar with the painting's subject matter, so that extremely precise renderings of distance, scale and proportion were unnecessary.

Some scholars recognize the overall perspective as a diagonal viewpoint from above (Betancourt 1977: 19; Warren 1979: 120). Chapin's analysis of perspective is the most thorough, and includes discussion of bird's-eye view, concentric composition, and mountain-view perspective. She agrees with the thesis of this essay that the ships and dolphins positioned higher in the fresco are more distant (Chapin 1995: 56). She does not, however, accept the idea of a single viewpoint (Chapin 1995: 71). As demonstrated below, however, other miniature frescoes provide evidence for depictions of precise locations from an equally precise perspective. It is useful to examine the implications of three-dimensionality, in light of new palaeotopographical research on Thera.

The south wall fresco depicts two towns and landmasses, with seven large ships painted in two rows, three above and four below. Six smaller craft are scattered about in ports and elsewhere. Each landmass has a sea craft above and below it, while the Departure Town additionally has four dolphins above. One boat (No. 11 in Figure 5—the number refers to Televantou's [1994] system) is not only under (i.e. in front of) the Departure Town, but it overlaps with the land, intensifying the sense of depth. The placement of the ships above and below the two landscapes illustrates that they are spits of land jutting into the water, not straight coasts (Immerwahr 1990: 72; Walberg 1986: 120). Further support for this suggestion is found in the blue color used for the sea in front of and behind the Departure Town. There are also no dolphins inside the caldera. There are at least 15 dolphins represented on the fresco, but only two are positioned low in the panel, and they are between the spits, not below them. The dolphins may be a metaphor for the open sea. Their numbers diminish from top to bottom, reflecting the transition from the outer ocean to the inner caldera. The interpretation presented here is the only one that explains why some of the boats and dolphins are *above the land*.

The objection has been offered that the boats in front of the Arrival Town are docked on a beach, but, since there is none located in the interior of the caldera, this interpretation is implausible (Shaw 1990: 434; the boats are A251 and A253, in Televantou [1994]). But

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there are in fact modern beaches on the interior modern caldera near Cape Kokkinopetra, Cape Loumaravi and elsewhere (Figure 1). Moreover, pre-eruption stromatolites have been found on the north end of Therasia and across the strait on the west end of Thera's north spit. Because they only form in shallow waters (Friedrich *et al.* 1988), they indicate the existence of a shoal in the northwest area of the earlier caldera precisely where the Flotilla Fresco shows boats moored on a beach. Moreover, these stromatolites must have formed prior to the Bronze Age eruption, because they were found in high elevations and in the volcanic deposits, and therefore must have been ejected out of the caldera during the explosion. Finally, as stated above, the occupants of Akrotiri would most probably have docked or moored their boats in the superior harborage of the caldera, rather than exposing them to the open sea on the outer edge of the island.

Rocks in Aegean Wall-Paintings

Bronze Age Aegean artists enjoyed several techniques to depict rocks and sometimes combined various forms (Evans 1928: 450-54; Immerwahr 1990; Lang 1969; Morgan 1988: 32-34) (Table 1). The wall painters typically favored rendering them in polychromatic vertical registers (Davis 2000: 861; Morgan 1988: 33-34; Nicolakaki-Kentrou 2000a: 50) and generally avoided monochromatic depictions. One, however, is found on the left side of the Park Fresco from Ayia Triada, where they are brownish-red (Evely 1999: 242). Despite this exception, polychromatic rendering was far more popular. Multicolored rocks occur in a few varieties. There are dadoes of polished veined stone, such as in Room 4 of the West House at Akrotiri (Doumas 1992: figs. 14-17) and the Griffin Fresco in the Throne Room at Knossos (Immerwahr 1990: 96). Also found are egg-like rocks, as in the Nilotic Fresco (east wall of Room 5 in the West House) (Lang 1969: 122), as well as variegated egg-shaped conglomerations of rocks, such as in the Pylos Lyre-Player (Morgan 1988: 34) and the Flying Fish fresco from Phylakopi. We also see imitations of variegated stones such as polished conglomerate and veined stones (Niemeier and Niemeier 1998: 72-74; Shaw *et al.* 2006: 145, 221-24, pl. 2:37). Most common, however, are the depictions of rocks in vertical registers of alternating colors, such as in the Saffron Gatherer, Spring Fresco and the Monkey Fresco, to name but a few. These can be tongue-shaped, frequently with black veins, and highly polychromatic (Immerwahr 1990: 41). The registers can descend from overhead into the image, as in the Adorant Fresco from the Lustral Basin in Xeste 3 (Doumas 1992: 100; Walberg 1986: 126-29 discusses at greater length the idea of rocks framing the painting). In Mycenaean wall paintings, these are stylized into formulaic stalactite and stalagmite conventions (Lang 1969: 122). Despite variations over time and space in the highlighting or arrangement of rocks, the prominent technique of polychromatic vertical registers persisted, alternating between blue, yellow and red.

The rocks around the Departure Town were painted in horizontal polychromatic bands, rare in Aegean wall painting (Morgan 1988: 34). The primary parallel to the horizontal bands around the Departure Town are those found in the Nilotic Fresco and the Partridge and Hoopoe Fresco from the Caravanserai at Knossos, but the latter is heavily reconstructed. Some may argue that the Griffin Fresco in the Throne Room depicts horizontally banded stones. The griffins sit in front of horizontal bands that have tall papyrus plants growing. The papyri are not growing on top of the horizontal registers but from the dadoes, suggesting the painter thought of these horizontal bands as background (*contra* Lang 1969: 141). It is unlikely that the rendition of the Departure Town's rocks is a simple anomaly for such a prominent motif in a well-painted and highly detailed fresco. Rather, the south wall fresco is a realistic attempt to reflect the highly conspicuous geological strata visible on the inner cliffs of the caldera (Figures 8 and 9). The houses should be understood as built into the interior

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CYCLADIC

Akrotiri (Thera)

1. Arrival Town (Town V) in the Flotilla Fresco [Ak No. 12] (Doumas 1992: pls. 35-26).
2. Meeting on the Hill and Shipwreck Fresco [Ak No. 12] (Doumas 1992: pls. 26-29).
3. Spring Fresco [Ak No. 2] (Doumas 1992: pls. 66-71).
4. Adorants [Ak No. 6] (Doumas 1992: pl. 100).
5. Saffron Gatherers [Ak No. 6] (Doumas 1992: pls. 116, 118, 120).
6. Monkey Fresco [Ak No. 1] (Doumas 1992: pls. 85-87).
7. Cow Fresco (Doumas 1992: pl. 91).
8. Frieze of the Swallow (Doumas 1992: pl. 99; Immerwahr addendum 1990: 188, addendum no. 14).
   There are additional reports of fresco fragments of rockwork in Doumas (1992: 96) and Immerwahr (1990: 187-88, addendum no. 13), but not enough is preserved to analyze.

Ayia Irini (Kea)

Morgan reports depictions of polychromatic rocks similar to those from Xeste 3 at Akrotiri (i.e. nos. 4-5 above), but these frescoes are not fully published (Morgan 1998: 204, 208, pl. 4 lower right).

MINOAN

Knossos

1. Saffron Gatherer [Kn No. 1].
2. Monkey and Bluebird Frieze [Kn No. 2].

Ayia Triada

1. Goddess at Altar [A.T. No. 1 a].
2. Park Fresco [A.T. No. 1 b].
3. Cat in Ivy [A.T. No. 1 c].
   Harrington and Stavrakakis (1998) report unpublished fresco fragments from Galatas depicting rocks.

MYCENAEAN

Mycenae

1. Groom Fresco [My No. 10].

Pylos

1. Frieze of Hunting Dogs [Py No. 20].
2. Bluebird Frieze [Py No. 21].
3. Stalagmitic rocks on dado (3, 10 nws).
4. Two fragments of conventionalized stalagmitic rocks trodden by hooves (3 C 20 and 7 C 20).
5. Five small fragments: Façade with rocks (5 A 20); rocks and hair (1 N 6); jagged rocks (2 N 2); multi-colored rocks (3 N nws) (see Chapin 2005 for a recent analysis); miniature jagged rocks (4 N ne).
   Lang (1969: 149, pls. 82-83) describes rocks in the bottom register of the Nautilus Fresco, but not enough is preserved to justify its inclusion here.

EGYPTIAN

Malkata

Influenced by Aegean wall paintings are six fresco fragments that possibly depict rocks (Nikolakaki-Kentrou 2000b: 291-93, Cat. Nos. 287a-b).

Table 1. Aegean wall paintings with rocks depicted in vertical polychromatic registers. (Where possible, reference numbers in Immerwahr's [1990: 169-204] 'Catalogue of Frescoes' are provided in parentheses; for Pylos, relevant numbers in Lang's [1969: 31-190] 'Catalogue' are also given.)

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face of the caldera, as can be seen today (Friedrich [1994] 2000: figs. 13:2, and especially 13:3 and 14:2; Palyvou 2005a: pl. 1A). Though the rocks around the Arrival Town follow the Aegean convention of alternating polychromatic vertical registers, there is support for the idea that the landscape around it reflects the actual pre-Bronze Age eruption topography. By looking at the geological profile of eastern Therasia and Aspronisi (Friedrich [1994] 2000: fig. 3.12), one can subtract the Bronze Age tephra and then extrapolate a line between the two islands that were previously connected. That line suggests a gradual slope from north to south, just as shown around the Arrival Town in the Flotilla Fresco. Since archaeological remains have been found on both islands (see below), this evidence is suggestive of a village located in the area of the Arrival Town in the reconstruction presented here.

Borders and Frieze Alignment

Further support for this interpretation comes from the borders of the frescoes, both decorative and physical. The Theran wall-painters used decorative borders to indicate continuity from one fresco to another on different walls. These guide the eye and reinforce the concept of related motifs (see Table 2 for examples from Thera). There is the linear register at the top of the Sea Daffodils in the House of the Ladies, which changes when the female figures appear, and a border of running spirals above the Blue Monkey Fresco in northwest corner of Room 6 in the Beta complex. In Beta 1 the ivy band is a good example of a unifying motif that connects the visual metaphor of the playful pairing of the Boxing Boys and the Antelope Fresco (Doumas 1992: 110, pls. 79 and 83; see Immerwahr 1990: fig. VIII for a good illustration). If thematic

Figure 8. The modern interior of the Theran caldera showing the horizontal geological strata. (Photograph by the author.)

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continuity is suggested for the four miniatures in Room 5, it is reasonable to expect a connecting frame to carry the eye from the east to south wall (i.e. from the Nilotic to the Flotilla Fresco) in light of these other examples. Peterson Murray (2004: 106) commented on this specific point when discussing the transition from the Room of the Ladies to the Sea Lilies Room in the House of the Ladies. She notes:

> The wide, monochrome band marks a clear separation in the iconographical programs and spatial arrangements of the wall paintings in Rooms 1a and 1b. The impression of continuity could have been conveyed easily by maintaining the white background and dadoes of the two rooms, a common technique, but the artist has deliberately severed any link between the two decorative programs.

Not only do the miniatures in Room 5 lack any such border to provide visual continuity, but the physical borders of the south wall do not align with those of the east and west because of the orientation of the roof's rafters (Doumas 1992: 47) (Figure 3). Not appreciated by those who argue that the east wall Nilotic Fresco and the south wall Flotilla Fresco belong to a single scene is the fact that the east wall painting is less than 20 cm in height, half the size of that on the south wall, which is 43-44 cm (Doumas 1992: 47; Televantou 1994: 82). An earlier reconstruction by Marinatos (1984: fig. 17) likewise reveals that the borders of the north and east miniatures have drastically different heights, and a further illustrative example of these height differences is seen in Immerwahr (1990: fig. XIV).

It could be argued that the east Nilotic Fresco may have been uncomfortably positioned adjacent to the top half of the east side of the south wall fresco, but this ignores both the rafters and also the difference in width between the east wall river and the blue line above the Departure Town that some have identified as a continuation of the stream. The idea that the rivers connect the two frescoes must be abandoned. The yellow border on the Nilotic fresco river does not continue onto the south wall. The river

House of the Ladies

Room 1, West Section. Sea Daffodils on south, west and north walls have connecting frame on top (Doumas 1992: pls. 2-5).

Room 1, East Section. The female figures on the east sections of the south and north walls share connecting border (Doumas 1992: pls. 6-8).

West House

Room 4. Ikria have connecting polished marble dado and frame on top (Doumas 1992: pls. 49-56, 58).

Room 5. Fishermen have connecting frame on top (Doumas 1992: pls. 18-19, 22-23).

Delta Complex

Room 2. Lily fresco on south, west and north walls have connecting frame on top (Doumas 1992: pls. 66-68).

Building Beta

Room 1. South wall of boxing boys and west wall of antelopes have connecting borders below and above (Doumas 1992: pls. 78-79, 83).

Room 6. West and north wall of monkey frescoes has connecting top (Doumas 1992: pls. 85-86, 90).

Xeste 3

Lustral Basin. North wall of Adorants has borders from top and bottom (Doumas 1992: pls. 100-101).

Room 3a. Saffron Gatherers has a connecting border on top (Doumas 1992: pl. 116).

First floor north wall Mistress of Animals has connecting border on top and bottom (Doumas 1992: pl. 122).

Room 3b. Ground floor, west wall and north corridor of naked boys has connecting top (Doumas 1992: pls. 109-11).

Xeste 4

Staircase. Ducks inside jagged frame (Doumas 1992: pls. 139-40).

Table 2. Theran wall paintings with decorative borders.

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in the east wall fresco is not the same width as the blue line above the Departure Town. Moreover, it is not preserved at the southeast corner, so there is no definitive evidence that they were connected. The blue line above the Departure Town has no T-shaped projections that Aegean painters use to indicate a river, as seen in the Nilotic Fresco (Televantou 1994: 255-58). More likely, the blue used on the east end of the south wall indicates grass, since green was uncommon in the Theran palette (Doumas 1992: 19; Vlachopoulos 2000: 641). The blue line that surrounds the Departure Town does have T-shaped projections, but it should not be considered an extension of the blue band upon which the animals run. One cannot conflate the two blue bands to interpret a continuous narrative between the frescoes.

The Departure Town's River and Fauna

The river around the Departure Town and the lion depicted above it have been taken by some as suggestive of a non-Cycladic setting (Forsyth 1997: 77). Geologists, however, have discovered erosion channels that carried water flowing into the earlier caldera, indicating the presence of streams in the Bronze Age (Friedrich [1994] 2000: 146, fig. 10:25). There is no evidence for collecting rainwater, which also supports the idea that wells and perennial streams must have existed on the island (Palyvou 2005a: 39-43 also points out that there are women carrying water jars in the north wall fresco; Doumas 2007: 89-90 claims the roofs were drained). In light of the continual warming trend since the last Ice Age some 12 kya, the Cycladic islands enjoyed cooler and more verdant ecosystems than they do now. Modern Delos and Naxos have streams, while the former had a lake. A reasonable explanation is that the river in question represents a stream that bifurcates around a town built into the cliff's face. There are modern correlates for villages built into the cliffs on the interior of the caldera (Figure 9). Since we know of archaeological sites such as Raos near the proposed location of the Departure Town (see below), it is not unreasonable to envision this reconstruction.

Finally, although a griffin is depicted in the Nilotic Fresco, all the animals in the Flotilla Fresco belong to a Cycladic landscape, including the lion (Thomas 2004: 190 reports lion bones from Ayia Irini on Kea). The lion is a common motif in Aegean art and one could well have been imported from Africa, along with the monkeys depicted in Beta 6. The salient point is that the lion is a real animal, not a mythical one, thus supporting the idea that the Flotilla Fresco portrays an actual landscape, separate from that depicted in the Nilotic Fresco.

The Late Cycladic I Evidence from the Alafouzos Quarry and Raos

There exist archaeological remains at both of the proposed locations of the Departure and Arrival Towns in the reconstruction argued for here (Figure 7). On Therasia, Fouqué and Nomikos excavated a Late Cycladic I household in the Alafouzos quarry (Fouqué 1867; [1879] 1998: 94-131; Tzachili 2005), located on the southern part of the islet between Cape Tripiti and Cape Kiminon (Figure 1). This relatively large compound is comprised of five rooms and a long surrounding wall, with a preserved human skeleton. The site may very well constitute the archaeological evidence for the Arrival Town painted on the right of the Flotilla Fresco. It is located at the southern edge of the northern spit, exactly where the Arrival Town would have stood when viewed from the east. Moreover, there are archaeological remains at the contact of the Bronze Age tephra and the pre-eruption terrain on Aspronisi (Floyd McCoy, personal communication), possibly an extension of the Therasia site, suggesting that the town may have been quite large. In addition, directly across the straight from Therasia is the archaeological site of Raos, which has extensive architectural remains (Marthari 2004). The site is located on the caldera's lip and indicates a contemporaneous settlement approximately where the Departure Town could have been located.

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Figure 5. The Flotilla Fresco from the south wall of Room 5 in the West House at Akrotiri. The Departure Town is in the upper left and the Arrival Town in lower right. (Doumas 1992: 68, image 35; reproduced courtesy of the Thera Foundation.)

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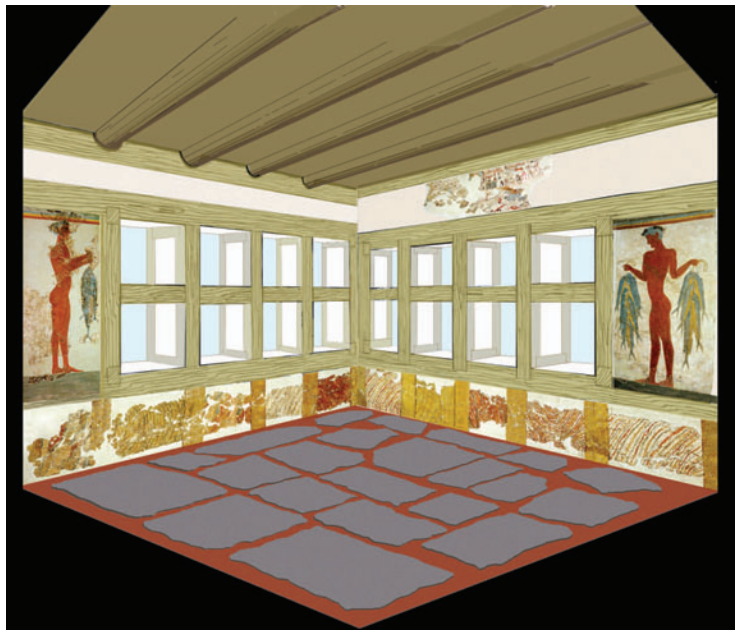

Figure 4. A reconstruction of Room 5 of the West House from the southeast showing the north and west walls. (Computer reconstruction by A. Kassios. From Palyvou 2005a: pl. 3.A. Courtesy of INSTAP Academic Press.)

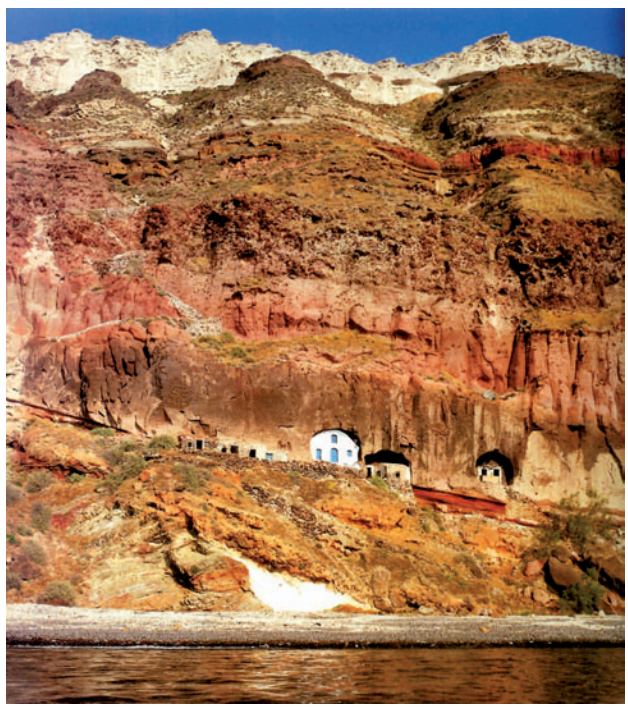

Figure 9. Cape Therma, illustrating the horizontal geological strata of the interior of the caldera, as well as the structures built into the cliff, akin to those shown in the Flotilla Fresco. A warm spring is associated with these buildings, paralleling the Departure Town. (From Friedrich [1994] 2000: fig. 13.3, courtesy of Cambridge University Press.)

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The combination of the archaeological and iconographical evidence strongly supports the perspective proposed in this article.

Narrative or Seascape?

One of the most common suppositions about the Flotilla Fresco, based on a presumed narrative, is that it must 'tell a story' (Betancourt 2007: 122; Morgan 2005: 26; Morris 1989; Shaw 2000; Vlachopoulos 2007). The conflation of the Flotilla Fresco with the other panels in Room 5 reinforces the idea of a theme that complicates our understanding of the south wall painting. Most scholars assume a sequence of events that reads from left to right (but see Betancourt 2000: 361). There are, however, problems with this approach. Above all, there are no repetitive depictions of the same vessel *within* the south wall fresco that would indicate the continuous narrative of a voyage. In addition, the hull designs on the north wall fresco are not repeated in the south wall painting, which one would expect if the artist's intention was to connect the two paintings.

In much of ancient art when such continuity is desired, there usually is recurring imagery to lead the viewer through the events (Schäfer [1919] 1986: 227-30). This is seen in Queen Hatshepsut's Punt Relief from Deir el-Bahari in Egypt. On the lower right, where the narrative begins, are three craft setting out to Punt with sails unfurled and billowing. Furled sails and smaller Puntite craft coming to meet them indicate the arrival at Punt on the lower left. On the top left, the boats are provisioned, and at top right the sails billow in the opposite direction to indicate return. In the Flotilla Fresco repeated motifs that could indicate a voyage, such as the decoration on the boats, do not recur; instead each vessel has a hull painted with a unique design. Those who endorse a narrative reading of the fresco attribute this to its paratactic nature (Morris 1989). The idea of a single moment, however, better explains the absence of connecting elements. The voyage theme in which most interpretations are mired fails to explain this lack of repetitive motifs and the placement of boats and dolphins above the land masses. The interpretation presented here not only agrees with the palaeotopography of the island, but also acknowledges the artistic convention for depth so common in the Bronze Age Mediterranean art, but generally ignored in analyses of the Flotilla Fresco.

Once the concept of a narrative is set aside, it is clear that the Flotilla Fresco is appropriate to the present understanding of Minoan miniature wall-paintings. Two well-known miniatures from Knossos are the Sacred Grove and Dance Fresco and the Temple and Grandstand Fresco, both of which appear to depict particular settings within the Palace of Minos, as viewed from specific locations (Morgan 1990: 253; Jacobs 1987). Thus, the Sacred Grove and Dance Fresco portrays the West Court as viewed from the southeast (Davis 1987: 157), and the Temple and Grandstand Fresco illustrates the interior eastern façade of the west wing as seen from the east (Davis 1987: 160-61; Immerwahr 1990: 71). Their fidelity to those localities is reinforced by their positioning in the Early Keep Area as reconstructed by Cameron (Hood 2005: 63, fig. 2:12). The sequence of the wall-paintings reflects the entrance into the palace at its southwest corner. As one enters the Early Keep Area, the Sacred Grove and Dance Fresco is seen on the left just as it appears when one entered the palace at its southwest corner. The Temple and Grandstand Fresco farther along reflects the panorama the viewer would gain once in the central court. Perhaps miniatures were preferred for genuine settings in broad, open areas, where special events occurred, or nature scenes as in the House of Fresco frieze. Cameron (1987) has noted that the miniature frescoes from Knossos deal with festivals, and this could equally be the case with the Flotilla Fresco. It is a curious tendency in Aegean frescoes that the miniatures, few though they may be, are crowded with more figures than larger panels, which tend to have fewer individuals. More

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importantly, the idea presented here negates the primary confusion of seeing the wall-paintings as a sequential or continuous narrative, or the extremely tenuous notion of some poetic allegory. Instead, scholars should understand the Flotilla Fresco as belonging to the genre of specific landscapes (or seascapes), as illustrated by its miniature counterparts from Knossos. This may also be true for the fragmentary miniatures from the North East Bastion at Kea (Morgan 1990; 1998; 2005: figs. 1.17, 1.18) and Tylissos (Shaw 1972). Furthermore, Marcar (2004: 234-36) has dated the Knossian miniatures to LM I, which brings them closer chronologically to the Theran paintings.

This interpretation of the south wall fresco re-opens the question of how it relates to the three other miniatures in Room 5. All four may not be by the same hand (Hollinshead 1989). Although this study posits that a strictly continuous narrative from the north wall through the east to the south wall is unlikely, it does not negate some type of loose interrelationship. It should be remembered that the West House is, in fact, a 'house', as demonstrated by its size, configuration and amenities such as a second floor toilet. It is not a royal installation for the purposes of propaganda, as is so often found in Egypt and Mesopotamia; and the building is simply too modest to have been decorated for visiting ambassadors, as Morgan (2007) has suggested. Therefore, any thematic coherence within all the miniatures of Room 5 is non-royal and greatly subject to the haphazard personal tastes of those who lived in the West House. The thematic connection among the miniatures may be no more specific than 'maritime', as so many scholars have noted. There is no reason to be trapped by the idea that an interpretation of one fresco must explain them all.

The more significant point is that perspective and depth in the Flotilla Fresco are relatively accurate in depicting the water-filled crater of Thera before the Bronze Age eruption. They are rendered in the manner typical of the east Mediterranean in the middle of the second millennium BC. This reinterpretation correlates the results of recent palaeotopographical research with the iconography itself, and thereby offers a better understanding not only of the miniature frescoes of Room 5, but also of their counterparts elsewhere in the Aegean. In other words, miniature frescoes were sometimes used to depict specific places (Laffineur 2000: 1003-1005 comments on this idea). This should not be surprising. Any visitor to modern Thera is truly impressed by its vistas. Scholars should not deny that same appreciation of the landscape to the Bronze Age inhabitants and their artists.

Cultures adjacent to the Minoan world, furthermore, were also depicting specific places and events. For example Egypt, during the contemporary late Middle Kingdom and Second Intermediate Period, is replete with art that shows specific events and people (Robins 2000: 110-21). In Egypt we find Minoan-style frescoes at Tell el-Dab'a (Bietak *et al.* 2007) and Malkata (Nikolakaki-Kentrou 2000a; 2000b), the taureador frescos at the former site being similar to those found at contemporary Knossos, and betraying a remarkable amount of interaction between the respective cultures' painters. Another interesting parallel occurs in the earlier (11th Dynasty) mortuary temple of King Nebhepetra Montuhotep at Deir el-Bahri, Thebes (Robins 2000: fig. 95). There is a painted relief of fallen Asiatics that is similar to the floating corpses in the north wall fresco of Room 5 of the West House at Akrotiri. Though probably post-dating the Theran eruption, the tomb of Rekh-mi-Rē' depicts Minoans (Keftiu) bringing tribute (De Garis Davies [1944] 2002: 20-25, fig. 20), which indicates not only the interactions between the two cultures, but also that specific events were recorded in Egyptian art.

Egypt was also active in Syria at this time, as were the Minoans, and their art was influenced through these interactions (Cline and Harris-Cline 1998; Kantor 1947). At Alalakh, where

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Minoan-style fresco fragments have been found, there is a possible bust of Yarimlin (Frankfort 1996: figs. 284-86), while at Mari a fresco fragment most likely depicts a ceremony of men leading bulls to a sacrifice (Roaf [1990] 2004: 119). Interestingly, in the tombs at Byblos were found instances of Egyptian-influenced Syrian art, such as a bronze scimitar, inlaid with gold wire on a niello background, showing the uraeus cobra (Frankfort 1996: 244). Some of the finest examples of the niello technique are seen in the well-known daggers from the shaft graves at Mycenae, but it was known in Syria earlier (Kantor 1947: 65). The excavations at Tell Kabri have also recovered Minoan-style frescoes (Cline and Yasur-Landau 2007).

These are just a few examples of the cosmopolitan nature of the east Mediterranean in the second millennium BC. Minoan artisans seemed to maintain their unique style when in contact with other cultures, but they would have been exposed to depictions of specific places or events commonly portrayed in both the Egyptian and Syrian artistic repertoire. Consequently, the idea of a specific landscape would not have been recondite.

In conclusion, the interpretation of the Flotilla Fresco as a voyage was received wisdom from the initial excavator of Akrotiri. That idea became embedded in the archaeological literature at a time when the palaeotopography of Thera was misunderstood. Though geological research changed our understanding of the island's Bronze Age landscape, the concept of a journey was maintained *a priori*. The explanation presented here solves certain iconographical irregularities, such as why the boats and dolphins are above the land, and why the rocks are depicted in a manner unusual for Bronze Age wall paintings. Moreover, it matches our understanding of other miniature frescoes that depict specific locations. Finally, the modern visitor to Thera is awestruck by the vista of an inundated volcanic caldera. It is not a large leap of faith to assume a similar appreciation on the part of a Bronze Age artist.

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Note

1. For simplicity's sake, this article follows Marinatos (1984), Morgan (1988) and others in using the less formal nomenclature of 'Departure Town' for the village on the left of the south wall fresco, and 'Arrival Town' for its counterpart on the right, despite the fact that it is argued here that a voyage is not depicted. There are several other systems that use Roman numerals to identify the towns in all the frescoes of Room 5 (Doumas 1992: 47-49; Marinatos 1974: 40-44; Televantou 1990: 315-22; 1994). Because this article focuses on the south wall fresco, however, those numbers may confuse readers and are not followed here.

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