Depiction of the sea in the Minoan frescoes from Knossos and Akrotiri (1700-1450 BC)

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Introduction
In the past few years the field of archaeology has witnessed a new way of studying landscapes: the focus is shifting from a terrestrial analysis towards seascapes and the influence of maritime elements. This new way of researching the landscapes has also reached the area of Mediterranean archaeology.

Greece is a well-researched region in archaeology, but until the concept of seascapes arose, the focus was mainly at the inlands and not the seas in-between. Berg mentions sixty-eight surface surveys in Greece since the seventies, of which practically all are focused towards the land, even when direct access to the sea was present (Berg 2010; 16). Considering the fact that Greece consists of numerous small islands of which the inhabitants interacted with each other, the need for an interpretation that reaches beyond the boundaries of the islands is apparent. The sea should not be considered as a barrier. Instead, it should be seen as an opportunity, as a means of interaction, a source of food, and so forth.

To be able to research the seascapes (a description of a landscape that also incorporates the sea) of the Greek islands, the dynamics between the islands and the mainland are important and should be explored within the context of maritime culture (Broodbank 2000; 1). This idea, the so-called island archaeology, thus aims for a method of research that incorporates the sea.

In order to apply the concept of island archaeology and seascapes, a comparison between the islands Crete and Thera is made in this paper. According to Cooney: “Seeing and thinking of the sea as seascape – contoured, alive, rich in ecological diversity and in cosmological and religious significance and ambiguity – provides a new perspective on how people in coastal areas actively create their identities, sense of place and histories” (Cooney 2010; 323). In this paper, the aim is to decode the meaning of the sea for the Minoans on Crete and Thera, and to interpret the way the sea is depicted.

In my opinion, art is an important medium that can offer insight in history. Depictions are impressions of what was important to the producer, the persons who decided what to depict and the ancient perceivers. Because it is impossible to depict everything, art is always a matter of selection. Thus, important elements must have been depicted. Sea fare is assumed to have been important to the Minoans; therefore my assumption is that it must have played a major role in art as well. For this paper, Minoan frescoes (1700-1450 BC) from the houses of Akrotiri (on Thera) and the palace of Knossos (Crete) will be discussed to research the perception during Minoan times.

This paper will address the origins of the idea of the sea-faring Minoans. Thera is believed to be one of the areas in the Minoan network and to be influenced by the Minoans of Crete. A comparison between ‘the trader’ (Crete) and ‘the possible outpost’ (Thera) could inform us on the perception of the sea. After this, the focus will be at the interpretation of the frescoes: what is depicted on the frescoes, what are the main themes and what role is reserved for seaborne trade?

The archaeological context
“And the first person known to us by tradition as having established a navy is Minos. He made himself master of what is now called the Hellenic sea, and ruled over the Cyclades, into most of which he sent the first colonies, expelling the Carians and appointing his own sons governors; and thus did his best to put down piracy in those waters, a necessary step to secure the revenues for his own use” (Thuc.1.4.1).

With these words, Thucydides described the origins of the Minoan empire in the fifth century BC. He was referring to the myth that is at the base of our ‘knowledge’ about the Minoans. According to this myth, Minos had a conflict with his two brothers about who should become the king of Crete. Minos prayed for a sign from the gods, and received that in the form of a bull rising from the sea. Instead of offering the bull to the sea-god, Minos decided to keep the bull to himself, a mistake that led to a punishment from the gods: his wife fell in love with the bull. Offspring in the form of a Minotaur was the result. Meanwhile, the son of Minos was killed in Greece, which was the reason for Minos to assemble his fleet and sail to Greece. The Athenians heard that their only hope was to regularly send seven young men and maidens to be eaten by the Minotaur who lived in the Labyrinth on Crete (Moormann & Uitterhoeve 2007; 281-283).

The excavator on Crete, Evans, named the archaeological culture on the island of Crete “the Minoans” (Papadopoulos, 2005; 88). With this action, the assumption that the myth could be based on historical facts was made. In the scientific research there are two schools
trying to explain the interrelations in the Aegean area (Niemeier 2004; 393). On the one hand there are scholars who believe that the Minoans had sovereignty over the Aegean seas (the thalassocracy as described in the myth of Minos) from the Prepalatial palace period onwards (2300-1450 BC). On the other hand there are scholars who believe that Crete did have cultural and economic influence across the Aegean, but the islands were autonomous from Crete.

Evidence for Cretan sovereignty on the Aegean seas is extensively discussed by Niemeier. Although the author states that Minoan predominance over the Cyclades is possible but cannot be proven, his arguments do point towards the military power of Knossos. The first argument is found in the fact that Knossos seems to have had centralized power over Crete, which is required for broader power. Knossos was the largest palace on Crete and other sites imitated Knossian architecture and frescoes. Seal stones with the sign of Knossos (a bull) have been found across Crete and even in Akrotiri (Thera), which could indicate centralized administrative power in Knossos (Niemeier 2004; 393-395).

A second, and maybe even more important, argument for the Cretan sovereignty over the seas is the existence of settlements with clear Minoan influence across the Aegean (see fig. 1). Niemeier mentions Kythera as Cretan foothold between Crete and the Peloponnesos (2300-1900 BC) and the ‘Eastern String’ to connect Crete with Asia Minor (1900-1700 BC). Akrotiri, Phylakopi and Ayia Irini seemed to have been rebuilt in Minoan style after they had been destructed (1600-1450 BC) (Niemeier 2004; 394).

In contrast, there are also several explanations in favour of the model of Cretan influence. According to Buck, no direct contact between the Cyclades and the Near East existed. Instead, Crete served as an intermediary between the Cyclades and the Near East, which means that Crete was in a monopoly position (Buck 1962; 133). Another explanation is that the Cretans did not have any fortifications, thus the fleet served as military force to gain protection against pirates and enemies. In this explanation, it was simply necessary for the Cretans to have power on the seas.

Starr and others state that the Minoan thalassocracy has never existed, but trade without sovereignty was present. Reasons to assume this are, amongst others, that no war or warships have been depicted. Starr proposes two options for trade without conquest (Starr 1955; 285):

Fig. 1 Minoan influence across the Aegean according to Niemeier. Adapted map from http://www.santorini-eruption.org.uk/chapter2_2.htm
- “Traders from the less-civilized areas were the intermediaries between islanders and mainlanders. Islanders and mainlanders may have been drawn by the riches of Crete.”
- “The Cretans set up trading footholds at various points on the islands and on the Greek mainland, but even this development need not have led to the process of conquest. Having established their factories, the Cretans would have been likely to wait for the natives to come to them.”

At this moment, we can not draw any definite conclusions about the Cretan thalassocracy, but it seems likely that something like a complicated trading network existed. In my opinion, the numerous cities with Minoan influences are an obvious argument to plea for major Cretan influence. Furthermore, the possible Knossian administrative power is a clear hint for great Cretan power in the Aegean. Starrs’ arguments against the Thalassocracy are partly outdated since new evidence in the form of depictions of warships is present. In addition to that, his second model is maybe a bit credulous: one does not simply establish factories in land that is not his own property Nevertheless, clear evidence for more than Minoan ships carrying the widely adopted Minoan cultural constructs is not present.

What seems to be clear is that Thera was under the influence of some kind of Cretan power. If this was established with or without military power is not important for now: Thera seems to have been an outpost or trading-place with Minoan influences. Not only the Minoan way of rebuilding Thera emphasizes this, but also the presence of a Knossian seal is an indication. There is no other conclusion to be made than that the sea was important to Crete. If we want to make a comparison between the role of the sea for Crete and Thera, knowing that Thera had a different role than Crete should be enough, because the model of ‘the trader’ (Crete) and ‘the outpost/trading-place’ (Thera) seems to be true. The Theran frescoes should show a combination of Cretan and indigenous influences.

Discussion of the frescoes

Now the context is clear, it is possible to start interpreting the frescoes from Akrotiri and Knossos, and to analyse how many references to the sea are present. To be able to quantify the references to the sea, the frescoes from Knossos and Akrotiri have been grouped. While grouping the frescoes, a few problems occurred. The main problem is that some of the frescoes are highly fragment-ed, and Evans’ reconstructions are said to be based on his ‘modern’ view. To avoid this problem, a theoretical base is used. In my opinion, the Minoan frescoes are not simply art for the sake of art, but a high amount of symbology is present. The interpretation of the frescoes is based on an approach known as cognitive archaeology or post-processual archaeology. This approach aims for explanations based on contextualised ideas of the mind or society under study, with as little modern influences as possible. Therefore, archaeological data which may be combined with the original fragments have been used where possible. Still, it should not be forgotten that very little is known about the Minoan life, religion and ideology, and therefore the interpretations that are made in this paper are certainly debatable.

The first place to study is Crete. The sea is present in several kinds of art on found on this island. In pottery, a so-called Marine style (depicting sea-animals) was popular. Especially on clay seals, there seems to be a connection between goddesses and dolphins (Marinatos 1993; 156). This clearly indicates that the sea was present in religion. If the sea was present in religion on other forms of art on Crete, is it also visible in the religious frescoes from Knossos, and if so, how?

The frescoes from the Palace of Knossos are divided into six different categories for this paper: religious-toreador, religious-processions, religious-gatherings, religious-unknown, reference to the sea, and indeterminate. The subjects seem be related to the place in the palace: therefore they are divided into a north, east, south and west area.

The west wing of the palace seems to have a focus on a goddess. An example is the Throne Room fresco, an image of a landscape with a griffin flanking both sides of a real, not painted chair. This is interpreted as a sign of religious power, because the griffin is an agressor that usually is the companion of a goddess (Marinatos 1993; 54). Furthermore, Marinatos assumes that this room could be the place of ritual dining (Marinatos 1993; 102). In other Minoan palaces, throne rooms have been found in combination with products and tools for bread making. On base of this comparison, Marinatos concludes that this throne room could function in agricultural festivals, in which small amounts of food are distributed by the elite. Nevertheless, there are no independent arguments for this assumption. No food tools have been found in the room, no utilities for cooking, and no cues for ritual dining at all.

Another fresco with connections to the harvest in this area of the palace is the corridor of the processions. This fresco was the decoration of the entrance of the palace. The depictions consist of a procession of persons carrying goods, persons with raised hands and a central figure. Again, Marinatos suggests that the ritual has a link with agricultural festivals, in this case because the entrance is leading the visitor right along the granaries (Marinatos 1993; 46). The other frescoes in this area are harder to explain: one is too small to be able to draw conclusions on (only a hand with a piece of a necklace), one has something to do with a toast or banquet of powerful persons (toasting persons sitting on campstools) and the last one consists of architectural facades, a bull and spectators, which might be similar to the frescoes in the east wing. What we can conclude from this area of the palace is that...
there is no indication for an active role of the sea in rituals. Instead, agriculture might be more important.

The east wing is focused on bulls. The bulls are represented in the hall of frescoes, but the most famous bull-frescoes are found in the so-called 'domestic quarters'. These frescoes show persons jumping over bulls. Castleden combines these images with possible sacrifices of bulls (Castleden 1990; 137). Could these images simply refer to the myth, in which Minos kept the Minotaur in the labyrinth? This is possible, especially considering theplace where some of the bull-frescoes have been found: the house of the double axes. According to several scholars, double axe means labrys in Greek and labrys is etymologically connected to labyrinth (Savitz 1991; 467). The labyrinth was the place where Minos kept the Minotaur. Thus, the bulls could indirectly point towards the sea fare in the myth of Minos, but a broader adoration of Minos is more plausible. The connection to the sea is not impossible though, because the only indisputable connection to the sea is found here as well. This fresco depicts dolphins, which could refer to the maritime element in the religion (as pointed out before in this chapter: in Minoan clay seals seems to be a connection between goddesses and dolphins). The other two frescoes in this area have probably nothing to do with bulls or sea: the fragments show a part of a lady and a procession. Some other fragments have been found, but these are too small to draw any conclusions. What we can conclude about this side of the palace is that the bull-frescoes are dominant, and a connection to the maritime element in religion is possible, but not without doubt.

The north wing seems to be focused on public festivals. The two most important frescoes, the Grandstand fresco and the Sacred Grove fresco, show large groups of spectators. In both frescoes, the centre of the depiction is a separate group of performers taking part in an unknown ritual. The Grandstand fresco takes place near a shrine (which is elaborated with bull horns), the Sacred Grove is located between the olive trees. The bull horns (probably the sign of Knossos and of course a reference to a bull or minotaur) lead to the idea that the ritual at the Grandstand fresco is either related to the power of Knossos or the myth of the seafaring Minos (see east wing), and that the ritual at the Sacred Grove fresco is related to agriculture (nature shrine between olive trees, but it could also indicate an unknown nature symbolism). The third fresco of this location is the Blue Monkey fresco. This fresco depicts a landscape with a blue monkey picking crocuses. It is interesting that that this kind of fresco is also present in Akrotiri. The blue monkeys seem, in most cases, to appear in connection to goddesses. In this case, the monkey is picking crocuses that are commercially used, and the goddess is watching over it or receiving the crocuses. The fact that a goddess is watching over the harvest is in my opinion to be interpreted as a plea to the goddess to ask for prosperous agriculture. For the sake of completeness, the fourth group of frescoes should also be mentioned. This group exists of small fragments that cannot be interpreted, and the exact origin is unknown. What we can conclude from this area is that public festivals were held, mainly revolving around agriculture. References to the sea may be present, but in a lesser extent than in the east wing.

Only two fragments remained in the south area. One probably depicts persons on campstools. As the campstool fresco in the west wing, this fresco probably relates to religious power. The other fresco shows similarities with the frescoes from Akrotiri. The depiction is a man, maybe a priest, who is standing with outstretched arms. He is surrounded by flowers and butterflies, which are also common in Akrotiri.

In Akrotiri, 45 frescoes from houses have been studied. These 45 frescoes are all depictions that were large enough to interpret; 7 small fragments have not been taken into account. These 7 fragments do not show references to the sea. Instead, trees, spirals, and birds were probably present. Within the 45 frescoes, 10 referred to interaction with the sea (boats/boat elements, sea as source of food), 8 can be interpreted as agricultural (rituals for fertility of the land/picking plants for trade, domesticated animals), and 28 are attested to another category (decorative, landscape, unknown ritual). Since it would be too much to discuss every single fresco, only the most significant ones (mainly the references to the sea and agriculture) will be discussed here.

Obviously, the most important frescoes are the ones that show interaction with the sea. It is interesting that all these frescoes are found in the same house: the Westhouse. In room 5, four frescoes related to the sea have been found, and room 4 contained six frescoes referring to the sea. Both rooms were further embellished with frescoes from the other groups, mainly decorative like marble imitations, but in room 5 a Nilotic landscape has been found as well. The sea-frescoes in room 5 can be split up in 2 groups, namely ‘the boys with fish’ and ‘seafaring’.

The depictions of the boys with fish are explained in different ways. Economidis explains the depiction of the boys simply as an illustration of gathering of food. The fishes are dolphin-fish, a species that is considered to be a delicacy (Economidis 2000; 555). Mylona gives three possible explanations: offerings of a fish to a sea god, showing the abilities of the boys to emphasize the rites of passage in growing up and a symbol for activities on the sea (Mylona 2000; 565). In my opinion, the options do not necessarily exclude each other: a rite of passage can easily be combined with offerings, and by offering fish, activities on the sea are impossible to exclude. In any of the options, we can deduce the next role of the sea: the sea as source of food.
The two other frescoes, both about sea faring, are more complicated to explain. The first one, the so-called Flotilla fresco (see fig. 2) depicts a city on the left. A building is shown with people looking at the sea. Above the city, we can see a hill with animals on it. Seven large ships and two smaller boats are departing from this city, heading to the right. The passengers on the ships are depicted in a formal way, and a cabin is present on the larger, decorated ships. Such cabins (called ‘ikria’) are also found on six separate frescoes in Akrotiri. The ships are on the sea, as indicated by the dolphins. Two boats are already in the harbour of the other city (with one building with bull-horns), where people are waiting for the fleet.

Numerous authors tried to explain the Flotilla scene. One explanation is that of a religious festival in which the ships were adorned (Shaw 2000; 270). The reason for this festival would be the remembrance of the fleet that served several purposes: for example trade, war and the start and maintaining of political contacts. Marinatos postulates that there is a high amount of symbolism on the ships. The iconography, consisting of birds, predators, stylistic representations of rocks and sea waves, are in her opinion indications for dominance on the sea as well as on land (Marinatos 2000; 908). Furthermore, Panagiotakopulu mentions references to the trade overseas: on the ships are signs like butterflies, which could be an indication for trade in silk (Panagiotakopulu 2000; 586). In fact, this interpretation is only based on one pop of a silk moth and a depiction of people who might be shaking trees. An addition to the idea of depiction of reality is that the city on the right looks like Akrotiri, and that the persons on the fleet might have been Myceneans (Warren 1979; 129). This is interesting, because it emphasizes the interconnections.

The Shipwreck fresco (fig. 3) shows a hill where a ritual is performed (which might be a reference to the peak sanctuaries that are known from Crete), next to this gathering is a parade of warriors, and above the warriors is a herd of goats. At the same time, there is a sinking ship on which people are drowning. Besides these images of religion, agriculture and war at sea, women are gathering water at a well. In my opinion, this might be what Minoan life was about. Every aspect is depicted: people
staying at home doing normal chores, people dying when they are away on the seas, people making sure there is food, and above all: religion.

Besides the clear references to the sea, frescoes about agriculture are present as well, but these interpretations are mainly based on context and not on the depictions themselves. In house Xeste 3/3a, the two depictions deal with the gathering of crocuses, one with a blue monkey (also in seen in Knossos). These flowers are closely associated with goddesses, but were also commercially used. The fact that the goddess is supervising the picking, and flowers are offered by the monkey is a clear indication that these frescoes are about the request for a good harvest. The other group of frescoes possibly concerning agriculture is found in Delta 2. These depict a landscape with sea-lilies and birds. Marinatos stresses the fact that these frescoes are found in a room together with objects related to harvesting (sickles, dagger), and objects for making bread (barbeque grill, cooking pot, mill stone) and the consumption of food. Moreover, bulbs have been found, although these have been interpreted as onions during the excavation (Marinatos 1985; 221). According to Marinatos, it is not impossible that these bulbs actually were lilies. In any case, it seems plausible that the context in which the fresco is found is about fertility. What also is important is that sea-lilies could simply serve as nothing but an environmental element of the sea. The last reference to agriculture is in a fresco which depicts calves, which could indicate domesticated animals.

Conclusion
The analysis of the frescoes in combination with the archaeological contexts shows a clear discrepancy. Knossos, which is thought to be closely connected to sea fare, has hardly shown any direct evidence for sea fare, whereas in Akrotiri almost a quarter of the frescoes is related to sea fare or the sea. The main theme in the Knossian frescoes seems to be agriculture. Depictions of the sea seem to have been underrepresented in Knossos: all kinds of natural and mythical landscape are depicted, but there is not one single depiction of the sea. There may be indirect connections to the sea in the form of references to dolphins and the myth of Minos, but this does not necessarily mean that there is a link to the seafaring elements in particular. More likely is that the toreador frescoes are a reference to the myth of Minos in general.

Interesting is that there is a common ground in the frescoes from the two islands. The depictions from both sites showed blue monkeys, the same type of goddesses and persons, the ritual picking of flowers is present on both sites and even the bullhorns that are characteristic for Knossos are found in Akrotiri. Then why does one site show sea fare in religious depictions, and the other does not, especially considering the fact that Akrotiri is rebuilt in Minoan style?

It is impossible to simply conclude that sea fare was not important to Crete. There are several explanations for the incongruity. First of all, there is the archaeological bias of a false sample, misunderstandings and missing information. Furthermore, a possibility is the difference in social relations: for Knossos sea fare to outposts might have been normal, whereas to Thera, a visit from the Minoans was a memorable happening. Moreover, Akrotiri was rebuilt in Minoan style after the destruction. Could it be that the inhabitants wanted to remember the help from overseas? Nevertheless, a third option is more likely in my opinion. Considering the fact that a comparison is made between domestic space (Akrotiri) and public space (Knossos), one could expect differences in depictions. Maybe the palace was just not the place to ask for help in seafaring; rituals may have served to ask for primary needs (prosperous agriculture means access to food) that were accessible for...
everybody. This idea is confirmed by the fact that the sea is depicted in other contexts outside the palace. One question still remains: why then, are no depictions of fishing found in Knossos? One could expect that such frescoes would follow the line of asking divine intervention to induce prosperous agriculture.

The fact that a person decides to show the sea in such an excessive way in his house in Akrotiri, indicates that ‘islander-identity’ existed. The next question is how the sea was seen by the islanders. The analysis of the frescoes leads to the next seven ways of interpreting the sea: as a source of food, as a trading place or means of transport, as an environmental element (sea-lilies), as a status-symbol (elite on ships; trade in luxury goods, source of elite food), as a place where one could find death (shipwreck), as a place for triumphs (adorning incoming fleet, defending land) and last but not least as a cosmological and mythical realm because the sea plays a role in religion and myths.

It is clear that the Minoans had an outward vision, and that the sea was more than just a barrier of the island. With this conclusion, a justification of the island-archaeology approach is apparent. In future research, the sea should be included. Not only should it be more integrated in interpretations, interrelations should receive more attention as well. Moreover, shipwrecks should receive more attention. The start of a search for Minoan shipwrecks is promising; hopefully more information will be available soon. Unfortunately, until the Minoan written language, Linear A, has not been deciphered, the only thing to do is continue comparing and interpreting finds.

Notes
1. Email:p.g.kalkman@student.rug.nl
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2. Because of limits in space in this paper, this is just a small element of an extensive discussion on the locations and the connection of the flotilla fresco and the shipwreck fresco. For more theories, see this article.

References