CONCLUSION

The movement from the Neolithic period to the end of Minoan period in Crete covers a period of roughly 4 500 years. Of that period the Neolithic age was the longest, ending in about 3500 BC. During that time the inhabitants of Crete established a solid base for the development of the Minoan civilisation. In terms of trade it shows the beginning of Cretan maritime exploration with the acquisition of obsidian. In these early times there is little information about the means of transportation. It would seem that the source of the obsidian, the island of Melos, was not occupied, and expeditions were undertaken to collect the mineral. To call this trade would be misleading as there is no evidence of reciprocity. It is however a beginning, the start of a chain of events that would lead men from their homes in the search for the exotic.

Trade is more pronounced in the Early Minoan period where there is a clear indication of goods coming into Crete from the Cyclades. At this time it is the Cyclades who appear to have taken the initiative in establishing contact. Bronze makes an appearance through the combination of copper and arsenic. Crete has some copper reserves and scholars such as Brannigan believe that they were utilised in this early period. However, the evidence is not compelling and it would appear that the locals made no use of these minimal resources in the later Bronze Age. Therefore the copper and tin used for the few tin bronzes must have been imported. At this time Troy II was very wealthy and would appear to have vast resources of both tin and copper at its disposal, although the provenance of these metals is unknown. It is possible that the tin bronzes found in Crete came from there via the Cyclades. The high preponderance of arsenic bronze found in Crete would suggest that the majority of the Early Minoan metal trade was not from the Troad, but elsewhere, either the Cyclades or the Near East. The Early Minoan (EMII) period was also the time in which there was contact with the

cities on the Levant and Egypt. The exact nature of this contact is virtually unattested. It is clear that foreign commodities arrived in Crete, although very few Minoan artefacts have been found outside of Crete at this time. The minimalist approach in trade theory must be recognised here. There is no apparent evidence of direct contact and no social structure that would enable large-scale trade. The wares that arriving in Crete were the result of incidental contact or locally organised excursions to obtain exotic goods or even piracy. It is also significant that despite the Cyclades appearing to take the early lead in maritime trade, it was only the Minoans who made contact with the Near East. There have been no Eastern artefacts found beyond Crete during the Early Bronze Age. This is perhaps the most significant point in Crete's rise to pre-eminence in the Middle and Late Bronze Ages. The end of the Early Minoan period was brought about by mass destruction of the inhabited sites not only in Crete but throughout the Aegean. It would seem that a new wave of people swept through the area, possibly including the Mycenaeans who settled on the Greek mainland. Yet Crete recovered fairly quickly from the upheaval, resettled sites or established new ones and above all maintained contacts with the East. While the rest of the Aegean floundered under the new wave of undeveloped invaders, the Minoans, influenced strongly by their contact with the East, began to develop culturally in ways unavailable to her northern and western neighbours.

Moreover, it may be that Crete witnessed the arrival of a new culture. The apparent differentiation in writing types between Eastern and Central Crete and the South might suggest the same. The changes in architecture and the building of the first palaces are the result of new influences, perhaps internally. There is still no tangible evidence for a governing elite although this is a highly debatable point upon which scholars do not agree. Large storage facilities within the palaces appear to suggest a redistributive function, which may possibly be a manifestation of the earlier village organisation or the beginnings of palatial control. Still some things are certain. There was active trade in the Eastern Mediterranean. Kamares ware, the distinctive Protopalatial pottery, as well as local copies have been

found throughout the Cyclades, the Levant and Egypt. Sea travel became common, and Minoan merchants travelled at least five apparent routes to reach the Greek mainland, Cyprus, Southern Anatolia, the Levant and Egypt. One of these involved direct sailing to Egypt, a brave undertaking in those days. Sea-going ships also appear to have been enlarged from the basic Cycladic models. The chief source for the propulsion and design of the Minoan ships, during both Protopalatial and Neopalatial periods, is the miniature fresco from the "Admiral's house" in Akrotiri. The eruption of Thera appears to have taken place in LMIa, with current Dendrochronological data assigning it to ca. 1628 BC, which was the most profitable period of the Minoan civilisation.

At this time there is a broad movement of metals throughout the Aegean, much of it coming from the mines at Laurion. Silver from these mines has been found in Crete and Egypt, which could only have come to the latter via Crete. The source of copper also appears to have been Laurion, although unknown sources are probable. The copper ingots found at Zakros and Hagia Triada have an unknown provenance, being neither Greek nor Cypriot. Copper may therefore also have been imported from the East. At this time Crete was still using arsenic to make bronze, although tin was becoming more common. It is only in the Late Bronze Age and the widespread bronze revolution among the Near Eastern cities, which had been lagging until this stage, that tin also became more common in Crete. This was probably due to its increased availability in the East. Most of the tin appears to have come via Mari, with tablets from that city recording tin being sent out to the Kaptar.

The Late Minoan period was the golden age of Minoan civilisation, unfortunately cut short by a series of disasters which cannot be satisfactorily explained. Its foundation was laid in the Protopalatial period and in the Neopalatial period trade did not necessarily expand outwards to cover a greater area, but seems rather to have been of a greater volume. More Minoan goods from this period have been found throughout the Aegean and the East than at any other time. It is perhaps interesting that Minoan

trade did not extend beyond the limits of Protopalatial exploration. Very few artefacts have been found in the Troad and the Northern Aegean. There is evidence of Minoan goods reaching Italy, but this is only in the Final Palatial period when Crete was already under the control of the Mycenaeans and therefore irrelevant to this discussion.

A further development in the Neopalatial period was a change in the social hierarchy. The establishment of some form of elite is apparent and this may have occurred suddenly during the lapse between the Protopalatial and Neopalatial periods. Perhaps the destruction of the palaces was in some way related to this, although this is merely conjecture. It is equally possible that the rise of the aristocracy was a natural progression. The Near East and Egypt with their rigid class structures must have been influential and it would be surprising if a wealthy Minoan element had remained insignificant and not risen to a position of supremacy. It is not clear how Minoan class structures operated, but the existing legends talk of a Minos, a possible hereditary title, which may indicate a kingship. The construction of the villas and the general isolation of the palaces from the public in the Neopalatial period suggests that the populace were excluded from involvement in palace life and their rituals. Therefore, as in Egypt, where status was determined by one's proximity to the Pharaoh, being involved in palace life was probably a source of prestige in Minoan civilisation. In the Late Minoan period the villas also became the storehouses and redistribution centres for the palaces. These were instead devoted to workshops indicating that craft specialisation had reached its peak. Farmers were probably encouraged to plant particular crops, which appears to be supported by the Linear A documents. Smiths and potters were commissioned by the palaces to create goods for internal consumption and trade. All of these were rewarded from the stores held either at the palaces or the villas. It is not clear how independent the villas were from the palaces. It would seem that they had a degree of autonomy and that the social structure was similar to the feudalism of the Middle Ages. The merchants too may have had a similar degree of freedom, but it can be assumed that the palaces

controlled most trade. Most foreign artefacts have been found in palace contexts, and most workshops which produced export-quality wares were also located there. This is probably an extension of their role during the Protopalatial period, for while there may have been no dominant aristocracy the palace centres themselves were actively involved in overseas trade, supplying the ships and probably craft goods with which to trade.

Several islands in the Cyclades were greatly influenced by the Minoan culture, although it is generally not believed that these settlements were colonies, with one exception, Kastri on Kythera. This appears to have been a colony from EMII and had maintained strong ties with Crete since that period. These settlements were certainly friendly with Crete and may even have formed a loose alliance. "The Keftiu and the Islands in the Midst of the Sea" from the Rekhmire tomb in Egypts may well have been referring to such an entente. They were also way-stations en route to the Greek mainland as well as a haven from pirates. Trade would not have been possible without a strategic network of allies to shelter merchants without fear of plunder.

Reciprocal trade in Crete for all periods appears problematic. The reason being that Crete had little to trade. In the Early Minoan period there is hardly any evidence of Minoan goods outside Crete. While it cannot be said that trade was actively sought during that period the little that was conducted must have had some form of reciprocity. Since there is no physical evidence, one must assume that the goods from Crete were perishable items such as textiles and foodstuffs, but this would have been minimal. The traditional account of the Mediterranean triad of wheat, olive and wine being the backbone of Minoan trade in the Early and Middle Bronze Age is not supported by the evidence. There is little proof that any of these three products were cultivated in quantities that would facilitate trade, at least not until the Late Minoan period when it seems likely that oil, including scented oils, and wine became a widely exported. There was a substantial market for it in the East and the Linear

A and B texts would imply that both the olive and the vine were extensively cultivated during the Neopalatial period. It cannot be certain how much wheat was exported from Crete. If the Linear A sign A303 has been correctly indentified as wheat then it would appear that some areas, particularly Khania, specialised in this product. Perhaps this type of crop specialisation was aimed at the export market.

A commodity which has been largely overlooked is timber. This is the one raw material at Crete's disposal which was valuable to the civilised nations in the East. The vast building programmes of Egypt and Mesopotamia demanded huge quantities of wood. Most of this came from Lebanon, but good quality conifers would have been welcomed regardless of their origin. Bronze must have had a considerable impact on the timber industry and the large saws and woodworking tools discovered in Protopalatial contexts indicates that timber had become and important part of the economy, both for local architecture (the pillars common in the Minoan palaces were made of wood) and for export.

The Minoans would appear to have had a fairly large textile industry, based on the number of loom weights found from Early Minoan times. It is not clear whether this formed a large part of Minoan exports, but it seems likely that it was somewhat significant. The spiral patterns in Egyptian art which appear to have come from Minoan textile design as well as the illustrations of the Keftiu carrying bolts of cloth in the Theban tombs would support this. It is also possible that the Minoans had created a purple dye from murex shells before this became common in Syria. This too would have been desirable in all parts of the developed world.

Trading ships would have contained a mixed cargo, similar to that of the Uluburun. In amongst the large quantities of wood there would have been an abundance of finished goods. There is little doubt that the Minoans established themselves as master craftsmen. The Mari texts mention leather goods

and a sword with a hilt of gold and lapis lazuli. The Kamares ware was the finest pottery available throughout the Mediterranean. Neopalatial pottery never reached those standards, but was still infinitely superior to the ceramics of Crete's neighbours. Similarly the work from the palace lapidaries was unparalleled. Metalwork, not only the swords from the Mari tablets and Theban tombs, but gold and silver wares were also widely prized. By the end of the Neopalatial period Crete had established itself as an emporium for luxury goods. While this cannot be the source of Minoan wealth it certainly furthered it.

Ambiguities are inherent in the understanding of any culture whose history is based almost solely on archaeological discoveries. The written records at our disposal are either from the Near East that mention the Keftiu / Kaptar in passing or Linear B texts, which are only partially applicable. The Linear A documents have been interpreted through a comparison with Linear B, which may not at all times be appropriate. The above thesis has its fair share of unanswerable questions. Among the most important are: what was initial source of Minoan wealth; how big a role did organic materials play in trade; what was the source of Minoan bronze and why were the vast resources of Cyprus not utilised during the Protopalatial and Neopalatial periods; how much control did the palaces exert over trade in these two periods and, finally, were Minoan traders semi-independent and operate on a profit? Solutions can be offered and theories widely debated, but the truth will always remain obscure.

The answers that have been proposed above can be summarised here. The source of Minoan wealth was probably timber and, to a lesser extent, finished goods such as textiles and leatherwork, coupled with Crete's unique position as the gatekeeper to the Aegean. Contact with the East was limited at first, but not lost after the collapse of the more developed civilisations at the end the EMII. Crete was still influenced and therefore more advanced than the rest of Greece which remained stagnant. Growth in trade must have been gradual with initial contact giving way to incidental trade and finally

becoming a concerted effort in the Protopalatial and especially Neopalatial periods. It has already been noted that the Mediterranean triad did not form a part of early trade. It also does not seem likely that the Minoans relied on trade for basic foodstuffs unless they were in the grip of famine and drought. Theirs was dissimilar to the Classical economy of Athens which relied on imported wheat to sustain their population. The Minoan civilisation was at all times mainly rural and self-reliant. Trade was incidental to her local economy. That said the trade in organic goods wood, textiles, grain, oil and wine, was vast and grew as crop specialisation was encouraged and the role of the elite began to assert itself on agricultural yields.

The trade in copper will remain cryptic until the true source of Minoan copper has been located. The reason why for the most part Cypriot copper is not found in Crete is perhaps due to a timing issue. Cyprus only began to flourish when the Minoan civilisation was in decline. It is possible that during the Minoan period Cyprus was not producing the huge quantities of copper for which she later became famous. Crete appears to have imported copper from Laurion and somewhere in the East. It is probable that this was collected at a port such as Ugarit along with tin. Tin only became common in Minoan bronze work during the Neopalatial period, coinciding with the bronze revolution in the Near East. Before that most copper was alloyed with arsenic. The origin of this mineral is unknown. Among the main sources for arsenic is realgar and orpiment. Orpiment was found in an amphora on the Uluburun wreck and it is a possible source for the arsenic used during the Early and Middle Bronze Age.

There remains considerable debate among scholars about whether or not the first palaces controlled trade. The problem boils down to class structure and whether a rigid elite had already established control from the outset. It does seem that there is insufficient evidence to prove that there was a structured society. However there are also indications that from the Protopalatial period the palaces

began to tighten their grip on trade. Written documents appeared, seemingly in two different texts but later unified under Linear A in the Neopalatial period. The Kamares ware, which was largely confined to the palaces was an important export. There were large storage facilities in the early palaces which might indicate a redistribution function. This in turn would lead to a reliance by the population on the palaces. In the Neopalatial period these storage facilities were converted into workshops and storage became largely the domain of the country house whose owners probably reported to the palaces and paid tax. By the Neopalatial period the palaces had reached a dominant role in society. There may have been an internal struggle for power at the end of the Protopalatial period, but this has left no trace. The elite classes appear to have controlled agriculture and the products that arose from that, such as oil and wine. Luxury craft goods and particularly metalwork were manufactured under the control of the palaces. It would seem that the palaces had a firm hold on the importation of copper and tin.

In the early days of trade the mere exchange of ideas and the excitement of travel was probably more of an incentive to engage in offshore trade that the commodities themselves, which were very basic. As time progressed and the participants began to covet the exotic wares of distant cities, trade became a more compelling need. While the authority of the Minoan palaces grew so too did the desire for luxury goods among the elite. These goods now became prestige items against which they measured their status. This demand kept the Minoan traders active in what must surely have been a concerted effort to acquire goods. Minimalists generally conclude that trade was conducted solely in an effort to receive foreign items, with exports not being a major concern. They are probably correct in assuming that the primary aim of trade was the acquisition of goods, however, in a system that demands reciprocity and an island that has little to offer, the export industry must have been carefully nurtured. Whether trade was a profitable business for the traders depended on their status. If they were indeed semi-independent there must have been some form of profit. The Minoan traders probably followed

the same pattern as their colleagues in the Levant, and had some degree of autonomy to conduct their own affairs, which allowed for the acquisition of private wealth and the engendering of a merchant class.