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## ABSTRACT

From archaeological evidence it is clear that the Mycenaeans enjoyed widespread commercial relations with the countries of the East Mediterranean, and this thesis is a study of the material objects of this trade.

Their distinctive pottery appears to have been the most important commodity exported by the Mycenaeans: fragments and whole vases have been excavated at scores of Late Bronze Age sites in the East Mediterranean, in Asia Minor, Cyprus, Syria, Palestine and Egypt. The majority of the vases found belong to the 14th and 13th Centuries and their distribution is one of our strongest proofs for the existence of flourishing trade relations at this time. Commerce thrived because these 200 years represented a period of stability in the East Mediterranean. The great ports of the Levant and Cyprus were visited not only by Mycenaean traders but by merchants from all the neighbouring countries.

Pottery was not the only commodity featured in the trade. Bronzes from Greece indicate that the Mycenaeans had an extensive metal industry and their supplies of copper and tin were imported. The copper came from Cyprus in the form of ingots. These metals were essential to a Late Bronze Age civilisation, but other finds from excavated graves and settlements on the Mainland prove that the Mycenaeans also obtained luxury materials such as gold, silver, ivory and semi-precious stones. These were imported as raw materials and then fashioned by Mycenaean craftsmen.

The Linear B tablets, although they do not discuss foreign trade, throw light on some of the types of materials which must have been traded, including certain perishable goods which have not survived to be excavated by the archaeologist.

Each chapter deals with a particular commodity featured in the trade, and in the conclusion the extent of trade with each country is summed up.

An accompanying folder contains maps and photographs.

MYCENAEAN TRADE  
WITH THE  
EAST MEDITERRANEAN

A Thesis  
submitted for the Degree  
of  
Master of Arts  
at the  
University of Durham

by

John Gilmore

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1977

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Durham

June 1977

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ABBREVIATIONS

- Aegean and the Orient Kantor. The Aegean and the Orient in the Second Millennium B.C. Archaeological Institute of America Monographs, I, IV, 1947.
- AEMI Lucas and Harris. Ancient Egyptian Materials and Industries, Ed. 4. London, 1962.
- AJA American Journal of Archaeology
- Asine Frödin and Persson. Asine. Results of the Swedish Excavations 1922-1930. Stockholm, 1938.
- BSA Annual of the British School at Athens
- CAH Cambridge Ancient History
- Cape Gelidonya Bass. Cape Gelidonya: A Bronze Age Shipwreck. Philadelphia, 1967.
- CBMW Catling. Cypriot Bronzework in the Mycenaean World. Oxford, 1964.
- Chamber Tombs Wace. Chamber Tombs at Mycenae. Oxford, 1932.
- Copper and Tin Muhly. 'Copper and Tin: The Distribution of Mineral Resources and the Nature of the Metals Trade in the Bronze Age.' Transactions of the Connecticut Academy of Arts and Sciences 43 (1973), pp. 155-535.
- Documents Ventriss and Chadwick. Documents in Mycenaean Greek, Ed. 2. Cambridge, 1973.





- Swedish Cyprus Expedition IV      Åström. 'Relative and Absolute Chronology, Foreign Relations, Historical Conclusions.' In The Swedish Cyprus Expedition, IV/1D: The Late Bronze Age. Lund, 1972. pp. 675-781.
- Tarsus II      Goldman. Excavations at Gözli Kule, Tarsus, II : From the Neolithic through the Bronze Age. Princeton, 1956.
- Troy vol. III      Blegen et.al. Troy. The Sixth Settlement. Princeton, 1953.
- Troy vol. IV      Blegen et. al. Troy. Settlements VIIa, VIIb, and VIII. Princeton, 1958.
- 3rd Colloquium, Sheffield, 1973      Third International Colloquium on Aegean Prehistory, Sheffield, 1973.

Abbreviations of archaeological periods:

E.H.	Early Helladic
M.H.	Middle Helladic
L.H.	Late Helladic
Myc	Mycenaean
E.M.	Early Minoan
M.M.	Middle Minoan
L.M.	Late Minoan
L.C.	Late Cypriot
L.B.A.	Late Bronze Age

Miscellaneous abbreviations:

F	This letter followed by a number refers to Furumark's classification of pot types in <u>MP</u> .
C.T.	Chamber Tomb
T.	Tomb
B.R.	Base Ring

Miscellaneous abbreviations (cont'd.)

W.S.	White Slip
Cat. No.	Catalogue Number
Fig.	Figure
cms	centimetres

## CHAPTER ONE

INTRODUCTIONSources

The purpose of this study is to discuss the material objects of trade between the Mycenaeans of the Greek Mainland and the inhabitants of the countries of the East Mediterranean.

The most important source is archaeological evidence coming from excavation work in Greece and the East Mediterranean. Direct archaeological evidence is provided by the Mycenaean products found at sites in the East Mediterranean and goods from the countries of that area found on the Greek Mainland. Mycenaean pottery is distinctive and its wide distribution in the East Mediterranean is a clear indication of trade from the Mainland eastwards. The Mycenaeans' main imports, appear, rather than finished products, to have been certain raw materials which were fashioned by their own craftsmen into objects that suited Mycenaean tastes. We know particular materials must have been imported because either, as in the case of ivory, they do not occur in Greece, or as with silver, the Greek deposits were unknown at that time. In deciding the origin of raw materials it is necessary to consider such factors as where the commodity did occur, whether there is evidence that it was known and was being exploited at the time, and whether there was an exportable surplus with which to supply the Mycenaeans.

Although the archaeological evidence establishes that trade existed between the various countries it does not give a complete picture of the commercial activity. In drawing conclusions from the evidence it provides it is worth remembering its limitations. There is an unevenness in excavation. Some sites have been thoroughly excavated while others have been only partly explored,

and there must be many others which have not been discovered. So, for example, although a particular product might appear of little significance on present evidence, as further excavation is carried out it might assume a new importance. Then again certain materials survive better in the ground than others. Pottery is virtually indestructable whereas metals and other more precious materials are less durable and therefore have stood less chance of being preserved. Perishables such as foodstuffs and textiles have left no trace at all. So this factor too distorts the picture when assessing the relative importance of the various products that were traded according to the finds from excavations of settlements and graves. Furthermore, archaeology alone rarely can reveal the mechanism of foreign relations even when it brings to light great quantities of foreign goods. Thus although excavation results can establish that particular goods must have been exchanged between countries it is not necessarily known, for example, whether the contact was direct or indirect. An example is that it is not possible to tell whether all the Egyptian goods found in Greece came direct from Egypt or whether, as is quite possible, some came via one of the major Levantine ports such as Ras Shamra (Ugarit). Then again it is not always possible to tell who carried the goods. Just because large quantities of Mycenaean pottery have been found in the East Mediterranean it does not mean that it all arrived there in Mycenaean ships.

There are, then, these sorts of factors to consider, but for a civilisation such as the Mycenaean the archaeological evidence, that is the material remains, are the major source of information for constructing its history. I can only work from evidence now at hand, although the true situation may have been somewhat different from that which the existing archaeological evidence shows or suggests.

Unlike the Egyptians the Mycenaeans did not record their names and exploits in inscriptions on public monuments. The Mycenaeans were not illiterate, however, as proved by the Linear B tablets, but the tablets yield nothing of a historical or literary character and unfortunately do not discuss foreign trade. The Mycenaeans seem to have been content to use writing merely for palace records and inventories. There are inventories of pottery, artefacts of metal (weapons and tools), furniture and so on, but it is not recorded whether any of them were for export or if the materials to make them had been imported. However, these tablets do provide background information on the artistic and industrial activity of the Mycenaeans and this supplements what can be deduced from the actual goods that have been found in excavation. In addition, some of the tablets mention certain perishable products such as olive oil, textiles and spices for which there is otherwise no record and they are of value to this study as it has been possible to show convincingly that such products figured in the trade, although the tablets themselves do not say so.

Archaeological evidence from Greece and the East Mediterranean and information contained in some of the Linear B tablets provide most of the material for this study, but in addition certain scenes in Egyptian tomb paintings of foreigners and their products arriving in Egypt, and occasional references in the Amarna Letters throw some light on trading activity.

### Area

The Mycenaeans certainly had direct contact with the peoples of the central Mediterranean: Sicily and southern Italy, and indirect contact further afield in Europe, but the Mycenaeans' most important foreign relations were with the more advanced civilisations of the East Mediterranean and this study is confined

to that area. For the purpose of this study the East Mediterranean is taken to mean Egypt, Syria and Palestine, Cyprus, the south coast of Asia Minor, the west coast of Asia Minor and its islands, and the Dodecanese Islands. I have not included Crete or the Cyclades which with the Mainland belong to the region termed the Aegean. The relationship between the Mycenaeans of the Mainland and the Minoans of Crete was complicated and in fact often uncertain and could alone provide sufficient material for a thesis. As will be seen later the Mycenaeans must have established themselves in quite large numbers on Rhodes and this island's relationship to Greece was also complex. It had close connections with the Mainland and has produced a wide range of goods as well as pottery that are Mycenaean, and so I have not considered it necessary to discuss this island's foreign relations separately, although in the section dealing with the export of Mycenaean pottery it is discussed along with the other areas that received the pottery.

### Chronology

The chronology of the Mycenaean civilisation used in this study is given below. Chronology is, of course, controversial, and the reader may well disagree with certain of the dates given, but it is advantageous to adopt one particular chronology and apply it consistently.

Myc I	c. 1552 - 1500 B.C.
Myc II A	1500 - 1450
Myc II B	1450 - 1425
Myc III A: 1	1425 - 1380
Myc III A: 2, e	1380 - 1350
Myc III A: 2, f	1350 - 1300
Myc III B: 1	1300 - 1250
Myc III B: 2	1250 - 1190
Myc III C: 1 a	1190 - 1175
Myc III C: 1 b, e	1175 - 1150
Myc III C: 1 b, f	1150 - 1125
Myc III C: 1 c and 2	1125 - 1075
Sub. Myc. and Myc III C:2	1075 - 1050/25

## Background

It is at Mycenae, in the famous Shaft Graves discovered by Schliemann in 1876, and in the further group excavated in 1952-4 by Papadimitriou and Mylonas, and virtually in these alone, that we can observe those changes in material civilisation which mark off Late Helladic or Mycenaean from Middle Helladic. The earliest of the Circle B graves, which date to the late Seventeenth century, are of purely Middle Helladic character: in them was laid a single burial, in the contracted posture, with a few vessels of plain yellow Minyan pottery. But the Shaft Graves proper exhibit many departures from this M.H. type. The grave pits were larger. The dead lay at full length, often with rich ornaments and jewellery of gold and semi-precious stone. Beside them lay weapons of bronze and vessels of clay, bronze, gold, silver and in a few instances alabaster or rock crystal. The profusion of gold is startling, especially in contrast to the poverty of earlier M.H. remains.

The most obvious aspect of the new culture is the fusion of Helladic and Minoan characteristics. Although most of the costly objects will have been manufactured on the Mainland many are Minoan in style. In other cases Minoan and non-Minoan features occur together, and yet in others there are no Minoan traits at all. The sudden burst of wealth at Mycenae can be explained best as the result of indigenous activity stimulated by contact with the Minoans.

The Middle Minoan II period had been the great age of Minoan expansion. But during the Seventeenth century, when the Mycenaean began to acquire their first wealth, there was no great overseas trading activity at cities from Tell Atchana to Gaza (as there had been before about 1700 B.C. in M.M.II times), and no M.M.III or M.H. pottery has been found in the area. There is evidence of



trade between Cyprus and the coast of the south-eastern Mediterranean and Egypt during the Seventeenth century. But, in spite of its copper and position as a port of call between the south-eastern Mediterranean and the Aegean, there is little trace of any material contact between Cyprus and the Aegean throughout the Middle Bronze Age. Lastly, there is solid evidence for trade between Crete and Egypt before 1700, in the M.M.II period, but no M.M.III object has been found in Egypt, and only one Egyptian object of 17th Century date has been found in Crete.<sup>(1)</sup>

But at the beginning of the Late Bronze Age trade between the Aegean and the East Mediterranean began to develop again. In the Sixteenth century, the early years of the Mycenaean civilisation, the Minoans still controlled the trade and there were Minoan settlements in the Aegean, for example, at Phylakopi on Melos, Trianda on Rhodes and Miletus on the west coast of Asia Minor. It is possible that the materials for the luxury goods found in the Shaft Graves were provided by the Minoans. At this time, the beginning of the Mycenaean civilisation, the Mainlanders appear to have turned to the West for a commercial outlet. In the Aeolian Islands and Sicily Helladic pottery has been found, the earliest of which dates from the end of the M.H. period (first half of the 16th Century B.C.) and the transition from M.H. to L.H. or Myc.<sup>(2)</sup> Perhaps the power of Crete hampered trade eastwards at this time. However, a small amount of Myc I pottery has turned up at Troy and Miletus on the West coast of Asia Minor and shortly afterwards Mycenaean exports began to appear in the Levant and Egypt.

Frequent intercourse with Crete is self-evident from the prominent Minoan influences in the early Mycenaean remains. The Sixteenth and early Fifteenth centuries was a time of political, economic and cultural advancement and expansion both in Crete and

on the Greek Mainland. Economically and culturally Crete was the forerunner and the master, but the Mainland, particularly the Argolid, under the leadership of a strong central power, reacted on the Minoan influence and the Mycenaean civilisation became increasingly strong.

The beginning of the Fifteenth century (the L.M.IB and Myc IIA periods), was a time of cooperation between Minoan and Mycenaean artists and craftsmen and it can be difficult to tell what works are Minoan and what Mycenaean. This collaboration is reflected in the small amount of Myc II and L.M.IB pottery found in Cyprus and at a few sites on the Syria-Palestine coast and in Egypt. But already the Mycenaean exports had become most prominent.

At one time it was thought that all the Aegean vases of pre-Myc III date found in East Mediterranean lands were Cretan but it is now known that nearly all of them were Mycenaean. In the Myc II period Minoan Crete was already receding from commercial predominance and the Mainland was succeeding her. The maritime hegemony that Crete had exercised in the Aegean during M.M. times was being lost to the Mainlanders. L.M.I and II were still flourishing phases of Minoan culture, but the Cretans were not able to prevent the beginning of the expansion of Mycenaean trade which was to culminate in the far flung Mycenaean koine of the Myc IIIA and IIIB periods.

Discoveries in excavations on Thera, the volcanic island 120 kilometres north of Crete, have led to the view, now generally accepted, that a complex of earthquakes and eruptions on the island towards the end of the Sixteenth century led to an earthquake and rain of ash on Crete that destroyed many Minoan towns and weakened Cretan culture, making it possible for the Mycenaean not long after to assume the leading position which Crete had formerly occupied in the Aegean world. Around 1450 Mycenaean

established themselves at Knossos. The presence of Mycenaeans on Crete is confirmed by the Linear B tablets found at Knossos, the construction of the Knossos throne room at this period (a feature not found in other Cretan palaces), and a new military spirit (seen in the tablets and graves). The Mycenaean features found at Knossos were not adopted elsewhere in Crete. There was a return to prosperity on the island and there is no evidence to suggest any clash between the Mycenaeans and Minoans.

Minoan supremacy and commercial strength were both now fast declining in the Aegean. Towards the end of the Fifteenth and early Fourteenth centuries Minoan settlements in the Aegean were taken over by Mycenaean settlers. At Miletus, where since the Sixteenth century Asians had traded with Mycenaeans and Minoans, the settlement lost its Minoan element in the early Fourteenth century and became a Mycenaean enclave on the edge of the Hittite empire and remained so until the end of the Mycenaean age. The same happened on Rhodes. A Cretan colony had existed at Trianda since the Sixteenth century. Towards the end of the Fifteenth century a Mycenaean settlement was founded alongside the Cretan one. But at the beginning of the Fourteenth century the Minoan settlement was deserted leaving the Mycenaeans to dominate Rhodes for the rest of our period.

About 1380 there was a further disaster on Crete; the palace of Knossos was destroyed by fire, the cause of which is uncertain. (It was at this time that the Minoans deserted Rhodes). The destruction could have been due to a Mycenaean attack from the Mainland or some natural cataclysm. But whatever caused it, the Minoan civilisation never really recovered and the fall of Crete laid the way clear for a tremendous expansion in Mycenaean trade. This commercial expansion in the Fourteenth century was a continuation

of a process started in the Fifteenth century when Mycenaean products had already begun to reach markets in the East Mediterranean. It has just been said that in the Myc II period the Aegean pottery found in the East Mediterranean was already nearly all Mycenaean rather than L.M. The Mainland was stepping up its output as Crete waned. The final blow was the destruction of Knossos (c.1380), after which event the Greek Mainlanders held their sway in the Aegean and at the same time had a still larger area open to them.

The Fourteenth and Thirteenth centuries were the years of Mycenaean expansion. Excavations on the Mainland of Mycenaean palaces and settlements, and tholos and chamber tombs, reveal an advanced and flourishing civilisation that owed its prosperity to widespread and regular contacts with the surrounding world. The great palaces created and maintained conditions necessary for regular and profitable exchange of goods. The commercial activity that expanded during the Fourteenth and Thirteenth centuries encompassed the comparatively vast area from Sicily, the Aeolian Islands and South Italy, to Troy, Miletus and the Dodecanese, to Cyprus, Syria, Palestine and Egypt.

The outgoing cargo was primarily pottery which during the Myc III A:2 and III B:1 periods was exported in large quantities. The main imports were raw materials, some of which were essential, and others which were luxury materials used for the manufacture of goods destined for royal and temple treasuries and graves of the wealthy. As the few unrifled tholos tombs testify, the royal dead had buried with them luxury goods of great splendour which, besides artefacts of bronze, included various products of gold, ivory and semi-precious stone. Cemeteries of chamber tombs, the tombs of the ordinary folk, have been explored in many parts of

Greece and even in these there are found, occasionally, besides pottery, the odd objects of bronze and ornaments of gold or semi-precious stone.

During the Fourteenth and Thirteenth centuries the demand for Mycenaean pottery in the East Mediterranean resulted in increased production and standardization, and in the painting of the vases a mechanical repetition of fashionable subjects. There was a similar lowering of quality in some of the various products made by the Mycenaean craftsmen working the imported luxury materials. In fact as some of these became more difficult to obtain cheaper materials such as glass and faience were increasingly used.

It has already been said that Mycenaean settlements were established in the Aegean basin, notably on Rhodes and Kos in the Dodecanese, and Miletus and possibly Miskebi on the west coast of Asia Minor. At these sites Mycenaean lived, equipped with Mycenaean pottery, some houses and fortifications of Mycenaean type, and cemeteries of standard Mycenaean chamber tombs. Rhodes particularly was a purely Mycenaean centre and besides pottery there have been found on the island tools, weapons, jewellery, gems and terracottas, all of which are wholly Mycenaean.

These long-lived Mycenaean communities did not appear farther east than the Aegean basin. Contact between Greece and Cyprus, the Levant and Egypt was by trade only. The Mycenaean merchants conducted their trade with these areas through the important ports such as Enkomi on the east coast of Cyprus and Ras Shamra (Ugarit) on the north Syrian coast. The most notable point of contact with Egypt was the site of Tell el Amarna where Mycenaean pots from houses provide a solid foundation for the chronology of the Myc III period.

The Mycenaean period was an international age. With the steady flow of manufactured goods and raw materials, there were borrowings

in art forms and vocabulary. This state of affairs was dependent on a fairly stable political situation and such conditions did not outlast the reign of Ramesses II (1290 - 1224 B.C.). There was a decline in prosperity during the second half of the Thirteenth century and at the end of the century and in the early Twelfth century Mycenaean settlers (rather than traders) began to appear east of the Aegean forming part of the general movement in the East Mediterranean associated with the Sea Peoples.

From the archaeological evidence trade seems to have started to decline after the end of the Myc III B:1 period (c.1250) and this could be related to troubles in Greece. About the mid-Thirteenth century houses outside the walls at Mycenae were burned down.

Many of the massive fortification walls at the Mycenaean sites belong to the Thirteenth century. Extensive fortification works were carried out in the Argolid at Mycenae, Tiryns, Midea and Argos, in Central Greece at Athens and Gla, and elsewhere. So the Mycenaean did not feel too secure.

Pylos, an unfortified palace in the western Peloponnese, was looted and destroyed sometime before 1200 (1220 or 1210 ?). About 1190 the Palace of Mycenae was destroyed and there was, according to Desborough<sup>(3)</sup>, widespread destruction of other palaces and towns along a north to south strip from Phocis to Laconia. In addition a great number of sites were abandoned causing a massive depopulation of the Peloponnese. This event will have ended the regular organised trade that appears to have been declining during the previous half century.

As people abandoned existing sites they went to new areas such as Achaea in the north-west Peloponnese. Larger numbers went overseas, some to the islands of Kephallenia and Ithaca, but most took the eastward sea-route. Settlements in the East Aegean seem to have accepted new arrivals about 1200 and a settlement was founded at Emporio on

Chios. The most substantial body, however, journeyed to Cyprus and had a profound influence on Cypriot culture. There was also in the Twelfth century a rather isolated and not very prosperous Mycenaean community at Tarsus in Cilicia, which previously had been under Hittite control. (The Hittite empire had also come to an end in the widespread troubles of the times).

Whoever destroyed the Mycenaean sites did not take over the country for there was no change or addition to the culture and customs of the Mycenaean; what remained appears to have been purely Mycenaean. The invaders must have withdrawn although they will have remained a continuing threat throughout most of the Twelfth century.<sup>(4)</sup> Mycenae continued to be inhabited after the disaster and in the early or mid-Twelfth century the potters of the Argolid produced a highly sophisticated style, the Close Style. The other main type of pottery current during the Myc III C period, was that decorated in the Granary Style, a simple style of vase-painting, crude and unskilfully done.

Myc III C sites on the Mainland were relatively few and widely separated. The destruction meant the loss of writing, deterioration in craftsmanship and building techniques, and a fragmentation of pottery styles. Settlements were poor although it appears that one or two sites on the coast facing the Aegean retained a certain amount of prosperity for a few years after the disasters on the Mainland.

Miletus, the Dodecanese, the Cyclades and at least part of East Attica seem to have escaped the disasters which overtook much of the Greek Mainland at the end of the Myc III B period. The situation in this area, where habitation continued without signs of violent interruption down into Myc III C, was in marked contrast with that of the kingdoms of the Mainland. The quantity of Myc III C:1 finds at Miletus and the Dodecanese, and their resemblance to the contemporary finds at Perati in East Attica and on the island of Naxos suggest to Desborough

the existence of a "miniature Mycenaean koine" between the Dodecanese, the Cyclades and East Attica at this time <sup>(5)</sup>. Finds other than pottery from tombs on Rhodes, Kos, Naxos and at Perati include objects of East Mediterranean origin and other goods made from raw materials that must have been imported from countries in that region. This area still had a fairly high standard of living and must have kept in contact with the East Mediterranean during at least part of the Twelfth century, although at the same period trade from the Mainland with that area must have almost ceased except for contact with the Mycenaean refugee settlers on Cyprus.

But this area was eventually overtaken by catastrophe in the further destructions that occurred later on in the Twelfth century. On the Mainland the citadel at Mycenae and the granary were finally destroyed between 1150 and 1100. In the East Aegean Emporio on Chios was wiped out, and so was Miletus, both probably before 1100. <sup>(6)</sup> These fresh disasters must have resulted in a further weakening and decline. The Aegean must have become increasingly unsafe during the Twelfth century. There is little firm evidence concerning the end of Mycenaean civilisation in the Dodecanese. From the cemeteries of Rhodes the desertion of this island is to be dated well within the second half of Myc III C <sup>(7)</sup>. One consequence of the further disasters on the Mainland was the flight of yet more Mycenaeans in the second half of the Twelfth century, a fair number of whom certainly went to Cyprus. Mycenae was finally abandoned c.1075 as new peoples from the north west entered Greece to settle.



CHAPTER ONEChapter Notes

1. Hankey. Mélanges St.-Joseph, 46 (1970), pp. 12-13.
2. Taylour. Mycenaean Pottery in Italy, pp. 182 -183.
3. LMS, pp. 221-222.
4. Desborough. The Greek Dark Ages, pp. 20-23.
5. LMS, pp. 147-163, 227-229.
6. Desborough. The Greek Dark Ages, p.24.
7. LMS, pp. 155-156, 233.

## CHAPTER TWO

MYCENAEAN POTTERYA: INTRODUCTION

Pottery, although it may be broken, is virtually indestructable and over the last century great quantities of Mycenaean pottery have been found outside Greece as far west as Sicily and South Italy to as far east as Syria and Palestine, and from Troy in the north to Sesebi in Nubia in the south. It is the wide diffusion of this product that indicates the extent of Mycenaean overseas activity.

As there is far more archaeological evidence for the export of Mycenaean pottery than for trade in any other commodity it will receive most attention in this dissertation, and that being so it seems necessary to make some introductory remarks about it.

During Myc I and II Mycenaean potters made use of Minoan forms and Minoan designs, which were modified by Mainland Greek influence. According to Furumark, at the end of Myc II A the influence of Crete in the ceramic development of the Mainland lessened and during the Myc II B period the Mainland influence became predominant,<sup>(1)</sup> and from then on their pottery developed independently.

During the Myc III A:2 and III B periods there was a great demand both at home and abroad for Mycenaean pottery and this naturally resulted in mass-production and standardisation with shapes and decoration becoming increasingly simplified and stylised. This means that there was a remarkable uniformity of style in the pottery exported during the koine period of Myc III A:2 and III B; the same shapes and decoration were turned out in large quantities, and this was in sharp contrast to the situation in the following period.

Mycenaean prosperity began to decline during the second half of the Thirteenth century and this brought the period of standardised production to an end. Towards the end of Myc III B the uniformity of the earlier pottery made in and exported from the Argolid was

gradually replaced by separate local styles made in various centres. The diversity of local styles became very marked during Myc III C.

### Pottery Shapes

The Mycenaeans used a large number of pot shapes which was made even larger by the numerous variations of many of the forms, but they only exported certain of the shapes. The stirrup jar (average height 15 cms), of which there were many variations in size and shape, was the most popular type exported. Minoan in origin, it became typical of Mycenaean society everywhere. Other shapes frequently exported to the East Mediterranean include three-handled piriform jars, alabastra, particularly the straight-sided variety, sometimes called a pyxis (average height 8 cms), pilgrim flasks (average height 15 cms), the variations of which are sometimes given separate names (lentoid flask, globular flask, and vertical flask), and in smaller quantities various types of kraters. In addition to these there were also exported a number of types of bowls, jugs, cups, kylikes and one or two other forms, but these appear less frequently in the countries farther east than the west coast of Asia Minor, beyond the area of Mycenaean settlement.

In Fig. 1, which appears as an appendix to Chapter Two, there are line drawings of a fair number of the pot forms that were exported. Often more than one variation of a particular pot form featured in the trade but I have not considered it necessary to illustrate all such variations, the purpose of the outlines being merely to give a general idea of the shapes.

Note: Under each of the drawings there is a number prefixed by the letter F. These are the numbers that Furumark (in his work The Mycenaean Pottery, 1941) gave to each of the pot shapes.

In the chapter dealing with Mycenaean pottery I have usually only given the F number for the more important pot shapes in the trade.

### Pottery Decoration

Mycenaean vase painters showed little originality of design, relying instead on decorative motifs invented in Crete which were then repeated mechanically through the Mycenaean period.

Mycenaean vase painting is marked by conventionalisation. Certain of the animal motifs remained life-like, such as bulls, deer, birds, fishes, but most of the naturalistic designs became more and more conventionalised until many were barely recognisable.

Myc. I : During the Myc I period the vase decoration was generally linear, although not exclusively so, and the favourite motif was the spiral, and especially the running spiral and its variations. Horizontal and vertical parallel lines, either straight or wavy, were also popular. The horizontal lines, produced either freehand or with the aid of the slow wheel, tended to be uneven.

Naturalistic designs, which were rarer, included certain floral motifs, particularly the ivy leaf, although the iris, sprays of grass and conventionalised papyrus heads also occurred. Occasionally conventionalised marine motifs such as the argonaut, starfish and rockwork were used.

The main decoration was painted on the upper part of the vessel, leaving the lower part to be occupied by broad bands of paint <sup>(2)</sup>.

The usual colour scheme was black to red (or brownish) lustrous paint on a yellowish-green to buff slip with occasional use of white as an accessory colour. The clay was usually gritty, and the vessels handmade or produced with the slow wheel.

Myc II and the transitional III A:1 : In the Myc II period linear patterns took second place to naturalistic designs, although sometimes the two were combined. Motifs used during Myc II included rockwork decoration, floral designs such as the papyrus, rosette, lily, palm, iris, ivy-leaves and other plants, and marine designs, chiefly the

octopus, nautilus and seaweed. Other popular motifs of this period were the Ogival Canopy and the shield pattern (3).

The colours were as in Myc I, though accessory white was rarer. The clay was better refined, and the fast wheel was in use. During Myc I and II the Middle Helladic Mattmalerei (= Aegina Matt) technique was still used occasionally, and in Myc II the Ephyraean Style supervened on survivals of Minyan Ware. (This latter style was limited to one shape, the deep two-handled goblet on a short stem, a well-known Minyan form, and the decoration was simple and restrained; just a single motif, either floral or marine, on each side of the goblet).

Myc III A:2 : When the production of Mycenaean pottery expanded in the Myc III A:2 and III B periods to meet the increased demand the vase painters had no time to create new patterns and instead were content to repeat the motifs of the earlier periods, which became increasingly conventionalised and stylised.

But although the potters introduced few new types of vessels or decorative patterns during Myc III A:2 and III B this does not imply that they were bad craftsmen. Technically they were skilled craftsmen, and this can be seen from the refinements of the clay, by the thin walls of the vases, the use of the fast wheel for horizontal lines and improved freehand drawing. Such features made Myc III A:2 and III B the acme of technical perfection. During these periods red paint was more popular than black and the slip was usually buff.

In the Myc III A period the spiral and its variations were still used. Motifs taken from the sea were popular and they included murex shells, cuttlefish, octopuses and argonauts. Amongst the floral motifs the papyrus head in a number of variations was used. Other designs from the plant world included the ivy, rosette, and flower. Conventionalisation of natural motifs continued. Details were omitted and thus the motifs became simpler. For example, the ivy leaf became a chevron and the argonaut's shell disappeared to

leave just the three spiral coils.<sup>(4)</sup>

Pictorial Style : A particularly distinctive style of vase painting is that known as the Pictorial Style, introduced in Myc III A and which continued to appear through the Fourteenth and Thirteenth centuries.

This style's repertory was drawn from human figures, animals, fish and plants. A particularly important and extensive series within the Pictorial Style are the necked kraters (F 54,55) decorated with chariot scenes. Other kraters, and occasionally chalices and jugs, had painted on them friezes or groups of animals, the most common of which was the bull, but birds, sphinxes, deer, goats, fish and plants were also used.

The main pictorial scenes, which were painted round the broad zone of the upper part of the pot, were usually supplemented by a variety of unconnected background motifs : fishes, flowers, rosettes, geometric patterns and so on.

Scholars generally agree that the main subjects for the Pictorial Style were largely derived from fresco paintings.<sup>(5)</sup> However, Karageorghis puts forward the additional theory that the Pictorial Style vase painters may also have been influenced by scenes on decorated textiles.<sup>(6)</sup> The animals which are drawn in outline are often filled in with crosses, spots, wavy lines and other ornaments which look like embroidery.

Myc III B : Nearly all the decorative motifs of Myc III B were derived from those of Myc III A but they had undergone further stylisation. For example, amongst the marine motifs the complicated cuttlefish which originally had eight curving arms had only two left, the two eyes float detached below them, and the body hangs down like a long cigar. It was the same with the floral designs. In

Myc III B the papyrus head had become a four-sided geometrical figure. Two sides were formed by chevrons, while the other two sides were composed of a row of short dashes. The stamen had become a small hook. (7)

In addition to the decorative motifs derived from those of Myc III A a few new ones were used in Myc III B. These included the chequer board, certain variations on the zig-zag, a variation on the tassel pattern, and the wavy tentacle. The Panelled or Metope Style of decoration (also called Felder Style, from the German term), though used in Myc III A and III C, was one of the most characteristic forms of ornament of the Myc III B period. The patterns of this system, which were arranged in panels, included the double-axe or butterfly motif, the wavy border, the triglyph and half-rosette, the horizontal wavy line pattern, and the chequers pattern. This style was most frequently used on the krater or deep bowl, but it is also found on other sorts of bowls, and various jars and jugs. (8)

Bowls and kraters were popular vase forms in Myc III B and the main decoration of these (including that of panelling as described above), was confined to the area between the handles, leaving the rim and lower part of the body to be either painted in bands or left clear. As to stirrup jars, on the body of the vase the usual design was a succession of broad encircling bands of paint enclosing a varying number of very finely drawn thin bands. On the shoulder of the jar there would be a motif, the most common of which were the stylised flower and the multiple stem. (9)

Myc III C : During Myc III C the diversity of local styles of pottery was very marked, a situation very different from the uniformity of the Myc III A:2 and III B ware. Myc III C pottery is primarily associated with the Granary Style and the Close Style.

Close Style - The Close Style of decoration was made up of older motifs carefully drawn all over the surface of the vase. Motifs

used included certain animals, especially fish and birds, rosettes, and a dense mass of complicated geometrical patterns including zig-zags, wavy lines, bands, angles, triangles, spirals, concentric arcs and so on. All the patterns were drawn very exactly, in complex and arbitrary combinations. The Close Style most frequently appeared on stirrup jars and deep bowls with rare examples on large jugs.

The Close Style was devised in the Argolid early in Myc III C. It was not degenerate, but was in fact a remarkable artistic achievement, and it contrasts strongly with the rather coarse Granary Style, despite being contemporary with it.

A particular version of the Close Style evolved in the islands of the Dodecanese called the Octopus Style. The main decorative theme was the highly stylised octopus whose tentacles enclosed fish, birds, and a variety of unconnected supplementary decoration. It was used particularly on stirrup jars.

Granary Style - This style of decoration is named after the place it was first found in large quantities; the granary just inside the Lion Gate at Mycenae.

Granary Style pottery was inferior to the earlier Myc III ware. The vases seem to have been more hastily made, and the decoration was sketchy and unskilfully done. The patterns used were simple and almost exclusively linear; wavy and zig-zag lines were popular and other motifs included bands, antithetic spirals, dashes, S-shaped ornaments, and concentric semicircles. The principal shape on which Granary Style decoration occurred was the deep bowl but it is also found on jars.

The Granary Style probably originated in the Argolid and was that variety of Myc III C which was in fashion at Mycenae at the time of its destruction and continued to be made for a little while afterwards. The Granary Style appears to have survived until it merged into the Sub-Mycenaean and later the Protogeometric style of pottery.



During Myc III C the paint was black or brown, less often red, somewhat flaky and not very lustrous. A slip was not always present; and the slip or ground might be greenish or buff, rather drab and only slightly lustrous. Alternatively the paint was polished to a metallic lustre. The use of white became rather more common again. The use of the quick wheel was less skilful and in the Granary and Late Pictorial Styles the drawing was sketchy and rough.

CHAPTER TWO AChapter Notes

1. MP, p.8; Furumark. Op. Arch. 6 (1950), p.261.
2. Lacy. Greek Pottery in the Bronze Age, pp. 182-183.
3. Ibid., pp. 188-190.
4. Ibid., pp. 204-206.
5. For example: MP, p. 463.
6. Karageorghis. AJA 60 (1956), p. 148.
7. Lacy. Op. cit., pp. 213, 215.
8. Ibid., pp. 213, 215.
9. LMS, p.2.

B: THE DODECANESE, THE WEST COAST OF ASIA MINOR AND  
ITS ISLANDS, AND CILICIA (See Map 2)

1. The Dodecanese

Rhodes

Rhodes was an important centre of Mycenaean civilisation which has long been known owing to the great numbers of Mycenaean tombs discovered there. In fact tomb evidence provides most of the information for the Mycenaean settlement of the island.

In the mid-Sixteenth century a Cretan colony was founded on Rhodes at Trianda in the Ialysos area. At the end of Myc II B or the very beginning of Myc III A:1 a Mycenaean colony was founded near the Cretan one. At first relations between the two colonies appears to have been friendly.<sup>(1)</sup> At about 1400 B.C. the Cretan colony was deserted very suddenly, and there are no later signs of Minoans on Rhodes. It was at about 1380 that the palaces on Crete fell, bringing the Minoan civilisation to an end.

The Mycenaeans, however, had to come to stay. There was considerable expansion in settlement from Myc III A to III B, so that by Myc III B most of the island had been penetrated and this position was maintained into Myc III C.<sup>(2)</sup> Mycenaean settlement seems to have been concentrated near the coast, and this probably reflects the maritime and commercial interests of the settlers. The fertile north-west coastal area (from Ialysos to Kameiros) appears to have been the most important Mycenaean enclave.<sup>(3)</sup> Rhodes probably developed into an important Mycenaean centre because it is strategically situated on the route to Syria and Egypt.

The earliest Mycenaean pottery on Rhodes will have been imported from Mainland Greece, but once the Mycenaeans had become established on the island they also began to manufacture it themselves.<sup>(a)</sup>

On Rhodes the earliest Mycenaean pottery dates from the Myc II and III A:1 periods. Stubbings gives a catalogue of the chief examples of the earliest finds from Mycenaean tombs at Ialysos. He

lists four pots of Myc II B date, and about 30 vases (the most frequent of which were piriform jars (F 31) and alabastra) of Myc III A:1.<sup>(4)</sup> From the actual settlement in the Ialysos area Furumark records early Mycenaean pottery from Trianda Stratum II A (c. 1500 - 1450) and Stratum II B (c. 1450 - 1410). This comprises a few fragments of Myc II A and II B wares, and also a couple of vases and a handful of fragments of Myc III A:1 ware.<sup>(5)</sup>

The evidence suggests that in the early Mycenaean periods (until the end of Myc III A:1) expansion was limited mainly to the north-west sector and Mycenaean pottery of this early date has not been found outside the Ialysos area.

From the Myc III A:2 period onwards Mycenaean pottery became much more plentiful. The Ialysos area still provides the bulk of the material; but the pottery has also been found in Mycenaean chamber tombs at many other sites throughout Rhodes. The chamber tombs at Kalavarda, Apollona and Kritinia, and the area around Apollakia have produced many vases, dating from Myc III A:2 to III C:1. Pottery, of a similar range in date, has come from the large Mycenaean cemetery at Lardos, the chamber tombs at Archangelos and the one in the vicinity of Koskinou. The large Mycenaean chamber tomb at Pilonia and the Acropolis at Lindos have yielded pottery of the Myc III B to III C:1 periods. This list of sites<sup>(6)</sup> where Mycenaean pottery has been found is by no means complete, but it gives an idea of how the settlers spread round the island.

The following pot shapes are amongst the most characteristic during the Myc III A:2 period.<sup>(7)</sup> Kraters of both the necked and neckless varieties are represented by a few examples; there are several varieties of cups; the tall-necked piriform jug seems to appear more frequently on Rhodes than elsewhere; the broad-beaked jug (which ceased to be made on the Mainland) continued to be manufactured on Rhodes; and there occurred a few examples of a small globular

jug. Neither the curved alabastron nor the straight-sided variety are frequent on Rhodes. The tall piriform stirrup jar (F 165 and 166) is particularly characteristic of the Myc III A:2 period on Rhodes. There are also a few examples of the globular pilgrim flask (F 188) and the side-spouted jar with basket handle. From the Myc III A:2 period onwards two shapes were especially popular on Rhodes: the large piriform jar with three handles (F 34 and 35 which average about 45 cms. in height), and the stemmed kylix.<sup>(8)</sup>

Kylikes were of two types, those plain or painted all over (i.e. 'monochrome'), and those with decorative painting. The decorated variety (F 257 and others) were very popular, and in fact are far more numerous on Rhodes than in the Argolid, and also show a more varied repertory of patterns than is found on the kylikes from the mainland.<sup>(9)</sup> The large piriform jars with three handles (F 34 and 35), although popular on the Mainland in Myc III A:2, had a much longer life on Rhodes, and continued to be made there in a debased style to the end of the Mycenaean period.<sup>(10)</sup> The main decorative pattern on these jars was confined to the shoulder zone, and would consist of, for example, a floral, spirals, or scale pattern. Broad stripes would encircle the lower part of the body.

The Myc III A:2 phase was the period of the Mycenaean koine; regional variations were at a minimum and this was the case at Rhodes as elsewhere. According to Stubbings the number and distribution of the finds on Rhodes indicates that the pottery was, in general, made on the island.<sup>(11)</sup>

In the Myc III B period many of the vase shapes from the previous phase continued to appear, but some underwent modification. Kraters, cups and kylikes continued to be manufactured. The tall piriform jug disappeared in III B and the broad-beaked jug developed a more sloping shoulder. Several types of bowls were manufactured (including F 290, 300, 301), and the deep bowls (e.g. F 284) so characteristic of the

Mainland Myc III B and III C periods, are frequent in Rhodes too. Two new varieties of the pilgrim flask were introduced. Stirrup jar shapes are more varied than they had been in Myc III A: the tall piriform type went out, the globular form remained, and several new flat-topped varieties appeared. The large piriform jars of Myc III A show a gradual modification towards a more ovoid form. The shape as a whole seems to sag, its broadest diameter being now lower down. <sup>(12)</sup>

With a number of the Mycenaean shapes current on Rhodes there is often no clear distinction between what was made in Myc III A and what in III B. The decorated kylikes especially illustrate this difficulty, they being made in Myc III B with little modification from their form in III A. Furumark gives an explanation for this. He claims that the Myc III B style proper, as created on the Mainland, was not fully taken up on Rhodes. In many parts of the island potters continued to manufacture vessels in the Myc III A:2 style. <sup>(13)</sup> Furumark goes on to show that even in the Myc III C period, at provincial sites in Rhodes, vessels were still being manufactured which were essentially in the Myc III A:2 tradition. <sup>(14)</sup>

On Rhodes and at other Mycenaean settlements in the East Aegean there are no signs of destruction at the end of the Myc III B period such as occurred on the Mainland. That Mycenaean settlements must have continued to flourish on Rhodes into the Myc III C period is shown by the large number of vases from this late phase found on the island, and the continued use of the chamber tombs. In fact at Ialysos there were several new chamber tombs constructed during the Myc III C period. <sup>(15)</sup>

The Dodecanese developed its own brand of Myc III C pottery which is distinct from that found in the Argolid. Desborough <sup>(16)</sup> accepts Furumark's division of it into three phases. The first phase shows the survival of Myc III B, the beginnings of a few early Myc III C

ideas, mainly of local origin, and the first stages in the development of the Rhodian Octopus Style stirrup jars (the Dodecanese's only attempt to match the Close Style of the Mainland). During the second phase the Myc III B elements ceased, and there was a full flourishing of the Octopus Style stirrup jars. In the third phase there seem to have been some influences from the Argolid on Rhodian pottery; Furumark states that elements peculiar to the Granary Style began to appear on Rhodes at this time.<sup>(17)</sup> The Octopus Style stirrup jars were great favourites in the Dodecanese and the Central Aegean generally, and in fact gained quite a wide distribution outside this area; they travelled as far west as Scogliò del Tonnò in South Italy and as far east as Tarsus in Cilicia. Pottery shapes found on Rhodes and the other Dodecanese islands during the Myc III C period, besides the stirrup jars just mentioned, include such shapes as the amphoriskos, which was very popular and may have originated in this area, the stemmed goblet or kylix, the jug with strainer spout, the jug with excrescent cup, multiple vases and side-spouted jars, the kalathos, and a type of small belly-handled amphora.<sup>(18)</sup>

Owing to apparent extensive Mycenaean settlement on Rhodes it has generally been considered that the island exerted a widespread influence in Mycenaean times. It has already been stated that it is likely that much of the pottery was manufactured on the island rather than imported and in fact it has been thought that Rhodes played some part in the diffusion of Mycenaean wares to the East Mediterranean. But recent studies are tending to play down the importance of Rhodes in the Mycenaean world and raise doubts about the intensity of the Mycenaean occupation of the island itself.<sup>(19)</sup> And in a clay analysis of pots from Ialysos 50% of the sherds tested appeared to have come from pots made in the Peloponnese.<sup>(20)</sup> This suggests that a considerable volume of the Mycenaean pottery of Rhodes was brought

to the island from the West. The same analysis also showed a striking lack of Rhodian pottery in Cyprus, North Syria and Egypt. So perhaps Rhodes was not as important a centre either as regards the other Mycenaean settlements in the East Aegean or within the Mycenaean world generally.

#### Karpathos

The discovery of some 90 vases in Mycenaean tombs at Pigadhia makes it seem certain that there was a Mycenaean centre here, although no conclusive evidence of Mycenaean occupation has been found. The vases are of the Myc III A or III B periods.<sup>(21)</sup> More Mycenaean sherds of similar date have been found in the area around Pigadhia. Yiafani, a little harbour on the north east of the island, produced seven vases, all Myc III B. Some of these may have come from Rhodes, particularly as the port of Yiafani faces towards that island.<sup>(22)</sup>

#### Kos

A large quantity of pottery, dating from Myc III A:1 to Myc III C:2, has been excavated from the Mycenaean cemeteries at Eleona and Langadha.<sup>(23)</sup> The Myc III C period is particularly well represented. These tombs are less than one kilometre from the Mycenaean settlement at Seraglio, and must surely be connected with it. In addition to the pottery from these cemeteries, one or two other sites on Kos have produced the odd vase or sherd.

#### Kalymnos

In the last century pottery of the Myc III B or III C periods was found in the Mycenaean tombs at Perakastro, near Pothia.

#### Leros

On this island Mycenaean sherds were found by Hope Simpson and Lazenby in 1967.<sup>(24)</sup> They seem to be of the Myc III period,



and include fragments of deep bowls and a stemmed kylix.

The Dodecanese, Miletus, the Cyclades and at least part of East Attica seem to have escaped the disasters which overtook much of the Greek Mainland at the end of Myc III B. The quantity of Myc III C:1 finds, and the resemblance of the pottery of this phase found at Miletus and the Dodecanese (especially the cemeteries of Kos), with that found on Naxos and at Perati in East Attica suggests that close connections existed from East Attica across to the Dodecanese and Miletus in Myc III C:1. According to Desborough<sup>(25)</sup> this area seems to have formed something like a maritime league of little Mycenaean states at this time, and this may possibly help to explain the Mycenaean settlement of Emporio on Chios, which apparently began in Myc III C.

## 2. The West Coast of Asia Minor and its Islands

### The Islands

#### Samos

The contents of a chamber tomb on this island included stirrup jars and apyxis. In addition to these finds, surface investigation at Tigani revealed Myc III A and III B sherds.<sup>(26)</sup>

#### Chios

Excavations at Emporio have revealed only one or two Mycenaean vases and a few sherds from the periods before Myc III C. These, no doubt, will have been casual imports. But then, in Myc III C, a Mycenaean settlement seems to have been established at Emporio, and the excavations there have yielded typical Myc III C pottery, such as deep bowls, kylikes, and a few examples of amphorae, hydriae, kalathoi, and the odd stirrup jar.<sup>(27)</sup>

#### Lesbos

There are a small number of sherds from Thermi, mainly from

kraters and piriform jars, and at Antissa there have been found a small stirrup jar and a few sherds.

Of these three islands, Samos and Chios (further to the south and nearer to the latitude of Mycanae), seem to have come within the Mycenaean sphere, whereas Lesbos (further to the north) appears to have been outside it. In terms of natural shipping routes, Lesbos lies on the route from the port of Iolkos (Volo) rather than on the main route from the Argolid ports, though it would obviously be a calling-in point for any shipping that did come from the Argolid to Troy.

### The West Coast of Asia Minor

#### Troy

Of the settlements on the west coast of Asia Minor Troy was a major importer of Mycenaean pottery; quantities of it have been excavated from the VI, VII A and VII B settlements.

Note: In this discussion of the Mycenaean pottery from Troy the main work consulted has been the results of the Cincinnati Expedition: Blegen et al., Troy vol. III, Troy vol. IV.

Troy VI : Troy VI was a most impressive settlement, with its great fortification walls and towers of ashlar masonry, its broad ramps and massive houses such as the Pillar House. Troy VI has three sub-periods; early, middle and late, each with several phases, represented by the following eight strata:

Early Subperiod	-	Troy VI a,b,c	-	c. 1800	-	1575 B.C.
Middle Subperiod	-	Troy VI d,e	-	1575	-	1425
Late Subperiod	-	Troy VI f, g,h	-	1425	-	1275 (?)

Note: This last date might be too late; more likely c. 1300 B.C.

Note: The actual dates are assumed and subject to readjustment.

Troy VI cultivated connections with the West, particularly the Aegean, rather than with Central Anatolia; but although the site imported and even imitated products of Mycenaean industry, it steadily retained its own culture and political independence until destroyed by an earthquake; it never became a Mycenaean citadel.<sup>(28)</sup> Contacts between Troy and Greece had already existed (intermittently) ever since Early Helladic I and Troy I, soon after 3,000 B.C.

Mycenaean pottery has been found in the strata of the Middle and Late Subperiods. Mycenaean ware in the style of Myc I and II was found in relatively small quantities in the Middle Subperiod, beginning in VI d. From the strata of the Late Subperiod imports increased greatly; we have 31 inventoried pots and approximately 1,000 Mycenaean sherds, which must come from 700 to 800 vessels. Most of this material is of the Myc III A (especially III A:2) style, but from Phase VI h a number of pieces may be attributed to Myc III B.<sup>(29)</sup>

The bulk of the Mycenaean pottery imported by Troy VI is of the koine style, known from the Greek mainland, Cyprus, and the Levant, and its specific place of manufacture is not easily recognisable. Many of the pieces are indistinguishable from the products of Argolis, and Blegen feels it to be likely that "the Trojan stronghold stood in direct relations with Mycenae itself".<sup>(30)</sup> Rhodes may also have supplied a certain amount. Apart from this standard Mycenaean, two other types are readily distinguishable; one is designated "provincial Mycenaean" and attributed to "some (Eastern Mediterranean?) provincial centre",<sup>(31)</sup> and the second is a local Trojan imitation of Mycenaean, which attests the popularity of Mycenaean pottery. The "provincial" and "local" Mycenaean wares were found mainly in the later contexts of Troy VI; this suggests that they sprang up only after there had been a long tradition of imported Mycenaean pottery.<sup>(32)</sup> Among the Mainland fragments from Troy VI some pieces appear to be in the Pictorial Style. There are several fragments from kraters with

chariot scenes and they should be dated early Myc III A:2.<sup>(33)</sup>

From the mass of sherd material it is possible to recognise the following Mycenaean pot shapes as having been imported by Troy VI. Various types of bowls, shallow cups, and several types of kylikes occurred and were particularly frequent in the strata of Late VI. Squat jugs occurred fairly often. There were one or two examples of spouted bowls, and one specimen of a flask. Several varieties of piriform jars appeared moderately frequently, nearly all in the strata of Late VI. There were several types of alabaster, in both Middle and especially Late VI. At Troy the straight-sided alabastron or pyxis was more frequent than the ordinary curved variety, which is the opposite trend from that found on the Mainland. There were also various types of stirrup jars, which occurred fairly frequently in Late VI.<sup>(34)</sup> The frequency of shapes that are not containers, such as bowls, cups, and kylikes, suggests that the pottery was imported for its own sake and not for any contents.<sup>(35)</sup>

Troy VII A : Troy VIIh was destroyed by an earthquake. It was followed by Troy VII A which was a continuation of the Sixth Settlement, but smaller. The VII A settlement probably lasted only a generation or so; Blegen proposes a life span in absolute terms of 1275 to 1240<sup>(36)</sup> before its destruction, which is attributed by most to the historical event underlying the Trojan War legend, see below.

Contact with the West was maintained during Troy VII A as revealed by the discovery of imported Mycenaean pottery. However, the volume was much reduced from what it had been in Troy VI, and the local imitations and adaptations were much more numerous. It is obvious that trade between Greeks and Trojans declined greatly during the short lifetime of Troy VII A<sup>(37)</sup> (possibly as a result of increasingly bitter rivalry that led to the Trojan War).

The imported Mycenaean pottery is scantily represented by some

60 sherds. Almost all the pieces certified as coming from undisturbed deposits of Troy VII A are assignable to Myc III A and III B, the majority from the latter class.<sup>(38)</sup> None of the Mycenaean sherds can be attributed surely to Myc III C. This imported ware is again indistinguishable from the contemporary fabrics at Mycenae and so there seems no reason against a mainland Greek origin for the pottery, with some possibly from Rhodes. The sherds classified as local imitations of Mycenaean ware numbered over 250.

In many cases it is not possible to say what specific shape fragments came from. Of the imported Mycenaean pottery shapes represented seem to include one or two possible instances of the deep bowl, two types of stemmed kylix occurred fairly frequently, and the straight-sided alabastron or pyxis occurred in one instance.<sup>(39)</sup>

The destruction of Troy VII A seems to have been the work of human agency; everywhere was marked by the ravages of fire, and scattered remnants of human bone have been found. The houses were closely packed together as if everybody was seeking safety behind the city walls; and beneath the floors of most houses large pithos jars had been installed, which suggests that the people were stocking up with food and drink to withstand a seige. This evidence was sufficient to convince the Cincinnati Expedition that Troy VII A was subjected to seige, capture and destruction, and can be identified as the Troy of Priam and Homer.<sup>(40)</sup>

Page has a theory to explain the Trojan War, which though interesting, lacks sufficient evidence to be proved. He feels that as the Hittite power receded during the Thirteenth century, a conflict developed between the Achaeans and the powers on the western coast of Asia Minor, over who should gain control of the territory the Hittites vacated. It eventually culminated in the destruction of Troy. Page gives a commercial reason for why the Greeks interfered in this area. He points out that the Achaeans were already trading

prosperously with the Eastern Mediterranean and wanted to extend commercial relations to the central western coast of Asia Minor, and that they saw their chance to do this as the Hittite power receded.<sup>(41)</sup>

Troy VII B : The evidence indicates that Troy VII B was an immediate reoccupation of the site. It was divided into two subperiods by the excavators, VII B1 and VII B2.

Mycenaean pottery continued to be imported by Troy VII B, though in no great quantity. As in the previous settlement it was accompanied by more numerous local imitations and adaptations. In general these two categories are difficult to differentiate, but there seem to be some 27 sherds of imported Mycenaean ware and approximately 128 that can be classed as the work of local Trojan potters. Several of the imported fragments are of the style of Myc III B, but the bulk can definitely be dated to Myc III C:1.<sup>(42)</sup> Most of the local imitations also belong to this later date.

As far as could be determined the imported Mycenaean pottery was represented by several of the familiar shapes. There were one or two sherds from deep bowls, the stemmed kylix was represented by a small number of stems, and there was one imported straight-sided alabastron or pyxis.<sup>(43)</sup>

From both VII B1 and VII B2 the imported Myc III C:1 fragments include some in the Granary Style; this suggests that the transition from VII B1 to VII B2 must be attributed to a time when the Granary Style was still flourishing. The Cincinnati Expedition conclude that Troy VII B2 came to its end from unknown causes, not long before or after 1100 B.C., and that the site remained virtually unoccupied for the next three or four centuries.<sup>(44)</sup>

### Miletus

Miletus is the one certain Mycenaean settlement on the western

coastline of Asia Minor. It was a stronghold with a very impressive fortification wall, that was probably built in Myc III B. Recent excavations at Miletus by Weickert (1956 onwards) have produced sherds of pottery and remains of buildings which show that a Cretan settlement existed here in the Late Minoan Period (c. 1600 - 1400 B.C.). It is suggested that this Cretan trading settlement disappeared in consequence of a Mycenaean raid and that the Mycenaeans then took over the site in the early Fourteenth Century.<sup>(45)</sup>

Weickert's excavations at Miletus in 1938 revealed a quantity of Mycenaean sherds. Some of these were in the Myc III A, III B and III C styles, examples of which had been discovered in previous excavations, but he also unearthed fragments of Myc I and II pottery at lower levels.<sup>(46)</sup> As at Troy there were also local imitations.

As stated above, the Mycenaean settlement at Miletus was established in the early Fourteenth century. Before this date the Mycenaean pottery found at Miletus will presumably have been imported (that is, the pottery of the Myc I, II and early III A styles), but no doubt once the settlement was established it will also have been made at Miletus. Some of the Myc III B and III C pottery is clearly of local manufacture.

The Mycenaean settlement at Miletus was destroyed at some time in Myc III C, probably before 1100 B.C.

There is a cemetery of chamber tombs at the nearby Deïrmentepe site, a little to the west of Miletus. The contents of the tombs include pottery of the Myc III B and III C styles. Stubbings thinks that some of it, especially of the later phase, will have been locally manufactured.<sup>(47)</sup>

#### Colophon

A tholos tomb, robbed, but containing some fragments of Mycenaean pottery, was excavated at Colophon in 1922. It is said that this evidence may suggest the presence of actual Mycenaean settlers.<sup>(48)</sup>

## Ephesus

Contact between Mycenaean Greece and Ephesus was confirmed when a Mycenaean tomb was discovered in 1963, containing a small number of Mycenaean vases. Alkin feels that there may have been a Mycenaean settlement here, but no site has been found. (49)

Not relevant to trade, but of interest with respect to possible settlement, is the fact that historians of religion air the possibility that the Temple of Diana (Artemis) of the Ephesians was originally a Hittite-culture temple, and that Ephesus may have been one of the places from which the Greek pantheon acquired Artemis and her brother Apollo - the Hittite Apulunas.

## The Halicarnassus Peninsula

George Bass reported that in 1962 there were discovered, 1½ kilometres from Miskebi, 6 partially destroyed chamber tombs. (50) At that date the Mycenaean pottery found included a stirrup jar and skyphos of Myc III C date, and a kylix, pyxis, one-handled jug, spouted jug, 2 three-handled piriform jars, an amphoriskos, a cup and some fragments, all generally thought to be of Myc III date. (51)

After these initial finds, excavations were carried out at Miskebi over the following two years and more Mycenaean tombs were discovered. The pottery from these tombs is assignable to Myc III A, III B and III C. (52) From this evidence it seems that there must have been a Mycenaean settlement in this area from Myc III A to Myc III C:1.

Desborough asks whether the Mycenaean may not have controlled not only the promontory on which Miletus stands, but also the whole Halicarnassus Peninsula. (53) He suggests that the site of Mylasa could be used to link these two areas. From this latter site a stray piriform jar of either Myc III A or III B date has been found, and apparently recent excavations by the Swedes have uncovered more Myc III pottery here. Furthermore, there have been finds of Mycenaean pottery,



from Myc I to III A, at Iasos, on the south side of the Milesian promontory. Considering the Halicarnassus Peninsula's proximity to Kos, which is well represented by Mycenaean pottery, especially of the later periods, it is not surprising to find these scattered deposits.

Minor finds in Asia Minor. (54)

In the area of the Gulf of Smyrna there are one or two excavated sites: a few Mycenaean sherds have been reported from Phocaea, a handful of sherds and a Myc III B vase from Old Smyrna indicates a little contact here, at Larisa one Mycenaean sherd has been recorded, and from Clazomenae a small number of Mycenaean sherds have been found. Further west at Erythrae, and at the site of Elaia to the north of the Gulf of Smyrna, one Mycenaean sherd apiece has been found. Two sherds have been found at Gavurtepe, to the east of Smyrna. These few finds indicate that there was only very casual commercial contact between Mycenaean Greece and the central western coast of Asia Minor.

Other isolated finds from Asia Minor include: one stirrup jar of Myc III C date from Pitane; one Myc III A jar, thought to be of Rhodian manufacture, from Çerkes Sultaniye; a few sherds from Cnidus; one or two Mycenaean vases from the Muğla area; and a small stirrup jar from Telemessus.

Although Mycenaean settlements (or trading posts) at Miletus and elsewhere on the coastal fringes of the land power (the Hittites), there was very little intercourse with the interior and only a small amount of Mycenaean pottery has been found within the perimeter of the Hittite realm. The pottery to have been found in the interior of Anatolia includes some squat alabaster of Myc III B date, a pyxis and a stemmed bowl from the Burdur area; a late Mycenaean stirrup jar from Fraktin; a small amount of imported Mycenaean pottery, plus local imitations, from Beycesultan; (55) and one sherd from Sardis. The

area constituted by the Dodecanese Islands and the south west corner of Asia Minor is separated, both by distance and by rugged terrain, from the Anatolian interior, and forms a natural area for the growth of a separate culture and this is perhaps sufficient explanation for the development of Mycenaean influence in this region, and for the lack of direct contact with the Hittites.

This pattern of Mycenaean pottery finds in Asia Minor suggests that apart from Troy and the costal regions of Caria and Southern Ionia Mycenaean contact was slight. There was a Mycenaean settlement at Miletus and on Chios there seems to have been a settlement established in Myc III C. Recent evidence makes it possible that there may have also been Mycenaean settlers on the Halicarnassus peninsula and in the Colophon and Ephesus area. The pottery finds from these areas indicates that they came within the Mycenaean sphere, but outside these areas (with the exception of Troy which imported large quantities of Mycenaean pottery) commercial contacts appear to have been very infrequent. From Smyrna northwards, including Lesbos and the interior, the Mycenaean pottery imports are scanty (except at Troy) and are set against a background of native Anatolian cultures. These areas were very much on the fringes of Mycenaean civilisation.

### 3. Cilicia

Along the southern coast of Asia Minor Mycenaean finds have been confined to Cilicia.

In Cilicia a local imitation of Mycenaean pottery, which has been called Hellado-Cilician,<sup>(56)</sup> has been found. The exact date of this ware is uncertain, but it indicates that Mycenaean pottery must at some time have been familiar in the area.

After a surface survey, (the results of which were published in the 1930's), imported Mycenaean pottery was only found at Kazanlı,

in the Aleian Plain. The material was scanty; made up of a few sherds, including fragments of cups and kylikes which could be dated Myc III A or III B. (57)

Actual excavation has, however, been more productive.

### Mersin

Mersin is about 25 miles west of Tarsus. The evidence from the Late Bronze Age levels indicates that the Hittites dominated this area from c. 1450 or 1400, until the fall of their Empire c. 1200 B.C. Both the Late Bronze Age levels and the Iron Age levels above have produced a few sherds of Mycenaean pottery of the Thirteenth and Twelfth centuries. (58)

### Tarsus

Note: In this discussion of the Mycenaean pottery from Tarsus the main work consulted has been Tarsus II by Hetty Goldman.

The Hittite occupation of Tarsus ended in the last quarter of the Thirteenth century when invaders destroyed the city. These invaders were in fact Mycenaeans who must have left Greece owing to the onset of troubled times there (larger groups also went to Cyprus). They settled at Tarsus and introduced Mycenaean pottery dating to the transition from Myc III B to III C:1. Myc III C:1 pottery continued to be used at the site and the influence of the Mycenaean settlers was evident throughout the Twelfth century, until it faded out at about 1100 B.C.

The new settlement built by the Mycenaean refugees does not appear to have been prosperous and in fact gradually took on the character of a "squatters' settlement". The continued use of the monochrome Hittite type of pottery in large quantity shows that the Mycenaeans could not have come in sufficient numbers to replace the old inhabitants. (59)

The Mycenaean pottery from Tarsus all comes from the Late Bronze

IIb levels (c. 1225 to c. 1100 B.C.) and is mainly early Myc III C:1. According to the excavator the bulk of it is Granary Style, and for the most part Granary Style of an early character. It also includes early examples of the Close Style.<sup>(60)</sup> (There is a similarity between the Myc III C:1 pottery at Tarsus and that at Cyprus where Mycenaean had also gone to settle in the early 12th Century).

Most of the Mycenaean pottery appears to have been imported from the Argolid. J. F. Daniel was the first to study the Mycenaean pottery from Tarsus at a time when only a small quantity had been excavated. He wrote,<sup>(61)</sup> after comparing the Tarsus sherds with ones from Mycenae, that the shapes and style of the Tarsus and Mycenae sherds were exactly the same. Furthermore he claimed that over 80% of the Granary Style sherds from Tarsus were made of the same clay as those of Mycenae and Tiryns, and so drew the conclusion that the pottery from Tarsus must have been imported from the Argolid. Since then more sherds have been found and Daniel's percentage figure has been found to be too high, but otherwise Hetty Goldman feels Daniel's conclusion is still valid; that is, that the bulk of the Mycenaean pottery from Tarsus was imported from Greece, and in particular from the Argolid.<sup>(62)</sup>

The Mycenaean pottery not imported from Mycenaean Greece may have been made either locally or at some East Mediterranean centre and it is therefore referred to as regional pottery rather than as local. Some of these fabrics are easily recognisable as regional but in a few cases it is difficult to judge whether a piece is mainland Mycenaean or regional. The excavator records that only one group of sherds can be said with certainty to have been imported from Rhodes.<sup>(63)</sup>

The Mycenaean pottery from Tarsus is nearly all fragmentary.<sup>(64)</sup> Shapes represented by the fragments of Mycenaean pottery include: the deep bell-shaped bowls which formed the majority (as they generally

did in the Granary Style); the bowl with carinated shoulder, which was almost as numerous; a fairly large number of bowls with flaring sides; quite a few stirrup jars; several fragments from open kraters; a number of amphoriskoi; and one example of a kalathos.<sup>(65)</sup> The most common decoration for these pots, apart from simple bands, were for the most part variants of the well-known spiral and geometric patterns which were typical of the Granary Style. Amongst the pottery decorated in the elaborate Close Style were fragments with birds, fish, octopuses, and bulls represented on them.<sup>(66)</sup>

It appears that there was no contact between the Greek mainland and the south coast of Asia Minor west of Cilicia, and that in Cilicia itself the evidence reveals only casual contact, with the one exception of the settlement of a group of Mycenaeans at Tarsus, commencing at the period of transition from Myc III B to III C, and continuing through the Twelfth century B.C.

We must assume from the very limited amount of Myc III A and III B pottery from Cilicia, that this area must have been aloof from the trade routes of the Mycenaean koine. Then in the late Thirteenth century or early Twelfth century Mycenaeans settled at Tarsus introducing Myc III C:1 pottery.

CHAPTER TWO BChapter Notes

1. Furumark. Op. Arch. 6 (1950), p. 181.
2. MPL, p.6.
3. Hope Simpson and Lazenby. BSA 68 (1973), p. 155.
4. MPL, pp. 8-11.
5. Furumark. Op. Arch. 6 (1950), pp. 154-171.
6. Taken from: Hope Simpson and Lazenby. BSA 68 (1973), pp. 141-155.
7. MPL, pp. 11-17.
8. Immerwahr. Archaeology 13 (1960), p.8.
9. MPL, p.14.
10. Immerwahr. Archaeology 13 (1960), p.8.
11. MPL, p.17.
12. Ibid., pp. 17-20.
13. Furumark. Op. Arch. 3 (1944), p.200.
14. Ibid., pp. 202, 209.
15. LMS, pp. 152-153.
16. Ibid., pp. 12-13.
17. Furumark. Op. Arch. 3 (1944), pp. 219 sq.
18. LMS, pp.13, 155.
19. Hope Simpson and Lazenby. BSA 68 (1973), pp. 178-179.
20. Catling, Richards and Blin-Stoyle. BSA 58 (1963), p. 114.
21. Hope Simpson and Lazenby. BSA 57 (1962), pp. 159-160.
22. Ibid., p. 161.
23. Hope Simpson and Lazenby. BSA 65 (1970), p.55.
24. Ibid., p.54.
25. LMS, pp. 147-163, 227-229. Other evidence for the unity of this area, its prosperity and continued trade, are the gold, stones, and miscellaneous objects found in its tombs - see p. 173 and p. 218 below.

26. Ibid., p. 158.
27. Ibid., p. 159.
28. Troy vol. III, p.11.
29. Ibid., p. 16.
30. Ibid., pp. 16-17.
31. Ibid., p. 38.
32. Immerwahr. AJA 60 (1956), p. 456.
33. Ibid., p. 456.
34. Troy vol. III, pp. 44-74
35. Ibid., p. 16; Page. History and the Homeric Iliad, p. 67.
36. Troy vol. IV, p. 12. However in his later book Troy and the Trojans, p. 174, Blegen dates the VII A settlement earlier - 1300-1260.
37. Page. Antiquity 33 (1959), pp. 28-29.
38. Troy vol. IV, p. 23. In Troy and the Trojans, p. 159, Blegen says there were 90 sherds of imported Mycenaean pottery.
39. Troy vol. IV, pp. 27-39.
40. Ibid., pp. 11-13.
41. Page. History and the Homeric Iliad, pp. 101-111.
42. Troy vol. IV, pp. 156-157.
43. Ibid., pp. 161-172.
44. Ibid., pp. 146-147.
45. Alkim. Anatolia I, pp. 148-149.
46. Aegean and the Orient, p. 104.
47. MPL, p.23
48. Hope Simpson and Lazenby. BSA 68 (1973), p. 175.
49. Alkim. Op. cit., p. 149.
50. Bass. AJA 67 (1963), p. 353.
51. Ibid., p. 354-356.
52. Alkim. Op. cit., p. 149.

53. LMS; pp. 161-162.
  54. The references for these isolated finds are: Hope Simpson and Lazenby. BSA 68 (1973), pp. 175-178; LMS, p. 161; MPL, pp. 22-23.
  55. Alkim. Op.cit., p. 148.
  56. MPL, p. 88.
  57. Ibid., p. 88.
  58. Garstang. AJA 47 (1943), pp. 10-12.
  59. Tarsus II , pp. 58, 350-351.
  60. Ibid., pp. 205-206.
  61. Daniel is quoted by Goldman in AJA 41 (1937), pp. 281-283.
  62. Tarsus II, p. 206.
  63. Ibid., pp. 206-207.
  64. Catalogue of vases: Ibid., pp. 220-227.
  65. Ibid., p. 207-208.
  66. Ibid., p. 207-208.
- (a) See Plate 1



### C: CYPRUS

The kind of Mycenaean settlement that we have just seen, at such places as Rhodes, Miletus and Kos, where not only Mycenaean pottery has been found, but also houses and fortifications of Mycenaean type and cemeteries of Mycenaean chamber tombs, is confined mainly to the Aegean basin. Colonies of this sort did not appear farther to the east; contacts between Mycenaean Greece and Cyprus, the Levant and Egypt being by trade only, with no full scale settlement,<sup>(1)</sup> (at least not until the end of the Mycenaean period when refugees left Greece to settle on Cyprus and at Tarsus).

The Mycenaean pottery from Cyprus is the subject of much dispute. In the past scholars were divided as to its origin; some claimed it was all imported from Greece, while others said it was all made on Cyprus, inferring the existence of Mycenaean colonies on the island. The chief early advocate of the former view was E. Gjerstad (Studies on Prehistoric Cyprus, 1926), of the latter, J.L. Myres (Handbook of the Cesnola Collection of Antiquities from Cyprus, 1914). Now, however, many scholars agree that Mycenaean pottery was imported into Cyprus and did not in fact begin to be manufactured on the island until sometime in the Myc III B period.<sup>(2)</sup> (This question is discussed below, pp. 59 sq.)

Cyprus has yielded a vast quantity of Mycenaean pottery, but, as Stubbings points out, frequent though it is, even at such sites as Enkomi it was far less common than the native Cypriot wares.<sup>(3)</sup>

Note: Map 3 has marked on it many of the sites mentioned in this Chapter.

The trade in Mycenaean pottery to Cyprus may conveniently be divided into three phases, each of which will be examined in turn.

1. Myc I - III A:1

Commercial relations between the Mainland and Cyprus during this early period is confirmed by a small quantity of Mycenaean pottery found on the island.

Of Myc I pottery a few fragments have been found at Enkomi and possibly Ayia Irini.<sup>(4)</sup>

A small number of pots of Myc II A and II B date have been found at such sites as Enkomi, Hala Sultan Tekke and Maroni.<sup>(5)</sup>

From the Myc III A:1 period the total amount of Mycenaean pottery found on Cyprus is again only small; but there is an increase in quantity compared with the previous period, and it also finds a wider distribution. Enkomi has again produced the most evidence; Åström records 15 examples from this site.<sup>(6)</sup> Other sites that have produced one or two Myc III A:1 pots or fragments include: Hala Sultan Tekke, Klavdhia, Maroni, Arpera, Kalavassos, Kourion, Milea, Dhekelia, Idalion, Katydhata, and Nicosia.<sup>(7)</sup>

The most frequent pot shapes that Stubbings records in his list of selected Mycenaean pottery from Cyprus of this early phase include alabastra, piriform jars and kylikes.<sup>(8)</sup> It is also likely that some of the shallow saucer-like cups which were a popular shape in Cyprus belong to this early period.

The vases and fragments of Myc I - III A:1 date are mainly concentrated on the south and east coast, particularly at Enkomi, Hala Sultan Tekke, Maroni, and Arpera. Very little reached sites inland. Such a distribution, combined with the fact that the amount of pottery is so limited, suggests to Catling that during this period, "contacts between the Mycenaean world and Cyprus consisted at most of a very occasional trading call by a ship carrying Mycenaean vases in its cargo, some part of which was landed at one or other of the main south-coast ports, and very rarely moved farther inland."<sup>(9)</sup> The effect

of such contact on the life of Fifteenth century Cyprus will have been very limited, and the pottery imported during this early period will have remained unknown to the great majority of the population.

## 2. Myc III A:2 - III B

This is the most controversial of the three periods. During these 200 years an enormous quantity of Mycenaean pottery reached Cyprus, where it is found widely distributed throughout the island. As before, the most important deposits are on the south and east coasts. At least until Myc III B:2 the pottery was most common in tombs and is only rarely found in settlement levels and rubbish dumps. (a)

### Quantity and Distribution

Myc III A:2 : Over 100 specimens have been recorded from Enkomi and this is by far the richest site. Other important deposits come from places such as Maroni, Kourion, Klavdhia, Pyla and Dhekelia.<sup>(10)</sup> Mycenaean pottery imports now reached almost every corner of the island and there follows a list of some of the other Late Cypriot sites where small quantities of Myc III A:2 pottery has been found: Hala Sultan Tekke, Kition, Aradhippou, Kivisil, Arpera, Laxia tou Rioy, Akhera, Kouklia, Katydhata, Politiko, Ayios Sozomenos, Akaki, Myrtou-Pigadhes, Lapithos, Phlamoudhi, Ayios Iakovos, and Rizokarpaso.

Myc III B : Again the largest deposit has come from Enkomi, with over 300 specimens. Other sites that have produced quite large amounts include Kourion, Hala Sultan Tekke, Kition, and Kouklia.<sup>(11)</sup> Small amounts of Myc III B pottery have been recorded from many sites including: Klavdhia, Maroni, Pyla, Dhekelia, Dromolaxia, Akhera, Sinda, Kaimakli, Lapithos, Ayia Irini, Apliki, Myrtou-Pigadhes, Dhenia, Ayia Paraskevi, and Angastina. Two or single specimens have come from about 20 other sites. When discussing quantity and distribution it should be remembered that some sites have been excavated more

thoroughly than others, especially Enkomi, and also that the results of excavations at some of the sites have not been published in full.

Although the Myc III A:2 and III B pottery in Cyprus is large in quantity and widespread, it is only really abundant at the coastal sites and a few of the rich inland sites. Elsewhere settlements have only yielded a few specimens each.

No Cypriot object has been found in a Myc III A:2 or III B context on the Greek mainland.<sup>(12)</sup> Greece imported copper from Cyprus, as is natural, since the availability of copper was the island's chief attraction for traders.

### Pottery Shapes

Myc III A:2<sup>(13)</sup> : Bowls and jug types are almost entirely missing and this could be because there were plenty of bowls and jugs in the local Cypriot fabric (Base Ring and White Slip Ware). Kylikes are extremely rare in Cyprus and this is perhaps because being fragile they were difficult to transport and therefore were not exported. Cup types of the Myc III A phase are not common in Cyprus, with the exception of the shallow, saucer-like varieties. Of the other cup types the tankard-shaped and the bell-shaped varieties are represented by one or two examples. The straight-sided alabastron or pyxis (F93), which gradually replaced the curved variety, was fairly common; but even more frequent was the small three-handled piriform jar (F45 - 47). A common shape imported by Cyprus was the globular pilgrim flask (F188). Stirrup jars of the globular type (F171) are fairly frequent and the piriform variety (F165 and 166) has also turned up. Kraters of both the neckless (F8) and necked type (F54 and later F55) have been found. The necked type, the first examples of which appear in Myc III A:2, are particularly associated with Cyprus. These necked kraters, frequently decorated with pictorial scenes, are quite common

on the island whereas on the Mainland and Rhodes fewer examples have been found. The broad zone around the upper part of the pot normally bears the pictorial decoration; a frieze of animals or birds, or, most typically of all, a chariot scene. However, the decoration does sometimes spread freely over the whole field. The Pictorial Style expressed on these kraters is, according to Stubbings, "the most lively and imaginative product of Mycenaean pot-painting".<sup>(14)</sup>

In this review of the Myc III A:2 pottery shapes imported by Cyprus we may note the absence or rarity of bowls, kylikes and jugs, and the special frequency of pilgrim flasks, small piriform jars and necked kraters. In technique none of the pots exhibits any major difference from those of the Mainland of the same period, and in general they are the same in both shape and decoration as the standard Mycenaean types. Thus we must infer that the Myc III A:2 pottery found on Cyprus was imported from the Greek mainland.

Myc III B : About the middle of the Thirteenth century some Mycenaean pottery began to be manufactured on Cyprus itself, so we cannot take all the pottery from this period as evidence for overseas trade. Before discussing this problem fully we must first look at some of the pottery shapes represented on Cyprus during Myc III B.<sup>(15)</sup>

Bowls, as in Myc III A:2, are very scarce. The same can be said of Mycenaean jug types : the globular jug has been found, and there also appear, less frequently, one or two specifically Cypriot varieties. Kylikes remained very rare. More common, and peculiar to Cyprus, are the Cypriot Mycenaean shallow bowls, some of which have a stemmed foot (F296 and 309). During the Myc III B phase there occurred a number of cup types which are peculiar to Cyprus. The straight-sided alabastron or pyxis remained a popular shape, and the pilgrim flask continued to be imported. A new type of large piriform jar with a deep narrow neck appeared which seems peculiar to Cyprus. Of the various types of stirrup jars the globular variety (F173) remained the most common, but other types are found, for

example, the flat-topped and the piriform. The necked kraters decorated with chariot scenes became rarer in Myc III B and were largely replaced by a different krater type with wide, open mouth and two horizontal loop-handles (F281). The Pictorial Style of decoration continued on this new krater type. Chariot scenes were still depicted but the most typical subjects are friezes or groups of animals. The bull seems to have been the commonest but sphinxes, birds, deer, goats and fish also occur. Besides the frieze arrangements of these subjects a common scheme was the heraldic grouping of a confronted pair of animals, generally with some object, a tree or a plant, between them. Similar grouping occurs also on some of the later necked kraters. The actual style of the pictorial painting varies in the Myc III B phase far more than in Myc III A:2. One group of vases within the Myc III B Pictorial Style from Cyprus was more roughly painted than the rest and is referred to as the 'Rude Style'.

Of the vessel types found during the Myc III A:2 - III B period it would appear that closed shapes (stirrup jars, small piriform jars, flasks, and straight-sided alabastra or pyxides) were more common than open shapes (bowls, kylikes and cups).<sup>(16)</sup> According to Åström's corpus the stirrup jar and piriform jar were the most frequent Mycenaean pot types imported by the Cypriots during this period,<sup>(17)</sup> as far more of these have been found than any other shape. Narrow-mouthed vessels, particularly stirrup jars, may have been imported as much for their contents as for themselves. It is very likely that some of these storage jars contained olive oil.<sup>(18)</sup> According to Miss Lorimer, some of the smaller closed vessels such as alabastra may have contained some kind of perfume.<sup>(19)</sup> Catling points out that the Cypriots esteemed their pictorial vases especially as grave offerings (in fact a very high percentage of Mycenaean pictorial pottery found in Cyprus comes from cemetery excavation).<sup>(20)</sup>

The fact that at Enkomi the Myc III A:1 to III B styles are found both in dwellings and tombs in proportions which, though not exactly equal, can be matched, shows that the Mycenaean pottery at Enkomi, in spite of the fact that it was imported, was not only a luxury article offered to the dead but was also used in daily life. But this does not alter the fact that in comparison to the local wares, Mycenaean pottery was a luxury article, although accessible to the inhabitants as a whole. (21)

### The Origin or Source

Some discussion must take place to try and determine how much of the Myc III A:2 and III B pottery was imported and whether any was made on Cyprus itself. This is linked to the problem of whether any Mycenaean, traders or potters, were settled at some of the ports on Cyprus to foster trade and produce pots for themselves and the Cypriot market, before the large scale migrations of the Twelfth century. These are complicated questions but I shall review what some of the scholars have had to say.

Gjerstad, writing in 1926 said: "So far as the present material shows all the Aegean ware found in Cyprus must be considered as imported". (22) As far as he could see the only reason given for why the Mycenaean pottery could not have been imported from Greece was because it was so frequent on the island, which he felt was no reason at all. (23)

According to Furumark, in Cyprus during the Myc III B period the pottery was being manufactured locally in Mycenaean emporia. (24) In a later article (25) Furumark expresses the opinion that Mycenaean pottery was being manufactured on Cyprus as early as the late Myc III A:1 period. His evidence comes from a group of five Mycenaean vases found in a tomb at Maroni. Four are easily assignable to late Myc III A:1. The fifth vase is a bowl, which, though Mycenaean in technique and decoration, finds its closest parallels in Cypriot

Base Ring I ware, which indicates a date at the end of Late Cypriot IB (contemporary with early Myc III A:1). As this is a homogeneous find group Furumark draws this conclusion:

"The fact that one of the vases in this late Myc III A:1 group is an imitation of a native Cypriot shape must be taken as a proof that at this time Mycenaean pottery was manufactured either in Cyprus itself or in a region where Cypriote pottery was current. And that can only mean some part of the Levant." (26)

Sjöqvist in his book Problems of the Late Cypriote Bronze Age appears to consider that the bulk of the Mycenaean pottery of Myc III A:2 and III B date from Cyprus was not imported but manufactured locally on Cyprus and at other Helladic emporia in the Levant by Mycenaean settlers, because to him it exhibits a regional variation in style and decoration from the ordinary Mycenaean. He calls it Levanto-Helladic ware, a term coined by the Swedish Cyprus Expedition. In discussing the Levanto-Helladic pottery Sjöqvist points out that most of the shapes are the same as those of the ordinary Mycenaean, although there are several shapes specific to this class alone. (27)

Sjöqvist claims that small bodies of Mycenaean, particularly merchants and artisans, left Greece for the Levant in Myc III and settled in the seaports such as Enkomi on Cyprus and Ras Shamra (Ugarit) in Syria. They manufactured the kind of pottery they had used in their homeland, but since the Mycenaean pottery that they now made absorbed elements of the indigenous fabrics, the Levanto-Helladic style was created. (28) In Sjöqvist's opinion the greatest achievement of the regional group was the Pictorial Style, and calling on the authority of Furumark, (29) he confidently states that the Myc III Pictorial Style was, "the product of the Levanto-Helladic cultural region." (30)

Although he considers that groups of Mycenaean were settled on Cyprus during the Fourteenth and Thirteenth centuries, Sjöqvist does not feel that Cyprus was colonised by Mycenaean in this period. (31)



Stubbings, writing in 1951, felt that some of the Myc III A:2 pottery from Cyprus was manufactured locally. He notes particularly that the pictorially decorated kraters are primarily a Cypriot type, as many have been found on Cyprus, whilst they are less frequent on the Mainland.<sup>(32)</sup> However, he goes on to say that it is equally noticeable that in technique, shape and decoration the great majority of the Myc III A:2 pots are similar to the standard Mycenaean types. He realises that such unity of style could hardly have existed without frequent trade in the pottery and writes: "We are therefore probably on safe ground in assuming that much of the Myc III A pottery in Cyprus was imported."<sup>(33)</sup>

Stubbings sees an increased number of local peculiarities in the Myc III B pottery from Cyprus and considers this an indication that it must have been produced locally by that time, and that there were no doubt Mycenaean settlers on the island. He identifies this locally manufactured Myc III B pottery with Sjöqvist's Levanto-Helladic ware, but unlike Sjöqvist who visualises several production centres around the Levant, Stubbings believes that Cyprus was the chief place of manufacture.<sup>(34)</sup>

More recently Catling has expressed views on this problem and it is his opinions that I agree with. He disagrees with the previous scholars and in Chapter II of Cypriot Bronzework in the Mycenaean World he argues that there were no Mycenaean settlers on Cyprus during the Fourteenth and Thirteenth centuries manufacturing the pottery found on the island, but that it was all imported from the Mainland until the later Thirteenth century.

Catling points out that the Mycenaean pottery from Cyprus is not completely representative in either its range of shapes or ornaments which it ought to be if Mycenaean potters were on the island. Furthermore, Mycenaean plain pottery is virtually unknown in Cyprus and if Mycenaeans had lived on the island it is unlikely

they would not have made their own plain pots. In addition, during the Fourteenth and Thirteenth centuries on Cyprus there were no buildings or graves of Mycenaean type. Pottery excepted, the series of minor objects of familiar Mycenaean forms; weapons, tools, jewellery and so on, is almost wholly lacking. Many of the missing items are of a personal character and ought to have been present if any Mycenaean settlers had lived in any of the Late Cypriot towns<sup>(35)</sup>. Lastly, although some of the coastal sites were very rich in Mycenaean pottery, local pot fabrics were still predominant.

As the only significant material evidence on Cyprus for Mycenaean relations with the island from c. 1400 - 1200 appears to be painted pottery Catling concludes:

"It is surely better sense to interpret the evidence as the result of intensive trade relations between the Mycenaean world proper and Cyprus. This explanation suits the fact that the richest series of IIIA and IIIB pottery comes from the maritime sites of south and east Cyprus. Local resale of such imported pottery in the course of internal trade would account for its wide distribution throughout Cyprus."<sup>(36)</sup>

Even the controversial pictorial pottery has been convincingly shown to have been manufactured in Greece and not in Cyprus. Though found in most parts of the Mycenaean world pictorial vases have been found in the largest numbers in Cyprus, where they have come from about 20 sites, especially the rich cemeteries of Enkomi, Maroni, Klavdhia and Pyla, and this has caused many scholars to consider them to have been manufactured on the island. Catling argued (in C B M W, pp. 41-43) that this type of pottery was of Mainland manufacture exported to Cyprus. In an article published in the following year confirmation for a Mainland manufacture of pictorial pottery was reported following an analysis on samples taken from 25 vases and fragments from sites in Cyprus belonging to the Pictorial Style.<sup>(37)</sup> The composition of 22 of the samples

was shown to correspond to the characteristics of fabric previously shown to be typical of much of the Peloponnese. Therefore, these 22 Mycenaean pictorial vases were manufactured somewhere in the Peloponnese and not Cyprus. The date of the material tested covers the whole of the Fourteenth and part of the Thirteenth centuries.

And so Catling writes -

"it is quite clear that Peloponnesian production and export of pictorial vases to Cyprus lasted throughout the Mycenaean III A:2 phases and continued well into the III B phase."

But why should more pictorial vases have been found in Cyprus than Greece? Firstly, recent finds on the Mainland tend to show that pictorial vases were more common in Greece than is generally supposed. But it may be that because this form was popular in Cyprus Mycenaean merchants pushed the sales of it in the Cypriot market to the point where the market absorbed quite a high proportion of the total output.

Catling points out that the great quantity of imported pottery eventually influenced the local taste. Thus imitations of pithoid jars occurred in Base Ring ware. But of more significance than the effect upon local fabrics was the slowly increasing habit of direct imitation which developed in Myc III B. The Rude Style bowls were certainly manufactured in Cyprus.<sup>(38)</sup> They date to the late Thirteenth century and are a roughly done imitation of the Pictorial Style. Another vase-type produced in Cyprus in the Thirteenth century that copied Mycenaean prototypes were the Cypriot Mycenaean shallow bowls, some of which have a stemmed foot.<sup>(39)</sup>

In conclusion, according to Catling's interpretation of the evidence, throughout Myc III A:2 and early III B supplies of Aegean painted pottery were plentiful and easily imported and therefore there was no need to manufacture it locally. Then, in the second

half of the Thirteenth century supplies from the West began to fall off, owing, no doubt, to the onset of troubled times in the Aegean (end of Myc III B:1, c. 1250 B.C.), and so Cyprus had to start producing her own Mycenaean pottery, for which there was evidently a strong demand. It was then that the Rude Style appeared.<sup>(40)</sup>

This is a similar conclusion to that J. F. Daniel came to.<sup>(41)</sup> Mrs. Hankey shares Catling's views. She considers that the Mycenaean pottery in Cyprus until into the III B period was imported from the Mainland and then at sometime during that phase (c. 1250 B.C.?) there was a reduction in the amount imported and a growth in local imitation.<sup>(42)</sup> Cadogan also endorses the conclusions that Catling reached as outlined above.<sup>(43)</sup>

As to the origin of the Myc III A:2 and III B pottery in Cyprus I am in agreement with what the more recent scholars have to say. That is that the Myc III A:2 and III B pottery found in Cyprus was the result of trade with the Mainland and not locally produced by Mycenaean settlers on Cyprus. The import of this pottery developed steadily throughout the Myc III A period and maintained itself during the first half of Myc III B. Commercial intercourse was disrupted at the end of Myc III B:1 (c. 1250 B.C.) due to a certain amount of destruction on the Mainland and thus the export of Mycenaean pottery began to fall off. As supplies from the Mainland diminished local Cypriot potters began to make their own versions of the evidently popular painted pottery, for example the Rude Style.

### 3. Myc III C

As the Mycenaean world broke up during the Myc III C period regular trade ceased and there was a much more widespread local manufacture of Mycenaean pottery. Most of the Myc III C pottery

from Cyprus will have been made on the island but some will still have been imported but it is difficult to say how much.

The Myc III C pottery from Cyprus, according to Åström's corpus, is as follows:<sup>(44)</sup> Enkomi over 500 examples, Sinda about 80 specimens. Large numbers have also come from Kition and Kouklia. A few examples have been found at Kourion, Pyla, Maa, Apliki, Myrtou-Pigadhes, Nicosia and Dhalia. It is significant that the great sites of earlier times in the south and south east (Maroni, Hala Sultan Tekke, Klavdhia) are absent from the list; they may have been destroyed or abandoned. As stated before there has been an unevenness in excavation and publication. Enkomi, for example, has been more thoroughly excavated than any other Late Cypriot site.

At the end of Myc III B:1 there was some destruction outside the walls at Mycenae and soon after, in Myc III B:2, trade became less regular and less organised, as we have seen in the reduction of pots exported to Cyprus and the development of local imitation to supplement this. At the end of Myc III B:2 (c.1190 B.C.) there was a serious invasion of Greece; sites were destroyed in a strip from Phœcis to Laconia (for example Mycenae, Tiryns, Midea, Pylos) and there was a refugee movement from the Mainland. It was then that the first unquestionable Greek communities appeared east of the Aegean forming part of the general movement into the East Mediterranean that characterised the era of the 'Sea Peoples'.<sup>(45)</sup> And so at the end of Myc III B and during Myc III C groups of Mycenaeans began to emigrate to Cyprus; they now came not as traders but as settlers. (Another group of Mycenaeans journeyed to Tarsus where they introduced Myc III C:1 pottery: see p.47 above).

Recent discussions of Late Bronze Age Cyprus by Furumark,<sup>(46)</sup> Dikaios,<sup>(47)</sup> and Åström,<sup>(48)</sup> based upon excavation work at

Enkomi and Sinda, have done much to clarify the sequence of events in Cyprus at the time of the Myc III C period. An unfortunate complication is that Furumark and Dikaios date the transition from Myc III B to III C to c.1230 B.C., while Åström prefers the date of c. 1190, the date now used by most Aegean prehistorians.

Åström gives a chronology for the phases of the Late Cypriot III period which begins at c. 1190<sup>(49)</sup>, but as he says the dates are only tentative. Mycenaean pottery of the Myc III C styles has been found in Late Cypriot III contexts but because of the uncertainty in dating the phases I have decided against using an absolute chronology for the Late Cypriot III period. However, as a guide, it can be said that the first of the L.C. III phases, L.C. III A1, began after the destructions on the Mainland and Cyprus, about 1190 B.C. according to Åström's chronology. This phase had only a short life-span, some 20 years or so, and ended in destruction. It was followed by the L.C. III A2 and L.C. III B1 periods which lasted through the rest of the Twelfth century, L.C. III B1 ending at sometime in the first quarter of the Eleventh century B.C.

The destruction on the Mainland at the end of Myc III B:2 (c. 1190) was part of a widespread catastrophe that was felt in other parts of the East Mediterranean. Sites on Cyprus: Enkomi, Kition and Sinda were destroyed at the same time (this was the end of L.C. II C). Dikaios suggests that those who destroyed Enkomi included a large proportion of Mycenaeans who had fled from the destructions on the Mainland.<sup>(50)</sup>

Late Cypriot III A1 (corresponding to Level III A at Enkomi)<sup>(51)</sup>

It appears that Enkomi was abandoned for some time after the destruction because Myc III C:la pottery is missing there. We must assume that the raiders did not reconstruct the town, but after

the raid went away proceeding eastwards. At Sinda, however, a small amount of imported Myc III C:1a ware was found in Tomb 1. (52)

After a short interlude Myc III C:1b pottery, closely related to the Argive style as found at Mycenae and Asine, appeared at a number of Cypriot sites, suggesting the arrival of Greek immigrants. These newcomers had presumably fled from the destroyed centres on the Mainland but they were not the same Mycenaeans who had destroyed the Cypriot towns at the end of L.C. IIC. These new migrants must have come from the Argolid a short time after the L.C. IIC towns had been lying in ruins. (53)

Enkomi was rebuilt on a new pattern. Kition, Sinda, Kouklia, Pyla - Kokkinokremos / <sup>and</sup> Palaeokastro-Maa were also inhabited by the newcomers who produced Myc III C:1b pottery. This was the time of the first Greek colonisation of Cyprus. Earlier Mycenaeans had come as traders, now they came to settle, introducing the Greek language, religion, institutions, art and customs, and new architectural elements.

The Myc III C:1b pottery occurs in considerable quantities at Enkomi. In fact it dominated the ceramic repertory of the L.C. III A1 period at the site, reaching an average of 42 - 46% but in some individual cases reaching 90% of the total of the decorated wares. This shows the extent to which the local Cypriot wares had receded in the face of the considerable penetration of the Mycenaean element. (54) Dikaios remarks that the large quantities of Myc III C:1b wares, larger than any of the previous Mycenaean styles observed on the Enkomi site, make possible the assumption that a large proportion of this ware was locally made. (55) The Myc III C:1b pottery at other sites where Mycenaeans had settled, for example Sinda, was also mainly locally made.

The L.C. III A1 period was a time of prosperity on Cyprus, but it was only short-lived. The first destructions that marked the

end of L.C. IIC were succeeded at the end of L.C. III A1 by a second series of catastrophes at Enkomi, Kition, Sinda, Palaeokastro-Maa and Pyla-Kokkinokremos, which were destroyed at a time when Myc III C:1b pottery was still in use. These disasters should perhaps be attributed to the activities of the Sea Peoples,<sup>(56)</sup> although as Åström remarks, there is very little evidence for the presence of the Sea Peoples in Cyprus. After this destruction a number of settlements were not re-occupied. We can trace this second series of destructions starting in Greece in Myc III C, via Asia Minor to Syria.

Late Cypriot III A2 - Late Cypriot III B1 (first part). (Level III B at Enkomi)

Note: The evidence discussed below for Mycenaean contact with Cyprus during this period is taken solely from the results of the excavations at Enkomi.

Following the destruction at the end of L.C. III A1 Enkomi was reconstructed again (Level III B) and this level also contained Mycenaean pottery. It was marked by the presence of Myc III C:1b ware including the elaborate Close Style. This style, which occurred also more abundantly at Sinda, was current at Mycenae before the destruction and its presence in Cyprus testifies to continued connections with the Greek mainland and presumably importation of pottery. Furthermore, the same level saw the spreading of the Myc III C:1c Granary Style with wavy line decoration, testifying to further arrivals from the Argolid, after the destruction of Mycenae<sup>(57)</sup>. Pottery of the Granary Style has also been found in settlement contexts at Kition.

From the time of Level III B at Enkomi there exists a considerable amount of evidence as regards architecture, religion, arts and crafts, and above all the pottery just mentioned, which shows a predominance of contemporary mainland Greek elements, with emphasis to Mycenae itself, the Argolid, the Messenian and Laconian areas. This would mean that the builders of the Level III B buildings, after the



destruction of the previous level by the Sea Peoples, derived from that part of the Greek mainland and must have formed a powerful component in the movement of those Sea Peoples. That component remained at Enkomi, and presumably in other parts of Cyprus. They represent the second wave of Greek migrants, introducing the elaborate Close Style, and they were supplemented by a still later wave which was responsible for the spreading of the Myc III C:1c Granary Style (as mentioned above). This last group must have settled peaceably as they came from the same area as the previous wave of migrants.<sup>(58)</sup>

The first part of L.C. III B1 ended in a sudden disaster, probably caused by an earthquake, or possibly by a hostile attack, around 1100 B.C.

Late Cypriot III B1 (second part). (Level III C at Enkomi)

The buildings were reconstructed and the pottery from this level was predominantly Myc III C:1c, and especially the Granary Style with wavy line decoration, which in some representative groups reached 54 - 83%<sup>(59)</sup>.

At the end of L.C. III B1 (c.1075) Enkomi was finally abandoned, but other cities such as Kition survived.

The Mycenaean world broke up during the Myc III C period and this brought an end to the old trading patterns. Successive waves of Greek immigrants moved to Cyprus during the Twelfth century. The buildings of Levels III A and III B at Enkomi are Mycenaean in character, as is the pottery, and there is little doubt that Enkomi was the main centre in the Mycenaean colonisation of the island.

A small amount of imported Myc III C:1a. ware, probably of Rhodian manufacture, was found at Sinda. Large quantities of Myc III C:1b and c wares have been found on Cyprus but much of this pottery was made locally on the island by the Mycenaean settlers. Furthermore, on the occasions

when the Myc III C:1b-c styles were brought to the island, they owed their original introduction to settlers, and did not come in the way of trade. But the Myc III C:1b-c wares on Cyprus are closely related to the Argive styles thus testifying to continued contact between Cyprus and Greece. And so some of the Myc III C:1b-c styles of pottery must have been imported from Greece. Mrs. Hankey considers that the Mycenaeans on Cyprus continued a sporadic trade with the Mainland during the Twelfth century. (60)

CHAPTER TWO CChapter Notes

1. Waldbaum. AJA 70 (1966), pp. 336-337.
2. CBMW, pp. 35 sq.
3. MPL, p. 25.
4. P. Åström, in Mycs East Med., p. 124.
5. Ibid., p. 124.
6. Ibid., p. 124.
7. K. Nicolaou, in Mycs East Med., pp. 52 sq.
8. MPL, pp. 27-29.
9. CBMW, p. 36.
10. P. Åström, in Mycs East Med., p. 124.
11. Ibid., pp. 124-125.
12. G. Cadogan, in Mycs East Med., p. 169.
13. See: MPL, pp. 31-37.
14. Ibid., pp. 32-34.
15. See: Ibid., pp. 37-44.
16. G. Cadogan. Op. cit., p. 170.
17. P. Åström, in Mycs East Med., pp. 125-126.
18. Hankey. Mélanges St.-Joseph 46 (1970), pp. 18-19.
19. Lorimer. Homer and the Monuments, p. 56.
20. Catling and Millet. BSA 60 (1965), p.221.
21. Enkomi II, pp. 862-863.
22. Gjerstad. Studies on Prehistoric Cyprus, p. 218.
23. Ibid., p. 219.
24. Furumark. Op. Arch. 3 (1944), p. 262.
25. Furumark. Op. Arch. 6 (1950), pp. 265-269.
26. Ibid., p. 267.
27. Problems, p. 66. On p. 68 Sjöqvist lists some 14 pot shapes  
that he feels are exclusively Levanto-Helladic.
28. Ibid., p. 96.

29. MP, p. 462. In discussing the Mycenaean pictorial painted pottery from the Levant (which he terms the 'Levanto-Mycenaean' pictorial style), Furumark says it is a Levantine style, rare outside the Levantine region and that those specimens found on the Mainland which are identical in style with the Levanto-Mycenaean were imported from the East.
30. Problems, pp. 71-72.
31. Ibid., p. 184.
32. MPL, p. 33.
33. Ibid., pp. 36-37.
34. Ibid., pp. 42-44.
35. CBMW, pp. 40-41, 49; Catling and Millet. Op. cit., p. 214.
36. CBMW, p. 49.
37. Catling and Millet. Op. cit., pp. 219-221.
38. CBMW, pp. 42-44.
39. Immerwahr. Archaeology 13 (1960), p. 12 ; Enkomi II, pp. 511,864.
40. CBMW, p. 44.
41. Daniel. AJA 41 (1937), p. 81.
42. Hankey. Mélanges St.-Joseph 46 (1970), pp. 20-22; Asian Affairs (Journal of the Royal Central Asian Society) 61 (N.S.5) Part 1 (1974), p.54.
43. G. Cadogan. Op. cit., p. 168.
44. P. Åström, in Mycs East Med , p. 125.
45. Waldbaum. Op. cit., p. 337.
46. Furumark. Op. Ath. 6 (1965), pp. 99-116.
47. Enkomi II.
48. Swedish Cyprus Expedition IV.
49. Ibid., p. 762.
50. Enkomi II, p. 513. Dikaios dates this destruction earlier than Åström, at c. 1230.

51. Dikaios gives an earlier date than Åström for this level:  
see Enkomi II, p. 514 sq.
52. Swedish Cyprus Expedition IV, pp. 695, 775.
53. According to Furumark, Op. Ath. 6 (1965), p. 110, the Mycenaean immigrants who introduced the Myc III C:1b pottery into Cyprus, and who originated in the Argolid, made a stop on the way and he quotes Cilicia and particularly Tarsus, where Myc III C:1a pottery imported by immigrants from the Argolid appeared about a decade earlier.
54. Enkomi II, pp. 458-459, 518.
55. *Ibid.*, p. 841. At the time when Myc III A:2 and III B styles were current, the quantities, which were all imported, were much smaller in proportion to the local wares or to the Myc III C:1b pottery of Level III A at Enkomi.
56. Swedish Cyprus Expedition IV, pp. 777-778; Enkomi II, pp. 488, 522-523.
57. Enkomi II, pp. 525-526, 528.
58. *Ibid.*, pp. 528-529. Other components of the Sea Peoples, for example the Philistines, must have moved eastwards to the Palestinian coast, where they established themselves and, somewhat later, introduced the Philistine pottery which presumably derived from the Myc III C:1b pottery of Cyprus.
59. *Ibid.*, pp. 531-533.
60. Hankey. Mélanges St.-Joseph 46 (1970), pp. 22-23.

(a) See Plate 2

D: SYRIA AND PALESTINE

The export of Mycenaean pottery from the Greek mainland was concentrated on Cyprus and it is there that the largest deposits have been found. However, in smaller quantities it did travel further east and south, and it has been excavated at Late Bronze Age sites in Syria, Palestine and Egypt.

This chapter will be concerned with the export of Mycenaean pottery to Syria and Palestine and we shall begin by looking at the evidence. Sites are considered roughly in geographical order, north to south. (see Map 4)

Note: For this section on evidence see especially:  
Stubbings, MPL, Chaps. IV and V, and Hankey, BSA 62  
(1967), pp. 107-147.

1. Jerablus (Carchemish) : Several late Mycenaean sherds have been reported from this site.<sup>(1)</sup>
- (a)
2. Tell Atchana (Alalakh) : Large deposits of Mycenaean pottery have come from this site.<sup>(2)</sup>

There have been found two Myc II sherds.

The rest of the material belongs to the Myc IIIA and IIIB phases. Amongst the earliest Myc IIIA pieces is part of a piriform jar (probably F24 or 25). Myc IIIA and IIIB krater sherds have been found, and some of the IIIA pieces are decorated with chariot scenes.<sup>(3)</sup> Other Myc IIIA and IIIB shapes represented include those that frequently turn up at sites in the East Mediterranean: stirrup jars (piriform and globular), small piriform jars, straight-sided alabastra or pyxides, and vertical pilgrim flasks.

3. Sabouni : According to Woolley<sup>(4)</sup> this is where the merchants of Al Mina (the port that served Tell Atchana) lived. Mycenaean sherds dating to the Thirteenth and Twelfth centuries have been found here.

4. Khan Sheikhoun : A fragment of a Myc III A stirrup jar.
5. Ras Shamra (Ugarit) : An enormous quantity of Mycenaean pottery has been excavated at this site, and it is added to with each year of excavation.

Only one Myc II pot has been found, an alabastron.

The majority of the Myc III finds are of the Myc III B style.

Amongst the Myc III A pottery Stubbings<sup>(5)</sup> includes two conical rhyta bearing octopus decoration, both from Minet el Beida (the harbour of Ras Samra). There are also examples of the more common exported Myc III A types such as stirrup jars and pilgrim flasks. Two less familiar shapes are a three-handled piriform jug and a piriform funnel. Mrs. Hankey comments on the pictorial kraters from Ras Shamra.<sup>(6)</sup>

The following Myc III B pots are represented in the material from Ras Shamra and Minet el Beida:<sup>(7)</sup> one example of a deep bowl, the Cypriot Mycenaean shallow bowls which appear frequently, kraters including the necked variety with chariot scenes, a few shallow cups, straight-sided alabastera or pyxides, piriform jars, one or two small globular jugs and one miniature piriform jug with 'cut-away' neck, stirrup jars which are very common, pilgrim flasks and side-spouted jars which are not frequent, and various ritual vessels from Minet el Beida, including conical rhyta.

Ras Shamra is one of the few sites in the Levant to have yielded a small quantity of Myc III C pottery.

6. Lattakie : A few Mycenaean sherds.
7. Hama : Two fragments of Mycenaean stirrup jars, dated Myc III A or III B, are recorded from this site.<sup>(8)</sup>
8. Tell Sukas : Excavation work by a Danish team has made known a new area of Mycenaean contacts, filling in the gap between Ras

Shamra and Byblos. Amongst the Mycenaean pottery from Tell Sukas one possible Myc I sherd is recorded. The majority of the pieces are, however, Myc III A. For example: Myc III A:2 sherds of a krater and of a small piriform jar. The Myc III B material includes fragments of a stirrup jar and of a krater decorated with bulls. Some Myc III C:1 pottery is also mentioned.<sup>(9)</sup>

9. Mishrife (Qatna) : From this site are recorded two Myc III A:1 pots : a large piriform jar and a necked krater.<sup>(10)</sup>

10. Tell Kazel : Myc III A and III B pottery has been found here. The sherd material includes part of a conical rhyton and a sherd from a chariot krater.

11. Qadesh : Several Mycenaean sherds.

12. Byblos : The material includes the following<sup>(11)</sup>: Four sherds of Myc II date, three of which appear to be from one pot, a Palace Style amphora, (the fourth sherd is probably from a similar shape).

Of Myc III B date belong a Rude style krater decorated with bulls, a number of necked krater sherds with pictorial decoration including chariot scenes (some of which may be Myc III A:2), bowl fragments, and several stirrup jars and fragments of stirrup jars.

The absence at this site of Myc III A pottery troubled scholars in the past. Recently, however, Mrs. Hankey<sup>(12)</sup> adds in a footnote that a large deposit of Myc III A:2 and III B pottery has been found at Byblos, in a rock-cut area described as a catacomb.

13. Tell el Ghassil : a small amount of Mycenaean pottery.

14. Tell Ain Sherif : a small number of Mycenaean sherds.

15. Beirut : Amongst finds from tombs discovered in 1954<sup>(13)</sup> there was Myc III A:2 and III B pottery including three vertical flasks, five stirrup jars and a Rude Style krater of the broad-mouthed



open type decorated with a bull (similar to the one from Byblos).

Since then more pottery has been found at Beirut.

16. Gharifeh : From a tomb at this site the finds included a number of Mycenaean pots, for example: a globular stirrup jar, a small globular jug, and a small pyxis.

17. Kamed el Loz : Mycenaean pottery, mainly stirrup jars, have been found here.

18. Sidon : In addition to the small piriform jar dated Myc III A:2 found a few years ago at this site, Mrs. Hankey more recently notes<sup>(14)</sup> that Myc III A:1 and III A:2 pottery has come from newly found tombs at Sidon.

19. Sarafend (Sarepta)<sup>(15)</sup> : At this site, in 1929, an ancient burial cave was revealed. The interest in the cave lies in the distribution of pottery types. Of the 67 vessels retrieved, 34 were Mycenaean, most of them Myc III B but not late in the period. This is the only large group of Mycenaean pottery known from Lebanon.

From Baramki's inventory of pots we may note:<sup>(16)</sup>

There were about 22 stirrup jars, most of them fragmentary but some whole ones, the main varieties of which were flat-topped and globular types.

There were 3 or 4 fragmentary lentoid flasks.

One or two other vessels of various shapes: 3 or 4 Cypriot Mycenaean shallow bowls, a shallow cup, a small piriform jar, and a small globular jug.

The rest of the pottery from the tomb comprised Cypriot imports and local imitations.

20. Tell es Salihiyeh : One Myc III A:1 sherd.

21. Deir Khabie : A Mycenaean stirrup jar has been found here.

22. Hazor : Mrs. Hankey records the following as an indication

of the importance of this site<sup>(17)</sup>

Two Myc II sherds, possibly from a three-handled jar.

A small amount of Myc III A:1 ware represented by an alabastron.

During Myc III A:2 trade became considerable and the finds of this date at Hazor are typical of finds from other East Mediterranean sites. The shapes represented include the vertical pilgrim flask, globular stirrup jar, alabastron, straight-sided alabastron or pyxis, and the small piriform jar.

Among the Myc III B material are noted krater and kylix fragments and a few fragments of figurines.

23. Acre : Myc III A:2 and III B:1 pottery has been found in a burial area.

24. Tell Dan : Myc III A:2 and III B:1 pottery found here includes a whole chariot krater.

25. Tell Ashari : Stubbings notes the following Myc III B pots from a tomb:<sup>(18)</sup> four straight-sided alabastra or pyxides, two squat stirrup jars, a bottle, and a lentoid flask (which was probably locally made).

26. Tell Abu Hawam : The site has yielded a large quantity of Mycenaean pottery, mostly Myc III B.<sup>(19)</sup>

Myc III A pieces include fragments of shallow cups, stirrup jars and rhyta.

The following Myc III B pottery is represented: kraters (probably of the necked type decorated with chariot scenes, and also the broad-mouthed open type), several sherds from Cypriot Mycenaean shallow bowls, shallow cups, numerous kylix fragments, one or two straight-sided alabastra or pyxides, three-handled jars, one small globular jug, stirrup jar fragments, and fragments of rhyta including the conical variety.

Excavations at this site have produced the widest range of Myc III B ware in Palestine. On the whole the III B pottery does not look late in the period and in fact some of the pieces may be Myc III A:2.

27. Tell Affuleh : One or two pyxides have been found.

28. Megiddo (Tell el Mutesselim) : Mycenaean pottery has come from both the settlement and the tombs at this site and it all appears to be Myc III B; there seems to be no Myc III A or earlier pottery.

From the settlement: Loud records a dozen or so Mycenaean pot fragments.<sup>(20)</sup> This seems curiously thin considering the broad contacts suggested by the ivories, Egyptian imports, metal and stone objects.

From the tombs<sup>(21)</sup>: Imported Mycenaean pots found in the tombs are few in number. The most frequent shape is the stirrup jar, of which there are about half a dozen fragmentary examples. Other Mycenaean pots from the tombs include a jar fragment and a pilgrim flask.

Mrs. Hankey considers three fragments decorated with birds, possibly from a necked krater, to be an import of the Myc III B Rude Style from Cyprus.<sup>(22)</sup>

29. Tell Taanek : Several sherds appear to be Mycenaean.

30. Beth Shan (Beisan) : Of the Mycenaean pottery from Beth Shan little is earlier than Myc III B.

To the end of Myc III A belong several fragmentary pilgrim flasks and a fragment of a miniature jug.

Myc III B ware from this site includes fragments of a small number of stirrup jars, and one or two sherds from other jars.<sup>(23)</sup>

Myc III C pottery comprises<sup>(24)</sup> a globular stirrup jar, and 3 fragments also from a globular stirrup jar.

31. Tabaqat Fahil (Pella) : In 1964 L.B. burials were found in 11 rock-cut tombs and amongst other goods were between 35 and 50 Mycenaean pots, mostly Myc III A:2 and of good quality.<sup>(25)</sup> The typical shapes represented are: the straight-sided alabastron or pyxis, small piriform jar, vertical pilgrim flask, globular stirrup jar, flat-topped stirrup jar and shallow cup.
32. Jatt : In a tomb at Jatt were found two small piriform jars and one squat stirrup jar.
33. Dothan : A quantity of Mycenaean pottery was found in a tomb at this site in 1959.
34. Tell es Saidiyeh (?Zarethan) : Myc III A:2 and III B pottery has been found at this site.
35. Tell el Farah : One Mycenaean sherd.
36. Balata (Shechem) : Mycenaean sherds are recorded from this site.<sup>(26)</sup> The shapes represented include: krater, pyxis, shallow bowl, lentoid flask, and possibly stirrup jar and kylix. They are Myc III A and III B in date.
37. Deir Alla : Five Mycenaean pots have been found at this site<sup>(27)</sup> in a small sanctuary that was destroyed by an earthquake sometime after 1200 B.C. The pots are as follows: a squat stirrup jar which is Myc III A:2, and a globular flask, globular stirrup jar, biconical stirrup jar and a local imitation of the globular stirrup jar, all of which are Myc III B. The excavators say the pots were in use at the time of the earthquake.
38. Tell Jerisheh : Surface finds included Mycenaean sherds.
39. Tell Zippor : A thick Late Bronze II deposit contained Mycenaean pottery.

40. Beitin (Bethel) : Three Mycenaean sherds are recorded.
41. Dhahrat el Humraiya : Tombs at this site have produced three Mycenaean pots: a pilgrim flask, cup and pyxis.
42. Amman : A Late Bronze Age temple was discovered at Amman in 1955. A remarkable variety of finds included a large quantity of Mycenaean pottery. The site was re-excavated in 1966 by the British School of Archaeology in Jerusalem, directed by Dr. J.B. Hennessy, when more material was recovered.

Note: The following information on the Mycenaean pottery from this site is taken from the article by Hankey, in Levant 6 (1974), pp. 131 sq.

10 restored pots in Amman Museum and 462 sherds from excavations in 1955 and 1966 present in all between 50 and 60 Mycenaean pots and one Late Minoan III. The range in time is from Myc II A to late Myc III B. No Myc III C was found.<sup>(28)</sup>

Myc II : there are fragments from three Myc II vessels<sup>(29)</sup>; 7 pieces from a pithoid jar (F24), dated Myc II A, which even in fragments is a remarkable vase, and unexpected east of the Jordan;<sup>(b)</sup> 6 pieces from a pithoid jar (perhaps F16); a body sherd from an open vessel.

Myc III A:1 : this is also rarely found in the south-eastern Mediterranean. There are four examples from Amman<sup>(30)</sup>; 1 sherd from a piriform jar, a sherd from another piriform jar, two sherds from a cup, and one sherd possibly from a dish.

Myc III A:2 and III B:1 : The bulk of the Mycenaean pottery from the temple belongs to this period. The pottery from the temple from these phases contain the shapes most frequently found throughout the south-eastern Mediterranean at sites which imported Mycenaean pottery. These shapes are the small piriform jar, the alabastron (both the ordinary curved and the straight-sided varieties), the stirrup jar, the pilgrim flask, and, in smaller quantities, the pictorial krater.<sup>(31)</sup>

Note: the pottery (and other imported goods) cover a far greater range of time than the building, which we know had a very short life.

43. Gezer : Stubbings records the following Mycenaean pottery from this site.<sup>(32)</sup>

At least four Myc II sherds.

The chief Myc III A finds were in Tombs 7 and 9 and they include a small piriform jar, a small alabastron, and a couple of stirrup jars. Other Myc III A material includes two more small piriform jars and sherds.

From Tomb 58 came two Myc III B pots (a small globular jug and a pyxis). Other Myc III B ware includes fragments from pictorial kraters, a piece of a three-handled jar, a sherd from a globular stirrup jar and two from the rims of kylikes.

44. El Jib (Gibeon) : A Myc III A:1 alabastron was found at this site.

45. Jericho (Tell es Sultan) : A Mycenaean pot has been recorded from the city mound, and from Tomb 13 have come two piriform jars and a small alabastron.

46. Jerusalem : Two Mycenaean pots and sherds were found at this site.

47. Ashdod : Myc III A and III B pottery has been found here, including sherds from chariot kraters. The real interest in the site, however, lies in the Myc III C:1b pottery. Both a trace-elements analysis<sup>(33)</sup> and a neutron activation analysis<sup>(34)</sup> indicated that it was locally made, but all the forms and motifs are clearly in the general Myc III C:1b tradition.

48. Ain Shems (Beth Shemesh) : The bulk of the pottery found here is of the Myc III A phase.<sup>(c)</sup> The Myc III A pottery listed by Stubbings includes<sup>(35)</sup> : a straight-sided alabastron or pyxis, a pilgrim flask,

a globular stirrup jar, three miniature piriform jugs with 'cut-away' necks, a small mug and a small piriform jar. There are fragments from a kylix and a cup, and sherds from piriform jars, stirrup jars, and pilgrim flasks, some of which may be Myc III B. There are also fragments from kraters painted with chariot scenes which may be III A or III B.

49. Madaba : Two Mycenaean sherds were found in an Early Iron Tomb.<sup>(36)</sup> A small number of pots from the same tomb have Mycenaean connections.

50. Tell es Safiyeh : A few Mycenaean sherds are recorded from this site.

51. Askalon : Mycenaean sherds are reported as very numerous and characteristic in the Late Bronze Age stratum of this site. Stubbings records a number of Myc III A and III B sherds,<sup>(37)</sup> including one or two from kylikes and bowls, one from a pictorial krater, and a fragment from a conical rhyton.

52. Tell ed Duweir (Lachish) : The following information on the Mycenaean pottery is taken from Tufnell, Lachish IV.

From the Fosse Temple<sup>(38)</sup> : A fine one-handled stemmed cup with ivy leaf ornament round the bowl dated Myc II A; a kylix sherd also Myc II; the upper part of a kylix decorated with an oblique murex motif and a small number of pot sherds dated Myc III B by Stubbings (MPL, p.85).

From the Tombs<sup>(39)</sup> : Three piriform jars, probably Myc III A:2; fragments of a stirrup jar, probably of the piriform type and unusually large, and the fragments of another similar pot (Stubbings, MPL, p.66, dates these two sets of fragments to Myc III A); two other complete vessels - a pyxis and juglet.

From the Tell<sup>(40)</sup> : Isolated sherds of a number of different vessels, all either kraters or bowls. Prominent in the collection are nearly a dozen sherds of a chariot vase, the drawing of which suggests a date in Myc III A.

There are imitation piriform jars and pyxoid jars.

53. Tell el Hesi : A few Mycenaean sherds.

54. Hebron : Myc III B stirrup jars have been found in tombs at Hebron.<sup>(41)</sup>

55. Tell el Ajjul (Gaza)<sup>(d)</sup>: There is some Myc II pottery from this site.<sup>(42)</sup>

The Myc III A<sup>(43)</sup> from the 'Governor's Tomb' includes: four straight-sided alabastra or pyxides, three small piriform jars, one miniature piriform jug with 'cut-away' neck, four piriform stirrup jars, and two pilgrim flasks. Myc III A pottery also comes from other parts of the site and the shapes represented include: the small piriform jar, piriform stirrup jar and pilgrim flask.

The Myc III B<sup>(44)</sup> from the Governor's Tomb' includes four small stirrup jars (of which three may be local imitations). Other Myc III B material includes two flat-topped stirrup jars and the fragments of a necked krater with chariot scenes that could be Myc III A or III B.

56. Tell Beit Mirsim : From this site have come sherds of straight-sided alabastra or pyxides, cups or kylikes, small piriform jars and stirrup jars.

57. Tell Jemmeh (Gerar) : Mycenaean pot fragments have been recorded from this site.

58. Tell Fara (Beth Pelet) : A small amount of Mycenaean pottery has been found in the "900" cemetery tombs at Tell Fara, along with a few local imitations. This pottery is of the so-called Simple Style of Myc III B.<sup>(45)</sup> The Simple Style has been found at many sites in the Levant and like the Rude Style produced on Cyprus



it may have developed in the East Mediterranean after the reduction in export from the Mainland at the end of Myc III B:1.

Note: The dating of finds of Mycenaean pottery is not always clear. In Syria and Palestine, for example, pottery has been found in tombs, often rifled as at Sarafend, confused levels of use, as at Amman, or has come from buildings used over a long period, such as the Fosse Temple I at Lachish.

I have recorded the imported pottery but there are also imitations in local clay of Myc III A:2 and III B:1 shapes at many sites in Syria and Palestine as elsewhere where Mycenaean pottery was exported.

From this brief review of the evidence it is clear that the great bulk of the Mycenaean pottery from Syria and Palestine is of the Myc III A:2 and III B:1 periods. This was the picture we got from Cyprus and it is what we expect, it being the period of the Mycenaean koine. These phases contain the shapes most frequently found at sites in Syria and Palestine which imported Mycenaean pottery and these shapes are: (46)

the small piriform jar(shape F.45).

the piriform and the globular stirrup jar (F.166, 171).

the straight-sided alabastron or pyxis (F.93-95).

the pilgrim flask (F.187-189).

These shapes are common in Cyprus too and are in fact found from one end of the Mycenaean trade area to the other. The most popular of these forms to be imported by the Levant was of course the stirrup jar. Although the straight-sided alabastron or pyxis is more frequent, the variety with curved profile (F.85) is also found. A notable pot form from the sites in Syria and Palestine is the necked krater (F.54-55) decorated in the Pictorial Style. This type is, as we have seen, characteristic of Cyprus where it has been found abundantly. It is not as common in Syria and Palestine but pictorial kraters have been found at about twelve sites between

Tell Atchana and Gaza, mostly in sherd form.

The absences, particularly of kylikes, jugs and bowls (as was the case in Cyprus) are conspicuous in the Levant. Mrs. Hankey<sup>(47)</sup> considers the lack of kylikes probably reflects a difference in drinking habits between the East Mediterranean and Greece. Local potters made plenty of jugs and bowls, and Cypriot ware was already imported.

Closed shapes are far more common than open shapes and as was said when discussing the Mycenaean pottery in Cyprus the closed shapes, particularly those with narrow mouths such as stirrup jars, could have contained some liquid such as olive oil when exported.

The Growth in the Import of Mycenaean Pottery, and its Distribution :

Myc I - III B:1

Evidence for the export of Mycenaean pottery to Syria and Palestine for the period before Myc III A is extremely scanty. There is recorded only one sherd of Myc I pottery, at Tell Sukas, and even that is uncertain. Small numbers of Myc II sherds have come from about 9 or 10 sites from Tell Atchana to Gaza. These finds are too few for tracing trade patterns. Notable examples are the Myc II A stemmed cup from Lachish and the Myc II A pithoid jar from Amman which was already old when it was deposited as a broken offering in the fill of a temple built about 1300 B.C. From this limited evidence all we can say is that the Syro-Palestinian littoral may have been known in Myc II times to occasional voyagers from Greece.

The Myc III A:1 period began to see a little more exported Mycenaean pottery in Syria and Palestine. A few alabaster jars and sherds of this period have been found at about 9 sites from Tell Atchana to Gaza.

These few early Mycenaean goods found in the area are closely linked with Minoan trade, and imply collaboration between Mycenaeans

and Minoans until the destruction of Knossos c. 1380 B.C. (48)

After the fall of Knossos Mycenaean pottery began to flood into the East Mediterranean. During the Myc III A:2 and III B:1 periods Mycenaean pottery was made on a large scale for export. This export was concentrated on Cyprus but it also reached Syria and Palestine on a smaller scale and is found at over 50 sites from Carchemish on the Euphrates to Gaza.

The most prolific sites in Syria and Palestine are the great cities on or near the coast, especially Ras Shamra with Minet el Beida whose imported pottery is so similar to that of Enkomi. Let us now look at some of the sites where Mycenaean pottery, particularly of the Myc III A:2 - III B:1 periods has been found and at its ports of entry and penetration inland.

Early in Myc III A Mycenaean wares penetrated right up the Orontes Valley to Qatna and Qadesh. The absence of later finds shows that intercourse with this particular area was short-lived, owing to the Hittites who soon after 1400 B.C. under Shubbiluliuma occupied the Amuq Plain, thus cutting off the upper Orontes from the coast. (49)

Despite Tell Atchana on the Amuq Plain coming under the control of the Hittites, Mycenaean pottery of the Myc III A and III B periods has been found there in large quantities and will have reached this site via the important port of Al Mina. According to Woolley (50) Mycenaean pottery was in general use in the city from early in the Fourteenth century to early in the Twelfth century (when the city was destroyed) and has been found in buildings of all classes and in quite poor graves.

Could Al Mina have been the port through which the few sherds found at Carchemish were imported? If Mycenaean pottery reached the Euphrates there is no reason why it should not have been traded down the river, (though as yet there is no evidence for this).

Ras Shamra (Ugarit), further south, seems not to have been actually occupied by the Hittites, even though for a time it was tributary to them. It was open to Mycenaean commerce just as it had received Minoan goods earlier in its history. Ras Shamra was a great international port, situated at one of the most important converging points of the trade routes of the ancient world, acting as a turntable for commerce between the East and the Mediterranean. It was probably because of this that the two great powers to the north and south of the Levant, the Hittites and the Egyptians, neither besieged or occupied Ras Shamra during this period of flourishing commercial relations; they respected its neutrality, protection for trade being deemed a concern of the highest order.<sup>(51)</sup>

That Ras Shamra was a great port of entry for Mycenaean pottery during the III A and B periods is clear from the vast amount of pottery excavated at the site. It has been found in corbel-vaulted tombs in the town and at Minet el Beida, the city's harbour, and has also come from house ruins. Myc III A and B pottery is so plentiful at Ras Shamra (Ugarit) that many scholars<sup>(52)</sup> have suggested that the population included a Mycenaean community of traders. This theory of a Mycenaean trading post being established at Ras Shamra is supported by the evidence of numerous Mycenaean cult figurines and ritual vessels (such as the rhyta). Prof. C. F. A. Schaeffer has for many years held the view that a Mycenaean community existed at Ras Shamra. He recently expressed this opinion again at the International Archaeological Symposium at Nicosia in 1972.<sup>(53)</sup> Numerous business documents found at Ras Shamra indicate that merchants from other countries were living at Ras Shamra. They include Ashdodites, Egyptians, men from Asia Minor, Canaanites and Cypriotes.<sup>(54)</sup> Their presence emphasises how international a port Ras Shamra was.

Much of the Mycenaean pottery found in the Syrian hinterland

will have arrived there through the port of Ras Shamra, and it has also been suggested that some of the Mycenaean pottery from Egypt reached that country after having first been imported by Ras Shamra.

Writing in 1967 Mrs. Hankey felt that the information about Mycenaean pottery at the important port site of Byblos was rather meagre considering the important finds from the site in the Middle Bronze period.<sup>(55)</sup> The lack of Myc III A pottery (considering that there are examples of Myc II and III B) seemed remarkable. However, the recent find of a large deposit of Myc III A:2 and III B pottery at Byblos (noted in the review of evidence earlier) indicates that the apparent lack of III A pottery at this site was probably accidental. That this is the case is made even more likely by the fact that just south of Byblos Myc III A:2 ware has been found at Beirut, Sidon, Sarafend and Kamed el Loz.

To find Mycenaean pottery at these important coastal sites is as one would expect, but the Myc III A:1 sherd from Tell es Salihiyeh, well into the interior, east of Damascus, is unusual. Though this evidence is thin further exploration should emphasise the presence of Mycenaean pottery far inland along the caravan routes.

In Palestine the ports of entry will have been Askalon, Tell el Ajjul and Tell Abu Hawam.<sup>(56)</sup> The sites in Southern Palestine between the coast and the Dead Sea will no doubt have received most of their Mycenaean pottery through the ports of Askalon and Tell el Ajjul. Tell Abu Hawam, seems, however, to have been the most important port of entry for Mycenaean pottery in Palestine.

The earliest pottery found at Tell Abu Hawam is III A:2, but the great bulk of it is III B. Some scholars have claimed that a Mycenaean trading post was established at Tell Abu Hawam in the Thirteenth century,<sup>(57)</sup> like the one at Ras Shamra. However, if such trading posts did exist, the Mycenaean interest would be no more than commercial, in the view of the majority of the proponents

of this view. Whether a trading post existed or not, Tell Abu Hawam was clearly an important port and distribution centre for Mycenaean pottery; the Bay of Acre and the Plain of Asdraelon are an obvious entry into Palestine from the sea.

Tell Abu Hawam is situated at an easy point of access to the Jordan Valley. After having been imported at this port Mycenaean pottery will thence have found its way inland along the line of the River Kishon to Megiddo and Tell Taanek and farther afield to Beth Shan, which lies at the end of this route to the Jordan. By this route from Tell Abu Hawam to the Jordan we must suppose came the Mycenaean pots found at Tell Ashari, on the banks of a tributary of the River Yarmuk, 25 miles east of Lake Tiberias. Stubbings asks: <sup>(58)</sup> "One may well speculate why such imported pottery should penetrate so far inland. Is there here some hint of a link with caravan routes to Mesopotamia?"

Since the publication of MPL, Mycenaean pottery has been found at several sites along the east bank of the Jordan (imported Myc III A and B, but especially III A, has been found at Pella, Tell es Saidiyeh, Deir Alla) and these sites could well have received their pottery after it had travelled along the trade route from Tell Abu Hawam to Beth Shan and thence down the Jordan. <sup>(59)</sup>

As to the Amman deposit it must be said that it is very unusual to find Mycenaean pottery ranging from Myc II A to III B at a small site so far from the sea. The fragments of the Myc IIA pithoid jar are most unexpected east of the Jordan, or anywhere outside important coastal cities like Ras Shamra, Byblos, Gaza, and centres of trade near the coast such as Tell Atchana, Tell Taanek, Hazor, Gezer or Lachish. <sup>(60)</sup> The restored necked krater with chariot scenes and sherds of three more (all Myc III A:2) <sup>(61)</sup> are also surprising finds from this site.

In an area generally believed to have been uninhabited between

the end of Middle Bronze II and the Iron Age the Amman deposit of pottery and other goods is most unusual. Perhaps this area east of the Jordan was not as empty as it appears, and there were some centres where nomads were beginning to settle. If so, the temple may have been filled following a raid or raids on a city west of the Jordan, where such valuables were to be found.<sup>(62)</sup> By whatever way this pottery reached Amman it is a long way from the sea and its place of origin, and shows how far inland Mycenaean pottery was carried.

South of Amman a small amount of Mycenaean pottery has been found at Madeba. The finds from this site carry Mycenaean pottery well beyond the Dead Sea and according to Mrs. Hankey: "it is tempting to wonder whether it went any further south along the route to the Gulf of Aqaba."<sup>(63)</sup>

We do not know who carried the Mycenaean pottery found at these inland sites, or in fact whether it came by direct trade or after passing through many hands. It is unlikely, however, that having unloaded their pottery at the Levantine ports, Mycenaean actually took their wares to the Jordan Valley and the inland sites.<sup>(64)</sup>

#### The Origin of the Mycenaean Pottery : Myc I - III B:1

Before going on to look at the decline in import and the small amount of pottery of Myc III C style, (which presents a different picture from what has gone on before and therefore can be dealt with separately), let us discuss the origin of the Mycenaean pottery found in Syria and Palestine, down to the end of the Myc III B:1 period.

Myc II pottery is rare in Syria and Palestine and indicates only very sporadic trade contact. The finds are so few that it is not really possible to form any hypothesis as to their origin just from the pottery evidence alone. During the Fourteenth and Thirteenth

centuries, however, Mycenaean pottery was made in large quantities for export as we have seen, and Myc III A:2 and III B:1 ware is found at many sites in Syria and Palestine in large enough deposits to enable scholars to make comparative studies with Mycenaean pottery from other areas to help solve problems such as those of origin.

As was seen when discussing Cyprus, many scholars have argued that much of the Myc III A and III B pottery found in the East Mediterranean was manufactured in Mycenaean emporia established there. Sjöqvist<sup>(65)</sup> held this view, envisaging Mycenaean settlers in the sea ports of the Levant manufacturing Levanto-Helladic pottery, the name he gives to the Mycenaean ware found in the East Mediterranean. He claimed that Enkomi and Ras Shamra were two of the centres of manufacture and he felt there were probably many more. Furumark<sup>(66)</sup> too was of the opinion that a considerable amount of the Mycenaean pottery in Cyprus and the Levant was manufactured there, and he cited Ras Shamra (Ugarit) as one of the Mycenaean emporia where it was produced.

In discussing the origin of the Mycenaean pottery found in Syria and Palestine, Stubbings<sup>(67)</sup> points out that Rhodes and particularly Cyprus should be regarded as more likely sources than Greece. By Myc III B, according to Stubbings, nearly all the pottery will have been manufactured on and imported from Cyprus.

As was pointed out when discussing the pottery from Cyprus, the theory of a large scale manufacture of Mycenaean pottery on Cyprus (and other emporia in the East Mediterranean) during the Fourteenth and early Thirteenth centuries is now considered to be wrong by many scholars. I agree with Mrs. Hankey's explanation for the origin of the Myc III A:2 and III B:1 pottery found in the Levant, which is given below.



She points out that wherever Mycenaean pottery is found in the Middle East (meaning the Levant and Egypt), there is also found with it Cypriot pottery, especially Base Ring II and White Slip II jugs and bowls. (This import of Cypriot pottery is a continuation of an earlier pattern of trade between Cyprus and the Middle East when Base Ring I and White Slip I was imported on a large scale long before organised Mycenaean trade began). Not only is the Mycenaean and Cypriot pottery found together but the Cypriot ware is invariably in far greater quantities than the Mycenaean. (68)

Secondly she<sup>(69)</sup> states that the Myc III A:2 and III B:1 pottery found in Syria and Palestine is, with a few variations and exceptions, identical with Myc III A:2 and III B:1 found on Cyprus. (70)

Mrs. Hankey feels that the difference between the copious collection of Myc III pottery in Cyprus and the considerably smaller quantity from Syria and Palestine is one of quantity, not of quality or type, and that with few exceptions the Myc III pottery of Cyprus and the Middle East had a common source. (71)

Taking that common source to be Greece, the differences in quantities between the two receiving areas becomes explicable in terms of first come, first served. The best and the bulk of the Mycenaean pottery was taken by the Cypriot importers, since it reached them first (and they had copper to trade back), and the Middle East, in general, got the left overs.

In Cyprus there are relatively few jugs and bowls of Mycenaean Mainland type, and there are even fewer in the Middle East. This could be because the Cypriots did not import in bulk pots they made very well themselves (the jug and the hemispherical 'milk-bowl'). These were perhaps loaded into the cargo space left empty after the best of the Mycenaean wares had been bought, to be sent on to Syria, Palestine and Egypt, where they had a ready sale, along with

the remaining Mycenaean pottery.<sup>(72)</sup> (And this explains why the Cypriot and Mycenaean wares are found together at sites in the East Mediterranean).

Mycenaean pottery found in the East Mediterranean is then the result of trade radiating in general from the Aegean. The findings of a clay analysis<sup>(73)</sup> carried out on Mycenaean pottery indicated this too. Mycenaean pottery made in the Peloponnese (Group A) was found to be widely distributed outside the Greek mainland, particularly in the East Mediterranean. A neutron activation analysis carried out on Mycenaean pottery sherds (nearly all Myc III B) from Tell Abu Hawam<sup>(74)</sup> also points to a Mainland Greek origin for the pottery. After analysing 85 sherds which appeared "good Mycenaean" wares, all but 3 were found to have come from the Greek mainland.

#### The Decline in Trade and Myc III C

Mycenaean pottery was exported in its largest quantities during the Myc III A:2 and III B:1 periods. It is pottery of these phases that is found most widely distributed in Syria and Palestine, and in Cyprus as we saw in the last chapter.

It will be remembered that at the end of Myc III B:1 (c.1250 B.C.?) trade declined and after that date far less exported pottery reached the eastern markets south of the Dodecanese. The destruction on the Mainland at the end of Myc III B:1 (during which the houses outside the walls at Mycenae were destroyed) may well have been the event which put an end to Mycenaean exports in the old pattern of the earlier Thirteenth and Fourteenth centuries.

As trade from the Mainland fell off at the end of Myc III B:1 the uniformity of the earlier exports from the Argolid was gradually replaced by local styles manufactured in different parts of the Mycenaean world.<sup>(75)</sup> The Simple Style, found at many sites from

Ras Shamra to Egypt, is no doubt one of these locally manufactured styles of Mycenaean pottery which developed (? in Cyprus) at the end of Myc III B:1 to augment or replace pots which were no longer easily bought from mainland Greece.<sup>(76)</sup> Rude Style pottery, manufactured on Cyprus for the same reasons, has also been found with the standard Mycenaean pottery at sites in Palestine. So too have the Cypriot Mycenaean shallow bowls which also began to be manufactured on Cyprus after the decline in trade from the Mainland.

Regular overseas trade came to an end at the close of the Myc. III B:2 period but there has been found a small quantity of Myc III C pottery at a handful of sites in Syria and Palestine. How did it get there?

At the end of Myc III B:2 (c.1190 B.C.) there was a serious invasion of Greece which caused a refugee movement overseas. Meanwhile in the Levant, shortly after the beginning of the Twelfth century, the Sea Peoples moved catastrophically southwards through the whole coastal area between the Hittite Empire and Palestine. The best known group amongst the Sea Peoples were the Philistines, whose characteristic style of pottery seems to have been inspired by one of the local variations of early Myc III C.<sup>(77)</sup>

Mrs. Hankey<sup>(78)</sup> suggests that in the time that elapsed between the decline in trade (at the end of Myc III B:1 and during III B:2) and the violent arrival of the Sea Peoples in the Levant early in the Twelfth century perhaps belongs the small amount of Myc III C ware that has been found in that area; at Ras Shamra, Tell Sukas, Beth Shan, Askalon and Ashdod, and also (amongst other things) the 'Aegean' type tombs at Tell Fara.<sup>(79)</sup> Perhaps their owners were related to the group of people with no local affinities who were living at Ashdod for a time towards the end of the Late Bronze II period. Mrs. Hankey feels that the excavations at Ashdod and Dothan's

account<sup>(80)</sup> are very convincing to show that Ashdod was the home of a people who came to settle and brought with them the Aegean elements of the Philistine culture. The exact date of this arrival is blurred by the margin of about 25 years round the beginning of the Myc III C period.

In summary then, trade from the Mainland dropped at the end of Myc III B:1, and in place of traders came adventurers or settlers (such as those who settled at Ashdod and manufactured their own Myc III C pottery) who were displaced by, or joined the Sea Peoples when they came early in the Twelfth century.

CHAPTER TWO DChapter Notes

1. Hankey. BSA 62 (1967), p. 110.
2. MPL, pp. 59, 71; Hankey. BSA 62 (1967), pp. 111-112.
3. Woolley. A Forgotten Kingdom, p. 157.
4. Ibid., p. 178.
5. MPL, pp. 61-62
6. Hankey. BSA 62 (1967), pp. 112-113.
7. MPL, pp. 72-75.
8. P. J. Riis, in Mycs East Med , p. 199
9. Ibid., pp. 204-205.
10. MPL, pp. 60-61.
11. Ibid., pp. 53-54, 75-77; Hankey. BSA 62 (1967), pp. 117-118.
12. Hankey, in Mycs East Med , p. 131 note 15.
13. Hankey. BSA 62 (1967),pp. 119-120.
14. Hankey, in Mycs East Med, p. 131 note 15.
15. See: Baramki. Berytus 12 (1958), pp. 129-142.
16. Ibid., pp. 131-142.
17. Hankey. BSA 62 (1967), p. 123.
18. MPL, p. 83.
19. Ibid., pp. 63, 78-82.
20. Loud. Megiddo II, pp. 155, 176.
21. Guy and Engberg. Megiddo Tombs, p. 157.
22. Hankey. BSA 62 (1967), p. 126.
23. MPL, pp. 62-63, 82-83; Hankey. BSA 62 (1967), p. 127.
24. Hankey. AJA 70 (1966), pp. 169-170.
25. Hankey. BSA 62 (1967), p. 128.
26. MPL, p. 83.
27. Hankey. BSA 62 (1967), pp. 131-134.
28. Hankey. Levant 6 (1974), p. 133.
29. Ibid., pp. 145, 157.

30. Ibid., p. 136.
31. Ibid., pp. 136 sq.
32. MPL, pp. 55, 63-64, 83-84.
33. M. Dothan, in the unpublished paper ('The Beginnings of the Sea Peoples and of the Philistines at Ashdod') given at the 3rd Colloquium, Sheffield, 1973.
34. F. Asaro and I. Perlman, in Mycs East Med, p. 223.
35. MPL, pp. 64, 84.
36. Hankey. BSA 62 (1967), p. 143.
37. MPL, pp. 66, 84-85.
38. Tufnell. Lachish IV, pp. 211-213.
39. Ibid., p. 213.
40. Ibid., pp. 213-214.
41. Hankey. BSA 62 (1967), p. 144.
42. Hankey. Levant 6 (1974), p. 136.
43. MPL, pp. 67-68.
44. Ibid., p. 85.
45. Waldbaum. AJA 70 (1966), pp. 338-339.
46. Most recently by: Hankey. BSA 62 (1967), p. 145; Mélanges St.-Joseph 46 (1970), p.18; Levant 6 (1974), p. 136; and Merrillees and Winter. Miscellanea Wilbouriana I (1972), p. 125.
47. Hankey. BSA 62 (1967), p. 145 note 60.
48. Hankey. Mélanges St.-Joseph 46 (1970), p. 23.
49. MPL, p. 104.
50. Woolley. Op. cit., p. 162.
51. Polanyi, Arensberg and Pearson. Trade and Market in the Early Empires, pp. 53-54.
52. Including: Lorimer. Homer and the Monuments, p. 53; Wace and Stubbings. A Companion to Homer, p. 542; Mylonas. Mycenae and the Mycenaean Age, p. 4; MPL, p. 107; Culican. The First Merchant Venturers, pp. 47-49.

53. C. F. A. Schaeffer, in Mycs East Med , pp. 363-364.
54. Culican. Op. cit., pp. 52-53.
55. Hankey. BSA 62 (1967), p. 117.
56. Yamauchi. Greece and Babylon. Early contacts between the Aegean and the Near East, p. 40.
57. Mylonas. Mycenae and the Mycenaean Age, p.4; MPL, p. 107.
58. MPL, p. 107.
59. Hankey. AJA. 70 (1966), p. 170; BSA 62 (1967), p. 129.
60. Hankey. Levant 6 (1974), p. 145.
61. Ibid., pp. 136-139.
62. Ibid., pp. 142-143.
63. Hankey. BSA 62 (1967), p. 143.
64. G. Cadogan, in Mycs East Med, p. 170.
65. Problems, p. 96.
66. Furumark. Op. Arch. 6 (1950), pp. 268-270.
67. MPL, pp. 70-71, 87.
68. Hankey. BSA 62 (1967), p. 146; Mélanges St.-Joseph 46 (1970), p. 20; and in the unpublished paper ('Trade between the Aegean and the South-Eastern Mediterranean during the Thirteenth Century B.C.') given at the 3rd Colloquium, Sheffield, 1973.
69. Hankey, unpublished paper, 3rd Colloquium, Sheffield, 1973.
70. The four most frequent pot forms found in Syria and Palestine (stirrup jar, small piriform jar, straight-sided alabastron or pyxis and pilgrim flask) are also common in Cyprus; and the absence of kylikes, jugs and bowls is common to both areas.
71. Hankey. BSA 62 (1967); p. 145.
72. Ibid., pp. 146-147; Hankey. Mélanges St.-Joseph 46 (1970), p. 20.
73. Catling, Richards and Blin-Stoyle. BSA 58 (1963), pp. 94-115, esp. pp. 111-114.

Note: This analysis (see p. 114) also revealed a lack of Rhodian pottery in the Middle East, as in Cyprus. This fits in with the picture Mrs. Hankey gives of Mycenaean pottery in the East Mediterranean originating from the Greek mainland.

74. F. Asaro and I. Perlman. *Op. cit.*, pp. 222-223.

In fact the overwhelming Mainland nature of the Mycenaean pottery from Tell Abu Hawam indicates that this site had rather specific connections with the Mycenaean mainland.

75. Hankey. Mélanges St.-Joseph 46 (1970), p. 21.

76. Hankey. Levant 6 (1974), p. 139.

77. According to J. D. Muhly, in the unpublished paper ('The Philistines and their Pottery') given at the 3rd Colloquium, Sheffield, 1973: Philistine pottery cannot be derived in its entirety from any style of Aegean pottery. The best that can be said is that it most closely resembles the Myc III C:1 Close Style pottery, and that its closest parallels are with the Myc III C:1 pottery from Cyprus and Tarsus.

78. Hankey, unpublished paper, 3rd Colloquium, Sheffield, 1973.

79. See: Waldbaum. *Op. cit.*, pp. 337-340:

The evidence of 5 intrusive Late Bronze Age tombs in the '900' cemetery at this site which closely resemble Mycenaean chamber tombs, and the small quantity of Mycenaean pottery (in the Simple Style) found in the tombs, suggests to Waldbaum that the small foreign community which built the tombs was an enclave of refugees or mercenary Mycenaean (an early group of 'Sea Peoples') who left the Greek sphere in the 13th Century, before the large exodus in the Myc III C period.

80. According to M. Dothan. *Op. cit.* : Excavations at Ashdod in 1968-69 revealed Myc III C:1b pottery and Philistine pottery, both types locally made. From the evidence Dothan



feels it is now possible to suggest the presence of an earlier wave of 'Sea Peoples' (Achaeans in Cyprus?) in the late 13th and early 12th Centuries. The second wave will have brought the Philistines to Ashdod in the second quarter of the 12th Century.

- (a) See Plate 3.2.
- (b) See Plate 3.1.
- (c) See Plate 3.3.
- (d) See Plate 3.4.

E : EGYPT

Mycenaean pottery has been found at sites in the Nile Valley from the Delta to Sesebi in Nubia. The quantity found in Egypt is smaller than that from Syria and Palestine.

Evidence

Below is a review of the Mycenaean pottery from Egypt. (a) I have given the Myc II and Myc III finds separately, and each list gives the sites in geographical order, from north to south. (See Map 5).

Myc II

Stubbings list of Myc II pottery from Egypt<sup>(1)</sup> is the same as that given by Wace and Blegen in 1939.<sup>(2)</sup> I have found no reference to any Myc II finds since Stubbings wrote so I reproduce his list here.

1. Abusir : a cup.
2. Saqqara : two alabastra and a shallow cup.
3. Lahun : a squat jar with one vertical handle (F.87) found in the Tomb of Maket, discovered by Petrie in 1889. The jar is one of a small group, a variation on the alabastron. It has been dated to the Myc II B period.<sup>(3)</sup>

4. Gurob : two alabastra.
5. Thebes : a pithoid jar or amphora.
6. Armant : an alabastron.
7. Site uncertain : six alabastra.

a jug. This is the so called Abbot Jug which, in fact, many scholars claim is Minoan.<sup>(4)</sup>

three squat jars.

Note: the Myc II alabastra are all F.82.

Myc IIIA and B.

Apart from the finds at Kom Firin I have found no references.

to Mycenaean pottery finds in Egypt to change substantially the picture given by Stubbings in his discussion of the material. Therefore, with the exception of my discussion of the pottery from Tell el Amarna, I have used his work, MPL, Chap. VI, pp. 90-101, in compiling my evidence for Myc III pottery in Egypt.

1. El Arish : a fragment from a stirrup jar, dated late Myc III A or early III B.
2. Kom Firin ; two stirrup jars were found in excavations at Kom Firin in 1950. <sup>(5)</sup>
3. Mostai : a globular stirrup jar dated Myc III B.
4. Heliopolis : a squat flat-topped stirrup jar of late Myc III A date.
5. Saqqara : a globular stirrup jar dated Myc III B. Also a bottle.
6. Memphis : Pendlebury records a Myc III stirrup jar sherd found at this site. <sup>(6)</sup>
7. Riqqe : Stubbings records the following: <sup>(7)</sup> a flat-topped piriform stirrup jar dated Myc III A or III B, a globular stirrup jar of Myc III B date, and fragments of a stirrup jar and a pilgrim flask, both transitional Myc III A - B.
8. Gurob : The Myc III pots from this site, mostly from tombs, are almost all stirrup jars of various types dated late Myc III A and early III B. Stubbings <sup>(8)</sup> records the following, many of which are now in the British and Ashmolean Museums:  
 Late Myc III A : two globular stirrup jars and one squat stirrup jar. Also probably of Myc III A date is a conical rhyton decorated with a 'palm' motif.  
 Myc III B : a group of five globular stirrup jars from one tomb; another globular stirrup jar; a fragment from a stirrup jar; a further three stirrup jars; three other stirrup jars of the flat-topped variety and a few fragments from stirrup jars.
9. Sedment : From this site <sup>(9)</sup> we have a Myc III A small globular jug,

two flat-topped stirrup jars of Myc III B date, and a large stirrup jar of oval form and the upper part of another of similar shape.

10. Zawyat el Amwat : a late Myc III A pilgrim flask.

11. Tell el Amarna : The importance of this site for the absolute chronology of the Aegean civilisations has long been recognised. As Petrie pointed out in 1894, the Aegean deposit is uniquely fixed in time by its presence in a dated Egyptian sequence. Tell el Amarna was inhabited from the fourth regnal year of Amenhotep IV (Akhnaten) until the third regnal year of Tutankhamen, from about 1375 to 1358 B.C.<sup>(10)</sup> Here Mycenaean deposits provide a solid foundation for the chronology of the Myc III period.

Note: Here I will present the statistics on finds and pot types from Tell el Amarna. Later in the chapter other aspects concerning the site and pottery will be discussed.

The Mycenaean pottery found at Tell el Amarna consists of:<sup>(11)</sup>

- (i) 1341 sherds found by Petrie in 1891-2. Two pots were restored by the British Museum: a vertical pilgrim flask and a shallow bowl.
- (ii) A jug found in 1907, and Mycenaean sherds found each season between 1907 and 1913 during German excavations, a total of between 25 and 100.
- (iii) Two pots and an unknown number of sherds found between 1921 and 1936 during English excavations, a total of between 150 and 500 sherds. The whole pots are a vertical pilgrim flask in the Ashmolean Museum and a globular stirrup jar in the Cairo Museum.

This total of about half a dozen pots and between 1,600 and 2,000 sherds could be increased, since much still remains to be excavated at this site.

This Mycenaean pottery is predominantly Myc III A:2 but there

are also a few pieces of Myc III A:1, and a few which appear to be Myc III B:1 in date.<sup>(12)</sup>

Both Stubbings<sup>(13)</sup> and Pendlebury<sup>(14)</sup> record many of the pot types represented by the sherds from Tell el Amarna. More recently Mrs. Hankey<sup>(15)</sup> has offered "a tentative twenty-two" pot types from the Amarna deposit. These include: the large and small piriform jar, necked krater, alabastron, two types of straight-sided alabastron or pyxis, several types of jugs (the small globular, the narrow-necked, and the miniature piriform), several types of stirrup jars, vertical pilgrim flask, several types of cups, bowl, kylix and conical rhyton.

The great majority of the fragments come from four types: the vertical pilgrim flask (F.189), the stirrup jar of which the piriform (F.166) and globular (F.171) types are particularly numerous, the straight-sided alabastron or pyxis (F.93, 94), and the small piriform jar (F.45).

Certain of the shapes are represented by only a very few sherds. These include the necked krater, kylix, alabastron (F.85), bowl and conical rhyton.

The deposit of Mycenaean pottery at Tell el Amarna is both large and important. Mrs. Hankey says, "the deposit is, after Ras Shamra, far larger than any deposit of Aegean pottery of this type found between the mouth of the Orontes and Egypt, and in Egypt there is no comparable deposit".<sup>(16)</sup>

12. Asyut : A globular stirrup jar of Myc III B date and two more stirrup jars said to be from this site.

13. Rife : Three Mycenaean III pots are recorded from this site: a small jug which is perhaps Myc III A, a stirrup jar of Myc III B date, and a globular stirrup jar which is also probably Myc III B.

14. Balabish : A group of Myc III pots were found in the New Kingdom cemetery at Balabish. They appear to be Myc III B in date

and they are : two pilgrim flasks, two flat-topped stirrup jars and two globular stirrup jars.

15. Abydos : From this site have come the spout of a stirrup jar and a squat stirrup jar of late Myc III A date, and a globular stirrup jar and a squat stirrup jar of Myc III B date.

16. Naqada : a globular stirrup jar.

17. Thebes : A flat-topped stirrup jar dated late Myc III A. The sherds of stirrup jars that were recorded as having been found in the Palace of Amenhotep III at Thebes would presumably be Myc III A. (17)

18. Gourne : a globular stirrup jar of late Myc III A and a bottle dated either late Myc III A or early III B.

19. Aswan : Pendlebury records a Myc III stirrup jar from this site. (18)

20. Sesebi : British excavations at the site of Sesebi between the Second and Third Cataracts in Nubia produced a certain amount of Myc III A - B pottery. (19)

21. Unknown Provenance : Stubbings records the following Myc III pots from unrecorded sites in Egypt: (20)

(i) In the Toronto Museum there are a number of Mycenaean pots, almost all from tombs at various unrecorded sites in Upper Egypt: of Myc III A date there are two pilgrim flasks, one globular stirrup jar and possibly two others. Dated Myc III B there are one bottle, two globular stirrup jars and a flat-topped stirrup jar.

(ii) Also of unknown provenance are four more stirrup jars, one of which is a local imitation.

There are probably a few other single pots in museums and private collections.

Note: Dating finds of Mycenaean pottery from Egypt is not always clear. Many of the finds are of isolated pots which are harder to date than groups. Some do not come from datable contexts (of the Myc II pots only those from Saqqara, Lahun and Thebes did), or even from excavations. Even when the context is known the dating is not always certain; for example scarabs and any other inscribed objects may be older than the pottery with which they are found.

In Egypt, as in other countries where Mycenaean pottery was imported, imitations were produced in local clay. And in Egypt particularly the stirrup jar was copied in faience and stone too.

### The Development in the Importation of Mycenaean Pottery

Myc II : Relations between Minoan Crete and Egypt are well attested from a very early date but in the Late Minoan I period the actual Minoan objects found in Egypt are few. The L.M. IB and Myc II<sup>IA</sup> period was a time of co-operation between Minoan and Mycenaean artists and craftsmen. This collaboration is reflected in the small amount of Myc II and L.M. IB pottery found in the East Mediterranean. In Egypt the bulk of the Aegean pottery of this date is already of Mainland fabric.

About half a dozen sites in Egypt have produced Myc II pottery and the principal shape imported, from the finds recorded, appears to have been the alabastron (F.82). Wace and Blegen<sup>(21)</sup> tentatively note similarities in style between the Myc II alabastra from Egypt and pottery from Thebes in Boeotia. Any such similarities cannot be taken as conclusive evidence of origin.

Myc III A:1 : There appears to be little or no Myc III A:1 pottery from Egypt. There is a scarcity, if not total absence, of Mycenaean pottery from the Palace of Amenhotep III at Thebes. This fits in entirely with the picture from the rest of the south-eastern Mediterranean coast (Syria and Palestine). There is very little Myc III A:1 pottery in this whole coastal area; this phase must have been, for the Mycenaeans, a period of limited overseas activity in the East Mediterranean.

Myc III A:2 - III B : In Myc III A:2 the import of Mycenaean pottery revived and in fact it is pottery of this phase that is most frequent in Egypt. The bulk of the material comes from Tell el Amarna.

As we have seen this site has yielded a wide range of pot types. The Mycenaean pottery deposit at Tell el Amarna is large and apparently representative of the period of manufacture and of its export to the coastal area of the south-eastern Mediterranean. However, the pottery from this site does have an individuality which sets it apart from contemporary sites in the south-eastern Mediterranean.<sup>(22)</sup> For example, all the important sites, and some of the smaller ones in this area, have Myc III A:2 and/or Myc III B:1 pictorial kraters. Although sherds of a krater have been found at Tell el Amarna, no pictorial krater has been published from this site, nor indeed from any other site in Egypt. Furthermore, over one third of the sherds from Tell el Amarna are from vertical pilgrim flasks (F.189). At other sites in the south-eastern Mediterranean (including Egypt) the stirrup jar, in one form or another, is the commonest shape.

The enormous quantity of Myc III A:2 pottery excavated at Tell el Amarna is a curious phenomenon and appears quite erratic. According to Merrillees<sup>(23)</sup>: "There is no other New Kingdom site in the whole of Egypt where foreign pottery of any kind is so plentifully represented". This abundance at Tell el Amarna makes the apparent absence, or at least scarcity of Mycenaean pottery from the Palace of Amenhotep III at Thebes (Akhnaten's father and predecessor) all the more extraordinary; the contrast in evidence between Akhnaten's city and that of Amenhotep III's could not be greater. After the death of Akhnaten, the brief reign of Tutankhamen reverses the situation once more. His tomb, found intact at Thebes, contained no foreign pottery at all.



Though Tell el Amarna was inhabited for only a few years, the Mycenaean pottery from this site far outweighs all the finds from other sites widely distributed through the rest of Egypt. With the exception of this site, the amount of Mycenaean pottery exported to Egypt during Myc III A does not appear much greater than in the preceding period (Myc II), and at most of the sites where it occurs is represented by only one or two examples. As we have seen already the most frequent pot forms represented at Tell el Amarna are the vertical pilgrim flask, the stirrup jar, the straight-sided alabastron or pyxis and the small piriform jar. At other sites in Egypt nearly all the finds are stirrup jars with just an occasional different form. In Myc III B a small amount of Mycenaean pottery continues to turn up at sites in Egypt, and again the finds are almost all stirrup jars.

As far as we can see the Mycenaean trade in pottery with Egypt was concentrated on Tell el Amarna for the few years of its existence; there is little evidence for the export before the Amarna period, and after the city was deserted, to a great extent, the trade died with it. There is nothing either of later Myc III A or of the Myc III B period to compare in quantity with the Tell el Amarna material, even if we marshal together the finds from the whole country. Apart from Gurob we have to deal with scattered single pots, which although quite widely distributed are too few to imply any real demand in Egypt for such foreign pottery in the Thirteenth century B.C. (24)

Merrillees<sup>(25)</sup> notes that: "We still cannot say for certain when or why Mycenaean pottery exports came to an end in Egypt." The Myc III B stirrup-jars found at a number of sites are Myc III B:1; there appears to be no pottery of a later date than this from Egypt. (26)

The last we see of Mycenaean pottery in Egypt are three stirrup jars painted on the walls of the Tomb of Ramesses III at Thebes.

They seem to be the same type as the Myc III C stirrup-jar found at Beth Shan in Palestine, where there was an Egyptian garrison.<sup>(27)</sup>

A few more general remarks about Tell el Amarna can be made.

#### Tell el Amarna

At this site it is likely that Mycenaean pottery imports began between 1375 and 1373 B.C. and ceased between 1361 and 1352 B.C., nearer 1361 than 1352.<sup>(28)</sup> It is almost impossible to estimate the size of the import. Petrie's published opinion was that the 1341 sherds he found came from 800 pots, which is less than 2 sherds per pot. According to Mrs. Hankey,<sup>(29)</sup> Petrie did not look for more than the obvious joins, and she claims to have so far found 6 joins among about 600 sherds in the Petrie Collection, University College, London, and 3 among 93 in the British Museum.

Unlike the bulk of all foreign pottery from New Kingdom Egypt, which has been found intact in funerary or ritual deposits, the Mycenaean pieces had been either discarded within the building where they were presumably broken, or thrown away in external rubbish heaps. Most of the pottery comes from the central area, particularly from the rubbish dumps serving the palace and wealthy houses. But sherds have been found in almost every quarter explored, spanning almost every social and professional grouping in the community: in the central palace, in administrative blocks, in floor deposits of wealthy, modest and slum houses, in gardens and streets. But none was found in a religious context, or in the sixty graves opened, or in the ritual rock-cut tombs.

One other site occupied by Akhnaten has yielded Mycenaean pottery of the same style as the pieces from Tell el Amarna. Sesebi, in Nubia, has produced a certain amount of Myc III A-B pottery identical in typology, fabric, and decoration to the

sherds found at Amarna. The fact that foreign goods of the same origins in time and place occurred at two separate sites each settled by Akhnaten suggests that their importation and distribution were instigated by a common denominator. The nature of the evidence tends to suggest pharaoh himself as the motivating force. (It is usually accepted that Egypt's external trade was a royal or governmental monopoly, but according to Merrillees this is too much of a generalisation. He points out that the records tell us that during the New Kingdom trading expeditions abroad were mounted not only by pharaoh, but also by temples and private individuals. Thus making it incorrect to suggest that all the foreign goods discovered in the Nile Valley owe their presence there to royal intervention). The apparent exclusiveness of this trade also tends to suggest Akhnaten himself was behind it; little, if any, was found at Amenhotep III's palace at Thebes, and none was buried in the Tomb of Tutankhamen, the pharaoh who succeeded Akhnaten.<sup>(30)</sup>

These factors, and the circumstances in which the Mycenaean pottery was found, lead Merrillees to conclude that, even if Akhnaten did not personally order, receive, or distribute Mycenaean pottery through his own commercial channels, he, and probably as a result his subjects, obviously had a great liking for these products.<sup>(31)</sup>

Claims have been made that Mycenaean Greeks may have been living at Tell el Amarna. According to Pendlebury<sup>(32)</sup> the few sherds from cups, bowls and rhyta clearly show the presence of an Aegean element in the community. In addition to a possible small Mycenaean commercial settlement at Tell el Amarna, Miss Lorimer<sup>(33)</sup> writes that Mycenaean pottery from Gurob and imitations in Egyptian materials (clay, faience and alabaster) are sufficiently frequent to suggest a Mycenaean settlement at that site too.

But foreign pottery, no matter how great its quantity, can

never stand on its own as proof that a foreign community was present amongst a native population. This is as true of Egypt at this time, as of Cyprus. Merrillees<sup>(34)</sup> states that there is no evidence from Tell el Amarna to suggest that foreigners from the Aegean either came or installed themselves there: "There is, in fact, a striking absence of any contemporaneous data to show that the Egyptians' knowledge of the Greeks at this time extended much, if at all beyond their ceramics." The pottery sherds are the only products of Mycenaean Greece to have been found at Tell el Amarna. The only other foreign objects from the site are Cypriot Base Ring II and White Slip II pot sherds. Furthermore, the large quantity of correspondence from the palace archives at Tell el Amarna contains no reference to the Aegean. There is not sufficient evidence to argue either that Mycenaeans were settled in Egypt using their own pottery, or that they actually went to the Egyptian sites where it has been found bringing their pottery with them.<sup>(35)</sup>

With the exception of Tell el Amarna, Mycenaean pottery has only been found in relatively small quantities at sites in Egypt. It gives no grounds for asserting that the export of Mycenaean pottery to Egypt was intensive or regular. As Merrillees says: "The very concentration of Mycenaean pottery at el Amarna seems to be the exception that proves the general rule".<sup>(36)</sup> The reasons for the increased demand for Mycenaean pottery in Akhnaten's Egypt still eludes us. Akhnaten may have had a more welcoming attitude to foreigners, which would have been reversed after his death to judge from the subsequent decline in imported Mycenaean pottery.<sup>(37)</sup>

In discussing relations between Mycenaean Greece and Egypt scholars frequently refer to evidence from some of the tomb paintings at Thebes.

#### Tomb Paintings

On the walls of four of the Theban tombs, those belonging to

Senmut, Amenuser, Rekhmire and Menkheperreseneb, dated to the reigns of Queen Hatshapsut, and the pharaohs Thuthmosis III and Amenhotep II, there appear amongst the painted representations of foreign tributaries, Aegeans bearing objects of Aegean type: metal conical rhyta, vases and cups of gold and silver, animal-head drinking cups, and animal statuettes. The name Keftiu and the expression 'the Isles in the Midst of the Sea' also occur on the tomb paintings and in various texts, the former of which has often been identified as Crete, the latter as Greece and the Aegean Islands.

The mixture of Minoan and Mycenaean elements in some of the figures in the tomb paintings indicates Aegeans did come to Egypt on one or more occasions. (According to Furumark the only painting of historical significance is the Senmut representation, all the rest being derivative from it. He says the Senmut painting proves that during the reign of Queen Hatshapsut an embassy from Crete visited Egypt.<sup>(38)</sup>) However it is unlikely that they came as tribute bearers; any gifts they brought, though construed by the Egyptians in their paintings as tokens of submission, were probably just offerings of good will, as are frequently exchanged by the representatives of one foreign country when they visit another.

Some tomb paintings show men from Retenu and Keftiu carrying metal ingots, Canaanite jars and so on and we know that such goods were traded in the East Mediterranean. But there is no archaeological evidence that the Mycenaeans exported to Egypt the sort of metal vessels that are depicted carried by the Aegeans. If looking at these paintings of Aegeans with regards to trade between the Mycenaeans and Egypt, (and especially the export of pottery, the only Mycenaean product found in Egypt), it should be remembered:

1. That these paintings of Aegeans, accompanied by the names

Keftiu and 'the Isles in the Midst of the Sea', are encountered almost exclusively in the Fifteenth century (which corresponds with Myc II, a period from which the only archaeological evidence for Mycenaean exports to Egypt are less than 20 clay pots from a handful of sites). That only one depiction is known from the time of Amenhotep III, and that no representation of Aegeans are attested from the reign of Akhnaten, the only time when Mycenaean exports to Egypt were intense.<sup>(39)</sup> 2. That not a single representation of a Minoan or Mycenaean pottery type has been found amongst the objects depicted in the tomb paintings referred to above, or from any other 18th Dynasty tomb painting. The Aegean objects portrayed in the funerary scenes are made of metal, not clay.

However the paintings do show that Aegeans must have visited Egypt and thus they constitute pictorial evidence for contact between the Aegean and Egypt in the Late Bronze Age.

### Contents

In earlier sections of this chapter on Mycenaean pottery there are comments on possible contents, if any, of Mycenaean pots exported to the East Mediterranean. As more has been written on this topic with regard to the pots found in Egypt it is perhaps most appropriate to discuss it more fully at this point. (This discussion concerns the exported pottery found in Cyprus, Syria, Palestine and Egypt which, as we have seen, has a common character suggesting a unified trade between Greece and these areas).

The characteristic pot types traded to the East Mediterranean (that is Cyprus, Syria, Palestine and Egypt) were stirrup jars, small piriform jars, pilgrim flasks and alabastra (especially the straight-sided variety). These are the commonest types; they are closed forms, suitable for travelling and it has often been suggested that they possibly contained some commodity when exported, and even that the commodity was more prized than the pot.

The following commodities have been suggested as having been exported in Mycenaean pots: olive oil, wine, loose dry matter like seed or dried fruit, and in the smaller jars unguents and perfumes amongst which honey and aromatic essences should be included.<sup>(40)</sup> Unfortunately there is little evidence to prove that such commodities were exported in the pots. The problem is not helped by the fact that of the one or two pots found with a residue inside very few were scientifically analysed, so we get little help from this angle.

The Mycenaean pots from Egypt, with the exception of the material from Tell el Amarna, are nearly all stirrup jars, and at Tell el Amarna this is a frequent shape, but outnumbered by the pilgrim flask, a similar closed form. Commenting on the material from Egypt Stubbings says, "The paucity of pot-types shows that it was not the pottery so much as the contents (perhaps olive oil, not produced in Egypt) which interested the Egyptians."<sup>(41)</sup> Palmer<sup>(42)</sup> considers that stirrup jars were imported by the East Mediterranean for their contents rather than for themselves, and he too thinks that olive oil was the commodity exported in the jars. Its particular function as a grave gift is indicated by the frequent occurrence of stirrup jars in tombs. Palmer<sup>(43)</sup> goes on to discuss evidence from the Linear B tablets that connect stirrup jars with the manufacture of perfumed oils and unguents, and he suggests that as stirrup jars have been found in large numbers in the area of Mycenaean influence there must have been an important trade in unguents and perfumed oils from Mycenaean Greece to the Mediterranean world in these jars. Certainly there was a demand for such commodities in the East Mediterranean. In Egypt ointments and aromatic oils were a necessity of life for all classes of society<sup>(44)</sup>; oils were used to protect the skin from the sun and were rubbed over the body after bathing.

Merrillees has carried out the most exhaustive study on the possible contents of Mycenaean pots exported, especially to Egypt.<sup>(45)</sup> He, like Palmer, centres his discussion on the stirrup jar, which by its shape, especially its narrow side spout, indicates that it probably contained a liquid. He too points out that the stirrup jar is drawn and named in the Linear B tablets where it has been encountered in association with references not only to olive oil but also to 'unguent-boilers'. Further evidence comes from the findings of A.J.B. Wace who observed that 30 large stirrup jars in the 'House of the Oil Merchant' at Mycenae, many of which were found with their spouts still sealed with clay caps, had been impregnated with oil, which is assumed to be olive oil.<sup>(46)</sup> From these pieces of evidence Merrillees feels that olive oil was one, if not the major commodity exported in the stirrup jars found abroad.

Scholars seem agreed that some of the jars exported contained olive oil and perfumed oils. Is there any evidence to indicate that other commodities were carried in Mycenaean pottery? Wine has been suggested but Merrillees<sup>(47)</sup> thinks it unlikely. Such a commodity would be transported in a large container (such as a Canaanite jar) and the Mycenaean pot shapes and sizes are sufficiently well known to exclude the likelihood that large containers were ever a feature of the trade. The type of stirrup jar common in Egypt and the rest of the Levant is the small variety. In any case wine was already being produced in Egypt. Honey, known to the Egyptians at least as early as the Old Kingdom, was, during the 18th Dynasty, imported from Asia. Herbs may have been exported in some of the jars but it cannot be proved. The only other possible commodity Merrillees considers could have been exported in Mycenaean pottery was sesame oil.

Because some of the pots when exported probably contained oils,



some scholars<sup>(48)</sup> have considered that it was the contents that were being imported, and that the pot was not important. I do not agree with this. I consider that the pot was of value whether it contained anything or not. Proof that Mycenaean vessels were themselves valued as well as their contents, if any, is given by numerous imitations in the export area. In Egypt<sup>(49)</sup> there are imitations of stirrup jars not only in clay but also in faience and stone. In Cyprus, Syria and Palestine Mycenaean pottery was imitated in various materials too, and when the export to these areas declined at the end of Myc III B:1 it was locally manufactured. The pottery through its own excellence was then desirable; if it contained oil we are to assume that both it and the pot were valued.

#### Origin

Stubbings<sup>(50)</sup> felt that the Egyptian examples came from the same centres that supplied Syria and Palestine. That means Cyprus especially, and also, at least for the earlier part of Myc III A, Rhodes. But we have seen in earlier sections of this chapter on Mycenaean pottery that these places were not the important manufacturing centres they were once thought to be. I have shown that a local manufacture of Mycenaean pottery in Cyprus did not begin until the end of Myc III B:1.

Tell el Amarna is the only site with sufficient pottery for purposes of comparison with other sites in the East Mediterranean. As we have seen it is representative of the period of manufacture and its export to the coastal area of the South-eastern Mediterranean. The most frequent shapes (vertical pilgrim flask, stirrup jar, straight-sided alabastron or pyxis and small piriform jar) are

also the most frequent types in Syria and Palestine and are common in Cyprus too. The shapes scarce at Tell el Amarna; the kylix, bowls and jugs are also rare in Syria, Palestine and Cyprus.

At many of the Egyptian sites, as at those in Syria and Palestine, Cypriot Base Ring II and White Slip II pottery occurs alongside the Mycenaean, usually in far greater quantities, but at Tell el Amarna, far outnumbered by the Mycenaean. (51)

The Myc III pottery from Egypt appears to be, in general, identical in type and quality with that from Syria, Palestine and Cyprus, though of course its quantity is much less. (52) Thus the common source that supplied Syria, Palestine and Cyprus will also have supplied Egypt. This common source I have pointed out before was Greece. (53) The clay analysis carried out on imported sherds from Cyprus and Syria which gave them a mainland Greek source of manufacture was also carried out on sherds from Tell el Amarna. The sherds from this site also belonged to the Peloponnesian group, that is were manufactured in the Peloponnese. (54)

The trade pattern I explained in the last section of this chapter for pottery reaching Syria and Palestine can therefore be extended to include Egypt. The best and the bulk of the pottery was taken by Cyprus because it reached there first. The empty cargo space was filled with Cypriot pottery (55) for onward trading with the Mycenaean pottery to the countries of the East Mediterranean. This trade pattern explains why the quantity of Mycenaean pottery from Syria and Palestine is less than that from Cyprus; and furthermore why, except for the special case of Tell el Amarna, relatively little Myc III A:2 and III B:1 pottery has been found in Egypt compared with these other areas. (56)

### Conclusion

We cannot exclude the possibility that the vases so far found in Egypt do not reveal the full picture of Mycenaean ceramic imports, and that there still remain gaps in our data. But the vases we have must give a fairly coherent account of the development in commercial relations.

Myc II pottery began to enter Egypt about the time of Queen Hatshapsut, as shown by the small number of Myc II A and II B pots that have been found. There is very little evidence for the import of any Myc III A:1 pottery, but the import revived in the following period, Myc III A:2, and reached its apogee during the reign of Akhnaten. Some of the latest material from Tell el Amarna is Myc III B:1 and a number of other sites in Egypt have yielded Myc III B:1 stirrup jars, but no later Mycenaean pottery has been found. We still cannot say for certain when or why Mycenaean pottery exports came to an end in Egypt.

CHAPTER TWO EChapter Notes

1. MPL, pp. 56-58.
2. Wace and Blegen. Klio 32 (1939), pp. 145-147.
3. See: Hankey and Tufnell. BSA 68 (1973), pp. 103-111, esp. pp. 109-110.
4. For example: Furumark. Op. Arch. 6 (1950), p. 210, claims it was Cretan; Merrillees. AJA 76 (1972), pp. 283-284, also claims that the Abbot jug is L.M. IB.
5. Hankey. BSA 62 (1967), p. 145.
6. Pendlebury. Aegyptiaca, p. 113; JEA 16 (1930), p. 87.
7. MPL, p. 97.
8. *Ibid.*, pp. 94-96.
9. *Ibid.*, p. 97.
10. Hankey. Mélanges St.-Joseph 46 (1970), p. 18.
11. Hankey, in Mycs East Med, p. 128.
12. Hankey. Levant 6 (1974), p. 133.
13. MPL, pp. 90-92
14. Pendlebury. The City of Akhenaten, Part III, pp. 237-238.
15. Hankey, in Mycs East Med, p. 129 and Fig. 1.
16. *Ibid.*, p. 129.
17. MPL, p. 93. Merrillees. AJA 76 (1972), p. 291, remarks that the stirrup jar sherds that von Bissing, writing in 1899, claimed to have been found in the Palace of Amenhotep III at Thebes have not, so far as Merrillees knows, ever been published or identified and therefore he feels that this reference by von Bissing can hardly be said to constitute firm proof that Mycenaean pottery occurred at the site.
18. Pendlebury. Aegyptiaca, p. 112; JEA 16 (1930), p. 87.
19. Merrillees, in Mycs East Med, p. 175.

20. MPL, pp. 93,99.
21. Wace and Blegen. Op.cit., p. 146.
22. Hankey, in Mycs East Med, p.130.
23. Merrillees. AJA 76 (1972), p. 291.
24. MPL, p. 108.
25. Merrillees. AJA 76 (1972), p. 294.
26. Hankey, in the unpublished paper ('Trade between the Aegean and the South-Eastern Mediterranean during the Thirteenth Century B.C.') given at the 3rd Colloquium, Sheffield, 1973.
27. Ibid.
28. Hankey, in Mycs East Med, p. 133.
29. Ibid., p. 129.
30. Merrillees, in Mycs East Med, p. 177-179.
31. Ibid., p. 179-180.
32. Pendlebury. The City of Akhenaten, Part III, p. 237.  
 Note: Frankfort and Pendlebury. The City of Akhenaten, Part II, p. 45 - One of the houses in the North Suburb is described as having been lived in by a Mycenaean merchant who would have been resident in the city.
33. Lorimer. Homer and the Monuments, pp. 86-87.
34. Merrillees, in Mycs East Med, p. 180.
35. Ibid., p. 181.
36. Merrillees. AJA 76 (1972), p. 292.
37. G. Cadogan, in Mycs East Med, p. 170.
38. Furumark. Op. Arch. 6 (1950), p. 239.
39. Merrillees, in Mycs East Med, pp. 180-181.
40. Later in this dissertation the possible export of these goods will receive a fuller discussion; just their possibility as the contents of Mycenaean pots will be considered here.
41. MPL, p. 101.

42. Palmer. Mycenaeans and Minoans, p. 107.
  43. Ibid., pp. 107-108.
  44. Forbes. Studies in Ancient Technology, vol. III, p.2.
  45. Merrillees and Winter. Miscellanea Wilbouriana I (1972), pp. 116-127, esp. pp. 126-127.
  46. In fact many scholars believe that the 'House of the Oil Merchant' was a factory for preparing special olive oil for export.
  47. Merrillees and Winter. Op. cit., pp. 126-127.
  48. Palmer. Op. cit., p. 107.
  49. Aegean and the Orient, p. 80.
  50. MPL, pp. 106, 108.
  51. Hankey, in Mycs East Med, p. 130.
  52. Hankey, unpublished paper, 3rd Colloquium, Sheffield, 1973.
  53. Hankey. BSA 62 (1967), pp. 145-147.
  54. Catling, Richards and Blin-Stoyle. BSA 58 (1963), pp. 112-114.
  55. That is B.R. II and W.S. II jugs and bowls, the very shapes missing from the Mycenaean repertory of export pottery to Syria, Palestine and Egypt, therefore complimenting the Mycenaean pottery, and explaining why the two wares are found together at sites in this area.
  56. Hankey. BSA 62 (1967), pp. 146-147; Mélanges St.-Joseph 46 (1970), pp. 20-21.
- (a) See Plate 4.

F : CONCLUSIONS

In the islands of the East Aegean and on the west coast of Asia Minor there were Mycenaean settlements. Rhodes in the Dodecanese was colonised and Mycenaean pottery is plentiful there, both imported and locally made, from Myc II B to III C. There was a Mycenaean settlement on Kos, and their Mycenaean pottery spans the Myc III A to III C periods. The Dodecanese islands appear to have escaped the destructions that occurred on the Mainland at the end of Myc III B, and Myc III C pottery is particularly well represented.

Further north a Mycenaean settlement appears to have been established on Chios in Myc III C, and pottery of that date has been found on the island. On the west coast of Asia Minor there was an important Mycenaean settlement at Miletus, where pottery ranging from Myc I to III C has been found. Other possible settlements in this area include Milskebi, where Myc III A to III C pottery has been found in Mycenaean tombs. There were no Mycenaean living at Troy, but there were close commercial ties with mainland Greece, reflected in the imported Mycenaean pottery of Myc I to III C date excavated at the site.

Long-standing Mycenaean settlements in this area and the fact that they escaped the destructions experienced in Greece at the end of Myc III B help to explain the abundance of imported and locally made pottery continuing down into the Myc III C period. Further south and east, in the East Mediterranean, there were no similar Mycenaean settlements. Contact with Cyprus, Syria, Palestine and Egypt was by trade only. Here imported Myc III A and III B pottery has been found in large quantities but the only significant deposits of Myc III C ware are on Cyprus and at Tarsus, areas which received refugees from the Greek mainland at the end of

Myc III B and during Myc III C.

In the eastern areas: Cyprus, Syria, Palestine and Egypt, as in the East Aegean, there is little evidence for the export of Mycenaean pottery during the early period. A few pieces of Myc I pottery have turned up on Cyprus, and of the following period, Myc II, a few examples have been found at widely distributed sites in Cyprus, the Levant and Egypt. It indicates only very sporadic trade and in fact this situation continued until the end of Myc III A:1.

Soon after the fall of Knossos pottery began to be made on a large scale for export. Myc III A:2 was a crucial phase in Mycenaean history, and pottery belonging to it marks the vast expansion of Mycenaean trade throughout the East Mediterranean. This organised export trade was concentrated on Cyprus where large quantities of Myc III A:2 and III B:1 pottery has been found. It also went further east and south and has turned up in varying amounts at widely distributed sites in Syria, Palestine and Egypt. During the Fourteenth and Thirteenth centuries Mycenaean pottery was in use over a wide area and was copied in local clay, faience and stone (calcite) in the export areas.

At the end of Myc III B:1 the export of Mycenaean pottery declined and this can be related to troubles in Greece. As the export fell off local styles of Mycenaean pottery began to be manufactured in various parts of the Mycenaean world and this was the situation in Myc III C. In the late Thirteenth century and during the Twelfth century Mycenaean settlers (rather than traders) moved into the East Mediterranean (to Cyprus and Tarsus). These peoples were refugees, fleeing from the destructions on the Mainland.

During the period of Mycenaean expansion, Myc III A and III B:1,



Mycenaean pottery found in the East Mediterranean is the result of trade radiating in general from the Aegean. Analysis of the clay of Mycenaean pots by various scientific methods has shown that the imported pottery of the Myc III A and III B:1 periods came from the Mycenaean Mainland, and not from colonial centres in Cyprus. The main manufacturing centre in Greece will have been the Argolid.

But who actually carried the pottery? The question of who carried the Mycenaean goods found abroad and the foreign imports found in Greece is more fully discussed in the conclusion of this study (pp.245sq. below), but there should perhaps also be a brief word on this topic now, with regards to the exported pottery alone.

Until recently it was assumed that most of this trade was carried by Aegeans in Aegean ships. To quote one authority, S. Immerwahr: "Mycenaean commerce would thus seem to have been almost entirely in the hands of Mycenaean traders."<sup>(1)</sup> It will have been Mycenaean themselves who took their pottery to the islands of the Aegean and the west coast of Asia Minor and also to Cyprus. Further east Mycenaean probably did have a share in the trade, but Cypriot and Syrian shipping was also flourishing during this period.

It is possible that Cypriot traders carried some of the pottery to the Syrian coast (there is a close similarity between the Mycenaean pottery of Enkomi and that of Ras Shamra).<sup>(2)</sup> Merrillees<sup>(3)</sup> considers that the Syrians could have carried some of the Mycenaean pottery. He suggests it was seafarers from the Syrian coast (and particularly Ras Shamra), rather than Mycenaean, that took both the Mycenaean and Cypriot pottery onwards from Syria to Egypt.

I do not think we need assume any single group was in control of the shipping; Mycenaean and merchants from these other countries could each have played a part in the carrying of the

pottery to the East Mediterranean. If there were Mycenaean trading posts at Ras Shamra and Tell Abu Hawam they would have been engaged in organising this trade.

The distribution of the pottery is concentrated in coastal regions, for example the west coast of Asia Minor, the south and east coast of Cyprus and the Levantine littoral; or in areas accessible by navigable rivers, as in Egypt and some of the inland sites in Syria and Palestine. It is rare to find Mycenaean pottery far inland. It has happened in one or two instances in the interior of Asia Minor, as at Fraktin and the Lake Burdur region. And in Syria and Palestine there are a number of sites well inland and not situated on rivers that have yielded Mycenaean pottery, for example, Amman. We cannot work out the process of its distribution to these sites, or to the sites along the Nile in Egypt, but there is no reason to think that Mycenaean themselves took the pottery inland. In the case of Egypt it is particularly unlikely. It is most probable that the pottery passed up the caravan routes through several hands before reaching the sites where it has been excavated.

Mycenaean objects other than pottery are practically unknown in the East Mediterranean. Even in Cyprus during the Fourteenth and Thirteenth centuries there is very little archaeological evidence to suggest the island imported other commodities from Greece. A final remark then is that the distribution of Myc III pottery through the Aegean, Cyprus and the Levant is one of our strongest proofs for the existence of a widespread active sea-borne trade between Mycenaean Greece and the countries of the East Mediterranean.

CHAPTER TWO FChapter Notes

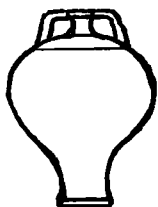
1. Immerwahr. Archaeology 13 (1960), p.6.
2. The most important ports in Cyprus are on the south and east coasts, most suitable for their trade with the Levant. Cyprus had been trading with the Levantine littoral and Egypt for a long time before the Mycenaean period.
3. Merrillees, in Mycs East Med, pp. 182-183.

Fig. 1

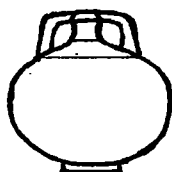
Mycenaean Pottery Types. Outlines of many of the shapes exported by the Mycenaeans.

Nos. refer to Catalogue of Types in A. Furumark "The Mycenaean Pottery". (1941).

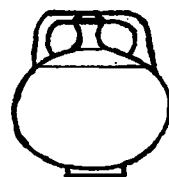
Av. Ht. = Average height. All heights are in centimetres.



Piriform Stirrup  
Jar  
F.166  
Av. Ht. c.18



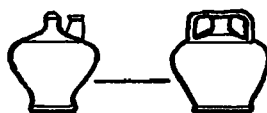
Globular Stirrup  
Jar  
F.171  
Av. Ht. c.11



Globular Stirrup  
Jar  
F.173  
Av. Ht. c.13



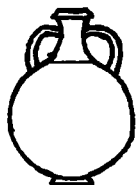
Squat  
Stirrup Jar  
F.178  
Ht.6-11



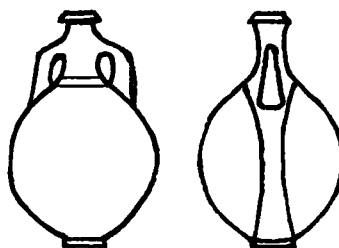
Flat-topped  
Stirrup Jar  
F.182  
Av. Ht. c.10-12



Flat-topped  
Stirrup Jar  
F.183  
Ht. 6-9



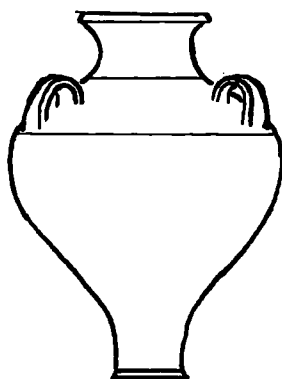
Pilgrim Flask  
F.188  
Ht. 14-23



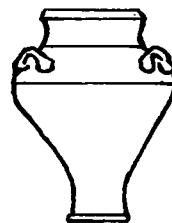
Pilgrim Flask  
F.189  
Ht. 9-19



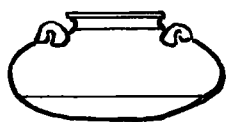
Pithoid Jar  
F. 24  
Ht. 35 or more



Large Piriform Jar  
F.35  
Av. Ht. c.30-40



Small Piriform Jar  
F.45  
Av. Ht. c.15



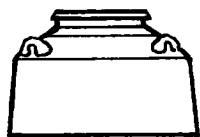
Alabastron  
F.82  
Av. Ht. c.7



Alabastron  
F.85  
Av. Ht. c.7



Squat Jar  
F.87  
Av. Ht. c.7



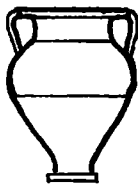
Straight-sided  
Alabastron  
or Pyxis  
F. 93  
Av. Ht. c.10



Straight-sided  
Alabastron  
or Pyxis  
F. 94  
Av. Ht. c.8-10



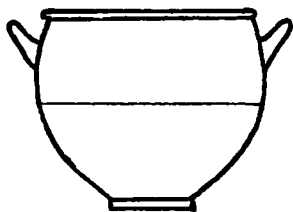
Neckless or Deep  
Krater  
F. 8  
Av. Ht. c.32



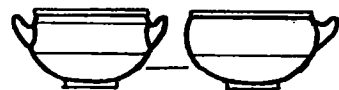
Necked Krater  
F. 54  
Ht. c.30-50



Necked Krater  
F. 55  
Ht. c.35-50

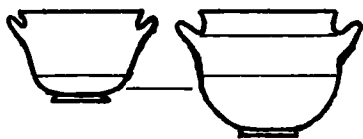


Krater or Deep Bowl  
with two horizontal  
handles  
F.281  
Av. Ht. c.25-30



Deep Bowl

F.283  
Ht. c.7-11



Deep (or hemispherical  
or bell-shaped) Bowl  
F.284  
Ht. c.7-15



Deep Bowl  
F.285  
Ht. c.5-14



Deep Bowl  
F.291  
Ht. c.6-15



Cypriot Mycenaean  
Shallow Bowl  
F.296  
Ht. c.4-6



Cypriot Mycenaean  
Shallow Stemmed Bowl  
F.309  
Ht. c.7-15



Globular  
wide-necked Jug  
F.109  
Av. Ht. c.15-20



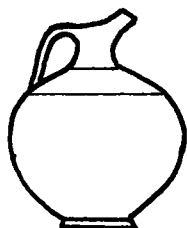
Small Globular  
wide-necked Jug  
F.114  
Av. Ht. c.10



Narrow-necked  
Jug  
F.118  
Ht. c.11-32



Miniature  
Piriform Jug  
with  
'cut-away' neck  
F.134  
Av. Ht. c.10



Broad-beaked  
Jug  
F.145  
Ht. 25-34



Tall-necked  
Piriform Jug  
F.151  
Ht. c.10-28



Side-spouted Jar  
with basket handle,  
or feeding bottle.  
F.160  
Av. Ht. c.12



Shallow Cup  
F.220  
Ht. c.4-6



Tankard-shaped  
Cup or Mug  
F.225  
Ht. c.5-12



Bell-shaped  
Cup  
F.230  
Av. Ht. c.6



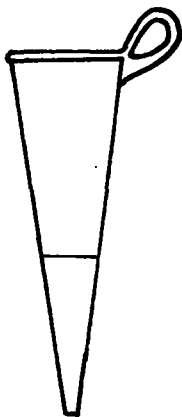
Kylix  
F.255  
Ht. c.10-14



Kylix  
F.264  
Ht. 10-16



Kylix  
F.257  
Av. Ht. c.16-20



Conical Rhyton  
F.199  
Av. Ht. (without handle) c.32



## CHAPTER THREE

COPPER AND TINA : INTRODUCTION

The name 'Bronze Age' points to the two most important metals in the foreign trade of the Third and Second Millennia B.C. Bronze is an alloy, the principal ingredient of which is copper. However, the addition of a small amount of tin makes the copper both more easier to cast as well as harder, without causing much loss of ductility or malleability. The copper and tin were used by the ancient smith in a ratio of about 9:1, though bronzes with greater or lesser amounts of tin are well documented.

The discovery of bronze was a great landmark in the history of civilisation. Before the discovery of tin, arsenic was alloyed to the copper to make bronze but although widely used for a limited period it was too hazardous to the health of the ancient smith to be practical and eventually tin replaced the use of arsenic. The home of tin bronze was the Near East where objects of tin bronze first appeared in the Third Millennium B.C.

Copper and tin must have been of great importance all through the Bronze Age, for without them the metal of everyday use could not have been manufactured. Before the Late Bronze Age there is little evidence for the use of metal in Greece, but at the beginning of the Mycenaean Age, the period of the Shaft Graves at Mycenae, we see the start of real development in metallurgy in Greece. But although Mycenaean Greece had an extensive metal industry she had no local sources of tin, and the local sources of copper known in the Classical age were not yet being exploited, so the Mycenaean had to import the copper and tin that they needed. Copper resources available to the Bronze Age civilisations of the Mediterranean were

both widespread and abundant so that copper presented no problem. But deposits of alluvial tin, the only tin available to the Bronze Age smith, are quite rare in the Mediterranean. But only a small amount of tin was needed in comparison to the amount of copper used to make bronze. It was possible, therefore, to transport small amounts of tin over considerable distances, thereby bringing tin from a distant source to a nearby source of copper.

It is not within the scope of this thesis to discuss the Mycenaean metal industry but some indication of what was produced with the imported copper and tin is perhaps a useful background to the trade in the metals.

Bronzes forged on the Mainland were technically excellent. They are most commonly found in Late Bronze Age cemeteries, and they include:

Household utensils : Metal vessels such as amphorae, hydriae, jugs, pitchers, basins, bowls, cooking pots, tripod cauldrons, cups, goblets, and lamps. The Shaft Graves contained, apart from gold and silver treasures and numerous bronze weapons, good numbers of large and small copper and bronze vessels. Razors or cleavers are found throughout the Mycenaean period and so are tweezers, though in no great quantity. Bronze scale pans are frequently found in Mycenaean tombs. There were also produced several types of one-edge bronze knives. The finds from C.T.2 at Dendra included an important set of bronzes, mostly of household type, found together in a pit under the door to the tomb.<sup>(1)</sup> There were no fewer than 35 large and small bronze objects including hydriae, jugs, bowls, tripod cauldrons, lamps, mirrors, knives and razors. Several of the objects had patterns on them; flower and shell fish motifs, as well as linear designs.

Tools : Tools made of bronze include saws, chisels, awls, axes, adzes, sickles, hammers and ploughshares.

Weapons : They were made of bronze and include numerous types of swords and daggers and also spearheads, javelin points, arrowheads and knives. Apart from the plain bronze swords and daggers frequently found, especially in tombs, there are also examples decorated with gold and silver. Such weapons have usually only been found in royal tombs. The inlaid dagger blades from Grave Circle A at Mycenae are well known.

Armour : The actual archaeological evidence for bronze being used for armour is very slight. Only one suit of armour has been found in Greece, the Dendra panoply, dated Myc II - III A:1, in which bronze has been used for the cheek pieces of the boars' tusks helmet, the corselet with detachable collar, and possibly a pair of greaves. The bronze object from C.T.8 at Dendra, at first identified as a helmet, is now considered more probably a neck attachment for a corselet. Other pieces of bronze armour are few : the Late Minoan II helmet from Knossos and the cheek pieces of another from Ialysos; the bronze greaves from Kallithea in Achaea and those from Enkomi. The recorded material for bronze armour is scanty and so generally it must have been made of some perishable material such as leather.

Objects of personal use and decoration : Bronze was used for rings which are either just plain circles, or in the form of a spiral, or sometimes have an oval bezel. Apart from finger rings there are other types of bronze rings; for fastening hair and fastening clothes. Other objects in this category include bronze bracelets. And there are also mirrors; plain, thin, circular bronze discs, frequent in cemeteries throughout the Aegean area. Finally, there are pins and fibulae of bronze, associated with the end of the Mycenaean period.

Apart from actual artefacts we have other evidence for a Mycenaean bronze industry. The Linear B tablets contain many

references to ka-ko ("bronze"). The tablets also refer to various metallurgical processes and to such occupations as the "smith" (ka-ke-u-si) and the "armourer" (e-to-wo-ko). And there are ideograms for bronze itself and for sword, spear, arrow, chariot, corselet, helmet, various sorts of bronze vessels and ingots.

Metal work was an important industry in Messenia, as indicated by the Linear B tablets from Pylos, dating to the end of the Thirteenth century. Amongst the Pylos tablets is a series that deals with the allocation of bronze from central holdings to smiths in scattered villages so that it can be forged into objects.<sup>(2)</sup> The total weight of bronze which can be totalled on all the surviving tablets of the series (801 kilograms) would make something like 534,000 arrowheads or 1,000 bronze helmets.

Nearly a third of the smiths listed are without allocations of bronze and the rest have relatively small quantities of metal. One smith, on one of the tablets, has as much as 12 kilograms of metal, but 3 to 4 kilograms is normal, and some have as little as 1.5 kilograms.<sup>(3)</sup>

From this series of tablets it has been calculated that the total number of bronze smiths for the whole Pylian kingdom was about 400, which seems very large in relation to the probable size of the population. It is hard to estimate the number of smiths that would be required but it is difficult to believe so large a number would be needed for just domestic purposes.<sup>(4)</sup>

Since there appears to be no evidence for the exploitation of ores in Bronze Age Greece, the raw materials, copper and tin, must have been imported, although the Linear B tablets give no indication concerning the source of these metals. The raids of the Sea Peoples, c. 1200 B.C., must have made overseas trade hazardous, with fleets of raiders sweeping the East Mediterranean. This will have disrupted the metals trade and this explains the disastrous shortage of bronze

which some of the Pylos tablets record.

The bronzes from Greece indicate a flourishing bronze industry, and we must remember that the surviving bronze objects can themselves represent only a small fraction of the number actually produced.

The bronze industry must have been of considerable size and this is further indicated by the fact that in the kingdom of Pylos alone, at the end of the Thirteenth century, there were 400 bronze smiths.

B : THE COPPER TRADE

It was once thought that Greece had small deposits of copper that were utilised by the Mycenaeans. It was suspected that there was a copper mine at Mycenae, for copper slag was found there by Tsountas. However, no evidence of mining at Mycenae has been found except a cave with pick marked sides nearby. Wace records that near Nemea, not far from Mycenae, there was an ancient copper mine.<sup>(5)</sup> He further suggests that the Argive hills behind Mycenae, still insufficiently explored, could possibly hide in their recesses ancient copper mines. According to Davies<sup>(6)</sup> copper was mined from a very early date in the neighbourhood of Volo in Thessaly and the early Greeks brought copper from there to southern Greece.

But there were no significant deposits of copper in mainland Greece and the small local deposits that are said to have existed will have been exhausted at a very early date. We must look outside Greece for the source of copper.

Cyprus is rich in deposits of copper which has been extracted intermittently from the Early Bronze Age until the present day. The very name of the island is traditionally associated with the word 'copper', but this association is only a late development wherein the Latin *cyprium* and *cuprum* are derived from the name of the island, and beget our word 'copper'. During the Fourteenth and Thirteenth centuries B.C. great quantities of Mycenaean pottery were exported to Cyprus, evidence of a strong and regular connection between the Mycenaean world and Cyprus in which copper must have played a part, as it did later when the Phoenicians ferried copper from Cyprus to Greece. (Homer, *Odyssey*, 15, 425 *Σίδων πολύχαλκος* c.f. *Iliad* 11, 16-23 about a cuirass of enamel, gold, and tin from Cyprus).

The whole of the west and much of the centre of Cyprus is taken up by the Troodos mountain massif and its foothills. These foothills,

especially on the north and north east sides of the massif, are of particular importance because they contain nearly all the islands' copper deposits.<sup>(7)</sup> Detailed evidence for the ancient exploitation of the ore bodies is far from satisfactory and consists largely of field observations on the siting of slag heaps. It is likely that later mines obliterated the remains of the earlier workings.

Mining in the Third and Second Millennia B.C. was suspected by scholars, but Davies objected to it strongly. Davies published a paper in 1929<sup>(8)</sup> in which he argued that the copper mines of Cyprus were not worked in the Bronze Age. He discusses various evidence to support this theory, including the lack of direct evidence (for example slag heaps).

In 1942 excavations near Ambelikou,<sup>(9)</sup> 3 miles south of the ancient site of Soloi, revealed a Bronze Age site and Early Bronze Age pottery fragments. The most important evidence found concerned the problem of ancient copper mining in Cyprus. Excavations in the settlement brought to light a crucible with copper deposit encrusted on its interior, terracotta and stone moulds for copper axe-heads and, most important, a copper workshop where slag was collected. The Ambelikou excavations prove that copper mining was carried out in Cyprus as early as the Third Millennium B.C.

No one would now support Davies' view. From the Late Bronze Age finds of industrial equipment and slags at a number of sites throughout the island make it certain that copper was mined, smelted and made into manufactured goods. Slags at Enkomi, Apliki, Hala Sultan Tekke, Nicosia, Athienou, Arpera, Ayios Sozomenos, and Lapithos; moulds from Klavdhia and Enkomi; tuyères and fragments of furnaces and crucibles from Enkomi and Apliki combine to leave no doubt about Late Cypriot industrial activity.<sup>(10)</sup>

Cyprus has been a major source of copper since at least the Third Millennium B.C. It supplied not only the metal industry of

the island itself, but also those of several of the countries in the East Mediterranean, including Mycenaean Greece.

### The Ingots

In the Mediterranean during the second half of the Second Millennium B.C. copper was exported in ingot form, the most important of which were the 'ox hide' ingots. <sup>(a)</sup> Oxhide ingots have been found at a number of sites in the Mediterranean (see Fig. 2 ). They are flat oblong pieces of copper with protrusions or handles at the four corners. In size they are roughly 4 centimetres thick and average 60 by 45 centimetres in length and width and weigh about 20 kilograms each. They were cast in open moulds and one side is always smooth and the other rough and bubbly. Many of the ingots bear foundry marks which were stamped on the metal when it was still soft. The term 'ox hide' is due to the similarity of the ingot shape to that of a dried skin, but it is unlikely that the ingots were cast with the intention of imitating hides. At one time it was thought that the oxhide ingots were a form of currency but this suggestion is almost certainly incorrect. They were merely pieces of raw copper which had been cast into a shape that was convenient for carrying, and which would be handed over to smiths to cast into objects of copper and bronze.

Oxhide ingots were studied by H. G. Buchholz ('Keftiubarren-und Erzhandel im zweiten vorchristlichen Jahrtausend', Prähistorische Zeitschrift 37 (1959), pp. 1 sq.) and he isolated three types:

- I 'Kissenbarren' : They are rectangular, with no handles and all four sides are concave. It was current in the East Mediterranean only in the first half of the Fifteenth Century.

Note: The Linear B ideograms No. 166 and INGOT<sup>\*</sup>WE approximate to this shape, in the variant Ia of Fig. 3 .

- II Four-handled ingot, early form: This was developed from I by drawing out the corners into long, rather clumsy handles.



The sides are very concave. It had appeared by c. 1400 B.C.

Note: The Linear B ideograms Nos. 165 and 167 INGOT and INGOT\*PE approximate to this shape, or specifically to Gelidonya Type IIa of Fig. 3.

III Four-handled ingot, late form : This was a more controlled and neater version of II. The handles diminish in size, and the sides are less concave. It has not been found in contexts earlier than c. 1200 B.C.

Since Buchholz's paper there has been the important excavation of the Cape Gelidonya Bronze Age shipwreck, with its cargo of copper and bronze ingots, ingot fragments and bronze tools. All the Gelidonya oxhide ingots can be attributed to Buchholz's Type II but they have led to a division of Type II into three sub-types, IIa, b and c.<sup>(11)</sup> (See Fig. 3 ). Bass points out although Buchholz has dated the appearance of the different types of oxhide ingot, the three major types cannot always be separated chronologically, but we may accept the appearance of the ingots without legs as slightly earlier than the appearance of those with legs.<sup>(12)</sup>

The manufacture of these ingots will have belonged to those who mined the copper. It seems certain that the copper was smelted and cast into ingots quite near the source of the raw material; the convenience of transporting ingots, with their great saving of weight and volume, instead of unsmelted ore, is obvious.

Note: We cannot expect to find very many ingots because once they reached their destination they will have been melted down for use in the metal industry. The most important finds will be where the copper never reached the smith (such as Cape Gelidonya).

### The Trade

Looking at the distribution of the ingots it is clear they were transported almost exclusively by ship. Almost one third of all known ingots have been found in the sea, and others, with one exception,

FIGURE 2A Catalogue of the Ox hide Ingots that have been found(Adapted from Cape Gelidonya, pp. 52-62)I Syria and Palestine

1. Tell Beit Mirsim. Miniature ingot of Type Ib. Broken.  
Dated stratigraphically to the first  
half of the 16th Century.

2. Ras Shamra.

II Cyprus

3. Enkomi. Type III. Dated to 12th Century.

4. Enkomi. Four fragments of unknown type.

5. Enkomi. Type III. Dated to 1400-1200 by  
Dikaios and to Iron Age I (12th-11th  
Centuries) by Schaeffer.

6. Probably Enkomi. Type II.

7. Enkomi. Type III. Corner fragment.

8-9. Mathiati. Type II or III. Over 20 fragments of  
more than 2 ox hide ingots.

10. Mathiati. Miniature ingot of Type II. Less than  
half preserved.

11. Probably Enkomi. Miniature ingot of Type II.

12. Bay of Soli. An ox hide ingot, raised from the sea.

13-17. Enkomi. Two of Type II. Two of Type III. And  
one of uncertain type are reported by  
Catling.

III Asia Minor

18. Near Antalya. Type Ia. Found in the sea.

19. Near Antalya. Type Ib. Found in the sea.

20. Probably from near  
Antalya. Type I. Probably from the sea.

Cape Gelidonya See below

IV Crete

21. Palaikastro.
22. Zakro. Type I. Ingot fragment.
23. Sitias.
24. Mochlos.
25. Knossos. Fragment. L.M.I/II (c. 1600-1400).
26. Tylissos. Type Ia. L.M.I/II (c. 1600-1400).
- 27-45. Hagia Triada. All Type I. But at least one seems to approach Type IIc. M.M. III or L.M. I/II.
- 46-51. Zakros. Types Ia and Ib, but one approaching IIc. Dated stratigraphically to L.M. IA (c. 1600-1500).

V Greece

52. Mycenae. Type IIb. 14th Century.
53. Mycenae. Fragment of Type II. Myc III B or C.
54. Mycenae. Uncertain type. Sixteen fragments.
55. Mycenae. Handle of uncertain type. No evidence for date.
- 56-74. Cyne (Euboea). All Type I (probably all Ib). Two fragmentary. Found in the sea. No evidence for the date.

VI West of Greece

75. Makarska (Dalmatian Coast). Miniature of Type III.
76. Cannatello, Sicily. Fragment.
77. San d'Antioco di Bisarcio, Ozieri, Sardinia. Type IIc.
- 78-82. Serra Ixili, Sardinia. At least two are of Type IIc.

VII Egypt

83-86. Four model ingots from foundation deposits at Thebes. Type II. Late 13th or early 12th Century.

VIII Others

87-106. Twenty other ingots from Aigina, Athens, and Sardinia have been reported but almost nothing is known of these.

All of the ingots which have been analysed are copper, with the exceptions of numbers 20 and 75, both purchased from dealers and both of which are bronze.

In addition to those listed above there are also those ingots which were part of the cargo of the Bronze Age ship, wrecked off Cape Gelidonya on the southern coast of Asia Minor:-

Cape Gelidonya, from the Bronze Age shipwreck:

- (i) At least 34 ox hide ingots, stacked in neat piles with matting serving as some sort of wrapping or packing. They are more or less complete depending on their situation on the site; for example those lying in contact with tin were badly corroded.
- (ii) 5 half ingots which seem to have been broken or cut in antiquity; none of these halves join or are from the same ingot.
- (iii) 12 ingot corners.
- (iv) 75 kilograms of ingot fragments.

All are of Type IIa, b or c.

Note: with these were also found a number of bun and slab ingots which were made of bronze rather than just copper.

There is also representational evidence for ox hide ingots:

They feature in a number of Egyptian tomb paintings and reliefs

of the New Kingdom (see Cape Gelidonya, pp. 62-67).

Representations of ox hide ingots appear on Linear B tablets.

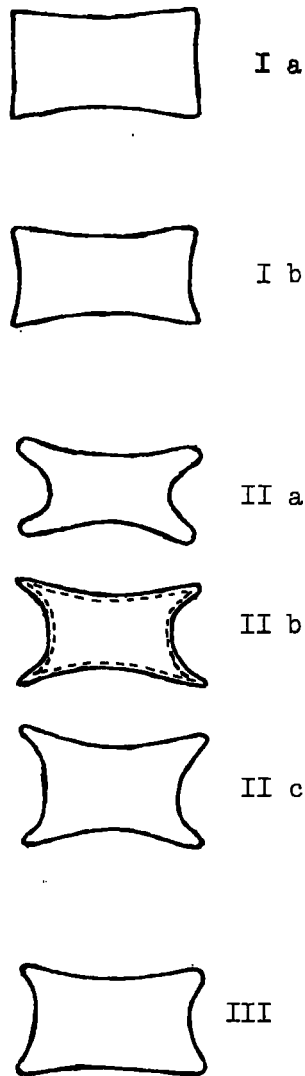


Fig. 3  
Ox hide Ingot Types

were found either on islands or at mainland sites not far from the sea.

In all periods of ancient Greek history the Aegean's main source of copper must have been Cyprus. It has recently been shown by Dikaios<sup>(13)</sup> that the Mycenaean interest in Cypriot copper goes back as early as the Shaft Grave period, and that this period was the beginning of the Mycenaean exploitation of the mineral wealth of Cyprus. Thus the copper used in the manufacture of the bronze weapons and vessels from the Shaft Graves will have been imported from Cyprus. Copper smelting had already commenced at Enkomi by this time and the presence of a few fragments of Myc I pottery (the period of the Shaft Graves) at Enkomi is a corroborating evidence testifying to some connections between the Mycenaean world and Cyprus at that time. The exploitation of Cypriot copper by the Mycenaeans, beginning at this early date, was to reach its height in the years c. 1400 - 1200 B.C.

Syria has no copper deposits and so it will have had to import the copper it needed.<sup>(14)</sup> Nearly all Syrian towns have yielded evidence of a flourishing copper metallurgy. Ras Shamra was an important centre of bronze and copper working. There is a great similarity between the slag of Enkomi and that found at Ras Shamra, and also between the by-products found at these two sites. Surely Ras Shamra and the other coastal Syrian towns imported their copper requirements from Cyprus.<sup>(15)</sup>

In Egypt there are copper deposits in Sinai and the eastern desert which were worked in ancient times,<sup>(16)</sup> but by the time of the New Kingdom the home production of copper appears to have been unable to support the growing demands of the metal industry. Hence since the 18th Dynasty increasing mention is made of imports of copper from various places. No oxhide ingots have been found in Egypt

(except four model ingots) but there are numerous representations of them in tomb paintings and reliefs. We see men of Retenu (i.e. Syria) and Keftiu (possibly Crete) bearing oxhide ingots of metal apparently as tribute, but more likely a well paid for article, to Egypt. For example, the paintings in the Tomb of Rekhmire at Thebes dating to the Fifteenth century. The painting of the Royal Granary and Storehouse at Tell el Amarna shows rooms full of stacked ingots of several sizes.<sup>(17)</sup> The Amarna Letters make it clear that Cyprus was one source of copper for Egypt. These letters describe shipments of copper sent by Alasia (usually taken to mean Cyprus) to Egypt.<sup>(18)</sup>

There was clearly an important trade in copper in the oxhide ingot form, but there is disagreement over who manufactured the ingots and also over who dealt with the trade.

Catling points out that it need not follow that a metal producing country must have been the place of manufacture of the ingots. He suggests that the oxhide form indicates a strong centralized authority which regulated copper and its trade and that the organisation for such control was lacking in Cyprus, and so proposes that prior to 1400 B.C. the ingots were made on Crete. Any surplus ingots could have been exported from Crete. After the fall of Knossos (c.1380) according to Catling, the "vested interest in the management of Mediterranean copper supplies may be assumed to have passed to the Greeks of the mainland."<sup>(19)</sup> Catling is suggesting that Greece imported copper from Cyprus and there cast it into the oxhide form. These ingots would then be exported from Greece to the countries of the East Mediterranean.<sup>(20)</sup> This, according to Catling, was the situation in the Fourteenth and Thirteenth centuries, before the Mycenaean emigrations to Cyprus.

But we have already said that the copper will have been smelted



and cast into ingots quite near the source of the raw material, that is in Cyprus. Copper smelting had already commenced at Enkomi by the beginning of the Late Bronze Age and was to increase in volume during the course of that period.

Bass does not consider that Mycenaean sea-traffic was ever as intense as it is generally considered to have been; that the extent of Mycenaean shipping has been highly overrated simply because her chief export commodities, pottery, left such durable remains. He feels that the evidence indicates that the copper ingot trade was in the hands of Syrians after 1400 B.C., and at least partially in their hands before that date.<sup>(21)</sup>

Bass points out that the ship that sank off Cape Gelidonya shortly before 1200 B.C. was a Phoenician (sc. Syrian) merchantman that had picked up a ton of metal cargo at Cyprus and was heading for the Aegean when it ran into jagged rocks off the Cape.<sup>(22)</sup> The occurrence of ingots of Type I in the Bay of Antalya (near Cape Gelidonya) indicate even the earliest ingots went by this route, and that the later types of ingots (Types II and III) were still being transported by Syrians is proved by the representational evidence (the Egyptian tomb paintings showing Syrians bearing ingots) as well as by the Gelidonya shipwreck itself. Bass feels there is nothing to indicate that the Mycenaeans dealt with the trade in copper ingots.<sup>(23)</sup>

According to Bass the ingots were not only shipped by Phoenicians but also it was Syrians who manufactured them. He agrees with Catling on the necessity of a central control for the production of the unique oxhide shape but goes on to say that they will have been made on Cyprus to fit Syrian specifications, or more likely under direct Syrian supervision.<sup>(24)</sup>

In summation, Bass' conclusions are that the Syrians manufactured the oxhide ingots on Cyprus and that for the period before 1400 B.C.,

which is not at all clear, there appears to have been a joint Minoan/Syrian control of the copper ingot trade, but that after 1400 the trade became a Syrian monopoly. Thus, according to Bass, it was not Mycenaean ships that took the copper ingots to Greece as is usually supposed, but Phoenician ships. Furthermore, Bass claims, the Phoenician ships did not return empty but loaded up with Mycenaean pottery to take back to Cyprus and the Levant.<sup>(25)</sup>

According to Muhly the Aegean represents the centre of the late Bronze Age trade in copper. He disagrees with Bass's opinion that the ingot trade was in the hands of Phoenicians from the Syrian coast.<sup>(26)</sup> Muhly can see no reason why the ship that sank off Cape Gelidonya could not be a Mycenaean ship rather than a Phoenician vessel as claimed by Bass and furthermore points out the lack of ingots from the Syrian coast; only one ingot has been found in Syria, at Ras Shamra. Certainly Syrians are shown bearing oxhide ingots in Egyptian tomb paintings but such evidence only shows that, in the New Kingdom, Cypriot copper came to Egypt by way of Syria.<sup>(27)</sup> Muhly considers that the whole concept of a Syrian-dominated Mediterranean trade is "both unconvincing and superfluous", and that a two-way trade in copper and pottery between Cyprus and Greece is probable, and therefore it is not necessary to introduce Syrians or Phoenicians. As Muhly says: "Were the Mycenaeans not capable of bringing their own pottery to Cyprus and of bringing back Cypriot copper in return?"<sup>(28)</sup>

Dikaios discusses the scenes painted on three Myc III A:2 chariot kraters from Cyprus; two from Enkomi and one from Pyla-Verghi, which throw light on the copper trade.<sup>(29)</sup> The scenes on each of the three kraters seem to represent Mycenaeans of the Mainland appearing in chariots and engaged in the process of acquiring oxhide copper ingots presumably from Cyprus. The figures in the chariots are of Minoan-Mycenaean style. The different style of the

figures carrying the ingots to the chariots may indicate the indigenous people, the producers of the copper, in this case the Cypriots. If the pictorial representations on these three kraters do represent scenes connected with the copper trade Dikaios states that, "we may deduce that the Mycenaeans played a considerable part in that trade, a fact which is sufficient to modify Bass's statement that 'there is nothing which ties the ingots to the Mycenaeans in any way'."

(Cape Gelidonya, p.77)

The copper trade will surely have been as follows. The copper ore will have been smelted and cast into ingot form on Cyprus. Syrian merchant ships will no doubt have been responsible for taking copper ingots to Syria for their metal industry. It is also probable that Syrians, acting as middlemen, will have taken copper ingots from Cyprus via Syria to New Kingdom Egypt.<sup>(30)</sup> This would agree with the New Kingdom tomb paintings which show copper ingots being brought by men from Retenu (i.e. Syria).<sup>(31)</sup> But surely the Mycenaeans themselves were responsible for bringing the oxhide copper ingots they needed to Greece from Cyprus. This essential imported commodity will have been paid for with excellent pottery; we have already seen that great quantities of Mycenaean pottery have been found on Cyprus. Of course, after the Mycenaean collapse the Phoenicians were free to take over the trade route, hence the references in Homer quoted above, which will have been true for his own day in the Eighth century B.C.

There follows below a discussion on the bronze industry of Cyprus as relevant to the Copper trade

Throughout the Fourteenth and Thirteenth centuries Greece carried on a vigorous trade with Cyprus, but, as Catling says, "The metal industry of neither area made any visible impact upon the other."<sup>(32)</sup> Greece preferred to import the raw copper rather than bronze objects.

And in Cyprus the goods exchanged against the copper did not include Aegean made bronze objects.

Catling, who presents the Late Cypriot bronzes in his book, assigns most of this Cypriot material to the Twelfth century.<sup>(33)</sup> He considers that during the Fourteenth and Thirteenth centuries the Cypriot metal industry was relatively backward, but that when the Mycenaeans colonized Cyprus during the Twelfth century they brought about the manufacture of a great number of new types of bronzes; new types of tools, weapons, vessels and ornaments.<sup>(34)</sup> Thus, after 1200 B.C. metal artefacts produced on Cyprus began to correspond far more closely with equivalent Aegean material. Catling is of the opinion that there was an intensification of metal-working activities at Enkomi in the Twelfth century and he attributes this to the new Mycenaean settlers.<sup>(35)</sup>

Muhly finds Catling's theory that the Cypriot bronze industry did not properly start until the Twelfth century when it was brought by the Mycenaean colonists subject to question. He points out, firstly, that Catling dates the parallel material from Greece also to the Twelfth century (CBMW, p. 297), so he has no evidence for a Mycenaean metal industry that could have been brought to Cyprus. Secondly, almost all the Late Cypriot bronzes came from hoards, presumably buried to protect the goods in a period of insecurity, brought about by the raids of the Sea Peoples. Yet these raids date to the late Thirteenth and the early Twelfth centuries. Therefore, Muhly continues, one is asked to assume that the material was brought to Cyprus and there, in a matter of years, a complex metal industry developed, only to have all its products immediately buried in the ground. Clearly the Cypriot material dates from the Thirteenth century, as does the parallel Aegean material.<sup>(36)</sup>

Bass disagrees with Catling's Twelfth century date for the Late Cypriot bronzes and his stress on the Aegean influences on them.

He, like Muhly, thinks they were manufactured in the Thirteenth century, but then goes on to suggest that the character of the L.C. bronze forms point to a Near Eastern origin. According to Bass the bronzes were made in Cyprus, and just as the ingots were cast under Syrian supervision, he proposes that there were also Syrian and Phoenician smiths present on the island making bronze objects to Near Eastern specifications.<sup>(37)</sup>

Certainly copper smelting and metallurgy were flourishing on Cyprus during the Thirteenth century. Bass tells us that he has been informed by Dikaios that at Enkomi copper smelting reached its peak in the Thirteenth century and that during the Twelfth the industry declined owing to the repeated disasters of that century.<sup>(38)</sup> Likewise, according to Muhly: "The thirteenth century B.C. was the great age of copper smelting on the island of Cyprus as it was for the Cypriot metal industry."<sup>(39)</sup>

But although there is agreement on a Thirteenth century date for the L.C. bronze artefacts Muhly does not accept Bass's assumption of a Syrian origin for this metallurgy. Muhly points out that of course the Cypriot tools and implements have Syrian parallels, as do the examples from Greece. But this is just the result of the international world of metallurgy which developed in the Late Bronze Age. It may also be the result of a common source of copper, that is, an international metallurgy centred around Cyprus.<sup>(40)</sup>

From the Gelidonya shipwreck there were found, not only ingots of copper and bronze, but also an assortment of bronze tools, weapons, household utensils and personal objects. Most of the bronzes were fragmentary and were being transported for scrap value, to be melted down and re-cast. Some of the complete bronzes (which were often the only examples of that particular form) may well have belonged to the crew for use on the ship itself and were not cargo. Many of the bronzes find their closest parallels in Cyprus and so it

can be assumed that this cargo of scrap, like the ingots, was picked up at a port in Cyprus.<sup>(41)</sup>

Bronze artefacts made on Cyprus were not imported by Greece. Greece had her own metal industry and therefore had no need to import. But there have been found several hoards of bronzes (tools, weapons, personal objects, scrap) on the Mainland,<sup>(42)</sup> the material of which is closely parallel to the Cypriot hoards (which is where most of the L.C. bronzes have come from), and the Gelidonya bronzes. The bronzes from the Greek hoards, like those from the Gelidonya ship, were mostly broken and this suggests that Greece not only imported copper ingots from Cyprus but was also prepared to import fragmentary bronze tools and weapons as scrap to be melted down. As Bass says, "there is nothing to suggest that Mycenaean Greece imported complete bronze implements in any quantity. It seems, rather, that Greece preferred to buy only raw materials and scrap metal for their own smiths or for itinerant craftsmen who would cast objects to suit Mycenaean tastes."<sup>(43)</sup>

Catling makes an interesting point. He suggests that the Gelidonya ship's cargo of broken bronzes, as well as complete ingots, was a sign of the times. The wreck is dated to shortly before 1200 B.C. Towards the end of the Thirteenth and during the Twelfth centuries, owing to the unsettled conditions in the Aegean and the East Mediterranean, metal supplies became increasingly difficult to obtain, precisely at a time when the demand for metal was high, for weapons and armour. This meant that whatever could be obtained was acceptable; thus the Gelidonya ship was carrying not only ingots, but also ingot fragments, broken tools and all kinds of foundry rubbish, for it was all acceptable. The Gelidonya cargo argues for a metal shortage in Greece at this time.<sup>(44)</sup> (The Linear B tablets also indicate this; see pp.136-7 above).

The copper trade between Cyprus and Mycenaean Greece which flourished particularly in the Fourteenth and Thirteenth centuries must have been one of the most important aspects of Mycenaean commercial relations. The need for copper, for tools and weapons especially, would be far greater than the need to sell pottery, a trade commodity for which we have so much evidence.

We have seen that the Cypriot copper smelting and metal industry reached its peak in the Thirteenth century. It was from this century, and the one before, that Mycenaean pottery has been found in its greatest quantities and widest distribution in Cyprus and the Levant. Surely this is no coincidence. The Mycenaean picked up copper oxide ingots in Cyprus and brought them back to Greece, where they were melted down for use in the metal industry. They were paid for, at least in part, by pottery. The troubled times in the Aegean and East Mediterranean during the Twelfth century seems to have put an end to the important copper trade.

C : THE TIN TRADE

It is now necessary to discuss the tin trade. A tin supply was obviously a necessity for a Bronze Age civilisation. We know the Mycenaeans had an important bronze industry, but we do not know the source of the tin, in fact not only for Mycenaean Greece but also for the other Bronze Age civilisations of the East Mediterranean. There are virtually no deposits of tin in the Aegean so it had to be imported, but where from? Because of the lack of evidence for a definite source of tin for Mycenaean Greece the problem of ancient tin sources must be looked at more generally, thus the following discussion ranges not only over the East Mediterranean but also Europe, in an attempt to see if tin was a material sought by Mycenaean Greece in its trade with the East Mediterranean, and if not what the evidence against that is. Therefore parts of the discussion are strictly outside the scope of this dissertation but tin was such an important material that discussion of it is necessary.

The tin trade was quite different from that of copper. Copper was abundant in the East Mediterranean. Furthermore, it was needed in quite large quantities. Thus the copper trade was basically a local trade; it was not economically feasible to transport over great distances. But deposits of tin are quite rare, it was used in relatively small amounts in comparison to copper, and it appears to have been an expensive metal. Thus it was economically feasible and often absolutely necessary to transport tin over considerable distances. But although it is accepted that it is likely there was a long distance trade in tin in antiquity, we do not know the nature of the trade.

In the Near East the introduction of the use of tin and the first objects made of tin bronze seem to come about 3,000 B.C.



Enough is known to indicate that tin bronze was in use from the Third Millennium B.C. on and that the knowledge of it spread from Mesopotamia to neighbouring Syria. But there is no definite indication of the source of the tin,<sup>(45)</sup> (though Iran has been suggested).

As far as Mycenaean Greece was concerned, Davies, writing in 1929, claimed that he had found tin mines at Cirrha, 7 miles from Delphi.<sup>(46)</sup> They were worked open cast but none of them contained any trace of ore, it having been completely worked out. From the pottery found in the mines Davies concluded that the Cirrha mines flourished in the prehistoric period, continued spasmodically into classical times, and finally closed down in the Hellenistic age. Thus according to Davies, it is not necessary to look for a distant source for the tin; Cirrha, close at hand, was the main source for Greece. Mycenae is supposed to have imported this tin from Cirrha and it is suggested it could then have been exported as far as the islands and Crete, and possibly even to Asia Minor and Egypt.

Many scholars accepted the findings of Davies, including Wainwright.<sup>(47)</sup> However, since then Miss Benton has shown that there never was tin in Cirrha, or for that matter anywhere in Greece.<sup>(48)</sup> It appears that the mines Davies located were bauxite mines.

There being no tin in Greece we must look elsewhere for the source. Wainwright has shown that a likely early source of tin and bronze, particularly of the Egyptian supply, was the Kesrwan district of the Lebanon.<sup>(49)</sup> The Kesrwan district is the mountain mass behind Byblos and according to Wainwright deposits of tin, copper and silver have been located there. There is no sign of any mining but the two rivers of Byblos, the Phaedrus and Adonis, flow through the ore bearing region. These rivers could well have brought down the ore and it could have been picked out of the river beds, and hence the absence of mining operations. Byblos was the great port of the Levant in

early days and Egyptian trade with it is well known and so Wainwright suggests that the tin that existed in the neighbourhood of Byblos must have been the source whence the Egyptians obtained their supplies.

Lucas accepts the arguments of Wainwright. He agrees that Egypt will have first obtained tin from near Byblos and goes on to say that later, when that source became exhausted, search will have been made for other supplies, and thus tin will have started to reach the East Mediterranean from Western Europe; Spain, Portugal, Cornwall and Brittany.<sup>(50)</sup>

But Muhly points out that from the geological evidence deposits of tin are unlikely to exist in Syria or Palestine. Egypt may have acquired tin from Syria, and this would suggest the existence of a local Syrian tin source, but if Syria was a source of tin (and/or copper) for a country such as Egypt, it was only a source in that it was a middleman, supplying Egypt with the metals which Syria obtained from elsewhere. In fact, the tin used in Syria seems to have come from Iran via Mesopotamia.<sup>(51)</sup>

A recent theory, proposed by Dayton, is that the use of tin bronze first began in Central Europe and spread from there to the Near East. He considers tin ores to be absent in the Near East and proposes that Bohemian tin (sc. from the Erzgebirge) was the source for the Aegean and the Near East. The tin was imported in the form of bronze by way of the Danube and eastern Anatolia.<sup>(52)</sup> However, this theory has received severe criticism from Muhly, and cannot be accepted.<sup>(53)</sup>

So far we have only been negative, dismissing possibilities that have been suggested. Because of the lack of evidence to indicate where the Mycenaeans imported tin from scholars have been obliged to make guesses, based on the tin resources available in the Mediterranean. For example, Mrs. Vermeule has pointed out that

Asia Minor would be the handiest source but having to add that the precise deposits there are not known. She also suggests the Tuscan ores, and that tin may have come from even farther afield; Spain, or through France from Cornwall, or even Central Europe.<sup>(54)</sup> Forbes envisages Aegean traders shipping tin from Spain eastwards.<sup>(55)</sup> He thinks that it is unlikely that the small Anatolian tin deposits, such as that mentioned by von Bissing at Eskishehir<sup>(56)</sup> in Central Asia Minor played any part in supplying the Aegeans.

But these are only suggestions. They indicate our lack of knowledge. Let us look at the tin resources available in the Mediterranean area. The Iberian Peninsula has important deposits of tin but they do not appear to have been used in the Bronze Age, nor do the deposits on Sardinia. The Tuscan tin ores were utilized by the Romans and Italy is still regarded as a possible source of tin in the Bronze Age. No tin is known from Greece, Crete or the Aegean islands. Anatolia has deposits of tin but we do not know whether they were exploited in the Bronze Age. Cyprus, Syria and Palestine have no tin and although deposits exist in Egypt it is not known if they were worked in the Bronze Age.

The Western Mediterranean sources, Italy and Spain, have been proposed. Mycenaean contact with South Italy and Sicily is clear from the large amount of Mycenaean pottery found there. It has been thought that the Mycenaeans came to Italy to exploit the mineral resources. But the mineral resources of Italy, both copper and tin, are in Tuscany in the north whereas the Mycenaean settlements were in the south. These settlements do not appear to have had anything to do with the exploitation of Tuscany's mineral wealth. The Mycenaeans also had close contact with Sicily and Lipari, neither of which have mineral resources. The Iberian tin deposits have also been suggested as a source of tin for Mycenaean Greece but there is

no evidence to substantiate this claim either.<sup>(57)</sup>

There is very little evidence for tin deposits in the East Mediterranean. But could Mycenaean Greece have received tin through the East Mediterranean from deposits in the Near East? Before the rise of Mycenae, during the Third and early Second Millennia, the only evidence for tin comes from the Near East and there the most likely source was north western Iran. This tin source supplied Mesopotamia and it was also taken to Anatolia. It was also sent up the Euphrates to Mari. The city of Mari on the Middle Euphrates was the entrepôt for the further shipment of the tin to sites in Syria and Palestine. From Mari the tin was brought overland to the coast, perhaps to Ras Shamra. This tin will have supplied the Syrian metal industry. It will also have been shipped from Syria to other lands in the East Mediterranean.<sup>(58)</sup>

The Iranian source of tin could have supplied Egypt.<sup>(59)</sup> Egypt seems to have received tin through Syria, probably from the port of Byblos. In Egyptian texts it is known as the tin from Retenu (i.e. Syria).

Early Minoan Crete developed a tin bronze industry long before the Greek mainland did, and it appears to have utilized the Iranian source. At this time Crete's relations were with the east; Cyprus and Syria. Furthermore, the types of Early Minoan bronzes are clearly of Eastern origin, having much in common with the bronzes of Anatolia and North Syria, and all going back to Mesopotamian prototypes which developed in the Early Dynastic period. Thus an eastern origin for Minoan tin is entirely credible; there is no likely alternative.<sup>(60)</sup>

Could this supply have served mainland Greece? The evidence suggests that the Greek mainland was not a part of the sphere of metallurgy which developed in the Near East during the Third

Millennium. In the early Second Millennium Middle Minoan Crete was still receiving tin from Iran. Yet there is no evidence that Middle Helladic Greece had anything to do with these developments. Greece seems to have been isolated from any contact with the Near East before the middle of the Second Millennium. Greece only began to use tin bronze c.1600, the beginning of the Mycenaean Period.<sup>(61)</sup>

In the classical period the Aegean appears to have utilized the important tin deposits of Cornwall. Herodotus (III.115) had some vague idea that tin came to Greece from somewhere in Europe, from the Tin Islands or Cassiterides, usually identified as the Scilly Islands and by extension with Cornwall. The tin of Cornwall passed through these islands on its way to the Aegean. The route is given in the Bibliotheca Historica of Diodorus Siculus (V.22). The tin was taken across the Channel to France and then carried overland through France to the port of Massalia at the mouth of the Rhône.<sup>(62)</sup>

But what of the Late Bronze Age? Muhly points out that tin bronze appeared in Greece in the time of the Shaft Graves at the same time that amber made its first appearance in Greece. The amber used in Mycenaean Greece has certain features that seem to associate it with the amber worked in the Wessex Culture of Southern England. The amber used in the Aegean came from the south coast of the Baltic Sea and it is usually assumed that contact between Southern England and Mycenaean Greece was accomplished via the major amber route up the Rhine and to the head of the Adriatic. It is possible that Cornish tin came south to the Aegean along this amber route. At the same time faience makes its first appearance in the Aegean and Europe, representing a trade going east to west.

Evidence for the Mycenaean tin source is still unsatisfactory

but Cornwall is the least objectionable possibility. The close connection between tin and amber supports the theory of Cornish tin being imported by Mycenaean Greece.<sup>(63)</sup>

This evidence seems to rule out the possibility of tin coming to Greece from Iran, the source that supplied Syria and Egypt and had supplied Crete, despite the close trading relations between Mycenaean Greece and the East Mediterranean. Muhly does suggest that it could possibly be argued that tin came to Greece from Cornwall first during the Late Bronze I - II period, c. 1600 - 1400. Then, with the revival of the Near East during the Amarna period, Cornish tin was supplanted by the (probably cheaper) eastern source, so that during 1400 - 1200 tin came to Greece from the Iranian source, by way of the Euphrates and Syria, (this was the period of closest commercial relations between Greece and the East Mediterranean). Then with the collapse of the Bronze Age world, c. 1200, Greece reverted back to the Cornish source.<sup>(64)</sup>

The evidence indicates that a shift in the general direction of the tin trade came in the middle of the Second Millennium. Before c. 1600 B.C. the only evidence for tin comes from the Near East. There the most likely source of the metal was in north western Iran. This tin was taken to the coast of Syria and supplied the lands of the East Mediterranean as far west as Early Minoan Crete. Such a distant source could not have had a great impact on the Mediterranean world and it was only those areas in contact with Anatolia and Syria that developed an early bronze industry. Greece and the Western Mediterranean only began to use tin bronze around 1600 B.C. This date coincides with the commencement of the amber trade in the Aegean and the first extensive exploitation of the tin deposits of Cornwall. It was the introduction of Cornish tin which made possible the development of a bronze industry in Western Europe and Greece.<sup>(65)</sup>

The study of the tin trade in the Bronze Age is still full of problems. The source(s) of tin used by the Mediterranean countries through the Bronze Age are still very uncertain. This is disappointing considering that tin was one of the basic elements in the trade and industry of the Bronze Age. Mycenaean Greece must have had a bronze industry of some size; many bronze objects have been found and these must represent only a fraction of the total number produced. The possibility must be considered that major sources of tin nearer home were completely exhausted by Bronze Age workings and have left no trace.

CHAPTER THREEChapter Notes

1. Royal Tombs, pp. 75-77, 92-98.
2. Documents, pp. 352-359.
3. Ibid., pp. 356, 509.
4. Ibid., pp. 508-509.
5. Mycenae AHG, p. 114.
6. Davies. JHS 49 (1929), pp. 95-99.
7. Catling. Op. Ath. 4 (1962), p. 133.
8. Davies BSA 30 (1928-1930), pp. 74-84.
9. Dikaios. JHS 65 (1945), p. 104.
10. CBMW, p. 21.
11. Cape Gelidonya, p. 52.
12. Ibid., p. 69.
13. Enkomi II, p. 504-505.
14. Copper and Tin, p. 214.
15. Forbes. Studies in Ancient Technology, vol. IX, pp. 70,73.
16. AEMI, pp. 201 sq.
17. Forbes. Op. cit., pp.61-62.
18. Copper and Tin, p. 196.
19. CBMW, p. 271.
20. Ibid., p. 271.
21. Cape Gelidonya, pp. 75-76.
22. Ibid., pp. 163-164.
23. Ibid., pp. 76-77.
24. Ibid., p. 77.
25. Ibid., pp. 165-166.
26. Copper and Tin, pp. 184-186.
27. Ibid., p. 375 Note 204, p. 370 Note 141.
28. Ibid., p. 185.
29. Enkomi II, pp. 918-925, esp. pp. 923-925.



30. Ras Shamra was an international port. The finds from such a major coastal site demonstrate, amongst other things, the entrepôt role such a port played in Levantine commercial exchanges.
31. These paintings show Syrians bearing copper ingots to Egypt. They cannot be used as evidence to prove that Syrians also took copper to Greece.
32. CBMW, p. 298.
33. Ibid., p. 278.
34. Ibid., p. 51.
35. Ibid., pp. 301-302.
36. Copper and Tin, p. 375 Note 202.
37. Cape Gelidonya, pp. 117-121.
38. Ibid., p. 120.
39. Copper and Tin, p. 196.
40. Ibid., p. 375 Note 202.
41. Cape Gelidonya, p. 117.
42. See: CBMW, p. 294-298.
43. Cape Gelidonya, 121
44. CBMW, p. 298.
45. Muhly. American Scientist 61 (July/August 1973), pp. 405-407.
46. Davies. JHS 49 (1929), pp. 93-95.
47. Wainwright. Antiquity 18 (1944), p. 59.
48. Benton. Antiquity 38 (1964), p. 138.
49. Wainwright. JEA 20 (1934), pp. 29-32.
50. AEMI, pp. 255-257, 463.
51. Copper and Tin, pp. 214, 258.
52. Dayton. World Archaeology 3/1 (1971), pp. 49-70.
53. Copper and Tin, p. 346.
54. GBA, p. 228.
55. Forbes. Op. cit., p. 154.

56. von Bissing. JHS 52 (1932), p. 119.
  57. Copper and Tin, pp. 280-281, 286, 336.
  58. Ibid., pp. 331-333.
  59. Ibid., p. 332.
  60. Muhly. American Scientist 61 (July/August 1973), pp. 408-409;  
Copper and Tin, pp. 334-335.
  61. Copper and Tin, pp. 347-348.
  62. Ibid., pp. 262-265; Muhly. American Scientist 61 (July/August  
1973), pp. 409-410.
  63. Copper and Tin, pp. 249-250, 271-279, 287; Muhly. American  
Scientist 61 (July/August 1973), pp. 410 sq.
- Note: There is no evidence that direct Mycenaean contact  
ever extended further west than Sicily (no Mycenaean  
pottery has been found further west than this island).  
The Aegean's Bronze Age trade with Europe will have been  
conducted overland through a series of middlemen.
64. Copper and Tin, p. 349.
  65. Ibid., pp. 331-335.

(a) See Plate 8.1.

## CHAPTER FOUR

GOLD AND SILVERIntroduction

Gold was comparatively frequent in Mycenaean Greece but silver was much more scarce. Both were imported from the East Mediterranean in a raw state, and then fashioned into artefacts by Mycenaean smiths. Nearly all the finds of gold and silver are from tombs. In the Shaft Graves at Mycenae, dating from the late Seventeenth century to the end of the Sixteenth century, the royal dead were lavishly equipped with precious goods, the most significant finds, from Circle A especially, being of gold. In the rest of Greece gold and silver have been found in royal tholos tombs which can contain very rich finds if unlooted, and chamber tombs, which being for lesser folk generally contain only occasional luxury goods, although some are exceptional.

Although imported in an unworked state we must look at what the metals were made into to see how important and frequent they were in the Mycenaean world. This is discussed below. The list is not a complete catalogue of artefacts by any means, but merely intended to indicate the extent to which the metals were used.

Artefacts of gold and silver(i) Vessels

Shaft Graves at Mycenae : These graves were particularly rich in utensils of gold and silver. A good number of gold vessels were found, of many shapes and sizes: goblets, cups, chalices, some with hammered repoussé decoration of rosettes, running lions or linear patterns. There were a few silver vessels too, some with gold inlays. Notable is the silver jug from Shaft Grave V.

There were also rhyta of precious metal. Two from Shaft Grave IV,

each in the form of an animal head, are clear examples of the Minoan influence in Mycenaean art at this time. One is a lion's head beaten out of a single sheet of gold, the other a bull's head made of silver. Another famous rhyton, also from Shaft Grave IV, is the silver conical rhyton depicting the seige of a walled town.

Vaphio : Also of early date are the two famous gold cups from the Tholos tomb at Vaphio, each decorated in repoussé work depicting the capture of bulls. They are Minoan works of art irrespective of whether the artist worked in Crete or Laconia.

Dendra : Gold and silver vessels were found in the Tholos tomb. They include the 'octopus cup' of gold, claimed by Persson to date to c. 1500 B.C.<sup>(1)</sup> There was also a cup consisting of an inner sheet of gold and an outer sheet of silver inlaid with bulls' heads in gold and black niello (a compound of copper, lead and sulphur), dated 1400 B.C.<sup>(2)</sup> A vessel almost the double of this last cup has been found at Enkomi and must have been exported from the Mainland. Other vessels inlaid in this way have been found, for example two silver vessels with rows of inlaid male heads found at Mycenae and Pylos. Lastly from the Dendra Tholos come a small gold and silver cup decorated with bulls and a further two silver cups.

In C.T. 10 at Dendra there was found one gold cup, dated 1450 B.C.<sup>(3)</sup>, but, more importantly from this tomb came five very elegant silver vessels: a crater, 3 goblets and a saucer, which are Myc.II in date.<sup>(4)</sup> The body of one of the goblets is decorated with five medallion-like panels in each of which is depicted a waterfowl in flight.

Most vessels of precious metal, of which those listed above are a selection, come from the Sixteenth and Fifteenth centuries; metal vessels of any type are rare after the period of the Dendra cemetery. Very few vessels survive from the period after 1400 and

some of these, particularly the later ones, are clumsily made. Once the standardization of the economy began deliberately inexpensive copies of precious objects were made; thus clay goblets and dishes from Athens, Dendra and Ialysos were coated thinly in tin to resemble genuine silverware.

(ii) Weapons

Gold and silver were sometimes used to decorate ceremonial swords and daggers. For example, some of the swords from the Shaft Graves at Mycenae and the Tholos tomb at Dendra have decorated handles covered with gold embossed with patterns of spirals or animal designs.

Of the weapons decorated with precious metals the most famous are the bronze dagger blades with scenes inlaid in gold, silver and black niello (the latter used for the background and for some details). The main period of this practise lay in the Sixteenth century, as revealed by the finds from the Shaft Graves, where several daggers were found with scenes such as a lion hunt, leopards hunting ducks, lions running, inlaid in gold, silver and niello. Similar inlaid dagger blades have been found at Vaphio and in the Tholos tomb at Rutsi-Myrsinochorion near Pylos; these examples dating to about 1500. Two inlaid daggers found at the Argive Heraeum are a little later, about 1450.<sup>(5)</sup>

Dagger blades inlaid with gold and silver are not found after 1400. Some swords and daggers were still decorated with gold but it was generally confined to the handle.

(iii) Jewellery

Although very little silver was employed in the manufacture of jewellery gold was one of the materials frequently used.<sup>(6)</sup>

Shaft Graves at Mycenae : They contained numerous pieces of gold jewellery dating to the Sixteenth century. Certain funerary objects were found, including the five gold funeral masks, two gold

pectorals and the ornate gold diadems and half-diadems.

There was also a wealth of jewellery which had been worn by members of the royal family when alive, much of which is of Minoan inspiration in style. Earrings were found; some were single hoops of gold or silver wire but others were more ornate. Gold bracelets and rings for fastening hair were found, and necklaces composed of gold beads decorated with plant, marine and animal subjects.

Gold clothing ornaments were very common in the Shaft Graves. These include gold cut into a variety of shapes - rosettes, crosses, stars, small discs; and other gold plates cut to represent figures - octopuses, butterflies, small figures of divinities, sphinxes and so on.

Gold signet rings were frequent, some of very high quality, and lastly some very elaborate gold and silver pins were found.

15th Century : Diadems, earrings and elaborate pins were no longer made. In the Fifteenth century the principal types of jewellery were gold beads and pendants for necklaces, clothing ornaments and finger rings.

Beads are common at Mycenaean sites. Many were made of gold, others of stone and glass. Popular shapes include the globular, melon, grain of wheat, amygdaloid and crocus shaped beads. But the most common form of bead is the relief-bead. This type was made of gold and stamped in shallow relief with a representation of marine or vegetable life, or objects of a religious nature. Counterparts of the gold beads were made in glass and other materials. Occasionally glass beads were covered with gold foil.<sup>(7)</sup>

Between 1450 and 1400 something like mass-production of the gold relief-beads seems to have been introduced. Types of relief-bead include: the rosette (which is the commonest variety), argonaut and double argonaut (also common), curled-leaf ornament, volute with bar,

bud, papyrus, several types of lily and ivy relief-beads, and the figure-of-eight shield.<sup>(8)</sup>

These gold beads were used to make necklaces, which have been found in many tombs on the Mainland. In C.T.10 at Dendra were found four necklaces, each made up of gold relief-beads of various types, made during the rich period for this type of jewellery, 1450 - 1400 B.C. For example, one of the necklaces consists of 20 lily-shaped gold beads and 19 shield-shaped beads.<sup>(9)</sup> Two gold necklaces were found in the Tholos tomb at Dendra, one consisting of 36 large and small gold rosettes.<sup>(10)</sup> Similar gold necklaces have been found at other sites in Greece. Blegen found several in the chamber tombs at the Argive Heraeum, one of which, from T. XLI, consists of 20 lily-shaped gold beads.<sup>(11)</sup> C.T.I:5 at Asine produced some necklaces, including one made of 154 small gold rosettes.<sup>(12)</sup>

In fact gold beads have been found all over Mycenaean Greece. They were made during the Fourteenth century, but by then were being supplemented to an increasing extent by glass.

Of the clothing ornaments rosettes are the commonest type and have been found in many chamber tombs. In T.515 at Mycenae over 100 gold rosettes were found, all probably Myc II. Wace suggests they were laid over one another like scales and sewn onto clothing.<sup>(13)</sup> Gold ornaments were made in other shapes: butterflies, argonauts, sacral ivy. From the Tholos tomb at Kakovatos came miniature gold ornaments of a toad and owl. In royal tombs belts have been found decorated with gold cones. Two girdles, one from the Tholos and the other from C.T.10 at Dendra, were decorated with gold binding and ornaments.<sup>(14)</sup>

Finger rings were frequently made of gold, and sometimes rings of silver have been found. In the case of the rings with bezels the latter could be plain or were sometimes decorated with inlaid stones or glass. The bezels of gold signet rings bear an intaglio

decoration, usually of a dramatic religious scene. Signet rings were frequent in the Shaft Graves and continued to be made in the Fifteenth century. Some fine examples include the large ring from the Tiryns Treasure, the gold ring from the Tholos at Dendra,<sup>(15)</sup> and the example from T. XLIV at the Argive Heraeum, said to be Fourteenth century.<sup>(16)</sup> Less impressive gold signet rings have been found in chamber tombs in many parts of the Mycenaean world.

Plain circular rings of gold and silver are numerous in Mycenaean chamber tombs. Wace recorded three of silver from the tombs that he excavated at Mycenae.<sup>(17)</sup>

In tombs throughout Mycenaean Greece there have been found gold beads and ornaments, gold and silver rings, shapeless fragments of gold and silver, and pieces of gold leaf for the sheathing of less precious materials. Furthermore, gold and silver were used for mountings on boxes and for decoration on other precious objects.

The best jewellery in precious metal was produced during the Sixteenth and Fifteenth centuries B.C. By 1450 relief-beads were being made of glass as well as gold. Between 1400 and 1100 B.C. no new types of jewellery were introduced but the use of glass gained in popularity as gold became scarcer. In the Thirteenth century nearly all the gold was reduced to gold leaf, fitted over glass beads. Glass and faience were increasingly used as cheap imitations, thus necklaces of gold beads gave way to a profusion of coloured stone or glass beads.<sup>(18)</sup>

The above discussion of the sorts of gold and silver artefacts made gives some idea of the importance and frequency of these metals in the Mycenaean world. Gold was far more common than silver. Quite a few silver vessels survive and the metal was used for inlay work, but the jewellery of precious metal is nearly all of gold; silver being confined to a great extent to a few rings, pins and pieces of



wire. Silver can of course be destroyed by oxidization and so it may have been used more than the archaeological picture shows.<sup>(19)</sup> But it appears that in comparison to gold, artefacts of silver were very rare.

Furthermore, it is clear from the discussion that most of the gold and silver comes from the Sixteenth and Fifteenth centuries. The treasures from the Shaft Graves make Mycenae's reputation of being, as Homer said, "rich in gold", seem entirely justified. And it is not only the Shaft Graves and tholos tombs that have produced gold and silver artefacts; so have the chamber tombs, the tombs of the ordinary people. And of course there must once have been much more. Few of the tholos tombs had not already been robbed. Sometimes the amount of gold found in tombs is not great, but the type of objects found: odd gold beads, pendants and rosettes and pieces of gold leaf, suggest that there must once have been more gold in the tomb, but it has been removed earlier.

As the discussion indicates there are fewer of the various artefacts of precious metal after 1400 and so the supply of gold and silver must have been reduced after that date. Following the late Thirteenth century disasters on the Mainland the supply almost ceased, but one area did continue to enjoy the use of gold and silver in the Twelfth century and that was the Central Aegean, bounded by Perati in the West and Rhodes in the East. Myc III C finds from tombs in this area include gold and silver rings, ornaments and beads of gold. The Central Aegean, which missed the disasters experienced on the Mainland at the end of Myc III B, maintained a reasonably high standard of living, and must have remained in contact with the East Mediterranean for a while during the Twelfth century, to judge by the contents of the tombs.<sup>(20)</sup>

Having outlined the extent to which gold and silver were used

it is now necessary to discuss where these metals were imported from.

### Gold

Gold is found widely distributed in nature. Generally it occurs native in one of two forms, either as alluvial or placer gold in certain rivers, or in veins in quartz rock. Both kinds were exploited in antiquity from an early period. The extraction of the metal consists of separating it from the associated impurities, whether rock or alluvium. In its natural state gold is seldom if ever pure, generally containing small portions of silver, sometimes copper and occasionally traces of iron. In earliest times it was used unrefined.

There is no evidence that gold was available locally to the Mycenaeans. Gold is indeed found in the Aegean area, but the main sources were in Thrace and Macedonia and in the islands Thasos and Siphnos, on the fringes of, or outside the Mycenaean world, and the deposits in the Cyclades were not worked before the Iron Age. Consequently the presence of objects of gold on the Mainland means that the metal had to come from areas outside Greece. In Mycenaean times gold artefacts, as we have seen, were by no means uncommon, and are thus a witness to the power and overseas contacts of this civilisation. It is extremely likely that the gold came from the East Mediterranean, both because of the contact with that area in other respects, and because the East Mediterranean, and above all Nubia, was a chief source of the metal. <sup>(21)</sup>

The gold bearing region of Egypt lies between the Nile Valley and the Red Sea, chiefly in that part of the eastern desert stretching south from the Qena-Quseir road to the Sudan frontier (although workings have been found north and south of this area). The greater part of this territory is in Nubia, the Ethiopia of

the classical writers. (22)

The importance of Nubia as a gold producing province of Egypt can hardly be exaggerated. Through her control of these mines Egypt possessed gold far in excess of any other country in the ancient world. The Nubian mines provided most of the gold used in Egypt anciently, and it was also exported, as proved by the Amarna Letters. Thus Nubian gold found its way to the countries of the Middle East. In fact Nubia was the principal source of gold for the ancient world in the Bronze Age.

Most Aegean prehistorians agree that the gold found in Mycenaean Greece is of Egyptian origin, coming from the Nubian mines. (23) While agreeing that the bulk of the Nubian gold which reached Mediterranean shores in the Bronze Age must certainly have passed through Egyptian hands, and that the Mycenaeans must have got much of what they needed direct from Egypt, Miss Lorimer points out that Ras Shamra may well have had a share in the trade in gold. (24) Apparently the excavators of Ras Shamra found gold in quantities sufficient to convince them that trade in it was an important factor in the economic life of the town.

If we could believe the legend of the Argonauts gold <sup>from</sup> deposits south of the Caucasus reached Greece in Mycenaean times. According to the story Greeks sailed through the Straits and onto the far end of the Black Sea in quest of the Golden Fleece. The legend of the Golden Fleece seems to owe its origin to an early technique of gold washing. In the Caucasus, gold-bearing water was run over a layer of fleeces and the gold, being the heaviest element present, sank to the bottom and was held by the grease of the wool.

Thus the voyage through the Black Sea to Colchis may perhaps recall real trading voyages for gold. But there is no archaeological trace of such trading; the Mycenaean potsherds reported from east of the Halys seem to be an illusion. Conceivably it was one

particular voyage to Colchis that was remembered, simply because it was so exceptional an expedition.<sup>(25)</sup> From the existing evidence then it does not appear that we can entertain the possibility of gold reaching Greece from deposits south of the Caucasus.

So the source of the gold was Egypt, imported raw and then manufactured into goods. A problem that remains is how can the apparently sudden acquisition of wealth at Mycenae, as revealed by the contents of the Shaft Graves, many of which were of gold, be explained? It is difficult to understand how Mycenae, at the end of the Middle Helladic period (early 16th Century B.C.), could have been in a position to bury with her royal dead so many luxury goods, especially of precious metals, the raw materials for which must have been of foreign origin.

Many of the precious objects in the Shaft Graves were Minoan in style. Wace originally explained the sudden change at Mycenae as due to pirate raids on the rich centres of Crete around 1600. Such looting could have accounted for the sudden appearance of the luxury goods in the royal graves.

Some of the Shaft Grave treasures may well have come from Crete, but most of them must have been manufactured on the Mainland and are the result of a fusion of Helladic and Minoan characteristics. For example, often the style is Minoan but the choice of subject on those pictorially decorated is frequently not. The scenes of battle and hunting, as on the dagger blades and silver seige rhyton for example, were foreign to Crete where peaceful and above all religious scenes were preferred. And the gold funerary objects; the masks, pectorals and diadems, are un-Minoan and must have been made locally.

The strong Minoan influence in the pottery and products of other materials is probably due to the fact that there were Minoan craftsmen of various kinds on the Mainland at this time working the precious metals and stones in a way to suit Mycenaean tastes.

In the Shaft Graves there have also been observed certain Egyptian imports and influences as well as the more prominent Minoan ones, suggesting contact with that country at this early date.

These possible Egyptian influences in the Shaft Graves have been discussed by many scholars including Persson<sup>(26)</sup> and Kantor<sup>(27)</sup> and more recently Marinatos<sup>(28)</sup> and Mylonas.<sup>(29)</sup>

The influences include, firstly, Egyptian imports such as the box made of Egyptian sycamore, the rock crystal bowl in the form of a duck and several ostrich eggshells. Also there are certain new funeral customs that are generally associated with Egypt, for example, the great increase in the number of funeral offerings, one example of embalming, gold death masks and pectorals and the use of stelae. Furthermore, there are Egyptian influences in the art work, for example, the Nilotic scene on one of the dagger blades. In fact the metal inlay technique also appears in Egypt, on the famous axe bearing the name of Ahmosis I, the first pharaoh of the 18th Dynasty and the man who was responsible for expelling the Hyksos. Also there are the reliefs on the grave stelae of horses and chariots. The use of the horse and chariot may have been introduced into Greece from Egypt at this time.

Some scholars have explained this Egyptian connection by suggesting that forces from Greece may have served in Egypt as mercenaries against the Hyksos. At the time of the Shaft Graves the Egyptians under Ahmosis I were seeking to throw off the foreign domination of the Hyksos and looked for help from overseas. It is suggested that Mycenaean mercenary warriors stood at the side of the Egyptians in their fight against the Hyksos and that in return for their services were rewarded with gold, with which they returned to Greece and which was then worked into artefacts.<sup>(30)</sup> This would

explain the new funerary customs, Egyptian art influences and most importantly for our purposes, why such a quantity of gold, some 33 lbs., suddenly appeared at Mycenae in the Sixteenth century.

But as Stubbings<sup>(31)</sup> points out the weakness of this theory is that it is hard to believe that the Middle Helladic people were sufficiently well organised to be useful allies against the Hyksos. Compared with the Egyptians they were backward and were not familiar with the Hyksos methods of warfare, such as the use of chariots.

According to Stubbings the sudden increase in power and wealth at Mycenae at the time of the Shaft Graves was because the city came under new leaders, foreigners who brought new military strength and a desire for a more advanced material civilisation. And he points to Egypt as their origin. Stubbings says that in classical times it was common knowledge that in the earlier heroic age a leader named Danaus had come out of Egypt and landed in the Argolid, where he subsequently became king. The Greek literary sources place Danaus at the beginning of the heroic age in the Argolid, and those who date the Greek traditions place him in the 16th Century. Nowadays looking for a period in the Bronze Age history of Egypt when a king of that country could have gone to Greece to found a new kingdom in the Argolid, one arrives at the first half of the Sixteenth Century when the foreign Hyksos rulers were expelled by Ahmosis. In agreement then with the Greek tradition we may postulate a takeover of the Argolid by some of the expelled Hyksos leaders from Egypt in the early Sixteenth century.<sup>(32)</sup> This would explain the Egyptian imports and influences in the Shaft Graves, including the large quantity of gold. As Stubbings says it is only a theory, but it does conveniently explain the archaeological evidence.

Although Stubbings only mentions the Greek sources, Danaus also appears in the Greek-language Egyptian records based on Manetho, as brother of "Sethos Aegyptos" or "Ramesses Aegyptos" and ruler in Achaea, his alleged name being "Harma'is" in Egyptian. But in these records he is placed in error at the end of the 18th Dynasty or even at the beginning of the 19th (rather than at the beginning of the 18th Dynasty as in the Greek traditions). He is called a usurper and we can assume that means he was a Hyksos king. This evidence further supports the theory proposed by Stubbings.

After the Shaft Grave period Mycenaean Greece continued to use gold as we have seen. This will have been imported from Egypt in the normal course of trade, either directly, or through Egypt's Levantine outlets.

### Silver

Gold was evidently fairly easily accessible from Egypt, but in comparison silver was relatively scarce in our period. Unlike gold, silver seldom occurs native. The principal source of silver (and of lead) was galena ore, although the quantities of silver in galena are minute. The method of extraction was apparently developed in Asia Minor in the Third Millennium B.C. and was gradually disseminated.

Mines from which silver could be extracted are to be found in Thrace, Macedonia and the Cyclades, and there are also the mines of Laurion in Attica. However in the Mycenaean period there is no evidence that any of these deposits were known.<sup>(33)</sup> The Mycenaeans imported the silver they needed.

There are galena deposits in Egypt but they contain only very slight amounts of silver and are practically useless for silver production, although rich in lead. All Egyptian gold, however, contains some silver. Silver objects have been found in Egypt from

as early as the predynastic period, but silver was comparatively rare until about the 18th Dynasty when it began to be a little more plentiful. The ancient records are silent as to where silver came from until the 18th Dynasty and the source may have been local until then, but it is stated that for the 18th and 19th Dynasties silver came from countries in Asia.<sup>(34)</sup>

Asia Minor has plentiful deposits of galena and was the principal source of silver for the ancient world. Supplies of silver appear to have been exported to Egypt where it suddenly grows more plentiful in the Fifteenth century. The Amarna Letters contain several passages that point to the beginning of an export of silver to Egypt in exchange for Egyptian gold.<sup>(35)</sup> Egyptian monuments tend to show that the Keftiu or Minoans (?) were engaged in silver trade between Asia Minor and Egypt.

First Crete and then Mycenaean Greece probably learnt the use of silver from Asia Minor, and it appears that Asia Minor was the source of the silver used in Mycenaean Greece. Some scholars in fact specify Troy in particular.<sup>(36)</sup> The silver was imported raw like the gold and manufactured into artefacts in Greece.

But although we can say the silver used in Mycenaean Greece was imported from Asia Minor, in contrast to gold, artefacts of silver are very rare; thus it cannot have been imported regularly or in any great quantity.



CHAPTER FOURChapter Notes

1. Royal Tombs, pp. 31-32, 43-46.
2. Ibid., pp. 33-34, 48-50.
3. New Tombs, pp. 74-75.
4. Ibid., pp. 87-91.
5. Marinatos. Crete and Mycenae, pp. 102-104, 167-168.
6. Jewellery was also made of semi-precious stones, faience  
and glass.
7. Higgins. Greek and Roman Jewellery, pp. 73-76.
8. Ibid., pp. 76-81.
9. New Tombs, pp. 77-80.
10. Royal Tombs, pp. 38, 40, 55.
11. Prosymna, pp. 267-269.
12. Asine, pp. 398-399.
13. Chamber Tombs, pp. 195-196.
14. Royal Tombs, pp. 40, 55; New Tombs, pp. 80-81.
15. Royal Tombs, pp. 55-56.
16. Prosymna, p. 266.
17. Chamber Tombs, p. 197.
18. Higgins. Op.cit., p. 70; S. E. Iakovides, in Prehistory and  
Protohistory, pp. 334-335.
19. In many tombs badly oxidized silver vessels and fragments of  
silver have been found.
20. LMS, pp. 115-116, 156, 227-228; Desborough. The Greek Dark  
Ages, p. 313.
21. Desborough. The Greek Dark Ages, p. 313.
22. AEMI, pp. 224-226.
23. Eg.: New Tombs, p. 146; GBA, p.257; Hawkes. Dawn of the Gods,  
p. 181.

24. Lorimer. Homer and the Monuments, pp. 56, 59, 87.
25. Stubbings, in CAH, Ed. 3, vol. II Pt. I, Chap. XIV, p. 649.
26. New Tombs, pp. 176-195.
27. Aegean and the Orient, pp. 39-41.
28. Marinatos. *Op.cit.*, pp. 81-82.
29. Mylonas. Mycenae and the Mycenaean Age, pp. 90, 131-132.
30. Marinatos. *Op.cit.*, pp. 81-82.

This theory had been discussed earlier by a number of scholars, notably by F. Schachermeyr. 'Welche geschichtliche Ereignisse führten zur Entstehung der mykenischen Kultur?' Archiv Orientální 17 (1949), pp. 331 sq.

31. Stubbings' discussion of the Egyptian connection and the Danaus legend appears in CAH, Ed. 3, vol. II Pt. I, Chap. XIV, pp. 633-638, (first published in the 2nd Edition, 1963).
32. According to Stubbings, *Ibid.*, p. 637, that their arrival is not accompanied by any more wholesale Egyptianizing is perfectly in accord with what we know of the Hyksos in Egypt.

As Stubbings points out (*Ibid.*, pp. 637-638) Cadmus is somewhat analogous to Danaus as a foreign invader and kingdom-acquirer in Greece. Cadmus is supposed to have left his home in Syria and eventually to have come to Boeotia, where he settled at Thebes. At first his eastern origin seems as unlikely as that of Danaus. But it must also involve the memory of a historical reality, even though we cannot at present relate it to archaeological evidence.

The name "Cadmus" itself is Semitic. If he really existed he would have been the founder of Upper Thebes, the "Cadmeia". (Anachronistically some traditions connect him with the adaptation of the Phoenician script to Greek.)

33. Desborough. The Greek Dark Ages, p. 314; Higgins.Op. cit.,  
p.6.
34. AEMI, pp. 246-248.
35. Forbes. Studies in Ancient Technology, vol. VIII, pp. 220,221.
36. GBA, pp. 257, 275; Lorimer. Op.cit., p. 64.

## CHAPTER FIVE

IVORYIntroduction

Ivory carving was an important art in Mycenaean Greece; and, although rare in Myc I and II, objects of ivory have been found in fairly large quantities in Myc III. The ivory was imported raw from Syria, where there was also an important school of ivory carving. Carved ivories found in Greece and the Levant are closely related. There are certain Oriental influences in Mycenaean carvings but of more importance are the Mycenaean influences in the ivories from the Levant. Mycenaean carved ivories were exported to the East Mediterranean and the Mycenaean style considerably influenced the carvers of the Levant, so much so that in the Levant in the Thirteenth century, as well as the Oriental traditions, it is possible to distinguish a whole Mycenaeanising class of Oriental ivories, which form an intermediate group in which Oriental and Mycenaean characters are blended in varying degrees.

Ivory : The Source

Ivory, from the quantities found in Myc III tombs, was evidently fairly easily accessible. It was imported raw from Syria, where the elephant survived until the Ninth Century B.C.<sup>(1)</sup> It is possible that some of the ivory came from Nubia and Somaliland by way of Egypt, but for the most part the source was Syria. Egyptian and Assyrian texts record the existence of the elephant in Syria. The presence of the elephant in North Syria in the first half of the Fifteenth century B.C. is attested by the elephant hunt organised for Thuthmosis III in the plain west of Aleppo.<sup>(2)</sup>

This Syrian source supplied the local schools of ivory carving and the raw ivory was also exported to Greece, probably

from ports such as Ras Shamra (Ugarit), along the trade route which ran from the Syrian coast, via Cyprus, southern Asia Minor, Rhodes, and the Cyclades to Mycenae. As with gold and silver, the Mycenaeans preferred to import the raw material and work it to their own tastes in Greece. But it is possible that occasionally small finished articles, plaques or inlays, may have been imported with the tusks.<sup>(3)</sup>

### Ivory Carving in Mycenaean Greece

Ivory became available in the Aegean area very early. In Crete it was already being carved in the Early Minoan period (c.3,000 - 2,000 B.C.). Ivory working was a well established Minoan craft and Minoan products provided the background for the development of this art on the Mainland. Relatively few Minoan ivories contemporary with the Mycenaean period are known, however.

Ivory was rare in Greece during Myc I and II but has been found in greatly increased quantities in Myc III. From c. 1350 to c. 1200, a period when trade was flourishing, come many ivories, but there are only a few pieces from the preceding 250 years. This could be the accident of discovery but on the other hand the Sixteenth and Fifteenth centuries were a period of limited overseas contact in comparison with the empire period of the developed Mycenaean civilisation.

### c. 1600 - 1350 B.C.

The oldest ivory artefacts are the inlays carved in the form of dogs on the imported box of Egyptian sycamore from Shaft Grave V at Mycenae dated Myc I. One or two other pieces of ivory were found in the Shaft Graves: a fragmentary pommel, a comb, and a mirror handle.

Other early examples from Mycenae include the superbly worked

ivory group of two women squatting with a boy standing by the knees of one of them, dated to the Fifteenth century. Complete carvings in the round like this piece are very unusual. Occasionally luxury bronze mirrors have been found with carved ivory handles. From the 'Tomb of Clytemnestra' came two very fine ivory mirror handles decorated with the same subject; two young girls seated facing each other. They are probably Fifteenth century.

From Tholos Tomb 2 at Rutsi near Pylos came several ivories of Fifteenth century date: an ivory pyxis of cylindrical shape decorated with spirals, an ivory comb decorated with cats hunting wild ducks, and the ivory handle of a bronze mirror decorated with rosettes.<sup>(4)</sup>

Two ivory pyxides were found in a chamber tomb on the Areopagus in Athens in a deposit dated to the early Fourteenth century. On the smaller one tricurved arch friezes border three tightly packed rows of nautilus, while on the larger one deer fall prey to griffins.

The important phase for the import and carving of ivory began for Mycenaean Greece after the fall of Knossos.

#### c. 1350 - 1200 B.C.

During the Myc III period ivory became more frequent in Mycenaean Greece. The main groups come from Mycenae (the centre of ivory carving in Greece), and to a lesser extent from the chamber tombs of Spata in East Attica, the Tholos of Menidi, Argos, and Athens. Mycenae was the major centre for ivory carving from the mid-14th century onwards. Her chamber tombs are rich in good examples and the citadel and outer houses have also yielded fine pieces.

#### (i) Ivory was used to decorate furniture and other objects.

It appears that ivory was commonly used to make inlays and plaques to decorate furniture: beds, tables, chairs, foot stools,

chests and caskets belonging to the wealthy. Homer refers to ivory as used for such purposes and the Pylos tablets confirm it. Plaques: Ivory plaques have been found carved in relief showing men and animals, real or imaginary: lions, sphinxes, griffins, bulls. Other plaques are carved with the triglyph pattern, the spiral and lotus pattern, spirals with flowers or figure-of-eight shields.

Examples of ivory plaques were found in the houses outside the citadel at Mycenae. From the House of Shields came pieces of at least 3 narrow plaques with running lions and 1 rectangular plaque showing a lion pouncing on a calf which may once have formed the sides and lid of a casket. Another 2 plaques with figure-of-eight shields also came from the same house.<sup>(5)</sup> Several ivory plaques were found in the House of Sphinxes. They include pieces of at least 4 narrow plaques with couchant sphinxes which probably formed the sides of a casket. The finest plaque, which may have formed the lid of a casket, is a superb piece with 2 sphinxes confronting one another with their forepaws resting on the capital of a fluted column.<sup>(6)</sup>

Similar ivory plaques have been found at the other important Mycenaean sites. In the chamber tombs at Spata in East Attica, for example, were found 2 plaques, one carved with a bull being attacked by a lion, the other showing a sphinx.

Inlays : Ivory inlays were used to decorate furniture. They had the shape of murex and whorl shells, dolphins, birds, "sacral ivy" leaves, lilies, spiral bands, cusps. Furniture inlays of this sort occurred in the houses outside the citadel at Mycenae and they have been found elsewhere in Greece. From T. 518 at Mycenae<sup>(7)</sup> and C.T. 8 at Dendra<sup>(8)</sup> come two similar ivory inlays, each consisting of two spirals linked by a narrow decorated strip, possibly from the fronts of foot stools.

A series of Linear B tablets from Pylos, found by Blegen in

1952-53, are inventories dealing with the construction and decoration of furniture. Tables, chairs and foot stools are recorded as inlaid with gold, silver, and ivory. The ivory inlays mentioned include pomegranates, men, lions, running spirals.<sup>(9)</sup> Such texts are an important compliment to the actual finds of carved ivories, for these are frequently fragmentary or isolated from their original setting. From the inventories we can imagine the luxurious palace appointments of which ivories were an important part.

Models and other ornaments : Ivory was used to make models and objects carved in high relief. Model figure-of-eight shields were common in the House of Shields at Mycenae and they have also been found at the Argive Heraeum and Spata. They may have been used as high relief ornament. Model cockle shells were found in the House of Sphinxes. Large numbers of miniature ivory columns came from the houses at Mycenae and these may once have adorned furniture.<sup>(10)</sup> Other ornaments, for example discs engraved with rosettes, have been found in tombs at Mycenae, Asine, the Argive Heraeum and elsewhere. Several examples of an ivory object resembling a hoof were found in the houses at Mycenae, and at least 4 similar examples were discovered in the Tholos Tomb near Menidi.

(ii) Ivory for objects of personal use and ornament.

Pyxides : Ivory was used to make small pyxides, generally cylindrical. Usually they were carved in relief with various decorative motives. Often only the lids are found; for example decorated lids have been found at Menidi, Asine and the Argive Heraeum. Sometimes wooden pyxides were covered with ivory.

Combs : Combs made of ivory have been found, some with relief carving. Several have come from Mycenae: one was found by Tsountas in T.5, and three by Wace in the tombs he excavated. Other examples come from Asine and Spata. At the Argive Heraeum four ivory combs



were found: two in good condition and fragments of two others. The well preserved comb from T. XIV has as its main decoration a rosette that rises above the top of the comb in the centre of each side.<sup>(11)</sup> The comb from Spata has similar rosettes.

Mirror Handles : Ivory was sometimes used to make the handles of bronze mirrors. Fragments of circular pieces of ivory from Spata and the Argive Heraeum are thought to be the remains of circular mirror cases.

Sword hilts and pommels : Some of the ceremonial weapons found in tholos tombs were decorated with ivory. Ivory plaques as well as gold were applied to the hilts, and occasionally the pommel was made of ivory.

Buttons, beads and needles : Small articles such as buttons and beads of ivory have been found. Ivory needles were discovered in T.5 at Thebes.

Figures : A few ivory figures have been found. There are two related examples from Mycenae: one, the figure of a woman seated on a rock, the other a relief depicting a standing woman who was once flanked by two animals leaping at the foliage in her hands. Both are Thirteenth century in date. Blegen found the statuette of a 'goddess' in T. LI at the Argive Heraeum and points out two similar examples, both badly damaged, from Mycenae, one probably from the Acropolis and the other from T.27.<sup>(12)</sup>

Several ivory warriors' heads wearing boars' tusks helmets carved almost fully in the round have been found. Two came from Mycenae and another from Spata.

The ivory objects found in the tombs are often fragmentary and since ivory is fragile and easily perishes, it may be concluded that the tombs must originally have contained many more offerings in this material.

After 1200 B.C. ivory became scarce. Thus during the Mycenaean koine period more and better ivory was imported, ivory work became extremely popular, and there was a widespread demand for small artefacts (although increased production led to a deterioration in quality); but finally, with the decline of Mycenaean economic and commercial life, the art of ivory carving was almost completely abandoned.

#### Ivory Carving : Mycenaean Greece and the East Mediterranean

Ivory carving was one of the most sophisticated and beautiful arts that the Mycenaean practised. Since most of the raw ivory came to Greece through Syrian harbours there was a more accentuated Orientalism of style than in other media, and a trail of rich ivory deposits lead from Mycenae through Delos and Cyprus to the Levantine centres of Ras Shamra and Megiddo. Influence was active in both directions along this route, but in contrast to the later Orientalising period of Greek art (c. 700 - 600 B.C.) the source of artistic power seems to have come, to a large extent, from the Mainland rather than towards it. Thus carved ivories from Megiddo, Ras Shamra, Enkomi, Delos and sites in Greece all have a certain kinship in style.

It is indeed possible to distinguish Eastern influences in Mycenaean ivories. A great deal of the Mycenaean iconography was originally Oriental, for example the griffin, sphinx and palm tree. These motives were derived from the Levant, but they had reached Greece indirectly as part of the Minoan heritage, Crete having borrowed them from Syria during the course of her Oriental contacts.

Although for the most part ivory was imported unwrought from Syria it is quite likely that a few samples of Near Eastern carvings, the occasional ivory plaque for example, reached Greece, despite the evident preference for her own art. According to Pendlebury the

ivory duck's head from Asine was imported from Egypt. (13)

In the Thirteenth century a marked Mycenaean influence began to be seen in the ivory carvings in the East, at Megiddo, Ras Shamra, and, later, Enkomi, which suggests that craftsmen in luxury goods, who tended to be migrants, moved eastwards in search of material and work. And in addition to the ivory objects from Syria and Palestine that are imitations of the Mycenaean style, there are also others that were actually imported from Greece. Ivory objects of Mycenaean manufacture have been found in the Near East, especially at Megiddo and Delos, and to a lesser extent Enkomi and Ras Shamra. But it is often difficult to distinguish between purely Mycenaean works and Levantine carvings produced under strong stimulation from the West. The problem is complicated by the circumstance that ivories were small valued objects d'art, easily transported from their place of manufacture. So, although ivories belonging to the Mycenaean class have been found as far south as Egypt and as far north as Ras Shamra and Rhodes, no general statement can be made concerning the original provenance of all the ivories. Moreover, the degree of Aegean influence which they display varies widely. Some are affected only in part, but others are so deeply permeated by the Myc III traditions as to support the view that they were either produced by Mycenaean craftsmen working in the Levant or were imported from Greece.

#### Egypt

A pyxis lid was found in a tomb at Saqqara in an early Fourteenth century context. It is decorated with a scene of gazelles and lions carved in the so-called 'folded' pose. Unlike the flying gallop, the folded pose theme does not seem to have been adopted by foreigners, but remained a feature limited to the Aegean. Thus this carving is an authentic Mycenaean III work, exported to Egypt. (14)

As Mycenaean pottery was being imported in quite large quantities by Egypt at the time of the context in which the lid was found this is further evidence towards assuming that the piece is Mycenaean.

### Megiddo

In Palestine a palace at Megiddo has yielded a hoard of ivories almost all datable to the Thirteenth century. From this hoard came the fragments of an ivory box carved with the tricurved arch frieze as seen on the small Athens pyxis and the Saqqara lid.<sup>(a)</sup> Two rectangular plaques from the Megiddo hoard are covered with "sacral ivy" friezes.<sup>(b)</sup> This plant motive had a long history going back to Minoan origins and remained popular throughout the Mycenaean period. There can be no doubt that the plaques and the box were imports from Greece.<sup>(15)</sup>

The Megiddo hoard included rectangular plaques, presumably from a box. Each has the same decoration, a couchant griffin, and one is almost perfectly preserved.<sup>(c)</sup> The griffin is seated with its head erect and its symmetrical wings spread out to the left and right. Kantor feels that the evidence for considering these plaques as Mycenaean imports is overwhelming.<sup>(16)</sup> Similarly posed sphinxes and griffins occur on ivories from Mycenae and other Mainland centres. The Megiddo griffins, though their quality is not often reached, are typical of the Thirteenth century Mycenaean animal style.

An ivory comb from Megiddo of Thirteenth century date bears a carving of a dog siezing a wild goat.<sup>(d)</sup> Features in the carving of the animals and the Aegean scale and foliate-band borders prove that it is Mycenaean.<sup>(17)</sup>

There are several fragmentary ivory plaques from the Megiddo hoard with incised animal scenes done in the Mycenaean animal style. On the other hand other incised plaques, though similar, are far more Oriental. Here, then, is a series of closely related plaques, yet

some are Mycenaean in flavour and others Oriental. Presumably it was a Syro-Palestinian craftsman who made them, influenced by Mycenaean originals. So not only was there a considerable vogue in the Levant for imported Mycenaean ivories, but also for local imitations.<sup>(18)</sup>

An iconographic detail, a pinnate-leaved olive tree or its branches, distinguishes a whole series of ivories, so far only found in the Orient. Nonetheless, the sources for the motive are Aegean. The olive tree was rarely represented in the art of the Near East but it was used in the Aegean, for example on the Fifteenth century Vaphio cups. And a fragment of a relief from the Thirteenth century 'Treasury of Atreus' at Mycenae preserves part of a charging bull in front of an olive tree. Two of the Thirteenth century ivories from Megiddo, a comb and a gaming board, are carved with animals against a background of olive trees. They are Syro-Palestinian works but the olive trees are evidence of Mycenaean influence.<sup>(19)</sup>

#### Ras Shamra (Ugarit)

An important ivory from Ras Shamra is the pyxis lid from Tomb 3 at Minet el Beida, dated Thirteenth century.<sup>(e)</sup> A goddess, Aegean in garb, is enthroned upon a concave altar base placed in a mountainous terrain. She holds sheafs of vegetation which attract two goats. The Mycenaean features of this carving are so conspicuous that it has been considered an original Myc III work. It is related to the two carvings of women from Mycenae (p. 189 above) particularly the second one, which once showed the woman holding foliage for two animals. Miss Kantor points out that despite the fact that the goddess of the Ras Shamra ivory is Aegean, the carving illustrates a combination of features better known in the Levant than in the Aegean. Thus it is a Syro-Palestinian work closely imitating Mycenaean conventions.<sup>(20)</sup>

A contracted animal figure carved in the round, from an unknown context at Ras Shamra, is, like other examples of the folded pose, a Mycenaean ivory. A crouched stag with large antlers on one side of a mirror handle found in Old Tomb 16 at Enkomi on Cyprus is another example of the folded pose outside the Aegean. This stag is so closely akin to the animals on the Athenian pyxis and on the Saqqara and Menidi lids as to make the handle seem undoubtedly the product of a Mainland workshop.<sup>(21)</sup>

### Cyprus

Aegean ivory objects actually imported from Greece by Cyprus are very limited. There is a warrior's head with boars' tusks helmet from Enkomi and several bull figurines from Idalion.

Mycenaeans arrived as settlers in Cyprus in the early Twelfth century and to this century belongs the finest ivory work known in Cyprus, the objects coming chiefly from Enkomi and Kouklia. The great number and individuality of the ivory products show that they were made in local workshops. The major pieces, such as the draught box and the griffin slayer and lion slayer mirror handles, show such strong Mycenaean influence that the presence of Mycenaean craftsmen at work in Enkomi and Kouklia is surely established.<sup>(22)</sup> In fact in the Cypriot ivories the blend of Aegean and Eastern influences is particularly evident. At the narrow end of the draught box (early 12th century) are two bulls couchant beneath an olive tree. The rendering of the bulls and the olive tree are Mycenaean. But this work also incorporates a number of un-Mycenaean features that indicate it to be the product of the mixed culture of Cyprus.

### Troy

Blegen found ten or more objects of ivory while excavating Troy VI and he considers them to have been imported from Mycenaean centres. They include fragments of boxes, 3 disks, 3 or 4 pendant beads and the fragment of a comb, dated Myc III.<sup>(23)</sup> This comb

from Troy is similar to ones from the Mainland, a close parallel being the one found in T. XIV at the Argive Heraeum, both having a central rosette and woven basketry design. Combs of the same form with the central rosette have also been found at Mycenae and Spata, and on Crete too.<sup>(24)</sup>

### Delos

Nearer to Greece the island of Delos imported Mycenaean ivories. On this island have been found miniature columns like those from Mycenae, and strips of ivory with triglyphs, S-spiral bands, and figure-of-eight shields carved in relief. These small-scale renderings of typical features of Aegean architecture and architectural ornament have so far been found only on the Mainland and Delos and are purely Mycenaean works.

An ivory plaque from the Delos hoard, Thirteenth century in date, carved with a warrior standing in front of a large figure-of-eight shield, wearing a boars' tusks helmet, and carrying a spear is also a Mycenaean import.<sup>(f)</sup> So is a cut-out ivory plaque showing the capture of a griffin by a lion, a close parallel to the Megiddo griffin plaques.<sup>(g)</sup> The Mycenaean animal style is also represented by a number of fragmentary incised plaques from the same deposit.<sup>(25)</sup>

### Conclusion

Mycenaean Greece imported raw ivory from Syria, particularly during the 14th and 13th centuries. The ivory carvings found in Greece are further evidence of the high standard of Mycenaean culture and also an indication of active foreign trade. The use of so much carved ivory to decorate furniture and make pyxides, combs, mirror handles, and small ornaments shows how much ivory was imported and that the citizens, nobles and merchants of the important Mycenaean centres must have been rich and prosperous. But the Mycenaean

did not only import the raw ivory. Ivories found in Greece and the Levant are closely related. So there were two Greek Orientalizing periods; the familiar one of the late 8th and the 7th centuries B.C. and the earlier 'Achaean' period of the late 14th and the 13th centuries B.C. The later phase brought a flood of Oriental features into Greek art. In the earlier period, in contrast, much influence also went in the opposite direction. Exported Mycenaean ivories have been found at sites in the East Mediterranean, especially Megiddo. The Mycenaeans were in close contact with the Levant and it was this area that was most receptive to Mycenaean influence. In Syria and Palestine in the Thirteenth century and in Cyprus in the Twelfth century, the example of Mycenaean art resulted in a Mycenaean-influenced school of decorative art, now best represented by ivory carvings and a few works in other materials. Ivory in the Mycenaean area, and conversely exported objects of ivory from Mycenaean Greece found in the Levant are another proof of commercial relations with the East Mediterranean down to c.1200 B.C.



CHAPTER FIVEChapter Notes

1. Kantor. Archaeology 13 (1960), p. 14; Wace and Blegen.  
Klio 32 (1939), pp. 142-143; Mycenae AHG, p. 108; GBA,  
pp. 219, 255, 257; Culican. The First Merchant Venturers,  
pp. 58-59.
2. Lorimer. Homer and the Monuments, p. 62.
3. GBA, p. 219; Immerwahr. Archaeology 13 (1960), p. 13.
4. Marinatos. Crete and Mycenae, pp. 104-106, 174-175.
5. Wace. Archaeology 7 (1954), pp. 153-154.
6. Ibid., pp. 151,154.
7. Chamber Tombs, p. 211.
8. New Tombs, p. 47.
9. Documents, pp. 332-348.
10. Wace. Archaeology 7 (1954), pp. 152-154.
11. Prosymna, pp. 282-283.
12. Ibid., pp. 461-463.
13. Pendlebury. Aegyptiaca, p. 65 (Cat. No. 150); JEA 16 (1930),  
p. 88.
14. Aegean and the Orient, pp. 85, 97-98.
15. Kantor. Archaeology 13 (1960), p. 18.
16. Ibid., pp. 18-21. GBA, p.221 and Mylonas. Mycenae and the  
Mycenaeen Age, p. 213 also consider the griffin plaques  
to have been imported from Greece.
17. Kantor. Archaeology 13 (1960), p. 22.
18. Ibid., pp. 21-22.
19. Ibid., pp. 22-23.
20. Ibid., pp. 23-24; Aegean and the Orient, p. 86. S.E. Iakovides,  
in Prehistory and Protohistory, p. 331 points out that this  
pyxis lid is an imitation of a Mycenaean original.

21. Aegean and the Orient, pp. 97-98.
  22. CBMW, p. 51; LMS, pp. 99, 229-230.
  23. Troy vol. III, pp. 16, 29, 263, 298, 380.
  24. Prosymna, pp. 281-282.
  25. Kantor. Archaeology 13 (1960), pp. 21, 22, 23.
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- (a) See Plate 5.1.
  - (b) See Plate 5.2.
  - (c) See Plate 5.4.
  - (d) See Plate 5.3.
  - (e) See Plate 6.1.
  - (f) See Plate 6.2.
  - (g) See Plate 6.3.

## CHAPTER SIX

SEMI-PRECIOUS STONES

Seal-stones, beads and pendants were frequently made from semi-precious stones that had been imported from the East Mediterranean. The stones used were: rock crystal, amethyst, carnelian (and sard which is a darker variety of carnelian), agate (plus onyx and sardonyx which are varieties of agate), chalcedony (a term used generally for all chalcedonic silicas, which include chalcedony proper, agate, carnelian and sard), jasper, lapis lazuli, and malachite. Inferior beads and seals were made of a softer stone; steatite.

Seal-stones

Seal-stones were of various shapes such a lentoid, amygdaloid and tubular. Many of the representations on the seal-stones are masterpieces of miniature art: religious representations, scenes of private life, scenes of battle, men hunting, lions hunting and many other representations of animals and birds. The seal was really worn as a jewel; on a cord round the neck, or in a band round the wrist. During the early Mycenaean period Minoan influence is strong in the miniature engravings on the seal-stones and as such gems could easily travel from place to place and pass down from generation to generation, some of the earlier examples could have come from Crete.

The most beautiful engraved stones come from the Sixteenth and Fifteenth centuries. From the Fourteenth century onwards the seal-engravers art, like that of many other craftsmen, declined and the finished products became less beautiful. Small quantities of seal-stones have been found in tombs at many sites in Mycenaean Greece and those listed below are examples of these.

Mycenae : Engraved seal-stones were well represented in the Shaft Graves. Probably the most famous example is the amethyst gem with the engraved profile portrait of a nobleman from Grave Gamma in Circle B.

The chamber tombs at Mycenae were rich in engraved seal-stones. Wace found a good collection in the tombs that he excavated.<sup>(1)</sup> Six, made of onyx and carnelian, came from T. 515, and another half a dozen, three of onyx and one each of carnelian, agate and amethyst, were found in T. 518. These are all of Myc II date. Other seal-stones that turned up in the excavations by Wace include one of agate from T. 523 and one of carnelian from T. 504.

Pylos : Some 20 seals were found in a tholos tomb at Pylos and the stones of which they are made include amethyst, carnelian and sardonyx.

Vaphio : A fine collection of seal-stones (38 in number) came from the Vaphio Tholos, a very important single hoard. Minoan influence is seen in the engraving of some of the examples and so one or two may have come from Crete. But a good number are engraved with scenes which had no Cretan prototypes. The stones represented include chalcedony, agate, sardonyx, carnelian and jasper. They can be dated to about 1500.<sup>(2)</sup>

Dendra : The kings' seal-stones from the Tholos were comprised of 6 lentoid gems : 3 of agate, and 3 of jadeite.<sup>(3)</sup> Two other seals were found in this tomb, one of carnelian and one of lapis lazuli.<sup>(4)</sup> In addition, half a dozen gems of agate and carnelian were found in the chamber tombs at Dendra.

Argive Heraeum : 22 engraved gems or seals were found in the chamber tombs at the Argive Heraeum, and in most cases they were associated with objects belonging to Myc III.<sup>(5)</sup> Apart from four of glass and faience the rest are made of semi-precious stones : agate, carnelian, rock crystal, amethyst and the softer steatite. Blegen suggests that three of the seals were of Cretan origin.

Asine : 4 seals; three of agate and one of carnelian, came from C.T. I : 1. <sup>(6)</sup>

Seal-stones dating to the Thirteenth century have been found at a number of sites, for example the Tholos of Menidi and on the acropolises of Mycenae and Athens. The stones used are the more common agate, carnelian and steatite, and in a few cases onyx, chalcedony, amethyst and jasper. <sup>(7)</sup>

The only find on the Mainland which is comparable to the Lapidaries workshop at Knossos is that of the stone cutters' workshops in the Palace of Thebes, destroyed suddenly about 1300, in which were found an extensive hoard of cut and uncut agates and crystal.

#### Beads

Semi-precious stones were also used to make jewellery: beads and pendants, pinheads and inlay. These (and the gold examples) were the luxury article in this category. In addition, far greater quantities of beads were made of glass and faience; and in fact by the end of the Thirteenth century semi-precious stones had almost ceased to be used for this purpose.

Beads of semi-precious stone are fairly common and appear at sites throughout Mycenaean Greece. By way of example some of those found at a few of the sites are listed below.

Mycenae : In the Shaft Graves rock crystal was quite popular. There were pendants and beads of this stone and also bronze pins with heads of rock crystal. Other offerings had crystal inlays.

Wace found a considerable number of beads of stone in the chamber tombs he excavated at Mycenae. <sup>(8)</sup> There were over 30 of amethyst, mostly spherical, some of Myc I date but mainly of Myc II. Carnelian was the stone for over 70 beads covering Myc I - III and of a

variety of shapes including spherical, lentoid, amygdaloid and tubular. Most of the rock crystal beads came from T. 517, which yielded 33 specimens that are generally of Myc III date. Wace also found 3 agate beads and a few examples in onyx, a stone more popular for engraved gems.

Tholos B, Kakovatos : Beads of lapis lazuli were found in this tomb. These included several relief-beads, which were occasionally made of lapis lazuli before c. 1450 as well as being made of gold in large numbers.<sup>(9)</sup>

Dendra : A number of ornaments of semi-precious stone were found in the Tholos. There were tubular agate beads, one or two carnelian beads, two pendant jewels (one of rock crystal and the other of agate) and a pierced weight of agate in the shape of a duck.<sup>(10)</sup> Stone beads were also found in the chamber tombs: 6 of carnelian in C.T. 2, and amethyst beads in several tombs, especially C.T. 8, which produced 16.<sup>(11)</sup>

Asine : A small collection of semi-precious stones came from C.T. I : 2, including 3 agate beads and 9 small pieces of rock crystal from an ivory ornament. 3 amethyst beads were found in C.T. I : 7.<sup>(12)</sup>

Argive Heraeum : Beads of rock crystal, amethyst, lapis lazuli, malachite, steatite, breccia, and most popular of all carnelian, were found in the Argive Heraeum tombs.<sup>(13)</sup> Carnelian was used much more by the Mycenaeans than the rarer lapis lazuli, amethyst and crystal and in fact 217 beads of carnelian were found here, coming from 22 tombs, and of dates ranging from Myc I - III. 19 amethyst beads were discovered; some of these were associated with objects of Myc II date, but most are Myc III. Of the 16 beads of rock crystal a few are Myc I but the majority date to Myc III. Two large round balls of crystal of Myc III date from T. LI may have formed the heads of bronze pins. There also came to light one or two beads of agate and

lapis lazuli and about 8 malachite beads. During Myc III it became customary to use softer stones such as steatite. In the Argive Heraeum tombs 28 beads of steatite were found, mostly of Myc III date.

Semi-precious stones were mainly used for seals, beads, pendants and the occasional pin head and inlay. In addition, signet rings were sometimes carved entirely out of a block of stone. Two examples are known from Mycenae : one of rock crystal from the citadel and the other of red jasper from an unidentified tomb.<sup>(14)</sup>

#### The Source of the Semi-precious Stones

Most of these semi-precious stones, imported as raw materials to be worked by the Mycenaean craftsmen, appear to have come from Egypt. Persson, writing in 1942, stated that most of the stones, such as onyx, carnelian, agate, amethyst, jasper, rock crystal and so on were used in Egypt and that, considering that close communication between Greece and that country is assured by other evidence, we can therefore assume that these stones were mainly imported via Egypt.<sup>(15)</sup> Miss Lorimer<sup>(16)</sup> points to Egypt as the source of such stones as amethyst, carnelian and malachite and Wace<sup>(17)</sup> and Blegen<sup>(18)</sup> are of the same opinion. The less common lapis lazuli seems to have come from farther east, Mesopotamia or, more probably, Afghanistan.<sup>(19)</sup> It was used in Egypt, being exacted as tribute from its Asiatic provinces and no doubt imported as well, and so it perhaps reached Greece via Egypt along with the other stones.

The existence in Egypt of most of these stones is confirmed by Lucas.<sup>(20)</sup> Agate occurs plentifully in Egypt and probably also onyx and sardonyx. Amethyst is also found there and carnelian exists abundantly in the form of pebbles in the eastern desert and to a lesser extent in the western desert. Chalcedony is also found in

both the eastern and western deserts and elsewhere. Rock crystal occurs in a region stretching from the Fayum to Baharia Oasis and also in Sinai. According to Lucas all these stones were used in ancient Egypt for making beads, amulets and other small objects, and rock crystal was occasionally fashioned into small vases.

In addition to these semi-precious stones used to make seals and beads, small quantities of unworked alabaster were also imported into Greece, for products worked in this material by the Mycenaeans, particularly vases, have been found at sites on the Mainland. For example in the Shaft Graves one or two alabaster vases were found, including an elegant specimen with three looped handles from Grave IV in Circle A. There were also one or two swords with pommels of alabaster. Other examples of alabaster vases made by the Mycenaeans include the fragments of three squat bowls from C.T. I:2 at Asine,<sup>(21)</sup> and a pyxis from Klauss in Achaia, probably manufactured in the last half of the Thirteenth century.<sup>(22)</sup>

According to Wace<sup>(23)</sup> the alabaster used to make the vases was imported from Egypt. And in fact Lucas<sup>(24)</sup> states that all varieties of calcite (the geological term for alabaster) occur abundantly in Egypt's eastern desert.

In conclusion, the semi-precious stones must have been imported fairly regularly from Egypt during the Mycenaean period, although like the gold and ivory they were a luxury commodity. It is possible that at the beginning of the period, the time of the Shaft Graves, the Minoans provided Greece with some of the imported stones, or that there was collaboration between Mycenaean and Minoan merchants in the Mycenaeans' first trading ventures eastwards.

We have no evidence that these imported stones came directly from Egypt. Some (as was suggested for the gold) may have reached Greece through Levantine ports such as Ras Shamra, a great depot



in which the goods of many nations accumulated to be distributed over the East Mediterranean.

Besides these semi-precious stones there appears to have been a certain amount of exchange in other less valuable types of stone. Steatite : It has already been said that steatite was used to make inferior seals and beads. It is a soft stone and was increasingly used during Myc III for jewellery; many beads of this stone have been found at Mycenaean sites.

There also exist one or two whole and fragmentary vases of steatite with scenes rendered in relief. They are few in number and according to Marinatos were imported from Crete.<sup>(25)</sup>

Lamps made of steatite quite often turn up in Mycenaean tombs. This stone was also used to make the moulds in which glass beads and plaques with patterns in low relief were cast. A fair number of such moulds have been discovered on the Mainland and Crete. Buttons (once thought to be spindle whorls) were made of either terracotta or steatite and large numbers of them have been found in Mycenaean tombs and inhabited sites. The terracotta buttons belong to Myc I and II while the steatite examples were characteristic of Myc III.

It is difficult to say how much of the steatite used in Mycenaean Greece was local and how much was imported, but this stone is found on Crete and some of it could well have been imported from that island.

Flint : Although weapons were generally of bronze, stone was occasionally still used to make arrowheads. Arrowheads of flint have been found at Mycenae in Shaft Grave IV, the Palace and in the chamber tombs. They have also turned up at Kakovatos, Vaphio, the chamber tombs at the Argive Heraeum, and elsewhere. Flint of good quality does not occur in Greece and so it is likely that

the flint that the Mycenaeans used was imported from Egypt. (26)

Obsidian : In Neolithic and Early and Middle Helladic times Melos supplied the peoples of the Aegean with obsidian (a volcanic glass) which was used to make arrowheads and tools. Phylakopi had the island's richest deposit. The Mycenaeans also used this material to a small extent to make arrowheads and so we must assume that it continued to be imported during the Mycenaean period. (27)

In addition to the Melian source obsidian is abundant on Lipari in the Aeolian Islands (a little to the north of Sicily) and as Mycenaean pottery of an early date is found on this island it may have been another source at the beginning of the Mycenaean period.

Lapis Lacedaemonius : This stone was popular in Mycenaean times and was used to make vases, examples of which have been found at Mycenae and other sites. It is a porphyritic stone, dark green or almost black containing light green crystals of feldspar, and is therefore also called flecked green porphyry. It was quarried at Alai Bay (the ancient Krokeai) in Laconia, midway between Sparta and Gytheion, in Mycenaean and also later Roman times. It was exported to Crete where it was used for stone vases and seals. A store of blocks of this stone was found at Knossos in the ruins of the Palace. (28)

Porphyritic rocks are widely distributed in Egypt but flecked green porphyry does not occur there. Thus the small pieces of broken worked objects of this stone that Lucas records having been found in Egypt were imported from Greece, either as the artefacts themselves, or at least as the stone for them. (29)

CHAPTER SIXChapter Notes

1. Chamber Tombs, pp. 199-204.
2. Marinatos. Crete and Mycenae, pp. 173-174.
3. Royal Tombs, pp. 32-33, 57.
4. Ibid., pp. 29, 38-39, 58.
5. Prosymna, pp. 273-275.
6. Asine, p. 373.
7. S. E. Iakovides, in Prehistory and Protohistory, p. 333.
8. Chamber Tombs, pp. 208-210.
9. Higgins. Greek and Roman Jewellery, pp. 73-77, 79.
10. Royal Tombs, p. 58.
11. Ibid., p. 107; New Tombs, pp. 29, 49, 101.
12. Asine, pp. 390, 420.
13. Prosymna, pp. 287-296.
14. Higgins. Op.cit., p. 85.
15. New Tombs, p. 146.
16. Lorimer. Homer and the Monuments, p. 58.
17. Mycenae AHG, pp. 107-108.
18. Prosymna, pp. 288, 292.
19. Mycenae AHG, p. 108; Higgins. Op.cit., p. 40.
20. AEMI, pp. 386-404.
21. Asine, p. 378
22. Vermeule. AJA 64 (1960), pp. 12-13.
23. Mycenae AHG, p. 135.
24. AEMI, p. 391.
25. Marinatos. Op.cit., p. 104.
26. Mycenae AHG, pp. 112, 136.
27. Ibid., pp. 112, 137.

28. Ibid., p. 136; GBA, p. 128.
29. AEMI, pp. 416-418.

## CHAPTER SEVEN

MISCELLANEOUS IMPORTED OBJECTS

On the whole the Mycenaeans imported raw materials but there have been found in Greece a number of finished objects which originated in the countries of the East Mediterranean. They are casual imports, often found as isolated examples at the various sites on the Mainland. Their total quantity is not great but they are further evidence of contact with the East Mediterranean. Discussed below are examples of these type of imports.

Stone Beads

Semi-precious stones were, as we have seen, imported unworked to make into beads, but it is also possible that some beads actually produced in Egypt reached Greece.

For example, Blegen considers it likely that the few examples of carefully worked lapis lazuli, amethyst, rock crystal and malachite beads found in the Heraeum tombs were imported in a finished state, both on account of their rarity and because of their difference in style of workmanship from the more ordinary local types, and the source that he suggests is Egypt.<sup>(1)</sup> According to Persson some of the amethyst beads from the Dendra chamber tombs had been imported from Egypt.<sup>(2)</sup>

In addition to beads, the occasional amulet of Egyptian origin found its way to Greece. Blegen found a small hippopotamus of carnelian in T. III at the Argive Heraeum.<sup>(3)</sup> Another Egyptian carnelian amulet turned up in C.T. I:1 at Asine.<sup>(4)</sup>

Stone Vases

In Egypt and in Minoan Crete stone vases were the product of a major industry. A great range of output from small domestic vessels to unique royal vases illustrates the ingenuity and patience of the skilled lapidaries in these two countries.

Egyptian stone vases have been found on Crete. They were also exported to Greece. Some of the Egyptian stone vases came to Greece direct, others came by way of Crete. This is because Minoan craftsmen in M.M. III and L.M. I times often re-worked Egyptian stone vessels of the Early and Middle Kingdoms and of the Second Intermediate Period into vases acceptable to Aegean buyers in Crete and on the Mainland.

The Egyptian stone vases found in Greece are usually made of alabaster (calcite), a stone that occurs plentifully in the eastern desert of Egypt. And in fact no worked deposits of banded calcite are known in the Near East outside Egypt.

Below are recorded examples of Egyptian alabaster vases found on the Greek mainland.

Vaphio : From the Tholos dated Myc II came two alabaster amphoras of the 18th Dynasty.<sup>(5)</sup>

Euboea (Chalcis) : A baggy vase of banded Egyptian alabaster of the 18th Dynasty.<sup>(6)</sup>

Argive Heraeum : Two fragments of an 18th Dynasty alabaster vase were found with Myc II pottery in the Tholos.<sup>(7)</sup>

(a)  
Dendra : In C.T. 2 an alabastron of banded Egyptian alabaster of the 18th Dynasty was found with 3 other alabaster vases of Cretan origin.<sup>(8)</sup> And in C.T. 6 there were 3 fragments from another vase of banded Egyptian alabaster.<sup>(9)</sup>

Mycenae : An alabaster vase of mid-18th Dynasty date was found stratified in a Myc I - II deposit in T. 102. It might have been brought over from Crete as it was found with another vase of Egyptian alabaster but Minoan workmanship.<sup>(10)</sup> In both the Treasury of Atreus and the Tomb of Clytemnestra fragments of alabaster vases of the 18th Dynasty were found.<sup>(11)</sup> Two more alabaster vases have also turned up at Mycenae, and they again are dated to the 18th Dynasty.<sup>(12)</sup>

In addition to these alabaster examples one or two other types of Egyptian stone vases have been found:

Mycenae : Part of the rim of a bowl of hornblende porphyry was found in T.518. It is a typical Egyptian work of the 1st to 2nd Dynasties.<sup>(13)</sup> (See below).

Asine : Fragments of a bowl of hornblende porphyry were found in C.T. I:2. The material and technique show the vase was of Egyptian origin belonging to the Pre- or Early Dynastic Period.<sup>(14)</sup>

Both these tombs date to the Fifteenth century but in each are stone bowls of very much earlier date. Several Egyptian stone bowls of Pre- and Early Dynastic date (plus local stone imitations) have also been found on Crete. It may have been fashionable in the Fifteenth Century in Crete and on the Mainland to collect Egyptian antiques of this type.

Another vase that might be of Egyptian origin is the superb dish of rock crystal with its handle in the form of a duck's head and neck from Grave Omicron in Circle B at Mycenae.<sup>(15)</sup>

The Minoan lapidaries worked not only imported Egyptian stone but also local stones. For example a white, translucent, non-crystalline variety of limestone was used for a few rhyta and fine vases in M.M. III and until the end of L.M. III A:1. Minoan vases of this stone have been found on the Mainland at Mycenae, Pylos and Delphi.<sup>(16)</sup>

### Scarabs

Egyptian scarabs have been found at a number of sites on the Greek mainland. Several belonging to the 18th Dynasty have turned up at Mycenae. One from the Acropolis bears the name of Queen Tiye and two from T. 526 also belong most probably to the reign of Amenhotep III.<sup>(17)</sup> In Mycenaean terms they date to the early Myc III period.

An Egyptian scarab of the early 18th Dynasty was found in a Myc I - II context in T. XIV at the Argive Heraeum.<sup>(18)</sup> Another early 18th Dynasty scarab, of carnelian, was found in a late Mycenaean deposit at Calauria.<sup>(19)</sup>

Egyptian scarabs have turned up at other Mainland sites, Athens for example, and also at centres on route to the East Mediterranean such as Rhodes - where they have been found at Ialysos and Kameiros.

### Ostrich Eggshells

A few ostrich eggshells have been found in Mycenaean tombs. Because of their fragile nature they have not come down to us in any numbers, but we possess examples from Shaft Graves IV and V at Mycenae, the Tholos of Dendra, and fragments from other tombs at Mycenae. Some were mounted with gold and silver and it is thought that they must have been used as luxury vessels, probably as rhyta for cult purposes.

These ostrich eggshells will have been imported from Egypt. They were used by the Egyptians who obtained them from or by way of Nubia.<sup>(20)</sup>

### Cylinder Seals

The cylinder seal is a small stone cylinder perforated longitudinally for stringing, the design being engraved on the circumference and impressed by rolling.<sup>(b)</sup> It was a Mesopotamian invention.<sup>(21)</sup>

During Mycenaean times in Western Asia cylinder seals of the Mitannian style (sometimes called Hurrian style, the Mitanni being a branch of the Hurrians) were being manufactured, and they have been found far outside their native area. They were made of various materials: faience, lapis, chalcedony, haematite, steatite and paste and were well known in Syria, Palestine, Assyria and Persia.



Mitannian seal impressions appear in bulk on the clay tablets of Nuzi near modern Kirkuk in northern Iraq and their date can be set between 1500 and 1350 B.C. Another large group of impressions as well as cylinders of Mitannian style were found at Tell Atchana. The greatest number of cylinder seals (as distinct from seal impressions) of Mitannian style were found at Ras Shamra and they date from the 15th and 14th Centuries. An important though somewhat peripheral place was Beth Shan (Beisan) in Palestine, where among a large number of other Mitannian cylinders one type occurs so constantly that it seems to have been made there. (22)

Cylinder seals had a wider distribution than just the Levant and examples in the Mitannian style have been found in the Aegean: on the Greek mainland, Crete, the Aegean Islands and Rhodes. They will have been dispersed from somewhere in North Syria, most probably coming through the port of Ras Shamra. The cylinders found in Greece are yet another proof of Aegean-Syrian contacts.

Mitannian style cylinders made of faience have been found at Mycenae, Argos and the Argive Heraeum:

Mycenae : In T. 517 Wace found a faience cylinder with Myc I - II pottery (23) and according to Porada it was made in Western Asia within the orbit of the Mitannian glyptic style about the middle of the 15th Century B.C. (24)

Argos : A similar seal to the one just recorded was found at Argos. (25)

Argive Heraeum : Two faience cylinders were found in the tombs at the Argive Heraeum (26) and they will have reached the site in Myc III in the course of trade with Syria.

Mycenae : A faience cylinder from the acropolis has slight differences from the normal Mitannian glyptic style. It was probably not made in a purely western Asiatic centre but in a more peripheral place where the Mitannian style had found acceptance during the Fourteenth and Thirteenth centuries B.C. Porada suggests Beth Shan in Palestine

and dates its manufacture to the first half of the Thirteenth Century.<sup>(27)</sup> Further evidence of contact between this site and Mycenaean Greece is the Mycenaean pottery found there.

These are examples of faience cylinders found in Greece, but North Syrian cylinders have been found at other Mycenaean sites and made of other materials. Besides Mycenae, Argos and the Argive Heraeum, mentioned above, cylinders have been found at Tiryns (also in the Argolid), Vari and Perati in Attica, Aegina, Thebes, and Rutsi (Pylos), Kakovatos and Olympia in the Peloponnese. Usually only one cylinder is found at a site, sometimes two, but rarely more. According to Buchholz the cylinder seals found in Greece were not all imports but some were made locally.<sup>(28)</sup> Porada, however, disagrees. She feels that the cylinders found in Greece are usually of Mitannian or Cypriot origin. Some from Crete were made locally but she does not think that this was the case for Greece.<sup>(29)</sup>

The total number of cylinder seals found on the Mainland is only small. Like the scarabs they were not really trade goods in the same sense that, for example, pottery and copper were. They were casual imports, probably picked up by merchants while on their travels and brought back to Greece as souvenirs. One exceptional find of Near Eastern cylinder seals has come from Thebes. In about 1300 the Palace of Thebes was destroyed, and in the ruins of its workshops there were found some 30 cylinder seals of high quality made of lapis lazuli and of mainly Asiatic origin.<sup>(30)</sup> These imported cylinders were found in the same vicinity as the hoard of agates and crystals mentioned above (p. 201 ).

In addition to the cylinders which are North Syrian two bronze  
 (c)  
 statuettes of warrior gods, one from Tiryns and the other from Mycenae are so similar to ones from Ras Shamra that Wace states

that they must be Hurrian and imported into Greece from Syria.<sup>(31)</sup>

### Glass

Ancient glass was a compound of silica, lime and soda. Glass was used to make ornaments and especially beads which were produced in vast numbers during the Mycenaean period. The glass was generally blue in colour.

Glass beads first appeared in the Sixteenth century. The shapes include spherical, tubular, lentoid, grain of wheat and many more, but the most common type of glass bead was small and flat with a plain back and a typical Mycenaean design in low relief on the front.<sup>(32)</sup> This type was the exact double of the gold relief-beads dealt with on p. 170 above.

Hundreds of glass beads have been found in Mycenaean tombs. They appear in greater numbers than any other type of grave offering. From the Fourteenth century onwards beads for jewellery were made increasingly of glass and faience. At this time of expansion, standardization and mass production there must have been an increased demand for luxury goods such as jewellery. Clearly gold and semi-precious stones could not alone meet this demand and so cheaper materials, glass and faience, were used in large and increasing quantities. By the end of the Thirteenth century in fact most beads produced were made of glass.<sup>(33)</sup>

Egypt is generally credited with the invention of glass and during the Mycenaean period Tell el Amarna was the most flourishing glass-making centre in Egypt. In C.T.2 at Dendra approximately 40,000 small glass beads were found and Persson suggests that they adorned a garment that was imported from Egypt.<sup>(34)</sup> Some glass beads from the early Mycenaean period are so like contemporary Egyptian beads, especially certain multitubular and eyed varieties, that they must be either Egyptian imports or local imitations.<sup>(35)</sup> Wace found

several eye beads in T. 526 at Mycenae and suggests that they may be Egyptian.<sup>(36)</sup> But these are isolated examples, and according to Haevernick no direct connection has been established between Egypt and Mycenae so far as glass-making is concerned: the products of each country's glass industries were not exchanged.<sup>(37)</sup>

### Faience

Faience consists of a body of powdered quartz covered with a layer of glaze. Glazes were of many colours but commonly green or greenish-blue. Faience was used to make luxury articles and personal ornaments: beads, amulets, statuettes, seals and small vases.

In Egypt during the 2nd Millennium B.C. the manufacture of faience objects was an important industry, as is attested not only by the objects themselves, but also by the discovery of actual factories, e.g. at Tell el Amarna. Beads and amulets were turned out in great quantities for the home market and foreign trade, especially in the 18th and 19th Dynasties.<sup>(38)</sup>

In Crete in M.M. III times small objects of faience (ornaments and beads) were produced, but by L.M. I and II this interest in faience seems to have ceased. The industry was largely transferred to the Greek mainland<sup>(39)</sup> where it appears to have been established about 1500. Like glass, faience was very popular for the manufacture of beads of all shapes, for example spherical, amygdaloid, melon and grain of wheat, many hundreds of which have been recovered from Mycenaean tombs.

During the second half of the 2nd Millennium B.C. there were faience workshops in Egypt, the Aegean and Syria turning out an ever increasing volume of goods. It can be difficult to distinguish the country and source of a particular article. On the whole the beads and ornaments found in Greece were produced in its own workshops, but several faience objects found were imported from the East Mediterranean.

Pendlebury included a number of faience vessels and plaques in his catalogue of Egyptian objects found at Mainland sites:

Mycenae : From the Shaft Graves came two faience vessels which may be Egyptian, one from Grave II, the other from Grave III.<sup>(40)</sup>

On the acropolis there have been found several objects of faience belonging to the 18th Dynasty:<sup>(41)</sup> a little blue ape bearing a cartouche of Amenhotep II and the fragments of two plaques, one inscribed with the name of Amenhotep III. A blue faience vase of the 18th Dynasty, inscribed with the name of Amenhotep III, was recovered from T. 49.<sup>(42)</sup>

Argive Heraeum : From the Tholos tomb came the fragment of a bowl of blue glazed faience also dating to the 18th Dynasty.<sup>(43)</sup>

Blegen considers that some of the faience beads from the Heraeum chamber tombs were probably imported from Egypt, particularly the segmented and gadrooned varieties and a large proportion of the flat discs.<sup>(44)</sup>

Syrian faience objects also reached Greece. The faience cylinder seals have already been mentioned. Wace has suggested that fragments of faience vases found in the House of Shields at Mycenae probably originated as exports from some such centre as Ras Shamra (Ugarit) or Byblos rather than from Egypt.<sup>(45)</sup> Lantern- or wheel-shaped faience beads were manufactured in Greece, Syria and Egypt where they occur in Fourteenth Century deposits. It is possible that this type of bead originated in Syria or in its neighbourhood somewhere in the Levant, for it is best known at sites such as Ras Shamra.

Mycenaean beads of what Blegen calls vitreous paste reached Troy along with the many pots exported to that city. In the Late sub-period of Troy VI (c.1425 - 1300/1275) 157 such beads were found, and Blegen states that they are surely derived, whether by import or imitation, from the Mainland. One or two more turned up in Troy VII A and B.<sup>(46)</sup>

These casual imports, the stone vases, cylinders, scarabs and faience belong to the early and middle Mycenaean period. During the 12th Century destruction on the Mainland and the raids of the Sea Peoples in the East Mediterranean brought to an end the commercial activity of the previous centuries. This has already been noted in discussing the other traded commodities. But the trade links were not entirely severed. Gold found at Perati in East Attica and in the Central Aegean mentioned in an earlier chapter indicate that this area maintained some contact with the East Mediterranean during the Twelfth century. And it is not only gold that has been found at Perati. Other goods from the tombs at this cemetery dating to the Myc III C period include: semi-precious stones and quite a number of objects which had their origin in the East Mediterranean and particularly Egypt. The Egyptian imports include several scarabs, cartouches, faience figures and a bronze duck-headed knife, and also found in the Perati tombs were a couple of cylinder seals, probably from North Syria.<sup>(47)</sup> The situation is similar on Naxos and the Dodecanese during Myc III C. At Ialysos on Rhodes, besides gold and silver, beads of agate, amethyst, carnelian and sardonyx have been found, and also a couple of scarabs and 5 cylinder seals.<sup>(48)</sup>

There must have been close connections existing from East Attica across to Naxos, the Dodecanese and Miletus during the Twelfth century. This area did not suffer the destructions that occurred in the Argolid and other parts of the Mainland at the end of Myc III B. It maintained a fairly high standard of living, and continued in contact with the East Mediterranean for at least part of the Twelfth century, as illustrated by the small finds from tombs at sites in the area.

### Conclusions

These imported artefacts should be placed in a class by themselves.

They were casual imports, not regular trade commodities, but their presence does indicate contact, direct or indirect, with countries of the East Mediterranean. In fact they were probably little more than curios and souvenirs and although we cannot say how they got to Greece they might have been brought back by Mycenaean merchants who had been on trading ventures to the East Mediterranean for more basic commodities. The owners of the cylinder seals and scarabs might have ascribed some mysterious or magical powers to them. Some of the objects, such as the stone vases of Early Dynastic date, may have been bought as genuine antiques in Egypt.

Apart from the cylinder seals most of the objects dealt with came from Egypt and the majority date to the 18th Dynasty. It was during this dynasty that the great bulk of the Mycenaean pottery was exported to Egypt, rising to its peak in Myc III A:2 with the large quantities found at Tell el Amarna. Occasional Egyptian objects of the 19th Dynasty are also found at Mycenaean sites, and that they continued to turn up in the Twelfth century is confirmed by the finds from Perati. The Egyptian curios and souvenirs are another indication of the commercial links between Mycenaean Greece and Egypt which we already know existed from the Mycenaean pottery in Egypt and the gold and semi-precious stones found in Greece.

CHAPTER SEVENChapter Notes

1. Prosymna, pp. 287, 292, 294.
2. New Tombs, pp. 49, 146.
3. Prosymna, p. 292.
4. Asine, pp. 373-374.
5. Pendlebury. Aegyptiaca, pp. 43-44 (Cat. No. 72, 74).
6. *Ibid.*, p. 100 (Cat. No. 287).
7. *Ibid.*, p. 59 (Cat. No. 104).
8. Royal Tombs, pp. 79, 101-102; Pendlebury. *Op.cit.*, pp. 62-63  
(Cat. No. 148).
9. New Tombs, p. 24.
10. Pendlebury. *Op.cit.*, p. 57 (Cat. No. 98).
11. *Ibid.*, p. 57 (Cat. No. 99, 100).
12. *Ibid.*, p. 57 (Cat. No. 101, 102).
13. Chamber Tombs, pp. 223-224; Pendlebury. *Op.cit.*, pp. 56-57  
(Cat. No. 97).
14. Asine, p. 377; Pendlebury. *Op.cit.*, pp. 64-65 (Cat.No. 149).
15. Stubbings, in CAH, Ed. 3, vol. II Pt. I, Chap. XIV, p. 633.
16. Hankey. Levant 6 (1974), pp. 163-164, 164 Note 8.  
Mrs. Hankey's information is taken from P. M. Warren.  
Minoan Stone Vases. 1969.
17. Pendlebury. *Op.cit.*, pp. 55-56 (Cat. No. 88, 95, 96);  
Chamber Tombs, p. 198.
18. Prosymna, p. 281; Pendlebury. *Op.cit.*, p. 59 (Cat. No. 105)
19. Pendlebury. *Op.cit.*, p. 67 (Cat. No. 151).
20. W. C. Hayes, in CAH, Ed. 3, vol. II Pt. I, Chap. IX, p. 352.
21. Gurney. The Hittites, p. 197.
22. Porada. BSA 52 (1957), pp. 200-201, 204.
23. Chamber Tombs, p. 197.
24. Porada. BSA 52 (1957), pp. 203-204.



25. Lorimer. Homer and the Monuments, p. 86.
26. Prosymna, p. 280-281.
27. Porada. BSA 52 (1957), pp. 200-204.
28. H. G. Buchholz, in Cape Gelidonya, pp. 151, 158.
29. Porada, in Myce East Med, p. 403.
30. GBA, p. 224; S. E. Iakovides, in Prehistory and Protohistory, p. 282.
31. Mycenae AHG, p. 108.
32. Haevernick. Archaeology 16 (1963), pp. 190-191;  
Higgins. Greek and Roman Jewellery, pp. 42-43.
33. Higgins. Greek and Roman Jewellery, pp. 70, 76.
34. Royal Tombs, pp. 79, 106; New Tombs, p. 149.
35. Higgins. Op.cit., p. 42.
36. Chamber Tombs, p. 208.
37. Haevernick. Op.cit., p. 193.
38. Stone and Thomas. PPS N.S. 22 (1956), p. 47.
39. Ibid., p. 47.
40. Pendlebury. Op.cit., pp. 55-56 (Cat. No. 89,90).
41. Ibid., p. 55 (Cat. No. 85, 86, 87).
42. Ibid., p. 56 (Cat. No. 91).
43. Ibid., p. 59 (Cat. No. 103).
44. Prosymna, pp. 306-312.
45. Stone and Thomas. Op. cit., pp. 48-49, quoting from Wace  
in 'The Times' of 12 November 1955.
46. Troy vol. III, p. 30; Troy vol. IV, pp. 17, 151.
  - (i) In Troy VI and Troy VIIA there were also found a few beads of carnelian, agate, crystal, and steatite, plus one or two buttons of steatite, all either imported from the Mainland or derived from Mycenaean prototypes: Troy vol. III, pp. 23,27; Troy vol. IV, pp. 14, 15-16.

(ii) Faience beads of the same types as those current in the Aegean and the East Mediterranean in the L.B.A. have been found through Europe to the British Isles. Could the dispersion of faience be in any way connected with the traffic in amber from the Baltic and tin from Cornwall? Stone and Thomas conclude that the Mycenaean were responsible for the wide distribution of faience beads through Europe. See: Stone and Thomas. *Op. cit.*, pp. 53 sq.

Note: The Mycenaean went no further west than Sicily and so if any of their products travelled further north and west they will have been carried overland by middlemen in chain fashion.

47. LMS, pp. 51-52, 116, 228.

48. *Ibid.*, pp. 156, 228.

Reference to the continued prosperity of this area in the Myc III C:1 period has been mentioned in earlier chapters.

(a) See Plate 7.1 and 2.

(b) See Plate 7.3.

(c) See Plate 7.4.

## CHAPTER EIGHT

HYPOTHETICAL TRADE GOODS

So far Mycenaean trade has been discussed in terms of exported Mycenaean artefacts found in the East Mediterranean, and imported raw materials and artefacts from that region found in Greece. Many of the trade commodities just discussed are imported luxury goods: raw gold, silver, ivory, semi-precious stones, to be worked by the skilled Mycenaean craftsmen, and the few actual East Mediterranean finished goods that have turned up in Mycenaean tombs. Most of these luxury imports would be destined for royal and temple treasuries and for the graves of the wealthy. But the more important (in terms of quantity) and basic trade goods must have been the exported Mycenaean pottery and the imported Cypriot copper. And in addition to these it is highly likely that there was a substantial trade in perishable goods that have left no trace. Some of these are discussed below. On account of evidence from the Linear B tablets some seem fairly certain to have formed part of the commercial exchange. Other possibilities can only be hinted at.

Olive Oil

From the archaeological evidence it seems that olive oil was in extensive use in Mycenaean Greece; it is recorded on a good number of Linear B tablets from Pylos, Mycenae and Knossos. The importance of oil can hardly be overestimated. Oil and animal fats were used for lighting, preparing and preserving foods, preparing paints, religious purposes, and for keeping the body clean. Refined oils and fats were used as a base for perfumes and for medicines.<sup>(1)</sup>

Olive oil was of commercial importance to the Aegean civilisation too. When discussing the Mycenaean pottery in Egypt it was suggested that some of the exported stirrup jars contained oil (see above pp.115-7 ).<sup>(2)</sup> In 1952 Wace named the building at Mycenae that he

had discovered two years earlier the 'House of the Oil Merchant'. In the basement of the building there were found 30 large stirrup jars, the clay of which was heavily impregnated with oil and they are assumed to have once contained olive oil. In fact the House of the Oil Merchant is believed to have been a factory for preparing special olive oil for export.

In the Linear B tablets the stirrup jar appears in association not only with references to olive oil, but also to 'unguent-boilers'. One of the tablets from Pylos begins:

"Thus Arxotas gave spices to Thuestas the unguent-boiler, for unguent which is to be boiled:"

The detailed entries referred to amounts of coriander, cyperus, wine, honey and so on. Many of the Pylian texts deal with these and similar materials required for perfumes and unguents.<sup>(3)</sup>

Among more recent finds at Pylos was a series of tablets which list quantities of olive oil. They were found in the storerooms fitted for the storage of oil on the N.E. side of the Palace. One of the tablets reads:

"Kokalos contributed so much olive oil to Eumedes: 518·4½ of oil. From Ipsewas, thirty-eight oil-jars."<sup>(4)</sup>

This tablet indicates that oil was being prepared in the Palace workshops for use as unguent. This would have been made by the addition of perfumed ingredients (such as those supplied to the unguent-boiler in the first text quoted) and by decoction, a process described by the use of the verb 'boil'. The remainder of this series from Pylos are almost all records of the issue of oil to various recipients. In many cases the oil is qualified by one or more of a series of adjectives which denote the perfume: 'rose-scented', 'sage-scented', 'cyperus-scented'.<sup>(5)</sup>

Like Pylos, Mycenae also seems to have been a centre for unguent-making. With the discovery by Wace, from 1952 onwards, of Linear B tablets in the houses outside the walls of Mycenae

concerned with the issue of spices (such as coriander, cumin, sesame), Palmer has made the suggestion that the House of the Oil Merchant was probably an annexe of the palace engaged in the making of unguents.<sup>(6)</sup> It appears to have been a sort of perfume factory, where oils and ointments scented with the various kinds of aromatic herbs and spices were prepared for home sale and for export. According to Palmer that the House of the Oil Merchant was the unguent kitchen is consistent with the fact that Wace discovered an arrangement for heating jars in one corner. From ancient descriptions we know that the aromatic substances were gently heated in the oil.

Olive oil seems to have been widely used in Mycenaean Greece. The evidence reveals that it was prepared at Pylos and Mycenae, and no doubt elsewhere. Furthermore, the tablets from these two sites show that some of this oil served as a base for manufacturing perfumed oils and unguents. And these commodities were not only for home sale, they were also exported.

Both Forbes<sup>(7)</sup> and Lucas<sup>(8)</sup> stress the importance of oils and perfumed ointments in the East Mediterranean and particularly Egypt, where they were used for many purposes by all classes of society. For example, they were used on the body; rubbed into the skin after bathing for general hygiene and to protect the skin from the sun. In fact oils were such an important item in the pattern of life that during the reign of Ramesses III the labourers on the Theban necropolis even went on strike because the food was bad and "we have no ointments". In an earlier chapter I suggested that the stirrup jar was a container for oils and that this will have been the contents of some of those jars found in the East Mediterranean. Evidence from the Linear B tablets connects the stirrup jar with the manufacture of olive oil and perfumed oils. The large numbers of stirrup jars exported to the East Mediterranean, together with the evident interest of

the palaces in preparing olive oil and unguents shows that we have here a commodity of some importance in the trade from Mycenaean Greece to the east.

These stirrup jars found in large numbers in the East Mediterranean, some of which we are suggesting contained oil when exported, were made of the standard fine ware fabric. But there is also a class of large coarse ware stirrup jars that have been found at sites in Greece and Crete and the East Mediterranean. The 30 large stirrup jars found in the House of the Oil Merchant at Mycenae belong to this class. Benson gives a catalogue of the distribution of these large coarse ware stirrup jars.<sup>(9)</sup> The total number of jars is only small, particularly when compared to the quantity of fine ware Mycenaean pottery exported, but the distribution is quite wide. On Mainland Greece, besides those from Mycenae, there are 6 from Thebes, 4 from Zygouries, and 1 or 2 each from the Argive Heraeum, Dendra, Eleusis and Orchomenos, plus numerous fragments. On Crete 8 were found at Knossos and a further 1 or 2 each from the following sites: Palaikastro, Chania and Mochlos. Rhodes has produced a total of 11, of which 8 came from Ialysos. Several have turned up on Cyprus, in particular 4 from Enkomi and 3 plus numerous fragments from Kourion. 5 were found at Troy and 2 at Minet el Beida. In addition Mrs. Hankey records that 1 or 2 sherds of large coarse ware stirrup jars have been found at Tell Abu Hawam and Beth Shan.<sup>(10)</sup>

They have usually been treated as a homogeneous group and opinion has been divided as to their provenance, some saying Crete, others the Mainland. But according to Benson<sup>(11)</sup> these large stirrup jars of coarse fabric are not all of the same clay, paint or design and we should not look for one 'centre' from which they all emanated. Benson suggests that the 8 from Ialysos form a homogeneous group in themselves and were probably locally made on Rhodes.

Other specimens from elsewhere she considers to have been manufactured on Crete. Catling and Karageorghis<sup>(12)</sup> state that all the large coarse ware stirrup jars from Cyprus (a total of about 10 or 11) are of Cretan manufacture. Benson,<sup>(13)</sup> however, considers that the examples from Kourion on Cyprus (with the exception of one which she feels is Cretan) are of a uniform appearance and were imported from the Mainland.

These coarse ware stirrup jars appear to have been manufactured on the Mainland, Crete and Rhodes. But whatever the ultimate provenance of individual jars, this type was associated with the oil trade. As has been noted before the stirrup jar shape was well suited for the transport of liquids and this class particularly, being of coarse gritty clay, cannot have been imported for their own sake, as much of the standard Mycenaean fine ware was. And further evidence that indicates their involvement in the oil trade comes from the House of the Oil Merchant where the 30 large stirrup jars impregnated with oil were of this coarse fabric.

Some might argue that this coarse ware would be most suitable for exporting the oil and that there would be no need to use the smaller fine ware stirrup jars for this purpose as well. But the small stirrup jars could have served to carry greater distances overseas a commodity like oil normally stored and transported locally in large containers. This would explain why in contrast to the large numbers of smaller fine ware stirrup jars which were widely distributed in the East Mediterranean the larger coarse ware variety is uncommon and only one or two examples have been found further east than Cyprus.

### Spices

Rare condiments and spices were well known in Mycenaean Greece. They were used in cooking for flavouring food, and, as

seen already, in the manufacture of aromatic oils and perfumes. Some of these plant products were home grown, others were imported from the Levant. All three Linear B sites, Mycenae, Pylos and Knossos, have produced written evidence of the use of spices or condiments. although the richest finds come from Mycenae.<sup>(14)</sup> At Pylos and Knossos the two chief spices recorded on the tablets are coriander and cyperus. In 1954 Wace found about 10 tablets in the House of Sphinxes at Mycenae<sup>(15)</sup> and they form part of a series dealing almost entirely with spices and condiments. Coriander, cumin, sesame, safflower, fennel, celery seed, penny royal, and mint are listed. Some of these tablets have an introductory phase, but apart from this the text consists of a list of personal names, each followed by specified quantities of the various spices. If the House of Sphinxes was in fact a private house and not an appendage of the palace they may be a merchant's records of his business dealings.

Some of these spices, for example 'fennel' (ma-ra-tu-wo) and 'mint' (mi-ta) are common and widespread in distribution and therefore were more likely to have been local products rather than imported. But the names for some of the spices are known to be Semitic and so these spices may have been imported from Syria. The spices with Semitic names are: 'sesame' (sa-sa-ma), which was grown in antiquity in Mesopotamia and India and must have come by an overland route to a Levantine port; 'cumin' (ku-mi-no, ku-mi-na), widely used in cooking and quite likely of Oriental provenance; and 'cyperus' (ku-pa-ro).<sup>(16)</sup> The presence of these Semitic loan-words in Mycenaean Greek reveals that these products originally came from Syria - Palestine, and some were doubtless still imported in Mycenaean times. Recorded on some of the tablets is an unidentified spice called po-ni-ki-jo, possibly to be translated 'the Phoenician (spice)', and if so its name would suggest a Syrian



origin.<sup>(17)</sup> One of the most frequently mentioned spices is 'coriander' (ko-ri-ja-do-no, ko-ri-a<sub>2</sub>-da-na). The fruits of the coriander are widely used as a condiment and the ancients seemed to have obtained it from Egypt, though it was originally imported into Egypt from India.<sup>(18)</sup>

### Canaanite Jars

As Syria supplied Greece with certain spices, what were they transported in? It has been suggested that they were carried in the Canaanite jars that have been found at Mycenaean sites in Greece.<sup>(19)</sup> These jars were a storage or shipping container with a small mouth, small foot and vertical handles attached to the wide part of the body.<sup>(a)</sup> Canaanite jars were being made throughout Canaan as far north as Byblos and Ras Shamra from about the 19th-18th Century B.C. onwards, through the Mycenaean period and later, and large numbers have been found in the coastal area of Syria and Palestine. In the storerooms of Ras Shamra Canaanite jars were found stacked in scores.

Canaanite jars arrived in Greece during the Fourteenth and Thirteenth centuries. Several were found at Mycenae; one in T.58, one in T.95, and another from the inhabited site. One jar was found in an early Mycenaean tomb at Argos. In Attica four Canaanite jars were found in the Tholos of Menidi, and they have also turned up at Athens, one coming from an early Mycenaean chamber tomb in the Agora.<sup>(20)</sup>

This type of jar was also introduced into Egypt. One like those from the Mycenaean sites was found at Tell el Amarna. They also appear in the wall paintings in the Tomb of Rekhmire (15th Century B.C.). One of the scenes in this tomb shows the princes of Retenu (Syria) bringing their tribute, part of which is in sealed Canaanite jars. In another excerpt porters carry in for

storage a shipment from abroad, spoils from Thuthmosis III's campaigns, and the shipment includes Canaanite jars. Other scenes in the same tomb show the new jar already put to miscellaneous uses. Although these jars were imported from Canaan at first, a version of this type of jar was certainly produced in Egypt in the New Kingdom. The native Egyptian type, used for storing wine, is represented by actual jars, for example from Tell el Amarna and Tutankhamen's tomb, and they are also seen in many vintage and festal scenes in tomb paintings of the New Kingdom.<sup>(21)</sup>

### Textiles

#### Greece and Crete

In ancient Greece by far the most important textile product was wool. The vast series of tablets from Knossos dealing with flocks of sheep and their wool demonstrates clearly the cardinal importance of this branch of agriculture in Mycenaean Crete. Concerning the Cretan textile industry Chadwick says:<sup>(22)</sup>

"It is clear that the wool of something like 100,000 sheep was shorn, spun and woven under the close control of the Palace of Knossos; and it is reasonable to assume that some portion of the output was used in foreign trade, as the presence of rolls of cloth among the gifts brought to Egypt from the Aegean suggests."

Thus if the production was in excess of local demand the export of woollen goods may well have been one of the major sources of Cretan wealth.

From the evidence of the Linear B tablets that we have from Pylos and Mycenae the woollen textile industry on the Mainland was not as important as that on Crete. However, at Pylos a series of tablets dealing with flax are evidence for the production of linen fabrics in Messenia, an industry probably restricted by climatic conditions to the S.W. Peloponnese. A very large

number of villages are assessed for contributions of flax. Moreover, a large number of women workers are called *lineiai*, 'flax-(or linen-) workers'. It is thus probable that this commodity was a special product of Messenia, and may well have been exported.<sup>(23)</sup>

### Syria

It is quite possible that the Mycenaeans imported some of the textiles that they needed. Syria had an important textile industry and as the name of the commonest Greek garment, *ki-to* ('chiton', linen garment), which appears in the Linear B tablets is Semitic, (cf. Hebrew *Kēthôneth* and the word *Kēthon* meaning cotton yarn) it may indicate the importation of textiles from Syria.<sup>(24)</sup> In addition purple dye from murex shells may well have reached Mycenaean Greece from Syria. A purple factory existed at Ras Shamra, for large quantities of crushed murex-shells were found in the harbour region.<sup>(25)</sup> However, remnants of murex shells proving the manufacture of dye found in Crete and at the site of Aghios Kosmas in Attica seem to indicate a local production. But the name *po-ni-ki-ja*, 'crimson colour', may indicate by its possible connection with the name 'Phoenician' a Semitic origin of the process.<sup>(26)</sup>

### Troy

Troy may also have supplied Mycenaean Greece with purple dye and dyed textiles.

The refuse of a great purple factory was found at Troy VI. There were thousands of crushed murex shells, and from the same deposit came numerous stone grinders and pounders and fragments of worn millstones, doubtless used to crush shells.<sup>(27)</sup>

As there are no recognisable Trojan objects at Mycenaean sites in Greece, Page suggests that one commodity that the Trojans might have sold to the Mycenaeans was spun yarn or textiles.<sup>(28)</sup>

He points out that thousands of spindle whorls have been found at Troy. Schliemann's collection included 7,737 specimens and the Americans found another 400. And so, according to Page, the spinning of yarn must have been one of the most important occupations at Troy and if there was a surplus it could have been exported to Greece.

Troy perhaps also supplied Mycenaean Greece with horses, as the Homeric poems and the legend of Laomedon and Heracles imply. In the Homeric poems Troy is the city "of good horses" and the Trojans themselves are known as "horse-tamers". Page thus suggests that the Trojans may have specialised in the breeding and export of the horse for which they would find many ready markets both West and East.<sup>(29)</sup> Indeed they may for that reason have revered a horse-god or mare-goddess, and have accepted the Greeks' Wooden Horse as a statue of their deity - if there by any truth in the legend!

### Timber

Egypt, poorly provided naturally with large trees, had to import timber. Most of the ancient imports of timber came from countries in western Asia, and chiefly from Syria and also the cedars of Lebanon. Ebony was imported from countries to the south of Egypt.<sup>(30)</sup> Mycenaean Greece may have exported timber and so they could possibly have been another source of supply for the Egyptians.<sup>(31)</sup> Classical sources indicate that Greece had seriously deforested herself by about 700 B.C., but there was probably plenty of forest left in, say, 1400.

### Grain

Some scholars consider that the population of Mycenaean Greece was extraordinarily dense and suggest that southern Greece could not grow enough food to be self-supporting and that grain must

therefore have been imported from Egypt and the Black Sea area.<sup>(32)</sup>

Mylonas considers this theory to be a mere speculation for which there is no evidence.<sup>(33)</sup> He points out that as the tablets record allocations of seed to various people this indicates that the land was under cultivation. Furthermore, he indicates that the areas of Pylos, Mycenae and Thebes were sufficient to provide for the needs of a large population, and in any case as so few sites have been sufficiently excavated to permit an approximate estimate of their people, we cannot know what the population of Greece was in Mycenaean times. From existing evidence Mylonas feels that the important Mycenaean centres, even if they were well populated, would have produced enough grain for themselves without the need to import from abroad.

For the time being there is no definite proof one way or the other as to whether grain was imported or not. But it is still quite possible that foodstuffs of one sort or another were exchanged between Greece and countries of the East Mediterranean at this time.

According to Merrillees opium was exported from Cyprus to the East Mediterranean countries in Base Ring juglets which imitated the form of the poppy-head; but this trade did not reach the Aegean.<sup>(34)</sup>

In an earlier chapter (see above p. 116 ) it has already been said that there is no evidence to suggest that wine was ever a feature of the trade from Mycenaean Greece eastwards. However, resins were perhaps exported from the Mainland to Egypt, where they were used for many purposes including adhesives.<sup>(35)</sup>

There may well have been other perishable commodities

exchanged but those discussed above seem likely hypothetical trade goods from the pieces of evidence that exist. Although it is not possible to tell, some of them could have been of considerable importance.

CHAPTER EIGHTChapter Notes

1. Hankey. Mélanges St.-Joseph 46 (1970), pp. 18-19.
2. The main sources for this discussion were: Palmer. Mycenaeans and Minoans, pp. 106 sq.; Merrillees and Winter. Miscellanea Wilbouriana I (1972), pp. 125 sq.
3. Documents, pp. 223-225; Palmer. Op.cit., p. 107.
4. Kokalos and Eumedes are known from other tablets to be unguent-boilers and the oil-jars are in fact stirrup jars.
5. Documents, pp. 476-477, 481.
6. Palmer. Op. cit., p. 108.
7. Forbes. Studies in Ancient Technology, vol. III, pp. 2-3.
8. AEMI, p. 336.
9. Benson. Berytus 14 (1961), pp. 43-51.
10. Hankey. BSA 62 (1967), pp. 125, 127.
11. Benson. Op.cit., pp. 40-42.
12. Catling and Karageorghis. BSA 55 (1960), pp. 121-122.
13. Benson. Op.cit., pp. 41-42.
14. See: Documents, pp. 221-231, 441-442.
15. Ibid., pp. 225-231.
16. Ibid., pp. 135-136, 226-227, 441; Immerwahr. Archaeology 13 (1960), p. 12; Yamauchi. Greece and Babylon, pp.33-34.
17. Documents, pp. 221-222, 441.
18. Ibid., p. 222; Yamauchi. Op.cit., p. 33.
19. Grace. 'The Canaanite Jar', in Weinberg (Ed.), The Aegean and the Near East, pp. 80-109, see pp. 98-99 including the quotation from John Chadwick in 'The Manchester Guardian Weekly' of March 29th 1956; Immerwahr. Archaeology 13 (1960), p. 12; Yamauchi. Op.cit., pp. 33-34.

20. See: Grace. Op.cit., Plate IX 1, 2, 5. Plate X 1 - 4.
21. Ibid., pp. 82, 86, 88.
22. Documents, p. 413.
23. Chadwick, in CAH, Ed. 3, vol. II Pt. I, Chap. XIII(b), p. 622.
24. Mylonas. Mycenae and the Mycenaean Age, p. 210.
25. Immerwahr. Archaeology 13 (1960), p. 13.

It is noted that Albright has suggested that the name 'Canaanite' may have come from a 15th Century word for 'dealer in purple dye' or 'textile merchant'.

26. Mylonas. Op.cit., p. 210.
27. Blegen. AJA 41 (1937), p. 582.
28. Page. History and the Homeric Iliad, pp. 69-70.
29. Ibid., p. 70.
30. AEMI, pp. 429-436.
31. Hankey. Mélanges St.-Joseph 46 (1970), p. 14.
32. Vermeule. Archaeology 13 (1960), p. 66; GBA, p. 257.
33. Mylonas. Op.cit., pp. 210-211.
34. Merrillees. Antiquity 36 (1962), pp. 287-292.
35. Hankey. Mélanges St-Joseph 46 (1970), p. 19.

(a) See Plate 8.2.



## CHAPTER NINE

CONCLUSION

From the archaeological evidence we see that the main export from Mycenaean Greece was pottery. In return for the pottery the Mycenaeans imported few finished products, the East Mediterranean being for them essentially the source of various valuable raw materials. Many of these were luxury materials; gold, silver, ivory, semi-precious stones, but the most important and essential import must have been the copper from Cyprus, the island on which the export of pottery was concentrated during the Fourteenth and Thirteenth centuries.

As a conclusion to this study it is perhaps worthwhile to briefly review the trade, both imports and exports, (as far as the archaeological evidence shows), conducted by the Mycenaeans with each country of the East Mediterranean in turn.

Asia Minor

Mycenaean contact with Asia Minor did not extend beyond the west coastal fringe into Hittite territory. The Dodecanese Islands and the south west corner of Asia Minor are separated, both by distance and by rugged terrain, from the Anatolian interior and this perhaps explains the development of Minoan and Mycenaean influence in the coastal region and the lack of direct trading contact with the Hittites.

There were Mycenaean settlements in the East Aegean, on islands such as Rhodes, Kos and Chios, and also on the west coast of Asia Minor, particularly Miletus, and probably Múskebi. At these sites excavations have revealed quantities of Mycenaean pottery, cemeteries of Mycenaean chamber tombs and sometimes houses and fortifications of Mycenaean type. And an important

Mycenaean centre such as Rhodes has also produced many other goods that are Mycenaean: weapons, tools, jewellery, and other small objects. These settlements will have functioned to some extent independently of Mainland Greece, but at the same time they must have maintained close contact with her.

In addition to these settlements there were other sites in the area where Mycenaeans were not settled but where their pottery has been found. These include islands such as Samos and Lesbos; and on the mainland of Asia Minor, along the west coast, there are a string of sites where small quantities of Mycenaean pottery have turned up, for example Colophon and Ephesus where it was discovered in Mycenaean tombs, various points on the Halicarnassus peninsular, and a number of other sites where odd pots or sherds have been found. But it would appear that away from the areas where Mycenaeans were settled contact with the west coast of Asia Minor was slight, with the exception of Troy.

Troy's relationship with the Greek mainland was purely a commercial one; there were no Mycenaeans living at Troy. Contact between Greece and Troy seems to have been closest during the Late Subperiod of Troy VI (c.1425 - 1300/1275 B.C.) and it is from the strata of Late VI that the greatest amount of Mycenaean pottery (mainly Myc III A:2 in style) has come. Trade became less frequent with the subsequent settlements, Troy VII A and VII B, when much less pottery was imported. Troy must have imported other goods from Greece for in the strata of Troy VI there were found three knives and an arrowhead and objects of ivory which are Mycenaean. In addition Mycenaean beads of carnelian, rock crystal, agate and paste, plus a few steatite buttons, have also turned up in Troy VI and one or two in Troy VII A and B.

It is difficult to tell what the Mycenaeans imported from Asia Minor. It has been suggested that Asia Minor was the source of the silver used in Mycenaean Greece. So far as Troy itself is concerned there are no recognisable Trojan imports at Mycenaean sites and so their export to the Mainland may have focused on purple dye and dyed textiles, and horses.

### Cyprus

The export of Mycenaean pottery was concentrated on Cyprus, because that island was the source of copper and however anxious Mycenaean merchants may have been to obtain the luxury goods of the East Mediterranean, they were even more concerned to buy copper. Thus contact was maintained with Cyprus throughout the Mycenaean period and during the 14th and 13th Centuries large quantities of Mycenaean pottery were exported to the island where it is found widely distributed.

Enkomi seems to have been the main point of contact on the island (Note: it has been more thoroughly excavated than other sites) and it and the other ports on the east and south coast have yielded the largest quantities of pottery. This pottery paid for the copper which was imported in the form of 'ox hide' ingots. Excavations at Enkomi have shown that copper-smelting had already begun there at the beginning of the Late Bronze Age and there is evidence that the Mycenaeans were interested in Cypriot copper as early as the Shaft Grave period. At Enkomi copper-smelting reached its height at around the 14th and 13th Centuries (the time when the largest quantities of pottery were exported to the island), and so we can take it that at centres such as Enkomi the copper will have been smelted and cast into ingots and then the Mycenaeans will have taken them back to Greece. We cannot expect to find many ingots in Greece because on reaching the Mainland the bronze smiths will have melted them down for use in the metal industry.

No Cypriot object has been found in a Myc III A:2 or III B context on the Mainland so copper must have been the only export from the island. Despite the close trade relationship between Mycenaean Greece and Cyprus during the 14th and 13th Centuries there is little evidence for any Mycenaeans living at the major ports of Cyprus at this time.

Considering that Rhodes was the closest Mycenaean centre to Cyprus, it is somewhat surprising that there is little positive sign of exchange between the two islands. Most of what is common between the two is common to Mainland centres as well, while Mycenaean pottery of Rhodian type is largely missing in Cyprus.

Prosperity on the Mainland declined during the later Thirteenth Century and following the destructions (c.1190 B.C.) refugee Mycenaeans began to move into the East Mediterranean, many to settle on Cyprus. Several waves of immigrants arrived there during the Twelfth century introducing Myc III C:1 pottery including the Close and Granary Styles. Tarsus in Cilicia also received Mycenaean refugees at this time, and Mycenaean pottery found at the site is similar to that from Cyprus during the Twelfth century: Myc III C:1 Granary and Close Styles.

#### Syria and Palestine

Mycenaean pottery exported from the Mainland also reached the Levant and Egypt. In the Levant Ras Shamra (Ugarit) was probably the main site at which Mycenaean merchants called. This city was a great international port, a depot where the goods of many nations accumulated to be distributed over the East Mediterranean, and large quantities of Myc III A:2 and III B pottery have been found there. In Palestine an important port probably used by the Mycenaeans was Tell Abu Hawam, where their

pottery, mainly of Myc III B date, was plentiful. As with some of the Cypriot ports it has been suggested that there were Mycenaean trading posts at Ras Shamra and Tell Abu Hawam, but again there is little evidence for such settlement apart from the pottery.

From these and other ports Mycenaean pottery, some of which, particularly stirrup jars, probably contained oils, was distributed to many sites in the coastal region of Syria and Palestine. Some reached sites well inland such as Amman and Tell es Salihiyeh although generally the pottery is found at sites not far from the coast.

In return for this pottery it has been possible to trace a number of commodities that the Mycenaeans must have imported from Syria. From the archaeological evidence it appears that ivory was used fairly frequently in the Myc III period, and the source of this material was Syria. It was imported raw, probably much of it through Ras Shamra, and then worked by Mycenaean craftsmen into pyxides, combs, mirror handles, sword pommels, figures, and plaques and inlays to decorate furniture.

In Syria and Palestine there were also schools of ivory carving and in fact the carved ivories found in Greece and the Levant are closely related. There are certain Oriental influences in Mycenaean carvings, but of more importance are Mycenaean influences in the ivories from the Levant, which were particularly marked during the Thirteenth century when in fact Mycenaean carved ivories were being exported to the Levant.

Other imports from the Levant include a number of cylinder seals, most of which will have been manufactured in North Syria and probably reached Greece through Ras Shamra. A number of these seals were made of faience and it appears that one or two other objects in this material such as vases reached Greece from Syria.

Finds coming from excavations in Greece and the Levant have proved the trade in these commodities. In addition, literary evidence from the Linear B tablets suggests the possible trade in other goods with Syria and Palestine. The names of certain spices are Semitic and so they were probably imported from the Levant. It is also possible that textiles and purple dye were imported from Syria too.

Trade with Cyprus, Syria and Palestine seems to have continued down until c.1200 B.C. when destructions in the Aegean and East Mediterranean brought to an end the organised regular trading activity. The Mycenaeans seem to have been still importing copper from Cyprus up until the time when large groups of their people emigrated to that island to avoid the upheavals on the Mainland. It is true that the export of Mycenaean pottery to the Levant dropped in the mid-13th Century, but some contact was still maintained during the less prosperous second half of this century. Archaeological evidence indicates that ivory was still imported and in fact it was during the Thirteenth century that Mycenaean carved ivories found their way to Syria and Palestine. Furthermore, Linear B tablets dating to the end of the Thirteenth century list ivory, spices and gold which suggests that these commodities were still being imported from the Levant until the end of the century.

### Egypt

Somewhat less Mycenaean pottery reached Egypt than the previous countries, and in fact it is only found in large quantities at one site, Tell el Amarna, where it is nearly all of Myc III A:2 date. The trade in pottery appears to have been concentrated on Tell el Amarna for the few years of its existence and after the city was deserted very little found its way to

Egypt. The small number of Myc III B:1 pots found at scattered sites shows that the export of pottery to Egypt in the Thirteenth Century had declined from the modest level of the Fourteenth Century. No later Mycenaean pottery has been found in Egypt. This situation is in contrast to that in Cyprus, Syria and Palestine where the pottery continued to be imported in large quantities until the end of Myc III B:1 after which the export declined generally.

Most of the pots exported to the East Mediterranean were closed vessels and it has been shown that some of these, in particular stirrup jars, could have contained oils when exported.

Egypt was the source of a number of luxury imports in Greece. Gold was quite frequently used by the Mycenaeans and its source appears to have been Nubia, imported via Egypt. It was supplied to Greece in a raw state to be worked by their goldsmiths into vessels and jewellery and to be used for various decorative purposes. The occurrence of gold objects from excavations in Greece indicates that gold was more commonly used in the Sixteenth and Fifteenth centuries and that after about 1400 it was imported in smaller quantities.

Certain semi-precious stones were also imported from Egypt and were used to make beads and seals. A little alabaster came from Egypt too and was used by the Mycenaeans to make vases and sword pommels. Other less precious stones were also imported, for example, flint.

In addition to these raw materials certain finished articles found their way from Egypt to Greece. These include a few stone vases, scarabs, objects of faience, and also one or two ostrich eggshells. Many of these belong to the 18th Dynasty.

There may also have been a trade in perishable goods such as timber to Egypt and grain to Greece. Indeed it is quite

possible that there was a considerable trade in foodstuffs and other perishables between Greece and all the countries discussed but as there is now no evidence such a claim cannot be substantiated.

Contact between Greece and Egypt appears to have been closest during the 18th Dynasty which ended at about the same time that the Myc III A:2 period drew to a close. Most of the pottery exported to Egypt reached that country during the 18th Dynasty, in particular the Myc III A:2 ware from Akhnaten's city. In addition, if the archaeological finds give the true picture, gold was imported more frequently during the centuries of the 18th Dynasty than later, and, as has just been said, most of the small objects and souvenirs belong to the 18th Dynasty.

Trade between Mycenaeans and Egyptians continued in the years that followed, during the Myc III B period, but on a reduced scale. Gold continued to be imported (but apparently not as much as earlier), and so did semi-precious stones and occasionally the odd souvenir turned up.

The destructions on the Mainland at the end of the Myc III B period that all but ended foreign trade did not occur in the Central Aegean area stretching from Perati (East Attica) in the west to Rhodes and Miletus in the east. This area kept up some kind of contact with the East Mediterranean during part of the Twelfth century because Myc III C:1 finds in tombs in this area included objects of gold, semi-precious stone, and a few cartouches, scarabs and faience figures from Egypt, and several cylinder seals presumably from North Syria.

The trade was seaborne, carried by sailing ships that must have been quite small and of not very great burden. (The ship that sank off Cape Gelidonya was a 9 or 10 metre merchantman). From the distribution of the pottery contact was limited to coastal



emporium and a few major river routes. The ships must have entered the ports, off loaded the pottery and taken on the return cargo, and sailed away again. There does not appear to have been any direct contact with the interior.

Neither archaeological finds nor the Linear B tablets indicate who organised the trade or who carried on the actual operations. However, the history of the ancient Near East shows a tendency for the palace (or temple) to monopolise commerce and so it is quite possible that it was the palace that organised Mycenaean trade.

It is not at all certain who actually carried the trade goods. Until recently it was assumed that most of the Mycenaean trade with the East Mediterranean was carried out by Aegeans in Aegean ships. Contact with the west coast of Asia Minor and the islands will obviously have been in the hands of Mycenaean traders and we can also assume that the trade with Cyprus was wholly a Mycenaean undertaking because, for one thing, it was more necessary for them to have Cypriot copper than for the Cypriots to have their pottery. But the carrying of the goods traded with countries farther east (Syria, Palestine and Egypt) could well have been shared. The evidence for Cypriot and Syrian shipping in the East Mediterranean is very strong.

The Cypriots had been trading with the Levant and Egypt for a long time and during the Mycenaean period great quantities of Cypriot pottery were exported to that area. The eastern port of Enkomi particularly was of strategic importance in trade with the Syrian and Palestinian coast and it seems likely that both Enkomi and Minet-el-Beida (the harbour of Ras Shamra) were great depots and transshipment points. So Cypriot merchants could have been responsible for carrying some of the Mycenaean pottery to the Syrian coast from Cyprus.

As explained in the chapter dealing with the copper trade, Bass states that Syrian or Phoenician merchants played a considerable part in the trade between Mycenaean Greece and the East Mediterranean. In particular he feels that Syrian or Phoenician merchants carried the copper ingots from Cyprus to Greece and returned to the East Mediterranean with Mycenaean pottery (see pp.149sq.above). In the chapter concerned, however, the theory was rejected.

The evidence indicates that the trade with Egypt may not all have been direct. Some of the Mycenaean pottery that reached Egypt may have been taken there by Syrian merchants after it had been brought to the Syrian coast by merchants from the West. Merrillees points out that people from Syria figure prominently in maritime contexts in the Amarna records, that the painting in the Tomb of Kenamun shows Syrian merchantmen tied up to a wharf in Thebes selling foreign merchandise, and that murals from tombs at Thebes and Tell el Amarna depict goods associated with Syrians. Furthermore, the finds from an important port like Ras Shamra show not only the vast range and quantity of foreign wares known to the city's merchants, but also the entrepôt role they played in Levantine commercial exchanges.<sup>(1)</sup> I have already said in earlier chapters (pp. 175 and 204-5 above) that it is quite possible that some of the luxury goods that Greece imported from Egypt may well have been picked up by Mycenaean merchants at major Syrian ports such as Ras Shamra rather than all being acquired directly in Egypt itself.

We cannot then necessarily assume that the Mycenaeans were solely responsible for the shipping of all the goods that they exported to and imported from the countries beyond Cyprus. Cypriots and Syrians (from Ras Shamra) could have helped in carrying Mycenaean goods further south to other Levantine ports and Egypt, and direct contact and exchange between Mycenaean merchants and Egypt might have been less than appears if, as seems likely, some of Egypt's

luxury exports were taken up to Ras Shamra by Syrians and were there picked up by traders from Greece.

CHAPTER NINEChapter Notes

1. Merrillees, in Mycs East Med, pp. 182-183.

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